GENERAL APPENDIX

TO THE

RULE BOOK

AND

WORKING TIME TABLES

AND

OTHER INSTRUCTIONS

1st July, 1973

A. B. JAMES, GOVERNMENT PRINTER, ADELAIDE

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№ 5442

This book is the property of the South Australian Railways Commissioner, and is loaned to the undersigned, who hereby agrees to return it to the proper officer when called for, or upon leaving the employ of the Commissioner, or pay $3 for same.

Signature	Service No.	Position

Every Station Master, Train Controller, Inspector, District Foreman, Foreman, Chargeman, Engineman, Fireman, Trainee Engineman, Rail Motor Driver, Train Examiner, Guard, Conductor, Signalman, Signal Supervisor, Signal Fitter, Linesman, Signal Maintainer, Yard Foreman, Yard Master, Shunter, Porter, Check Porter, Ganger, Packer, and Crossing Keeper, and every other employee who the Head of the Branch considers should be acquainted with the instructions contained herein, must be supplied by his Superior Officer with, and have with him when on duty, and produce when required, this Appendix.

Every officer and employee supplied with this book must make himself thoroughly acquainted with, and will be held responsible for compliance with the following instructions.

Alterations or additions authorized from time to time must be neatly inserted; Assistant Superintendents and other responsible Officers when visiting stations and depots, must examine the books in order to see that this is done. Any neglect must be duly reported.

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BOOK 1

GENERAL WORKING INSTRUCTIONS

SAFETY FIRST

NOTICE TO TRAIN MEN

The **attention of all Enginemen and Guards** is drawn to the importance of **implicitly complying** with all Rules relating to **safe working** of trains and, in particular, to those covering the observation and interpretation of **fixed signal indication,** and **rear-end protection.**

The most important duty of Enginemen and Guards is to obey implicitly all indications displayed by fixed signals, particularly Rule 107. The Rules relating to this phase of Railway working are framed to provide **complete protection** to passenger and goods trains, and must be strictly complied with in every detail.

The Rules also require Enginemen to keep a constant look-out when trains are in motion, and to observe the line ahead for signals, obstructions, etc. **Enginemen and Firemen must not permit their attention to be distracted in any way that will interfere with the strict observance of these Rules.**

SAFE WORKING

No variation of the safe and block working instructions as prescribed in the **Rule Book** and **General Appendix to the Rule Book must be permitted.**

Should any **emergency** arise necessitating working **beyond** the **limits** prescribed in the Rule Book and General Appendix the situation must be **promptly** referred to the **General Traffic Manager personally** for direction or in his absence to the **Assistant to the General Traffic Manager.**

Every rule and instruction which is designed to cover **train working operations** is based upon the established principle of **safe working,** and if **fully observed** will prevent a repetition of some known mishap.

If a Railwayman **wilfully ignores** any such **rule or instruction** or permits it **to be ignored,** he courts a recurrence of the condition it was **designed to avoid.**

METRIC CONVERSION

This Appendix is written with quantities in Metric units where appropriate in order to meet the changeover to the Metric System on 1st July, 1973.

In some cases, both metric and imperial measurements have been provided for the guidance of the staff.

GENERAL WORKING INSTRUCTIONS

CORRESPONDENCE

Official Stamps and Stationery—Postage stamps and stationery the property of the Railways Commissioner must not be used for correspondence of a private nature.

Correspondence—Correspondence must be promptly dealt with, be clear in meaning, plainly written (the signature should be legible), be as brief as practicable, correctly dated, show from where it emanates, and every care taken to avoid mutilation. The papers relating to any one subject should be kept together in date order. Reference numbers of letters or memoranda must be distinctly given.

Telegrams should not be dispatched when ordinary correspondence will suffice.

Writing minutes on the backs of letters is forbidden. If there be not room on the face of the document, a fresh memorandum or minute form must be used, but correspondence must not be unduly swollen by trivial minutes.

All letters to the public must be signed only by those authorized to do so by the Head of the Branch. No junior employee or other subordinate shall correspond with the public on Departmental matters.

Minute enclosures or any other papers must not be removed from dockets or other files of papers, nor must there be any mutilation of existing correspondence in the nature of cutting off. If it is desired to cancel or withdraw a minute, the word "cancelled" should be written across the item.

When an Agreement is placed in a docket it must be enclosed in an unaddressed envelope (endorsed with the number of the docket) and brought to the front each time a letter or minute enclosure is added to the correspondence. Agreements forwarded by train from one centre to another must be waybilled as a "Value". Agreements must not be defaced in any way.

A copy of the entry on the proper form, together with the original transfer note, if transfer involved, must be attached to any report regarding delays to, or damage, and pilfering of, consignments, or if a train be delayed on account of irregular loading. The copies must be complete in every particular.

For outwards goods, stations must attach the original consignment note, make a copy to take its place, showing on the copy what has been done with the original.

Transfer stations reporting delays to goods must attach copies of the transfer notes when such are not already attached to the papers.

Guards, when handing over waybilled correspondence, must see that it is always accompanied by the waybill, and must obtain the receiving official's verbal acknowledgment of it. At Junction or transfer stations such letters must, if possible, be handed to the Guard of the connecting train, or in his absence, to a responsible member of the station staff.

Guards of branch line trains handing over correspondence for Adelaide to Guards of main line trains must tie all letters, etc., together.

Communications for Railways Commissioner—Communications addressed to the Railways Commissioner by officers or employees must not be delayed to obtain information. The communications must be immediately forwarded to the Commissioner and inquiries made afterwards.

Description of Certain Trains—The terms shown under the heading "Classification of Trains" must be used in correspondence, telegrams, train notices, returns, statements, etc.

Use of the Words "Down" and "Up"—As "Down" trains are given odd, and "Up" trains even numbers, only the numbers of the trains must be used in telegrams and correspondence, *e.g.*, "Nos. 7 and 4 ahab" would indicate "Nos. 7 down and 4 up ahab".

Envelopes—Use of—Plain envelopes (Forms No. 982 and 983) must not be used except for correspondence with other Government Departments or private firms. The various types of "Use Again" envelopes must be used for correspondence within the Railway Service.

SALVAGE OF STORES

Containers—All empty containers such as drums, tins, cases, bags used for cement, dogspikes, fishbolts, bolts, etc., sent from Depot Stores with supplies, should be returned promptly to the forwarding depot or nearest Storehouse. These containers, if suitable, should be utilized for the return to Store of any scrap, surplus, or other material that is not required **on any area or station.**

Scrap Metal—All scrap metal must be consigned promptly to the Railway Storekeeper, Islington Workshops; and in the case of Port Lincoln Division—to the Superintendent, Port Lincoln. Scrap metal includes old plates, girders, short pieces of rails, old fishplates, dogspikes, fishbolts, bolts, bolt heads, rivets, etc.

Station Masters, District Foremen, Gangers and other employees are required to collect any salvage, scrap or surplus material, which may be found at stations or on the line, and forward same immediately to the nearest Divisional Store. Non-ferrous metals must be forwarded in a container which does not include iron or steel.

INSURANCE OF WORKMEN

Conditions of Contract provide that the workmen employed by any Contractor for Departmental works must be insured by the Contractor against accident under the provisions of the Workmen's Compensation Act, 1932-1966, etc., in a Company approved by the Commissioner.

An insurance policy must be lodged with the Commissioner, and must be endorsed as follows, viz.:—"It is hereby further agreed and declared that in the event of the within-named assured or any person in his immediate service sustaining any personal injury as the result of an accident whilst engaged in work forming part of or process in the within described business in respect of which injury the South Australian Railways Commissioner may be or become liable whether at Common Law or otherwise, either to the person injured or to his legal representatives or dependents or to the assured or any other person the Company will idemnify the said Commissioner against such liability to the extent of a sum not exceeding $15,000 in respect of each person so injured, inclusive of all damages, costs, and expenses, even though the said injury may have been caused by the negligence of the said Commissioner, his servant, or servants."

Where a Contractor holds a general policy from a Company covering the whole of his business, a duplicate of such policy, WITH ENDORSEMENT THEREON, will be accepted.

Insurance policies must be forwarded to the Secretary, Railways Commissioner.

Approved Companies—

1 Commercial Union Assurance Company of Aust. Ltd.
2 The New Zealand Insurance Company Ltd.
3 Ocean Accident and Guarantee Corporation of Aust. Ltd.
4 Norwich and London Accident Insurance Association
5 The Colonial Mutual Fire Insurance Company Ltd.

6 The Employers' Liability Assurance Corporation Ltd.
7 Australian Alliance Assurance Company
8 Queensland Insurance Company Ltd.
9 Phoenix Assurance Company Ltd.
10 The United Insurance Company Ltd.
11 The London and Lancashire Insurance Company
12 The State Fire Insurance Company Ltd.
13 The South British Insurance Company Ltd.
14 Alliance Assurance Company Ltd.
15 The Lancashire Insurance Company
16 The Yorkshire Insurance Company Ltd.
17 Atlas Assurance Company Ltd.
18 The Liverpool and London and Globe Insurance Company Ltd.
19 The National Insurance Company of New Zealand Ltd.
20 Guardian Royal Exchange Assurance Group
21 Scottish Union and National Insurance Company
22 The Victoria Insurance Company Ltd.
23 Sun Insurance Office Ltd.
24 Union Assurance Society of Aust. Ltd.
25 The Northern Assurance Company Ltd.
26 Royal Insurance Company Ltd.
27 Western Australian Insurance Company (Canberra) Ltd.
28 Gresham Fire and Accident Insurance Society Ltd.
29 The Insurance Office of Australia Ltd.
30 Adelaide Fire Office
31 The Chamber of Manufacturers Insurance Ltd.
32 The M.L.C. Fire and General Insurance Company Pty. Ltd.
33 Eagle Star Insurance Company Ltd.
34 The Southern Union Insurance Company of Australia Ltd.
35 London Guarantee and Accident Company Ltd.
36 The Federal Mutual Insurance Company of Australia Ltd.
37 The Farmers' and Settlers' Co-op Insurance Company of Australia Ltd.
38 A.P.A. Fire and General Insurance Company Ltd.
39 The Co-op Insurance Company of Australia Ltd.
40 Law Union and Rock Insurance Company Ltd.
41 Mercantile Mutual Insurance Company Ltd.
42 Bankers' and Traders' Insurance Company Ltd.
43 Palatine Insurance Company of Aust. Ltd.
44 The Pacific Insurance Company Ltd.
45 Pearl Assurance Company Ltd.
46 Western Assurance Company
47 The Prudential Assurance Company Ltd.
48 The Century Insurance Company
49 The London Assurance
50 Union Insurance Society of Canton Ltd.
51 North British and Mercantile Insurance Co. of Australia Ltd.
52 The Legal Insurance Company Ltd.

53 Commercial of Australia Insurance Company Ltd.
54 Commonwealth Insurance Company
55 Sea Insurance Company Ltd.
56 Economic Insurance Co. Ltd.
57 Legal and General Assurance Society Ltd.
58 Master Builders Insurance Co. Ltd.
59 South Australian Insurance Company Ltd.
60 Hartford Fire Insurance Company
61 Vanguard Insurance Company Ltd.
62 Australian and International Insurances Ltd.
63 The Licences and General Insurance Company Ltd.
64 Scottish Insurance Corporation Ltd.
65 Provincial Insurance Co. Ltd.
66 A.M.P. Fire and General Insurance Company Ltd.
67 Australian Equitable Insurance Company Ltd.
68 Associated General Contractors Insurance Company Ltd.
69 Harvey Trinder (S.A.) Pty. Ltd.
70 Wallace Bruce & Company Ltd.
71 Edward Lumley & Sons (S.A.) Pty. Ltd.
72 Lep Insurance Brokers Pty. Ltd.
73 General Accident Fire & Life Assurance Corporation Ltd.
74 Northumberland Insurance Co. Limited
75 Ajax Insurance Co. Ltd.
76 Australian Federal Life and General Assurance Co. Ltd.
77 Australian Overseas Insurance Co. Ltd.
78 Australian Traders Insurance Co. Ltd.
79 C.G.A. Fire and Accident Insurance Co. Ltd.
80 F.A.I. Fire and All Risks Insurance Co. Ltd.
81 Halifax Fire Insurance Company
82 Insurance Company of North America
83 Life Insurance Company of Australia Ltd.
84 National Employees Mutual General Insurance Association Ltd.
85 National Fire Insurance Company
86 The Federation Insurance Ltd. (Inc. in Victoria)
87 The New India Assurance Co. Ltd.
88 The Standard Fire and Marine Insurance Co. of New Zealand Ltd.
89 Transport and General Insurance Co. Ltd.

LOCKS

The following schedule shows the type of lock to be placed on equipment at various stations.

"S" Locks

Switches and derails
Signal cabins, except as directed
Electric switch locks
Telephone boxes (except those to which Caretakers, etc., must have access)
Correspondence boxes (except at stations staffed with Agents or Caretakers)

Consignment Note boxes (except at stations staffed with Agents or Caretakers)
Train Record Book boxes
Water columns
Weighbridge offices
Turntable cabins
Cranes
Section cars
Oil stores (where Loco. running men have to open same)

"G" Locks
Entrance gates at stations
Goods sheds
Goods lock-ups
Locking goods vehicles
Offices and station buildings at unattended stations
Correspondence boxes (at stations staffed with Agents or Caretakers)
Consignment Note boxes (at stations staffed with Agents or Caretakers)

"L" Locks
Pump houses
Loco. appliances

"M" Locks
Portable powder magazines
Vehicles used for conveyance of explosives

Ordinary Locks
Small gates at attended stations, if need locking
Water tanks and taps
Oil stores (except where Loco. running men have to open same)
Barracks
Ladders
Platform trolleys
Stores sheds
Lamp rooms
Parcel hampers
Wood sheds
Doors and cupboards at attended stations
Ladies waiting rooms at attended sations

Sargent Six Lever and Lockwood K9800 Locks—Both types of locks shall be used for the purpose of securing Relay Boxes, Signal Cabin Equipment Rooms, Circuit Controllers, Signal Mechanism Cases and any equipment involving Safe Working to which access is required by S. & T. personnel only. No employee other than an S. & T. employee shall be allowed to retain possession of keys to the above locks.

Powdered graphite must be used to lubricate Lockwood K9800 locks.

General Instructions—"S" keys must only be issued to officers and employees whose duties necessitate their using these keys.

Caretakers and Agents must not have "S" keys, and offices, telephone boxes, etc., to which they must have access, must be fitted with ordinary door locks or a "G" lock.

Kerosene must be applied to padlocks occasionally to lubricate same.

Each Station Master must see that padlocks are provided at his station, and at unattended stations under his control, and that they are in working order.

District Foremen and Gangers must make a frequent inspection of the padlocks at unattended stations, and report to the Accounting station if any locks are damaged or missing.

Guards must report any instances of missing or damaged padlocks.

Damage padlocks and keys must be promptly sent to the Superintendent for repair, correctly labelled, addressed, and waybilled, the name of the forwarding station being shown on the label.

DEPARTMENTAL BICYCLES

The control and repair of Departmental bicycles on the Adelaide Division is under the Supervisor, Laundry and Equipment, to whom all bicycles needing repair or overhaul must be forwarded, together with necessary requisition for work to be done. Spare bicycles are held at the Equipment Room, where application should be made when needed.

On the Murray Bridge, Peterborough, and Port Lincoln Division, bicycles requiring repair must be forwarded to the Superintendent.

Requisition for accessories—tyres, tubes, etc.—must be forwarded to the Railway Storekeeper.

The Railways Commissioner's approval is necessary for the first supply of a bicycle or the supply of an additional bicycle to a station, depot, or other locality. When a bicycle is not further required, it must be returned to the Supervisor, Laundry and Equipment.

The transfer of bicycles from one point to another must not be effected unless the Comptroller is promptly advised in order that the records may be adjusted.

An inventory, showing number and location of each bicycle, must be furnished to the Supervisor, Laundry and Equipment, as at 1st January and 30th June each year.

Officers and employees controlling the use of bicycles must see that they are maintained in a clean condition, regularly lubricated and properly cared for.

All bicycles must be branded—**S.A.R.**

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DAMAGE TO AND INSPECTION OF TELEGRAPH AND TELEPHONE LINES

Railway employees must promptly report any damage to telephone and telegraph lines upon Railway land, and also any breakage of insulators, and when possible, forward advice respecting the offenders.

The Deputy Director, Post and Telegraphs, has obtained permission from the Railways Commissioner to pay a reward where the action taken by Railway Employees leads to a conviction in the court.

A special patrol by officers and employees of the Postmaster General's Department is made of country telephone and telegraph lines, and officers and employees of the Railways Department must, when required, render immediate assistance to the Telegraph Lineman and parties in carrying out inspections.

If assistance be rendered, particulars must be furnished to the Head of the Branch concerned.

ELECTRIC RADIATORS—STORING OF

Except where special approval has been obtained from the Head of the Branch concerned, electric radiators must be removed from stations and offices on 1st October each year, and stored in Electrical Fitter's Depots. The radiators will be re-issued on the 1st May the following year.

ELECTRICAL APPLIANCES PRIVATELY OWNED—CONNECTED TO RAILWAY CIRCUITS

Except in Departmental residences, privately owned radio and television receivers and privately owned kettles, jugs, and other heating appliance must not be connected to the Department's wiring without authority.

Electrical appliances, with a rating of more than 1 kW must not be connected to power points in railway residences without first obtaining the approval of the Chief Engineer.

Tenants of Departmental cottages, prior to purchasing new electrical equipment of a rating in excess of 1 kW, should apply to the Chief Engineer for Railways for advice as to whether the electrical installations in the cottage is of sufficient capacity to permit the new equipment to be connected to the source of supply.

ELECTRICAL INSTALLATIONS—RAILWAY HOSTELS

Employees resident in Railway Hostels are advised that interference with electrical installations create a potential danger of fire and is responsible for breakdowns in the electrical circuits through overloading. Under no circumstances will the use of commercial adaptors connected to lighting outlets be permitted. Also, the use of double adaptors in power outlets for the purpose of connecting more than one electrical appliance to a power outlet is prohibited.

No interference of any description is permitted to the electrical systems in hostels.

Hostel residents are advised that disciplinary action will be taken against employees disregarding this instruction.

The Hostel Manager must exhibit a copy of this instruction in a prominent position for the information of the residents.

ELECTRICAL INSTALLATION—REPAIRS TO

Except in cases of emergency, electricians other than the Railways Electrical Fitters must not be called to effect repairs to Department power and lighting installations unless the authority of the Signal and Telegraph Engineer has been given.

ROAD MOTOR VEHICLES—LICENCE TO DRIVE

Supervising Officers must ensure that renewals, or new application forms, reach the Comptroller not less than 14 days prior to the date of expiry of the licence, or 14 days before the commencing date, in the case of new licences.

RAILWAY ROAD VEHICLES PASSING OVER RAILWAY LINES

Every driver of a railway road vehicle must stop before reaching any line of railway and satisfy himself that a train or rail car or shunting movement is not approaching from either direction, and that it is safe to proceed over the

line, unless there are gates, warning gongs, wig-wag signals, or flasher light signals, which must be strictly observed. The requirements of the Road Traffic Act must also be strictly observed.

POSTMASTER-GENERAL'S CYCLES ON RAILWAY PROPERTY

Employees of the Postmaster-General's Department **when on duty** may be allowed to ride cycles or motor cycles along the banks and cess of railway lines, as the Postmaster-General has indemnified the Railways Commissioner against all claims for injury or loss of life.

PRESS LETTERS, ETC., FOR ADELAIDE

The following procedure must be adopted in dealing with press letters, packages, etc., from suburban stations for Adelaide:—

1. All press matter must be entered on a separate waybill and a receipt obtained from the Guard to whom such press matter is handed, showing time and date handed over.
2. The Guard must enter particulars in his "Value" book, deliver the press matter to the Parcels Porter who meets his train, obtaining a receipt from the latter when handing over to him.
3. In the absence of Parcels Porter the Guard must deliver the press matter to the attendant in the Station Master's Office, obtaining his receipt therefor.
4. The employee who receives the press matter from the Guard must endorse the time and date on receiving it on the waybill and deliver to the inwards Parcels Office (Sundays excepted) where it must be deposited with the waybill in the Special Box provided for the purpose. This box must be kept locked. On Sundays the press matter must be delivered to the Cloak Room Porter who must enter particulars in the book for that purpose.
5. The press matter must be delivered to the consignees on application to the Parcels Supervisor on week days and the Cloak Room Porter on Sundays, who must check it with the waybills before delivery. If any undue delay occurs in the press matter being called for, the Newspaper Office concerned must be advised.

RAILWAY WATCHES AND CLOCKS

All repairs to Departmental watches and clocks are carried out under the supervision of the Chief Engineer, and the following procedure must be observed.

Watches

1. Adelaide Division—The Supervisor, Laundry and Equipment, will receive and distribute all watches.

2. The Superintendents, Murray Bridge, Peterborough, and Port Lincoln, will forward all watches requiring repairs, etc., to the Chief Engineer and will issue relief watches in the place of those undergoing repairs. After repair, watches will be subsequently returned to the Superintendents concerned.

3. A register must be kept of all watches, in use or as spare, on each Division, and also at stations or depots issued with watches where a book must be kept showing full particulars of the watches held, *i.e.*, number and to whom each watch issued, date forwarded for repairs, date returned after being repaired and remarks. For the Adelaide Division this register must be kept by the Supervisor, Laundry and Equipment, and on all other Divisions by the Superintendent.

4. On the 1st January and 1st July each year all stations and depots other than those on the Adelaide Division must send to their Superintendent an inventory of Railway watches in the possession of employees under their supervision, together with details of watches held as spares. Each watch must be sighted, the number checked, and compared with those debited to the station or depot. If any watch be missing or the numbers do not agree, full particulars must be promptly reported.

On the Adelaide Division all stations and depots must prepare a similar inventory and forward same to the Supervisor, Laundry and Equipment.

The Superintendents (Adelaide excepted) must summarize these inventories and forward a complete statement to the Chief Engineer and copy to the General Traffic Manager not later than 10th January and 10th July respectively. The Supervisor, Laundry and Equipment, must prepare the summary for the Adelaide Division and forward same to the Chief Engineer, and send a copy to the General Traffic Manager.

5. Watches must be issued only to the grades of officers and employees approved by the Railways Commissioner. Watches issued to employees acting in a temporary capacity must be returned immediately the work is completed for which the watch is issued. On the Adelaide Division, these spares are obtainable from the Equipment Room.

6. Watches issued to officers and employees must not be exchanged or loaned by them to other officers or employees.

7. Watches requiring attention must be handed to the Station Master or Officer in Charge of the issuing station or depot with a memorandum stating the number of the watch and nature of the defect, viz., not keeping time, stopping, damaged through being dropped, etc. The watch and memorandum must be sent to the Supervisor, Laundry and Equipment, for Adelaide Division, and to the Superintendents on other Divisions for dispatch to the Chief Engineer, who will return the watch after repairs have been effected. Watches must be packed in the boxes provided and waybilled as "Value".

At attended stations on lines closed for passenger services, watches requiring attention or repair must be forwarded through the P.M.G. Department as registered mail.

8. When an officer or employee is transferred from one Division to another, the watch held must be handed in prior to such transfer, whether permanent or temporary, and another watch obtained from the Division to which he is transferred.

9. Those supplied with Railway watches must hand them in to the station or depot prior to commencing annual, long service, or other extended leave. Watches must be handed in at the Equipment Room by those stationed at Adelaide and again obtained when resuming duty.

10. The mechanism of a watch must not be interfered with by any person other than the Railway Watch Repairer.

11. Care must be taken of Departmental watches. Pocket watches must be carried attached to a keeper, in a clean pocket.

12. If a watch be lost, a report must be immediately forwarded, through the proper channels, to the Head of the Branch, who will at once advise the Chief Engineer. On the Adelaide Division the Comptroller must also be advised.

Clocks

1. Station Masters and Officers in Charge of depots must make an inventory of Railway clocks (Pulseynetic and time recording excepted) under their control and forward this to the Superintendent on 1st January and 1st July each year. The inventory must show location, number (if any), maker, description, dial

size, and condition. The Superintendent will forward a summary to the Chief Engineer, and a copy to the General Traffic Manager and Chief Mechanical Engineer.

2. Clocks needing repairs, adjustments, etc., are to be forwarded direct to the Chief Engineer, from whom spare clocks may be obtained for the Adelaide Division. The Superintendents, Murray Bridge, Peterborough, and Port Lincoln, will hold sufficient *spare* clocks for temporary replacements on their Divisions.

Whilst clocks are waiting for dispatch they should either be removed from their hanging position or an "out of order" label placed on the face.

3. Telephone or telegraph advice must be sent to the Chief Engineer or Superintendent, as the case may be, immediately a clock requires attention, and a request made for a spare. The clock to be repaired must be forwarded with a memorandum when the spare clock is received.

4. Clocks from the Port Lincoln Division must be securely packed and sent in a closed case. Other Divisions may send clocks unpacked, and they must be waybilled, and to prevent damage in transit, the pendulum must, in all cases, be fixed to a separate board, or be securely tied thereto.

5. Alarm clocks will only be supplied when this is approved by the Head of the Branch concerned.

6. The mechanism of a clock must not be interfered with by any person other than the Railway Watch Repairer.

7. If a clock be lost, a report must be immediately forwarded, through the proper channels, to the Head of the Branch, who will at once advise the Chief Engineer. On the Adelaide Division the Comptroller must also be advised.

8. Electrically operated clocks will be maintained by S. & T. Electrical Fitters and when repairs are required, the attention of the Electrical Fitter must be requested.

WATER METERS

Water Meters—Reading—Care must be exercised by meter readers in recording the consumption of water at residences and other premises.

A reference to the previous reading will indicate if the meter has not moved; and in cases of apparent non-registration or abnormal consumption, special attention and inquiry must be given to ascertain the cause—the Superintendent or Resident Engineer Works being promptly advised.

Water Meters—Interference with—The attention of all members of the Staff occupying houses supplied with water from an Engineering and Water Supply Department service is drawn to the provisions in the Waterworks Act, wherein attention is drawn to penalties which may be applied for unauthorized interference with water meters.

Tenants of Railway houses must see that water meters on the premises rented by them are protected from interference or damage. They will be held responsible for damage done to water meters located in the premises they are leasing and will be debited with the cost of any necessary repairs.

ELECTRIC LIGHT AND POWER METERS

Care must be exercised in reading and recording the readings shown on electric light and power meters. No employee shall remove, change, or in any way interfere with electric light meters installed on Departmental property unless authorized to do so by the Signal and Telegraph Engineer.

In the event of any authorized employee or meter reader detecting damage to a meter or the removal of the seal of a meter, he must report the matter in writing to his supervising officer immediately.

FUEL—RECEIPT AND RECORDING

At depots or station yards where bulk storage of fuel and/or lubricating oil is provided, the quantity received is to be determined by dipping both the delivery vehicle and the Departmental installation before and after intake.

Only authorized persons are permitted to operate the pumps.

Requisitions must be supplied for all issues.

Records of transactions must be kept at each installation showing date, quantity issued and vehicle number.

At the close of each period, a dipstick reading must be taken and the difference between this quantity and the quantity on hand at the beginning of the period should balance with the issues made during the period.

The meter readings must also be taken each period and these figures should also correspond with the consumption during the period.

IRREGULAR USE OF DEPARTMENTAL PROPERTY

Station Masters, Caretakers, and others concerned must see that tarpaulins, chains, ropes, and other Railway property are not removed without authority from Railway premises.

If tarpaulins, chains, or ropes are required to cover or secure goods in vehicles to or from jetties, wharves, or private sidings, arrangements must be made to ensure their return. Any case of misappropriation must be at once reported.

Branding of Tools and Equipment—Depot Stores Clerks must take all necessary precautions to ensure that all tools and equipment are effectively branded "S.A.R." over ⅄ prior to issue. Superintendents must take steps to brand all items of equipment and tools not branded, including sack trucks, loading boards, lamps, etc., in use at stations and depots. Similar arrangements must be made with regard to branding of Departmental tools and equipment in possession of employees. In all cases the above brand should be effectively stamped, punched, or burnt into the article.

Firearms—An officer or employee, whose duty requires him to have control of firearms in the course of his duty, must accept responsibility for the care, custody, control and cleaning of such equipment as officially issued.

Should an officer or employee in charge of such equipment be not conversant with all aspects for use of firearms, including dismantling, cleaning, assembly, and usage, he must contact the Railway Detective Inspector, who will make arrangements for the necessary instructions.

UNCLAIMED PROPERTY, GOODS AND CLAIMS

1. Any luggage, umbrella, walking stick, book, purse, jewellery, or sum of money, or article found in a car, at a station, or upon the lines, must be immediately delivered by the finder to the Station Master at, or nearest to, the place where the article has been found, and dealt with in accordance with the regulations.

2. **Searching Cars**—*An officer or employee is not permitted under any circumstances to enter a car before it has been searched in accordance with the following instructions:—*

Country Trains—Station Masters at terminal stations (other than Adelaide where special arrangements apply) must depute an employee for the duty of searching cars of trains immediately on arrival. If the Station Master is unable to procure an employee for this duty, the Guard must carry out the work in accordance with Rule No. 497.

At stations where cars are detached from a train it is the Station Master's responsibility to have the cars properly searched.

At Adelaide, the employees deputed to search country trains will be distinguished by a navy-blue arm band with the word "Searcher" shown thereon in red; this arm band must be worn on the left arm on every occasion the employee is engaged in searching trains. When not so engaged, the arm band must be removed.

Suburban Trains—At Adelaide and other terminal stations in the metropolitan area, the searching of cars must be performed by Ticket Collectors. Where a Ticket Collector has not been provided, the search must be carried out by the Guard in accordance with Rule No. 497.

3. **Articles Found in Cars, Etc.**—The Station Master must promptly record particulars of articles found in cars in the Lost Property Book provided for the purpose, and place the articles (with the lost luggage labels affixed) in safety. When entering particulars of the articles in the Lost Property Book, they must be numbered consecutively. If the property be of a perishable nature and liable to rapid deterioration, it must be sold at once, and proceeds of sale accounted for as prescribed in Accounts Instruction Book. If the Goods have become worthless, they may be destroyed. The Claims Agent must be advised without delay of all sales. Except in the case of perishables, an officer or employee must not in any way open or otherwise tamper with such property, unless when claimed and then only for the purpose of identification, and, if possible, in the presence of another officer or employee.

The following will apply at Adelaide Station:—

All articles of lost property found in cars or on Railway premises at Adelaide must be treated as follows:—

(*a*) Between 8.00 a.m. and 5.00 p.m. Mondays to Fridays—taken direct to the Lost Property Store, Adelaide.

(*b*) When the Lost Property Store is closed—taken direct to the Cloak Room, Adelaide.

(*c*) When the Cloak Room is closed—taken direct to the office of the Station Master, Adelaide.

Immediately the Lost Property Store is open the Station Master must forward any lost articles held at the Cloak Room or his own office to such store, obtaining a receipt in his Lost Property Book for the articles handed over.

Full particulars as to date found, description of article, train or place, and by whom found must be recorded in the Lost Property Book, immediately articles are brought in by the employee or authorized searcher concerned. The authorized searcher must enter particulars regarding the articles found in the book provided. Any other employee, if he finds an article, must submit a report to the Station Master. All articles (with Lost Property Label affixed) must be placed in safe custody until handed over to the Lost Property Office Attendant.

It is essential that lost property be delivered to the Lost Property Office without delay and no article is to be delivered until it is recorded in the Lost Property Book.

If application be made for lost property when the Lost Property Office is closed, it will be the duty of a responsible officer or employee to obtain satisfactory evidence of identification and ownership, obtaining signature of the person to whom delivered, showing postal address in the signature column of the Lost Property Book.

When purses are found containing money or valuables, full particulars and description of bank notes, cheques, coins, etc., must be checked and recorded for the purpose of identification when handed over to the Station Master and Lost

Property Office Attendant. Cash on hand must be dealt with in accordance with Clause 4 (*a*) hereunder of the General Appendix.

4. **Unclaimed Luggage**—Luggage found on the Railways must be forwarded by first train to the address (if any) marked thereon. If not addressed, or if labelled and addressed to the station at which it is unclaimed, particulars must be entered immediately in the Lost Property Book, and urgent advice forwarded to "Claims", Adelaide, after 24 hours. This instruction applies to all luggage unclaimed, whether the owner resides in the district or not. All property remaining unclaimed must be dealt with as provided hereunder:—

(*a*) *Disposal of Sums of Money, Valuables, Etc.*—Sums of money must be at once brought to debit on Form 118, "Miscellaneous and Sundry Charges" form. Purses (and contents other than cash), jewellery, legal documents, and valuable articles of every description must, at the expiration of 24 hours from the time of finding, be waybilled as a VALUE direct to the Claims Agent, Adelaide, and particulars of the articles found must be furnished on Form 132, "Weekly Return of Unclaimed Property and Freight". Purses (with a list of contents enclosed, and full particulars of the coins or bank notes) must be carefully wrapped and securely tied before dispatch. When money found on a station is claimed there, it may be handed over to the owner, or, if claimed at another station, it may, with the concurrence of the finding Station Master, be handed over at the station where application is made for it, the latter taking credit by Form 112, "Accounts forwarded for Collection". When, however, such application is not made within 12 hours, the amount must be taken to debit by the finding station, remitted to the Comptroller, and any application must be referred to the Claims Agent.

(*b*) *Disposal of Unclaimed Lost Property*—Umbrellas, walking sticks, books and all other unclaimed articles, not being valuables, must be waybilled to the Lost Property Office, Adelaide, each Monday. Lost property must not be detained, in any circumstances, at a station, longer than the Monday following the day of receipt. The ordinary waybill (not O.S. consignment waybill) must be used. The waybill must show particulars of each unclaimed article dispatched. Where possible the articles should be securely tied together and waybilled, *e.g.*:—

One package . . . . . { 5 umbrellas
1 child's hat
2 pairs of gloves

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Other entries must not be shown on the waybills. On receipt of the waybill, the officer in charge of the Receiving Parcels Office must see that the articles are delivered to the Lost Property Office. A signature must be given for each article received which must be entered in the Lost Property Book, numbered in consecutive order, and stored in the racks provided. Station Masters and others forwarding unclaimed property and other articles to the Lost Property Office, must enter full particulars on the weekly return of "Unclaimed Property and Goods" Form and send same to the Claims Agent each Monday morning.

5. **Charges on Lost Property**—(*a*) Storage, Cloak Room and other goods charges (existing debits excepted) must not be entered on the waybills for valuables forwarded to the Claims Agent, or luggage or other unclaimed property forwarded to the Lost Property Office.

(*b*) Charges in connection with lost property must be made in accordance with the instructions in the Coaching Book.

6. **Excess Goods, Parcels, Etc.**—Excess goods or excess parcels received at stations must be entered in the Station Discrepancy Register and the sending station notified. If the owner cannot be found, or any information regarding the excess cannot be obtained, full particulars, including brands, address, car, date and train by which received, must be sent to the Claims Agent, Adelaide, within 48 hours after receipt. The excess must be entered on the Weekly Return of "Unclaimed Property and Goods" form, and continue to be shown each Monday thereafter until disposal is advised. Accounting Stations must report excess goods and parcels at unattended stations under their control, and Gangers, Caretakers, and Agents must comply with the instructions in Ganger's Report Form (Form No. 80) to enable Station Masters to report as above. Parcels or goods received unentered may be delivered upon satisfactory identification. An entry *must* be obtained in each instance, special attention being given to stamped parcels.

7. **Unclaimed Goods for Lost Property Store, Mile End**—A label must be affixed to all unentered and unclaimed goods forwarded for storing showing the:—

Forwarding station
Date article found
Unclaimed or excess
Date of dispatch.

This information is required on the goods for checking and identification purposes.

Debit must not be raised for storage or rail charges to Lost Property Store and goods must not be forwarded there except under instructions from the Claims Agent. All goods so forwarded must be consigned to the "Claims Agent, Lost Property Store, Mile End, care Superintendent, Freight, Mile End", and entered on the ordinary invoice form (marked O.S. free in the "Charges" column). **(The O.S. Consignment Waybill must not be used for this traffic.)**

Bags of grain sent to the Lost Property Store, Mile End, care Superintendent Freight, Mile End, must have the address tags securely fixed thereto. Bags must not be branded.

8. **Unclaimed Live Animals and Birds**—When a live animal or bird is received with or without entry and the consignee or owner is not known, telephone advice must be sent to "Claims" Adelaide, within 48 hours after receipt. Any expense incurred in procuring food to keep the animal or bird alive must be debited against the consignee when located.

9. **Perishable Property**—Every effort must be made to effect delivery of perishable goods, and, where possible, the sender must be notified promptly through sending station of non-delivery, and instruction obtained for disposal, failing receipt of which, action must be taken as follows:—

Perishable goods liable to deterioration, entered to a station, or received excess, delivery of which cannot be effected, must be sold to the best advantage to avoid total loss, and advice of all sales must be promptly forwarded to sender (through sending station), consignee (if known), and Claims Agent, Adelaide, also particulars inserted on Form 188 "Expenditure Cash Collected" for the information of the Comptroller.

10. **Waybilled Goods Unclaimed after Three Months**—When a waybilled article has remained unclaimed at the station for three months, the particulars must be entered on the Weekly Return of Unclaimed Property and Goods.

Accounting Stations must report unclaimed goods and parcels at unattended stations under their control.

Station Masters must telegraph Claims Agent, Adelaide, giving particulars of any consignment received at stations for persons who are unknown in the district. This advice must be given within seven days from the date of receipt.

11. **Losses to be Promptly Reported in Detail**—All losses of waybilled or invoiced consignments must be promptly reported direct to the Claims Agent on the "Goods and Parcels Missing, Pilfered or Damaged" form. Losses of valuable goods, drapery, spirits, tobacco, etc., must, in addition, be reported urgently. Loss of passenger's luggage must be telephoned to "Claims" followed by a report giving full details, description, contents, how addressed, old address or labels, if any action taken to trace, where last seen, and all available information.

When a passenger inquires for an article left in the train, the Claims Agent must be advised by memorandum.

When goods, parcels, etc., reported as missing are subsequently found, immediate advice must be sent to the Claims Agent.

12. **Advice to Transfer Stations of Goods Short or Over, and Damaged Goods**—When advising transfer stations of missing, damaged, or excess goods, full information must be given, viz., name of forwarding station, name of consignee, date and train of dispatch from sending station, number of vehicle in which forwarded, and description of goods. In addition to the foregoing, the Claims Agent must be advised full particulars of damage, and also the probable cause. This is to enable action to be taken to prevent a recurrence.

13. **Pilfering**—Immediate advice must be sent to the Claims Agent, the sending station and transfer station (if transfer be involved) of cases of supposed pilfering, with full particulars, giving the date and actual time of arrival or receipt; numbers and conditions of seals, if any; date and time of unloading or loading; where the vehicle stood until the goods was unloaded; or, if for dispatch, where the goods was stored until loaded. The position of the goods in the vehicle, the position on the train of the vehicle from which the articles were pilfered, the condition of the case or packages, and the mass must be ascertained. The names of the persons dealing with the articles must be stated. The attention of the Station Master and the Guard concerned must also be drawn to the consignment before it is removed from the vehicle. Station Masters must personally examine consignments which appear to have been pillaged, note the extent of the loss, endorse the particulars in the Warehouse Book, and accept a receipt accordingly. The term "Bad Order" must not be used. Exact details must be given. If a claim be lodged, the sender's invoice must be checked to see that the claim is correct. Liability must not be accepted in any circumstances. Particulars of the claim, together with all correspondence must be sent direct to the Claims Agent.

14. **Damaged Goods**—When goods are damaged, Station Masters must come to an agreement with the consignee as to the actual extent of damage, and accept receipt accordingly. The consignee must be requested to remove the damaged goods from the station, and informed that its removal will not prejudice any claim he may make. Liability must not be accepted in any circumstances. If a claim be lodged, the sender's invoice must be sighted to verify the claim.

15. **Delays to Goods, Livestock, Parcels, Luggage, Etc.**—Station Masters must report direct to the Superintendent full particulars of delays to any consignments, and where it appears likely that in consequence of a delay a claim may arise, copies of reports must be sent direct to the Claims Agent.

16. **Claims**—The Claims Agent deals with all claims (except for land purchase) lodged against the Commissioner in any branch, and every claim must be immediately forwarded to the Claims Agent for registration and investigation of the facts.

All correspondence on the following matters must be addressed direct to the Claims Agent:—

Goods and parcels missing, damaged or pilfered
Goods and parcels unentered
Unclaimed and overtime goods and parcels
Articles left in trains or on the Railways
Goods, etc., and bags of grain, flour, etc., found on the line
Missing luggage
Claims for personal injuries (officers and employees on duty excepted)
Claims for livestock.

Telegrams on the above subjects must be addressed to "Claims", Adelaide.

17. **Reporting Accidents**—When an accident occurs which may result in a claim being lodged against the Commissioner, all facts regarding same must be reported to the Claims Agent.

18. **Robberies—Reporting**—The Station Master or officer or employee in charge must immediately advise, by telegram or telephone, the following:—

Head of Branch concerned
Comptroller
Superintendent
Claims Agent

and at once inform the local Police Officer.

A full report of the robbery must be forwarded by first available train.

19. **Losses Reported to Police Department**—All losses from railway premises must be reported to the local Police Officer. Should such articles subsequently come to hand, the Police Officer must be advised.

OBSTRUCTION ON LINE

Any Station Master to whom it is reported that obstructions have been found on the line, which it may be assumed to have been placed there maliciously, must immediately report the matter to the nearest Police Officer, and the Claims Agent.

LIVESTOCK STRAYING UPON RAILWAY PROPERTY

The following instructions must be observed:—

(*a*) All livestock found straying on Railway property must, when possible, be promptly impounded.

(*b*) In some instances the public pounds are situated too far away to enable the animals to be impounded; and in such cases efforts must be made to ascertain the name of the owner by distinguishing brands, or by use of local knowledge or information.

(*c*) When located, the owner should be informed particulars of the livestock, and asked, "Are you the owner of these animals?" and for his explanation as to how they came to be upon Railway property. Particulars of his reply, and of any conversation held concerning the matter, should be carefully noted and shown in detail in report furnished.

(*d*) Before prosecution for trespass of livestock can be successfully effected, it is necessary that the following particulars be supplied:—

1. Colour and sex of animal alleged trespassing
2. Time and date of trespass
3. Position of trespass on Railway land or station yard
4. By whom witnessed
5. Whether animals are allowed to stray negligently about public roads, or did they break out from enclosure where placed by owner prior to coming on to Railway land.
6. Evidence of admission from each owner, *i.e.*, particulars of conversation, etc., that he or she is the owner of the animals at the time of the alleged trespass.
7. Owner's full christian name and surname, also address.

When livestock is impounded, arrangements should be made with the Poundkeeper that when such livestock is being released from the pound, the owner sign a form, certifying that he or she is the owner, on which are shown particulars as follows:—

(Town where impounded)
Date.....

I have this day received into the.....Public Pound stock as hereunder described, and impounded by.....Ganger (or other employee) employed by the South Australian Railways Commissioner:—

1 Red and white cow	1 Yellow steer (or bullock)
1 Roan bull	1 Black gelding
1 Brown filly (or mare)	

.....
(Signature of Poundkeeper)

The abovementioned animals as described above, of which I am the owner, have been released by me this date.

(Signature).....

Date..... of.....

This form should afterwards be obtained from the Poundkeeper by the employee who impounded the animals, and forwarded with other papers and reports concerning the matter to the Claims Agent.

When livestock is impounded, the Poundkeeper's signature must be obtained at the foot of that portion of the form describing the livestock impounded, as well as the signature of the owner of such livestock at the bottom of that portion showing the livestock as being released.

RAILWAY COURT CASES

1. All breaches of the Railway Acts, and the By-laws made thereunder must be reported to the General Traffic Manager (by telephone if of an urgent character), who will authorize proceedings where the circumstances warrant. Persons intoxicated, or committed serious offences in trains or on Railway property, must be handed over to the nearest Police Officer, and the services of the Police should be enlisted to obtain the name and address of any offender who refuses to disclose same to a Railway Official.

2. The aid of the Police should be obtained to make any charge considered necessary, and in cases where the charge is laid and prosecution conducted by the Police, no fees whatever are payable by the Commissioner.

3. At the conclusion of each case, *if the defendant be found guilty,* the Police Officer conducting the prosecution, Detective Inspector, Station Master, or other representative of the Commissioner, should apply to the Court for the expenses to which the Commissioner has been put, including witness fees at prescribed rates; and, in the case of passengers travelling without proper tickets, the fare; and where damage has been done to Railway property, the cost of repairs. Any sum so collected must be paid to Railway Revenue.

4. These fees (see paragraph 3) are not returnable to the Commissioner in the event of a Not Guilty finding by the Court, or the offender being committed to gaol, or electing to serve a term of imprisonment in default of payment of fine and costs.

5. In obtaining the names and addresses of any offenders or witnesses, it is necessary that such persons' full christian names and surnames be obtained, also number of house, street, and town in which the reside, of what occupation, and by whom and where employed. If apparently under the age of 18 years, particulars of age should be obtained, and if not residing in own home, with whom lodging.

6. In each instance, when an officer or employee is instructed to appear at Court as a witness on behalf of the Commissioner, such employee will be granted a rail pass, if necessary, and is entitled to book time and expenses in accordance with the Regulations, and will be considered as on Departmental duty. All witness fees, fares, mileage rates, or other expenses awarded by the Court on such employee's account, must be obtained and paid to Railway Revenue.

COURT CASES OTHER THAN RAILWAY

1. In event of any Railway Officer or employee being subpoenaed to attend Court in any capacity other than a witness on behalf of the Commissioner, such employee must do so in his own time, and if on duty, must make application to the Head of the Branch for the necessary leave of absence. In such cases the employee concerned must make request to the person in whose interest he appears, for witness fees and other expenses obtainable, which amount, as granted, he is permitted to accept and retain.

2. In any such instances where such attendance necessitates travel by train, or other Departmental conveyance, passes or privilege tickets are not to be used, but tickets must be purchased by any such employee at current rates for such journey, and any reimbursement for such expenditure must be included in claim made upon the party in whose interest such employee is in attendance. Any loss of salary, wages, or expenses, or any amount expended in fares, during any such period of absence will not be borne or reimbursed by the Commissioner.

3. Notwithstanding the provisions of clauses 1 and 2 above, any officer or employee who is required to appear at Court or at a Coroner's inquest, in his capacity as a Railway servant, or who is called because his duties as a Railway servant have associated him with the inquiry, may be paid his ordinary salary or wages during the inquiry, also expenses in accordance with the Regulations, and be granted a rail pass when necessary. In each case of this kind all fees, fares, and other expenses awarded by the Court must be paid to Railway Revenue.

4. The Railways Commissioner will direct as to which clause is applicable to any case about which there may be uncertainty.

JURY SERVICE

1. In all cases, whether *he* desires exemption or not, an employee must notify the Head of the Branch immediately he receives a jury call-up notice.

2. If the *employee* desires exemption because of effect on his official duties he must write a letter, addressed to the Sheriff requesting exemption on those

grounds. This should be submitted to the Head of the Branch together with the jury call-up notice. These will be forwarded to the Sheriff by the Head of the Branch with a memorandum stating whether he agrees that the employee's absence would significantly effect the working of the Department and whether he supports the employee's request for exemption.

3. If the employee does not seek exemption the Head of the Branch may himself make an application for exemption on the grounds of Departmental needs as mentioned above.

4. The submissions of the employee and the Head of the Branch will be considered by the Sheriff who will notify both the employee and the Head of the Branch of his decision.

5. An employee attending for jury service during his ordinary working hours shall, on giving his Department proof of his attendance on jury service (including the duration of such attendance and the amount received in respect of such jury service), be reimbursed an amount equal to the difference between the amount paid in respect of his attendance for such jury service and the amount of wage he would have received in respect of the ordinary time he would have worked if he had not been on jury service.

PREVENTION OF FIRES AND USE OF FIRE APPLIANCES

1. **Definitions—**

(*a*) Fire Appliances—this includes fire carts, hose carriers, hoses, fire hydrants, sentry buckets and drum, portable fire extinguishers and any other equipment used for fire fighting and the control of fires.

(*b*) Inspect—to ensure the appliances are in their correct position and have not been disturbed.

(*c*) Examine—to ensure the appliances are in a satisfactory working condition.

2. Fire extinguishing apparatus must only be used for fire protection.

3. Fire appliances must always be kept in good condition, and ready for instant use. They are to be kept in their proper place, which should be the most prominent and accessible position, the situation of which should be known to all employees about the premises.

RESPONSIBILITY TO MAINTAIN CONDITION

4. (*a*) Heads of Branches must issue the necessary instructions to ensure that fire appliances, under their control, are maintained in a satisfactory condition, ready for instant use, and arrange for regular fire drill at places where such is considered necessary.

(*b*) The General Traffic Manager, Chief Engineer, and Chief Mechanical Engineer are responsible, on the Adelaide Division, for the proper protection from fire of all buildings, refreshment rooms, structures, plant, etc., and for the care of all fire appliances under their control. Superintendents of Divisions, other than Adelaide, are similarly responsible to Heads of Branches concerned for fire protection on their territory.

(*c*) Fire extinguishers must be examined in accordance with the Mechanical Branch Standard Practise Procedure Bulletin No. 127 and all other appliances examined every six months. Reports forwarded as under:—

(1) For all fire appliances provided for the protection of buildings, refreshment rooms, structures, plant, etc., throughout the system—excepting those installed at the Islington Workshops—reports must be forwarded to, and filed by the Chief Engineer.

(2) For all fire appliances provided for the protection of rollingstock throughout the system, and all appliances installed at the Islington Workshops, reports shall be forwarded to, and filed by the Chief Mechanical Engineer.

5. The Head of the Branch, or Superintendent must, as provided in paragraph 4 (*b*), arrange for the inspection and replenishment of all fire appliances on the Division; and Station Masters, Shop Foreman, and other officers concerned, are held responsible for the care of these appliances.

6. **Schedule of Fire Appliances—**

(*a*) Heads of Branches must maintain a complete schedule of all fire appliances under their control.

(*b*) Superintendents must maintain a complete schedule of all fire appliances under their control, and must forward a monthly report to the General Traffic Manager, Chief Engineer, and Chief Mechanical Engineer, on the condition of appliances under their control.

(*c*) The Chief Engineer will keep a complete schedule of fire appliances on all Divisions, and the General Traffic Manager and Chief Mechanical Engineer must forward an advice monthly to the Chief Engineer regarding the condition of all appliances under their control. This advice will not include particulars of fire appliances for the protection of rollingstock or Islington Workshops.

7. **Fire Drills**—The schedules of fire appliances, are to contain details of the arrangements for fire drills at such stations or depots where the fire drills are carried out; these details to include frequency and duration of drill, a list of men required, and Officer in Charge. Fire drill must be carried out at least once each month to instruct employees in the use of fire appliances. Employees must know the position of all fire appliances.

PREVENTION OF FIRE

8. The utmost vigilance is necessary at all times for preventing fires, and every employee should exercise care and due observance of the rules laid down for the prevention of same. In case of danger to the Commissioner's property, officers and employees must unite to protect it.

Workshops and Buildings

9. Smoking is prohibited in all buildings where inflammable material is handled and in areas where "Smoking is strictly prohibited" signs are exhibited.

10. Rubbish, grease, oily waste, and other inflammable material must not be allowed to accumulate in or about shops, stations, buildings, bridges, or other premises. Special care must be taken in lamp rooms, paint and oil stores.

11. All oil drippings must be caught in proper pans, and oil and grease must not be dropped on shop floors.

12. Water should not be used to quell an oil fire. Oil stores, paint shops and all places where oils and grease are stored must be provided with a suitable portable type fire extinguisher. Sand may be used to quell an oil fire.

13. Supplies of petrol, kerosene, and other oils must, as far as possible, be kept in buildings especially intended for that purpose.

14. Stoves in buildings should be securely set on cement, brick, or sheetmetal. Woodwork near stoves or stovepipes must be protected by sheetmetal, and air spaces or asbestos packing provided where stovepipes pass through woodwork. Stoves should be examined, and pipes cleared thoroughly before fires are started for the winter.

15. Ashes must be removed from buildings each day. They must not be kept in wooden boxes, or thrown against the sides of buildings.

16. To protect the station properties from fire, Station Masters, Agents, and Caretakers must satisfy themselves beyond all doubt that all fires in offices and station buildings and in signal cabins are extinguished before the offices and cabins are closed for the day. A Signalman, before closing his cabin for the day or night, must see that the fire is properly extinquished. Where employees have a fire in any other building, the senior employee must see that the fire is properly extinguished before leaving the building at the termination of the day's work.

17. Any employee using artificial light must extinguish it before he leaves the premises. Radiators and other heating appliances must be similarly switched off, and the cords disconnected.

18. Each workshop employee using a fire is responsible for putting out same, and closing the blast before he leaves the works.

Train Working

19. Should a vehicle on a train be on fire the train must be stopped, and the Guard or Guard's Assistant, assisted by the Fireman, must detach the vehicles in the rear of the burning vehicle, which must be drawn forward a distance of at least 50 metres, then uncoupled, and the vehicles in front drawn ahead clear, and the fire extinquished. The vehicle on fire must not be moved unnecessarily, as this will fan the flames and increase the intensity of the fire. Sand and fire extinguishers must be used instead of water if inflammable oils be on fire. The train must be protected in accordance with the Rules.

In the event of a fire occurring on any vehicle fitted with a battery isolating switch or switches, in addition to procedures laid down above, the Conductor or Guard or other responsible employee concerned must isolate the car battery or batteries by turning the battery isolating switch or switches to the "OFF" position. All operating staff concerned are to make themselves familiar with the location and operation of battery isolating switches fitted on or adjacent to the terminal box of the battery.

20. Employees must not handle petrol and other inflammable liquids in the vicinity of engines under steam, or a naked flame.

21. The instructions for the carriage of explosives and goods of a dangerous nature are set out in Rule No. 63. These instructions must be strictly observed.

Loco. Running

22. Enginemen, Firemen, and Trainee Enginemen must use every precaution against starting fires, and not permit any burning waste or other article to be thrown from or dropped from the engine.

23. When an Engineman observes that a fire has started on land adjacent to the railway line, the train may be stopped for a period not exceeding 15 minutes, and the Fireman sent with wet bags to endeavour to extinguish the fire. For this purpose, from 1st November until 30th April each engine must carry two old grain bags, which, on an emergency, must be saturated with water. The Engineman must endeavour to attract the attention of the nearest Maintenance of Way gang by code whistle. A copy of the above must be posted at engine depots, running sheds, and barracks.

Portable Fire Extinguishers

24. Portable chemical extinguishers are essentially intended for fire fighting on fires of certain types in their early stages. They are generally sufficiently small and light enough in weight to be readily carried by hand and are known as "hand extinguishers". Various types of extinguishers operate in different ways and all personnel should take every opportunity to make themselves familiar with the mode of operation of the various types.

25. Before attempting to use any extinguisher the instructions stencilled on the unit must be carefully observed.

26. All fire extinguishers must be clearly and properly numbered for identification.

27. When a portable fire extinguisher has been used the fact must be promptly reported to the Officer in Charge and arrangements made for it to be recharged as soon as possible.

28. The metal label attached to each fire extinguisher showing the date it was attended to and recharged must not be interferred with by any unauthorized officer or employee.

29. Principal types of extinguishers and their uses are as follows:—

(*a*) SODA ACID, and CARBON DIOXIDE WATER EXPELLED EXTINGUISHERS, are painted red, and are for use on general types of fires such as wood, paper or any freely burning material, but **NOT TO BE USED FOR ELECTRICAL, PAINT, PETROL, KEROSENE OR OIL FIRES.**

(*b*) PYROFOAM EXTINGUISHERS are painted blue, and are for use on petrol, oil, kerosene and paint fires but **NOT ELECTRICAL.**

(*c*) CTC (CARBON TETRACHLORIDE) PUMP TYPE EXTINGUISHERS, are polished brass, painted yellow or nickel plated. This extinguisher can be used intermittently and having a double action pump it can be used at any angle and is use on small electrical, oil, or petrol fires.

Under badly ventilated conditions, this liquid throws off poisonous fumes, but under ordinary conditions it can be used with safety.

(*d*) CO^2 (CARBON DIOXIDE) EXTINGUISHERS, are painted red with a black band and can be used with safety on electrical fires, involving live electrical wiring. They are also effective on petrol and oil fires.

Due to rapid gas expansion through the horn, the gas is discharged at approximately —50°C and should not be allowed to come in contact with the body, as a danger of severe frostbite exists.

(*e*) DRY POWDER EXTINGUISHERS are painted red with a white band and are for general use and are particularly effective on petrol, oil and diesel fuel fires. Whilst dry, the powder is a non-conductor of electricity and can be used on electrical fires.

Diesel engines are equipped with respirators which must be used when operating dry powder type extinguishers within a confined area.

30. In order to keep the extinguishers efficient, they must be examined in accordance with Standard Practise Procedure Bulletin No. 127.

LEASED LAND—FIRE PRECAUTIONS

District Foremen must see that Lessees of Railway land, either for grazing or cultivation purposes, carry out the terms of agreement, which are:—

"The Lessee will cut while green any crop he may grow upon the said land, and will otherwise guard and cause all reasonable precautions to be taken against loss or damage by fire.

The Lessee will once a year, between the 16th day of February and the 31st day of the following October, burn off or remove all dry grass, stubble, herbage and other inflammable material on the land hereby demised, and before burning off such material he shall plough for a width of 2 metres, or skim for a width of 4 metres a strip adjoining the boundaries of and

upon the land hereby demised. No burning off, however, shall be done except in strict accordance with the provisions of the Bush Fires Act.

The Commissioner reserves the right to burn the grass growing upon the said land at any time when he considers it a source of danger."

GRASS BURNING BY PERMANENT WAY GANGS

Railway employees must exercise the greatest care during grass burning operations, and the instructions which follow must be closely observed in connection therewith.

1. All grass within the Railway fences of the open lines, or within the boundaries of reserves, must be burnt off as soon as possible after it has become sufficiently dry, unless otherwise directed. Where necessary, long grass must be cut before burning off.

2. Before burning off at any place, a strip of land must be ploughed to a width of at least 2 metres, or be cleared of all scrub, stubble, and other inflammable material to a width of at least 4 metres preferably along the inner side of the Railways fence or along the boundary of the Railways reserve where the land is unfenced. Special care must be taken when ploughing firebreaks, etc., to see that stay wires supporting telegraph posts are not damaged.

3. Where landholders, councils, and fire fighting organizations co-operate with gangs and have adequate staff and equipment on the site, simultaneous burning off outside of and adjacent to the Railway boundary is permissible, providing such other parties desires to have a wider strip of land cleared and they actually light or permit the fire to travel outside Railway land and they burn out to proper firebreaks (see "Restrictions", paragraph 6).

4. Burning off must be done only when the wind is moderate, and should be commenced on the leeward side of the grass to be burnt so that the fire must travel against the wind. Should the wind increase to such an extent as to involve risk of the fire breaking away, the burning must be at once discontinued and the fire thoroughly extinguished.

5. Burning must be done on one (1) side of the track at a time and not more than a 20 metre strip must be permitted to burn at any time (unless the area being burned off is adjacent to a ploughed paddock).

6. (*a*) No burning off shall be done unless there are present on the spot at least four (4) men with all necessary appliances including at least one knapsack spray for every two men, to keep the fire under control.

Four men must be present from the time the fire is lighted until it is thoroughly extinguished.

(*b*) Burning off must be stopped in sufficient time to allow all men to walk back over the area burnt, to ensure that no material is left smouldering when they leave the section.

(*c*) Every possible precaution must be taken to prevent the fire at any time spreading beyond the Railway land.

7. The maximum quantity of water which can be transported on the motor vehicle must be carried to the job. Water should be used sparingly and burning off must cease when the quantity remaining does not exceed nine litres per knapsack spray.

8. In order to minimize the risk of fire, every precaution must be taken to keep the Railways firebreaks clean. When the burning off is being carried out, it must be done thoroughly and under proper supervision, so that there will be no possible cause for complaint from the adjacent landholders. Particular attention shall be given to the fire when burning off on rising ground.

9. The attention of the adjacent landholders should be called to any firebreaks on their properties which in the opinion of the District Foreman, are not effective.

10. Burning off must not be undertaken on Public Holidays, or Saturdays, without notification being given to the District Council or Corporation and Local Fire Control Officer.

11. Any permanent marks, such as Bench Marks, Intersection Posts, Reference Posts, etc., must not be interfered with. If it is necessary to shift any such mark, in order to facilitate the ploughing of firebreaks, burning off, or for any other cause, the matter must be first reported to the Superintendent, or Resident Engineer, who will make the necessary arrangements, subsequently advising the Chief Engineer of any alteration.

NOTICE TO BE GIVEN OF INTENTION TO BURN OFF

1. Burning off must not be undertaken until such time as signals, relay boxes, battery wells, wooden trunking, and other safe working equipment has been cleared of grass by skimming for a distance of 4 metres from the installation.

2. Notices on Form No. 661 must be prepared by Gangers and signed by the District Foreman, or on his authority, by the Assistant Foreman, Timekeeper, or Special Ganger.

3. The notices must be issued at least **12 hours** before burning off is commenced, to:—

(*a*) Landholders on both sides of the Railway land whether only one side or both sides of the track is to be burnt off during the period specified, when such landholders live within 8 km of the Railway land.

(*b*) Landholders on the far sides of any road running alongside of Railway land, if either side of the track is to be burnt off during the period specified, when such landholders live within 8 km of the Railway land.

(*c*) To the Forester or Crown Lands Ranger in charge when a forest or Crown Land reserve is within 2 km of the land to be burnt off.

(*d*) The Police Officer nearest to the land to be burnt off when it is not possible to serve notices to the persons specified in (*a*), (*b*), and (*c*).

In every case, notices must be issued at least **24 hours** before burning off is commenced to:—

(*e*) The District Clerk of the District Council or Corporation.

(*f*) The Fire Control Officer residing nearest to the area to be burnt off.

All notices should show the location or distance and anticipated dates and hours of commencement and completion of burning, within a maximum period of seven days. If the work is not completed within this time new notices must be issued to all concerned.

4. When practicable, Gangers must also contact the parties concerned personally or by telephone and give more specific advice of the dates and hours and, at the same time, endeavour to obtain their co-operation.

RESTRICTIONS ON BURNING OFF OR LIGHTING OF FIRES

1. (*a*) All officers and employees required to direct or undertake burning off or, light a fire in the open for any other purpose, shall ascertain daily (during summer months to be specified from time to time) whether the lighting of fires in the open has been prohibited within the district or locality concerned, by proclamation of the Minister of Agriculture.

(*b*) Each District Foreman or his Timekeeper and members of other supervisory staff shall ascertain from the appropriate Train Controller daily whether the lighting of fires has been prohibited for all or any part of his district, on that day.

(*c*) All Permanent Way, and Special Gangers before leaving their home stations or commencing work, shall ascertain from the District Foreman whether any proclamation applies to their respective area of operations. No fires may be lit in the open on any day or in any locality contrary to such prohibition except as authorized by an accredited Fire Control Officer in the course of his duty.

2. Wherever or whenever a prohibition does not apply, fires may be lit for burning off or other purposes subject to the observance of the person concerned of standing instructions.

3. For the purpose of these instructions, an oxy-acetylene flame, electric arc used for welding or a lighted firepot, incinerator, copper, stove or camp fire is deemed to be a "fire in the open" if it is outside of a walled and roofed structure.

4. (*a*) From 1st November to 30th April, no fire shall be lit in the open for other than burning off operations, unless a space of ground immediately around the fire for a width of 4 metres has first been cleared of all inflammable material. The fire must be thoroughly extinguished before the responsible employee leaves the area.

(*b*) Corporations and District Councils have the power to prohibit the lighting of fires **in the open** during specified periods and within certain localities, for all **except "burning off"** purposes.

No officer or employee is permitted to light a fire in the open on Railway *property within Council Districts where and when these restrictions apply,* **for other than burning off grass or stubble** to form a firebreak, without first ascertaining from the Town or District Clerk whether such a fire may be lit subject to the conditions specified by Council being complied with.

Particulars of the Council Districts and periods of such restrictions will be advertised in the *Weekly Notice* as necessary.

5. Permanent Way Gangs shall discontinue burning off operations and extinguish any fire on Railway land, when directed to do so by a Fire Control Officer, in possession of his badge at the time. The officer or employee in charge of operations shall notify his District Foreman of the circumstances and name of the Fire Control Officer as soon as practicable. The Divisional Officer must promptly report the matter to the Chief Engineer.

6. Permanent Way Gangs, are permitted to "burn off" before noon if conditions are suitable. A landholder wishing to "burn off" adjacent to Railway land before noon in conjunction with Permanent Way employees, is required to obtain permission from a Fire Control Officer.

GENERAL INSTRUCTIONS TO THE MAINTENANCE STAFF

1. **Care of Trees**—When burning operations are being carried out on Railway land, special care must be taken to see that a sufficient area is cleared to prevent trees and shrubs on private or Railway land, being damaged by fire.

2. **Burning of Skimmings and Clippings**—Skimmings and clippings upon Railway land must be burnt off promptly.

3. **Burning Stumps, Logs and Rubbish**—Stumps, logs and rubbish must only be burnt when weather conditions render it practicable. Grass and rubbish must be removed a sufficient distance from all structures or material to prevent possibility of damage by fire.

4. **Whirlwinds**—Special care must be exercise to prevent sparks being carried by whirlwinds beyond Railway land.

5. **Wooden Trunking Runs and Other Property**—All wooden trunking runs installed to carry electric signal wires or telephone cables, and any other property or plant must be effectively protected against damage by fire.

6. **Protection of Telegraph and Telephone Wires of Railways Commissioner and Postal Department**—Care must be exercised when burning under or near telegraph and telephone wires, as the heat from the fires softens the copper wires, causing them to stretch and break. Serious disorganization may result from a broken wire, as the circuits following the Railway lines include a number of interstate telegraph and telephone wires. In all cases where there is any possibility of damage to wires or poles belonging to the Post-Master-General's Department, that Department should be advised before burning off, in order that arrangements may be made for a Linesman to be present to protect P.M.G. property, such action not to involve the Railways Department in any expense.

The Signal and Telegraph Engineer must be advised immediately it is suspected or known that power, communication or signal services have been damaged by fire.

7. On all occasions (including Saturday inspections) except when the fire hazard is "normal", gangs must take with them, on their motor trollies, knapsack sprays and other equipment required for fire fighting.

8. When a Ganger becomes aware of a fire having started on his length or adjacent to Railway property, he must immediately obtain sufficient employees from his Gang, proceed to the scene with the required equipment, and make every endeavour to extinguish the fire. If necessary, he must obtain the assistance of other gangs.

9. If a fire be observed in, or adjacent to a Railway building, immediate steps must be taken to put the fire out, and the Officer in Charge of the Depot advised. If the magnitude of the fire is such that it cannot be handled by the staff, the local fire brigade must be called.

10. In all cases of fire the instruction of the Officer in Charge of the Fire Brigade, whether Metropolitan or Railway must be obeyed.

REPORTING FIRES AND DAMAGE

1. Instance of fires occurring on Railway lines or adjacent thereto must be reported by the Ganger by telephone to the Train Controller as soon as possible. The Train Controller must then advise the nearest Station Master.

2. (*a*) Occurrences of fires along Railway lines or adjacent thereto must be reported on the Form No. 610, by the Ganger to the District Foreman. The information must be in detail and correct, particularly in respect to firebreaks. A covering report supplying any further information available should accompany Form No. 610 in the case of serious fires.

(*b*) A copy of Form No. 610 must also be forwarded by the Ganger direct to the Claims Agent.

(*c*) District Foremen must forward the completed Form No. 610 to the Superintendent or, if on the Adelaide Division, the Resident Engineer.

(*d*) In cases of extensive fires the Superintendent or Resident Engineer must be notified by telephone, and they will notify the Claims Agent.

3. The utmost vigilance is to be exercised by the Maintenance Staff in observing and reporting fires.

4. In every case where a fire starts on Railway land, and spreads to adjoining property, an investigation is to be immediately held, so that the cause may be ascertained, and the amount of damage done promptly recorded. Every report should contain a statement as to whether the adjoining owners had

made any provision to prevent the spread of the fire on their land, and the name of the owners, together with the number of the sections, should if possible be given, but if not, such information as will enable the place to be identified on the plans. The investigation in ordinary cases must be made by the District Foreman. The Superintendent or the Resident Engineer will arrange for investigations in the case of a serious fire.

5. Train crews must report to the nearest station or the Train Controller instances of fires along Railway lines or adjacent thereto.

6. Fire on Railway property where goods, parcels, etc., are damaged must be promptly reported to the General Traffic Manager, Claims Agent and Superintendent. In cases of extensive fires the report must be telephoned.

7. **Fires Caused by Train—Advice by Train Control to Mechanical Branch.**

(*a*) Immediately it is known that a fire has occurred, the train must be stopped at the first station and the Engineman advised.

(*b*) The Loco. Superintendent, Adelaide, (or during office hours, his clerk), on the Adelaide and Murray Bridge Divisions, or the Superintendent on the Peterborough and Port Lincoln Divisions, must be advised immediately.

COST OF FIRE FIGHTING AND REPAIRS TO FIRE DAMAGE

All labour incurred and material used in extinguishing fires, or repairing fire damage, must be debited to A.F.E. 3723. Labour incurred in extinguishing fires on other than Railway property must also be debited to this A.F.E. and the particulars of locality, or name of the landholder, shown on the time sheets.

ACCIDENTS

FIRST-AID ORGANIZATION

1. Assistance of Medical, Ambulance, Fire Brigades and Units, Police, etc. At each Train Control Office, Divisional Telephone Exchange, and attended Station, a list showing names, addresses and telephone numbers of Doctors, Hospitals, Ambulances, Fire Fighting Units, Police and emergency transport vehicles, in the district in order of proximity to the Station, must be exhibited in a conspicuous position in the Office.

2. The necessary First-Aid Organization Forms A, B, C, and Placards E, F, G, may be obtained from the Ambulance Officer, Adelaide.

3. Distribution and use of forms or placards—

(*a*) Form "A"—shall be exhibited in all Station Masters' Offices (Adelaide excepted), and must contain the names, addresses and telephone numbers as set out on the form (copy hereafter). At least 10 Doctors' names must be included in the information at the Metropolitan Area stations.

At all Aid Post Stations the list should contain all available help in the area extending to the next nearest Aid Posts.

(*b*) Form "B"—shall be exhibited in all Train Control Offices, Divisional Telephone Exchanges, and the Adelaide Station Master's Office. In Adelaide all office forms must contain the names and telephone numbers of 20 doctors whose consulting rooms are situated nearest to the station, and whose services are available during the day, and a further list must be exhibited showing the names and telephone numbers of 20 doctors whose services are available during the night. At Train Control Offices and Railway Telephone Exchanges other than Adelaide, the list must contain the names of all Hospitals, Doctors, Ambulances, etc., on the Division under their control.

All other information required must be fully filled in. All Post Office Telephone Exchanges have a list of emergency numbers exhibited in the exchange, and if circumstances warrant it they could be asked to assist to procure the services of extra Doctors, Ambulances and Police, etc.

(*c*) Form "C"—shall be exhibited at all Loco. Depots, in the Loco. Foreman's Office and must contain the names of members of the First-Aid Corps (if any), all First-Aid men, also the names and addresses, etc., of the employees who may be required to accompany the accident van or First-Aid train.

(*d*) Placard "E"—"What to do in the event of a serious accident"—must be placed in a conspicuous position in all Train Control, attended Stations and District Foreman's Offices.

(*e*) Placard "F"—Instructions for the use of Road Route Book—must be placed in a conspicuous position in Train Control Offices, Adelaide, and Murray Bridge, also in the following station offices:—

Adelaide

South Line—All attended stations, Mitcham to Murray Bridge.

Victor Harbour Line—Mount Barker, Strathalbyn.

Western Lines—Balaklava, Port Wakefield, Melton, Kadina, Bute.

District Foremans' Offices at—Adelaide, Mile End, Balhannah, Kadina.

Names of the adjoining Aid Post Stations must be shown in the spaces at the bottom of the placard.

(*f*) Placard "G"—Aid Posts—This placard must be posted in a conspicuous position in all Permanent Way Gang sheds. Names of the adjoining Aid Post Stations must be shown in the spaces at the bottom of the placard.

4. The First-Aid Organization Forms supplied to Train Control, Telephone Exchange stations or depots must be filled in, kept up to date, and the particulars shown thereon checked by the Officer in Charge at the end of each month.

SOUTH AUSTRALIAN RAILWAYS—AMBULANCE ORGANIZATION—A

List of Doctors (in order of their proximity to the station), Ambulances Motor Garages, Hospitals, Fire Brigades, etc.

.....Station or Depot

This Chart must be posted in a conspicuous place at the station or depot, near a telephone, filled in, kept up to date, and checked by the Station Master, or Officer in Charge, at the end of each month.

Local Doctors	Address	'Phone No.	Hours Telephone Exchange is Open
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Local	Name	Address	'Phone No.	Hours Telephone Exchange is Open
Nearest Ambulances				
Motor Garages				
Fire Brigade				
Hire Cars				
Police Station				
Hospitals				
Trained nurses' homes				
Motor lorries available				

Local Ambulance Corps

Name	Address	Branch	Position	Lives distance from station	Nearest 'Phone

Other Local Employees Holding Ambulance Certificates

Name	Address	Branch	Position	Lives distance from station	Nearest 'Phone

South Australian Railways—First-Aid Organization—B

List of Officers to be Advised, Doctors, Motor Garages, Fire Brigades, Hospitals, etc.

(For use in Superintendent's Offices, Train Control Rooms, Railway Telephone Exchanges, and Station Master, Adelaide)

Office	Name and Address	Telephone No.	
		Railway Exchange	Postal Exchange
Superintendent	.....	.....	.....
Chief Train Controller	.....	.....	.....
Assistant Superintendent, Transportation	.....	.....	.....
Assistant Superintendent, Transportation	.....	.....	.....
Assistant Superintendent, Transportation	.....	.....	.....
Assistant Superintendent, Loco.	.....	.....	.....
Loco. Superintendent	.....	.....	.....
Locomotive Foreman	.....	.....	.....
Resident Engineer (or Assistant Superintendent, Maintenance)	.....	.....	.....
District Foreman	.....	.....	.....
Signal and Telegraph Engineer	.....	.....	.....
Assistant Signal and Telegraph Engineer	.....	.....	.....
Secretary	.....	.....	.....
General Traffic Manager	.....	.....	.....
Assistant to General Traffic Manager ..	.....	.....	.....
Chief Engineer	.....	.....	.....
Assistant Chief Engineer	.....	.....	.....
Chief Mechanical Engineer	.....	.....	.....
Assistant Chief Mechanical Engineer...	.....	.....	.....
Claims Agent	.....	.....	.....
Railways Medical Officer	.....	.....	.....
Ambulance Officer	.....	.....	.....
Passenger Agent	.....	.....	.....
Livestock Agent.....	.....	.....	.....
Brake Inspector	.....	.....	.....
Signal Maintainer	.....	.....	.....

Local Doctors (in order of proximity to station)	Address	'Phone No.	Hours Telephone Exchange is Open
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
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Local	Name	Address	'Phone No.	Hours Telephone Exchange is Open
Ambulances.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Fire brigade.....	.....	.....	.....	.....
Hire cars	.....	.....	.....	.....
Garages	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Police stations ...	.....	.....	.....	.....
Hospitals	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Trained nurses' homes	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

Local First-Aid Corps

Name	Address	Branch	Position	Hours of Duty	Nearest 'Phone No.
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Other Local Employees Holding First-Aid Certificates

Name	Address	Branch	Position	Hours of Duty	Nearest 'Phone No.
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
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.....	.....	.....	.....	.....	.....

SOUTH AUSTRALIAN RAILWAYS—FIRST-AID ORGANIZATION—C

To be Posted Conspicuously at all Loco. Depots and Accident Van Depots

First-Aid Corps

Position	Name	Address	'Phone No.	Exchange	How Notified if Required

Other Employees Holding First-Aid Certificates

Employees Accompanying Accident Vans

Aid Post Stations

Emergency First-Aid equipment shall consist of:—

1 First-Aid Chest (large)
1 First-Aid Box
2 First-Aid Stretchers
2 Canvas Strips
6 Blankets (in sealed carton)

and shall be placed at the undermentioned stations and they shall be known as Aid Post Stations:—

Adelaide Division

Belair
Bridgewater
Nairne
Strathalbyn
Brighton
Salisbury
Gawler
Nuriootpa
Eudunda
Riverton
Burra
Balaklava
Port Wakefield
Kadina
Snowtown

Murray Bridge Division

Murray Bridge
Tailem Bend
Coonalpyn
Keith
Bordertown
Naracoorte
Penola
Mount Gambier
Karoonda
Alawoona
Renmark
Lameroo

Peterborough Division

Port Pirie
Gladstone
Peterborough
Yunta
Olary
Carrieton

Port Lincoln Division

Port Lincoln
Cummins
Lock
Wudinna
Poochera
Thevenard
Rudall
Kimba

The Adelaide Aid Post is situated in the First-Aid Lecture Room and can be reached through the Casualty Room. The Station Master, Adelaide, has a spare key for use outside of Casualty Room hours.

The equipment consists of:—

1 First-Aid Chest (with wire cutters).
6 First-Aid Boxes.
6 First-Aid Stretchers.
12 Blankets in two sealed cartons.

GENERAL INSTRUCTIONS

The Senior Maintenance Officer must take charge of all work in connection with damage to track, bridges, or other structures involved; and must assist in every possible way in the clearing of rolling-stock, wreckage, or re-railing operations.

The Signal and Telegraph Engineer or his representative must take charge of all work in connection with damage to signalling, interlocking or communications. He must assist in every way possible in restoring block working and the signalling and interlocking within station yards.

The Station Master or Senior Transportation Officer or Employee present at the scene of the Accident must—

(*a*) Protect train or trains.

(*b*) Attend to the requirements of the injured passengers, and prevent their being subjected to unnecessary inquiries.

(*c*) Procure medical assistance available in the vicinity advising details to the Train Controller; telephone local hospital for additional doctors and nurses if necessary.

(*d*) Assume control until possible to advise the Train Controller, and then act in accordance with his directions.

(*e*) Advise the Train Controller of the extent of the accident, and whether Road Motor Ambulances are required. If Road Motor Ambulances are required, First-Aid equipment and rugs for use with them must be taken from the nearest Aid Post Station, Depot, Barracks, etc., where they may be available.

(*f*) Consult the Train Controller when necessary regarding the supply as quickly as possible, of medical necessities and refreshments for relief of sufferers.

(*g*) Advise the Train Controller the number of persons injured, and any further information that will enable him to gauge requirements for medical assistance (doctors, First-Aid men, nurses, etc.), which may be drawn from stations on either side of the accident. The Train Controller to arrange their transport.

(*h*) Keep the Train Controller fully advised of progress made.

(*i*) Ascertain the names of all persons injured, also their addresses and extent of injuries, and arrange with the Train Controller for the removal by the best possible means to the nearest hospital, or should they prefer, to their homes.

(*j*) Volunteer to send free, telephone or telegraph messages on behalf of persons injured, and have them transmitted without delay.

(*k*) On no account close station, or cease duty, without permission of the Train Controller.

(*l*) Advise the Train Controller with regard to food for employees or others requiring same, should such become necessary.

(*m*) Advise the Superintendent by telephone of the information as shown hereunder.

To..... 19

.....

A—Station or Distance at which mishap occurred, and grade and name of each employee concerned. If at switches, state where situated. If possible, describe shortly how the mishap occurred.

B—Nature of mishap, time of occurrence, and train or trains involved.

C—Name and full address of any person injured, and brief description of injuries sustained.

D—What damage has been caused to engine, rolling-stock, or permanent way, or signalling and interlocking equipment.

E—If engine or vehicle derailed, state number and class of same.

(*n*) Make necessary arrangements for police to maintain order.

On territory not under Train Control, instructions (*a*) to (*l*) will apply; Superintendent being substituted for the Train Controller.

Station Masters near the scene of the accident must, if requested by the officer or employee in charge at the scene of the accident, or the Train Controller render whatever assistance is possible.

The Station Master to whose station injured persons are being conveyed, must—

(*a*) Make all necessary arrangements for the reception of the injured persons, including the provision of such medical aid and comforts as may be required, and in conjunction with the Train Controller, arrange for their conveyance by ambulance, or other suitable method, to a hospital, or if preferred, to their homes.

(*b*) Prevent the address of unnecessary inquiries to the injured, and take every precaution to prevent the public from crowding around them, obtaining police protection if required.

(*c*) In order that no undue delay will occur upon the arrival of the injured at the hospital—

(1) Ascertain the numbers of the injured requiring hospital treatment and whether stretcher cases or otherwise, and sex of same.

(2) Inquire from the local hospitals the accommodation available, and make arrangements accordingly.

The Train Controller must, immediately on receipt of advice that a serious accident has occurred involving personal injuries—

(*a*) Arrange for Road Motor Ambulances to be supplied when necessary and practicable.

(*b*) Ascertain the number of doctors in attendance and, if necessary, obtain the services of additional doctors and also nurses.

(*c*) Arrange, when necessary, for the transport of the doctors and nurses.

(*d*) Ensure that all readily available Aid Post equipment has been forwarded to the scene of the accident together with all available First-Aiders.

Instructions for the use of Road Route Book

Instructions, additional to all other instructions shall be applied to the following sections of the Railways System:—

Beyond Clapham to Murray Bridge
Mount Barker Junction to Strathalbyn
Beyond South Hummocks to near Melton.

A book entitled *Road Routes to Railway Lines* will be issued to:—

General Traffic Manager

Asst. to General Traffic Manager
Superintendent, Adelaide
Superintendent, Murray Bridge
Asst. Superintendents, Adelaide
Asst. Superintendent, Murray Bridge
Train Control, Adelaide
Train Control, Murray Bridge
Road Motor Officer—
Officer in Charge, Mile End Road Motor Garage, Adelaide (Road Motors (4))
Manager, Catering and Trading Services—
R.R. Manager, Adelaide

Claims Agent—
Detectives

Station Masters—

South Line—

Adelaide (six copies)
Mitcham
Blackwood
Belair

Mount Lofty
Aldgate
Bridgewater
Balhannah

Mount Barker Junction
Nairne
Monarto South
Murray Bridge

Victor Harbour Line—
Strathalbyn

Western Lines—
- Balaklava
- Port Wakefield
- Kadina
- Bute

Chief Engineer
- Chief Engineer
- Asst. Chief Engineer
- Designing Engineer
- Resident Engineers (3)—
  - Foreman, Plant and Welding Depot, Mile End
- Asst. Superintendent Maintenance, Murray Bridge
- District Foreman, Mile End
- District Foreman, Balhannah
- District Foreman, Kadina
- Signal and Telegraph Engineer
  - Asst. Signal & Telegraph Engineer
  - Signal Maintenance Engineer
  - S. & T. Supervisors, Adelaide (3)
  - S. & T. Supervisor, Murray Bridge

Chief Mechanical Engineer
- Asst. Chief Mechanical Engineer
- Manager, Car Shops
- Manager, Loco. Shops
- Plant Engineer
- Loco. Superintendent, Adelaide—
  - Foreman, Diesel Depot
  - Foreman, Rail Cars
  - Foreman, Rollingstock
  - Brake Inspector
  - Loco. Foreman, Tailem Bend

Secretary
- Railways Medical Officer
- Ambulance Officer
- Senior First-Aid Instructor
- First-Aid Instructors (2)

The undermentioned, who are adjacent to the specified sections of the Railway line:—

- All Doctors
- All Ambulance Vans
- All Fire Fighting Organizations
- Local Police Stations

(1) The Ambulance Officer shall supply the Train Controller Adelaide and Murray Bridge, and all stations within the specified sections, with a list of Doctors, Ambulance Vans, Fire Fighting Organizations and Police Stations who are in the vicinity of the Railway line within this prescribed area, and who have been been issued with a Road Route Book. This list shall be revised as and when necessary.

(2) The Station Masters at stations within the specified areas covered by the Road Routes shall advise the Ambulance Officer of any change made in their locality of Doctors and alteration to phone numbers.

(3) When the Train Controller, Station Master or other Officer in Charge is advised or deems it expedient to obtain any necessary assistance when an accident has occurred shall, on contacting a Road Route Book holder, clearly state the rail distance. The contacted person should be asked to repeat the route number and distance to avoid a misunderstanding.

(4) Station Masters at Aid Post Stations will be supplied with two (2) books so that they may be issued, if necessary, to direct assistance to the scene or an accident.

(5) The Station Master, Adelaide, will be issued with six (6) copies so that on request, to obtain taxi or other assistance, these books may be issued for direction to the scene.

(6) It shall be the responsibility of any officer issuing a Road Route Book to recover same when not required for further guidance.

The accident train must be returned to its depot as soon as possible after completing its work. To enable this to be carried out, the Officer in Charge of the operations must advise the Train Controller as early as possible the approximate time the accident train will be ready to leave. All necessary stations must remain open, unless otherwise directed by the Train Controller.

As soon as practicable after the occurrence, full reports are to be forwarded to the Superintendent. The following information is essential:—

(1) Date and time of accident
(2) The exact location
(3) Particulars and nature of injuries or damage
(4) Names of witnesses (if any)
(5) Weather conditions
(6) Cause of accident.

Any engine available must be utilized, if time can be saved thereby, for the purpose of conveying First-Aid Men, Gangs, and equipment to the scene of the accident.

The Officer in Charge of a station or depot must, on receipt of instructions, immediately order out all First-Aid equipment, and as many qualified First-Aid men as is practicable and necessary.

If a fire breaks out as the result of any accident, the nearest Fire Brigade must be called if this be practicable.

When a Railway telephone is engaged, and it is required in connection with an accident, the Operator at the Railway Exchange must, on request, advise the persons speaking that the line is required for the purpose of dealing with an accident. Upon receipt of this information, the conversation must be terminated.

The Train Controller must be promptly advised if additional staff is required at the scene of the accident, or at the depot or terminal station. The services of every officer or employee available whether on or off duty shall be secured if necessary.

No expense should be spared by responsible officers in order to provide for the care and comfort of the injured passengers or employees.

The Station Master or officer or employee in charge at the scene of the accident must supply a written report to the Ambulance Officer as soon as possible, giving the extent of the injuries, and particulars of aid rendered.

All brakevans and rail cars must be equipped with one stretcher and one glass fronted case, correctly sealed, and containing one axe, one tomahawk, one saw, and one tommy bar.

In addition, a First-Aid chest or box correctly sealed must be carried in train brakevans and rail cars as follows:—

Trains	Ambulance equipment to be carried
(*a*) Passenger trains and rail cars working within metropolitan area (North Gawler and Bridgewater included)	Box
(*b*) Passenger and mixed trains and rail cars working outside metropolitan area (North Gawler and Bridgewater excluded)	Chest
(*c*) Goods and livestock trains	Box

(*d*) Race and special trains from Adelaide must be equipped with a First-Aid chest in every instance where First-Aid equipment is not already regularly installed as a permanent provision, *i.e.*, in the relative fixtures on Diesel Passenger Motor Units.

ACCIDENTS

Accidents, mishaps, or irregularities must be reported as follows:—

ADELAIDE DIVISION

Train Operations—On Train Control territory, the Train Controller must be immediately advised of accidents, mishaps, or irregularities in train working.

On territory not under Train Control, this advice must be forwarded through the nearest Station Master on Train Control territory to the Train Controller.

The Train Controller must at once advise the Superintendent and, if necessary, the Loco. Superintendent, Assistant Chief Engineer, Resident Engineer, Loco. Foreman, District Foreman, Signal and Telegraph Engineer, Claims Agent, Railways Medical Officer and Ambulance Officer.

The Claims Agent and Ambulance Officer must be promptly advised of all accidents involving personal injuries, giving number of casualties and all particulars available.

The Superintendent will arrange for the Railways Commissioner, Secretary, and Heads of Branches to be advised when necessary.

When a joint inquiry into accidents, mishaps, or irregularities during Train Operations is not to be held, the Superintendent will complete inquiries and forward the docket with a report to the General Traffic Manager, who will forward the papers to the Chief Engineer and Chief Mechanical Engineer when necessary, before transmission to the Railways Commissioner.

Other than Train Operations—

Transportation	Report to Divisional Superintendent.
Refreshment Room Services	Report to Supervisor.
Road Motors	Report to Office in Charge.
Way and Works—Maintenance	Report to Resident Engineer.
Way and Works—Construction	Report to Office in Charge.
Loco. Workshops and Depots (other than Islington Works)	Report to Locomotive Superintendent.
Signal and Telegraph	Report to Signal and Telegraph Engineer.
Stores Depots	Report to Railway Storekeeper.
Ticket Printing and Stationery	Report to Inspector of Stationery Supplies.
Laundry and Equipment	Report to Supervisor.
Ambulance	Report to Ambulance Officer.
Advertising	Report to Agent.
Railways Institute	Report to General Secretary.

When a joint inquiry into an accident, mishap, or irregularity other than during train operations is not to be held, the officer concerned mentioned above will complete inquiries and forward the docket to the Head of the Branch.

MURRAY BRIDGE AND PETERBOROUGH DIVISION

The Train Controller must be immediately advised of accidents, mishaps, or irregularities and he must at once advise the Superintendent, who must telephone the following:—

Railways Commissioner
Secretary
Heads of Branches concerned
Claim Agent (if necessary)
Railways Medical Officer (if necessary)
Ambulance Officer (if necessary).

The Superintendent must, in all cases, enclose a copy of the advice in the docket. When a joint inquiry is not to be held, the Superintendent will finalize inquiries and forward docket with a report to the Head of the Branch concerned. If train operations are involved, a copy of the report must be sent to the other two Heads of Branches, *i.e.*, General Traffic Manager, Chief Engineer, or Chief Mechanical Engineer, as the case may be.

Where the incident involves signalling and interlocking equipment, the Signal and Telegraph Engineer must be promptly advised.

PORT LINCOLN DIVISION

The same procedure must be carried out as shown for the Murray Bridge and Peterborough Divisions, except that only in cases of urgency will the Superintendent telegraph and then only to the Secretary, who will arrange for copies of the advice to be sent to the Heads of Branches concerned, and, if necessary, to the Claims Agent and Ambulance Officer.

PRELIMINARY REPORTS

Preliminary reports must be prepared by the following Officers:—

Adelaide Division—(1) For Train Operations (including transportation)—The Divisional Superintendent. (2) For other than Train Operations—The Head of the Branch concerned.

Murray Bridge, Peterborough, and Port Lincoln Divisions—Reports on all accidents—The Divisional Superintendent.

PRELIMINARY REPORTS (ALL DIVISIONS)

Preliminary reports must be forwarded promptly to:—

Railways Commissioner Secretary	In all cases
Heads of Branches concerned	
Claims Agent Railways Medical Officer Ambulance Officer One copy docketed.	When necessary

NOTE—On the Adelaide Division, the Superintendent and Loco. Superintendent must be advised in case of fire.

The instructions under the headings of "Reporting Accidents", "Robberies" and "Personal Injuries" are to be strictly adhered to.

WRECKS

ADELAIDE DIVISION

Instructions for Train Controller—The Train Controller must at once advise the following:—

Superintendent
Chief Train Controller
Assistant Superintendents (if instructed by Superintendent)
Loco. Superintendent
Assistant Chief Engineer
Resident Engineer
District Foreman
Signal and Telegraph Engineer.

The Superintendent, during office hours, or the Train Controller, after office hours, must advise the following:—

Railways Commissioner
Secretary
General Traffic Manager
Chief Engineer
Chief Mechanical Engineer
Claims Agent
Railways Medical Officer (if personal injury involved)
Ambulance Officer (if personal injury involved)
Passenger Officer (if passenger trains are involved)
Livestock Agent (if livestock trains are involved).

The Train Controller must, on receipt of advice from the Locomotive Superintendent that the accident train is required:—

1. Arrange for Guard to be supplied to work the accident train.

2. Arrange for best possible working of the accident train to the scene of the accident, with the minimum of disturbance to ordinary working, advising all concerned of its running.

3. Advise any officers, whose duty requires them to proceed to the scene of the accident, the time that the accident or other trains, or relief engines, will be departing, or of other forms of transport arranged.

4. Record the time of advice to the various officers, and how advised.

5. Arrange relief for engine crews and Guards, as may be necessary.

6. Arrange, when necessary, for level crossings to be protected.

7. Advise the Train Controller, Murray Bridge, if the accident train located at Tailem Bend, will be required.

8. Arrange, on advice from the General Traffic Manager, Superintendent, or Chief Train Controller with the Railways Road Motor Section for road transport.

Instructions for Locomotive Superintendent—The Locomotive Superintendent must—

1. Make all necessary arrangements to re-rail, or clear the rollingstock from the track.

2. Promptly advise the Train Controller whenever the accident train, which is stationed at Mile End, is required, stating its composition, and class of engine which will be used.

3. Advise the Train Controller whether the accident train, located at Tailem Bend, is likely to be required.

4. Proceed to the scene of the accident as soon as possible.

Instructions for the Superintendent Freight, Mile End—Roster an employee for each Yard Master's shift to act at Guard of accident train. The roster must cover the period from 11.30 p.m. Sunday until 7.30 a.m. the following Sunday. The employee rostered must be qualified to work over all lines. Each Yard Master must, when taking up duty, see that a competent employee is rostered.

Instructions for the Station Master, Adelaide—Roster an employee to be on duty between 7.40 a.m. and 11.30 p.m. on Sundays to act as Guard of accident train. The employee rostered must be qualified to work over all lines. He will receive advice from the Train Controller when this employee is required for the accident train.

Provide a Signalman to be on duty in the Adelaide Yard and Wye Cabins on Sundays 15 minutes before the first passenger train is due to arrive or depart.

MURRAY BRIDGE, PETERBOROUGH, AND PORT LINCOLN DIVISIONS

The Train Controller must at once advise the following:—

Murray Bridge and Peterborough Divisions—

Superintendent
Assistant Superintendents
Loco. Superintendent, Adelaide, *re* Murray Bridge Division
District Foreman
Loco. Foreman
Signal and Telegraph Supervisor
Train Controller, Adelaide, in case of Murray Bridge Division.

Port Lincoln Division—

Superintendent
Assistant Superintendent
Loco. Foreman
Station Master, Port Lincoln
Leading Hand Electrical Fitter
District Foreman.

The Superintendent, Port Lincoln, will advise the Secretary by telephone, as prescribed in the section "Reporting Accidents".

The Superintendent (Murray Bridge and Peterborough) during office hours, and the Train Controller, after office hours, must also advise the following:—

Railways Commissioner
Secretary Railways Commissioner
General Traffic Manager
Chief Engineer
Chief Mechanical Engineer
Signal and Telegraph Engineer
Claims Agent
Railways Medical Officer (if personal injury involved)
Ambulance Officer (if personal injury involved)
Passenger Officer (if directed by General Traffic Manager)
Livestock Agent (if livestock trains involved).

The Train Controller must, on receipt of advice from the Assistant Superintendent Loco., Peterborough, or Loco. Foreman, Tailem Bend, that the accident train is required:—

1. Arrange for Guard to be supplied to work the accident train.

2. Arrange for best possible working for the accident train to the scene of the accident, with the minimum of disturbance to ordinary working, advising all concerned of its running.

3. Advise any officers, whose duty requires them to proceed to the scene of the accident, the times that the accident, or other trains, or relief engines will be departing, or of other forms of transport arranged.

4. Record the time of advice to the various officers, and how advised.

5. Arrange relief for engine crews and Guards as may be necessary.

6. Arrange, when necessary, for level crossings to be protected.

7. At Murray Bridge and Peterborough advise the Train Controller, Adelaide, if the accident train, located at Mile End, will be required.

8. At Peterborough, advise Loco. and District Foremen at out-depot nearest to scene of accident, so that they (or their staff) shall be available if required.

Peterborough—Crew for Engine of Accident Train—The crew of the pilot engine at Peterborough will work the accident train, if necessary.

Mount Gambier—The Station Master must, in case of necessity, provide a Guard to work the accident train from that station. This employee must be competent to work over all lines.

The Assistant Superintendent Loco., Peterborough, the Loco. Foreman, Tailem Bend, or the Loco. Foreman, Port Lincoln, must:—

1. Make all necessary arrangements to re-rail or clear rollingstock from the line, and advise the Train Controller as to disposal.

2. Promptly advise the Train Controller whenever the accident train is required stating its composition, and class of engine which will be used.

3. Advise the Train Controller whether the accident train, located at Mile End is likely to be required.

4. Proceed to the scene of the accident as soon as possible.

5. Arrange to promptly advise the Train Controller the actual time of departure of the accident train from the Depot.

MOVEMENT OF ACCIDENT TRAINS

WITH 108 TONNE CRANE ATTACHED

The 108 tonne wrecking crane is only permitted on the lines enumerated hereunder, the maximum speed not to exceed 40 km/h; and where the existing maximum speed around any curve is 55 km/h or less, the speed must be reduced to 24 km/h:—

Lines—

Adelaide-Tailem Bend-Serviceton
Wolseley-Mount Gambier-Millicent
Goodwood-Port Stanvac
Tonsley Junction-Tonsley
Mount Barker Junction-Victor Harbour
Adelaide-Peterborough
Dry Creek-Northfield
Gawler-Angaston
Nuriootpa-Penrice
Salisbury-Port Pirie
Port Pirie-Peterborough-Broken Hill

WITH 61 TONNE CRANE ATTACHED

The 61 tonne wrecking crane is permitted to run on all broad gauge lines enumerated for the 108 tonne wrecking crane, also the following additional lines, the maximum speed not to exceed 40 km/h, and where the existing maximum speed around any curve is 55 km/h or less, the speed must be reduced to 15 km/h:—

Lines—

Tailem Bend-Pinnaroo
Tailem Bend-Renmark
Karoonda-Peebinga
Alawoona-Loxton
Naracoorte-Kingston
Mount Gambier-Victorian Border
Adelaide-Port Adelaide-Outer Harbour
Dry Creek-Port Adelaide
Roseworthy-Robertstown Junction
Hamley Bridge-Balaklava-Bowmans-Moonta
Balaklava-Gladstone
Kadina-Snowtown-Brinkworth

On the undermentioned lines the 61 tonne wrecking crane is permitted to operate at a speed not exceeding 24 km/h, excepting over bridges, culverts and cattle pits, where the speed must not exceed 8 km/h:—

Lines—

Monarto South-Cambrai
Penrice Junction-Truro
Robertstown Junction-Robertstown
Riverton-Spalding
Woodville-Grange

Location of Wrecking Cranes—

108 tonne—Mile End, Peterborough
61 tonne—Tailem Bend
Wreckmaster—Peterborough

Light Accident Trains—These trains are permitted to operate at maximum speeds as set out below:—

Train based at	Maximum Speed kilometres/hour
Mile End	80
Tailem Bend	80
Mount Gambier	65
Peterborough—Standard Gauge	80
Narrow Gauge	50
Gladstone—Narrow Gauge	50
Port Pirie—Broad Gauge	65
Port Lincoln	50

General—Should the wrecking crane or the wreckmaster loaded on its rail wagon, or any other vehicle with a lower permitted maximum speed than that listed above, be attached, the maximum speed of train must be limited to that of the least maximum speed permissible.

Restrictions and movements of Wreckmaster Flat Wagon Class SFWM, Standard and Broad Gauge—Restrictions and movements of Wreckmaster Flat Wagon Class "SFWM" working on standard and broad gauge track, Peterborough and Adelaide Divisions respectively, are as follows:—

1. The Wreckmaster tractor crane is approximately 3.66 metres wide and when travelling on its special wagon exceeds the "loading gauge". The wagon carrying this tractor must, therefore, be always marshalled as the first vehicle of the breakdown train, immediately following the engine, except when nearing the scene where it may be required to be used, when it may be remarshalled in any position in the train to suit the requirements of the Officer in Charge.
2. When travelling, the Officer in Charge must ensure that the tractor crane is loaded on "SFWM" 1 in its correct position properly loaded and secured and no part of the tractor crane must project more than 2 metres from the centre line of the wagon.
3. When the breakdown train is moving with the tractor in the consist, only the main line or passing sidings may be traversed. If, due to an emergency, it is necessary to move the vehicles to a goods siding this must only be done when piloted by a responsible officer who must ensure that any structure close to the track will not be struck by any part of the tractor crane.
4. When passing high level passenger platforms, passengers and luggage, etc., must be kept 1 metre from the edge of the platform or at low level passenger platforms, 2 metres from the nearest rail.

5. When crossing or passing other train movements, the stationary train is to be kept well within fouling points. If the other train contains an out-of-gauge load (as advised by Train Notice) the "SFWM" Wagon must be piloted past the said load and persons must not be permitted to stand between tracks adjacent to either the out-of-gauge load or the "SFWM" wagon.

6. The speed of the wagon when loaded must not exceed 60 km/h or the speeds laid down for each line for ordinary goods trains, where a lower maximum speed applies.

   The speed of the wagon when EMPTY (*i.e.*, the Wreckmaster tractor crane is removed) must not exceed 30 km/h.

7. A train notice will not be required authorizing the movement of this vehicle when travelling to or from a derailment, catastrophe or some other emergency. All other occasions must be covered by a Train Notice.

8. On the broad gauge system the "SFWM" Wagon when loaded with the tractor crane will only be permitted to operate between the following points:—

Between	*Restrictions*
Islington/Gawler	Must not proceed under the road bridge at the Roseworthy end of the Gawler Station Yard.
Roseworthy/Peterborough	At Wasleys must use track on west side of passenger platform.
Roseworthy/Robertstown	
Hamley Bridge/Wallaroo	Must not proceed under the road bridge between the Marshalling Yard and the Loco. depot at Wallaroo.
Balaklava/Gladstone	
Kadina/Brinkworth	
Salisbury/Port Pirie	
Dry Creek/Gillman Yard	
Dry Creek/Northfield	
Penfield Junction/Penfield	

GENERAL

Passengers Delayed—Accommodation for—When delays occur to trains, passengers must not be advised to take up board and lodging at the Commissioner's expense. Passengers must make their own arrangements in regard to board and lodging.

Damaged Material—Preserving as Evidence—Permanent Way, or rolling-stock materials that have failed in service, or that have been damaged through accident, must be preserved intact without alteration, to facilitate examination, and to be available as evidence in any inquiry that may be held.

Track—Remedying Defects after Derailments—If the line has been rendered unsafe by the derailment, and is required for traffic the Ganger must take immediate steps to restore it to a safe condition, but before doing so must make careful note of any particulars which may assist the inquiring officers, and where possible, measure and record the cant and gauge at 3 metre intervals from the point of derailment for a distance of at least 30 metres on each side of that point.

If the line is not required or is safe for traffic, no alteration or repairs must be undertaken until the inquiring officers have view it.

Road Motor Equipment in Cases of Accident or Emergency—The motor cars, and motor lorries stationed at the Garage, North Terrace, may be utilized in cases of accident or emergency, but must only be used with the consent of the General Traffic Manager or Superintendent, or in their absence, of the Chief Train Controller. Arrangements for the usage of these vehicles must be made with the Road Motor Officer.

Accidents, Fires, or Floods—Reporting of or Discussing with other than Authorized Departmental Officers—In cases of accidents, fires, or floods, where any officer or employee of the Commissioner is involved in the course of his duties, a statement must not be given to a Police Officer or any person, other than an authorized officer of the Railways Commissioner.

The officer or employee involved in such accident, fire, or flood, must however, if requested, give his full name and address, occupation, etc., but decline to make any statement until authorized by the Divisional Superintendent or Head of Branch concerned.

To refuse to give information as to name and address to a Police Officer is a breach of the Police Act.

Where inquests or subsequent court actions are held into accidents, fires or floods, officers or employees called upon as witnesses to give evidence at such inquests or court actions, must not discuss aspects of these incidents with any persons other than those authorized by the Railways Commissioner.

It is the practice for a Crown Law Officer to appear and represent the Railways Commissioner at inquests and court actions. A Railway Detective is also in attendance and should an officer or employee be approached by any person for information, he must be referred to the Railway Detective.

SERVICE TO THE TRAVELLING PUBLIC

The attention of the staff is called to the necessity for, and the desirability of, studying the requirements of Railways clients, with a view to providing a mutually satisfactory service.

For example, the following paragraph appears on page 63 of the Rule Book:—

"The Commissioner requires faithful, efficient, and courteous discharge of duty;

The public judges a railway largely by the treatment it is accorded by the officer and employee representing the railway;

The goodwill of the public served by these railways is a valuable asset."

The co-operation of the whole staff is enjoined with a view to ensuing that everything is done to assist passengers, who through unfortunate circumstances beyond their control, are in need of special attention and courteous consideration.

ACCIDENTS AND WRECKS OR UNUSUAL OCCURRENCES LIKELY TO CREATE MAJOR DELAYS TO TRAFFIC

1. In the event of serious delay to passenger trains or to a disorganization of the service, necessitating the transfer of passengers to another train or road vehicle, the Train Controller must immediately advise the Station Master or other staff concerned, of the arrangements made, so that all concerned may be fully conversant with the proposed working.

The Train Controller must, at the same time, advise the Superintendent (on the Adelaide Division, also the General Traffic Manager and Chief Train Controller) of the proposed working, which is necessary to meet the situation, and be in a position to intimate that all concerned have been duly advised and satisfactory arrangements made.

Should the circumstances necessitate the provision of relief transport, either by rail or road, the necessary authority therefore must be quickly obtained from the Superintendent (or, in his absence, the General Traffic Manager).

In the absence of the Superintendent or General Traffic Manager, the Train Controller must exercise his judgment in regard to the foregoing.

2. **Station Masters**—When a train is delayed seriously at a station, and passengers are required to transfer to another train or road vehicle, the Station Master must ensure that passengers are fully informed as to their future movements, and arrange accordingly.

The Station Master must keep in touch with the Train Controller in order to ensure that all necessary arrangements are made for the comfort, safety, and convenience of the passengers involved.

3. **Services of the Permanent Way Staff**—When Permanent Way Staff are not required in connection with track repairs or in assisting the breakdown gang, the Senior Transportation Officer in charge or the Station Master may instruct the Permanent Way employees to assist in the transfer of passengers' luggage, or such other duties as may be required.

Accidents and Wrecks—Estimate of Work and Time Required for Track Clearance—As soon as possible after arrival at the scene of the accident the Senior Maintenance Officer and the Senior Locomotive Officer will confer after giving consideration to the requirements of clearance of rollingstock and rehabilitation of the track, arrive at an estimated time for the track to be available for restoration of train movements.

As soon as this estimated time has been determined, it must be communicated to the Train Controller. In making their communication, the time must be quoted "not later than .....". The communication must be made through the Senior Transportation Officer on the spot, but must not be delayed, if for any reason, that officer is temporarily absent.

The Senior Transportation Officer present will be responsible for the satisfactory communication of information from the scene of the accident to the Train Controller. In this connection, he will set up a Report Centre located near the most suitable means for communication with the Train Controller and appoint a suitable employee to be in continuous attendance. The Senior Transportation Officer is to ensure a complete log of messages is maintained on the following lines:—

Message No., Time, Message, Message from....., Message to.....

A complete record is also to be maintained by the Train Controller of all messages received and forwarded.

From time to time at convenient opportunity, the Senior Maintenance and Loco. officers must compare the actual progress of the work and promptly advise the Train Controller of any amendment to the anticipated time of track availability.

If necessary, the Senior Engineering Officers should seek advice from the Heads of their Branches when it is considered such advice is necessary for the satisfactory clearance and restoration of the track for train working.

Work Table

Item No.	Nature of Work	Men Required	Tools and Equipment Required	Time Required	Approx. Time of Finish

The Senior Engineering Officers in Charge of the work should seek advice from the Heads of their Branches whenever they feel such advice necessary for the satisfactory performance of the work. They will from time to time compare

the actual progress of the work with the estimate made in the Work Table, and promptly advise the Train Controller (in manner set out below) of any development which is likely to upset the timetable.

2. *Inter-communication*—As soon as the above estimate has been finalized the anticipated time by which the line will be restored for traffic will be communicated to the Train Controller. In making their communication the time must be quoted "not later than.....". The communication must be made through the Senior Transportation Officer on the spot, but must not be delayed if, for any reason, that officer is temporarily absent.

The Senior Transportation Officer present will be responsible for the satisfactory communication of information from the scene of the accident to the Train Controller. In this connection he will set up a Report Centre conveniently located near the most suitable means for communication with the Train Controller and appoint a Porter or other suitable employee, to be in continuous attendance, and to keep a log of messages on the following lines:—

Message Log—

Serial No.	Time	Message	From—	To—	Remarks

The Senior Transportation Officer will, in addition to his other duties, be always alert for information to pass back to the Train Controller and will from time to time seek out the Senior Maintenance and Locomotive Officers for this purpose.

Each Senior Officer will, as required, avail himself of the use of one of his men as a runner to communicate information. Important messages sent by runner should be preferably in writing.

Emergency Food Supplies for Accident Vans at Loco. Depots

In order that sufficient food will be available at the scene of an accident for all Transportation, Loco. and Maintenance employees who are required for re-railing and other operations, emergency supplies must be stored in the accident vans located at Mile End, Tailem Bend, Peterborough, Mount Gambier and Port Lincoln Loco. Depots.

The emergency supplies maintained in the vans is the responsibility of the senior Loco. Officer of the depot concerned, and sufficient supplies should be maintained to meet the requirements of any emergency which may arise for that particular locality.

The Senior Loco. Officer at the scene of the accident will delegate an employee to heat foodstuffs and prepare hot tea, etc. If additional food supplies are required, he will advise the Senior Transportation Officer present, who will make the requisite arrangements, taking advantage of the Refreshment Services where available.

PERSONAL INJURIES

REPORTING

In the event of injury to any person other than a Railway Officer or Employee on Railway property, in addition to the procedure prescribed in the section "Reporting Accidents", full information must be telephoned to the Claims Agent. When any person is seriously injured on Railway property the Ambulance Officer must be promptly advised by telephone.

Should a person advise an officer or employee that he sustained an injury on Railway property, details of such advice must be the subject of a report by the officer or employee referred to.

The Claims Agent must also be advised when an injury to a Railway officer or employee is likely to prove fatal.

A Casualty Report (Form No. 810) must be prepared for all accidents where personal injury is involved. When an employee loses time as the result of an accident whilst on duty, a copy of the Casualty Report must be sent to the Railways Medical Officer by the Head of the Branch or Superintendent. If such injured employee is unable to carry out his duties subsequent to the forwarding of the Casualty Report by his Supervising Officer, the Head of the Branch or Superintendent must be immediately advised.

Supervising Officers are instructed that in cases where an employee is injured or meets with an accident on duty, the employee (if fit to do so) or the Supervising Officer is required to state in writing how, when, and where such injury or accident occurred. The signed statement must be attached to the Casualty Report (Form No. 810). Each eye witness must complete Report of Eye Witness (Form No. 810A) which should be forwarded to the Head of the Branch.

In connection with injuries sustained by officers and employees whilst on duty, any report submitted by an officer or employee regarding an injury received by him, must be acknowledged on the prescribed form (Form No. 755) by the officer receiving such advice; and the officer or employee making the report should see that he receives an acknowledgment.

When a Contractor, or any of his employees, meet with an accident, on Railway property, a report must be immediately furnished by telephone to the Secretary.

EMPLOYEES OR OTHER PERSONS INJURED OR SERIOUSLY ILL WHILST ON RAILWAY PREMISES—MEDICAL AID FOR

(*a*) If any person be injured or seriously ill on Railway premises, any available First-Aid must be rendered.

(*b*) If such injury or illness requires immediate medical attention, a Railway officer or any employee in attendence if such officer be not available, must promptly obtain the services of a medical practitioner. Where the doctor is not immediately available, the injured or ill person must be sent to the nearest hospital. A public hospital must be utilized if there be one in the district, unless the injured or ill person elects to go to a private hospital, or to his or her home.

(*c*) If any person, or persons be seriously injured on Railway property; or as the result of Railway operations within approximately 15 km from Adelaide, the removal by road ambulance should be arranged, if it is considered that the injured person, or persons, would reach hospital sooner than if transported by rail.

(*d*) The Railways Commissioner will be responsible only for:—

(1) In the case of a member of the public: —

(i) The doctor's fee for first visit, or where the injury results from Railway operations, for fees for first attention at a *public* hospital, such fees not to include anaesthetic, operative or subsequent charges, and

(ii) The charges for transport to hospital.

(2) In the case of a Railway employee injured on duty:—

(i) Where the employee is entitled to Compensation under the provisions of the Workmen's Compensation Act, the reasonable expenses incurred for Medical, Hospital services, etc., as prescribed under Section 18A of the Act, application to be made on Form No. 825.

FIRST-AID BOXES, CHESTS, ETC.

FIRST-AID EQUIPMENT

1. The Ambulance Officer has the supervision of all First-Aid equipment used throughout the Railways.

2. First-Aid boxes or chests must bear the seal of the Ambulance Officer, viz., "208" on the Adelaide, Murray Bridge, and Peterborough Divisions and "AO" on the Port Lincoln Division, before being accepted for train working.

3. When the seal of a box or chest is broken, another box or chest must be obtained. To obtain this a telephone message must be sent to the Ambulance Officer, for stations on the Adelaide, Murray Bridge and Peterborough Divisions, and the Superintendent for the Port Lincoln Division. The box or chest must be re-sealed with the address label and tape provided in each box, or the two labels and tapes supplied with each large chest. On receipt of the spare, the box or chest must be forwarded at once to the Ambulance Officer, or the Superintendent, Port Lincoln as the case may be.

4. On each occasion that a box or chest is opened by an officer or employee, he must enter in the book provided particulars of the items used, the reason for opening the box or chest, and sign and date the entry. The Supervisor, Laundry and Equipment shall promptly return to the Casualty Room Adelaide, all unsealed train working boxes or chests returned to the Equipment Room or collected by the Equipment Room employees.

The Superintendent, Port Lincoln will arrange for the replenishment of First-Aid boxes or chests under the guidance of the Ambulance Officer, and will requisition for First-Aid stores on the Ambulance Officer.

5. All attended stations must be equipped with sealed first-aid box and a stretcher in good order.

The stations where First-Aid equipment is provided must forward, correctly filled in, a monthly certificate, Form No. 826, to the Ambulance Officer, Adelaide, or to the Superintendent, Port Lincoln, for stations on that Division not later than the 7th day of each month.

6. All Loco., District, and Works Foremen where First-Aid equipment is provided at their depots, gangs and sleeping vans, etc., must forward a monthly certificate Form No. 827 to the Ambulance Officer, Adelaide, or to the Superintendent, Port Lincoln, for depots, etc., on the Port Lincoln Division, not later than the 7th day of each month.

Equipment of Trains and Motor Inspection Cars

7. All trains must carry a sealed First-Aid box or chest as set out in the Instructions and a stretcher in good order.

The First-Aid box or chest must be carried in the brakevan or baggage compartment in a position where it will be available for immediate use, and must not be covered with luggage, parcels, etc.

In broad gauge goods brakevans, the First-Aid box will be sealed in a holder attached to an inner wall. To obtain the First-Aid box, the container seal must be broken and the box removed.

8. In 820 and 860 class baggage cars, 400 class rail cars, and broad gauge goods brakevans a First-Aid box holder is fitted attached to an inner wall in a convenient position. A sealed First-Aid box will be sealed in the holder with a truck seal. To obtain the First-Aid box, container seal must be broken and the box removed.

9. When 820, 860 and/or 400 class cars form any part of the consist of a train, the Guard must on taking over see that a First-Aid box is in the sealed container and that both seals are intact. When either seal is broken it must be reported to the Station Master's Office, Adelaide, at the first opportunity before the completion of the shift.

The Station Master, Adelaide, will arrange for any replacements necessary. He will be responsible for the daily checking to see that the seals are intact. The Ambulance Officer shall make the necessary spare First-Aid boxes available to the Station Master, Adelaide.

10. Motor Inspection cars must carry a sealed First-Aid box for which the driver of the vehicle is responsible.

11. Freon First-Aid kits must be included in the First-Aid chest on all trains on which air-conditioned passengers vehicles are used. Instructions for treating passengers affected by this gas are contained in the box.

12. On arrival at terminal stations, Station Masters must see that the First-Aid chests are removed from trains. The Station Master must take charge of the First-Aid chest and see that it is in good order, and again examine the equipment before it is placed on a departing train. At all stations where Broad Gauge trains originate or terminate the Station Master shall keep a record in the Train First-Aid Equipment Record Book No. 926 filling in the required details of the train, First-Aid chest or box number, conditions of seals, etc. The original sheet or sheets of Record Book No. 926 shall be forwarded to the Ambulance Officer with the Monthly Certificate Form No. 826 by the 7th of each month. If the seal of the First-Aid box is broken the box must be replaced by a spare. If the container seal is broken it must be replaced with another truck seal. These details must be shown in the Record Book. The Ambulance Officer will make train working spare First-Aid boxes available as required. The Guard must report any broken seal to the Station Master at the terminal station. He is also responsible to see that the First-Aid box and container seals are intact before the departure of the train he is working.

13. At Adelaide, the Supervisor Laundry and Equipment is responsible for the placing of equipment in brakevans or baggage compartments of trains working beyond the Metropolitan Area before departure, and for the removal of same on arrival of such trains. A return of First-Aid boxes and chests allocated to Equipment must be furnished to the Ambulance Officer by the 7th day of each month. Guards within the Metropolitan Area are responsible for obtaining necessary First-Aid equipment before taking charge of trains.

14. First-Aid boxes must not be removed from trains working within the area bounded by North Gawler, Northfield, Outer Harbour, Semaphore, Grange, Hallett Cove and Bridgewater (when an immediate return is being made).

15. The Guard before departure from the station at which he commences duty must see that the brakevan, baggage, or railcar is equipped with a First-Aid box or chest correctly sealed, and that the First-Aid stretcher is correctly placed and in good order.

First-Aid Stretchers in Brakevans

16. Station Masters at terminal stations where Sunday work is performed must see that stretchers in brakevans and rail cars are cleaned on the first Sunday in each month, unless otherwise instructed by the General Traffic Manager.

Station Masters at terminal stations where no Sunday work is performed must see that stretchers in brakevans and rail cars are clean on the Saturday preceding the first Sunday in the month, unless otherwise instructed by the General Traffic Manager. The date of such work being performed must be shown on the next month's First-Aid Equipment Certificate Form No. 826, together with a list of the brakevan numbers in which the stretchers have been inspected.

17. Stretchers must be placed on the racks provided in brakevans, baggage compartments, or rail cars, with the wheels down, the canvas folded on top, and secured, together with the spreaders, by straps or light rope.

First-Aid Equipment at Loco. Depots and other Approved Locations

18. The Ambulance Officer will supply a list of First-Aid equipment to be retained at Loco. depots and other approved locations, and the Officer in Charge will be responsible for maintaining the supply.

INSTRUCTIONS TO STAFF—MISCELLANEOUS

TIMEKEEPING

1. Officers and employees concerned must, unless otherwise instructed, record their own time in the Time Books, Cards, Appearance Books, Clocks or other recorders provided for that purpose. Such entries must be checked and initialled by an authorized officer.

2. The above instruction applies also to an employee temporarily working away from his Home station. The employee must arrange to report his time of arrival and departure at such locality to the nearest Station Master, Ganger, or Officer in Charge, booking on the Appearance Book or other means provided.

The Officer in Charge must initial the employee's time sheet.

3. (*a*) **Transportation Staff (including Enginemen and Firemen)**—Officers and employees at stations or depots where time-recording clocks are *not provided* must, before commencing duty, sign their names and enter their positions in the Appearance Book provided for the purpose, showing time and date of commencing duty. When booking off for meals, they must show the time of leaving and recommencing duty.

On completion of the shift, officers and employees must again sign the Appearance Book, showing time and date of finishing duty.

(*b*) At stations and depots where time-recording clocks *are provided,* employees will book on and off duty (including meal times) by means of the clock.

Officers and employees must make themselves conversant with the instructions regarding the use of the type of time-recording clock in operation at the particular station or depot.

Guards, in addition to booking on by means of the time-recording clock, must sign their names in the Guards' Appearance Book, entering the time of commencing duty, and the number of the train they are rostered to work. Before signing off duty at completion of shift they must ascertain from the Roster Sheet, or other means provided, the time of commencement of their next turn of duty.

(*c*) All entries in the Appearance Book or on Clock Rolls must be checked and initialled daily by the Station Master or such officer authorized for that specific duty. Time sheets (daily or weekly) must be prepared and forwarded immediately to the Supervising Officer, who will verify to correctness.

(*d*) Signalmen and Assistant Signalmen booking on and off duty must do so in the Train Register Book located in the signal cabin.

(*e*) **Guards Stationed at Mile End**—The Roster Clerk, Adelaide, must instruct Mile End Guards when they are to book on and off at Adelaide; and in such cases the Station Master, Adelaide, will show in the Station Order Book the duties allotted to Mile End Guards, and such Guards must sight the order and initial same. Mile End Guards must examine the Station Order Book at Adelaide before booking off, for instruction as to their duty for the next day.

4. **Chief Engineer's Branch**

Signal and Telegraph Staff—(*a*) Weekly time sheets for "A" and "B" week must be used by Signal and Telegraph Employees. Each day the employees must show thereon particulars of work performed and these sheets must be forwaded weekly to the Supervisor. A separate memorandum setting out particulars of any overtime worked must be attached to the sheet.

(*b*) Employees appointed to sections must sign on and off in the Appearance Book at their home stations if it is an attended station. If away from their home stations overnight, they must sign off and on in the Appearance Book at the station where they are temporarily located.

(*c*) Employees at Tailem Bend and Peterborough Locomotive Depots must sign on and off as follows:—

Tailem Bend—At the time record clock in the Book-on Room adjacent to the Recorder's Office.

Peterborough—At the time record clock in the Checker's Office adjacent to the Loco. Foreman's Office.

(*d*) The employee in charge of construction or special maintenance gangs must report by telephone as directed by his supervisor.

(*e*) All other employees must book on and off as directed by their supervisor and those employees required to do so will report to their supervisor by telephone as soon as practicable after commencing duty.

Permanent Way Staff—The time worked by Permanent Way Gangs (and other employees who may for the time being be working therein) must be recorded by the Ganger on the prescribed form, and forwarded fortnightly to the District Foreman for checking.

Works and Buildings Staff—(*a*) Employees of the Works and Buildings section, unless otherwise instructed, must sign on and off in the Appearance Book at the station at which they are working, if it is an attended station.

(*b*) At the close of each day, the employee's time sheet, complete in every detail, must be handed to the Station Master, or Officer in Charge, who will verify the time with the entries in the Appearance Book, initial time sheet, and hand to employee, who must forward same each day, without delay, to the Foreman, Works and Buildings.

(*c*) Should the employee finish the job before the close of the day, the Station Master, or Officer in Charge must check the time with the Appearance Book, certify the time spent at that particular station, and hand time sheet to the employee.

(*d*) Employees working at Adelaide Yard must clock on and off at the nearest time recording clock, and the Foreman Rollingstock, Foreman Rail Cars, and Caretaker, Adelaide Station, must forward daily statement of such times as shown on the clock rolls to the Foreman, Works and Buildings, without delay, to enable time sheets to be checked and forwarded to the Comptroller.

(*e*) Employees working at Port Pirie must clock on and off at the nearest available time clock.

(*f*) At Tailem Bend, the time clock must be used for signing on and off.

5. **Travelling Expenses**—Claims for expenses must be made on the prescribed forms and in time for inclusion on the ordinary paysheets.

When actual out-of-pocket expenses are allowed, board and/or lodging accounts, and other accounts duly acquitted, must be attached to employees claims. All receipts for out-of-pocket expenses from $10.00 to less than $50.00, must bear a 2c duty stamp, those of $50.00 and over must bear a 5c duty stamp.

In the case of Transportation employees, trip expenses must be shown on the time sheets, in which case the ordinary expenses forms are dispensed with.

6. **Absence—Lengthy—Account Sickness**—Medical certificates must be forwarded as required by Regulation, and any officer or employee absent from duty for 26 consecutive days must make application for leave on the prescribed form to his Supervising Officer in order that the Railways Commissioner's approval may be sought for his name to be retained in the Department's books.

7. **Home Stations for Officers and Employees**—A "Home Station" must be named for every temporary or permanent officer and employee, and notice given on the prescribed form.

8. **Monetary Advances to Officers and Employees Temporarily Sent Away form their Home Stations**—When an officer or employee is sent from his Home Station to take up temporary duty elsewhere, and requires cash to meet current expenses, the Station Master may make an advance from station cash not exceeding $10, unless an additional amount is approved (in special circumstances) by the Comptroller. The printed form "Temporary Advance" (Form No. 939) must be used for this purpose and signed by either the Divisional Superintendent, Assistant Superintendent, Loco. Foreman or District Foreman; but when these officers are not available the Station Master, may, provided he is satisfied the advance is in accordance with this instruction sign instead.

Where an officer or employee is required to regularly travel in the performance of his duties, no advance must be made under the foregoing paragraphs.

Station Masters are not authorized to make advances to those transferred, prior to such employees leaving their Home Station.

9. **Procuration Orders**—(*a*) When it is not possible for an employee to personally draw his wages, a procuration order, duly stamped (on a combined procuration order and receipt form) must be signed by the employee, the signature witnessed, and the form presented to the officer paying by the person authorized to draw the amount due. Where possible, the procuration order should be obtained from the employee's own Branch.

(*b*) Procuration orders will not be accepted for the purpose of liquidating private debts.

(*c*) Procuration orders must be in charge of and issued by responsible officers only, and, where possible, the signature of the employee on the procuration order should be witnessed by the officer issuing same.

(*d*) Officers issuing procuration orders should satisfy themselves as to the *bona fides* of the person making application for such procuration order.

(*e*) No Officer, Ganger, Timekeeper, Rosterman or any employee who returns or checks time, or who acts in a supervising capacity is permitted to hold, in his favour, a procuration order on an employee's salary or wages.

10. **Banking Employees' Salaries and Wages**—Arrangements have been made with all the Associated Banks, the State Bank, Commonwealth Bank, and the Savings Bank of South Australia, permitting the banking of salaries or wages by the Commissioner, should any officer or employee so desire, instead of payment being made direct to the officer or employee concerned.

It will be necessary for each officer or employee desirous of availing himself of this arrangement, to fill out and forward to the Comptroller a procuration order (Form 26B), in favour of such Bank as he may nominate; and each pay-day the Comptroller will bank all moneys due to such officer or employee at any Branch (not agency) of the Bank nominated. In cases where officers or employees nominate The Savings Bank of S.A. it will be necessary to show on the procuration order the number of the Pass Book, also the branch of issue, *e.g.*, if an officer or employee has an account with The Savings Bank of South Australia at Hindmarsh, then the procuration order should read "Savings Bank of S.A. (Hindmarsh), pass book No.....".

Where an employee opens an account with any of the trading banks or State Bank, a charge is made for keeping the account. (The "State Bank" should not be confused with The Savings Bank of South Australia.)

Such receipt as the Railways Commissioner may obtain from the banks for deposit of money on behalf of officers or employees is exempt from stamp duty.

All inquiries on this subject should be addressed to the Comptroller.

11. **Deceased Officers and Employees**—Earnings not exceeding $200 due to deceased officers or employees may, on the approval of the Hon. the Treasurer, be paid to relatives or other legally entitled to claim. The correct initials of the applicant must always be stated in correspondence.

Applications made by widow or next of kin should be made on the prescribed Public Service form and forwarded to the Comptroller together with a declaration from the Supervising Officer that, to the best of his belief, the applicant is the person entitled to receive the amount due.

In cases where a will is in existence, the will should be sighted by a responsible officer of the Comptroller's Branch, and a reference made to the fact.

12. **Officers and Employees Approaching the Retiring Age**—An officer or employee approaching the retiring age or voluntarily retiring under the Superannuation Act, has the following options in regard to long service leave and annual leave:—

Long Service Leave—(*a*) He may apply for a cash payment in lieu of long service leave and remain in the service until the day before the day on which he reaches the retiring age. In this case, he will be deemed to be out of the service as from the day on which he reaches the retiring age, and cannot thereafter earn any further long service leave, and is not eligible for any adjustment of his cash payment on the ground of subsequent alterations of salaries.

(*b*) He may apply for long service leave to commence on such a date that the leave will end on the day before he attains the retiring age.

If such leave is granted, the officer will be in the service until the leave expires and will be entitled to have the period of the long service leave treated as service for the purpose of earning long service leave. He will also be affected by any salary changes which occur during the leave.

(*c*) He may apply for part of the long service leave due to him and a cash payment in lieu of the balance of such leave.

In this case the officer will be governed by the conditions set out in paragraphs (*b*) while he is on long service leave, and by the conditions set out in paragraph (*a*) in respect of his cash payment.

Annual Leave—Deferred annual leave to which an officer or employee is entitled must be commenced and completed before retirement but annual leave due in respect of service in the financial year in which retirement takes place may be taken out before retirement, or cash payment made, at the election of the officer or employee.

Superannuation Pension—Officers and employees who are contributors to the S.A. Superannuation Fund should also make application on the prescribed form at least two weeks prior to retirement in order that pension benefits may be paid without delay after retirement.

13. **Vacancies**—Officers and employees making application for vacancies advertised in the *Weekly Notice* must do so on the proper form (No. 735) and forward same through their Supervising Officer.

OFFICERS AND EMPLOYEES WORKING IN OR PASSING THROUGH TUNNELS

1. Gangers of the lengths on which tunnels are located must see that the wall surrounding each recess is kept freshly whitewashed to enable it to be quickly found.

2. Officers and employees working in or passing through tunnels with more than one line must exercise due care, bearing in mind that an "Up" and "Down" train may pass through the tunnel simultaneously.

3. An officer or employee having refuge in a recess must not leave it until, by listening, he has assured himself that no other train has entered the tunnel.

4. Officers and employees requiring to pass through a tunnel on foot or by means of a hand or motor propelled vehicle must first ascertain the movements of trains from the Train Controller.

DAMS, RESERVOIRS, AND TANKS—BATHING IN

1. Unless authorized by the Railways Commissioner, Station Masters and others concerned must not permit persons to bathe in any Railway reservoir, dam or tank.

2. Should any person be found bathing in such reservoir, dam, or tank, particulars of name and address must be obtained, and the matter promptly reported to the General Traffic Manager.

3. Under Section 29 By-law "A", any person guilty of a breach of this section shall be liable to a penalty not exceeding $20.

"ON SERVICE" TRAFFIC, DOMESTIC SUPPLIES, CLOTHING, ETC., FOR OFFICERS AND EMPLOYEES

The following instructions, which must be read in conjunction with Rule No. 421, must be carried out in connection with the carriage of "On Service" material and stores required for working repairs or renewals on lines open for traffic, and of domestic supplies, clothing, etc., for officers and employees:—

"On Service" Traffic

1. All "On Service" material (except ballast or other material carried by work trains and those articles mentioned in clause 8) entitled to free carriage, must be consigned on the "On Service" waybill prepared in duplicate (in triplicate if a receipt be required by sender), and handed by the consignor, with the material for railage, to the Station Master at the forwarding station, who must send one copy by the Guard, and retain the other copy for reference. If a receipt be required, the third copy must be signed by the Station Master and handed to the consignor. (See also clause 10.)

2. When forwarded from an unattended station, the "On Service" material must be consigned by the sender in the same manner as from an attended station, but the "On Service" waybill in duplicate must be handed to the Guard (or placed in the consignment note box), who must send one copy to the accounting station, and the other copy must accompany the goods.

3. When materials are being sent to one or more intermediate unattended stations, they must be entered on the "On Service" waybill to the next attended station in advance.

4. "On Service" traffic carried free must not be shown on the Guard's roadbill.

5. The weight of "On Service" material forwarded must be entered on the "On Service" waybill by the sender. In the absence of weighing facilities the mass must be estimated.

6. At attended stations the Station Master must obtain the consignee's receipt on the waybill for the "On Service" material delivered, and at unattended stations the Guard must, when practicable, also obtain the consignee's receipt on the waybill. When this cannot be done, the Guard must endorse the waybill as having delivered the material.

7. The Station Masters at attended stations must see that the articles entered on the "On Service" waybill are authorized to be carried free, and that work for which the articles are invoiced is of such a nature as to come under the headings "Working", "Repairs", or "Renewals". If any doubt exists, the matter must at once be referred to the Comptroller for decision; but the delivery of the materials must not be delayed while these inquiries are being made.

8. Maintenance tools, such as bundles of beaters, etc., bearing the Railways metal label are carried and delivered in accordance with the address on the label. A waybill in such instances is not necessary.

9. Transfer notes, when necessary, must be prepared and forwarded with the "On Service" material. These notes must be marked to indicate that the goods are entered on the "On Service" waybill.

10. Fuel for the Railways, consigned by persons outside the Railways, or by other Departments to Heads of Branches of the Railways, whether addressed to the officer by name or by his title, or to the name of the work, must be consigned on the ordinary Freight Consignment Note, weighed and charged for in the same manner as traffic for the public. *Such traffic must not be entered on Form* 19 (*"On Service" waybill*).

If the traffic is entitled to free carriage, the account must be endorsed with the reason why free carriage should be allowed, and then forwarded by the Head of the Branch concerned to the General Traffic Manager for writing off. The endorsement must be signed by the Head of the Branch.

Loco. fuel consigned by one Railway Officer to another Railway Officer may be waybilled on Form 19. For firewood loaded by the Contractors for supply, the necessary instructions in respect of destination will be given by the Railway Storekeeper, but such consignments must be invoiced at Tariff Rates, to be subsequently franked.

11. "On Service" consignments must not, without the authority of the General Traffic Manager, be carried on *The Overland*, or Broken Hill or Perth passenger trains. "On Service" consignments must not be dispatched on other passenger trains unless unavoidable, and the consignor must ascertain the necessity for utilizing these trains.

12. The "On Service" waybill must not be used for Inter-system traffic.

13. Consignments entered on "On Service" waybills must be carefully checked when tendered for dispatch, and also at the receiving station upon delivery. These waybills must be checked in the same manner as other invoices and waybills, and receipts must be taken in the column provided for the purpose.

Domestic Supplies, Clothing, etc., for Officers and Employees—Free Carriage

1. Domestic supplies are such articles as food, ice cream (but not ice), clothing (including boots and shoes—new, repaired, or for repairs), household linen, including blankets, medicine, illuminant, kerosene for operating refrigerator (providing the refrigerator is *bona fide* part of the domestic equipment of the officer's or employee's home), household utensils, axe, soap, tobacco, concentrated non-alcoholic drinks (such as lime-juice cordial, etc.), but not aerated waters (such as lemonade, etc.), nor intoxicating drink of any kind. Ice may be carried free for employees on Eyre Peninsula (from either Port Lincoln or Thevenard), and on the Broken Hill line between Peterborough and Cockburn.

2. Domestic supplies for the exclusive use of officers and employees, and their families permanently residing with them, will be carried free by rail to their Home Station for no greater distance than from the nearest place where there are two or more stores, two or more butchers' shops, or two or more bakers' shops as the case may be. Officers and employees stationed between Peterborough and Cockburn may, however, have their domestic supplies carried free from any station between Cockburn and Peterborough inclusive; those stationed at Black Rock from either Peterborough or Orroroo. Those stationed at Wharminda, Rudall, and Darke Peak may obtain their perishables, *i.e.*, bread, meat, and vegetables, from either Cummins or Kimba.

3. Those whose "Home Stations" are vans, camps, or other sleeping accommodation provided, may have their food and clothing carried free between their place of residence and home station. This also applies to those working in Flying Gangs.

4. All packages must be waybilled on the "Domestic Supplies Free" waybill, prepared in triplicate, and handed by the consignor with the goods to the Station Master at the forwarding station, who must send one copy by the Guard, retain one copy, and return one receipted copy to the consignor. One waybill may be used for different unattended stations, and distances between attended stations, and Guards must, when delivering these parcels, certify the waybill, and hand it to the Station Master at the next attended sation.

5. "Domestic Supplies Free" waybill must not be made out for "One box" or "One bag", but the contents must be accurately stated, so that it can be readily seen whether or not the goods are entitled to free carriage.

6. An officer or employee must not, in any circumstances, have goods carried free for any other purpose than to meet the personal necessities of himself and family residing with him; nor must he dispose of goods so obtained to others.

7. Officers and employees absent on duty from their home stations may obtain parcels of clothing or food from home, or return clothes to be washed, to their home station, and such parcels must be forwarded "TO PAY". The officer or employee consigning the parcel must prepare an ordinary consignment note, and indorse it "Free carriage, temporarily absent from home", which gives Station Masters the necessary authority to forward and deliver parcels free. Copies of the entries, accompanied by the form for cancellation of entry, must be sent for clearance by the receiving station to the Superintendent for certificate, thence to the General Traffic Manager for franking.

8. Officers and employees who have been transferred to another station may, when unable to obtain housing accommodation for self and family, have their laundry carried free between the new home station and the place at which they were previously located, until such time as suitable house accommodation can be obtained.

In addition to the conditions set out in clause 7, the Superintendent of the Division on which such employee is located, must certify on the form for cancellation, that the employee has been unable to obtain suitable housing accommodation.

This applies to clothing for laundering only, and not food or other supplies.

9. The Superintendent will stipulate the trains on which domestic supplies may be carried.

10. The trains elected for conveyance of domestic supplies must stop at the stations or distances for unloading the packages. These consignments must be handled carefully, and not be thrown from the train. If the consignees or their representatives are not in attendance on the arrival of the train, reasonable efforts must be taken by the Guards to place the packages where they will not be damaged or destroyed.

11. "On Service" and "Domestic Supplies Free" waybills must be sent by the receiving Station Master to the Comptroller, after the close of the preceding month, with a statement on the proper form, analysing such traffic under the heading of "Coal, other Railway Material, and Domestic Supplies". The Comptroller after examination, will return them to the receiving station for filing.

TRANSPORT OF FAMILIES, ETC., OF OFFICERS OR EMPLOYEES TRANSFERRED

1. **If Transferred for the Convenience of the Department—**

(*a*) When an officer or employee is so transferred, by rail or sea, from one Depot or Station to another, the Commissioner will bear the cost of transporting him, his wife, sons (up to 18 years of age), daughters resident with and dependent on him, furniture, one motor or horse-drawn passenger vehicle, or one motor cycle—with or without sidecar—such livestock as may be certified as

reasonable by the Head of the Branch, and firewood (except by sea), up to a maximum of 500 kg, provided an additional vehicle is not necessary for the latter. Furniture and effects must be invoiced or waybilled, and the invoices and waybills endorsed "Employee transferred".

Where the S.A.R. Road Motors Pantechnicon is used to effect the transfer on complete door to door basis the Road Motor Officer will debit the total charges incurred to the Branch concerned, preparing an account in the name of the head of Branch, *e.g.*, The Chief Engineer, The Chief Mechanical Engineer, etc., showing full particulars with order or written authority for transport service attached thereto. The Senior Freight Clerk, Mile End, to arrange transfer of the account to the Outstandings Clerk, Adelaide, for payment to be made by the Expenditure Account.

(*b*) The cartage of the furniture, etc., from home to Railway station, or *vice versa, outside the suburban area,* will be arranged by the Head of the Branch, or Superintendent, who will secure the best terms where a contract does not exist for cartage. The Head of the Branch, or Superintendent, will issue a requisition in favour of the selected carrier, and when the work is completed, an account, should be tendered by the carrier, which must be certified and sent to the Comptroller.

(*c*) Departmental Roadmotors must be used for the collection and delivery of officers' and employees' furniture (but not vehicle or livestock), when transferred between stations in the Metropolitan area, or between a Metropolitan station and place of residence when transferred to or from the Metropolitan area and a country station.

The Head of the Branch, or Superintendent, will supply an advice to the officer or employee transferred to be presented to the Station Master at the forwarding or receiving station. Such advice is the authority for the free rail carriage and collection or delivery service. A copy of the advice must be forwarded, in advance, to the General Traffic Manager.

Departmental Road Motor Collection and Delivery charges must be debited against the Branch concerned and the amount transferred to the Outstandings Clerk for payment by the Expenditure Account.

The following information, in connection with collection or delivery of furniture in the suburban area, must be supplied to the General Traffic Manager—

(1) For dispatch from suburban area—full address, time, and date of loading.

(2) For delivery in suburban area—full address, time, and date required for delivery.

(3) For collection and delivery in suburban area—full address, time, and date of loading, and new address.

(4) If there be any article too heavy or awkward for the driver of the road vehicle to handle without assistance. (When this information is not supplied, any extra assistance required must be obtained by the officer or employee transferred at his own expense.)

The Head of the Branch or Superintendent, must give not less than two (2) days' notice, to the General Traffic Manager, when road motors are required for the purpose of transporting furniture of officers or employees transferred.

2. **If Transferred at Own Request**—When officers or employees are so transferred, free rail carriage only of their families and effects (as prescribed in clause 1 (*a*) will be allowed. Charges for collection at forwarding stations, delivery at destination station, sea freight, wharfage, and handling at ports, must be borne by the officer or employee concerned.

Where the S.A.R. Road Motors Pantechnicon is used to effect the transfer on complete door to door basis the employee will be required to pay the proportion of the overall charge considered by the Road Motor Officer to be comparable to the payment which would have normally been made in conjunction with rail movement for collection at forwarding station and delivery at destination station. The Road Motor Officer will debit the balance of charges incurred to the Branch concerned, preparing an account in the name of the Head of the Branch, showing full particulars with order or written authority for transport service attached thereto. The Senior Freight Clerk, Mile End, to arrange transfer of the account to the Outstandings Clerk, Adelaide, for payment to be made by the Expenditure Accountant.

3. **New Entrants**—A pass will be issued to a newly appointed employee, if necessary, to enable him to proceed to his destination. Upon production of the the necessary certificate from the Head of the Branch the Booking Officer will issue economy class single tickets, as may be required, for the family of the new entrant without payment and transfer the debit to the destination station, while the furniture is to be invoiced "To Pay".

The complete debits for tickets and freights are to be promptly transferred to the Outstandings Clerk in one account by the destination station and payment of these will be deducted from the wages of the employee concerned. At the expiration of two months' continuous employment, application is to be made through the Superintendent for a refund of half the charges. Such concession will not be granted if the employee concerned does not complete two months service. Charges for collection and delivery (except when complete movement is made by S.A.R. Road Motors Pantechnicon), sea freight, and other systems charges must be borne by the new entrant.

In all cases of engagement of staff on the mainland who commence employment on the Port Lincoln Division necessitating the payment of a fare for travel to Eyre Peninsula, the following will apply:—

(1) The newly engaged officer or employee will be required to either pay to the Outstandings Clerk (through the engaging officer) the amount of such fare or agree that the sum involved be deducted on his first paysheet after commencing duty. The latter undertaking should be in the nature of a signed statement on the engagement form, similar to the following:—

"I agree to the amount of $*..... *(cost of fare from Adelaide to Port Lincoln) being deducted from my wages for first pay period after commencing duty."

(2) The officer or employee concerned will, on completion of two months service, be granted a refund of the amount in question on application to the Comptroller through his Head of Branch.

Where the S.A.R. Road Motors Pantechnicon is used to effect the movement on complete door to door basis, the employee will be required to pay the proportion of the overall charge considered by the Road Motor Officer to be comparable to the payment which would normally have been made in conjunction with rail movement for collection at forwarding station and delivery at destination station.

The Road Motor Officer will debit the balance of charges incurred to the employee concerned. An account to be prepared in the name of the employee showing full particulars, with order or written authority for transport service attached thereto. An endorsement, "New Entrant ..... Branch" to be clearly made on Account Form. The Senior Freight Clerk, Mile End, to arrange transfer of account to the Outstandings Clerk, Adelaide, for collection through medium of paysheet deductions.

At the expiration of two months' continuous employment, application is to be made by the employee through his Superior Officer for a refund of half the above-mentioned "balance of charges".

4. Free carriage of furniture, effects, and livestock of officers and employees transferred does not include building material—either new or secondhand—for garages, outbuildings, etc.

5. **Departmental Furniture Boxes**—Furniture boxes for the carriage of furniture and household effects are provided without charge for the use of officers and employees transferred.

Loose firewood must not be carried in furniture boxes. When carried in suitable bags, a maximum of 500 kg of firewood will be allowed.

In cases where insufficient furniture boxes are available for all pending transfers, preference will be given for transfers to and from the Port Lincoln Division and those involving transhipment at break of gauge stations.

Officers and employees requiring furniture boxes must make prompt application to the Head of Branch or Superintendent, who will forward the application to the Road Motor Officer.

Furniture boxes are available in three sizes, small boxes of 15 m^3 capacity and large boxes of 19·4 m^3 capacity or 22·8 m^3 capacity.

Large furniture boxes are equipped with the following packing material—Five blankets 3 m by 2 m, one refrigerator "bag", 30 small cushions and 50 pieces of hessian each approximately 3 m by 1·5 m.

Small furniture boxes are equipped with the following packing material—Four blankets 3 m by 2 m, one refrigerator "bag", 25 small cushions and 30 pieces of hessian each approximately 3 m by 1·5 m.

In order to ensure that this packing material is not lost or misappropriated, the following must be observed:—

(*a*) After unloading each consignment of furniture, the packing material is to be checked and stowed inside the refrigerator "bag". If the unloading is carried out by Departmental Road Motor Staff, the check must be made by the lorry driver. If carried out by a private carrier, the check must be made by the Station Master or reliable employee nominated by him. If at an unattended station and the unloading is done by the Permanent Way Staff, the check must be made by the Ganger.

(*b*) Before loading a consignment of furniture, the packing material must again be checked by the lorry driver if handled by Departmental Road Motors, by the Station Master or his nominee if handled by a private carrier, or by the Ganger if at an unattended station and handled by the Permanent Way Staff.

(*c*) Any shortage, detected when checked must be promptly reported by telephone to the Road Motor Officer, Adelaide, and the Superintendent Freight, Mile End.

The Road Motor Officer will advise the General Traffic Manager full particulars of the loss, together with details of the previous movement of the box.

The Superintendent Freight, Mile End, will immediately arrange to make up the deficiency from his spare stock.

Furniture boxes must be sheeted when loaded with furniture. If two tarpaulins are used, the leading tarpaulin must overlap the other. Tarpaulins must be removed before lifting furniture boxes by cranes, and replaced when unloading is completed.

When a loaded furniture box is received at a station unsheeted, prompt advice must be sent to the General Traffic Manager.

Furniture boxes must be kept at the destination station until advice of disposal is received from the Road Motor Officer.

Furniture boxes, loaded or empty, must be waybilled, the waybill forwarded to the destination station and a copy to the Road Motor Officer, showing the number of the box or boxes, whether loaded or empty, and the destination.

If furniture boxes are transhipped at break of gauge stations, they must be waybilled from the break of gauge station showing the number of the box and the number of the wagon, and a copy forwarded to the Road Motor Officer.

The Superintendent, Port Lincoln, must advise the Road Motor Officer by telephone when loaded or empty furniture boxes are forwarded from that Division to stations on any other Division. The number of the funiture box, date, and method of forwarding must be advised.

6. **Livestock Vans**—Livestock vans will be supplied for the conveyance of such livestock certified as reasonable by the Head of Branch or Superintendent. Early application must be made when livestock vans are required.

7. **Use of Private Motor Vehicles on Departmental Business—**

Private motor vehicles must not be used on departmental business except under the following conditions:—

(*a*) That the approval of the Railways Commissioner is first obtained.

(*b*) That the motor vehicle is covered by a Third Party and Comprehensive insurance policy, it being the responsibility of the officer or employee to ensure that the later policy covers the Railways Commissioner.

Some comprehensive insurance policies do not include the liability of the employer, in which case the policy must be amended to do so and the additional insurance premium of 50 cents will be reimbursed on application.

All Third Party insurance policies held by Government employees, who use their private motor vehicles on Government business, now cover the liability of the Government.

Failure to observe these instructions could, in the event of an accident occurring when a private motor vehicle is being used departmentally, involve the driver in additional liability for which he might not receive protection from either his employer or the policy.

UNIFORMS

1. Officers and employees issued with uniforms must keep them clean and pressed. Tunics and overcoats must be worn fully buttoned up, caps straight on head, black footwear properly cleaned (only black footwear permissible), and metal badges kept bright.

2. Uniforms for male staff are of two types, *i.e.*, open-neck double-breasted tunic, and open-neck single-breasted tunic.

(*a*) *Open-neck Double-breasted Tunic.*

Station Masters, Assistant Station Masters, and Relieving Station Masters—A shirt, collar, and black tie must be worn, with crown on each collar end just above peak of lapel of the tunic. S.A.R. badge to be worn on front of cap.

Other officers—A shirt, collar, and black tie must be worn. The S.A.R. is woven into lapel of tunic on left-hand side. Classification badge to be worn in front of cap, except Station Clerks, who must wear S.A.R. in front of cap.

(*b*) *Open-neck Single-breasted Tunic.*

Employees—Shirt, collar, and black tie must be worn. The numeral must be worn on the left-hand lapel of the tunic, and the S.A.R. badge on right-hand lapel of tunic. The classification badge must be worn in front of cap or hat, as the case may be.

3. Uniforms for female staff.

(*a*) *Winter.*

Jacket with blue tie, skirt or slacks, and cap. The S.A.R. badge and numeral must be worn on front of cap, with numeral below.

(*b*) *Summer.*

Open collar dress and monogrammed hat.

4. When no uniform is provided but cap or hat is supplied, the classification badge and numeral must be worn in front of such cap or hat.

Only authorized badges must be attached to uniforms.

5. Officers and employees issued with uniforms must wear them at all times when on duty, must not appear partially uniformed except as provided in paragraph 6, and such uniform must not be worn when not on duty other than when reporting for or returning from duty.

6. Uniformed officers and employees may remove their uniform tunics if the temperature exceeds 27°C.

Clean shirts must be worn of blue, grey or white colour, without stripes or patterns, together with black tie. Braces must not be worn.

7. Station Masters and other officers responsible for the supervision of uniformed staff must inspect such staff as they report for duty. Any uniformed employee who reports for duty and presents and untidy appearance must not be permitted to commence duty, and such employee will not be paid for any time lost in consequence thereof.

8. Applications for equipment must be made on the prescribed form. In the case of the replacement of any article of equipment (other than automatic due to time expiry), no such equipment shall be replaced until the old equipment has been inspected by a responsible officer and such replacement authorized.

9. At locations where graded Shunters and Assistant Shunters are employed, and where a uniformed employee is rostered to temporarily act at such locations as a Shunter or Assistant Shunter for a full shift, he must not wear his uniform, but will be issued with a bib-overall, and in cases where a uniformed employee may be required to act intermittently in the above grades during the period of his shift, such employee will be entitled, whilst so employed, to be issued with a bib-overall to protect his uniform.

10. An officer or employee will be permitted to retain old uniform equipment or overalls when issued with new equipment, except in cases where he is appointed to another grade for which uniform equipment is not issued, or to a grade entitling him to a different type from that held, or severs his connection with the service. In such cases, the uniform equipment must be returned to the responsible officer.

AGENTS, ETC., HINDERING STAFF WHILE ON DUTY

Agents, canvassers, and other unauthorized persons must not be permitted to conduct private business with the staff when on duty.

STATE OR COMMONWEALTH ELECTIONS

Officers and employees are not to undertake any duties in connection with either State or Commonwealth elections without the Railway Commissioner's authority.

TRAINING EMPLOYEES

Supervising officers are expected to see that junior and other employees under their control are afforded opportunities of acquiring such experience in practical Railway working as will increase their usefulness to the Department, and enable them to qualify for higher positions in the service.

In this connection classes of instruction and correspondence courses are provided by the Railways Institute as under:—

*General and Train Working Rules
*Three Position and Automatic Block Signals
*Train Order Working
*Electric Staff Block Working
*Permissive Block Working
*Guard's duties
*Signalman's duties
*Crossing Keeper's Rules
*Ticket collection and examination
Trainee Engineman's preliminary examination
Fireman's mechanical examination
Westinghouse Air Brake (for Loco. Running Employees)
Westinghouse Air Brake (for Mechanics)
Westinghouse Air Brake (for Transportation employees)
Engine Working
Train Examiner's duties
Boiler Attendant's duties
Running Foreman—Chargeman and Shed Marshaller's duties
Assistant Shed Marshaller's duties
Charge Cleaner's and Chargeman's Mate's duties
*Maintenance of Way and Platelaying
*Meter Reading
*Rules for Maintenance employees:—*e.g.*, Packers, Maintenance of Way; Gangers; Signal and Telegraph Staff; Way and Works Staff

A correspondence course is available regarding the proper use, care, and running maintenance of motor (petrol) driven vehicles used by Maintenance of Way Staff.

Passes covering the journey will be issued to those attending lectures and examinations conducted by the Railways Institute.

* Also taught by correspondence.

SUGGESTIONS FOR IMPROVEMENTS

If a Railway employee considers he can suggest improvements in the method of working, or any new design or appliance which will lead to greater safety, efficiency, or economy, he should forward such suggestions direct, by post or otherwise, addressed to the Secretary, Suggestion and Inventions Committee, Commissioner's Office, Adelaide, when arrangements will be made to give the

proposition careful consideration, and if, after investigation, the suggestion is found to be original, and worthy of adoption, suitable recognition will be granted by the Railways Commissioner.

PASSES, PRIVILEGE TICKETS, ETC.

1. Passes, other than provided for in these instructions, shall be issued only with the special approval of the Railways Commissioner.

2. No persons other than those actually engaged in the working of the train, such as Guards, Enginemen, Firemen, Rail Motor Drivers, Ticket Collectors, Train Porters, Conductors, and Dining and Cafeteria Car Staff, and Power Car Staff are permitted to travel without a pass or ticket, or payment of the fare, except as hereafter provided.

3. All persons travelling with passes are required to produce them on each occasion when tickets are examined and collected. In the event of a person failing to produce his pass when required the regular fare must be demanded, and, if not paid, the circumstances reported but care must be taken in carrying out these instructions not to give any avoidable offence to passengers.

4. Privilege Tickets and Passes (except Gold Passes and those held by Railway officers and employees travelling on duty) are not available by private or guaranteed trains unless the charterers or their representatives consent thereto, on the condition that no revenue is credited by the Commissioner to the train concerned in respect of travel of such pass or privilege ticket holders.

5. Any person holding a pass or privilege ticket who travels beyond the distance for which it is available must pay the full ordinary fare for the extra distance so travelled and the booking fee specified in By-law A.

6. If there be any reason to suppose that the person presenting the pass or privilege ticket is not the legitimate holder, he must be asked for his name and address, which must be forwarded to the General Traffic Manager. through the Superintendent, with a report of the circumstances.

7. No person must be allowed to travel with a privilege ticket or pass after the period for which it was issued has expired. The name and address of any person presenting such privilege ticket or pass must be taken, and he must be called upon to pay full fare for the distance over which he has travelled, in addition to the booking fee specified in By-law A.

8. Privilege tickets and passes being, as in the case of ordinary tickets, the property of the Railways Commissioner, the holders are in no cases to be allowed to retain them after date of expiry, and every effort must be made by the staff to ensure their collection. Should any pass be not collected or used, the member of the staff to whom it is issued will be held responsible for its prompt return to the Issuing Officer.

9. Passes, as collected must be forwarded to the Comptroller, entered on the prescribed form, and that officer will take steps to collect uncollected passes.

I—GOLD AND STANDARD BOOK PASSES

10. The following passes are available over lines controlled by the South Australian Railways Commissioner, and are also available for sleeping berths without payment:—

Type of Pass	Held by
Gold	Governor-General and Lady
Gold	State Governors and Ladies
Gold	Members of State Legislature
Gold	Members of other State Legislature
Gold	Members of New Zealand Legislature
Gold	Railways Commissioners of Australia
Gold	General Manager and Assistant General Manager of Railways of New Zealand
Gold	Heads of Branches and other principal Officers of the Commonwealth and other Government Railways of Australia
Gold	Principal Officers of Railways of New Zealand
Gold	State Judges of South Australia (see Clause 11)
Gold	Ex-Ministers of State Legislature other than South Australia
Gold	Officers of the South Australian Railways (see Clause 11)
Commonwealth Standard Book	Those in possession.

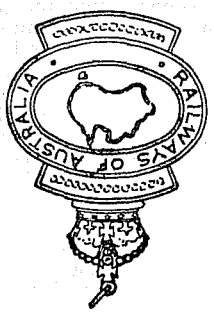
11. Gold passes held by officers of the South Australian Railways of the design shown in subclause (*f*) of clause (12) are available for sleeping berths over the South Australian Railways.

Gold passes held by Judges of the Supreme and Industrial Courts of South Australia are not available for sleeping berths on interstate trains, and are only available over the South Australian Railways.

12. **Description of Gold Passes in Use**—Only the Gold Passes described herein may be accepted by the staff as available over the Railways controlled by the South Australian Railways Commissioner:—

(*a*) Commonwealth:—

His Excellency the Governor-General and Lady hold passes of the following design:—



(*b*) South Australian State Parliament:—

Members of the Legislative Council and House of Assembly: These passes are available over the whole of the Railways of Australia and New Zealand, and are similar in design to the Commonwealth pass, with the following exceptions:—

(1) on obverse of pass is shown a number;

(2) on reverse of pass is engraved the words "State Parliament of South Australia".

His Excellency the Governor of South Australia and Lady hold a similar type of pass suitably engraved.

(*c*) Other State Parliaments:—

The passes held by Governors (and wives) and the members of the Legislatures of Victoria, New South Wales, Queensland, Western Australia, Tasmania, are of similar design to those held by members of the South Australian State Legislatures.

New Zealand:—

The passes held by members of the House of Representatives are inserted "Free Pass, N.Z.R." on the obverse, and "House of Representatives" on the reverse; and those held by members of the Legislative Council are inscribed "Free Pass, N.Z.R." on the obverse, and "Legislative Council" on the reverse. The lettering is in gold on blue enamel.

(*d*) Railways Commissioners' Passes:—

Official designation of holder:—

Railways Commissioner of South Australia
Commissioner, Commonwealth Railways
Railways Commissioner of New South Wales
Railways Commissioners of Victoria (3)
Railways Commissioner of Queensland
Railways Commissioner, Western Australia
General Manager, Tasmania.

The following is the design of the pass:—

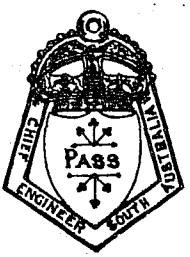
In addition, such design of pass is held by ex-Commissioners of the Commonwealth and State Railways, and General Manager of the New Zealand Railways. The undermentioned also hold similar passes suitably endorsed:—

New Zealand (General Manager)

New Zealand (Assistant General Manager)

(*e*) Heads of Branches:—

Gold passes of the designs shown below are held by Heads of Branches of the Australian Government Railways:—



(*f*) Other Officers' and Judges' Passes:—

Judges of the Supreme and Industrial Courts of South Australia and certain South Australian Railway Officers hold passes of the following design:—

(*g*) Gold Passes when held by Railways Officers are available for travel on engine or by brakevan.

13. **Travel Warrants for Members of Federal Parliament**—Members of both Houses of the Federal Parliament, have been issued with a medallion for identification purposes and as a badge of office. This medallion is not available for travel by rail.

Each Member of the Federal Parliament has been supplied with a book of warrants of standard design for all States to cover rail travel with the exception of travel wholly within a suburban area. Members will sign their own warrants.

SPECIMEN OF WARRANT
COMMONWEALTH OF AUSTRALIA

No.....

The Parliament,

.....

Please issue to.....
.....ticket } from.....
..... }
to.....and render account to Accountant, Department of the Interior, Canberra.

....
Senator or Member

Not to be honoured if bearing any erasure or alteration

Book Passes

(*a*) *Commonwealth Officials*—The following officers of Commonwealth Departments hold standard book passes of the design shown hereunder:—

Director-General of Posts and Telegraphs
Deputy Director-General of Posts and Telegraphs
Assistant Director-General (Finance and General Services)
Assistant Director-General (Engineering)
Assistant Director-General (Telecommunications)
Director of Accounting
Director (Personnel)
Assistant Director-General (Postal and Transport Services)
Private Secretary to the Postmaster-General
Officer Commanding Australian Fleet
Official Secretary to the Governor-General
Comptroller to the Governor-General
Aides-de-camp to the Governor-General.

OUTSIDE

(FRONT)

FIRST CLASS

(AUSTRALIAN)

(BACK)

FIRST CLASS

(AUSTRALIAN)

INSIDE

No.

GOVERNMENT RAILWAYS OF AUSTRALIA

FIRST CLASS

Issued to .....

.....

For travel .....

.....

.....

Available from ....19.....

to .....19.....

This Ticket is issued subject to the By-laws and Regulations in operation on the Railways over which it is available.

.....

Secretary for Railways

.....

Available for Sleeping Berth and Reserved Seats.

NOT TRANSFERABLE.

These passes will be signed by the Secretary for Railways in the issuing State.

(*b*) An Inter-System Book Pass (colour Blue) is available for travel on specified journeys over any Government Railways of Australia. Unlike the Standard Australian Book Pass (see subclause (*a*)), this pass is not available for reserved seat or sleeping berth unless it be specifically so endorsed. The ticket checking and collecting staffs must see that reserved seats or sleeping berths are not occupied free of charge by holders of these passes unless the pass be so endorsed.

(*c*) A book pass, as shown hereunder, has been issued to holders of the Victoria Cross, and is renewable annually.

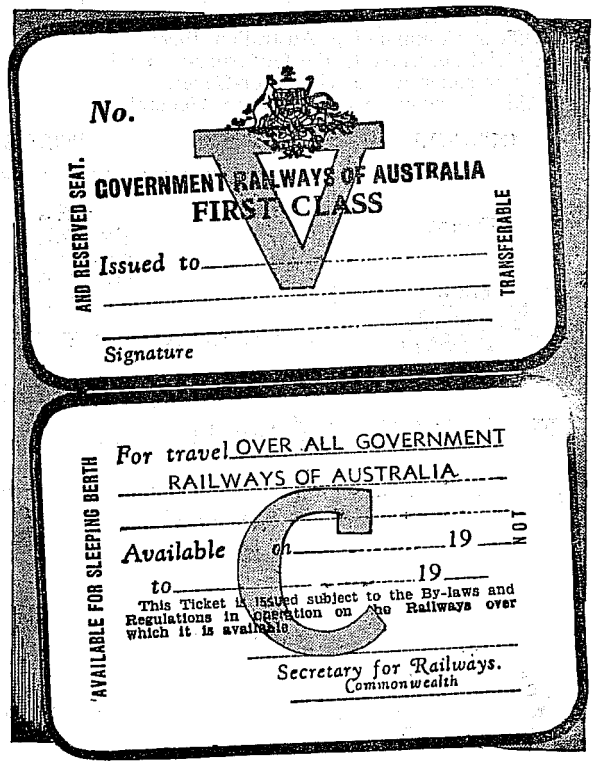
Outside
(Front and back)

FIRST CLASS

(AUSTRALIAN)

V C

Inside



II—GENERAL

14. (*a*) All South Australian passes are signed by one of the authorized officers appointed to any of the following positions:—

Secretary's Branch

Railways Commissioner
Assistant to Railways Commissioner
Secretary
Chief Clerk
Industrial Officer
Chief Staff Officer

General Traffic Manager's Branch

General Traffic Manager
Assistant to the General Traffic Manager
Chief Clerk
Claims Agent
Manager, Catering and Trading Services

Chief Engineer's Branch

Chief Engineer
Assistant Chief Engineer
Chief Clerk
Resident Engineer, Southern Lines
Resident Engineer, Northern Lines
Resident Engineer (Works)
Signal & Telegraph Engineer
Staff Officer

Chief Mechanical Engineer's Branch

Chief Mechanical Engineer
Assistant Chief Mechanical Engineer
Chief Clerk
Staff Officer
Loco. Superintendent, Adelaide

Comptroller's Branch

Comptroller
Chief Clerk
Expenditure Accountant
Revenue Accountant

Adelaide Division

Superintendent
Head Clerk
Assistant Superintendent, Transportation (3)
Relieving Assistant Superintendent, Transportation

Peterborough Division

Superintendent
Head Clerk
Assistant Superintendent, Transportation
Assistant Superintendent, Locomotive
Assistant Superintendent, Maintenance

Murray Bridge Division

Superintendent
Head Clerk
Assistant Superintendent, Transportation
Assistant Superintendent, Maintenance
Assistant Superintendent, Transportation, Mount Gambier
Assistant Superintendent, Transportation, Renmark

Port Lincoln Division

Superintendent
Head Clerk
Assistant Superintendent, Maintenance

The officers designated are authorized to sign privilege ticket orders in favour of any person in the service of the Railways Department in addition to passes.

(*b*) The following officers on construction work are authorized to sign "On Service" passes for employees travelling over division where work is being carried out, to return to their "home" station, and, also, privilege ticket orders:—

Officer in Charge
Assistant Engineer
Head Clerk

(*c*) In cases of sickness or extreme emergency, Station Masters may issue a written authority for the necessary train journey, if a signed pass or privilege ticket order be not available, to an officer or employee, the authority to be prepared in triplicate by carbon process. The top copy must be retained by the Station Master, one copy handed to the officer or employee travelling, and the third copy forwarded to the Superintendent, with a report of the circumstances.

(*d*) Any officer authorized to sign passes is precluded from signing passes or privilege ticket orders in favour of himself or dependents.

15. (*a*) Officers or employees with not less than twelve (12) months' continuous service (the concession is not granted to those with less service than that specified) may obtain station to station passes over the South Australian Railways for the periods of their annual leave, and for any gazetted leave taken immediately before or immediately after such annual leave, the class of pass to be in accordance with the grade of officer or employee as set out in clause 16. Such annual leave station to station pass may be taken at any period of the year, irrespective of whether the officer or employee is on annual leave or not, but it is to be distinctly understood that if such pass is taken whilst an officer or employee is on duty it will only be available for the period of leave with pay to which he may be entitled during the financial year, and that for whatever period it may be taken it will represent that proportion of his leave pass for the year. If, however, for any reason annual leave be taken in instalments, a station to station pass may be issued on each occasion to cover his entitlement of any leave so taken.

In special cases where a destination pass is issued, single journeys are to be debited as one day and return journeys as two days against the Station-to-Station pass entitlement. Similarly, when Railways of Australia Inter-system Paper Passes are issued for travel from a South Australian Station direct to an inter-system destination, two days are to be debited against the station-to-station pass entitlement.

(*b*) When an officer or employee is permitted to take gazetted holidays at one time, other than immediately before or immediately after his annual leave, he may be granted a station to station pass for himself, wife and family, covering such days. Members of the staff taking gazetted holidays in instalments, at their own request, will not be issued with station to station passes, but should an officer or employee be compelled to take such gazetted holidays in instalments owing to departmental requirements or convenience, a station-to-station pass may be issued, provided such holidays are taken in instalments of not less than two days, *e.g.*—

(i) When an officer or employee applies for, and is granted, gazetted holidays in instalments, such can only be regarded as having been voluntarily applied for, and the person concerned is not entitled to a free pass.

(ii) When an officer or employee is definitely advised that he must take gazetted holidays in instalments to suit departmental requirements or convenience, he is entitled to a free pass when taking such holidays, provided they are taken in instalments of not less than two days.

(iii) When an officer or employee only works two, three, four, or five gazetted holidays, and takes same in one instalment, he is entitled to a free pass.

(*c*) In cases where annual leave is taken in instalments of not less than two days and such leave is taken commencing on a Monday, the passes for travel may be dated as from the previous Saturday, or in the case of officers and employees working a five-day week, the passes may be dated as from the previous Friday. This also applies to gazetted leave taken in accordance with subclause (*b*) of clause 15.

(*d*) "Solely dependent" means, "not in receipt of any remuneration whatsoever". The definition "solely dependent" will, however, include any dependent whose sole income is derived from a pension granted by the Commonwealth Government, or a pension received under the provisions of the Superannuation Act, provided however, such pension does not exceed $4 per week.

(*e*) The wife and children (any number), also stepchildren, of each officer or employee may be included on such station-to-station pass, irrespective of age or ages, of the children (with the exception of males who have attained 21 years of age), provided the children are not married and are solely dependent upon the officer or employee concerned.

(*f*) Adopted children may also be included on station-to-station passes, but the officer or employee making the application must certify that such children are legally adopted as prescribed under "Adoption of Children Act", otherwise the concession will not be granted.

(*g*) Wives and/or dependent children will be granted passes whilst visiting the employee concerned *in hospital* following injury on duty, as under:—

(1) Application for such free travel to be made to the Secretary, who, after verification will issue necessary pass.

(2) In the suburban area, a pass to be issued to the wife which will include dependent children for a period in the first instance not in excess of 14 days, such to be increased if necessary.

(3) In the country, the Superintendent concerned to be advised that destination return pass is to be granted to the wife and children as and when required, for the purpose of visiting the injured husband in hospital, either in the city or country town.

(4) Class of travel to be that to which the injured employee is entitled.

16. (*a*) First class passes will be granted, in accordance with travel during annual leave and long service leave, in accordance with the following:—

(1) To all officers, including Temporary or Acting Clerks, and Female Clerks.

(2) On completion of 10 years' continuous service, daily paid employees will be entitled to first class passes while on annual leave, and one first class destination pass per month while on long service leave for self, wife and dependent children. Such passes are for travel over South Australian lines only, and not interstate.

(3) Daily paid employees in the service prior to 1/7/64 who qualify for first class passes after 1/7/64 by virtue of attaining the positions of Leading Hand, First Class Guard, graded Engineman in receipt of the maximum prescribed rate, ex-First Class Guards and ex-Enginemen previously entitled to first class passes (except those who have been reduced for disciplinary reasons), Inspectors, Foreman Hairdresser and Foreman Baker, will be granted first class passes irrespective of length of service.

(4) Daily paid employees, entering after 1/7/64 will become entitled to first class passes only after 10 years' continuous service, and not on being appointed to any of the positions stated in paragraph 3 above.

(*b*) Economy class passes are issued to all those not included in subclause (*a*).

(*c*) First class passes are granted to those acting in positions carrying such class of pass, provided they are so acting at the time of commencement of leave and have been acting for a minimum period of six months.

(*d*) Applications for station-to-station passes must be made on the prescribed form and state the respective periods of paid and special leave which the passes are to cover. First and economy class paper passes may be issued for return journeys as required.

17. Heads of Branches and Superintendents may, at their discretion, issue a separate station-to-station pass for the period of his paid leave, or part thereof, in favour of the wife and children of an officer or employee, when it can reasonably be shown that it is not convenient for them to travel at the same time as such officer or employee.

A further station-to-station pass in favour of any, or all of the children of an officer or employee may be issued in similar manner when it can be reasonably shown that it is not convenient for any, or all, of the children to travel at the same time as either of the parents.

18. In the case of a widower, or an unmarried man, who has either mother, one sister, or other relative to keep house regularly for him, that mother or sister or other relative may be granted a free return pass between any of two stations on the South Australian Railways once each financial year, provided that she is solely dependent upon him for support, and each application for a pass must be *accompanied by a certificate* to that effect. Housekeepers, as defined, cannot be included on station-to-station passes. (See definition of dependent, clause 15, subclause (*d*).)

19. (*a*) Should any officer or employee be granted special leave of absence in addition to his annual leave, the availability of his station-to-station pass may be extended to embrace same, provided that such special leave does not exceed 14 days. Should this special leave exceed 14 days, a single journey pass may be obtaind to enable him and those included on the pass to return to his home station, available up to the date of expiration of the said leave.

(*b*) In the event of an officer or employee returning to duty at the expiration of his leave, or, where such leave is divided, at the expiration of any such period of leave, and his wife and/or children desiring to prolong their holiday, a single journey pass may be issued to enable them to return home, but this concession is restricted to a maximum of three such passes in each financial year.

(*c*) A Destination pass may be issued to the wife and/or children of an officer or employee if their names are not shown on station-to-station pass, but no such pass can be granted whilst their names appear on the station-to-station pass. A Destination pass may be issued to an officer or employee if his name is not shown on station-to-station pass, but no such pass can be granted whilst his name is shown on the station-to-station pass.

(*d*) Any officer or employee who desires to visit another State during the currency of his leave may be granted a separate return pass for the South Australian portion of the journey, if he desires that the station-to-station pass be retained by members of his family in accordance with subclause (*c*).

20. Where there are two routes to any given station, the holder of pass may travel by either route.

Staff leave passes may be used as platform passes irrespective of whether the train at the platform be a "guaranteed" train or not.

21. Any officer or employee granted extended leave on pay under the provisions of Act governing long service leave may be granted the following concessions:—

(*a*) Free return passes between any two stations on the South Australian Railways, but in no case must the number of passes issued exceed one per month; and

(*b*) A station-to-station pass provided that such pass takes the place of that to which the officer or employee would be entitled when on annual leave. Such pass will only be available for the period of the annual leave. If the officer or employee has already taken out annual leave station-to-station pass, he is, of course, not entitled to other than the concession shown in subclause (*a*) when on long service leave.

The dependants of an officer or employee may be included on such pass, provided that clauses 15 and 18 hereof are not contravened.

22. (*a*) Female office cleaners may be issued with station-to-station passes for themselves only.

(*b*) Caretakers and Crossing-keepers, who are not wholly and permanently employed by the Railways Commissioner, will, while on leave, each be granted one Economy class return pass annually for self only between any two stations on the South Australian Railways.

23. The holder of an Economy class pass is permitted to travel first class on payment of the difference in fares as follows:—

(*a*) On a single journey pass	The difference between the first and Economy class single fares for the journey to be made in the higher class.
(*b*) For a return journey on a return journey pass (including station-to-station)	The difference between the first and Economy class return fares for the journey to be made in the higher class.
(*c*) If travelling for a return journey or on a station-to-station pass, and first class travel for only one way is desired	Half the difference between the first and Economy class ordinary return fares for the journey to be made in the higher class.

The pass holder must present the pass at the station from which the journey will be commenced, pay the difference in fares, and obtain excess fare receipt. After excessing, a sleeping berth may, if available, be booked at the regulation charge.

24. Heads of Branches and Superintendents may issue annual leave passes for officers and employees in their Branches or Divisions available over State-owned lines, also such service passes as may be necessary.

25. (*a*) Temporary officers or employees are entitled to passes in accordance with the Regulations after 12 months continuous service.

(*b*) Certain grades of employees in receipt of casual loaded hourly rates are not entitled to annual leave, but if they can be conveniently spared, they may be granted annually, leave of absence without pay up to periods of 12 working days, in which case they will also be allowed station-to-station passes similar to other employees after 12 months' continuous service. If any such employee cannot be conveniently spared, the pass, which, under the preceding sentence, would have been granted to him, may be issued to his wife and children.

26. Free return passes to and from their homes may be issued fortnightly to married officers and employees who have been transferred and are unable to obtain house accommodation for their families at the points to which they have been transferred, provided that the requirements of the Service will permit of their absence from their Home Stations. Application for necessary leave and passes must, in all cases, be made by men concerned to their immediate Superior Officers.

27. A return of all passes issued must be sent by the Head of each Branch and Superintendent of each Division to the Comptroller on the prescribed form, not later than the tenth day of each month, such return to include all passes issued up to and including the last day of the preceding month.

28. Passes over the South Australian Railways are, at specified times during the year, viz., Christmas and New Year Holidays, Easter Holidays, and at times of Melbourne Cup, subject to certain restrictions, particulars of which are advertised in the *Weekly Notice* from time to time.

29. Applications for free passes must reach the office of Head of Branch, or Superintendent of Division, at least one week before the date for which they are required.

30. Any misuse of a pass, or abuse of the concession in any way, will subject the officer or employee concerned to instant dismissal.

31. In the case of an officer or employee desiring to proceed by rail in order to sit for either the Railway Clerical or Professional Examinations, passes may be issued, the class of pass being subject to clause 16 hereof.

32. Any officer or employee who has been over 12 months continuously employed in the Service, and who is retrenched, may, in the event of his re-entering the Service within a period of six months from date of retrenchment, be granted passes to which, by continuous service, he was entitled at time of retrenchment.

33. Any officer or employee who voluntarily retires from the Service or is dismissed, and who subsequently re-enters the Service, will, so far as passes are concerned, be treated as a new entrant.

34. (*a*) Officers and employees may receive Instructional Passes for travel between their "Home" or residential station and/or Adelaide, and/or such other station as necessary, for the purpose of attending Instruction Classes. The type of pass is as under, and may be issued in accordance with the instructions in subclause (*b*), (*c*), and (*d*).

SOUTH AUSTRALIAN RAILWAYS

INSTRUCTIONAL FREE PASS No.....ECONOMY CLASS.

Only available for use between.....

and.....to attend *Ambulance *Trades School or *S.A.R. Institute

term ending.....

Issued to.....

* Strike out words not required

NOT TRANSFERABLE

Date of travel	Certificate of Authorized Officer	Certificate of Instructor
(1)	(2)	(3)

This Pass must only be recognized when certified to by one of the authorized Officers on forward journey, and Instructor for return journey.

Any employee detected attempting to use this Pass for other than the purpose for which it is issued will be severely dealt with.

Fresh Pass will not be issued until this one is returned.

This Free Pass is granted by the S.A.R. Commissioner on condition that it is to be used only by the person in whose favour it is issued, and that its acceptance by such person is to be taken as evidence of an agreement that the Commissioner is not to be held liable for any pecuniary or other responsibility to the holder or his representatives for loss of life, personal injury, or for delay, or loss of, or damage to, property, however caused, that may be sustained by such person while using this Pass.

Issued by..... (Secretary's Name)
Secretary

A new pass will not be issued until the old pass is returned.

Officers and employees to whom these passes are issued must carefully read the conditions printed thereon.

Heads of Branches, and Superintendents, will be responsible for the correct issuing of the passes and their subsequent return and forwarding to the Comptroller with the usual Monthly return. When these passes are issued by the Head of the Branch, or Superintendent, they must be signed at the foot thereof by one of the authorized Officers as set out in clause 14.

If an officer or employee is not making sufficient journeys to warrant the issue of an Instructional pass, a return "Duty" pass may be issued, and the issuing officer must send advice of such issue to the Ambulance Officer, or the General Secretary, Railways Institute, as the case may be.

(*b*) Instructional passes covering the school term will be issued at the offices of the Chief Mechanical Engineer, Islington, and the Chief Engineer, Adelade, to Apprentices employed in the respective Branches to attend a Trades School or the Islington Technical College, and are available for travel between their residential station and the station nearest to the school or college attended.

(*c*) Instructional passes will be issued to officers and employees for travel from their "Home" or residential stations, for the purpose of attending Ambulance Lectures and/or examinations in order to qualify in First-Aid. This also applies to officers and employees attending squad practice. Columns 1 and 2 must be filled in and signed by the recipient's immediate Superior Officer, who, when signing, must state his grade or position. Column 3 must be signed by the Ambulance Officer or a member of the Ambulance Staff.

(*d*) Instructional passes will be issued to officers and employees for travel from their "Home" or residential stations, for the purpose of attending Instructional Classes or Band Practice at the South Australian Railways Institute. Columns 1 and 2 must be filled in and signed by the recipient's immediate Superior Officer, who, when signing, must state his grade or position. Column 3 must be signed by the General Secretary, or a member of the Railways Institute Staff, the Bandmaster or the Secretary of the S.A.R.I. Band.

35. **Free Carriage of Officers' or Employees' Children's Perambulator, or Conveyance of Similar Nature, or Officers' or Employees' Bicycle**—During annual leave, an officer or employee of the South Australian Railways, or the wife of an officer or employee, accompanied by the officer or employee's child, when travelling on a staff leave pass, is permitted to have a child's perambulator, or any conveyance of a similar nature used for the transport of a child, carried free over the South Australian Railways, and this must be suitably addressed, and labelled to destination station with the passenger's luggage label. The number of the pass held by the officer or employee must be endorsed on the label. No waybill will be necessary, and the article will be accepted and carried by the Commissioner solely at the owner's risk.

A bicycle may be carried under similar conditions, but the concession is restricted to either a bicycle or perambulator.

The concession will not apply when a privilege ticket is used.

Holders of privilege tickets and/or passes may insure luggage, delivered to the Commissioner for carriage in the brakevan or baggage compartment, in accordance with the rates and conditions, applicable to other passengers, as set out in the Coaching Book.

36. Certain employees are granted passes for use whilst travelling on duty. These passes bear the words "Duty" and/or "Duty Pass" stamped in red ink as follows:—

Card Pass—"Duty" on the outside; "Duty Pass 19 , . . ." on the inside.

Paper Pass—"Duty Pass" diagonally across the face.

The checking staff must see that these passes are not used except when the holders are travelling on duty, and should any doubt arise as to whether the use

of such a pass is being abused, the name and address of the holder and the number of the pass must be taken, and a full report forwarded to the General Traffic Manager, through the Superintendent of the Division, giving the number of the train, time and date.

37. Incapacitated soldiers' passes are issued from the office of the Secretary; such passes include those for blind soldiers. Blind civilians are carried in accordance with instructions in the Coaching Book.

III—RETIRED EMPLOYEES AND WIDOWS

38. (*a*) During the currency of long service leave at retirement account Age or Invalidity, an officer or employee may elect to take either a station-to-station pass for a maximum period of three (3) months during the period of any accrued annual or long service leave, or one (1) destination pass per month during the currency of long service leave.

On completion of long service leave, two (2) free return passes and twelve (12) privilege ticket orders may be issued in each financial year between any two stations on the South Australian Railways to any officer or employee who retires on or after attaining the age of 60 years (on an Actuarial pension).

(*b*) An officer or employee who is retired from service under the Invalidity provisions of the South Australian Superannuation Act may be issued with an Inter-system pass during the currency of any accrued long service leave provided such a pass has not been issued during the current financial year.

Such officer or employee may be issued with four (4) privilege ticket orders each financial year, but will not be entitled to any passes during the period of invalidity, but on attaining 65 years of age, will be entitled to passes in accordance with subclause (*a*).

(*c*) The widow of a deceased officer or employee is entitled to one (1) intra-state pass and six (6) privilege ticket orders each financial year provided that the husband had completed 10 years of service in the South Australian Railways.

(*d*) The concessions in subclauses (*a*) and (*b*) are also extended to include the wife of an ex-officer or ex-employee, or in the case of a widower or unmarried man, the housekeeper, provided that she is a relative, resident with and dependent upon such ex-officer or ex-employee.

(*e*) Privilege ticket orders may include the wife of a retired ex-officer or ex-employee, but whether the order covers the husband or wife, or both, it will count as one order.

(*f*) In every case applications for passes or privilege tickets under this section must be made to the Secretary (through Superintendents if more convenient). The class of pass or privilege to be issued will be equivalent to that which the applicant was entitled at the time of retirement.

In cases of emergency, applicants may obtain passes and privilege tickets from the nearest issuing station after the issuing officer has obtained the approval of the Secretary. (Telephone Extension 2507.)

(*g*) Inter-system Passes:—

Retiring leave—An officer or employee may be issued an Inter-system pass during leave taken after termination of Railway service. Private employment during such leave period will not debar the person concerned from enjoying this privilege.

Widows—An Inter-system pass may be issued to the widow of a deceased officer or employee provided this privilege is availed of within a period of 12 months of the husband's death.

(*h*) Retired officers or employees with not less than thirty (30) years' continuous service may be issued tickets at 50 per cent concession for Inter-system travel for self and wife only. Full rates are to be paid for seats, berths and meals. This concession also applies to widows of deceased officers and employees (including widows of retired officers and employees), with not less than thirty (30) years' service.

The concession ticket must be purchased for the complete journey and cannot be used in conjunction with a South Australian pass to the border.

There will not be any restriction on the class of travel or type of accommodation to be availed of. Travel on all trains will be unrestricted with the exception of the *Southern Aurora* and *The Indian-Pacific,* which will be totally restricted.

Application for authority to be issued with these concession tickets must be made at the office of the Secretary, Adelaide.

IV—WORKMEN VISITING HOMES

39. (*a*) Employees issued with duty passes, whose duties necessitate their working away from their Home Stations, and who are permitted to visit their homes during week-ends, or other periods, may use such duty passes for the purpose of travelling from and to their places of employment.

(*b*) Employees who are temporarily transferred, or are temporarily employed away from their Home Station, may be allowed free passes fortnightly to visit their homes, provided they can be conveniently spared, and their absence does not involve the working of overtime by any other employee or employees at their temporary location.

(*c*) Free passes (except travelling on duty) will not be granted to any employee other than for the purpose of visiting his home.

(*d*) Temporary employees engaged for the duration of relaying (other than relaying performed by Permanent Way Gangs) or construction work, will not be granted free passes to visit their homes at week-ends, but they may, if permitted to visit their homes, obtain Economy class privilege tickets, application for which must be made on the prescribed form.

"Construction work" in this subclause means construction of new railway lines, cottages, bridges, or any work of a like nature.

(*e*) Nothing contained in this section is to be taken as in any way altering the existing Commonwealth employment regulations in regard to the payment of fares of workmen to and from any jobs for which they are requisitioned.

V—INTERSTATE PASSES

40. (*a*) Officers and employees entitled under the foregoing instructions to passes over the South Australian Railways may obtain once each financial year, passes over the Commonwealth Railways and the Government Railways of Queensland, New South Wales, Victoria, Tasmania, and Western Australia.

(*b*) Each officer and employee may have his wife included on such interstate passes (excepting in Queensland and Western Australia if the wife has been in remunerative employment during the six months immediately preceding the date of travel). In the case of a widower or unmarried man, the concession may also be extended to the housekeeper, provided such housekeeper is a relative, keeps house regularly for him, and is solely dependent upon him.

(*c*) Children of officers and employees cannot be included on passes over the Railways of Queensland but will be allowed on passes over all other systems, provided they are accompanied by at least one parent, are under 18 years of age and are solely dependent upon the officer or employee concerned, and are entitled to be included on passes over the South Australian Railways.

(*d*) Separate Interstate passes cannot be issued in favour of the officer or employee and his wife, except in the case of Western Australia. If it be desired that the wife only should take advantage of the concession, then the officer or employee will forfeit his right to the pass for financial year concerned, and *vice versa.*

(*e*) In the event of an officer or employee travelling in another State desiring to allow his wife to prolong her stay after expiration of his leave, application should be made to the Office of the Secretary for Railways in the State concerned, where the matter will be arranged. Care must be taken to see that in all cases the name of the wife is deleted from the return passes.

(*f*) First class passes will be granted over all systems to all salaried officers. First class passes over the Victorian Railways will be granted to Leading Hands, special class Enginemen and graded Enginemen in receipt of the maximum prescribed rate, or ex-Enginemen, except those Enginemen who have been reduced for disciplinary reasons, Inspectors, Foremen Hairdresser, Foremen Baker, who received this privilege prior to 1st July, 1967, as long as they remain in the same grade, but the privilege will not be extended to future appointees to these positions.

(*g*) The holder of an Economy class pass desiring to travel first class may be permitted to do so for the specific journey to be undertaken, provided the destination is either a capital city or is a station to which ordinary tickets are issued, on payment of the difference in fares as follows:—

(*a*) On a single journey pass	The difference between the first and economy class single fares for the journey to be made in the higher class.
(*b*) For a return journey on a return journey pass (including station-to-station)	The difference between the first and economy class return fares for the journey to be made in the higher class.
(*c*) Holders of a return journey pass. Change of class in one direction.	(i) For travel over two or more systems—half the difference between the first and economy class return fares for the journey to be made in the higher class.
	(ii) For travel over one system—the difference between the first and economy class single fares for the journey to be made in the higher class.

The pass holder must present the pass at the station from which the journey will be commenced, pay the difference in the fares to the destination station, and obtain an excess fare receipt which must be produced on demand.

After excessing, a sleeping berth may, if available, be booked at the regulation charge.

(*h*) Any officer or employee travelling on out-of-date Interstate passes will be called upon to pay the full fare, and no refund of any fare so paid will be allowed through neglect to see that the passes are properly dated. (See sub-clause (*i*).)

(*i*) No pass bearing an alteration which has not been initialled by an officer duly authorized to make such alteration will be honoured. Should any alteration be required, passes must be presented at the Office of the Secretary for Railways

in whichever State the officer or employee may be travelling, and, in the event of an extension of time being required, proof must be produced that leave has been granted covering such extension.

(*j*) Interstate passes which are either uncollected or unused must be immediately returned to the Secretary, through Head of Branch or Superintendent.

(*k*) Applications for Interstate passes must reach the Superintendent of Division, or Head of Branch, at least 10 days, and the Secretary at least seven days before required.

(*l*) Interstate passes will be granted to officers and employees only after 12 months' continuous service.

(*m*) Interstate passes will only be issued to Cricket, Basketball, Bowls, Tennis, Golf, and Table Tennis Teams, when such teams represent the South Australian Railways Department, for which all applications (interstate or local) must be made through the General Secretary, South Australian Railways Institute, such passes issued not being recorded as annual leave passes against the members of the respective teams. Teams representing any Branch of the Department will not be granted passes unless such passes take the place of the annual leave passes to which members of the team would ordinarily be entitled.

The conditions of issue of these passes provide:—

> That the passes shall be issued subject to the restrictions that are advised in the *Weekly Notice*.

The instructions set out above are subject to the following proviso:—

> That leave passes will not be made available for restricted periods on the grounds that the holders are members of interstate sports teams.

The class of pass issuable to individual members of representative Interstate teams will be similar to the pass issued to the employee concerned when on annual leave. Station-to-station passes will be issued to members of Interstate teams whilst visiting South Australia.

VI—REFUNDS—INTERSTATE PASSES

41. (*a*) From time to time cases come under notice where Railway employees travel on passes on restricted dates or by prohibited trains, and then in making application for refund of fares collected, claim ignorance of any restrictions.

Applications for refunds for such travel will not be entertained.

(*b*) In the event of an interstate pass being lost in another State, the officer or employee concerned should immediately report the fact to the office of the Secretary for Railways in that State, or if that office be closed, to the Station Master of the nearest principal railway station.

(*c*) In the event of an officer or employee losing an Inter-system pass, Systems will replace such pass only with the prior concurrence of the officer's or employee's own System and then purely for the purpose of enabling the employee to return home.

Refund of fares paid will not be allowed where an officer or employee was able to obtain a pass before leaving his home State and neglected to do so.

(*d*) Certain restrictions obtain in respect to pass holders on Interstate trains, and relative information can be obtained from the office of the General Traffic Manager of this system.

VII—PRIVILEGE TICKETS

42. (*a*) With the view of affording facilities to persons employed in the South Australian Railways to travel for the purposes of marketing, recreation, etc., the Railways Commissioner concedes the privileges of allowing such persons to

travel at the fares applicable and an officer or employee desiring to obtain a privilege ticket must make application to his Supervising Officer on the prescribed form.

(*b*) An unlimited number of privilege tickets will be granted throughout the year other than travelling to and from work.

(*c*) Single privilege tickets will be issued to employees at two-thirds of the fare for a return privilege ticket. These tickets will have the same availability as ordinary single tickets.

(*d*) *Alternative routes*—Privilege tickets issued *via* the longer route to a station where there are two routes, are available by the shorter route.

(*e*) The availability of privilege tickets will be:—

Between two Metropolitan Stations—The forward journey must be commenced and completed on the date of issue stamped on the ticket.

The return journey portion of the ticket is available for return as follows:—

Ticket issued on:—

Sundays Mondays Tuesdays Wednesday Thursdays	until the following day.
Fridays Saturdays	until the following Monday.

When the date of expiry is a public holiday, the ticket is available for return on the day following the public holiday.

When Metropolitan ordinary return tickets are issued at any special period, covering a greater availability than that for privilege tickets (as set out above) privilege tickets issued during such period will be entitled to the same availability as ordinary tickets.

The journey cannot be broken either way, except at Adelaide, Salisbury, Dry Creek, Goodwood, Woodlands Park, Woodville, Albert Park, Glanville or Port Adelaide Dock, without surrendering that portion of the ticket on which the journey be broken at the station where the passenger alights.

Between two country stations or between a country and a metropolitan station—The forward journey must be commenced on the date of issue and completed within seven days after the date of issue stamped on the ticket.

The return journey must be completed within two months after the date of issue stamped on the ticket. Break of journey is permitted on both the forward and return journeys at any stations *en route* during the currency of the ticket, the same conditions of availability applying as for ordinary single or return tickets.

(*f*) Officers and employees will be granted privilege tickets (subject to other existing conditions) from the time they enter the Railway Service. Any number of members of one family may be included on one order, provided the instructions herein are otherwise complied with.

(*g*) No officer or employee will be granted an order for a first class ticket who would not, under clause 16 be entitled to a first class pass, nor will any refund be allowed for any portion of the journey where only Economy class accommodation is provided.

(*h*) Holders of Economy class privilege tickets travelling Intrastate may excess to first class in order to obtain sleeping accommodation.

The normal restrictions that are relevant in the reservation of sleeping berths by pass holders will apply to holders of privilege tickets. Payment must be made of sleeping berth fee and the difference between first and Economy class ordinary single or return fares for the journey to be made in the higher class.

Application for approval to excess to first class in order to obtain a sleeping berth must be made to the Head of the Branch concerned.

(*i*) Privilege tickets are not issued from North line stations to Semaphore, Outer Harbour, and other stations including and west of Port Adelaide, except via Adelaide.

(*j*) These forms must be signed by one of the officers named in clause 14.

(*k*) Privilege tickets must only be issued to the officer or employee signing the application, or to the person in whose favour the order is made out.

(*l*) This concession is extended to the wife of an officer or employee and to his children (including step children) provided that the children are resident with and dependent upon him; also in the case of a widower or unmarried man, to the housekeeper, provided she is a relative and is resident with and solely dependent upon the officer or employee. The concession will also apply to any legally adopted children. Scholarships or bursaries are not to be considered as remuneration.

(*m*) No son or daughter in receipt of remuneration in excess of $2.30 per week in cash or kind from any source will be considered dependent upon the officer or employee nor will the concession be extended to any married son or daughter. Also, the concession will not be extended to any son of an officer or employee who has attained 21 years of age; nor will any son or daughter be entitled to this concession who is working away from home and for whom board and lodging is found by the employer.

(*n*) Children who are working away from home and not receiving remuneration in excess of $2.30 per week in cash or kind for whom board and lodging is not provided by the employer, also children who are attending school and resident away from home, may be granted privilege tickets conditionally upon the Head of Branch, or Superintendent being satisfied regarding the *bona fides* of each case. The applicant must certify in accordance with this subclause and the Authorizing officer endorse the privilege ticket order "Clause 42, subclause (*l*)".

(*o*) Tickets at half fares shown in subclause (*d*) may be issued to children over 4 and under 15 years of age. When a half-fare ticket is required the age of the child must be inserted on the privilege ticket order. If application is made for privilege ticket for a son his age must be shown in every instance whether a half or full fare ticket is required.

(*p*) Station Caretakers who are not wholly and permanently employed by the Railways Commissioner may obtain, for their personal use, eight (8) privilege tickets each financial year upon application to the Superintendent of their Division. The numbers must be recorded. Privilege tickets will not be issued to any of the following personnel working in conjunction with these railways:—

Caretakers of Barracks

Lessees of Hostels

Lessees of Refreshment Rooms

Ticket Agents

Transfer Contractors and their staff.

(*q*) Any officer or employee granted extended leave on pay under the provisions of the Act governing long service leave may have privelige ticket orders issued to him during such period of leave.

(*r*) Any abuse of this privilege will subject the officer or employee concerned to instant dismissal.

(*s*) All privilege tickets issued must bear on the face the words "Privilege", either stamped or written legibly. Blank tickets must be used where printed tickets are not held.

(*t*) No order for privilege ticket bearing an erasure or alteration shall be accepted, unless such erasure or alteration is signed by a duly authorized officer.

(*u*) Privilege tickets must not be issued for guaranteed trains, *vide* clause 4.

(*v*) Privilege ticket orders must be presented at booking stations at least 15 minutes before departure time of train.

(*w*) Applications for privilege tickets must be made in sufficient time to allow of their being dealt with in the regular manner and returned to the applicants before the dates on which the tickets are required. Refunds of fares paid on account of failure to obtain privilege tickets will not be considered except in special circumstances.

(*x*) Members of officers' or employees' families are precluded from signing application forms except under special circumstances, when, upon prior approval by Head of Branch, such order may be issued.

(*y*) Uncollected privilege tickets must be handed in at the nearest station or returned by the holders to their immediate Superior Officers.

(*z*) Applications may be accepted for privilege tickets to be issued from Smithfield and stations north thereof to Virginia and stations north thereof (via Adelaide), and *vice versa,* the charge being based on the sum of the mileages from the commencing station to Adelaide, and Adelaide to destination. Such tickets must be endorsed via Adelaide, both portions, if return tickets.

(*aa*) The alternate route conditions applicable to ordinary single and return tickets as set out in the *Coaching Book,* also apply to privilege tickets. When, however, the holder of a privilege ticket for travel by the shorter route desires to travel by a longer alternate route, and under the alternate route conditions is required to pay excess for the additional distance involved, such additional distance not covered by the original ticket must be excessed at the commencing rate for privilege ticket and not at the rate for a continuous journey. If excessed on the forward journey, the excess collected would also cover travel over the longer route on the return journey.

Employees of the Commonwealth Railways holding privilege tickets for travel over the South Australian Railways, and requiring to be excessed for travel by an alternate route for a single journey only, should be charged half the ordinary rate for privilege tickets, the excess fare ticket to be endorsed "Single Journey", and if on the forward journey the word "Forward" added.

(*bb*) Victorian Railway officers and employees, and members of their families resident with and dependent upon them, permanently stationed in South Australia may be granted privilege tickets over the South Australian Railways in accordance with the rates and conditions provided in clause 41, subclauses (*a*) to (*aa*).

(*cc*) Victorian Railways officers and employees and members of their families resident with and dependent upon them, stationed at Serviceton may be granted privilege tickets for travel between that station and Bordertown, in accordance with the rates and conditions provided in clause 42, subclauses (*a*) to (*aa*).

VIII—WESTERN AUSTRALIAN RAILWAYS

43. All officers and employees in possession of passes travelling to and from Perth on connecting services with C.R. Expresses must hold both meal and sleeping berth tickets.

IX—COMMONWEALTH RAILWAYS

44. Officers and employees of the South Australian Railways may obtain two privilege tickets per annum, in addition to a free pass, for travel over the Commonwealth Railways on the following conditions.

(*a*) The fares are on a distance scale, at the same rate as those in force for privilege tickets on the South Australian Lines.

Privilege tickets for travel over the Trans-Australian and Central Australia Lines are issued for both single and return journeys, at the following rates:—

Return tickets—Calculated at privilege ticket rates applicable over the South Australian Railways.

Single tickets—Calculated at one-half privilege ticket rates applicable over the South Australian Railways.

(*b*) Each passenger holding a privilege ticket for the whole journey between Port Pirie and Kalgoorlie, in either direction must pay for sleeping berth accommodation and for meal tickets according to the class of ticket held, and generally in accordance with the scale and conditions applicable to ordinary passengers, as published in the Coaching Book.

(*c*) The two privilege ticket orders granted to each officer and employee, may cover the issue of tickets for the officer or employee, his wife, and/or children residing with and dependent upon him. Maximum age for children—Males, not exceeding eighteen (18) years; females, any age. This concession will also apply to a widower or unmarried man who has his mother or one sister, or other relative who keeps house regularly for, and is solely dependent upon him. (See definition of dependent, clause 15, subclause (*d*).)

(*d*) Availability of tickets not to exceed one month for single journey, and three (3) months, for return journey, except upon special approval of the Secretary, South Australian Railways Commissioner.

(*e*) The following restrictions will apply in respect of travel over the Trans-Australian Railways:—

(1) Total restriction during the week ending Easter Monday and from 8th December, to 31st January, inclusive;

(2) Partial restriction from 25th August, to 7th October inclusive, and from 1st to 7th December inclusive, during which times a limited quota is in operation.

(3) At all other times of the year no restriction or limiting quota will apply unless otherwise notified.

There is no restriction for the issue of passes on the Central Australian Railway.

(*f*) The tickets will be issued at either Adelaide or Port Pirie. Tickets must be taken out as early as possible after receipt of approval.

(*g*) The tickets must be applied for on a special form, supplied by the Superintendent, or Head of Branch, who will forward same to the Secretary for approval.

(*h*) Holders of Economy class privilege tickets are not permitted to excess to first class except where circumstances warrant special consideration. In such cases, travel in the higher class may be authorized by the Chief Traffic Manager, Commonwealth Railways, Port Augusta, when payment of the difference between first and Economy class ordinary fares in addition to the cost of an Economy class privilege ticket will be required. Where the circumstances justify travel in the higher class for the return journey, the excess fare will be based on the difference between the first and Economy class ordinary return fares where return tickets are issued.

Commonwealth Employees Over South Australian Railways

45. (*a*) The conditions of the issue of privilege tickets are the same as shown in clause 42, except that single tickets are charged at half return fare.

(*b*) Orders for tickets for Commonwealth Railway employees over South Australian lines must be signed:—

Privilege Ticket Orders issued at Melbourne:—

By the Secretary, Commonwealth Railways; or his authorized representatives.

Employees located on Trans-Australian or Central Australia Railways:—

By the Chief Mechanical Engineer, the Chief Civil Engineer, the Chief Traffic Manager, or the Comptroller of Accounts and Audit, or their authorized representatives.

Employees located on the North Australia Railways:—

By the Manager; or his authorized representatives.

(*c*) Availability of Inter-system tickets not to exceed one month for single journey and three (3) months for return journey, except on special approval of the Secretary, Commonwealth Railways.

The availability of privilege tickets issued to Commonwealth Railway Employees for travel to stations on the South Australian Railways is:—

Single tickets	one month
Return tickets:—	
Forward Journey	one month
Return Journey	three months

Break of journey permitted at any station *en route*.

Officers issuing privilege tickets on account of Commonwealth Railway Employees must endorse the back of return tickets as follows:—

Forward half—Com. 1 month. Return half—Com. 3 months

Certain Commonwealth stations have printed privilege tickets for travel from Port Pirie which will have printed thereon the availability of both the forward and return portions.

For alternate route conditions, see clause 42, subclause (*aa*).

X—DROVERS

46. Passes for Drovers for joint travel over the Commonwealth and South Australian Railways will be issued, bearing the signature of Secretary, Commonwealth Railways, and Secretary, South Australian Railways, and must only be issued in accordance with the instructions in the Goods and Livestock Rates Book.

These joint Drovers' passes must also be countersigned by one of the following:—

Chief Traffic Manager, Port Augusta
Livestock Agent, Adelaide

Drovers are permitted to travel on South Australian lines first class with economy class pass on return journey on payment of difference between the first and economy class single fare.

WEEKLY NOTICES, PLACARDS, WORKING TIME TABLES, TRAIN NOTICES, CIRCULARS, ETC.

WEEKLY NOTICES

1. The *Weekly Notice* applies to all Branches, is sent out each Tuesday morning, and does not need to be acknowledged. Every person whose duties require they shall have a copy is responsible for obtaining one.

2. Heads of Branches and Superintendents are supplied with copies for distribution to the Staff.

3. If an officer or employee does not receive his copy at the usual time, he must promptly advise his Supervising Officer or Employee, if necessary by telephone or telegraph. Absence of this advice will be taken as proof of receipt.

4. An officer or employee not supplied with a copy must be given an opportunity by his immediate Supervising Officer or Employee to become acquainted with its contents, either through the Order Book or other suitable method. When this opportunity is not provided, the officer or employee concerned must immediately report the matter.

5. An intimation that an officer or employee has not seen the *Weekly Notice* will not be accepted as a valid reason for non-compliance with instructions contained therein.

6. Alterations to current train schedules or the running of extra trains appearing in the *Weekly Notice,* previous advice of which has not been given by Train Notice, must be acknowledged on the proper form, and the form dispatched by first available train.

7. Station Masters, and Supervising Officers or Employees must see that *Weekly Notices* are preserved; the covers provided for this purpose must be used successively for each year's issue, and at the close of the year all copies must be removed from the cover, neatly fastened together, and placed where they will be readily accessible for reference.

PLACARDS, CIRCULARS, ETC.

1. A list of placards issued is shown in the *Weekly Notice.* This list shows when the placards were issued, and the officers supplied. The receipt of placards need not be acknowledged, but Superintendents, Station Masters, and others concerned must read the list in the *Weekly Notice,* and if any placard affecting them has not been received the Head of the Branch must be advised through the Supervising Officer. Absence of such advice will be taken as proof of receipt.

2. When the term "Adelaide Officers" is shown in the *Weekly Notice* under the heading "List of Placards Issued", such term shall include the Secretary, General Traffic Manager, Comptroller, Chief Engineer, Superintendent Adelaide, and Station Master, Adelaide.

3. Superintendents must arrange for the exhibition of placards and other public notices at unattended stations.

4. Caretakers, Station Agents, etc., must be supplied by the Superintendent with Train Notices, placards, circulars, and other notices as required.

WORKING TIME TABLES, RULE BOOKS, ETC.—SUPPLY TO STAFF

Supervising Officers or Employees must see that each member of their staff is promptly supplied, when necessary, with a copy of the Working Time Table, Rule Book, Appendix, Train Notice, circular, or any other instruction that may be issued.

BOOK 2

TRAIN WORKING INSTRUCTIONS

GENERAL INSTRUCTIONS

Classification of Trains—The classification of trains in accordance with the following definitions must be shown on Train Notices and in Working Time Tables Books and Instructions.

This classification must be observed by Enginemen, Guards and others when making up their daily reports, etc.

Traffic Trains are trains run for the purpose of earning revenue and are classified as follows:—

Passenger Train—A train worked to a passenger schedule for the main purpose of transporting passengers, mails and parcels, and include the following trains:—

(*a*) Empty passenger trains, run for the purpose of return passenger traffic and *vice versa*.

(*b*) Engine hauled trains working to a passenger schedule in lieu of rail cars.

(*c*) Military trains.

The incidental additions of goods or livestock vehicles to a passenger train shall not alter its classification.

Limited Mixed Trains—A train comprising passenger goods and livestock vehicles hauling a limited load to a modified passenger schedule.

The incidental omission of goods or livestock vans from a limited mixed train shall not alter its classification.

Mixed Train—A train comprising goods, livestock and passenger vehicles or brakevan with passenger accommodation, working to a specified schedule and with a full goods load when necessary.

The incidental omission of goods or livestock vehicles from a mixed train shall not alter its classification.

Extra circus trains having passenger, goods and livestock vehicles attached shall be regarded as mixed trains.

Livestock Train—A train comprising loaded or empty livestock vans.

The incidental addition of passenger or goods vehicles to a livestock train shall shall not alter its classification.

Goods Train—A train comprising goods vehicles transporting revenue-earning goods or empty goods vehicles.

The incidental addition of passenger or livestock vehicles to a goods train shall not alter its classification.

Trains run for other Government Departments are to be treated as revenue-earning trains, and classified in accordance with the above.

Departmental Trains (Trains for Railway Departmental Purposes Only—Not Earning Revenue)—*Work Trains* are trains working under a requisition for the Chief Engineer's Branch.

Inspection Trains are trains working for Railway Officers on inspection trips, such as Commissioner's inspection trip, etc.

Casualty Trains are trains run in casualty service, such as hauling crane to scene of accident, etc.

Miscellaneous Trains are trains run in miscellaneous services, such as pay trains, trial trips, trains for hauling engines or rollingstock to works or extra trains to scene of accident for purpose of bringing passengers or goods or livestock to terminal after accident.

Stations—Opening of—Staff Duties (On Train Control Territory)—

1. When a station is opened, the officer or employee must report to the Train Controller immediately after he has booked on duty and complied with the Rules.

2. The Train Controller must make a notation on the Train Control graph and advise the person concerned the correct time together with any other relevant matter appertaining to that station.

3. The clock provided at the station must be checked immediately and, if necessary, correctly adjusted.

4. The station staff must then comply with the relevant Rules applicable to the opening of particular stations.

5. Officers and employees must report for duty at their appointed hours; punctuality is essential in the interests of safety and service.

Stations—Closing of—Staff Duties (On Train Control Territory)—

1. Before a station is closed, the officer or employee concerned must advise the Train Controller of particulars of instructions for any trains due during the hours the station is unattended. These instructions regarding all work to be performed must be entered in a foolscap memorandum book clearly labelled "Instructions for Train Crews".

The book must be placed where readily accessible in the office or other appointed place.

The correct date must be shown above each entry and when the instructions have been carried out, the entry must be ruled through. Any failure to carry out the listed instructions must be reported verbally to the Train Controller and formally to the Superintendent.

2. When a station is closed for the passage of a passenger train, it must be treated as an unattended station, tickets, parcels, correspondence, etc., being dealt with in accordance with the Rules or other relevant instructions.

3. When closing a station, the staff concerned must comply with the relevant Rules applicable to that particular station.

Engines and Rail Cars—Release and Receipt of—

1. The following instruction must be observed by the officer or employee receiving or releasing engines and rail cars:—

(*a*) *Engines or rail cars released at stations other than Adelaide*—Engines or rail cars must be *released* promptly after arrival, and a record kept of the time the engine or rail car is released. The Transportation officer or employee releasing the engine or rail car must certify the time, and append his signature on the Engineman's Daily Report in the prescribed place and the report returned to the Engineman or Rail Motor Driver. The Station Master must advise the Engineman or Rail Motor Driver the time he is required in traffic for the return trip and record the time that the engine or rail car is ordered out, care being taken to ensure that the engine or rail car is not ordered out earlier than actually required.

(*b*) *Engines and rail cars entering traffic at stations other than Adelaide*—When an engine or rail car *enters* traffic, the Transportation officer or employee receiving the engine or rail car must obtain the Daily Report from the Engineman or Rail Motor Driver and enter the time when the engine or rail car was received, subsequently returning the Report to the Engineman or Rail Motor Driver.

On Train Control territory, an engine or rail car must not, unless the Train Controller's permission is obtained, be brought into traffic earlier than is absolutely necessary.

(*c*) *Engines and rail cars entering traffic at, and released from, Adelaide*—It is not necessary for the Engineman or Motorman's Daily Report to be endorsed for engines or rail cars released from Adelaide.

The diagram issued in connection with the current Working Time Table Book must be observed for engines and rail cars entering traffic at Adelaide Yard.

Trains Stopping at Stations—

1. When trains are entering stations, the Engineman must keep a look-out and be prepared to act on a hand signal to stop the train where required at the station for the convenience of handling brakevan loading or for any other reason.

2. Should a passenger train be too long for the platform, the train crew and station staff must act as follows:—

(*a*) The train must be stopped with the leading car containing passengers at the platform, unless the leading car be of the step-down type, when it may be drawn clear of the platform and the flaps manipulated for passengers to alight or join, but this does not authorize the Engineman to pass any "Stop" signal, or foul any occupied adjacent line.

(*b*) The Guard and station staff must see that passengers in cars off the platform are warned against alighting. Station Masters must be prepared to stop the train where required, and give the necessary attention to passengers alighting.

(*c*) In accordance with the relevant instructions contained in the respective Working Time Tables Books.

3. At certain stations, Car Number Signs are fixed to indicate where trains must stop. Enginemen must stop at the platform with the front end of the leading car as close as possible to the indicator number corresponding with the number of cars on the train.

Trains Stopping at Stations Where Not Booked to Stop—Passenger trains must NOT be stopped at stations other than those provided for in the schedules for the purpose of picking up or setting down passengers, parcels, goods, etc., unless such stop is arranged through the Train Controller. When an additional stop is requested, the necessary particulars must be obtained and communicated to the Train Controller. An affirmative or negative reply must be obtained from this officer before advising passengers.

Setting Down Passengers at Provisional Stops—

Passengers joining trains at Adelaide for stations shown in the timetable to "stop when necessary for passengers to alight only" are advised to notify the "Station Information Officer." The Station Master, Adelaide, must arrange for such advice to be obtained from the "Station Information Officer" and the Engineman, or Guard, advised accordingly.

Whenever provisional stops are provided in the Working Time Tables and Train Notices for passengers to alight en route the following procedure must be carried out:—

(*a*) At attended stations or a station at which tickets are examined, Adelaide excepted, the Station Master must advise the Guard and Engineman in writing, the names of the provisional stops required.

(*b*) At unattended stations or stopping places the Guard must ascertain from passengers joining if they wish to alight at a provisional stop and advise the Engineman in writing accordingly and on arrival at the next attended station at which a stop is made, he must advise the Station Master of the provisional stops required.

(*c*) When a Train Porter is provided on a train he must ascertain the destination of all passengers, and if a passenger desires to alight at a provisional stopping place, advise the Guard in writing, who, in turn, must advise the Engineman in writing, and on arrival at the next attended station at which a stop is made, he must advise the Station Master of the provisional stops required.

(*d*) Where a Collector is provided on a train, the Collector must ascertain the destination of all passengers joining that portion of the train for which they are responsible for the examination and collection of tickets, and if a passenger desires to alight at a provisional stopping place the Collector must advise the Guard, who, in turn, must advise the Engineman in writing and also the Station Master at the next attended station where a stop is made.

(*e*) When provision is made for tickets being checked by either the Guard, Train Porter, Collector or Station Staff, the Engineman's and Guard's list of provisional stops must be checked by the Guard to ensure that all provisional stops are correctly listed.

(*f*) The Station Master, after having obtained the information concerning stops as shown in paragraph (*a*), (*b*), (*c*) and (*d*) must advise the Train Controller of such stops.

(*g*) The Station Master of stations at which provisional stops are permitted to set down passengers must inquire from the Train Controller if the train is to stop.

(*h*) The Station Master at such station being normally open for the arrival of the train making the provisional stop must arrange for an employee to be in attendance and issue tickets to any intending passengers desiring to travel to stations at which the train is booked to stop. Passengers are not permitted to join The Overland at stations where provisional stops are made for passengers to alight.

(*i*) The instructions in paragraphs (*f*), (*g*) and (*h*) do not apply to the provisional stops for the normal suburban passenger train service, but applies to all country line trains both outside and within the Metropolitan Area.

NOTE.—When instructions are issued in the Working Time Table for specific trains, they are to be observed accordingly.

Train Orders—Issue to Train Crews on Elecric Staff Territory—When it is necessary for a Train Order to be issued to the Guard and Engineman of a non-stopping passenger or goods train at an attended station equipped with automatic signals on electric staff territory, the following will apply:—

After withdrawing the staff for the next section from the staff instrument, the Station Master must depress the cancelling button adjacent to the staff instrument which will cause the signal at the entrance to the station yard to display a "Caution" indication instead of a "Clear" indication. The Engineman of the train approaching the station on observing the "Caution" indication on the signal at the entrance to the yard must reduce the speed of the train to 24 km/h and arrange to exchange the staff by hand. The speed of 24 km/h must be maintained until the whole of the train has passed the platform. The staff exchanging equipment on the engine must not be lowered.

The Station Master on the approach of the train must prepare to exchange the staff by hand and the ground automatic staff exchanging apparatus must not be raised.

The Engineman's copy of the Train Order must be attached to the staff and handed to the Fireman as the engine passes.

The Guard's copy of the Train Order must be attached to a cane staff hoop and handed to the Guard from the station platform as the brakevan passes.

Train Orders—Issued to Train Crews on Automatic Signal Territory—When it is necessary to deliver a Train Order to a non-stopping train passing through an attended station on Automatic Signal Territory, the Absolute Block Signal at the entrance to the yard must be kept at "Stop" and not cleared until the Signalman has seen that the speed of the train has been sufficiently reduced to enable the Train Order to be safely delivered.

Advice of Train Consists to Enginemen—

1. *Engine hauled Express Passenger and Passenger Trains*—The Guard is responsible for advising the Engineman the total mass of the train and the class of each vehicle in the consist.

If relief is provided *en route*, this information must be passed on to the relief crew by the crew being relieved.

2. *Goods and Livestock Trains*—The Guard is responsible for advising the Engineman the total mass of the train, the number of vehicles and details of any vehicles in the consist which will restrict the speed of the train, before commencing the journey.

The Guard must advise the Engineman when the mass is increased or decreased.

Advice to Mile End of Loads of "Up" Goods Trains—

1. The Guard of "Up" South Line goods trains must prepare a statement showing the details of the loads of such trains, including loaded and empty vehicles, also destination, in marshalled order reading from the brakevan.

The statement must be prepared showing the date, number of the train and must be signed by the Guard.

This information must be delivered to the Station Master, Mount Lofty, who must promptly telephone the details to the Yard Master, Mile End.

2. Such details of the loads of "Up" express goods trains from Serviceton and Mount Gambier are NOT required to be given to the Station Master, Mount Lofty.

Trains Shunting on the Main Line in Block Sections—If for any reason it is necessary for a train to shunt from a station yard so that portion or the whole of the train is outside the first "Up" or "Down" facing switches, before the movement is made the officer or employee in charge must ascertain from the Train Controller information relating to any opposing train movement and its expected time of arrival at the station at which the shunting is to occur.

On Automatic Signal Territory, the movement from the station yard must be made under the authority of a signal indication displayed on the Absolute Signal at the entrance to the Block Section. In the event of a failure of the signals, the requirements of the Rules must be observed.

On Electric Staff Territory the Engineman must be in possession of an Electric Staff for the section in the event of the need for any portion of the train to pass the Yard Limit Sign where no fixed signals are installed, or the Distant Signal where signals exist, or the Limit of Shunting without Electric Staff Sign where such signs are erected. Under no circumstances must an Electric Staff be handed to the Engineman of a train for the purpose of entering a Block until the line ahead within Yard Limits is clear.

On Train Order Territory a Train Order for the section must be held by the Engineman and Guard if it is necessary for any portion of the shunting movement to pass the Distant Signal, or the Yard Limit Sign where no signals exist. The Train Order authorizing shunting must not be issued should another train hold a Train Order for the section.

On both Electric Staff and Train Order Territory the regulations prescribed in the Rules must be observed.

Crossing of Trains at Stations where One Train is too Long to Stand in Clear— When it is necessary to cross trains one of which is too long to stand in the yard clear, the long train must be held outside the yard until the shorter train arrives and stops.

On such occasions a following train must not be advanced from the station in the rear of the long train until the long train is admitted to the station and the section is clear and the Train Controller authorizes advancement of the following train. In these circumstances it will not be necessary to implement rear end protection of the train in accordance with the Rules, but both the Guard and the Engine Crew of the long train must be on the alert whilst standing outside a station yard, with hand signals ready to protect their train in case of emergency.

Engines Passing Cars Containing Passengers—When a train travels on a line next to a stationary train containing passengers at a station with platform at ground level, the Station Master must warn the passengers to keep clear of the line.

Making Up Time—When a passenger train is running late, it need not remain at a station the full stopping time allowed in the time table. The station work, if possible, under such circumstances, must be performed in less time than allowed. At Refreshment Room stations where the allotted time is in excess of 15 minutes, the time may be reduced to 10 minutes, provided the Refreshment Room is clear; but the Station Master must give the Refreshment Room Manager notice of the alteration before the arrival of the train.

Enginemen of passenger and mixed trains must make up time lost (from any cause) subject to the speed limits and restrictions in force.

A passenger or mixed train must not leave a station at which it is booked to stop before the time shown in the Working Time Tables Book or Train Notice.

At attended stations, the responsibility for observing scheduled departure devolves upon the employee in charge at the station, but at unattended stations or at part attended stations when there is not a qualified employee in charge, it is the duty of the Guard to ensure that right-a-way is not given ahead of scheduled departure time.

Smartness in Working Trains—

(*a*) *General.* Officers and employees must make every effort to work trains in accordance with the time tables. Station staff on duty on the platform must co-operate with and assist Guards to ensure prompt handling and dispatch of trains.

The Station Master, or the officer or employee delegated by him, must verbally instruct the Guard to start the train, at the same time extending his right arm in the horizontal position. *The person so directing the Guard and the Guard must stand where each can clearly see the other.* A hand-signal lamp must not be used at night to indicate to the Guard that the train may be started.

The Signalman must see that the route is correctly set and signals operated to avoid unnecessary delays.

Smartness in station working is necessary when crossing trains.

(*b*) *Passenger trains.* Ticket windows must be opened sufficiently early to supply passengers with tickets.

The checking and collecting of tickets as prescribed in the current Working Time Tables must be effected with smartness and accuracy.

In the absence of station staff from the platform, the Guard must collect tickets from passengers alighting when these tickets have not been collected *en route.*

At stations where there are barrier gates and only one person is on duty, the gates must be locked, if necessary, until the Guard has received permission to start his train. (This instruction does not effect the method of starting trains at Adelaide.)

Guards, Assistant Guards, Collectors, Train Porters and station staff on duty must be on the alert and render necessary assistance to passengers joining and/or alighting from trains.

During the running between stations, Guards must place brakevan loading for the next station in advance at the door of the van, and on arrival at the station, must promptly off-load it, and then load all outward lots. Where station staff is available they must assist with the brakevan work.

Station staff must be on the platform awaiting the arrival of the trains to attend to passengers. They must have the brakevan loading ready on the platform at the point where it is anticipated the brakevan will stop. When there is only one officer or employee on duty and he is not required to attend to another train, he must assist with the brakevan work.

(*c*) *Goods Trains.* Station Masters on lines not under Train Control must obtain from the Guards of goods trains, stopping at their station, the information set out below, and advise stations ahead of the work to be done at those stations, viz.:—

The number and total mass of vehicles to be detached.

The number of packages to be taken out from brakevan and/or vehicles, and any other information which will enable the station staff to expedite the work of the train.

They must also state what will be the total mass of the train on arrival at the station ahead, and what mass can be attached; the station advised to be in readiness to attach any traffic to go forward. The information must be telephoned at once to the station concerned, and treated as an "Urgent" message.

On lines under Train Control, this information must be given to the Train Controller as directed.

Vehicles to be picked up at attended stations must, if necessary be sheeted and roped and, as far as possible, coupled and marshalled, and the waybill complete on the arrival of the train by which the vehicles are to be dispatched. "Pick-ups" must be placed in the most suitable position for efficient and quick handling.

The object of the foregoing instructions is to ensure as far as practicable, trains running to time and being loaded to their full schedule capacity; and further, to prevent delay in the transit of goods, and consequent inconvenience to consignees.

(*d*) *Goods Train Running Schedules.* The schedule running time of goods trains shown in the Working Time Tables Book opposite stations indicates the time allowed (in minutes) to run to that station from the previous station so indicated.

Trains running through stations must work to the "Through" schedule over the next section.

Enginemen must always work their engines to maximum capacity, subject to maximum and current speed restrictions.

Enginemen of goods and livestock trains must make up time lost (from any cause) and gain time when possible subject to speed limits and restrictions in force.

Guards of goods and livestock trains are responsible for advising their Engineman the correct mass and number of vehicles, together with details of any vehicle forming part of the consist which affect the speed of trains, before commencing the journey. This information must also be given where mass is increased or decreased.

(*e*) *Enginemen's Crib*

Goods Trains

A crib break of twenty (20) minutes is to be allowed to crews of Goods Trains between the commencement of the 3rd and the completion of the 5th hours of duty on shifts exceeding five (5) hours' duration.

The Train Controller must advise the crew as soon as possible after the commencement of a journey where they may have their cribs, taking into account the requirements of train working to avoid unnecessary delay.

In those instances where crews indicate to the Train Controller they would prefer taking a crib outside the hours mentioned, such request may be granted provided that the train would not be delayed any longer in consequence.

In cases where it could be seen that the crew of a goods train will be on duty for a period exceeding ten (10) hours, a second crib break may be granted if requested by the crew, not less than five (5) hours after the completion of the first crib break.

Crib time will not be allowed on express or fast goods trains unless an opportunity occurs during the working of these trains which would permit crib to be taken without causing extra delay.

Mixed trains

A crib break of twenty (20) minutes will be allowed to crews of mixed trains when such can be arranged without delay to the train concerned.

Shunt Crews

A crib break of twenty (20) minutes will be allowed to the crews of shunt engines when it can be arranged without disruption of shunt working. The actual time of taking the crib is to be arranged by the Yardmaster at the depot concerned and the engines are to remain in traffic during the crib break.

Passage of Fire Brigade Appliances and Ambulance Vans over Level Crossings Provided with Interlocked Gates—Fire Brigade appliances, also Ambulance vans that are seen to be travelling at high speed to a fire or transporting a casualty, must be given priority over train movements at crossings provided with interlocked gates, provided that this can be done with safety, but a fixed signal that has been cleared for a train to pass over a crossing must not be replaced to "Stop" to enable the gates to be opened until the train has passed such signal.

Delays to Passenger and Mixed Trains—Advice to Passengers—

(*a*) *Adelaide Station*—When a passenger train is unable to depart from Adelaide as scheduled the Guard must, after five (5) minutes have elapsed, stand on the platform opposite the brakevan of his train, and await advice over the loud speaker regarding the delay, and the arrangements to be made for the dispatch of his train.

On receipt of advice, either from the loud speaker or by message from a Superior Officer, the Guard must contact the Train Porter or Collector where provided, and instruct him regarding the message received. The Guard and Train Porter or Collector must in a courteous manner, advise passengers in each compartment of the delay and its probable duration and if necessary, advise them in regard to changing trains or cars if it is intended to detach any portion of the train in which they are seated. On completion of this duty the Guard must immediately return to his position on the platform in front of his brakevan, await further loud speaker announcements or instructions relating to his train and act accordingly.

(*b*) *Stations Other than Adelaide*—If the Guard of a passenger or mixed train finds that his train is likely to be delayed seriously, or cancelled, necessitating the transfer of passengers to another train or road vehicle, or that such delay may mean a missed connection at a junction station, or late arrival at a terminal station, he must not only render every assistance by giving the passengers prompt advice of any altered arrangements as made from time to time, but must ascertain particulars of trains which connect at junction stations, and whether there are any passengers travelling who desire to make such connection, and promptly advise the Train Controller accordingly. To give effect to this arrangement he should obtain from the Station Master, or the Train Controller directly, if necessary, such information to enable this direction to be complied with.

It is the Guard's responsibility to ascertain under such circumstances from the Station Master or the Train Controller, as the case may be, of the arrangements made for the relief or transfer of his passengers, and not only advise them accordingly but take all necessary action to facilitate such operation.

Reporting Delays to Trains—

(*a*) *Passenger and Mixed Trains*—When the scheduled time is exceeded for stopping at a station, the Train Controller must be advised of the cause by the Station Master at attended stations and the Guard at unattended stations. The Guard must make a full report on his Train Journal.

(*b*) *Passenger Trains*—On arrival at a destination station three (3) or more minutes late, the Guard must hand to the Station Master, on arrival, a statement showing particulars of delays *en route*. The Station Master (Adelaide excepted) must telephone particulars of delays to the Train Controller.

(*c*) *Goods and Livestock Trains*—Details of time occupied in performing work at stations must be supplied to the Train Controller by the Station Master at an attended station or the Guard at an unattended station.

(*d*) *Permissive Block Working*—The movement of trains between—

Monarto South and Cambrai, and Eudunda and Robertstown, is by Permissive Block Working.

These lines are not directly under the Train Controller, and Guards must advise the Station Master at either Monarto South or Eudunda, who must relay the information to the Train Controller.

(*e*) *All Trains*—Guards must show particulars of delays at both attended and unattended stations, under the respective headings on the Train Journal.

Passengers Travelling by Goods or Livestock Trains—Goods trains must not be stopped expressly to pick up or set down passengers, except as provided hereunder.

Passengers must not be allowed to travel by goods or livestock trains to or from Mile End. Persons in charge of livestock, who hold either a ticket or a pass may be permitted to do so. Passengers, not in charge of livestock, for Mile End must leave the trains at Goodwood or North Adelaide, as the case may be, and trains must be stopped to allow such passengers to alight. Station Masters must advise passengers accordingly.

Liquid Petroleum (L.P.) Gas Installations—General Instructions—

Where railway rollingstock is fitted with an L.P. gas installation, the gas is supplied from two 9 kg or 15 kg bottles mounted on the underframe or inside the vehicle in a special fireproofed cupboard. These bottles are connected with flexible hoses to an automatic regulator, which has a two-fold purpose.

Firstly it allows fuel to flow from one cylinder at a time, at the same time reducing the pressure to a lower value necessary for the satisfactory operation of the appliances.

Secondly, when the cylinder is emptied, the regulator automatically allows fuel to flow from the second cylinder, at the same time causing a red "tell tale" to appear in the indicator attached to the regulator, and it will also appear in the remote indicator which is usually located in a readily observed position.

Notwithstanding that, from the time the red "tell tale" first appears, there is still sufficient fuel available from the second cylinder to give continuous supply to all appliances. This indication is that one cylinder is empty and a replacement one must be installed at the earliest practicable opportunity.

When replacing the empty cylinder (this is determined by the arrowed service lever on the regulator pointing to the empty cylinder) turn the service lever through 180° which will reveal the arrow pointing to the second cylinder. This will then change the indications from the red "tell tale" to white. The empty cylinder can now be replaced.

NOTE:—The flexible connections at the bottles are left hand threads, which are recognized by a machined nick in the centre of the hexagon portion of the nuts.

Brakevans Equipped with Liquid Petroleum (L.P.) Gas Installation—

1. **L.P. Gas Supply**—Gas is stored in two 15 kg capacity cylinders which are clamped inside a special fireproofed cupboard situated in the Guard's compartment. There is sufficient gas in these cylinders to provide continuous burning of all appliances for approximately 400 hours.

The gas equipment within the cupboard must not be interfered with in any way by unauthorized persons, otherwise disciplinary action will be taken with those concerned.

Fig. 1

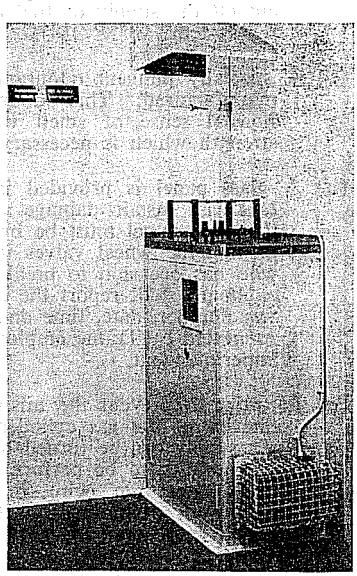


Fig. 2

The supply of gas is controlled by an automatic device shown in Fig. 1 and indicated by the arrow. In order that failure of supply may be prevented, Guards will be required to adopt the following procedure:—

(*a*) On joining the van, the automatic device should be inspected to ascertain whether or not a red disc is visible at the point indicated in Fig. 1. This red disc is more readily visible in a remote indicator shown in Fig. 2. Should this red disc be not visible, both cylinders of the installation contain gas and providing the equipment is not tampered with by unauthorized staff, there is sufficient gas for the continuous use of the gas appliances for a period in excess of 200 hours.

(*b*) A second examination should be made when vacating the van and should the red disc be then visible, the Guard's journal should be endorsed accordingly and the matter brought to the notice of the Station Master, who will make arrangements for replacing the gas cylinders at the supply depot.

When not in use, brakevans must be kept locked.

2. **Goods Brakevans Equipped with a Gas Boiling Ring and a Gas Fire Radiant Heater**—All goods brakevans are being progressively equipped with a gas fired radiant heater and a gas boiling ring for the convenience of the Guard and other employees obliged to travel in these vans in the course of their duties.

3. **Safety features included in the installation—**

(*a*) The radiant heater is equipped with a device which cuts off the supply of fuel should the flame be blown out. This device operates approximately thirty seconds after the flame becomes extinguished.

(*b*) Both flexible hoses, through which the fuel flows from the cylinders to the pressure reducing device, contain excess flow valves, which cut off the supply of fuel at the cylinders, should a leak develop in the system.

(*c*) A specially pungent odourant is added to the fuel at the time it is manufactured. This odour becomes apparent to any person with a normal sense of smell when the gas mixture is at 1/6th of the strength which is necessary before it can be ignited.

(*d*) A glass panel is provided in the door of the cupboard. Should a brakevan sustain damage as the result of heavy impact or collision, the glass panel must be broken, and both cylinders closed down by turning the wheel valves in a clockwise direction. Every employee who has occasion to break this panel to gain access to the cylinder cupboard shall report the circumstances in writing, giving the brakevan number, date, time and brief details of the occurrence. Reports submitted by Traffic employees are to be forwarded to the Divisional Superintendent.

(*e*) In order to prevent the mis-use of L.P. gas appliances, access to the interior of the gas cylinder cupboard will be necessary, so that the gas supply can be turned off when the brakevan is not in use. This operation is to be performed by the Guard or Acting Guard which necessitates him being in possession of a cupboard key. Other employees authorized by the Chief Mechanical Engineer, will be issued with cupboard keys for the purpose of cylinder changes and servicing the installation.

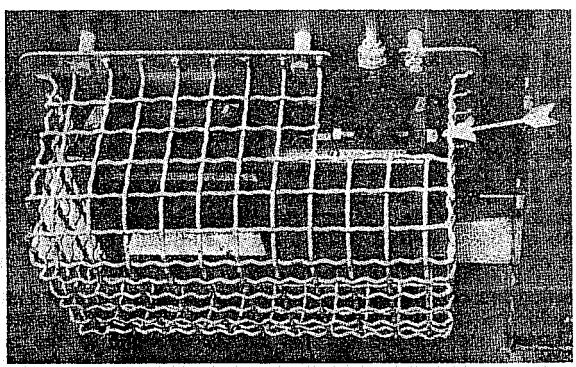


Fig. 3

4. **Operating Instructions—**

(*a*) Lighting instructions for the radiant heater. Turn the isolating cock to the "ON" position. Depress the reset (RED) button and hold a lighted match to the burner face until the gas ignites. The red reset button is shown in Fig. 3. Hold the reset button in for approximately one minute, then release. The heater should continue to burn, but should the flame extinguish, repeat the operation until the heater continues to burn. It is to be noted that this heater is fitted with a flame failure device which will automatically shut off

the supply of gas should the flame be accidently extinguished. If this happens, to relight, repeat the above operation.

To extinguish the heater, turn the isolating cock to the "OFF" position.

(*b*) Lighting instructions for the boiling ring. Turn the isolating cock to the "ON" position. Hold a lighted match to the gas ring until the gas ignites.

To extinguish the boiling ring, turn the isolating cock to the "OFF" position.

In the event of any appliance failing to operate in the normal manner, the Guard concerned must report the occurrence and "Green Card" the van for attention.

(*c*) Before a goods brakevan is marshalled on to an outgoing train, the employee in charge of the operation must satisfy himself that the glass panel in the gas cylinder cupboard door is intact. Should it be found to be broken the brakevan concerned must not be used on any train other than a suburban goods train until it has been examined by an authorized employee of the Mechanical Branch, who will certify whether or not the gas regulator and associate equiment has been tampered with. Non-compliance with this instruction could result in failure of the gas supply with little or no warning, whilst the van is in use.

5. **Replacement of empty cylinders in goods brakevans—**

(*a*) Notwithstanding that, from the time the red "tell tale" first appears, there is still sufficient fuel available to give continuous supply to both appliances for approximately 200 hours, it is an indication that one cylinder is empty and a replacement cylinder must be installed at the earliest practicable opportunity.

(*b*) Replacement cylinders are available at Adelaide, Tailem Bend and Peterborough.

Brakevans—Locking—All doors except those leading to the Guard's compartment must be locked prior to train's departure, and kept locked except when actually in use.

"CD" and "SCD" Class Brakevans—"CD" and "SCD" class brakevans must not be used on goods trains, except in cases of emergency, when permission must be obtained from the Divisional Superintendent.

Brakevans or Passenger Cars Left at Unattended Stations—When a brakevan or passenger car is left standing at an unattended station, the Guard must close all windows, extinguish lights, and lock all doors. Hand brakes must be applied, or, if not so fitted, the wheels must be spragged or chocked.

Goods of an Offensive Nature in Brakevans—Hides, skins, fat, and tallow, and any goods of an objectionable nature must not be allowed in brakevans if other space be available. Petrol or empty petrol drums must not be loaded in brakevans.

Motor Quadricycles—Conveyance in Brakevan—Motor quadricycles, with petrol in the tanks, may be carried in the brakevan of a passenger, mixed, or goods train, subject to the following conditions:—

1. When possible the vehicle must be accompanied by the officer or employee who is using it.

2. Before permitting the motor vehicle to be loaded, the Station Master or other responsible employee must first ascertain from the officer or employee loading the machine that he has inspected the motor vehicle, and that he certifies—

(*a*) That the petrol is at least one inch below the top of the petrol tank;

(*b*) That the petrol stop-cock is securely closed, and that no petrol is escaping; and

(*c*) That the carburettor is empty of petrol.

3. The brakevan of a passenger train must NOT be used for the carriage of any such motor vehicle if a goods train is available.

4. An officer or employee who accompanies a motor vehicle is responsible for its loading and discharge, and he must see that there is no leakage of petrol *en route.*

When a motor vehicle is unaccompanied, the inspection of the petrol tank *en route* must be carried out by the Guard of the train. All reasonable assistance must be given to the officer or employee accompanying the vehicle by the Station Staff and the Guard.

5. All windows in the brakevan in which the motor vehicle is being carried must be kept open, consistent with the protection of luggage, parcels, etc., from damage by rain, or loss by falling out.

Brakevan last Vehicle on Train—A brakevan must be the last vehicle on all engine hauled trains:—

Between Brighton and Port Stanvac in each direction.

Between Goodwood and Murray Bridge, Strathalbyn and Cambrai, in each direction, excepting "Up" passenger trains working from Belair to Adelaide.

On all other lines, the brakevan must be the last vehicle except where otherwise authorized by the General Traffic Manager, or otherwise specified herein.

Special Class Vehicles—Vehicles Suitable for Working on 95 km/h Trains, and Vehicles Suitable for Bogie Exchange

Vehicle Classification	Type of Vehicle	Length over Coupling Points	Suitable for attaching to 95 km/h Goods Trains	Suitable for attaching to S.A. 95 km/h Passenger Trains	Suitable for bogie exchange
S.A. Special Class Vehicles—		Metres			
ALX	15.3 tonne drive on motor car wagon	23.11	Yes	Yes	Yes
CS	Cattle van	11.84	Yes	Yes	No
DFS	33.6 tonne louvre van	11.84	Yes	Yes	No
DP	33.6 tonne louvre van	11.84	Yes	Yes	No
DRP	33.6 tonne louvre van	11.84	No*	Yes	No
DS	33.6 tonne louvre van	11.84	Yes	Yes	No
DWP	33.6 tonne louvre van	11.84	Yes	Yes	No
DWR	29.5 tonne louvre van	13.06	No*	Yes	No
ELS	50.8 tonne open wagon	13.36	Yes	Yes	No
ELX	50.8 tonne open wagon	13.36	Yes	Yes	Yes
FBR	47.7 tonne flat wagon	13.97	No*	Yes	No
FBX	57.3 tonne flat wagon	14.58	Yes	Yes	Yes
FCS	22.4 tonne container wagon	11.84	Yes	Yes	No
FPX	55.9 tonne bulkhead flat wagon	14.58	Yes	Yes	Yes
FQX	56.7 tonne container wagon	20.09	Yes	Yes	Yes
FVX	24.4 tonne flexi van flat wagon	13.06	Yes	Yes	Yes
HC	50.8 tonne hopper wagon	10.77	Yes†	No	Yes‡
HCA	33.6 tonne bulk cement wagon	10.62	Yes●	Yes●	Yes⊖
HCA	49.8 tonne bulk cement wagon	13.36	Yes	Yes	No
LX	40.7 tonne louvre van	13.11	Yes	Yes	Yes
MRP	33.6 tonne covered van	11.84	No*	Yes	No
OAX	35.6 tonne motor body wagon	22.30	Yes	Yes	Yes
OMX	35.6 tonne motor body wagon	22.30	Yes	Yes	Yes
OS	44.7 tonne open wagon	13.97	Yes	Yes	No
OWP	44.7 tonne open wagon	13.97	No*	Yes	No
OWS	44.7 tonne open wagon	13.97	Yes	Yes	No
OX	44.7 tonne open wagon	13.97	Yes	Yes	Yes
RBP	33.6 tonne refrig van	11.84	No*	Yes	No
RRP	33.6 tonne refrig van	11.84	No*	Yes	No
RX	33.6 tonne refrig van	11.84	Yes	Yes	Yes
SBS	Bogie Sheep van	11.84	Yes	Yes	No
SC⊕	Bogie cattle van	11.84	Yes	Yes	No
SCC⊕	Bogie cattle van	11.84	Yes	Yes	No
SE	7.6 tonne explosive van	8.71	Yes	Yes	Yes‡
SFAC⊕	16 250 litre acid container wagon	10.31	Yes	Yes	No
SFBX	57.7 tonne flat wagon	14.58	Yes	Yes	Yes
SFC	25.4 tonne flat wagon	13.06	Yes⊗	Yes	Yes‡
SFKX	52.5 tonne flat wagon	23.74	Yes	Yes	Yes

Vehicle Classification	Type of Vehicle	Length over Coupling Points	Suitable for attaching to 95 km/h Goods Trains	Suitable for attaching to S.A. 95 km/h Passenger Trains	Suitable for bogie exchange
S.A. Special Class Vehicles—continued		Metres			
SFLC	23.4 tonne flat wagon	13.06	Yes⊗	Yes	Yes‡
SFQX	48.8 tonne insulated container flat wagon	16.51	Yes	Yes	Yes
SFWX	49.2 tonne well wagon	19.56	Yes	Yes	Yes
SGBC	30.5 tonne open wagon	13.06	Yes⊗	Yes	Yes‡
SGC	30.5 tonne open wagon	13.67	Yes⊗	Yes	Yes‡
SGMX	50.6 tonne open wagon	17.94	Yes	Yes	Yes
SGX	54.2 tonne open wagon	14.88	Yes	Yes	Yes
SH⊕	58.6 tonne hopper wagon ...	10.31	Yes	Yes	No
SHBX	55.9 tonne hopper wagon ...	14.58	Yes	Yes	Yes
SHCX	49.8 tonne bulk cement wagon	13.36	Yes	Yes	Yes
SLC	24.4 tonne louvre van.....	10.31	Yes⊗	Yes	Yes‡
SLWC	22.4 tonne louvre van.....	13.06	Yes⊗	Yes	Yes‡
SO⊕	59.2 tonne ore wagon	10.31	Yes	Yes	No
SOC⊕	59.2 tonne ore wagon	10.31	Yes	Yes	No
SRPC	6.1 tonne insulated van	10.31	Yes⊗	Yes	Yes‡
SRRC	18.3 tonne insulated van	10.31	Yes⊗	Yes	Yes‡
SS⊕	Sheep van	11.84	Yes	Yes	No
SSC⊕	Bogie sheep van	11.84	Yes	Yes	No
STAX	27 250 litre sulphuric acid tank wagon	13.06	Yes†	Yes†	Yes
STBC⊕	42 050 litre tank wagon	13.06	Yes	Yes	No
STCC⊕	22 700 litre tank wagon	Max. 10.31	Yes	Yes	No
STDC⊕	22 700 litre tank wagon	11.84	Yes	Yes	No
STEC	22 700 litre tank wagon	Max. 10.31	Yes⊗	Yes	Yes
STOC⊕	22 700 litre tank wagon	11.84	Yes	Yes	No
STPC⊕	22 700 litre tank wagon	Max. 11.84	Yes	Yes	No
STSC⊕	47 280 litre tank wagon.....	Max. 12.14	Yes	Yes	No
STVC⊕	22 700 litre tank wagon	Max. 11.84	Yes	Yes	No
STW⊕	50 000 litre tank wagon	13.06	Yes	Yes	No
STWC⊕	— tank wagon	10.31	Yes	Yes	No
STWX	Creosote tank wagon	13.06	Yes†	Yes†	Yes
STZC⊕	22 700 litre tank wagon	10.31	Yes	Yes	No

Vehicle Classification	Type of Vehicle	Length over Coupling Points	Suitable for attaching to 95 km/h Goods Trains	Suitable for attaching to S.A. 95 km/h Passenger Trains	Suitable for bogie exchange
		Metres			

* These vans are permitted to be marshalled on Mount Gambier, Port Pirie and Peterborough Express Goods Trains in the ratio of one of these vehicles to three other type vehicles.

⊖ To South Australian Standard Gauge only.

† Empty only. Speed when loaded not to exceed 80 km/h.

● Empty only on Broad gauge. On Standard gauge working these vehicles can be attached to express goods and passenger trains either empty or loaded.

⊗ Suitable for 95 km/h S.A. Goods trains only.

‡ Suitable for bogie exchange between Standard and Broad gauges, S.A.R. system only.

⊕ Standard gauge working only.

Vehicle Classification	Type of Vehicle	Length over Coupling Points	Suitable for attaching to 95 km/h Goods Trains	Suitable for attaching to S.A. 95 km/h Passenger Trains	Suitable for bogie exchange
Commonwealth Special Class Vehicles—		Metres			
GBX	51 tonne open wagon	14.27	Yes	Yes	Yes
GMX	46 tonne open wagon	23.72	Yes	Yes	Yes
GNX	— Drive on motor car wagon	23.72	Yes	Yes	Yes
GOX	48 tonne open wagon	23.72	Yes	Yes	Yes
LCX	46 tonne louvre van	14.58	Yes	Yes	Yes
LDX	46 tonne louvre van	14.58	Yes	Yes	Yes
LEX	45 tonne louvre van	23.72	Yes	Yes	Yes
RGX	56 tonne bulkhead flat wagon	15.19	Yes	Yes	Yes
RLX	54 tonne flat wagon	17.91	Yes	Yes	Yes
RMX	55 tonne flat wagon	20.07	Yes	Yes	Yes
ROX	51 tonne flat wagon	23.75	Yes	Yes	Yes
VEX	44 tonne covered van	23.72	Yes	Yes	Yes
VFX	46 tonne covered van	23.72	Yes	Yes	Yes
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Commonwealth vehicles are not to be attached to The Overland between Melbourne and Adelaide.

Victorian Special Class Vehicles—		Metres			
ALX	15 tonne drive on motor car wagon	23.11	Yes	Yes	Yes
AX	10 tonne drive on motor car wagon	17.91	Yes	Yes must not be coupled next to passenger cars	Yes
BLF	45 tonne covered van	13.16	Yes	Yes	Yes
BLX	41 tonne covered van	13.16	Yes	Yes	Yes
BMF	35.5 tonne covered van	12.80	Yes	Yes	No

Vehicle Classification	Type of Vehicle	Length over Coupling Points	Suitable for attaching to 95 km/h Goods Trains	Suitable for attaching to S.A. 95 km/h Passenger Trains	Suitable for bogie exchange
Victorian Special Class Vehicles—continued		Metres			
BMX	35.5 tonne covered van	12.80	Yes	Yes	Yes
BP	35.5 tonne covered van	12.80	Yes	Yes	No
CSX	53 tonne coiled steel wagon..	12.40	Yes	Yes	Yes
		Max.			
EF	45 tonne open wagon	13.94	Yes	Yes	No
ELX	51 tonne open wagon	14.91	Yes	Yes	Yes
ESX	51 tonne steel transport	14.91	Yes	Yes	Yes
EX	45 tonne open wagon	13.97	Yes	Yes	Yes
FP	— Horse box	14.58	Yes	Yes	No
FQX	56 tonne container wagon ..	20.09	Yes	Yes	Yes
FVF	24.5 tonne flexi van flat wagon	13.06	Yes	Yes	No
FX	45 tonne bulk flour wagon ..	16.56	Yes	Yes	Yes
GJX	56 tonne bulk wheat wagon .	14.91	Yes	Yes	Yes
JX	51 tonne bulk cement wagon	14.12	Yes	Yes	Yes
LF	— Sheep van	11.84	Yes	Yes	No
LP	— Sheep van.....	11.84	Yes	Yes	No
MF	— Cattle van.....	11.84	Yes	Yes	No
QCX	47 tonne container wagon ..	11.58	Yes	Yes	Yes
QF	31.5 tonne flat wagon	16.10	Yes	Yes	No
QTF	45 tonne container wagon ..	13.97	Yes	Yes	No
QWF	61 tonne well wagon.....	16.46	Yes	Yes	No
SBX	45 tonne plaster board wagon	13.16	Yes	Yes	Yes
SCX	46 tonne cable drum wagon	13.97	Yes	Yes	Yes
SFX	50 ton flat wagon (with bulk Heads for Steel prod.)	20.70	Yes	Yes	Yes
SKF	51 tonne container wagon ..	23.75	Yes	Yes	No
SKX	51 tonne container wagon ..	23.75	Yes	Yes	Yes
TP	16 tonne refrigerator van....	8.66	Yes	Yes	No
TVX	47 tonne flexi van flat wagon	23.22	Yes	Yes	Yes
TWF	— Tank wagon.....	14.58	Yes†	Yes†	No
		Max.			
TWX	— Tank wagon.....	13.97	Yes†	Yes†	Yes
		Max.			
UF	16.5 tonne louvre van	8.66	Yes	Yes	No
VF	35.5 tonne louvre van	11.86	Yes	Yes	No
VHX	51 tonne louvre van	16.79	Yes	Yes	Yes
VLX	41 tonne louvre van	13.12	Yes	Yes	Yes
VP	35.5 tonne louvre van	12.80	Yes	Yes	No
VSX	50 tonne louvre van	18.01	Yes	Yes	Yes

† Empty only.

Vehicle Classification	Type of Vehicle	Length over Coupling Points	Suitable for attaching to 95 km/h Goods Trains	Suitable for attaching to S.A. 95 km/h Passenger Trains	Suitable for bogie exchange
New South Wales Special Class Vehicles—		Metres			
BBX	45 tonne bolster flat wagon..	23.27	Yes	Yes	Yes
BCX	49/47 tonne container wagon	23.27	Yes	Yes	Yes
BDX	51 tonne open wagon	14.96	Yes	Yes	Yes
BEX	51 tonne flat wagon	14.50	Yes	Yes	No
BKX	16 tonne drive on motor car wagon	23.11	Yes	Yes	Yes
CBX	49 tonne container wagon ..	23.27	Yes	Yes	Yes
CCX	49 tonne coiled steel open wagon	14.96	Yes	Yes	Yes
CLX	50 tonne louvre van	14.50	Yes	Yes	Yes
CMX	46 tonne container wagon ..	14.50	Yes	Yes	Yes
CPX	48 tonne flat wagon	18.54	Yes	Yes	Yes
ECX	52 tonne container wagon ..	14.50	Yes	Yes	Yes
EMX	54 tonne flat wagon	14.50	Yes	Yes	Yes
GCX	41 tonne open wagon	13.06	Yes	Yes	Yes
GLX	48 tonne louvre van	14.50	Yes	Yes	Yes
GS	— Liquified Petroleum Gas wagon	18.55	Yes†	Yes†	Yes
GX	41 tonne open wagon	13.06	Yes	Yes	Yes
HGX	51 tonne open wagon	13.06	Yes	Yes	Yes
HLX	48 tonne louvre van	14.50	Yes	Yes	Yes
HMX	54 tonne flat wagon	14.50	Yes	Yes	Yes
HPX	52 tonne flat wagon	14.50	Yes	Yes	Yes
ICI	— Anhydrous Ammonia tank wagon	16.68	Yes†	Yes†	Yes
ICX	52 tonne container wagon ..	14.50	Yes	Yes	Yes
JLX	47 tonne louvre van	17.93	Yes	Yes	Yes
OCX	55 tonne container wagon ..	20.07	Yes	Yes	Yes
PMX	40 tonne steel plate wagon ..	14.50	Yes	Yes	Yes
SMX	54 tonne flat wagon	14.50	Yes	Yes	No
STX	45 tonne flat wagon	23.27	Yes	Yes	Yes
TLX	45 tonne tin plate louvre van	14.50	Yes	Yes	Yes
TMX	42 tonne flat wagon	14.50	Yes	Yes	Yes
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Vehicle Classification	Type of Vehicle	Length over Coupling Points	Suitable for attaching to 95 km/h Goods Trains	Suitable for attaching to S.A. 95 km/h Passenger Trains	Suitable for bogie exchange
W.A.G.R. Special Class Vehicles—		Metres			
WFCX	52 tonne flat wagon	23.75	Yes	Yes	Yes
WFX	53 tonne container wagon ..	20.09	Yes	Yes	Yes
WGX	51 tonne open wagon	17.96	Yes	Yes	Yes
WMX	12 tonne Drive on motor car wagon	23.75	Yes	Yes	Yes
WQX	50 tonne particle board carrier	17.96	Yes	Yes	Yes
WVX	51 tonne covered wagon	17.96	Yes	Yes	Yes
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NOTE CAREFULLY—Of the above Goods Vans only South Australian "DP" and "DWP" and Victorian "VP" and "BP" are permitted to work on The Overland *ex* Adelaide.

† Empty only—Speed when loaded not to exceed 80 km/h.

PETERBOROUGH DIVISION—STANDARD GAUGE GOODS VEHICLES

Vehicles Suitable for Inter-system Working

Suitable for General Bogie Exchange Operation		Suitable for Standard Gauge Working Only	
Class	Type of Vehicle	Class	Type of Vehicle
FBX*..	Bogie flat wagon	SC ...	Bogie cattle van
FPX*..	Bogie particle board flat wagon	SCC..	Bogie cattle van
LX* ..	Bogie louvre van	SS....	Bogie sheep van
SGX*..	Bogie open wagon	SSC ..	Bogie sheep van
SHBX .	Bogie hopper wagon		

* Already in bogie exchange service on Broad gauge.

Vehicles Designated for S.A.R. System Working Only

Suitable for Bogie Exchange between S.A.R. Standard Gauge and Broad Gauge Lines		Suitable for Standard Gauge Working Only	
Class	Type of Vehicle	Class	Type of Vehicle
SFC ..	Bogie flat wagon	SCZ .	4 Wheel cattle van
SFLC..	Bogie container flat wagon	SFAC	Bogie acid container wagon
SGBC .	Bogie open wagon	SGBZ	4 Wheel open wagon
SGC...	Bogie open wagon	SLZ ..	4 Wheel louvre van
SLC ..	Bogie louvre van	SO ..	Bogie ore wagon
SLWC	Bogie louvre van	SOC .	Bogie ore wagon
SRPC..	Bogie insulated van	STBC	Bogie tank wagon
SRRC .	Bogie insulated van	STCC	Bogie tank wagon
		STDC	Bogie tank wagon
		STOC	Bogie tank wagon
		STPC	Bogie tank wagon
		STSC	Bogie tank wagon
		STVC	Bogie tank wagon
		STW .	Bogie tank wagon
		STWC	Bogie tank wagon
		STZC	Bogie tank wagon

Trains Working without Brakevan Attached—Vehicles may be moved without a brakevan over the sections of line as indicated in the table shown hereunder.

In every case, all vehicles must be coupled together with air brakes properly tested and working efficiently throughout. Marker lamps and designation lights must be correctly displayed, and level crossings must be protected in accordance with the Rules.

Section	Maximum Number of Vehicles
Adelaide/Mile End	Equal to 12 vehicles hauled; equal to 4 vehicles pushed
Woodville/Hendon	Equal to 4 vehicles hauled
Woodville/Woodville North	Equal to 6 vehicles hauled
Gillman Yard/Sims Metal Private Siding	Equal to 12 vehicles hauled or pushed
Mount Barker Junction/Mount Barker	Equal to 6 vehicles hauled
Mile End/Islington Workshops	Equal to 2 vehicles hauled
Adelaide/Islington Workshops	Equal to 6 vehicles hauled
Dry Creek/G.M.H. Elizabeth	Equal to 12 vehicles hauled
Dry Creek/Pooraka	Schedule load of engine, hauled
Pooraka/Northfield	Equal to 8 vehicles hauled or pushed
Gawler/North Gawler	Equal to 12 vehicles hauled
Bowmans/Balaklava	Equal to 4 vehicles hauled
Bumbunga/Lochiel	Equal to 20 vehicles hauled, providing the entire movement is made during those hours between sunrise and sunset
Nuriootpa/Penrice Junction	Equal to 8 vehicles hauled
Broken Hill/Kanandah Siding	Schedule load of engine hauled; equal to 10 vehicles pushed
Murray Bridge/Sale Yard	Equal to 20 vehicles hauled or pushed
Naracoorte/Mobil Oil Aust. Ltd. Siding	Equal to 4 vehicles hauled or pushed
Mount Gambier/Mount Gambier Junction	Equal to 20 vehicles hauled or pushed
Mount Gambier/S.A. Woods and Forest Dept. Siding	Equal to 20 vehicles hauled or pushed
Renmark/Wood Son Seary Ltd. Siding	Equal to 5 vehicles hauled or pushed
Renmark/Renmark Growers Distillery Ltd. Siding	Equal to 8 vehicles hauled or pushed
Berri/Riverland Fruit Products Co-op Siding and Berri Co-op Packing Union siding	Equal to 20 vehicles hauled; equal to 10 vehicles pushed
Barmera/Barmera Co-op Packing Company's Siding	Equal to 10 vehicles hauled or pushed
Loxton/British Petroleum Aust. Ltd. Siding	Equal to 6 vehicles hauled or pushed
Loxton/Sale Yards	Equal to 20 vehicles hauled or pushed
Port Lincoln/Govt. Produce Freezing Works	Equal to 20 vehicles hauled
Port Lincoln/Barley Board Depot Siding and/or Wheat Board Siding	Equal to 20 vehicles hauled
Thevenard/Wheat Board Siding	Equal to 20 vehicles hauled
Cummins/Stock Siding	Equal to 20 vehicles hauled

A bogie vehicle is counted as 2 four-wheeled vehicles.

Passengers using Private Motor Vehicles to Join Train—When passengers have missed a train and decide to travel by taxi or other motor vehicle to join the train at some other station on the railways, they must be advised that the use of a motor vehicle must be at their own expense.

No officer or employee is authorized to advise any person that the Department will accept liability for the motor fare involved.

Any officer or employee guilty of a breach of this instruction will be liable to disciplinary action.

Method of Starting a Train when the Engineman is unable to see the Guard's Starting Signal given by the Guard from the Brakevan—When the Guard's starting signal cannot be seen by the Engineman owing to either the contour of the line, intervening curves, grades, cuttings, bridges, or other structures, or adverse weather conditions or due to any other cause, the starting signal must be given by the operation of the emergency valve. The Guard must open the valve and reduce train pipe pressure to zero. When the Engineman acknowledges this signal by sounding one short whistle, the emergency valve must be closed. The Engineman must release the brakes and then proceed, if fixed signal indication so permit.

As soon as circumstances permit, the Guard and Engineman or Fireman must exchange hand signals as prescribed in the Rules.

The above instruction does not relieve the Guard of the necessity of obtaining permission from the Station Master at an attended station before giving the signal to the Engineman to start his train.

Method of Starting a Train Equipped with End to End Radio Equipment—The Guard's starting signal for trains on which end to end radio communication is available can be carried out as outlined in the detailed instructions which have been issued to train operating staff who have been instructed in the operation of radio equipment.

In those cases where the Guard's joining signal cannot be given owing to track contour, etc., the radio communication can be used for this purpose.

Sprags and Chocks—When sprags are used they must be placed to prevent the wheel from turning, and so that movement of the vehicle will not cause the sprag to fall out.

Chocks must be used to secure vehicles fitted with disc wheels, and must be placed on the rail, against the wheel, to prevent movement.

Shunters and Guards must examine both sides of vehicles and remove any sprags or chocks that have been applied.

Fouling Discs—Vehicles must stand clear of the fouling discs placed at clearance points between lines. The points are indicated by posts, or circular plates at ground level.

Switch Levers—The weights of switch levers (cheese knobs) attached to switches on the Main Line are painted half red and half white, the colours being so arranged that when the switches are set for the Main Line the weight shows white when approached as a facing switch. When switches are set for a siding, the weight shows red when approached as a facing switch. The weights of switch levers on other than Main Lines in Station yards are painted white.

In those localities where spring lever switches are operated by removable switch levers, arrangements must be made by all staff concerned that the removable levers are removed from the operating position after switches are operated, and placed in a position where damage cannot be caused either to Railway equipment or any road vehicles operating in the area.

Tow Ropes—Maximum Load to be Hauled—Only standard tow ropes must be used for towing rail vehicles. The tow rope must be applied to the rail vehicle at the proper hauling point and not attached where it will cause damage to the vehicle. All brakes on the vehicle to be towed must be released before the haul is commenced. The officer or employee responsible for the movement must ensure that the tow rope will not foul switches, switch levers, switch stands or any other similar equipment. The Engineman must see that the load is lifted steadily and accelerated without jerking.

The maximum load attached to a tow rope must not, in any circumstances, exceed 200 tonnes.

Trains Entering Intermediate Sidings—When, for any reason whatsoever during a movement from one block station to another, an Engineman finds it necessary to enter an intermediate siding, he must first obtain permission from the Train Controller before diverting his train from the Main Line.

Marshalling of Trains—

1. Rail vehicles equipped with side buffers must not be marshalled next to single 900 class engines.

2. Goods vehicles with a wheel or ratchet hand brake on the end of the vehicle must not be marshalled with this hand brake next to the end concertinas of passenger cars, passenger brakevans or other special coaching vehicles.

3. Goods vehicles fited with "Miner" type hand brakes on the end of the vehicle must not be marshalled with this hand brake next to sheep vans or other vehicles fitted with end concertinas.

4. SBS class sheep vans must not be marshalled next to brakevans or passenger cars fitted with end concertinas.

5. AX class wagons must not be coupled next to passenger cars.

6. GMX wagons must not be permitted to work into Victor Harbour.

7. Passenger Trains (Broad gauge).

Goods and livestock vehicles as shown below can be attached to passenger trains within South Australia (running at 95 km/h maximum speed).

(*a*) South Australian and Victorian bogie vehicles having the letter "P" as the last letter of the classification, *e.g.* DP, DRP, RBP, etc., and BP, VP, etc.

(*b*) South Australian bogie vehicles DWR, FBR and HCA (49.8 tonnes only) and vehicles having the letter "S" or "X" as the last letter of the classification, *e.g.* DS, OX, OWS, etc., *except* classes S, FS, HS, and TS.

(*c*) Victorian bogie vehicles having the letter "F" or "X" as the last letter of the classification *e.g.*, BLF, BLX, VHX, etc., *except* that classes TWF and TWX are only permitted to be attached when *empty*.

(*d*) For return working only when *empty*, bogie cement hoppers class "HCA" can be attached to passenger trains.

(*e*) New South Wales, Commonwealth and Western Australian vehicles which are suitable for operation on 95 km/h express goods trains. Only "D" Mailvans, "DP", "DWP", "VP" and "BP" vans are permitted to be attached to *The Overland*.

(*f*) Other bogie goods or livestock vehicles, may only be attached to a passenger train with the approval of the Superintendent, who will give directions as to their position on the train in accordance with the following:—

Between Adelaide, Murray Bridge and Strathalbyn immediately in front of the brakevan.

Between Murray Bridge and Serviceton, Barmera or Pinnaroo, next to the engine or immediately in front of, or trailing behind the brakevan.

Between Adelaide and Peterborough, Spalding, Gladstone, Port Pirie, and also between Strathalbyn and Victor Harbour, immediately in front of, or trailing behind the brakevan.

(*g*) A speed of 70 km/h must not be exceeded in any circumstances, when bogie goods or livestock vehicles, except those covered by clauses ((*a*) to (*e*)) are attached to a train.

(*h*) When attached trailing behind the brakevan the air brake must be connected and in effective operation.

8. Mixed and Goods Trains (Broad gauge lines)—

(*a*) Passenger cars when occupied, must be placed next inside the brakevan.

(*b*) On broad gauge lines goods trains must, as far as possible, be marshalled in station order unless shown otherwise in current *Working Time Table Books.*

(*c*) Proper regard must be paid to the best working position on the train for "take-out" and "pick-up" vehicles which must be marshalled according to the requirements of each train.

(*d*) Vehicles containing explosives and goods of a dangerous nature must be marshalled in accordance with the Rules.

(*e*) Between Mile End and Murray Bridge on "Down" and "Up" trains, four-wheeled vehicles which contain less than the net load of seven (7) tonnes, must not be marshalled with more than 700 gross tonnes trailing behind.

(*f*) Livestock vans must be marshalled in station order at the commencing station and that order must be maintained in attaching at roadside stations, when such can be done without delay.

(*g*) Livestock vans for Pooraka must be marshalled in the following order, when such can be done without delay:

Trains from south—cattle vans in front; sheep vans at rear.
Trains from north—sheep vans in front; cattle vans at rear.

(*h*) When sheep and cattle vans are attached for wayside stations, such vans must be marshalled to avoid reversing on arrival at the station concerned. The following table shows the marshalling necessary on the "Down" journey for each station which is equipped with loading and unloading facilities. For the "Up" journey the marshalling must be the reverse to that shown for the "Down" journey.

ADELAIDE TO PETERBOROUGH—"DOWN"

Salisbury	Cattle nearest engine; sheep second
Smithfield	Sheep nearest engine; cattle second
Gawler	Cattle nearest engine; sheep second
Roseworthy	Sheep nearest engine; cattle second
Wasleys	Cattle nearest engine; sheep second
Hamley Bridge	Sheep nearest engine; cattle second
Stockport	Cattle nearest engine; sheep second
Tarlee	Cattle nearest engine; sheep second
Riverton	Sheep nearest engine; cattle second
Saddleworth	Sheep nearest engine; cattle second
Manoora	Sheep nearest engine; cattle second
Merildin	Cattle nearest engine; sheep second
Farrell Flat	Cattle nearest engine; sheep second
Hanson	Sheep only

Burra	Cattle nearest engine; sheep second
Mount Bryan	Sheep nearest engine; cattle second
Hallett	Sheep nearest engine; cattle second
Whyte Yarcowie	Sheep nearest engine; cattle second
Terowie	Sheep nearest engine; cattle second

RIVERTON TO SPALDING—"DOWN"

Auburn	Sheep only
Watervale	Sheep only
Seven Hill	Sheep only
Clare	Sheep nearest engine; cattle second
Barinia	Sheep only
Hilltown	Sheep nearest engine; cattle second
Andrews	Sheep nearest engine; cattle second
Spalding	Sheep nearest engine; cattle second

GAWLER, ANGASTON, TRURO—"DOWN"

North Gawler	Sheep nearest engine; cattle second
Sandy Creek	Sheep nearest engine; cattle second
Lyndoch	Sheep nearest engine; cattle second
Rowland Flat	No facilities
Tanunda	Sheep nearest engine; cattle second
Nuriootpa	No facilities
Angaston	Sheep nearest engine; cattle second
Stockwell	No facilities
Truro	Sheep nearest engine; cattle second

ROSEWORTHY TO ROBERTSTOWN—"DOWN"

Freeling	Cattle nearest engine; sheep second
Fords	Sheep only
Kapunda	Cattle nearest engine; sheep second
Bagot Well	Sheep only
Hansborough	Sheep nearest engine; cattle second
Hampden	Cattle nearest engine; sheep second
Eudunda	Cattle nearest engine; sheep second
Robertstown	Cattle nearest engine; sheep second

SALISBURY TO PORT PIRIE—"DOWN"

Virginia	Sheep nearest engine; cattle second
Two Wells	Sheep nearest engine; cattle second
Mallala	Cattle nearest engine; sheep second
Calomba	Sheep only
Long Plains	Sheep nearest engine; cattle second
Avon	Cattle nearest engine; sheep second
Kallora	Sheep only
Bowmans	Sheep nearest engine; cattle second
Nantawarra	Sheep nearest engine; cattle second
Bumbunga	Sheep nearest engine; cattle second
Snowtown	Sheep nearest engine; cattle second
Lake View	Cattle nearest engine; sheep second
Redhill	Sheep nearest engine; cattle second
Merriton	Cattle nearest engine; sheep second
Wandearah	Cattle nearest engine; sheep second
Nurom	Sheep only

HAMLEY BRIDGE TO MOONTA—"DOWN"

Stockyard Creek	Sheep only
Owen	Sheep nearest engine; cattle second
Balaklava	Sheep nearest engine; cattle second
Port Wakefield	Cattle nearest engine; sheep second
Melton	Sheep nearest engine; cattle second
Paskeville	Sheep nearest engine; cattle second
Kadina	Sheep nearest engine; cattle second
Wallaroo	Cattle nearest engine; sheep second
Moonta	Sheep nearest engine; cattle second

SNOWTOWN TO KADINA—"DOWN"

Barunga Gap	Sheep nearest engine; cattle second
Bute	Sheep nearest engine; cattle second

BALAKLAVA TO GLADSTONE—"DOWN"

Halbury	Sheep nearest engine; cattle second
Hoyleton	Sheep nearest engine; cattle second
Kybunga	Sheep only
Blyth	Sheep nearest engine; cattle second
Hart	Sheep only
Brinkworth	Sheep nearest engine; cattle second
Yacka	Cattle nearest engine; sheep second
Gulnare	Sheep nearest engine; cattle second
Georgetown	Sheep nearest engine; cattle second

ADELAIDE TO MURRAY BRIDGE—"DOWN"

Blackwood	Sheep nearest engine; cattle second
Aldgate	Sheep nearest engine; cattle second
Balhannah	Sheep nearest engine; cattle second
Nairne	Sheep nearest engine; cattle second
Callington	Cattle nearest engine; sheep second
Monarto South	Sheep only

ADELAIDE TO VICTOR HARBOUR—"DOWN"

Littlehampton	Sheep nearest engine; cattle second
Mount Barker	Sheep nearest engine; cattle second
Bugle Ranges	Sheep nearest engine; cattle second
Strathalbyn	Sheep nearest engine; cattle second
Finniss	Sheep nearest engine; cattle second
Currency Creek	Sheep only
Goolwa	Cattle nearest engine; sheep second
Middleton	Cattle nearest engine; sheep second
Victor Harbour	Sheep nearest engine; cattle second

MONARTO SOUTH TO CAMBRAI—"DOWN"

Apamurra	Sheep nearest engine; cattle second
Cambrai	Sheep nearest engine; cattle second

Employees' Sleeping Vans and Camp Train Consist Vehicles—In the absence of definite advice to the contrary, employees engaged in shunting operations must regard these vans as being occupied and move the vehicle with the least possible disturbance to the occupants.

When an employees' sleeping van or camp train is detached from a train at its destination, it must be placed as soon as possible on a siding where the least shunting movements are made, preferably on a dead-end siding. These vehicles must not be loose shunted and other vehicles must not be loose shunted against them.

When the van or camp train is standing on a siding, the employee in charge must ensure that the outside hand brakes are applied. If any vehicle is not fitted with an outside hand brake, sprags or chocks must be used.

When it is necessary for any van to be moved, the officer or employee in charge of the shunting must either release the hand brakes or remove the sprags or chocks. On completion of shunting, unless the van is being attached to a train, it must be placed in its required position when the hand brake must be re-applied or sprags or chocks used as previously mentioned.

If any van is fitted with a hand brake, which can only be operated from inside the vehicle, such hand brake must not be applied if the van is to be locked.

Length of Goods Trains—The length of goods trains is determined by the restrictions governing each line as shown in the Working Time Tables Book:

Broad Gauge and Standard Gauge—The length of train must not exceed the equivalent of 140/four-wheeled vehicles.

Narrow Gauge—The length of a train must not exceed the equivalent of 70/four-wheeled vehicles, except as authorized in the Working Time Tables Book.

A bogie vehicle is counted as 2/four-wheeled vehicles.

Computing Weight of Trains—

Passenger Trains—The actual tare mass of the car is shown in 50 mm figures at the left hand end of each side of the underframe.

The mass of the car, when loaded or containing passengers, is shown in 125 mm figures at the centre of each side of the underframe, the letter "t" being placed immediately following this mass, *e.g.*, "45t".

When computing the load of a train, the tare mass of empty and mass of loaded vehicles must be used, except that when brakevans are partly loaded, proportion of the difference between the 50 mm and 125 mm figures must be taken according to the amount of loading in the van. (Example:—If the difference be 10 tonnes and the brakevan is half loaded, the mass would be 5 tonnes plus the tare).

Goods and Livestock Trains—The mass of goods and livestock trains must be calculated by taking the tare painted on each vehicle, plus the mass of contents.

The actual tare mass only, plus the actual mass of contents, must be shown in the Guard's Journal, and on the Engineman's Daily Report, in sections 10 and 11 under the heading of "Gross Weight".

Mass of Livestock Vans—The mass of livestock vans must be calculated by taking the tare of the vehicles plus the mass of the livestock.

The mass of livestock to be reckoned as follows:—

Sheep, 40 kg each—200 sheep at 40 kg each equals 8 tonnes
Cattle, 500 kg each—18 cattle at 500 kg each equals 9 tonnes
Calves, 100 kg each
Pigs, 50 kg each
Horses, 500 kg each

MAXIMUM AXLE LOADS

The following table sets out the limitations on loading goods vehicles on the various lines on the:—

1. **Adelaide Division—**

Line	Maximum Axle Load	Gross Load	
		Bogie Vehicles	4 Wheeled Vehicles
Metropolitan Area Adelaide—Peterborough Adelaide—Port Pirie Gawler—Angaston Nuriootpa—Penrice Adelaide—Murray Bridge Mount Barker Junction—Victor Harbour	18.75 tonnes	75 tonnes	37 tonnes
Bumbunga—Lochiel Roseworthy—Robertstown Riverton—Spalding Hamley Bridge—Gladstone Balaklava—Moonta Kadina—Brinkworth Penrice Junction—Truro Monarto South—Cambrai	18 tonnes	72 tonnes	36 tonnes

2. **Murray Bridge Division—**

Line	Maximum Axle Load	Gross Load	
		Bogie Vehicles	4 Wheeled Vehicles
Murray Bridge—Serviceton Wolseley—Mount Gambier Tailem Bend—Karoonda Mount Gambier—Millicent Mount Gambier—Victorian Border	18.75 tonnes	75 tonnes	37 tonnes
Tailem Bend—Pinnaroo Pinnaroo—Victorian Border Karoonda—Glossop*† Karoonda—Peebinga Alawoona—Loxton† Naracoorte—Kingston	15.5 tonnes	62 tonnes	30 tonnes
Glossop—Barmera Karoonda—Waikerie	12.75 tonnes	51 tonnes	25 tonnes

Instances of vehicles loaded in excess of the above must be referred to the Superintendent for direction regarding reduction of load, or authority for the vehicles to proceed to their destination subject to a speed restriction prescribed by the Chief Engineer.

EXCEPTIONS

* L.P. gas tanks for Renmark loaded to 69 tonnes, but speed limited to 50 km/h between Karoonda and Alawoona, and between Nadda and Renmark.

† Bogie wagons loaded with standard containers rigidly secured—gross load 66 tonnes.

3. **Peterborough Division (Standard Gauge Lines)—**

Line	Maximum Axle Load	Gross Load	
		Bogie Vehicles	4 Wheeled Vehicles
Peterborough—Broken Hill	18.75 tonnes	75 tonnes	37 tonnes
Peterborough—Port Pirie	18.75 tonnes	75 tonnes	37 tonnes

Instances of vehicles loaded in excess of the above must be referred to the Superintendent for direction regarding reduction of load, or authority for the vehicles to proceed to their destination subject to a speed restriction prescribed by the Chief Engineer.

Maximum Load Behind Couplings—Broad and Standard Gauges—When a train is composed wholly of vehicles coupled by automatic couplers, the full schedule load as shown in the W.T.T. Book may be hauled.

Grade No.	Grade
1	1 in 45 to 1 in 49 inclusive
2	1 in 50 to 1 in 54 inclusive
3	1 in 55 to 1 in 59 inclusive
4	1 in 60 to 1 in 64 inclusive
5	1 in 65 to 1 in 69 inclusive
6	1 in 70 to 1 in 74 inclusive
7	1 in 75 to 1 in 79 inclusive
8	1 in 80 to 1 in 99 inclusive
9	1 in 100 to 1 in 119 inclusive
10	1 in 120 to level inclusive

NOTE:—The grade numbers set out above correspond with the number shown in the load tables for each line.

Loading Gauges and "Out of Gauge" Loading

(*a*) *Loading Gauge for Broad and Standard Gauge Movements.*

Fig. 1 shows the maximum permissible outline for loading general merchandise in open top or flat wagons. Loading outside this outline is classified as "out of gauge" loading and must not be marshalled in a train without the authority of a Train Notice.

(*b*) *Loading Gauge for "Rigidly Fixed" loads ONLY, Broad and Standard Gauge Movements.*

Loading which is rigidly attached to a vehicle and secured against all movement may be loaded to the diagram shown in Fig. 2, without being classified as "out of gauge". It is to be noted that this outline is the same as the rollingstock outline.

Loading which is acceptable to the S.A.R. and is within the limitation set out herein is also acceptable to the Commonwealth Railways at Port Pirie or the New South Wales Railways at Broken Hill and the Victorian Railways at Pinnaroo, Serviceton and Mount Gambier.

All loading received from these systems should be checked where necessary to ensure compliance with S.A.R. requirements.

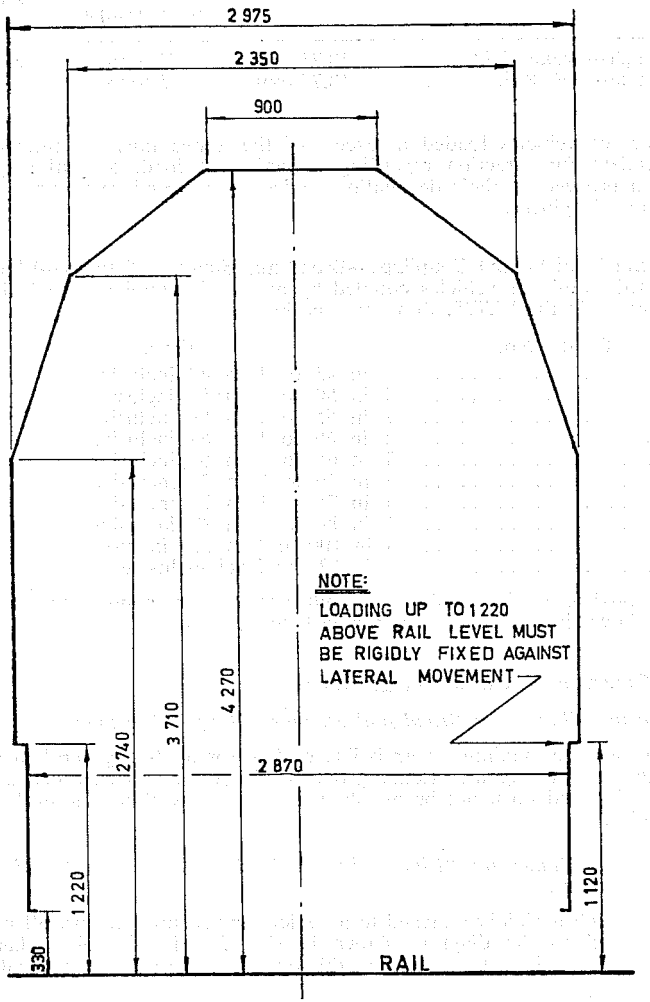


Fig. 1. Normal Loading Gauge

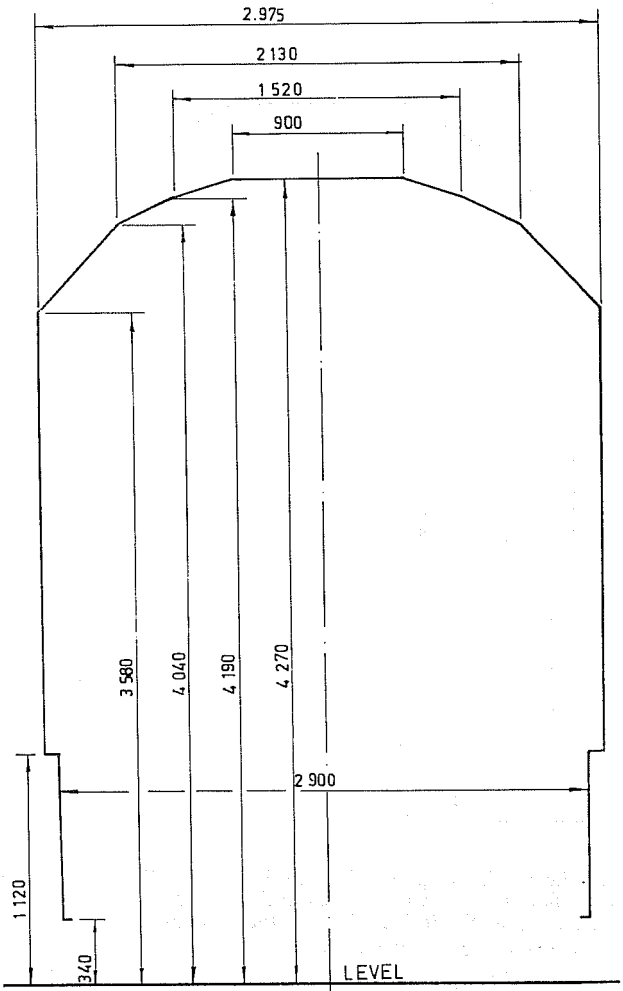


Fig. 2

(*c*) *Loading Gauge for Narrow Gauge Movements.*

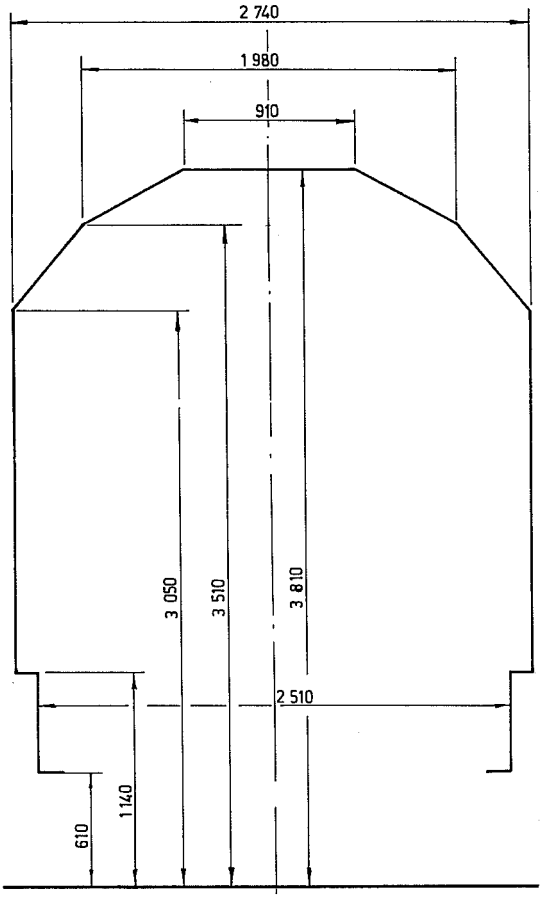


Fig. 3

Fig. 3 shows the maximum permissible outline for loading general merchandise in open top or flat wagons with the exception of XX, YX and YY wagons which may be loaded to the inside width of these wagons.

(*d*) *Advice of "Out of Gauge" Loading.*

On the Adelaide, Murray Bridge and Peterborough Divisions, the Movements Officer, Adelaide, must be advised of details of "Out of Gauge" loading by 3.00 p.m., Monday to Friday, so that a Train Notice can be issued for the movement of such loading.

Details of "Out of Gauge" loading, notice of which is not known until after 3.00 p.m., must be telephoned to the Movements Officer, Adelaide, as soon as possible so as to avoid any unnecessary delay to this loading.

On the Port Lincoln Division, "Out of Gauge" loading must not be marshalled in a train without the authority of a Train Notice.

Goods Trains—Reducing Loads Account Adverse Weather—The Engineman must communicate with the Train Controller if weather conditions, or the state of his engine, make him uncertain regarding the handling of the load through any section.

The Train Controller will arrange for sufficient **tonnage** to be detached from a train, either at the starting station or *en route,* when weather conditions render this course advisable to prevent undue delays. When the load is reduced under these circumstances, the Train Controller must report the matter to the Superintendent, and the Engineman must show particulars on his Daily Report.

Marker Lamps—Marker lamps must be carefully handled, so as to avoid damage—particularly to the lenses.

When these lamps are placed on, or removed from lamp brackets, they must not be jerked into or out of position. They must never be dropped, but placed carefully on the platform or ground where they will not be an obstruction.

When carrying lamps by hand, only one lamp must be carried in each hand, otherwise the jolting is likely to fracture the lenses.

In cases where a brakevan is placed on a train for any purpose other than the train brake, the Station Master at the attaching station must see that marker lamps are placed on the lamp brackets provided inside the brakevan.

If such brakevan is subsequently returned as a train brake, the Station Master must see that the marker lamps are removed from inside the brakevan and placed in their correct position.

Marker lamps are held at the following stations:—

Adelaide Division

Adelaide	Dry Creek	Gawler
Woodville	Pooraka	Wallaroo
Port Adelaide		Snowtown
Mile End		
Bridgewater		

Peterborough Division

Peterborough	Gladstone	Broken Hill
	Port Pirie	

Murray Bridge Division

Murray Bridge	Naracoorte	Renmark
Tailem Bend	Mount Gambier	
Serviceton	Kingston	

Port Lincoln Division

Port Lincoln	Minnipa	Thevenard
Cummins		

HAND SIGNAL LAMPS

1. **Description—**

Numbering—Each hand signal lamp is individually numbered for identification. The method of numbering is shown in the respective illustrations.

Types—Hand signal lamps issued are of the following types:—

Kerosene—Standard	See illusration 1 (*a*) and 1 (*b*)
Kerosene—Rotating lens type	See illustration 2
Battery—Converted standard type .	See illustration 3 (*a*) and 3 (*b*)
Battery—"Bardic" or Type A	See illustration 4
Battery—"N.S.W. Pattern" or Type B	See illustration 5 (*a*) and 5 (*b*)
Battery—"Appleton" or Type C . .	See illustration 6 (*a*) and 6 (*b*)

Indications—All types display white, red and green indications as follows:—

(i) Kerosene standard type and battery converted type.

White—control levers normal.
Red—left hand (serrated) lever depressed.
Green—right hand (plain) lever depressed.
The red or green indication is released by pushing the centre lever forward.

(ii) Kerosene—Rotating lens type and battery types "B" and "C":—

White-Red-Green-White is displayed in that sequence by rotating the three arm colour change lever clockwise.

(iii) Battery type "A":—

White—Control lever in centre position.
Red—Control lever pointing right.
Green—Control lever pointing left.

Switches—Battery lamps of the converted type and type "C" have a separate on-off switch as shown in the respective illustrations:—

Battery lamps types "A" and "B" have the switch mechanism combined with the colour change lever as shown in the respective illustration:—

On—lever down
Off—lever up

2. Yardmasters, Guards, Assistant Guards, Shunters and Assistant Shunters will be issued with a lamp, which they will retain, until transferred as provided in paragraph 7, and the number must be shown on the employee's Register of Service Form No. 740.

3. Porters who regularly do shunting work at stations will also be provided with a hand signal lamp, and details recorded.

4. At stations where intermittent shunting is performed, a lamp will be issued to the station, and be under the sole control of the Station Master, and must be shown in the Station Property Book.

5. Repairs must be handled as stipulated under clause 11. Spare lamps issued for the purpose of enabling employee's lamps to be forwarded for repairs must be returned to the Superintendent immediately the repaired lamp is returned to the employee.

6. Superintendents must keep a register of the lamps issued on their Division, and those held as spares, as set out herewith.

Lamp No.	Issued to		Repairs		Loaned from Stock During Repairs		
	Name	Grade	Date Sent	Date Returned	No.	Date Sent	Date Returned
50	Smith, A. E.	Guard	10/10/72	1/11/72	100	10/10/72	2/11/72

7. When an officer or employee, to whom a hand signal lamp has been issued, is transferred to another station, he must return the lamp to the Station Master prior to his departure.

8. Each engine will be equipped with a battery hand signal lamp as permanent engine equipment. Any defect in the operation of the lamp must be recorded by the Engineman in the engine log book. Should a lamp be found missing at any time, the Train Controller must be promptly advised and a record made in the engine log book.

9. Under no circumstances must any standard or fixed component of a lamp be replaced or altered other than by an authorized employee of the Signal and Telegraph Section.

10. **Maintenance**—Officers and employees to whom the lamps are issued must avoid subjecting them to rough usage and must carry out the following maintenance procedures:—

(1) **Kerosene lamps**

(*a*) *Cleaning*—The interior of the lamp, excluding the polished surfaces, must be cleaned daily and any soot or oil deposits removed. The polished surface of the reflectors must NOT under any circumstances, be rubbed with an oily rag, but a soft cloth with a little soap must be used to clean them. Care must be exercised to avoid scratching or unduly rubbing the chromium plating.

(*b*) *Trimming*—The porcelain burner must be cleaned daily and any soot deposit removed from the wick channel. The carbon cap that forms on the wick must be removed by rubbing. The wick must not be cut.

(*c*) *Filling of Founts*—The fount must be filled with Lighting Kerosene to within 6 mm of the top of the neck ring to avoid overflowing.

(*d*) *Front Glasses and Coloured Screens*—The front glass and coloured glass screen of the lamp must be wiped over daily with a soapy cloth and polished.

Kerosene—The founts of all types of kerosene burning lamps must only be filled with lighting kerosene.

Under no circumstances must power kerosene be used for lamps, as such contains a high percentage of volatile matter which will result in explosion if exposed to a naked light or match. **It is dangerous for use in lamps.**

Officers in Charge of stocks of kerosene must ensure that all containers are clearly branded either "Lighting Kerosene" or "Power Kerosene—not to be used for Lighting".

(2) **Battery Lamps**

Batteries—Only the correct batteries must be used in each type of hand signal lamp.

In type "A" lamps the battery must be placed in the polythene bag provided to prevent corrosion of the lamp if the battery should leak. If a battery does leak, a new battery and polythene bag should be used.

In type "B" and "C" lamps the battery must be placed in the plastic battery container before fitting in the lamp. If battery leakage does occur the plastic container should be washed, dried and a new battery fitted.

Globes—Only the correct globes must be used in each type of lamp—the voltage and current ratings are marked on the base of the globe.

The method of replacing blown globes is as follows:—

(i) *Converted type*—Access to the globe is obtained by opening the rear door of the lamp and removing the clear glass. Remove the defective globe by unscrewing anti-clockwise, and replace with a good globe by screwing clockwise until firm.

(ii) *Type "A"*—Remove the neoprene ring and acrylic lens from the front of the lamp. Extract the centre portion of the reflector through the white light opening by gripping with the special tool supplied to each depot, and the defective globe will be released (see illustration 7). Insert a new globe and re-assemble the parts ensuring that the centre portion of the reflector does not prevent free rotation of the coloured lenses.

(iii) *Type "B"*—Unscrew the square thumb screw under the base of the lamp and remove the operating unit, where access to the globe is obtained through the white light opening. Remove the defective globe by unscrewing anti-clockwise, and replace with a new globe by screwing clockwise until firm.

(iv) *Type "C"*—Remove the neoprene ring and acrylic lens from the front of the lamp where access to the globe is obtained through the white light opening. Remove the defective globe by unscrewing anti-clockwise and replace with a new globe by screwing clockwise until firm.

Keep the lens clean by regularly wiping both insides and outside lightly with a clean soft cloth.

11. **Repairs**—All hand signal lamps for repairs must be sent to the Signal and Telegraph Engineer, Adelaide, through the Superintendent of the Division, and the following procedure adopted:—

(*a*) Kerosene lamps—The founts must be emptied and no kerosene allowed to remain therein. The empty fount and burner must be replaced in the lamp and consigned complete for repairs.

Battery lamps—remove the battery from the lamp and do not forward with the lamp for repairs.

(*b*) Secure doors, etc., against opening or loss by use of strong string, and seal with sealing wax or seal.

(*c*) Lamps must be waybilled, and the number of the lamp, together with the nature of the damage or fault stated.

(*d*) Kerosene hand signal lamps when dispatched for repairs must be complete with fount and burner, properly sealed and waybill endorsed "One hand signal lamp complete with fount and burner".

Battery hand signal lamps when dispatched for repairs must be without battery, properly sealed and endorsed "One Hand Signal Lamp, less battery".

In the event of any details missing, a memorandum must be submitted to the Superintendent of the Division or Loco. Superintendent, Adelaide, as the case may be, by the officer or employee to whom such lamp is on issue, explaining the shortage.

(*e*) When lamps are being returned after repair, the Signal and Telegraph Engineer will arrange for them to be sealed in the manner described in subclause (*b*).

Should a lamp be received without seals, the officer in charge must report the matter to the Superintendent of the Division.

12. **Train Porters—Issue of Hand Signal Lamps to**—A battery hand signal lamp (converted standard type) painted grey, displaying white and red indications only, is issued to each Train Porter, who will be responsible for keeping same in a thoroughly clean condition and ready for immediate use.

Each lamp is numbered and bears the prefix letters "TP". The number of the lamp (including the prefix letters) must be shown on the record of the Train Porter to whom it is issued on the Register of Service Form No. 740.

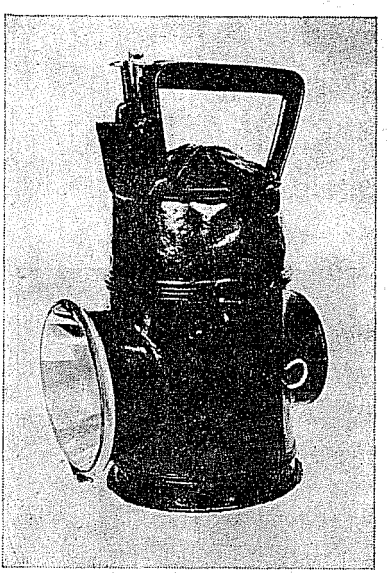
When passengers join or alight at stations where the brakevan is off the platform, the Train Porter, after ensuring that the passenger has joined, or has left and is clear of the train, must exhibit a white light to the Guard.

Spare lamps are held by the Station Master, Adelaide, for issue to employees temporarily employed as Train Porters and to replace regular lamps sent in for repairs. Train Porters employed on other duties, or going on leave, must personally return the hand signal lamp to the Station Master, Adelaide, and receive an acknowledgement for same. Prior to resuming duty as Train Porter, they must apply for a lamp to be issued to them.

Any defect or damage to a lamp must be promptly reported by the Train Porter concerned to the Station Master at his home station.

Employees rostered for duty as acting or relieving Train Porter must obtain one of these hand signal lamps and return same to the Station Master, Adelaide, at the conclusion of the period of duty as Train Porter.

These lamps must not be issued to other employees and must be used only in accordance with the instructions issued to Train Porters on *The Overland* and certain other passenger trains.

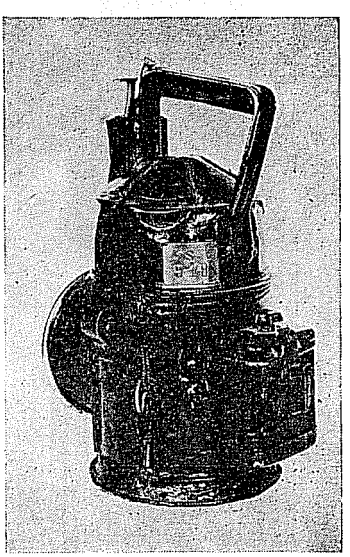


1 (a)

1 (b)

2

3 (a)



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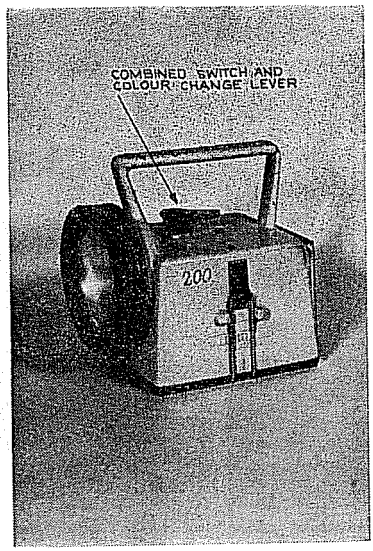
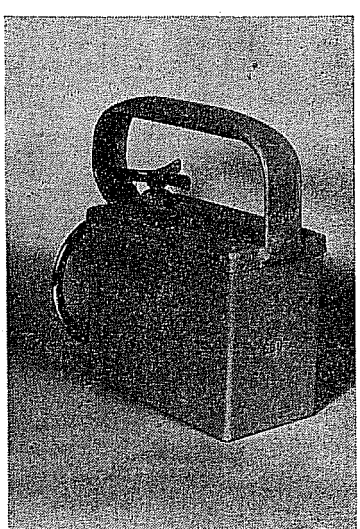

COMBINED SWITCH AND
COLOUR CHANGE LEVER
200

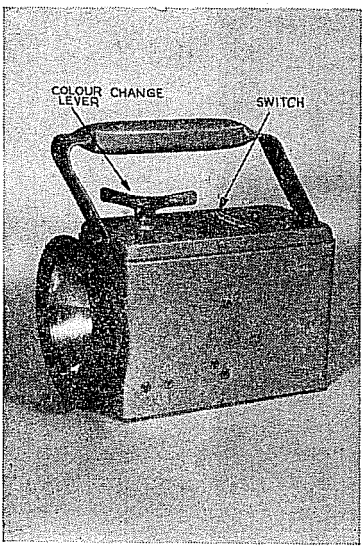
4


COMBINED SWITCH AND
COLOUR CHANGE LEVER

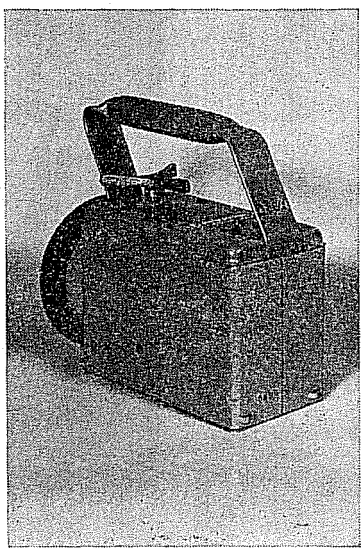
5 (a)



5 (b)



6 (a)



6 (b)

7

Inspection of Rear of Trains by Guards—

Goods Trains—After a train has been made up and prior to examination before departure, such train must be pulled away from any adjacent vehicle at the rear to ensure that such vehicle cannot become incorrectly attached to the brakevan.

The Guard must immediately, after the train has started, also look back to ascertain that no vehicle is attached behind his brakevan, and should a vehicle be attached he must immediately stop the train.

Passenger and Mixed Trains—The Guard must, before giving the starting signal to the Engineman, uncouple any vehicles marshalled behind the vehicle to which the rear marker lights are affixed. When the train moves off he must observe that all such vehicles have been detached. In the event of a vehicle being still coupled, he must apply the air brake and stop the train.

Reporting Track Defects—With reference to Rule 539, when an Engineman reports any defects at the next station, the Station Master must immediately advise the Train Controller, the District Foreman and Ganger for the length. If the next station is unattended, the Engineman must report direct to the Train Controller or the nearest attended station, as the case may be.

Reporting Signal Failures—Train Crews reporting signal failures must indicate the number and location of the signal. Where a signal is located in Absolute Permissive Block Territory, the indication displayed on the preceding and following signal shall be given where possible.

Withdrawal of Trains from Traffic Due to Irregularity in Working—In any case where an irregularity in train working has occurred, where the condition of the air brake may be in question—such as over-running station platforms, running into crossing gates, passing signals at "Stop", running into dead-ends, etc.—the Train Controller must promptly advise the Divisional Locomotive Officer, and if considered necessary, the whole of the rollingstock concerned, including the engine, must be taken out of traffic and held without any adjustment or alteration until any necessary tests are completed.

Engines being detached from trains standing on a grade—In connection with the instruction in Rule No. 355, the following stations have a grade of 1 in 50 or steeper on the Main Line or Passing Siding, and at those stations, prior to detaching the engine, the Guard must ensure that at least half the hand brakes are applied on the vehicles in the train's consist.

Mile End—Tailem Bend Line

Long Gully
Mount Lofty
Petwood

Murray Lands Lines

Taplan
Nangari
Kalyan
Kunlara

Port Stanvac Line

Port Stanvac

At other locations (not listed above) where the grade is less than 1 in 50, the Guard of a train where the engine is detached, must apply sufficient hand brakes to ensure that the train will not move.

Automatic Coupler—*Description*—The automatic coupler consists of a coupler head, a knuckle which pivots in the coupler head, a lock to retain the knuckle in the closed position, a lock lift mechanism to allow the knuckle to open, and on the end of each vehicle is the coupler uncoupling rod mechanism.

By a smart upward pull of the uncoupling rod handle as far as it will go, the lock is lifted to a position which will allow the knuckle to open. After the lock is lifted it will stay in what is known as the "lock set" position until unseated by a slight bump or until the knuckle is closed when the lock falls back to the normal locked position.

Method of Operation—When coupling vehicles fitted with automatic couplers, the coupler knuckle on the stationary vehicle must be closed by hand until the lock fully drops. The coupler of the on coming vehicle being fully opened by giving the uncoupling rod handle a smart upward pull, allowing the two vehicles to couple automatically when brought together. *Both couplers must be in the central position for the operation.* Should difficulty be experienced in coupling, the position of the coupler knuckles on each vehicle must be reversed, *i.e.*, the stationary vehicle to have coupler opened and the moving vehicle to have coupler closed.

To uncouple, the operating handle of the uncoupling rod must be given a smart upward pull.

Shunters, Train Examiners and other members of the staff concerned with coupling and uncoupling of rollingstock, are advised that it is essential when making a coupling with automatic couplers, to see that the lock has dropped properly after the coupling is made. Staff must be conversant with this particular coupler mechanism.

When coupling engines or vehicles by means of an automatic coupler, the stationary vehicle must be properly secured against movement.

Locking—Engines, Joint Stock Passenger Cars and Brakevans—A locking hook, attached by chain to the bottom of the coupler head is provided for insertion through a hole in the lock lifter to prevent the coupler being inadvertently or accidentally uncoupled.

When coupling these vehicles the locking hooks must be in position before the control jumper plugs are connected. Enginemen must ensure that the couplings are properly locked with the locking hooks in position.

When uncoupling, locking hooks must not be removed until all control jumpers between the coupled units have been disconnected.

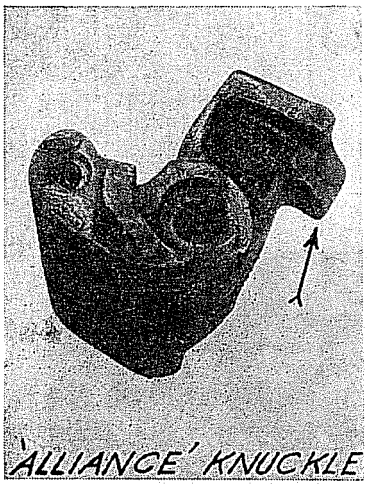
Replacement of Damaged Knuckles—In the event of the breakage of a knuckle of an automatic coupling, it may be replaced in the following manner:—

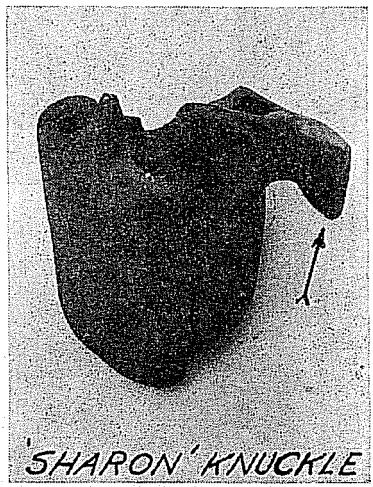
> Remove split pin at bottom of knuckle pin and remove the knuckle pin. Release the knuckle lock by lifting the uncoupling rod handle. Rotate the knuckle to the extreme open position when it may be readily removed.
>
> The new knuckle may be inserted by reversing the above operation. If a spare knuckle is not available, one must be taken either from the front of the engine, or from the rear of the train, or from any idle vehicle in the vicinity as directed by the Train Controller; the vehicle from which the knuckle has been removed must be labelled and action taken for the replacement of the knuckle.

The diagram below indicates the various parts concerned in replacing a damaged knuckle.

On first inspecting the damaged knuckle it is important to distinguish the difference in the tail piece as an identical knuckle will be required for replacement.

The illustration below shows this difference.





Coupling of Narrow Gauge Vehicles—When coupling up Narrow Gauge vehicles, both hooks must be used, where possible.

Victorian Link Coupled Vehicles or Screw Coupled Passenger Cars—These vehicles must not be permitted to work into South Australia either *via* Serviceton, Pinnaroo, or Mount Gambier, without special permission from the General Traffic Manager.

RATCHET AND GEARED HAND BRAKES

1. **Ratchet Hand Brake**—(*a*) The handle of the brake is fixed at one end of the vehicle with a shunter's step near the brake handle.

(*b*) When operating the ratchet hand brake it is essential that long, steady strokes are taken to obtain efficient operation. Short, quick strokes must be avoided, as this does not give the winding pawl sufficient time to engage with the ratchet wheel teeth, and results in slipping.

(*c*) *To Apply the Hand Brake,* the handle should be moved to the *right* until the winding pawl starts to engage with the pawl stop, and then moved towards the operator (see illustration No. 1) as far as possible, thus ensuring that the maximum effective stroke is obtained for applying the brake. To obtain the maximum leverage the handle should be gripped as near the end as possible. It is essential that the operator does not throw the handle too far to the right as this action lifts the ratchet pawl by means of the handle tongue and releases the brake, which should only come into operation when it is required to *release* the hand brake.

(*d*) *To Release the Hand Brake,* push the handle hard over to right when standing on the step so that the upper and lower pawls will be thrown out of contact with the ratchet wheel, allowing the brake to run off. (See illustration No. 2.)

Illustration No. 1—Showing operator applying hand brake.

Illustration No. 2—Showing operator releasing hand brake. Push handle hard over to right to lift locking pawl.

2. Geared Hand Brake

(*a*) *Side Operated Type*

(i) A brake handwheel is provided on each side of the vehicle. The direction of rotation for the "ON" and "OFF" position of the hand brake is indicated by arrows (see illustration No. 3).

(ii) To apply the hand brake, the handwheel must be turned towards the "ON" indication until the brake blocks are fully applied. The brake will then be held in the "ON" position by a pawl and ratchet until released.

(iii) To release the hand brake, the hand brake wheel pawl is lifted and the brake will release if turned in the "OFF" direction. Special care must be exercised in operating the release handle; the correct and incorrect methods are shown in illustrations Nos. 3 and 4.

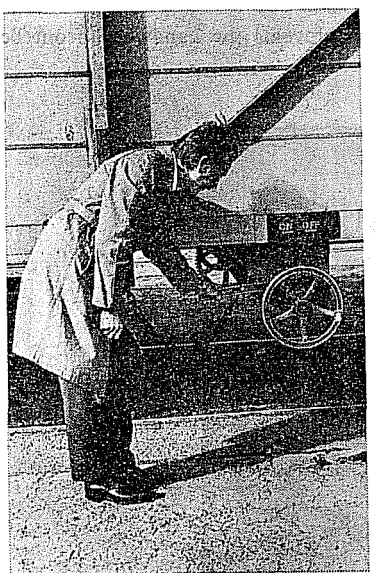


Illustration No. 3—Showing operator lifting release handle so that the brake may run off as shown by "OFF" indicator. THE RIGHT WAY.

Illustration No. 4—Showing operator releasing brake THE WRONG WAY.

(*b*) *End Operated Type*

(i) A geared type hand brake as shown in illustration No. 5 is fitted at one end of some goods vehicles. A shunter's step and hand holds are provided adjacent to the hand brake wheel.

(ii) To apply the hand brake turn the handwheel to the right or in a clockwise direction until the brake blocks are fully applied. The brakes will then be held in the "ON" position by a clutch within the hand brake housing. Partial application of the brake may be made as the clutch will hold in any position.

(iii) Gradual release of hand brake. The hand brake may be gradually released by turning the wheel to the left or in a counter clockwise direction.

(iv) Quick release of hand brake. Lifting the release lever which is to the left and behind the handwheel allows the brakes to fully release. Lifting the release lever disengages the clutch and the handwheel will not spin during quick release.

NOTE:—In the released position a stop prevents the handwheel from being turned to the left or counter-clockwise.

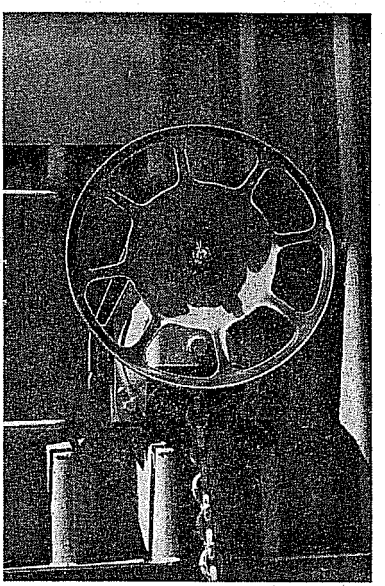
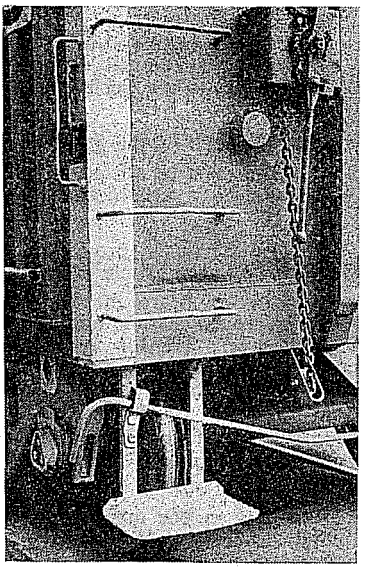
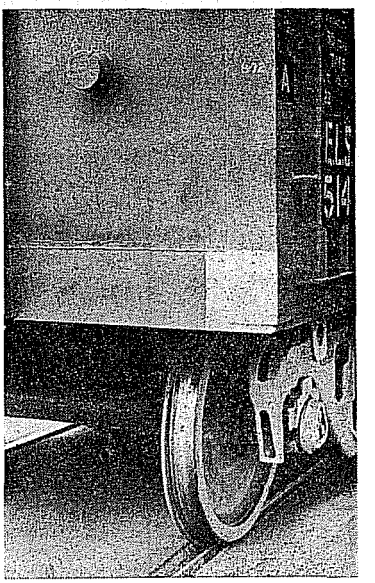


Illustration No. 5

Hand Brake—Colour Patches to Indicate Positions on Goods and Livestock Vehicles—White colour patches (deep yellow on light coloured insulated vans) are painted on all South Australian Railways goods and livestock vehicles as shown.



(*a*) On the side and end of the vehicle on the lower corner adjacent to the brake handle.



(*b*) On the opposite end of the vehicle on the same side as the hand brake handle.

(*c*) Vehicles fitted with handwheel on both sides have markings on both sides of ends of vehicles as applicable to (*a*) and (*b*) above.

(*d*) Victorian Railways Vehicles are similarly marked to South Australian Railways Vehicles.

(*e*) Vehicles of the New South Wales Railways, Commonwealth Railways and Western Australian Railways are not marked to indicate location of hand brake.

Hand Brake—Out of Use—When long articles overhang the hand brake end of flat wagons preventing the operation of the hand brake, the wagon must be marked with chalk "Hand Brake Out of Use."

Wagons with the hand brake out of use must not be loose shunted.

When the hand brake can again be used, the chalk marks must be removed.

LABELLING OF VEHICLES

The following is a full list of Goods and Truck Labels in use:—

Number — To be used for:—

251. *All Livestock*

(*a*) Fully loaded vehicles from one consignor to one consignee must have a label affixed to each side of the vehicle.

(*b*) Fully loaded vehicles containing more than one consignment or partly loaded vehicles must have a label affixed to each compartment on each side of vehicle and for other than single cattle vans the compartment A, B, C, or D, as the case may be, must be endorsed on the label.

(*c*) Goods vehicles containing livestock in cases or crates must have a label affixed to each side of the vehicle.

(*d*) Goods vehicles containing livestock in cases or crates and other general goods must have a livestock label (No. 251) pinned or otherwise affixed to the back of each goods label in such a position that the word "Livestock" is plainly visible.

Particulars of consignments must be shown on the face of the goods labels.

The most suitable of these must be affixed to consignments by the forwarding staff in accordance with the following:—

(1) Except as otherwise hereafter provided, goods must only be despatched when each article or package—

(*a*) is fully addressed or bears the Consignee's initials and approved station brands affixed by the Consignor. (If for another State (Broken Hill excepted), the full name and destination station and State as per current Goods and Livestock Rates Book.)

(*b*) has an "adhesive" or "tie on" label showing station from, etc., properly filled in, affixed by the staff.

(2) When there is more than one article or package of the same or similar description for the same consignee, the following system of labelling is permitted:—

252. (Tie on label)

No. of Articles or Packages where the aggregate of the consignment is less than one tonne

Up to 5—Each article to comply with the provision of clause (1).

266. (Adhesive label)

Above 5 up to 100—One article or package in every *ten* to comply with the provisions of clause (1) (with a minimum of five articles or packages labelled) but each label must show the total number of articles or packages in the consignment.

Over 100—One article or package in every *twenty* (with a minimum of ten articles or packages labelled to comply with the provisions of clause (1)). Each label must show the total number of articles or packages in the consignment.

(3) Every label must be securely fastened to the article or package.

Exceptions—(*a*) Any general merchandise of the same or similar description carried in consignments of one tonne or upwards, from one consignor to one consignee.

(*b*) Goods loaded on private sidings. These instructions do not apply to outwards consignments from Mile End or Port Adelaide.

253. Goods in wagon load consignments of Manure, Firewood, A.P., Miscellaneous, Special A.P., A, B, and C Classes, and wagon loads of wool, not involving transfer at break-of-gauge stations.

The wharf, private siding, or other address to which the vehicle is to be shunted at destination must be shown.

253A. Goods in wagon load consignments, requiring Special Dispatch, loaded by Forwarding Agents for Inter-system destinations.

254. Goods of a perishable nature in wagon load consignments, not involving transfer at break-of-gauge stations.

255. Goods in wagon load consignments of Manure, Firewood, A.P., Miscellaneous, Special A.P., A, B, and C Classes, and wagon loads of wool, for transfer at break-of-gauge stations. The wharf, private siding, or other address to which the vehicle is shunted at destination must be shown.

256. Goods in wagon load consignments requiring *urgent* dispatch for *transfer* at break-of-gauge stations.

257. Goods in wagon load consignments of a *perishable* nature for transfer to break-of-gauge stations.

258. Goods in wagon load consignments requiring urgent dispatch, and *not* for transfer at break-of-gauge stations.

259. Vehicles containing "Take Out" consignments. The name of each station for which there are goods in the vehicle must be shown in station order, and the number of packages for each station.

260. Vehicles containing "Take Out" consignments of a perishable nature.

The name of each station for which there are goods in the vehicle must be shown in station order, and number of packages for each station.

261. Vehicles containing explosives or other dangerous goods. If for transfer or containing other goods for transfer, a "Transfer" label must be placed behind the "Explosives" label so as to show "Transfer" and "Explosives".

262. Vehicles from attended stations to be weighed. These must be placed in front of the ordinary label on each side of the vehicle. The weighing station must enter the weight on the two vehicle labels, prepare Weight Ticket (385) and enclose one copy to the dispatching station and one copy to destination station, or in the case of an unattended siding, to the accounting station concerned.

Upon receipt of the Weight Ticket the sending station must attach it to, and file it with, the consignment note.

For the goods weighed from stations with a Signalman, Porter, Caretaker, or Agent-in-Charge, a "To weigh" label must be placed on each side of the vehicle in addition to ordinary label. The weighing station must enter the mass on consignment note (Section "B") on vehicle labels and prepare necessary Weight Tickets (385) and enclose one copy of each dispatching station and destination station or accounting station for same, as the case may be.

The "to weigh" labels must be removed at the weighing station.

263. "Green Label" to be placed on each side of the vehicle requiring repairs but fit to run to destination or Depot. Guards must carry ten (10) labels (No. 263) for attaching to any vehicle on their train:

See instructions regarding "Labelling vehicles for repairs or inspection, but fit to run to destination or Depot."

264. "Red Label" to be placed on each side of a vehicle requiring repairs and not fit to continue in traffic.

285. A "Stick-on" label for attaching to each package of C.O.D. goods. The labels must be made out and attached by the Consignor.

286. Vehicles containing non-urgent goods to be detached at roadside stations for further loading or take out.

296. "Stick-on" label for attaching to the sides of vehicles containing explosives or goods of a dangerous nature, and not fitted with a metal label.

NOTE—Two prints of this label are in stock. That for Adelaide Division shows—

INFLAMMABLE

EXPLOSIVES

and for other Divisions—

INFLAMMABLE

Keep away from fire

Broad and narrow gauge box vans are fitted with holders on each side to carry a metal label. One side of the label is printed—

INFLAMMABLE

EXPLOSIVES

and the reverse side is blank.

The metal label must be displayed with the word uppermost which describes the contents of the vehicle. When the goods are discharged, the label must exhibit the blank side. The metal labels must be securely attached to the vehicle.

When explosives, or goods of a dangerous nature, are carried in vehicles not equipped with label holders, or if the label be missing from either side, label No. 296 must be securely attached, with paste, on each side, and also on each side of each vehicle conveying mineral spirit in excess of 200 l. This label must be placed as near as convenient to the vehicle label holder. Labels (metal and paper) must not be covered when tarpaulins are used.

Label No. 296 must be removed from vehicles at attended stations when the goods concerned have been unloaded.

297. Vehicles containing urgent goods for eastern States per Fast Goods Train.

298. *First Trip Half Load Only*—To be placed on each side of new vehicles, or those with refitted bearings, for the first 80 km of running. If the vehicles are loaded to half capacity or less, the labels must be placed behind the ordinary labels.

531. "Tie-on" label for attaching to articles for forwarding to Islington Workshops.

901. "Tie-on" label for general O.S. use other than as provided above.

General Instruction—Only pens or pencils authorized for the preparation of vehicle labels must be used. Labels must be placed in the holders at the side or ends of the vehicles. The total mass of the contents and the total mass of the vehicles must be entered on the labels at the sending station. The name of the destination station must be shown in *block* letters.

Weighing stations must enter the mass on the labels of vehicles from stations without weighbridges. The total mass must be entered so as to be readily seen by Guards and others concerned. All the particulars required by the printing on the labels must be clearly filled in at the sending station.

Intermediate stations placing "Take-out" consignments in "Take-out" vehicles, or other through vehicles containing "Take-out" consignments, must enter the name of the station to which consigned and the number of packages on the original label.

Labels must not be used more than once. They must be removed as soon as the vehicle is unloaded, and held for one month for reference. An empty vehicle must not leave any station with a used label on it.

At break-of-gauge stations outgoing vehicles containing goods transferred, of other than vehicle load consignments of Manure, Firewood, A.P., Miscellaneous, Special A.P., A, B, and C Classes, and part vehicle loads of wool must be labelled as from the transfer station with number 253, 259, or 260 labels. Mass to be shown on the labels—gross and contents.

At break-of-gauge stations the numbers of the vehicles to which vehicle load consignments of Miscellaneous, Manure, Firewood, A.P., Special A.P., A, B, and C Classes, and vehicle loads of wool are transferred, must be entered on the original label (255) from the consigning station. If two or more break-of-gauge stations are passed, the final vehicle number must also be entered at the second or final transfer station.

For "Take-out" vehicles the starting mass to be taken. No notice to be taken of mass of goods picked up, except consignments in excess of one tonne.

In the case of loading being transferred at other than break-of-gauge stations, the number of the vehicle to which it is transferred must be clearly written on the label at that station, and the name of the station at which the transfer takes place; also the date of, and reason for, the transfer must be written on the back of the label.

A supply of livestock and vehicle labels, likely to be required, must be maintained at each unattended station; and labels Nos. 253 and 255 supplied to the public at all stations for vehicle load consignments of Manure, Firewood, Miscellaneous, A.P., Special A.P., A, B, and C Classes.

The Staff at Wolseley, Mount Gambier, and Pinnaroo will be responsible for the correct labelling of vehicles *ex* Victoria.

On labels of vehicles consigned to the eastern States the words "*via* Pinnaroo", "*via* Serviceton", or "*via* Mount Gambier", as the case may be, must be plainly written diagonally across the label.

Station Masters are responsible for seeing that vehicles loaded at their stations are labelled in accordance with the foregoing instructions, and Guards are responsible for vehicles attached to their trains, at unattended stations, being properly labelled.

Labels must be affixed on parcels, luggage, etc., in a position where they will not obliterate the names of consignees or consignors.

Vehicle loads of potatoes must be treated as urgent traffic and labelled as under:—

(*a*) When for urgent dispatch, requiring transfer at break-of-gauge stations—label 256.

(*b*) When for urgent dispatch not involving transfer—label 258.

Abbreviations—In the preparation of vehicle labels, invoices, waybills, and the labelling of parcels and baggage, abbreviations must not be used.

Unauthorized Marking or Writing on Rollingstock, Buildings, or Equipment—Station Masters must not permit chalk marking, writing, or printed matter to appear on rollingstock other than is necessary in connection with railway working.

Should any vehicle be received with any unauthorized marking or writing or such marking or writing appear on railway buildings or equipment, Station Masters must immediately arrange to have same removed.

Station Masters at loading, transfer and Depot Stations must ensure that no vehicle is dispatched with unauthorized marking thereon.

Sealing of Goods Vehicles, Furniture Boxes, and Mail Vans—

1. All seals are lettered "SAR", are numbered consecutively, and Station Masters must ensure that all seals are used in numerical order.

2. *Care of Seals*—Station Masters must keep seals under lock, and will be held responsible for their care, the sealing of vehicles, and maintaining correct seal records. Seals must be used consecutively, and a correct record kept in the Seal Record Book of each seal applied; also of those spoiled when sealing, or removed on receipt of inwards vehicles (*vide* clause 11). Spoiled seals must be retained for inspection by the Assistant Superintendent or Revenue Inspector. The first page of the Seal Record Book must show the opening and closing numbers, and date of receipt of each supply. The Revenue Inspector will see that the records are correctly kept.

3. The interchange or loaning of seals is forbidden, and therefore a sufficient supply must be kept on hand at all times.

4. The seal consists of a piece of wire approximately 300 mm long with:—

(i) A circular flattened loop at one end lettered "SAR".

(ii) Adjacent to the loop is a short flattened portion marked with an arrow indicating the point at which sealing is completed by twisting the straight portion around the flat surface marked with the arrow.

(iii) Notches are cut in the straight portion of the seal to facilitate the twisting of the seal referred to in paragraph (ii) above.

(iv) A third flattened portion at the end of the seal is stamped with the serial number and index prefix.

5. *Method of Sealing.*

(*a*) Pass the flat straight end of the seal (with the seal number on the outside) through the sealing holes of the vehicle to be sealed.

(*b*) Pull the notched portion of the seal past the short flattened portion near the loop (as referred to in paragraph (ii) above), and twist the straight portion of the seal (with the notches inside the twist) twice around the flat arrow; this will leave the serial number of the seal visible for recording.

If the seal be interfered with thereafter, the twisted portion will break at the notches.

6. *Applying and Removing Seals*—Seals must be applied to door fastenings so that doors cannot be opened without breaking the seals. The numbers must be so exposed that they may be easily read.

Where vehicles are sealed for the convenience of consignors on Commissioner's public sidings, private sidings, or on wharves or jetties, it is the responsibility of the employee applying the seals to examine the loading, and ensure that the vehicle is not empty.

7. Box vans, including louvre and insulating vans, portable cool chambers, cheese containers, furniture boxes and powder vans containing goods, also loaded mail vans (including those fitted with "H" and other special locks), and brakevans (other than the train brake) loaded with mails, must be sealed at the forwarding station as follows:—

(*a*) Vans loaded by the Railways Staff—Immediately the loading is completed.

(*b*) Vans loaded by consignors on Commissioner's public sidings—As soon as possible after the loading is completed.

(*c*) Vans loaded on private siding or on wharves or jetties—As soon as possible after being shunted to the Railway Yard.

(*d*) Vans loaded at unattended stations—At the first attended station at which the train conveying them stops.

Notwithstanding that a van is locked where sealing is specified, seals must be applied.

When a joint stock brakevan, other than the train brake, is used for the conveyance of mails, or other valuable goods, the end doors and doors of the dog boxes must be sealed inside the brakevans, and all windows, including those at the top of the Guard's compartment, must be securely bolted inside, in addition to the brakevan doors being locked and sealed.

8. Pick-up vans must be sealed at the last attended station before reaching destination, with the following exceptions:—

(*a*) When live poultry, or any animal in a crate, has been placed in a box van other than a louvred van, such vans must not be sealed if the doors are required to be kept partly open to give sufficient air to the animals or birds.

(*b*) "Pick-up" and "take-out" vans from stations north of Salisbury to stations south of Dry Creek, not sealed before reaching Salisbury, must be sealed at Dry Creek. If necessary to break seals at Islington or North Adelaide, they must be re-sealed at those stations.

(*c*) Doors of "take-out" vans, used for picking up or setting down goods, must be sealed at the last attended station before reaching destination, except as provided in clause (*b*).

(*d*) If the last station before reaching destination, be unattended or closed, the "pick-up" and "take-out" vans must be sealed immediately on arrival at their destination. Guards must advise Station Masters by telephone if possible, or at the latest, immediately on arrival, of any vans requiring to be sealed.

9. Seals must not be broken at any station short of destination except:—

(*a*) When it is necessary to break the seals on vans other than "pick-up" or "take-out" vans at any attended station, the van must be re-sealed before departure, the numbers of the seals removed and the new ones applied recorded by the Station Master in the Seal Record Book. When a seal is broken by a Guard at an unattended station, the van must be re-sealed at the next station provided with seals where the Guard must hand the broken seals to the Station Master who must record in his Seal Record Book the numbers of the broken seals, van number and station at which removed.

(*b*) When a seal on a "pick-up" or "take-out" van is broken for station work the van need not be re-sealed until the work *en route* is completed. The van must be again sealed at the last attended station before reaching destination where the Guard must hand the broken seals to the Station Master who must record particulars of broken seals, van number, where broken, and the new seals applied, in the Seal Record Book. If there be no attended station before the van arrives at its destination, the Guard must retain the broken seals and hand them to the Station Master at the destination station, who must record particulars in his Seal Record Book. If the contents are not to be immediately handled, he must re-seal the van and record the number of the seals in the Seal Record Book. If the destination station is unattended when the train arrives, the Guard must lock all vans on which seals have been broken with "G" locks, and leave the broken seals together with a written advice giving the details indicated herein, in the receptacle from which the "G" locks are obtained. The Station Master must record these particulars in the Seal Book.

The Station Masters at destination stations which may be unattended when the train arrives must arrange for supply of "G" locks to be available for securing the doors of unsealed vans.

10. *Seals Must be Applied by the Station Staff*—They must not be supplied to Guards.

11. The Guard must examine the seals on each side of vans attached to his train when recording the numbers, and ensure that seals have been effectively applied. Cases of vans not sealed, or with seals found imperfect, must at once be reported to the Station Master, who must have the vans sealed or the imperfect seals replaced before departure of the train. A report must be made by the Guard and Station Master to the Superintendent, and a carbon copy sent direct to the Claims Agent. Defective seals must be forwarded direct to the Claims Agent accompanied by a memorandum showing the number of seals forwarded.

12. A van must be considered imperfectly sealed under any of the following conditions:—

(*a*) Seal incorrectly applied

(*b*) Seal broken

(*c*) Seal indistinctly impressed

(*d*) Seal blank

(*e*) Seal applied to an insecure door fastening

13. Every opportunity must be taken by the Guard to examine the seals *en route*. If they are found broken, the vans must be re-sealed at the first station provided with seals. In such cases a report must be made by the Guard, and also by the Station Master, to the Superintendent showing the number of the seal broken, and the number of the new seal, the station at which the broken seal was noticed, and the date and number of the train. A copy of the report must be sent direct to the Claims Agent by the first train, together with the broken seal. If, in addition to the seal being broken, the contents of the vans are found to have been interfered with, immediate advice of this must be sent to the Claims Agent.

14. The Guard and the employee responsible for recording the numbers of the vans detached must jointly examine the seals on arrival at the destination station, reporting to the Station Master in the case of seals missing, imperfect or broken. Such vans must then be re-sealed, and the Superintendent and the Claims Agent advised by first train, of the circumstances. For the purpose of these instructions, in addition to the foregoing, a destination station means break-of-gauge or depot stations, or any station where a van is detached for forwarding by a different train.

15. At destination station seals must not be broken by other than employees delegated by the Station Master for that duty, and before breaking the seals they must be examined on each side of the van, and the number of the seals endorsed on the invoice (or the transfer note at transfer stations), or in the book provided for the purpose.

At stations where a manifest is used, the seal numbers must be shown on the manifest. After discharge the seals must be removed from each side of the van. Spoiled seals (see clause 2) and those removed from vans at inwards stations must be preserved for two months, and then forwarded to the Lost Property Store, Mile End.

Van load consignments for discharge by consignee on public sidings, private sidings, wharves, or jetties, or at unattended stations, must have the seals left intact for the consignee to break. After discharge, the used seals must be gathered and preserved, when possible. Seals removed from vans by guards at unattended stations must be handed in at the next attended station at which the train stops, or at the station where the vans are re-sealed.

16. Station Masters, when reporting any shortage of goods, must state the numbers on each of the seals on the van.

17. Vans partly loaded and left in the goods shed or yard during the night to complete loading next day, must be sealed when finished for the day, and again sealed when the loading is completed.

18. Sealed vans received from the Western Australian Government Railways and the Commonwealth Railways at Port Pirie, from the Queensland, New South Wales and Victorian Railways at Serviceton, Pinnaroo, Mount Gambier and Broken Hill with Brookes Twist Lock or wire/lead type seals lettered W.A.G.R., C.R., Q.R., N.S.W., or V.R., intact and correctly applied may be accepted for movement over these railways.

19. **Stations equipped with seals—**

Adelaide
Aldgate
Angaston
Auburn
Balaklava
Balhannah
Barmera
Belair
Berri
Blackwood
Blyth
Booleroo Centre
Bordertown
Bowden
Bowmans
Bridgewater
Brighton
Brinkworth
Broken Hill
Bumbunga
Burra
Bute
Callington
Clare
Coonalpyn
Crystal Brook
Dry Creek
Edwardstown
Eudunda
Farrell Flat
Frances
Freeling
Gawler
Georgetown
Gladstone
Glanville
Goolwa
Gulnare
Hallett
Hamley Bridge
Hynam
Islington
Jamestown
Kadina
Kalangadoo
Kapunda
Karoonda
Keith
Kilkenny
Kimba
Kingston
Lake View
Lameroo
Laura
Lock
Long Plains
Loxton
Lucindale
Mallala
Manoora
Melrose
Merriton
Mile End
Millicent
Minnipa
Mitcham
Monarto South
Moonta
Mount Barker Junction
Mount Bryan
Mount Gambier
Mount Lofty
Murray Bridge
Nairne
Nantawarra
Naracoorte
North Adelaide
North Gawler
Nuriootpa
Oaklands
Olary
Orroroo
Outer Harbour
Owen
Parilla
Paskeville
Peake
Penfield
Penola
Peterborough
Pinnaroo
Poochera
Pooraka
Port Adelaide
Port Elliot
Port Lincoln
Port Pirie
Port Wakefield
Quorn
Redhill
Renmark
Riverton
Robertstown
Roseworthy
Rudall
Saddleworth
Salisbury
Serviceton
Smithfield
Snowtown
Spalding
Strathalbyn
Tailem Bend
Tantanoola
Tanunda
Tarlee
Terowie
Thevenard
Tintinara
Two Wells
Victor Harbour
Virginia
Waikerie
Wallaroo
Wanbi
Wasleys
Wilmington
Wirrabara
Wolseley
Woodville
Wudinna
Yunta

Consignment Notes and Guards Road Bills to and from Unattended Stations— Complete instructions regarding the use and handling of consignment notes and road bills are contained in the Accounts Instruction Book. The instructions governing the use and handling of such notes and road bills for traffic to and from unattended and non-accounting stations are repeated below for the information of staff who are not issued with the Accounts Instruction Book.

To Unattended and Non-Accounting Stations—All freight charges must be prepaid, or entered to an authorized account. Parcels may be forwarded "to pay" to stations in charge of a Signalman or a Porter in Charge.

Consignment notes, signed by the sender, must be obtained for all goods or parcels offered for dispatch.

Attended forwarding stations must provide the Guard with an invoice or waybill and, when necessary, a transfer note.

The waybill or invoice and, when necessary, a transfer note, must accompany each consignment to the siding where the goods or parcels are to be delivered.

At stations where a Porter in Charge or a Signalman is situated, the items must be promptly entered in the Warehouse Book and the waybill or invoice endorsed to the effect that the goods or parcels have, or have not, been received. The invoice must then be forwarded to the accounting station. The consignee's receipt must be taken in the Warehouse Book when delivery has been effected. Parcel waybills are retained and processed by the Porter in Charge or Signalman.

At unattended sidings the Guard must endorse the waybill or invoice to the effect that the parcels or goods have, or have not, been left at the siding. The waybill or invoice must be forwarded by the Guard to the accounting station for the siding.

If the goods or livestock are in a vehicle and cannot be checked by the Guard, the certificate on the invoice must read—

Vehicle No.....left at.....on.....

Initials.....

For each vehicle load of goods from one consignor to one consignee, the names of both the consignor and consignee must be shown on the truck label.

From Unattended Stations—Consignment notes for both goods and parcels are printed in three parts, marked A, B and C. Portion C is the sender's receipt and is only to be prepared when a receipt is required.

Portions A and B must be prepared by the sender for each consignment. When the freight charge is collected by the Guard he must mark both A and B portions of the consignment note accordingly. The A portion of the consignment note must be enclosed in an envelope by the Guard and sent direct to the accounting Station Master for the siding from which the consignment was forwarded. The latter will see that he obtains an entry from the Station which accounts for the receiving Station.

The B portion of the consignment note must accompany the goods or parcels until delivery to the destination.

If for goods, and transfer is involved, it must be attached to the transfer note at the transfer station.

Should the consignment be for an Interstate station the B portion must be forwarded to the station responsible for preparing the waybill or invoice.

When the destination station is in charge of either a Porter in Charge or a Signalman, the consignee's receipt must be taken in the Warehouse Book.

After entry in the Warehouse Book the Porter in Charge or Signalman must forward the B portion of the consignment note to the accounting station for the siding receiving the goods, where an invoice must be prepared and a copy of same forwarded to the accounting station for the siding forwarding the goods. If the station is not staffed by a Porter in Charge or a Signalman, the Guard must certify on the B portion of the consignment note that the goods or parcels were left at the siding and also show his train number, the date and his initials.

Porters in Charge or Signalmen are responsible for the accounting of parcels traffic, therefore, the B portion of parcel consignment notes will be retained by them.

Each Guard must enter on a "Guard's Road Bill" (Form 138) particulars of all goods picked up by him at non-accounting stations, and if for a non-accounting station the Guard must collect the freight charges and pay it to the Station Master at the last attended station before the day's journey is completed.

The road bill must be sent to the Superintendent who will check that a road bill has been received for each train, or that "Nil" is entered on the Guard's Daily Time and Allowance Sheet, and forward them weekly in batches to the Revenue Accountant.

In the preparation of the road bill, the following instructions must be observed:—

(*a*) A Guard's Road Bill (Form No. 138) must be prepared by the Guard of each mixed, goods and livestock train except as provided in clause (*h*).

(*b*) Entries for each consignment of parcels, goods or livestock lifted from unattended stations must be made on road bills from the consignment notes, showing all the particulars required by the headings.

(*c*) The total number of road bills prepared must be entered in the place provided for on the Guard's Daily Time and Allowance Sheet (Form 195a), and a certificate given that every consignment picked up at non-accounting stations has been entered on the road bills attached. If no road bills are attached the word "Nil" must be entered.

(*d*) The road bills must be correctly headed, dated and prepared, and signed by the Guard.

(*e*) The road bills must be attached to the Guard's Daily Time and Allowance Sheet (Form 195a) and deposited by him in the appointed place before leaving duty.

(*f*) Road bills must be prepared by the Guards of passenger trains which call at unattended stations, and show thereon particulars of traffic lifted from unattended stations.

(*g*) Road bill entries for parcels traffic are not required for parcels from stations where a Porter in Charge or a Signalman is located, and who account for parcels traffic, but road bill entries must be made for goods and livestock consignments from such stations.

(*h*) Road bills are not required for local goods trains between Mile End, Dry Creek, Port Adelaide and Outer Harbour or between Mile End, Mitcham, Port Stanvac and Marino.

Unattended Stations (including Caretaker, Signalman and Porter in Charge Stations) Preparation and Handling of Form 79—"Truck Report for Unattended Stations under control of Station Master"—More generally known as the "A-B-C" Siding Report—This report is to be prepared by Guard's of mixed and goods trains for each unattended station (including Caretaker, Signalman and Porter in Charge Stations) at which they stop, and forwarded by first train to the accounting station.

(i) Portions "A" and "B" must be completed in detail for all unattended stations, including Caretaker, Signalman or Porter in Charge stations.

If no vehicles are detached or attached the word "Nil" must be inserted opposite the name of the unattended station.

(ii) Portion "C" must be filled in by Guards of goods trains for unattended stations where there is no Caretaker, Signalman or Porter in Charge, unless otherwise directed by the Train Controller. The Divisional Superintendent will issue a local instruction regarding preparations of this section by Guards of mixed trains.

It is necessary to show the number of tarpaulins, ropes and vehicles of each class on hand (see specimen on back of Form No. 79). If there are no vehicles, tarpaulins or ropes on the station, a "Nil" return is required.

(iii) Portion "D" must be completed by Guards of mixed and goods trains for all unattended stations including Caretaker, Signalman or Porter in Charge stations. The word "Nil" is to be inserted when applicable.

The Station Master at the accounting station must:—

(i) See that Form No. 79, duly completed, is supplied by Guards, and any omissions reported to the Divisional Superintendent.

(ii) Check particulars shown on portion "A" with invoices and waybills, or consignment notes and transfer notes.

(iii) Check particulars shown on portion "B" with consignment notes received from Guards and with invoices or waybills subsequently received from destination stations. Take appropriate action to obtain waybills or invoices for parcels or goods shown on portion "D".

(iv) Insert invoice or waybill numbers, as the case may be, in the respective columns on portions "A", "B" or "C".

(v) Debit demurrage due from the information available from portion "A" and "B" and Form No. 80 (where supplied).

Parcels traffic from attended stations, before the opening or after the closing of the station for the day must be dealt with as follows:—The Guard must pick up any consignments to go forward by his train that have been left at the station during the period the station staff is not on duty. The original portion and the receipt portion (if attached to the consignment note) must be signed and endorsed "Sent forward by No....." and left at the forwarding station. The duplicate of the consignment note must be taken forward with the consignment and delivered to the receiving station; full particulars of consignments to be shown on road bill which must be endorsed "Station Closed".

The receiving station must contact the forwarding station who must prepare a waybill and forward the carbon copy to the receiving station. The charges must, in each case, be based on the Stamped Parcels (Prepaid) Rates and the Waybill endorsed "Forwarding Station Closed". Consignments to unattended stations must only be taken forward if stamped with the value of freight charges and Stamped Parcels Waybill lodged, or if not stamped, provided the consignor is present to pay the freight charges. In the later case the accounting station for the receiving unattended station must contact the forwarding station for a waybill.

Live Poultry (Other than Day-old and Month-old Chickens)—Inspection, Loading, and Storing of—Consignments of live poultry must be given every attention by the Staff to ensure satisfactory transport, particularly when the weather is warm or hot.

Crates, coops, and boxes must, as far as possible, comply with the dimensions specified in the Coaching and the Goods and Livestock Rates Books. It will be satisfactory if 460 cm^2 of floor space is available for *each* medium-sized bird, provided the crate is in sound condition, well ventilated, has the floor closely boarded, the door securely fastened, and is of the required height (according to the number of birds caged therein).

Geese or turkeys must not be placed in the same crates as fowls or ducks.

A centre division must be placed in crates containing 12 or more ducks to prevent crowding in corners and possible suffocation.

At Stations—Live poultry awaiting dispatch or unloaded from trains for delivery, must not be exposed to the sun or to adverse weather conditions, but must be placed under cover. If placed in goods sheds, parcel offices, or other buildings, care must be exercised in storing, as it is essential that there is free circulation of air around the crates.

In summer the birds are very susceptible to heat, and in winter months the birds will die if exposed to rain or cold winds.

Station Staffs and Guards must replenish supplies of drinking water in the crates or coops where journeys of 80 km and over are involved.

Live poultry must be loaded in the best available position in the brakevan or covered vans, and if necessary, other goods must be moved to make room. The best position in the brakevan is between the doors of the baggage compartment, where the windows can be opened when necessary to improve the air circulation. Live poultry must not be loaded into the corners or against the end of brakevans.

When consignments are to be forwarded from Murray Bridge to Mile End or stations north thereof the Station Master, Murray Bridge, must advise the Station Master, Tailem Bend, and Train Control, Adelaide, in order that directions may be given regarding the handling of these consignments, which must be in louvre or covered vans in accordance with these instructions, and must not be placed in open vehicles.

A covered van, unless of the louvred type, must have the doors tied partly open, due care being exercised to safeguard other consignments in the vehicle.

Station Masters must advise the Superintendent when suitable covered pick-up vans are not available for the regular goods trains.

Live poultry must not be loaded in open type steel wagons.

On narrow gauge lines open type wooden wagons may only be used when covered vans are not available. When open type wagons are used, the authorizing Station Master will be responsible for sheeting the wagon and instructing the Guard that the tarpaulin must not be placed on top of the crate, but must be ridged on other loading to ensure the circulation of air within the vehicle.

Perishable labels must be affixed to all vehicles containing live poultry.

The Staff at attended stations must closely inspect the consignments when accepted for dispatch and endose on the consignment note and enter full particulars regarding the number of birds dead or in a distressed condition. At unattended stations Guards must observe the condition before loading and if there is apparent distress amongst the birds, particulars must be recorded on the consignment note. *Live chickens* must be handled in accordance with the instructions hereunder.

Consignments for Stations on Lines Not Having a Regular Daily Train Service—Station Masters must see that all consignments for stations on lines not having a regular daily service are forwarded in time to make the necessary connections. Information regarding extra trains must be sought from the Superintendent or Train Controller.

Handling of Chickens, Birds, and Small Live Animals—Containers with small live animals and birds must be carefully handled and during summer months particularly, stowed in vans, parcels offices, and goods sheds, where the maximum ventilation is available. Young birds particularly, must not be exposed to extremes of heat or cold winds. Water receptacles, when provided by consignors, must be replenished by the staff at suitable points.

Live Chickens—Receipt, Handling, and Stowing of—Boxes containing live chickens must be carefully handled and not exposed to the sun or draughts in parcels offices, station verandahs or brakevans.

Fresh air is essential for the safe conveyance of chickens, but the boxes must not be placed near a fire or in a hot room before transit or whilst awaiting delivery at destination.

Consignments of live chickens must be given prompt dispatch and forwarded to ensure proper train connections if transfer or branch line services are involved.

The conditions of each consignment must be noted on arrival and every effort made to effect prompt delivery to consignee.

Boxes must be carried on the flat, using both hands, and not lifted by the string tied around the box. Boxes must not be tilted or capsized, otherwise some of the chickens will be suffocated or injured.

Boxes must be stowed separately and not placed under or against other boxes or packages which will prevent the admission of fresh air to the holes at the bottom edges of the sides and ends, or the escape of the natural heat of the birds through the ventilation holes in the top of the box. *This is important.*

Windows in brakevans must be opened, according to the prevailing weather conditions, to improve the ventilation, but the boxes of chickens must not be brought into direct contact with extremes of heat or cold winds.

Chickens will die if the ventilation holes are blocked for 15 minutes. This indicates the special care which is necessary to avoid losses.

Two or more boxes tied together must not be accepted from a consignor unless the boxes are spaced not less than 50 mm apart by pieces of timber, cardboard, ventilation strips, or other material not less than 50 mm deep, secured in position crosswise between the boxes. If boxes are not satisfactorily spaced, the consignor must be requested to untie them; each box must then be weighed and charged for as a separate package, care being taken to see that each box is labelled in accordance with the consignment note. Not more than three boxes are to be tied together.

Station Masters at dispatching stations must carefully examine all boxes tendered for transport and ensure that they are not less than the sizes prescribed in By-law 239, properly ventilated, and labelled with name and address of the consignor and consignee, and that the name of the *rail destination station is plainly visible.*

If an offensive odour can be detected as coming from the box, the consignor must be requested to open it for inspection. If refuses to do so, the consignment must not be accepted.

Portable Explosives Magazines—The Station Master, Dry Creek, is responsible for seeing that magazines are maintained in good order, and equipped with "M" locks.

Carriage of Dogs—Dogs must only be carried in dog crates, and if private crates are not provided, Departmental portable crates must be used. Rail cars and non power cars (280 class excepted) are not provided with dog boxes, and Station Masters requiring a crate must make application to the Train Controller or nearest Station Master where these crates are provided.

When a Departmental dog crate is used, the forwarding station must endorse the waybill "return empty dog crate to (insert depot station and number of crate concerned)", and the receiving station must act accordingly.

Delay in returning crates must be reported promptly to the Superintendent.

These crates must always be disinfected with a phenyle solution, or liquid antiseptic cleanser, immediately after use. Station Masters at stations where portable dog crates are held must see that this work is properly carried out.

Dog crates are painted the following distinctive colours:—

Adelaide Division—Champagne
Murray Bridge Division—Post Office Red
Peterborough Division—Apple Green
Port Lincoln Division—Traffic Yellow.

PASSENGER AND GOODS VEHICLE WORKING

Coupling and Uncoupling of Passenger Cars and Brakevans Equipped for Working on Trains supplied with Head End Electric Power—The electrical system throughout rollingstock used on these trains is energized from 415-volt, 3 phase, 50 cycle alternating current supply which is connected between cars by electrical jumpers.

1. Persons authorized to couple and uncouple electrical jumpers are—

(*a*) Electrical Tradesmen familiar with the equipment on the cars, and authorized by the Chief Mechanical Engineer.

(*b*) Staff instructed and authorized by the Chief Mechanical Engineer to perform the work.

2. Jumper receptacles must be *closed* when not in use. Jumper leads must be protected against mechanical damage and the entry of water or foreign matter.

3. Cars moved between Adelaide Station and the North Car Yard and within the North Car Yard can have electrical jumpers fixed so that one end is connected to the "power" receptacle and the other end to the dummy receptacle (diagonal corners only). *All movements made with jumpers in this position must have the head end power supply switched off at the power van.*

For all other movements when running as a dead car or when held at out stations, electrical jumpers must be stored in the vestibule of the car and the car locked.

4. All coupling or uncoupling of electrical jumpers must be carried out with the head end power supply switched off at the power van.

5. The electrical jumpers must be disconnected in accordance with paragraph 3 above, before the locking hook is removed from the lock lifter of the automatic coupling on each car. The locking hook must be inserted in the lock lifter of the automatic coupling after the cars are mechanically coupled and before electrical jumpers are inserted between cars.

Interchange of Rollingstock between South Australia and Victoria, New South Wales, Commonwealth and Western Australian Railways—

1. Records must be kept of all South Australian and foreign rollingstock (joint stock excepted) entering or leaving South Australia *via* Mount Gambier, Pinnaroo or Port Pirie.

2. The Station Masters at these stations must record the movements as follows:—

(*a*) South Australian and foreign rollingstock—At Mount Gambier and Pinnaroo—Individual class and number of each vehicle, train number and time of *arrival,* station from and destination of each vehicle, whether loaded or empty for all entering Victoria. Similar information for vehicles entering South Australia.

At Port Pirie—Vehicles over bogie exchange—Individual class and number of each vehicle, time of passing through bogie exchange, station from and destination of each vehicle, whether loaded or empty for all entering Commonwealth Railways. Similar information for vehicles entering South Australia through bogie exchange.

At Port Pirie—Westbound vehicles on through standard gauge—Individual class and number of each vehicle, train number and time of departure, station from and *destination* of each vehicle, whether loaded or empty for all entering Commonwealth Railways with the exception of empty Commonwealth Railways vehicles returned to Port Pirie from the Peterborough Division which must be regarded as returned to that system *on arrival.*

At Port Pirie—Eastbound vehicles on through standard gauge—Similar information as for westbound except that *all* vehicles entering South Australia are *on departure* from Port Pirie.

3. For interchange purposes a day consists of 24 hours covering the period from 12.01 p.m. on any day until 12.00 noon the following day.

4. The Station Masters Mount Gambier, Pinnaroo and Port Pirie must prepare a "Daily Interchange of Rollingstock return" for each 24 hour period ended noon. The preparation to consist of an original and five copies which are to be distributed as follows:—

The General Traffic Manager, Adelaide
The Chief Traffic Manager, Victorian Railways, Melbourne
The Chief Traffic Manager, N.S.W. Railways, Sydney
The Chief Traffic Manager, Commonwealth Railways, Port Augusta
The Chief Traffic Manager, Western Australian Railways, Perth
Local File

5. In addition to the preparation of the interchange returns the Station Master must, as early as possible after each noon, telegraph advice of all vehicles passing through their stations entering either this or the neighbouring system during the previous 24 hours period. Such telegraphed advice to be addressed as follows:—

Interchange, Adelaide
S.F.O. 75 Spencer Street
Comm. Mngr. 47, Sydney
C.T.M. Port Augusta
Cowag Interchange Perth

6. The Station Masters, Serviceton and Broken Hill, representing the Victorian and New South Wales Railways respectively, will provide all systems with the information concerning vehicles passing through their stations.

7. The return of foreign rollingstock to the owning systems will be directed by the respective Trucks Officers in co-operation with the Movements Officer for bogie exchange purposes.

8. Daily interchange debits covering tarpaulins and ropes are arrived at from the results of six monthly stocktakes. Foreign spare equipment must be returned promptly to the owning system waybilled in accordance with instructions issued in the *Weekly Notice* from time to time. It must not be held unnecessarily on this system.

Victorian and South Australian Joint Stock Cars—Victorian and South Australian Joint Stock cars must only be used in Joint Stock working. If required for other purposes the permission of the General Traffic Manager must be obtained.

Narrow Gauge Cars—Sleeping Cars *Alberga, Coonatto, Nilpena* and Employee's Sleeping Car No. 114 must not work on sidings adjacent to goods platforms.

Dynamometer Car—Handling of—

1. When a test is NOT being conducted, the car will be conveyed as follows:—
   (*a*) Between Adelaide and Melbourne it must be attached to *The Overland* marshalled next to the engine with the "testing end" leading.
   (*b*) Between other locations (clause (*c*) excepted) this car must, when practicable be attached to a passenger train, marshalled next to the engine, with the "testing end" leading.
   (*c*) Between Mile End and Islington, Mile End and Adelaide, or Adelaide and Islington, a brakevan must be attached, with a Guard in charge. Exceptions will be made only when tests are about to be conducted, or at the conclusion of tests as given in clause 2.

2. When tests are about to be conducted or at the conclusion of tests, this car may either be hauled or pushed between the engine depot and the train, attached to the train engine. The engine crew must keep a sharp look-out during the movements, and the Rules relating to "Head and Rear Marker Lamps" must be observed.

3. This car contains a quantity of very valuable and delicate equipment, and employees concerned *must exercise the utmost care when it is being handled.*

4. When this car is being stabled, the Shunter in Charge of the operation must see that the hand brake of the car is effectively applied before the engine is detached.

Cafeteria Car and Joint Stock Club Car—When forming portion of a train, these cars must be marshalled between corridor cars with concertina ends.

During train working and shunting movements with these cars, utmost care must be taken to avoid damage to these vehicles or discomfort to passengers.

The air brake must be in effective operation in all movements with these cars.

When they are hauled without other vehicles, the Shunter must ride on the engine.

When they are pushed without other vehicles the Shunter must precede the movement.

When stationary, they must be correctly secured against movement.

Vice-Regal and Murray Car—When either of these cars are attached to a train and carrying passengers, the observation end must be trailing whenever practicable, or unless otherwise instructed by Train Notice or special instruction.

Unless specifically required to be trailing, these cars may be marshalled where most convenient, providing the restriction regarding "the marshalling of goods vehicles with wheel or ratchet hand brake on the end of the vehicles not to be marshalled with this hand brake next to cars with end concertinas" is observed.

Particular care must be taken when shunting these cars. The air brake must be in effective operation in all movements and other vehicles must not be loose shunted against them.

Passenger Car Doors—Doors of all passenger rollingstock must be securely closed, but not locked during the journey, unless otherwise instructed. When closing doors, care must be exercised and undue force not used, thus preventing any damage to the glass. The staff must also watch that passengers' fingers are not injured.

Guards must see that when doors are required to be open they are secured in that position with the appliances provided.

The end communication door of passenger cars fitted with vestibule gangways must be kept locked except when necessary to provide access to other cars. However, doors separating first and economy class accommodation must be kept locked as set out herein.

Particular attention must be given to the locking of the door next to the engine and the rear end door of the trailing car.

Doors at the ends of cars leading from Sleeping Cars to either First or Economy Class Cars, and from First Class to Economy Class Cars must be kept locked, and only opened when required by the Guard, Conductor, or Train Porter, or when required for passengers to proceed to and from the Cafeteria Car or Club Car. The end doors of cars of the same class when placed together need not be locked.

On every occasion on which it is found necessary to lock a door of an empty car on a train, the door on the opposite end of the compartment must also be locked. When the door on one end of an empty compartment is unlocked, the doors on the opposite end must be unlocked except when specially instructed otherwise.

When composite end-loading cars are attached to a train, the door separating the first class end from the economy class end must be locked prior to passengers being permitted to entrain at the commencing station, and kept locked throughout the complete journey.

The Station Master at the commencing station must see that the door is locked. It is the responsibility of the Guard to ensure that this instruction is complied with, and on a train provided with a Train Porter or Ticket Collector, the Guard must satisfy himself that such employee is observing the instructions.

Leather Covered Safety Chains on Passenger Cars—The Safety chains on cars equipped with intercommunication platforms must be uncoupled when a car is to be detached, or in any shunting movement in which these chains may be damaged.

Concertina Curtains—These curtains are fitted inside gangways to protect the hands and clothing of passengers. They are located one at each end and on the left hand side when facing end of car. When two such cars are coupled together, both curtains must be drawn across the gangway and attached to the fittings provided on the opposite car.

Operation of Air-conditioning on Passenger Cars—

1. 250 *and* 100 *Class Cars*—The Rail Motor Driver must start the power equipment, and the Guard must make the necessary adjustments.

2. *Joint Stock Cars*—The equipment on Sleeping Cars, Club and Coach Cars is to be operated and adjusted by the Electrical Fitter on duty.

3. *Intrastate Cars*—The Depot Staff must start the power equipment, and the Train Porter must make the necessary adjustments to the air-conditioning, and be responsible for stopping or starting the alternator set should the necessity arise *en route*.

Filling of Water Tanks on Vehicles Having Water Under Air Pressure—Passenger cars on which water is delivered by air pressure to wash basins, lavatory pans and drinking founts, are listed herein according to the diagrammatic layout of the equipment applicable. The water is carried in tanks attached to the underframe or above the ceiling under the roof.

1. To isolate the equipment, an isolating cock is provided, the handle of which must be parallel with the line of pipe to admit air to the water system, or placed at right angles (across the pipe) if it is necessary to prevent air pressure having access to the water system.

2. Painting of pipes and equipment; the pipes and air equipment of the water system under air pressure are painted yellow to distinguish them from the air brake system.

3. Water service equipment on rollingstock with five-way valve.

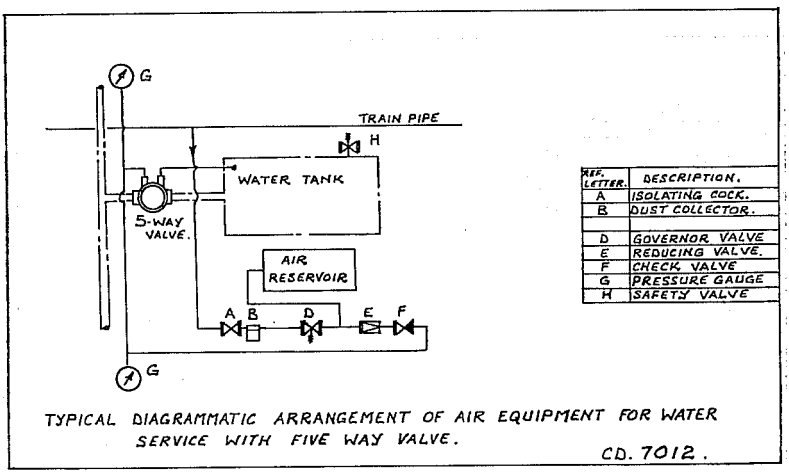


Illustration No. 1—A typical diagrammatic arrangement of a water service with a five way valve. This arrangement when fitted to an actual car may have two or more air reservoirs and two or more water tanks depending on the capacity of the water service, and is applicable to the following classes of vehicles:—

500, 600, 700, 750 and 780 class passenger cars
8300 class brakevans
4400 class brakevans
Cafeteria car
"CGP" class brakevans
"CD" and "SCD" class brakevans
"AD" and "BD" class passenger cars
"CO" class joint stock brakevans
"PCO" class joint stock power brakevans

NOTE:—The "AD" and "BD" class passenger cars have additional piping of the cold water to heat exchangers to provide hot water within the car.

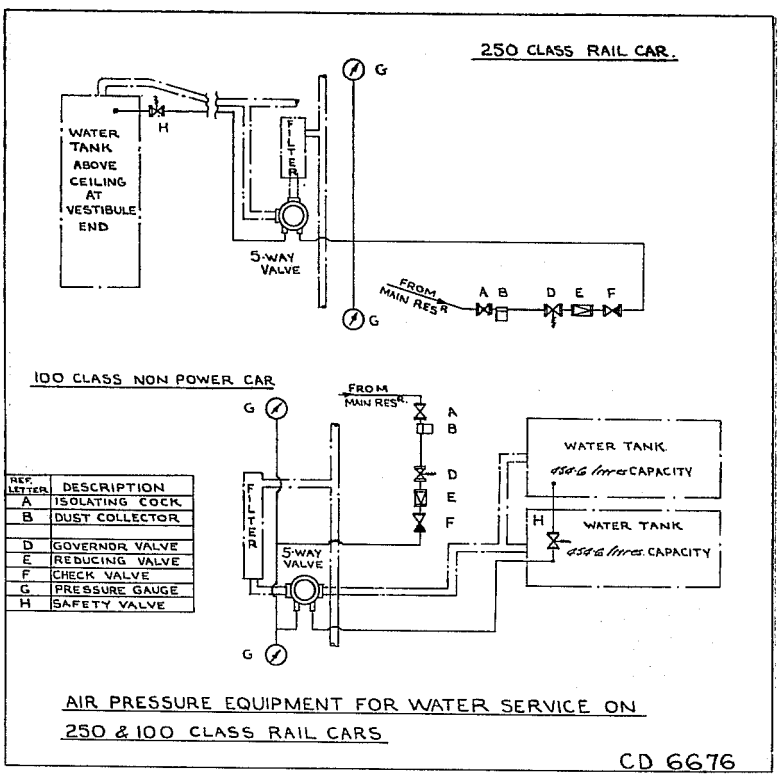


Illustration No. 2—Applicable to the 250 and 100 class rail cars. In this arrangement the air pressure is supplied direct from the main reservoir.

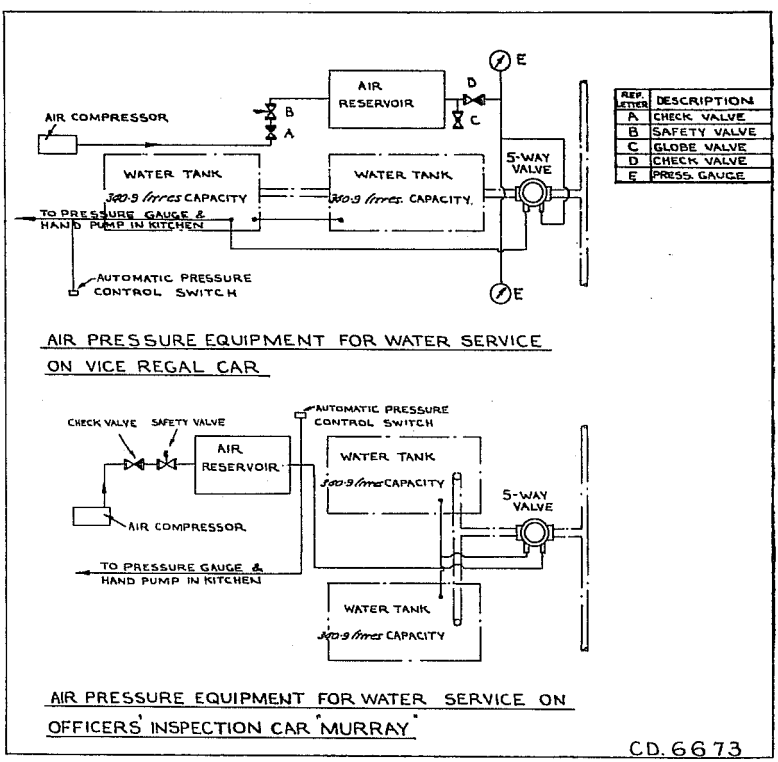


Illustration No. 3—A diagrammatic layout of equipment as applied to the Vice-Regal and Officers' Inspection Car "Murray" (broad gauge).

(*a*) Filling valves are situated on each side of car near the centre, so that the water tanks may be supplied from either side. For 250 and 100 class rail cars and "AD" and "BD" class passenger cars, the filling valve is a nozzle as shown in Illustration No. 4. The general filling valve is as shown in Illustration No. 5.

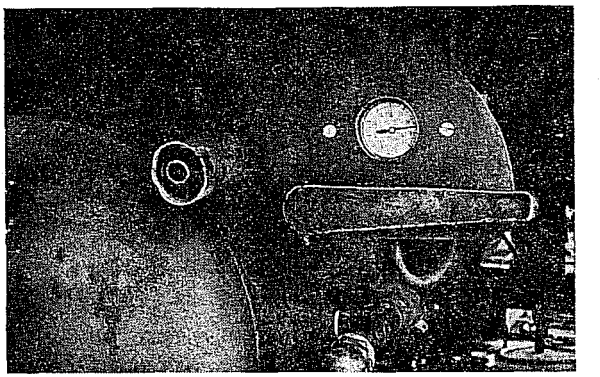


Illustration No. 4

Illustration No. 5

(*b*) *The Five-way valve,* is painted black. The handle of this valve, which is painted yellow, is located immediately below the filling valve, and must be kept normally in the horizontal position.

(*c*) *To fill water tanks*

(i) Place five-way valve handle in the upright position.

(ii) Insert nozzle of water hose in filling valve and turn on water.

NOTE:—For 250, 100, "AD" and "BD" class the hose is placed over the filler nozzle.

(iii) When water flows from drain pipe beneath the five-way valve the tank is full. The water must then be turned off, hose removed and five-way valve handle returned to the horizontal position.

(*d*) *Cool water drinking founts* are connected to main water supply. Drinking water is cooled by means of an ice compartment (access to this compartment is at top of container immediately above the fount) or by mechanical cooler.

(*e*) *Repairs*—The handle of the five-way valve must be placed in the vertical position before effecting repairs to water service inside the car.

4. Water service equipment on Victorian and South Australian joint stock, passenger cars with six-way valves.

Illustration No. 6 shows a typical diagrammatic arrangement of a water system with a six-way valve, and is applicable to the following passenger cars:—

Twinette—*Nomuldi, Mokai, Malkari, Paiti, Yanni, Kuldalai, Tawarri, Yankai, Dorai, Weroni.*

Roomette—*Mururi, Chalaki, Nankuri, Purpawi, Juki, Tarkinji, Allambi, Tantini.*

"AJ"—Nos. 1 to 3.

"BJ"—Nos. 4 to 10.

"RBJ"—Nos. 1 to 3.

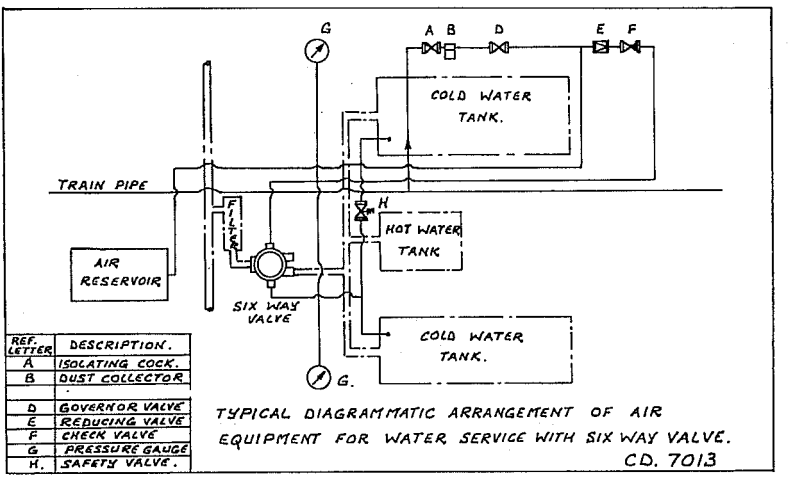


Illustration No. 6

The water supply is carried in three tanks mounted on the underframe, two cold, each 450 *l* capacity and one for hot water of 160 *l* capacity.

(*a*) Filling valves are situated on each side of the car near the centre and are to illustration No. 5.

(*b*) The six-way valve is painted black. The handle of this valve, which is painted yellow is located immediately below the filling valve and must be kept normally in the horizontal position.

(*c*) To fill water tanks:—

(i) If air pressure is indicated on the gauge turn the six-way valve handle to "Release Air" position (30°).

(ii) To fill cold water tanks place the six-way valve handle in "Fill cold only" position (60°).

(iii) The hot water tank is now filled from the cold water tanks and the water heated by electrical elements within the hot water tank. The "Fill hot only" position on the handle (upright) is redundant.

(iv) Insert nozzle of water hose in filling valve and turn on water.

(v) When water flows from drain pipe beneath the six-way valve the tanks are full. The water must then be turned off, hose removed and six-way valve handle returned to the horizontal position.

NOTE:—

(1) The air pressure service operates at 200 kPa (30 p.s.i.) to ensure satisfactory working of the combolets.

(2) The level of the water in the cold tanks may be observed in the gauge glasses mounted on the tanks at the opposite end to the filling valve. It is important that the reading be taken from the pointer and not from the water which at times may be observed through the glass. When the pointer is at the top the tanks are full.

5. Water service equipment on Victorian and South Australian joint stock passenger cars with three-way valves.

Illustration No. 7 shows a typical diagrammatic arrangement of a water system with a three-way valve and is applicable to the following passenger cars:—

(i) Club car Nos. 1 to 3

(ii)

(iii)

The water supply is carried in three tanks mounted on the underframe, two for cold, each 450 *l capacity*, and one for hot water of 135 *l* capacity.

(*a*) Filling nozzles and gate valves are situated on each side of the car near the centre and are shown in illustration No. 8.

(*b*) The three-way valve is mounted under the side sill adjacent to the filling nozzle. The handle of this valve is painted yellow and must be kept normally in the vertical downward position.

(*c*) To fill water tanks.

(i) When filling tanks turn the three-way valve handle to "Fill" position (any one of the two positions). This will release the air pressure from the system and create the overflow outlet at the three-way valve.

(ii) Open up the gate valve (H) and then insert nozzle of water hose into the filling nozzle and turn on water.

(iii) When the water flows from the overflow pipe on the three-way valve the tanks are full.

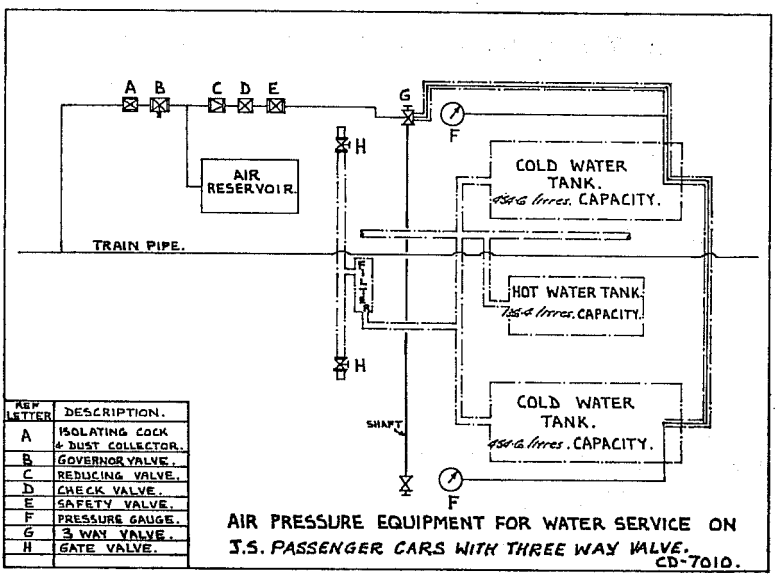


Illustration No. 7

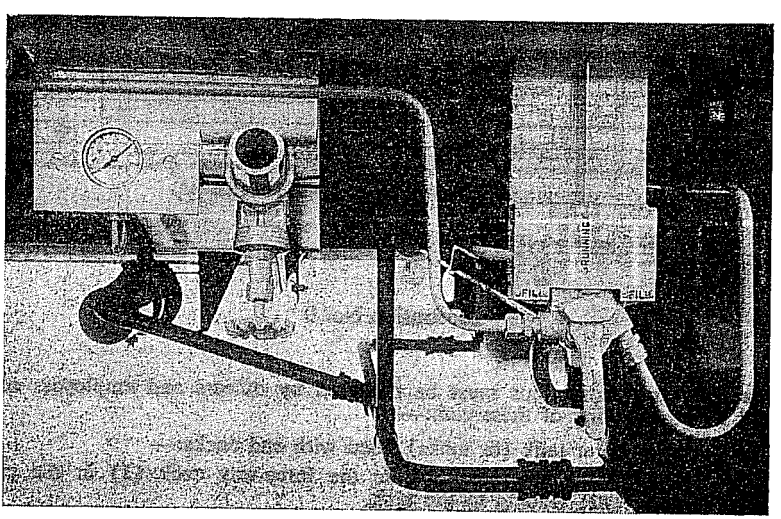


Illustration No. 8

(iv) The water must then be turned off, hose removed and the gate valve "closed".

(v) The three-way valve handle must then be returned to the "running" position (vertical downward) which will give air pressure in the system.

NOTE:—

(1) The air pressure service operates at 200 kPa (30 p.s.i.) to ensure satisfactory working of the combolets and glass washer (Club Car).

(2) The level of the water in the cold water tanks may be observed in the gauge glasses mounted on the tanks at the same end to the filling nozzle. It is important that the reading be taken from the pointer and not from the water which at times may be observed through the glass. When the pointer is at the top, the tanks are full.

6. Water service equipment on Victorian and South Australian joint stock cars (non air-conditioned)

Illustration No. 9 shows a typical diagrammatic arrangement of a water system on the following classes of cars:—

"AE" and "BE" passenger cars.

Sleeping cars *Dargo, Onkaparinga, Tambo* and *Finniss* (S.A.R.)

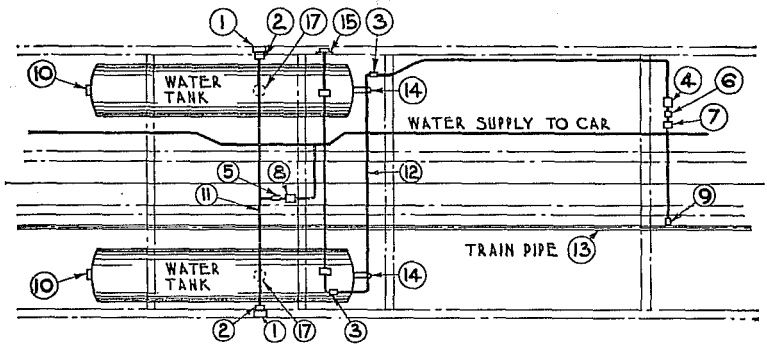


Illustration No. 9

The following instructions must be observed by officers and employees concerned in the handling of these cars:—

Cars having a water tank (or tanks) fitted with end cocks:—

(i) To cut off supply tank, operate the three-way cock (3) in the pipe work (12) leading to the tank.

(ii) To release the air in the tank, open the top tank cock (14) on the end of the tank (the lower cock is only for ascertaining the amount of water remaining in the tank.)

(iii) Open the main cock (2) near the filling nozzle (1) and insert the nozzle of the water hose.

(iv) Turn on the water.

(v) Turn off the water immediately it commences to run from the tank cock (14).

(vi) Withdraw the hose and close the main cock (2) and tank cock (14).

(vii) Cut in the air supply to the tank by operating the three-way cock (3).

(viii) In cases where a car has not been in use for some days, and there is a possibility that the water remaining in the tank may have become discoloured or unfit for use, the tank should, before being refilled, be cleaned out as follows:—

Cut off the air supply (see 1). Open the tank cock (14) and the discharge cock under the tank. Thoroughly drain the tank. Open the main cock (2) near the filling nozzle (1), insert nozzle of water hose, turn on water and allow fresh water to run out of the tank through the discharge cock until it is clear, after which close the discharge cock.

Cars having a water tank (or tanks) not fitted with end cocks:—

(i) To cut off the air supply to the tank and at the same time release the air in the tank, operate the three way cock (3) in the pipework (12) leading to the tank.

(ii) Open the main cock (2) near the filling nozzle (1) and insert the nozzle of the water hose.

(iii) Turn on the water.

(iv) Turn off the water immediately it commences to run from the three-way cock (3).

(v) Withdraw the hose and close the main cock (2).

(vi) Cut in the air supply to the tank by operating the three-way cock (3).

(vii) In cases where a car has not been in use for some days and there is a possibility that the water remaining in the tank may have become discoloured or unfit for use, the tank should, before being refilled, be cleaned out as follows:—

Cut off the air supply (see 1) remove the plug in the "Tee" piece under the tank. Thoroughly drain the tank. Open the main cock (2) near the filling nozzle (1), insert the nozzle of the water hose, turn on the water and allow fresh water to run out of the tank through the plug hole until it is clear, after which the plug should be replaced.

For both types of service—should a leak defect develop in any part of the water or air supply system shut off the air supply at the isolating cock (9) in the pipework near the train pipe (13), but if the leak or defect be confined to wash basin or closet fittings, the isolating cock inside the car, near such fittings, should alone be closed.

Pan flushing valve—care must be taken to see that the projecting spindle which is connected to the handle of the pan flushing valve is properly lubricated with oil in order to guard against the valve sticking, thus causing a leakage; all surplus oil must be removed after application.

NOTE:—The pressure water service described in item 6 draws the air supply direct from the train pipe, and having no storage reservoir, the air pressure in the water tank is quickly depleted, if the train pipe pressure is not maintained, and the system will then not function.

Breakage of Car Windows, Doorlights, etc.—Guards, Conductors, Train Porters, Collectors, and others concerned must see that when any window or doorlights, etc., are broken, the name and address of the person causing the damage is taken, and the cost of repairs collected; the matter to be subsequently reported to the Superintendent.

When changing over *en route,* Guards and Train Porters must ascertain the condition of these items, and any damage must be reported to the Guard or Train Porter taking over, as well as the Station Master at the change over or nearest station, in addition to entering particulars in the Guard's Journal.

Scale of Charges for Windows, Mirrors, etc., Broken in Vehicles—

(*a*) Scale of charges for accidental damage to car windows and fittings to be collected from Passengers by Station Masters, Guards or Conductors:—

Broad Gauge Vehicles

Item	Type of Vehicle	Article	Cost of Each $
1	*Main Line Corridor Passenger Cars (Class 500 and 600)—*		
		Side windows, top or bottom	13.00
		Lavatory windows, top or bottom	8.50
		End communication door	16.00
		Sliding door (end of corridor)	10.20
		Exit door	13.25
		Sliding door (corridor to compartment, class 500)	12.65
		Sliding door (corridor to compartment, class 600)	8.50
		Reading lamp glass	2.00
		Lavatory mirror (large)	16.00
		Lavatory mirror (small)	8.75
		Compartment mirror (class 500)	7.20
		Window blinds	12.20
		Loose cushions (class 500) (sponge rubber)	31.25
		Electric light shades (compartment ceiling 500 and 600 class cars)	14.80
		Electric light shades in lavatories	4.50
		Card tables	34.95
2	*Suburban End and Centre-Loading, End-Loading Lavatory Cars and End-Loading Baggage Passenger Cars—*		
		Side windows	2.60
		End and centre door windows	12.00
		Sliding door windows (baggage compartment)	5.30
		Mirrors in lavatory	8.75
3	*End-Loading Vestibule Country Cars (Class 700, 750, 780)—*		
		Side windows, top or bottom glass	13.00
		Lavatory windows, top or bottom glass	8.50
		Exit door	13.25
		Compartment door	10.20
		End communication door	16.00
		Partition door between lavatories	10.20
		Loose cushions (sponge rubber)	31.25
		Mirror in lavatory	10.65
		Electric light perspex shades	14.80
		Electric light shades in lavatories	4.50

Item	Type of Vehicle	Article	Cost of Each $
4	*Intrastate Cars (Class AD and BD)*—		
		Side windows, inner armour plate glass	28.40
		Side windows, outer armour plate glass	28.40
		Side windows (small) inner armour plate glass	17.00
		Side windows (small) outer armour plate glass	17.00
		Toilet windows, inner armour plate glass	12.85
		Toilet windows, outer armour plate glass	12.10
		Centre partition design armour plate glass	91.00
		Centre partition plain armour plate glass	32.35
		Stable door armour plate glass	7.25
		Mirror ladies toilet	10.65
		Mirror above combolet	10.65
		Door, end communication	10.20
		Fire extinguisher glass	3.45
		Power board glass	5.65
5	*Passenger and Composite Guard's Brakevan*—		
		Side and door windows (plain or frosted)	3.40
		Cab windows (end or side)	3.40
6	*Goods Brakevan (Class* 8300) *Nos.* 8300 *to* 8313—		
		Window glass (moveable)	9.85
		Window glass (fixed)	7.35
		Glass in compartment door (moveable)	11.75
		Glass in compartemnt door (fixed)	8.30
		Glass in sliding door (each piece)	9.10
		No. 8314 Onwards—	
		Glass in large window—bottom (sliding)	35.70
		Glass in large windows—top (fixed)	35.70
		Glass in small windows—bottom (sliding)	25.20
		Glass in small windows—top (fixed)	25.20
		Common to All 8300 Class—	
		Glass in switch box	2.50
		Standard mirror in lavatory	10.65
		Glass over refill case	2.60
		Glass over breakdown case	3.00
		Periscope window	5.30
		Periscope mirror	7.35
		Mirror over desk	7.00
		Partition mirror	7.00
		Marker lamp glass lens—Red or White	13.00
7	*Cafeteria Car*—		
		Large windows, glass, inner or outer	21.00
		Small windows, glass, inner or outer	9.00
		End doors, glass, inner or outer	10.45
		Door panel, inner or outer	8.15
		Venetian blinds	25.05
		Table centre, large	7.25
		Table centre, small	7.20
		Aluminium food tray	4.50

Item	Type of Vehicle	Article	Cost of Each $
7	*Cafeteria Car*—continued		
		E.P. milk container	0.65
		Sellex Ware B. & B. plate	0.25
		Sellex Ware dinner plate	0.50
		Sellex Ware sweet plate	0.20
		Sellex Ware Beaker plate	0.20
		Sellex Ware butter pat. plate	0.15
		Sellex Ware single serve sauce jug	0.15
		Duperite cup	0.35
		Knives	0.55
		Forks	0.50
		Teaspoons	0.25
		Dessert spoons	0.60
		One litre jug, S.S.	4.60
		Two litre jug, S.S.	5.95
		Glass pepper shaker	0.15
		Glass salt shaker	0.15
		E.P. Sugar basin	2.60
		170 m*l* bell glass	0.35
		115 m*l* nobbler	0.35
		Goblet	0.30
8	300 *and* 400 *Class Diesel Rail Cars*—		
		Side windows-louvred glass (large) top	48.00
		Side windows-louvred glass (large) bottom	20.40
		Side windows-louvred glass (small) top	37.75
		Side windows-louvred glass (small) bottom	15.00
		Side windows-louvred glass (driver's) top	37.75
		Side windows-louvred glass (driver's) bottom	15.00
		Side windows, top armour plate glass	11.50
		Side windows, bottom armour plate glass	11.60
		Sliding door, armour plate glass	11.55
		End door, armour plate glass	11.50
		Driver's compartment door, armour plate glass	11.00
		Driver's half rising window, armour plate glass	10.95
		Driver's front windscreen, armour plate glass	14.00
		Passenger front anti sun armour plate glass	18.00
		Accident box glass	2.90
9	860 *Class Rail Car Trailers*—		
		Side saloon window anti sun armour plate glass	18.20
		End sliding doors, anti sun armour plate glass	7.60
		Saloon sliding door top anti sun armour plate glass	7.70
		Saloon sliding door bottom anti sun armour plate glass	10.20
		Baggage door, side top, armour plate glass	11.00
		Baggage door, side bottom, armour plate glass	10.15
		Baggage partition doors, armour plate glass	12.15
		Fire extinguisher container	2.65
		Ambulance box container glass	2.15
		Accident box glass	2.90
		Baggage compartment light	3.80

Item	Type of Vehicle	Article	Cost of Each $
10	820 *Class Rail Car Trailers*—		
		Side windows, anti sun armour plate glass	15.85
		End and centre door, armour plate glass	10.15
		Sliding door, window, baggage compartment	5.60
11	250 *and* 280 *Class Rail Cars and* 100 *Class Non Power Cars*—		
		Side windows, inner armour plate glass	24.25
		Side windows, outer armour plate glass	28.40
		Windscreen, front armour plate glass	14.00
		Driver's half rising window, top armour plate glass	11.50
		Driver's half rising window, bottom armour plate glass	10.00
		Side and end doors, armour plate glass	10.65
		Frosted compartment door, armour plate glass	11.75
		Mirror above combolet	8.60
		Accident box glass	3.00
		Power board glass protector	2.90
		Embarkation light glass (280 class only)	2.50
		Cross partition glass	18.20
		Standard Gauge Vehicles	
12	*Main Line Corridor Passenger Cars* (*Class* 500 *and* 600)—		
		Side windows, top or bottom	11.50
		Lavatory windows, top or bottom	8.55
		End communication door	15.00
		Sliding door (end of corridor)	10.20
		Exit door	11.80
		Sliding door (corridor to compartment, class 500)	10.25
		Sliding door (corridor to compartment, class 600)	11.00
		Reading lamp glass	1.55
		Lavatory mirror (large)	15.00
		Lavatory mirror (small)	8.60
		Compartment mirror (class 500)	7.60
		Window blinds	12.20
		Loose cushions (class 500) (sponge rubber)	31.20
		Electric light shades (compartment ceiling, 500 and 600 class cars)	14.60
		Electric lights shades in lavatories	4.45
		Card tables	34.95
13	*Goods Brakevan* (*Class* 8300)—		
		Glass in large windows—bottom (sliding)	34.70
		Glass in large windows—top (fixed)	34.70
		Glass in small windows—bottom (sliding)	25.20
		Glass in small windows—top (fixed)	25.20
		Glass in switch box	2.50
		Standard mirror in lavatory	10.65
		Glass over refill case	2.60
		Glass over breakdown case	2.90
		Periscope window	5.30
		Periscope mirror	6.95
		Mirror over desk	7.00
		Partition mirror	7.00
		Marker lamp glass lens—Red or White	13.35

Item	Type of Vehicle	Article	Cost of Each $
		Narrow Gauge Vehicles	
14	*C.G.N. Brakevans—*		
		Glass in switch box	2.50
		Mirror in toilet	9.20
		Glass in refill case	2.50
		Glass over breakdown case	3.00
		Glass in Guard's observation window	3.00
		Glass in Guard's compartment side door	5.50
		Glass in Guard's sliding door	5.50
		Glass in toilet window	6.80
		Large window glass bottom (sliding)	34.70
		Large window glass top (fixed)	34.70
		Small window glass bottom (sliding)	25.20
		Small window glass top (fixed)	25.20
15	*Passenger and Composite Guard's Brakevans—*		
		Side and door window (plain or frosted)	3.20
		Cab windows (end or side)	3.20
		Miscellaneous	
		Washbasins, Beresford type, slightly damaged	10.80
		Washbasins, Beresford type, seriously damaged	53.50
		Drinking founts, slightly damaged	9.30
		Drinking founts, seriously damaged	53.50
		Globes over electric light (compartment)	3.00
		Globes over electric light, corridor, lavatories, and end platform	2.30
		Shades over electric lights	2.30
		Shades, lavatory electric light	4.55
		Victorian and South Australian Joint Stock	
16	*Roomette and Twinette Sleeping Cars, Club Cars, and "AJ", "BJ" and "RBJ" Coach Cars—*		
		Quarter lights, standard, outer (except "BJ")	20.70
		Quarter lights, standard, inner (except "BJ")	20.70
		Quarter lights, standard, "BJ" only—outer	19.90
		Quarter lights, standard "BJ" only—inner	24.80
		Quarter lights, new type (outer)	20.70
		Quarter lights, twinette only (outer)	20.70
		Quarter lights, new type (inner)	21.20
		Quarter lights, twinette only (inner)	21.20
		Cross partition, class "AJ" and "BJ"	25.20
		Lavatory lights, outer	12.80
		Lavatory lights, inner	14.00
		End door lights	14.40
		Side door lights	11.40
		Interior swing door glass (twinette only)	10.70

Item	Type of Vehicle	Article	Cost of Each $
16		*Roomette and Twinette Sleeping Cars, Club Cars, and "AJ", "BJ" and "RBJ" Coach Cars*—continued	
		Windows, armour plated, outer	45.45
		Windows, armour plated, inner	28.55
		Windows, blinds—Holland	8.15
		Window blinds—Venetian	64.40
17		*Mirrors*—	
		For towel cupboard, A.P.	7.40
		Roomette staggered corridor—shower	14.55
		Shower	7.45
		Shower, armour plated (J.S. Laminated)	12.75
		Bathroom and general lavatory	8.40
		Compartment above wash basin	7.90
		Compartment behind door	14.70
		Powder bar	28.20
		New Roomettes A Plate	19.40
18		*"PCO" and "CO" Vans*—	
		Engine room glass (where applicable)	10.95
		End door glass (where applicable)	4.70
		Centre door glass (where applicable)	4.70
		Side door glass (where applicable)	4.70
19		*C.E. Vans*—	
		End door lights	3.90
		Pent roof lights	4.00
		Goods compartment door glass	3.90
		Guard's compartment door glass	3.90
		Cross partition door glass	3.90
		Canopy glasses, end	5.90
		Canopy glasses, intermediate	7.10
		Canopy sliding lights	4.20
20		*Joint Stock Vehicles*—	
		Toilet glass shelf, armour plate	2.55
		Thermos jugs	25.30
		Tumbler, glass	0.40
		W.C. pan (Combolet hopper and seat)	36.40
		W.C. wooden seat	11.20
		W.C. seat bumpers	0.60
		W.C. pan pillar brackets	14.70
		W.C. pan hinge and sleeve	14.70
		W.C. seat rear bumper	4.20
		Towel, hand	0.80
		Towel, honeycombe, sleeping car	1.50
		Lamps, electric, 24 volt-32 volt, 25 watt	0.50
		Shade, glass, joint stock "B.E." cars	2.70
		Shade, glass, sleeping cars	2.70
		Electric light globe containers	4.35
		Ash trays (coach cars)	3.85
		Transparency picture, armour plate glass	14.50
		Transparency picture, opal glass	16.60

Item	Type of Vehicle	Article	Cost of Each $
21	*"AE" and "BE"*—		
		Quarter lights, standard, plain	3.80
		Quarter lights, standard, divided, plain	2.60
		Quarter lights, standard, frosted	3.50
		Quarter lights, standard, divided, frosted	2.65
		End door lights	3.80
		Side door lights	3.80
		Corridor sliding door, upper	5.10
		Corridor sliding door, lower	4.60
		Corridor partition	3.80
		Corridor partition shutter	3.80
		W.C. lavatory and attendant's door	3.90
		Pent roof lights	4.20
		Photo. glasses	3.90
		Map	3.20
		Mirrors—	
		Over quarter lights	8.40
		Cross partition, small	9.40
		Lavatory	12.80
22	*Sleeping Cars,* 21·641 *m*—		
		Quarter lights, standard, plain	3.80
		Quarter lights, standard, plain large	16.70
		Quarter lights, standard, divided, plain	2.60
		Quarter lights, standard, frosted	3.50
		Quarter lights, standard, divided, frosted	2.65
		End door lights	3.80
		Side door lights	3.80
		Corridor swing door, upper	5.60
		Corridor sliding door, upper	3.80
		Corridor swing door, lower	7.90
		Corridor sliding door, lower	3.90
		W.C. lavatory and attendant's door	3.90
		Pent roof lights	4.20
		Photo. glasses	3.90
		Mirrors—	
		Over quarter lights	8.00
		Vestibule, ladies' end	28.00
		Vestibule, men's end	9.60
		Cross partition, large	12.70
		Cross partition, small	5.20
		Attendant's compartment and W.C.	10.70
23		*South Australian Stock*	
		Electric light globes	0.30
		W.C. indicator glass, B.G.	1.00
		W.C. indicator discs, "Engaged"	3.70
		Map and frames (no glass)	2.75
		Penalty notice	1.35
		Damage lavatory seat (slight)	4.90
		Seat in coach cut	4.90
		Soap container (500-600)	5.00
		Paper holder (500-600)	5.50
		Card table (500-600)	34.95

Item	Type of Vehicle	Article	Cost of Each $
23		*South Australian Stock*—continued	
		Ash tray (500-600)	2.85
		Louvre, complete	18.40
		Door panel, B.G.	6.85
		Water bottles, glass	0.90
		Luggage rack	7.45
		Alarm signal glass	1.15
		Lavatory pedestal pan	89.50
		Lavatory door, new	37.90
		Lavatory door, S.H.	14.40
		Victorian Stock	
		Quarter lights, standard	3.90
		Quarter lights, divided, plain	3.40
		End door lights, upper	3.80
		Side door lights	3.80
		Corridor swing door, upper	5.60
		Corridor swing door, lower	7.90
		Corridor swing door, large pane	10.30
		Corridor partition glasses	3.80
		Corridor partition shutters	3.80
		Corridor sliding door, upper	5.10
		Corridor sliding door, lower	3.90
		W.C. and lavatory door glass	3.90
		Photo. and map glass	3.90
		Pent roof lights, opal	4.20
		Mirror cross partition	9.40
		Cross partition (small)	9.40

(*b*) Where the damage to the window or fittings appears to have been wilfully or maliciously caused, the payment for the damage is not to be accepted, but the name and address in full of the person concerned and, if possible, of witnesses must be obtained. Care should be taken to see that correct name and address is furnished by the offender by verifying, if possible, by sighting some communication or article in the possession of the person concerned.

(*c*) Where damaged fittings are noticed on a car by a Guard, and it is not possible to say who is responsible for the damage, the Guard must communicate with the station through which the train has passed, to enable the station staff, if possible, to trace the offender.

(*d*) Compensation for damage to departmental property other than that specified in the scale of charges shown under (*a*), will be assessed by the Head of the Branch concerned.

(*e*) The Station Master, Guard, or Conductor must in every case report the extent of the damage.

(*f*) Guards of picnic, military, or other extra guaranteed trains must be alert to detect any damage to rollingstock caused by the occupants, promptly bringing same under the notice of the responsible person in the party in order to establish the Department's claim for cost of repairs.

Cleaning and Equipping of Passenger Cars, Rail Cars and Brakevans—All passenger cars in regular working must be cleaned daily, or more often if required, and spare cars kept in clean condition.

The Station Master at stations where cars are kept must see that lavatory tanks are filled with water before cars are attached to any train. At stations

where spare cars only are kept, the lavatory tanks must be kept filled ready for use. When filling the water tanks of lavatory cars and sleeping cars, the nozzle of the hose-pipe must not be forced in too far, and the water must be allowed to flow in gradually to permit the escape of air.

At starting stations the cars must be swept, dusted, and thoroughly cleaned, fully supplied with drinking water where receptacles are provided, also with towels, soap, and sanitary paper. When liquid soap is provided in cars, cake soap must not also be supplied.

If a lavatory car becomes short of water on the journey, the matter must be promptly reported to the Train Controller, who will instruct regarding the action to be taken, and the matter must be fully reported by the Guard on arrival at destination.

Floors and dog-boxes of brakevans must be kept in a clean condition, and when necessary, scrubbed, a disinfectant being added to the water. Drainage holes, where provided, must be kept clear.

Lockers and pigeonholes must also be kept clean and free of litter.

Guards must keep the brakevans clean and tidy. They must report on their Train Journals all instances of dirty brakevans. No disfigurement of the walls must be made with pencil, etc. Brakevans must be disinfected as soon as possible after use for carriage of fish or other goods giving off an offensive odour. A brakevan must be disinfected after being used for the carriage of a corpse. Guards of country trains must be in possession of a duster, and whenever necessary, (and possible) must dust seats and handrails of cars *en route,* taking care not to interfere with the comfort of passengers. This duty must receive particular attention during adverse weather conditions.

Damage to Seats—Employees must not damage seats in compartments and lavatories of passenger cars by standing on them when attending to lamps, etc.

Detaching Cars at Intermediate Stations—When a passenger car is to be detached *en route,* the Station Master at the starting station must, if it be known beforehand that the car will be detached at a certain station, notify passengers to that effect. The Station Master at the station where the car is to be detached must, as soon as the train arrives, notify passengers that the car is to be detached and see that all luggage is removed, and assist such passengers in finding accommodation in the remaining cars.

The Guard and/or Train Porter must notify passengers *en route* if a car is to be detached.

Stabling of Cars at Destination Stations—On arrival at destination stations, the Station Master will be responsible for arranging for all windows to be closed, and cars examined for defects or shortages of equipment; and before stabling for the night, the necessary equipment must be removed, all lights extinguished, and the cars locked. Handbrakes must be applied, or if not so fitted, wheels must be spragged or chocked.

The Guard must attend to the foregoing when the station staff is not on duty, or at unattended stations.

Station Masters must inspect daily passenger cars, rail cars, trailers and brakevans that may be standing at their stations. Equipment must be removed, cushions turned, windows and louvres closed, blinds drawn and doors locked.

Empty Vehicles—Forwarding of—Empty goods or livestock vehicles sent from one station to another must be waybilled, and the entry must accompany the vehicle.

Urgent Loading Delayed "En Route"—When vehicles labelled "Urgent" consigned to attended stations are side tracked for any reason *en route* to destination, the following procedure must be adopted:—

On Lines Under Train Control—If the vehicle be side tracked at an attended station, the Station Master must advise the Train Controller, who must advise the Trucks Officer, or at an unattended station, the Guard must advise the Train Controller. The Train Controller must advise the destination station accordingly, and also the probable date and train of delivery. The Station Master at the destination must advise the consignee when practicable.

On Lines Not Under Train Control—If the vehicle be side tracked at an unattended station, the Guard must advise the Station Master as the first attended station, who will advise the Trucks Officer and the destination station, or if there be no intervening attended station, the Station Master at the destination station. The Station Master at the destination station must advise the consignee when practicable.

Vehicles for the Conveyance of Sulphuric Acid—Special vehicles are in use for the conveyance of sulphuric acid, with the name of the commodity painted thereon. These vehicles, whether loaded or empty, must be given prompt dispatch, and must not be detached at any intermediate station without permission from the Train Controller. All concerned are warned against allowing any part of their person or clothing to come in contact with sulphuric acid in or upon these vehicles.

Handling of Sulphuric Acid Containers on Wagon YA1—

1. As these containers are for the transport of concentrated sulphuric acid, care must be taken to avoid damaging the containers when removing them from the wagon for trans-shipping or other purposes.

2. Before attempting to lift the containers from the wagons *always see that the clamp nuts are unscrewed and the clamp plates are pulled outwards as far as possible. Similarly, before replacing the containers on the wagon, the clamp plates must be pulled outwards as far as possible.*

3. After the containers have been replaced on the wagon, always ensure that the clamp plates are correctly seated, then tighten the clamp nuts securely.

4. Only the lifting brackets on the containers must be used for lifting them; never attemp to lift them by other fittings.

5. The containers must always be mounted on the wagon with all four outlet covers (near the container bases) on the same side.

6. Immediately report any signs of acid leaking from the outlet covers.

"HB" Wagons—A goods train with one or more loaded "HB" wagon in the consist must not exceed a speed of 50 km/h on any track where a maximum speed of 55 km/h applies for goods trains (as shown in the W.T.T. Books).

Use of Bulk Commodity Wagons—Bulk commodity wagons must not be used for the loading of stone, scrap steel or any type of loading which may result in doors being damaged to such an extent as to result in unsatisfactory sealing of same.

They may be used for the carriage of bulk superphosphate.

Tarpaulins are to be removed from this type of wagon only to the extent necessary to facilitate loading or discharge, and must be replaced immediately such operation is concluded.

Tarpaulin spreaders on this type of wagon must be treated as permanent equipment on each wagon, and when it is necessary for the spreaders to be removed for loading or discharging consignments, they must be replaced in their normal positions.

"OAX" and "OMX" Wagons for Transport of Motor Bodies—Diagram CD.353 shows the maximum distribution of loading for these wagons.

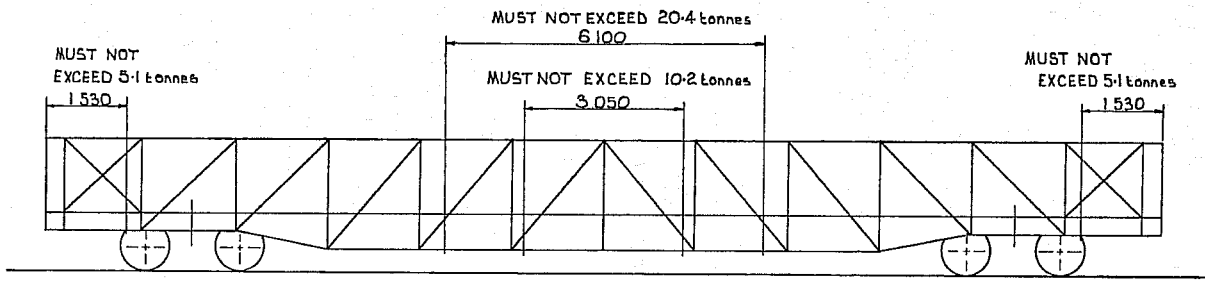


Diagram CD.353

The "OAX" and "OMX" wagons are designed for a maximum load of 35.6 tonnes. In no case must a 35.6 tonne load be exceeded, nor must any concentrated loading be greater than 3 tonne per lineal metre.

When cross bearers are not required, they must be placed on the floor of the wagon to suit any return loading.

Special Broad Gauge Well Wagons—

Class "WL" wagon 8200, fitted with Westinghouse brake complete may be placed in any position on the train.

Class "WL" wagon 8202, fitted with through air pipe only, must be marshalled next to and in front of brakevan.

Identification of Vehicles which are Not to Run in Victoria—Vehicles which are not permitted to work into Victoria have a painted *Red Diagonal Cross on a White background,* together with the words "*Not to run in Victoria*", painted on the side of the vehicle as shown on the diagram hereunder:—

Vehicles marked as shown above must not work beyond Serviceton, Mount Gambier or Pinnaroo.

"F" and "FR" Flat Wagons—Loading for Victoria—"F" and "FR" flat wagons must not be used for "bagged" loading for stations in Victoria.

Drainage Holes in Steel Open Wagons—Care must be observed to clear drainage holes, where provided, in steel open wagons when sweeping them out, and not allow the holes to remain choked up with dirt or other matter.

Stanchions on Bolster and Flat Wagons—Before bolster or flat wagons are moved, all moveable stanchions must be placed in the sockets or pinned in the receptacles provided on the wagons, and the chain securing the stanchions must not be twisted. Surplus stanchions must be waybilled to the nearest locomotive or rollingstock depot.

Taring and Retaring of Goods Vehicles—

1. New goods vehicles must be tared when first issued to traffic.
2. Goods vehicles must be retared when the following conditions apply:—
   (*a*) After repairs, alterations or an accident and the tare mass is affected.
   (*b*) Under the conditions for retaring prescribed in the Goods Rates Book.
   (*c*) Where the accuracy of the tare mass of any goods vehicle is in doubt. In such cases details of discrepancies discovered must be furnished to the General Traffic Manager, through the Divisional Superintendent, who must also receive a copy of the report.
   (*d*) Under the instruction of the General Traffic Manager or Divisional Superintendent.
3. The following are the taring stations:—

Broad Gauge

	Initial Brand
Islington Works	I.S.
Mile End	M.E.
Port Adelaide	P.A.
Tailem Bend	T.B.
Mount Gambier	M.G.

Standard Gauge

	Initial Brand
Peterborough	P.B.
Port Pirie	P.I.

Narrow Gauge

	Initial Brand
Peterborough	P.B.
Gladstone	G.D.
Port Lincoln	P.L.N.
Thevenard	T.V.D.

4. Goods vehicles before being retared, must be emptied of all refuse, also thoroughly clean and dry. Each vehicle must be carefully examined to see that it is complete with couplings, brake gear, etc., and if any detail is missing, the vehicle must not be weighed.

5. Before goods vehicles are retared, the weighbridge must be carefully balanced and a scraper or piece of hoop-iron passed around the platform to ensure a clear space between the platform and frame.

6. The goods vehicle must be detached and away from other vehicles, and at rest at the time of weighing. It must be in the centre of the weighbridge, so that the bridge and the weight on it may be balanced. After the vehicle is weighed, it must be hauled or hand-pushed off the weighbridge. It must not be pushed off by using another vehicle for the purpose.

7. The taring must be carefully performed, and in the presence of a second qualified employee; the weighbridge steelyard properly read, and the following particulars entered in the Weighbridge Retare Book, which must be kept specially for the purpose:—

Number and class of vehicle, and whether wood or steel.

Date of taring.

Time of taring. Old tare. Date of old tare. Station at which old tare recorded. New tare. Signature of employee by whom the vehicle is tared, and date.

Signature of employee witnessing the taring and date.

8. When the difference between the new and old tare does not exceed 25 kg, the old tare must not be altered, except after repairs when the exact tare must be shown.

9. Examiners must be advised by the Station Master, on Form 554, of the numbers, classes, and the old and new tares of the vehicles retared, and a carbon copy of such advice must be retained. The Examiners must paint out the old tare, and paint on the new tare (as shown on the Station Master's advice) on each side of the vehicle with the date of retaring and initials of the station where the retaring is done. He must return the advice, certified, to the Station Master as soon as the work is completed, and the Station Master must arrange to check the vehicle number and the new tares as painted on it with the entries on the advice, and if incorrect, arrange for the correct tares to be painted on.

10. When the invoiced mass of loading in goods vehicles is tested on a weighbridge, the vehicle must be weighed when at rest, and detached from other vehicles. The weighbridge must be balanced before the weighing takes place. The total mass indicated on the steelyard, and the tare including the mass of the sheets and ropes, if any, must be carefully noted and recorded, and the correct net mass ascertained. The vehicle must be examined after unloading to ascertain any quantity of rubbish and dirt, etc., sufficient to appreciably effect the net mass. If it be retared at the request of the consignor or consignee, the mass of the vehicle after unloading must be ascertained, and the difference between the tare mass shown on the vehicle and the retared mass represents the mass of the rubbish in the vehicle.

All particulars must be entered in the Weighbridge Retare Book. The freight charges, as entered by the forwarding station must not be amended except on the authority of the General Traffic Manager, who must be advised of all particulars.

Lifted Vehicles—Limitation of Loading on Intial Trip if Fitted with Plain Bearings—Lifted vehicles, if fitted with plain journal bearings, must carry a "First Trip" label (Form No. 298) on each side of vehicle for the first 80 km of running, and if loaded, such loading must not exceed half the marked carrying capacity of the vehicle during such time. "First Trip" labels will be placed behind the ordinary label.

"First Trip" labels, when removed, must be returned to the depot or workshop of origin.

Protection of Rail Tank Vehicles—Rail tank vehicles must be protected by a red flag by day and a red light by night during the period the outlet valve is connected for discharge purposes.

The officer or employee responsible for discharge of the vehicle must see that the red flag or red light is exhibited on the vehicle while the hose is connected, and must immediately remove the red flag or red light when discharge is completed and the hose pipe is disconnected.

In a traffic yard, the Station Master must be advised before discharging takes place, and immediately the discharged has been completed and the hose disconnected.

Instructions for the Protection of Train Examiners and Other Employees Engaged in Testing, Examination, or Repair of Engines or Other Vehicles—

(*a*) Except as specified in clause (*b*) hereunder, every employee engaged in the testing, examination, or repair of any engine or other vehicle on any track or siding, not being a siding set aside for such work, where there is any risk of injury to himself or others, must give notice to the Station Master that he wishes to perform such work and that shunting towards the engine or other vehicle must be stopped while the work is in progress. Work must not be commenced

until the Station Master so notified, after making the necessary arrangements, has given his permission.

(*b*) Employees engaged in the testing, examination, or repair of any engine or other vehicle in any portion of the Adelaide Yard, platforms, and Rail Car Depot, must notify the responsible Transportation Officer in those cases when the repair operations may interfere in any way with traffic requirements. Where it is definitely known that the engine or other vehicle is not required or where it can be made available immediately if required for traffic, there is no necessity to notify the responsible Transportation Officer before affixing the red signal.

(*c*) On receiving permission for the occupation of a siding, the employee before commencing the repair work must see that any hand switches governing entrance to the siding on which the work is to be performed are set so as to prevent any engine or other vehicle from entering upon the siding, and must, whenever practicable secure the switches in that position by means of the special switch clip provided. Switch clips must not be used on interlocked switches, but in such cases the Signalman must set the switches to protect the siding, and not again operate the lever until the work is completed, or he has first advised the employee carrying out the repairs.

(*d*) The employee performing any such work must fix a red flag by day and red light by night in a conspicuous position on the end of the engine or other vehicle which is nearest to the entrance to the siding, or if there be more than one entrance, then on the engine or other vehicle nearest to each entrance to the siding. Red flags shall be standard flag for this purpose, clean and bright in colour, and in good order. They must be properly secured to a suitable spar and placed so as to hang free from folds, displayed so that the full area of the flag is clearly visible from the entrance to the siding. Red lights must be so placed that they are clearly visible from the entrance to the siding.

(*e*) Each employee will display his own red signals and secure the hand switches and the same employee only is authorized to remove the signals and release the switches. All cases of unauthorized interference with red signals or switch clips must be promptly reported.

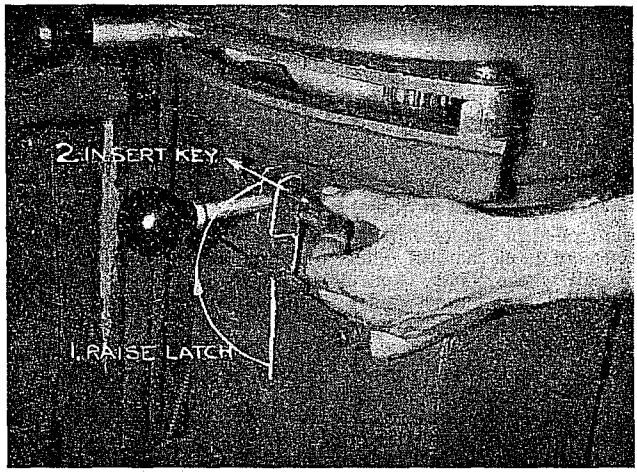
(*f*) Employees engaged in shunting operations must keep a good lookout for red signals, and where engines or other vehicles are found so protected, must exercise great care and prevent any engine or other vehicle coming in contact with them. A good lookout must also be kept when shunting on lines adjacent to those occupied by vehicles on which an employee is at work, and as far as reasonably practicable, such employee must be advised that a shunting operation is to be performed.

(*g*) Other vehicles which would intercept the view of the red signals must not be placed on the same line before notifying the employee, who must then transfer his red signals so that they are at all times displayed on the engine or other vehicle nearest each entrance to the siding.

(*h*) Each Train Examiner must be provided with a Safety Key, and is responsible for seeing that he is in possession of such key. Whenever it is necessary to examine or test the brakes or to carry out minor repairs to a train having an engine or rail car attached, the instructions set out in the following paragraphs—(*i*) to (*n*)—must be strictly observed.

(*i*) Before proceeding to examine or test the brakes or to carry out any repairs, the Train Examiner must so inform the Engineman or Rail Motor Driver. In the case of a rail car, the Rail Motor Driver must place the gear shift lever in the neutral position and apply the hand brakes hard on. The Train Examiner must then insert his Safety Key in the hole provided in the engine regulator handle or rail car gear shift lever to lock same in the closed or neutral postions respectively.

With the diesel engines the Engineman must ensure that the forward-reverse lever on the controller is in the "off" position. The Train Examiner shall then lift the Safety Latch and insert the Safety Key so that it passes above the forward-reverse lever. See photograph hereunder.



(*j*) After the Safety Key has been inserted, the Engineman must not move the forward-reverse lever on a diesel engine from its "off" position, or allow the engine to move in either direction, while the Motorman must not release the handbrake, until such time as the Safety Key is removed by the Train Examiner.

(*k*) When the examination, testing, or repairs have been completed, the Train Examiner must so inform the Engineman or Motorman, and remove his Safety Key.

(*l*) In the event of two Train Examiners being engaged on the above duties, the Senior Train Examiner must carry out the instrutions laid down for the Train Examiner in clause (*i*) of these instructions. The Junior Train Examiner must commence to examine and test the brakes from the rear vehicle of the train after the brake has been applied and proceed toward the engine. When the two Train Examiners meet, the Senior Train Examiner must give the "Release air brakes" signal (Rule 89). Both Train Examiners must then cross over to the other side of the train (when possible) and move back towards their respective starting points. The Junior Train Examiner on arrival at the rear vehicle must display the "All right" signal (Rule 90) to indicate he has completed his part of the examination. The Senior Train Examiner will be personally responsible for receiving and acknowledging this signal and satisfying himself that the work has been completed and his assistant is clear before removing his Safety Key.

(*m*) No person other than the Train Examiner who placed the Safety Key in position in the regulator handle or gear shift lever shall remove such Safety Key, and all cases of unauthorized interference with Safety Keys must be promptly reported.

(*n*) Each Train Examiner must wear a metal badge bearing the words "Train Examiner" on the front of his cap or hat, or if no cap or hat is worn, the badge should be attached to the left hand side of his coat or other wearing apparel.

(*o*) The foregoing instructions will not apply to Repair Sidings specially set aside for repair work. At these places the switches giving access to the Repair Sidings must be secured in a safe postion by the employee in charge of repair work to prevent the entrance of other vehicles. The key of the special lock by which the switches are secured must be retained by the employee in charge of the repair work.

(*p*) Shunters or other employees concerned in the movement of engines or other vehicles must be on the alert at all times to observe "Stop" signals, and where these are displayed must exercise every care to prevent any contact with, or movement of, any engine or other vehicle so protected. Before making any movement on or into a line upon which any engine or other vehicle is standing, the employee responsible for the movement must satisfy himself by personal observation that all is clear.

Defective Vehicles Detached at Stations—

1. When a loaded or empty vehicle is detached at a station short of destination in consequence of a mechanical defect or other cause, the Station Master must immediately advise the Train Controller, Trucks Office, Loco. or Rollingstock Depot, nearest Train Examiner and destination station, stating the number and class of vehicle, contents, and station to and from, also the transfer station if transfer be involved.

2. If the vehicle cannot be speedily repaired, the contents must be transferred into another vehicle and promptly forwarded to its destination, advice of which must be sent to the Train Controller, Trucks Office and destination station, also the transfer station if transfer be necessary.

3. The date when a vehicle is so detached at a station must be entered on the label so that stations ahead may know how long the vehicle is on the line.

4. A record must be kept in a book provided for the purpose at each station, showing the date, time, and number of the train by which such vehicles arrive, also the date when repaired and the date and train by which forwarded.

5. If a vehicle be detached at an unattended station, the Guard must give full particulars to the Train Controller.

6. The Train Controller and the Trucks Office must be advised when vehicles are again restored to traffic.

7. If a livestock van loaded or empty, be detached short of destination, advice must in addition to those enumerated above be sent to the Livestock Agent (Port Lincoln Division excepted).

8. A complete record of all such vehicles must be kept by the Trucks Office.

Labelling of Vehicles and Details for Repairs—Where rollingstock and details are forwarded to Islington Workshops for repair, they must be consigned to the Chief Mechanical Engineer.

Instructions to Train Examiners:—

(1) When a vehicle is not fit for traffic, it must be labelled with a red label (No. 264) by the Train Examiner. If it be a passenger car or brakevan, the Train Examiner must, in addition, advise the nearest Traffic Officer in writing that it is unfit for traffic.

(2) When an empty vehicle requires repairs, but is fit to run, it must be labelled with green labels (No. 263) "For repairs" and sent to the nearest Loco. repairing depot, which must be indicated on the label by the Train Examiner.

(3) When the repairs required do not affect the safe running of the vehicle and it is desirable to allow such vehicle to go forward to its destination, it must be labelled with a green label (No. 263) "For

repairs—To be sent or returned loaded/empty". If it be necessary for the vehicle to be returned empty to a depot, the word "loaded" must be struck out, and if in a fit condition to return loaded, the word "empty" must be struck out, the Train Examiner to indicate on the label which depot the vehicle is to be sent or returned for repairs.

(4) When a vehicle is labelled with a green label (No. 263) the Train Examiner must hand a copy of such label to the Station Master, who must arrange for the vehicle being placed for repairs, or forwarded, loaded or empty, as the case may require, to the station named by the Train Examiner. In the event of the vehicle being loaded, the entry must be endorsed with the words "Green label for repairs". In addition, the duplicate label must be forwarded by the Station Master to the station to which the loaded vehicle is going. The Train Examiner must state on the label the repairs required, and sign his name.

(5) In every case in which a vehicle with a green label is sent empty, an O.S. consignment waybill, on which must appear the number of such vehicle and the entry "Green label for repairs", must accompany it.

(6) When labelling electrically lighted vehicles for repairs, the Train Examiner must promptly send a duplicate copy of the label as under:—

Broad gauge—Foreman Rollingstock, Adelaide.

Peterborough Division—Sub-Foreman Electrical Fitter, Peterborough.

Port Lincoln Division—Loco. Foreman, Port Lincoln.

(7) *No unauthorized employee must remove these labels.*

(8) After a vehicle has been derailed, or has sustained damage, it must not again be put into traffic until a Train Examiner, or other responsible representative of the Mechanical Branch, has certified that it is fit to run.

Instruction to Guards:—

(9) Station Masters must provide all Guards and Acting Guards located at their station with 10 green labels (No. 263). Guards must apply to Station Masters for further supplies as required.

Guards must affix these labels to any defective vehicle on their trains in the following cases:—

(*a*) When the air is cut out.

(*b*) When air brakes are dragging.

(c) When there is any other defect in air brake and other equipment.

(*d*) Vehicles uncoupling *en route*—Both vehicles which uncouple *en route* must be green carded for inspection.

Full particulars of defect must be entered on the back of the card at the time, with vehicle number, class and destination. In addition, particulars of the defect must be entered on the Guard's Journal, and the Train Controller advised full praticulars of any vehicle green labelled.

(10) The green repair label must remain in the holder for attention by Brake Fitters at terminals, and must not be removed until repairs have been effected. Brake Fitters are located at Pooraka, Mile End, Tailem Bend, Mount Gambier, Peterborough, Port Pirie, and Port Lincoln.

(11) Such vehicles must receive attention as promptly as their normal movements permit, but must not be hauled unnecessarily for repairs.

(12) When green labelling a vehicle, the Guard must make out three green labels, place one in each label holder, and hand the third label to any of the following:—

(*a*) The Station Master where the vehicle may be detached.

(*b*) The relief Guard.

(*c*) The Station Master at the destination station.

Securing Vehicle Doors—No vehicle loaded or empty must be allowed to leave a station unless the doors are closed and all door fastenings in effective position, except that the doors of box vans containing live poultry or similar goods must be left open. The doors of all box vans must be promptly closed after vans have been unloaded, to prevent damage to floors and to commodities which may be subsequently loaded. Gangers when passing through unattended stations must give this matter their attention. Loading must not be placed against the doors of vehicles as to impede sliding doors from being opened.

Defective Vehicle Doors Opening "En Route"—When a vehicle door is found to have opened *en route*, the vehicle must be labelled with a green repair label. The Superintendent must be advised and the vehicle held at destination station pending instructions as to its further movement for inspection.

Defective Vehicle Doors Opening During Shunting Operations—Guards or Shunters must see that doors of vehicles are closed and properly secured. When a vehicle door is found to have opened during shunting operations, action should be taken to see that the vehicle is green labelled accordingly.

Inspection by Examiners—In addition to the foregoing, examiners must see that door catches on wagons are in good order. Train Examiners, when making train examinations, must satisfy themselves that the doors on vehicles are properly closed and that the door locking equipment is fully registering in position and correctly secured. Vehicles found with bent stanchions or damaged doors rendering catches ineffective must have the doors made temporarily secure and labelled with a green repair label in acordance with instructions herein.

Rollingstock—Broken Detail—The following procedure must be adopted in connection with all rollingstock details which fail through breakage during train running operations:—

Should an engine detail fail, the damaged detail must be placed on the engine and returned to the Depot. Such detail must be suitably labelled, showing the engine number, train number and date.

Should a defective car or wagon detail be handled by the train crew, the damaged detail must be placed in the brakevan, and delivered by the Guard to the first attended station, where it must be labelled and waybilled to the Foreman Rollingstock on the Adelaide Division, the Loco. Foreman, Tailem Bend on the Murray Bridge Division or the Loco. Foreman, Peterborough on the Peterborough Division.

In the case of the Port Lincoln Division, engine, car or wagon details must be placed on the engine and delivered to the Loco. Foreman, Port Lincoln. The label must show vehicle number, train number and date.

When a rollingstock detail is found on the line, it must be conveyed to the nearest attended station where the Station Master must promptly label, waybill and forward as outlined above. The distance at which the detail is found, the particular line and the date should also be shown.

Hot Boxes—Should a vehicle develop an overheated journal, the train must be stopped, and the hot box examined by the Engineman; every effort must be made by the train crew to enable the vehicle to continue to its destination, or to a point where attention can be given by a Train Examiner. The Engineman's decision as to whether it is safe for the vehicle to proceed must be accepted subject to clause 1 and 2 hereunder.

1. Should a hot box develop on a vehicle carrying explosives or inflammable goods such a vehicle must be detached from the train without delay.
2. Should a hot box be in flames, immediate steps must be taken to extinguish the fire, and before proceeding, a close inspection made to ensure that no part of the vehicle or its contents have become ignited.

Each brakevan carries an emergency kit comprising oil, D.J. Compound and wool rolls, and necessary tool, either inside the brakevan or in a sealed container mounted on the underframe, to enable attention to be given to hot boxes by the train crew. This kit must not be used except in cases of emergency, but when used a special report must be furnished by the Guard, who must also enter full particulars on his Train Journal. The brakevan must be green carded "emergency oiling kit used".

This advice must be forwarded as soon as practicable to the Chief Mechanical Engineer's Branch, and the emergency kit must be replaced in the brakevan before such brakevan is permitted to again work on any train.

Wheels Skidding—Guards must specially report any instance of wheels skidding during a normal application of the air brake in addition to reporting it on the Train Journal.

In order to prevent the wheels of a brakevan of a goods train being skidded, Guards must strictly observe the following:—

If the hand brake is used to assist in stopping the train, it must be released as the air brake is released.

If the hand brake has been applied, the Guard's starting signal must not be given until the Guard's hand brake has been released, except on heavy grades, in which case the hand brake must be released at the moment that the rear section of the train commences to move.

Broad and Narrow Gauge Tarpaulins—Broad gauge tarpaulins must not be used to cover narrow gauge vehicles or *vice versa,* without approval of the Superintendent, and when so used they must be waybilled by transfer station to destination station who will be responsible for their prompt return under waybill to the transfer station.

Station Masters must see that:—

1. Tarpaulins are handled carefully.
2. When vehicles are unloaded the tarpaulins are dried before being carefully folded and placed in a safe position.
3. Tarpaulins are in good condition. Faulty tarpaulins must be withdrawn from traffic and handled as under.
4. Tarpaulins for repair must be neatly folded, secured with twine and "On service" waybilled to Superintendent Freight, Mile End. The label must be endorsed "For repair from.....station". Transfer notes must accompany the tarpaulin if transfer be necessary. The words "For repair" must also be printed in chalk on the tarpaulin itself. Defective tarpaulins must not be retained for drying before being forwarded. All tarpaulins must be protected from dampness during transit.
5. On Port Lincoln Division faulty tarpaulins must be forwarded to Station Master, Port Lincoln.
6. Guards must report particulars of defective tarpaulins to nearest Station Master who must promptly arrange replacement and withdrawal of defective tarpaulin.
7. Defective tarpaulins must be dispatched from Mile End station to Tarpaulin Shop under waybill daily.

8. Adjoining systems tarpaulins are distinquished as follows:—

South Australian Railways—Branded "S.A.R." black yarn in one strand of rope. Broad gauge sheets are also marked with a large "X" in each corner. Numbers shown in two places: (*a*) on outside in large figures; (*b*) in small figures on inside edge about centre of sheet.

Victorian Railways—Branded "V.R.". Loose strand in ropes. Not all numbered.

New South Wales—Branded "N.S.W.G.R.". Vertical wide red brand through centre. Not numbered but are branded with a number representing month and year of manufacture, *e.g.*, "3/68".

Commonwealth Railways—Green in colour. Branded "C.R." 250 mm white lettering and numbers on each outside corner.

Western Australian Railways—Liberally branded "W.A.G.R."

Tasmanian Railways—Black neoprene, black or green canvas. Branded "T.G.R." with year of issue and number in each corner, *e.g.*, 68/3.

Ferry Rail Service Tarpaulins—Silver or green neoprene. Blue or green canvas branded "Rail Ferry Service". Number and year of issue on each corner, *e.g.*, "3/68 R.F.S.".

Sheeting of Wagons Fitted with Fixed Ridge Gear—

1. **Ridge**

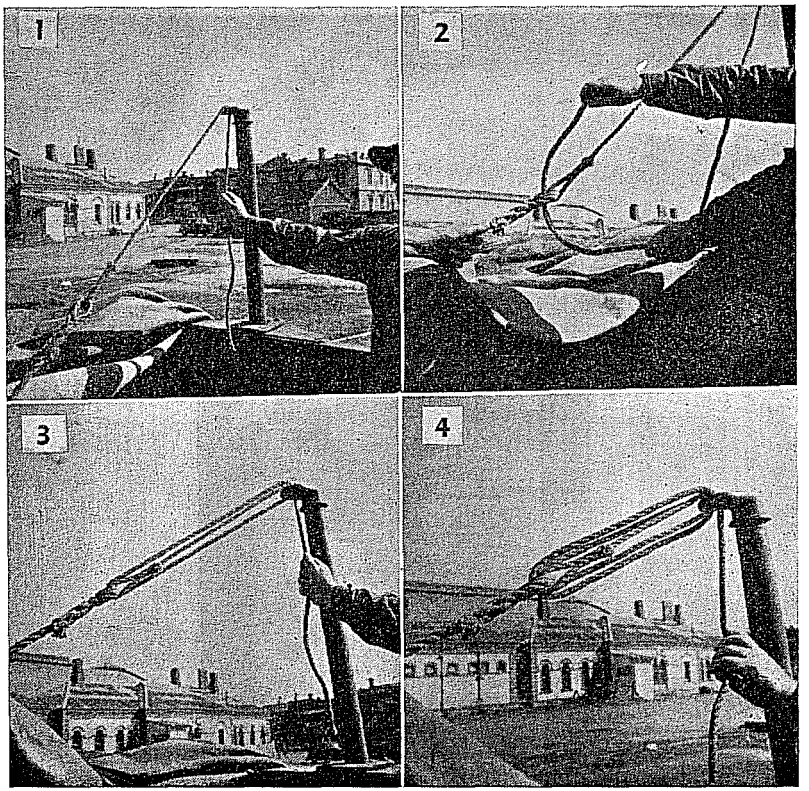
   (*a*) Clip ridge rope to eye of standard at one end.

   (*b*) Pass ridge tie rope over and through eye of standard (photo. 1).

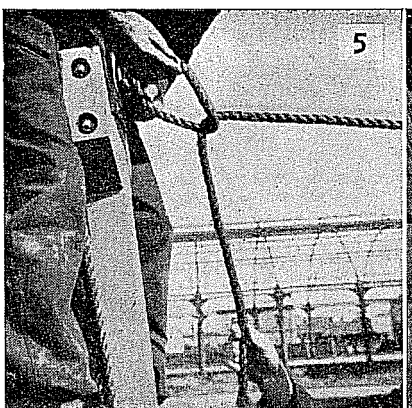
   (*c*) End of rope back through eye of ridge rope (photo. 2).

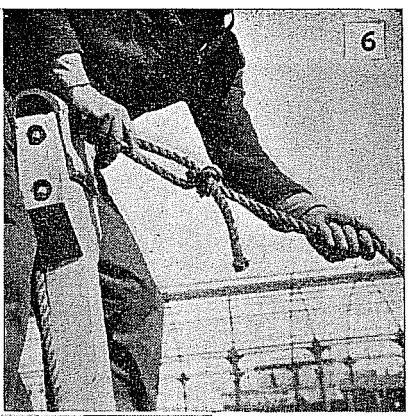
   (*d*) Back, over and through eye of standard (photo. 3).

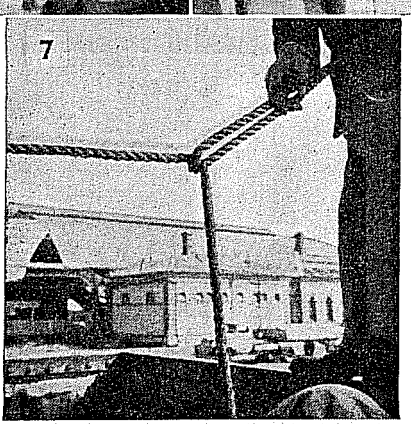
   (*e*) Repeat process of (*c*) and (*d*) (photo. 4).



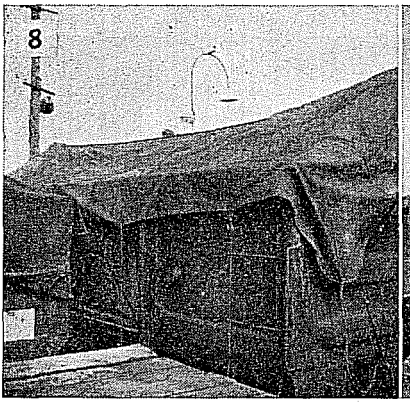
(*f*) Draw down on rope stretching ridge to maximum tautness and secure (photos. 5, 6, and 7).

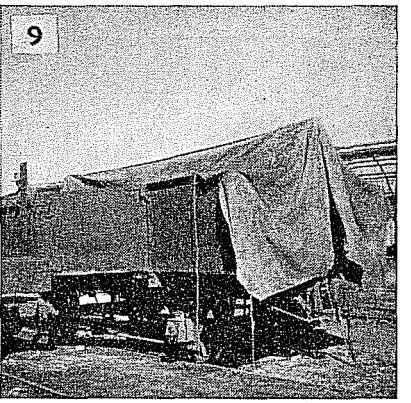






(*g*) Drape tarpaulins over ends and sides of wagon (photos. 8 and 9).

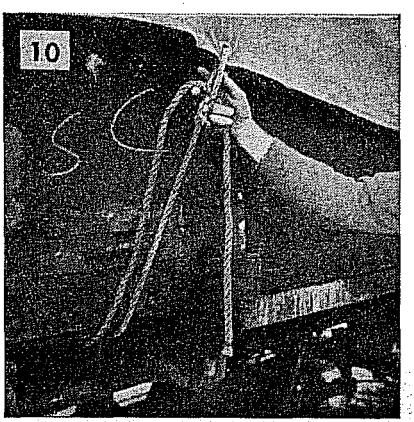




2. **Sides**

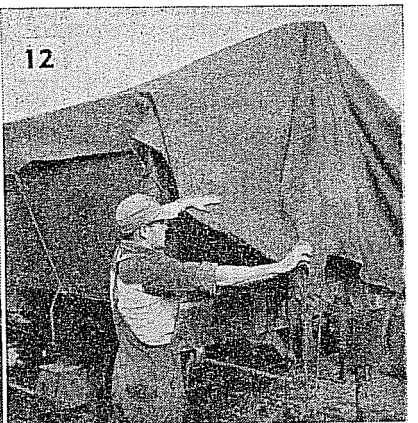
(*a*) Tie side ropes on one side firmly, centre ropes first making sure door fasteners are free.

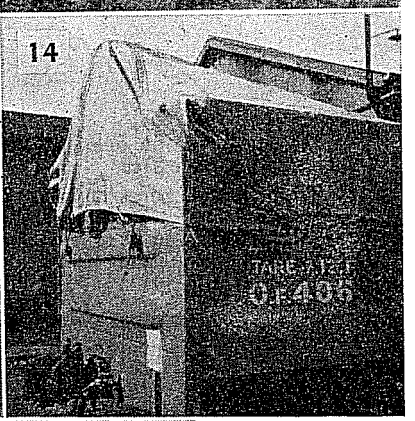
(*b*) Tie other side ropes taking up all slack in tarpaulin in order that water will run off. Greater purchase can be gained when tightening ropes by passing end of rope back through eye near sheet fastening, drawing down and securing (photo. 10).



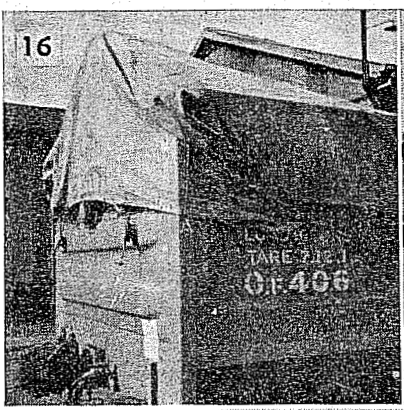
3. **Ends**

(*a*) Fold ends as shown in photos. 11, 12, and 13, and tie back around side as in photos. 14 and 15.



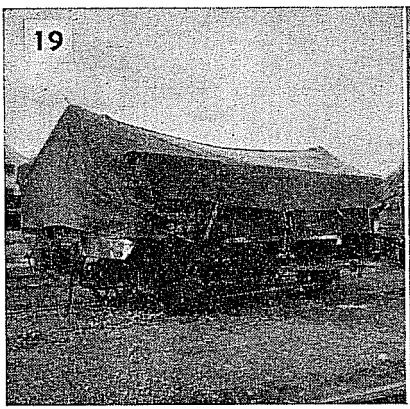


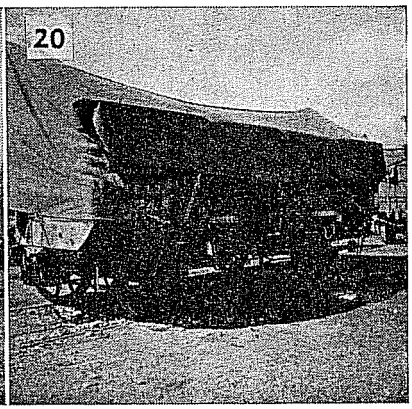
(*b*) Tie down ropes to cleats (photos. 16, 17, and 18).



4. **Finished wagon**

Note firm ridge and smooth sides of tarpaulin with ample overhang at sides and ends (photos. 19 and 20).





Sheeting of Wagons Without Fixed Ridge Gear—Where possible use special wooden standards shown hereunder.

1. **Ridge**

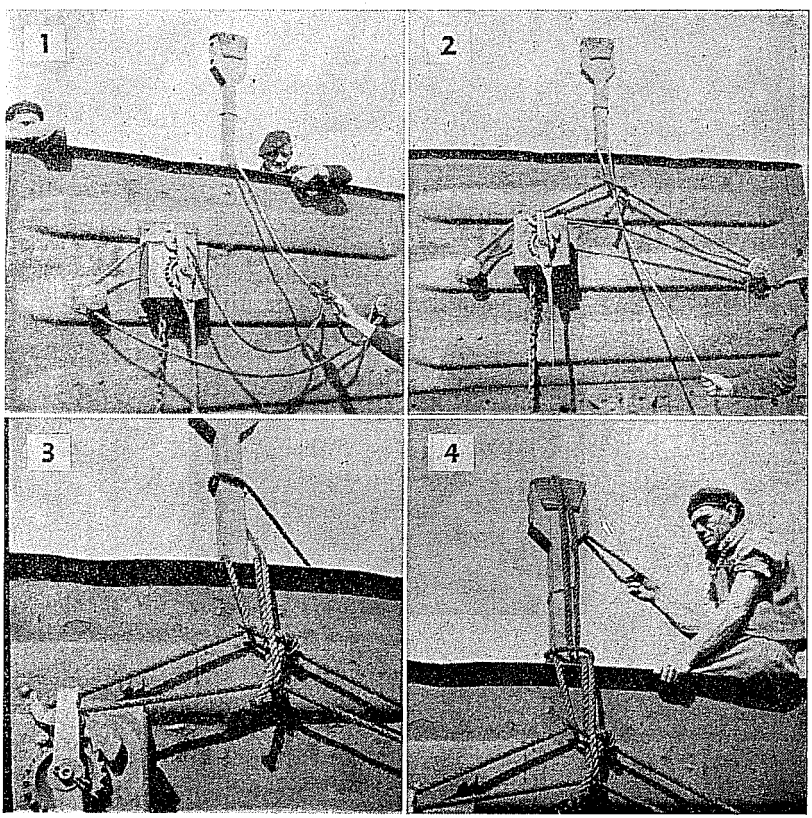
   (*a*) Place standards in centre of each end of wagon flush with end wall.

   (*b*) Loop end of rope and place around cleats at ends of wagon (photo. 1).

   (*c*) Secure standards by passing rope around standards down and under rope at centre (photos. 2 and 3), making sure brake gear is clear (photo. 2).

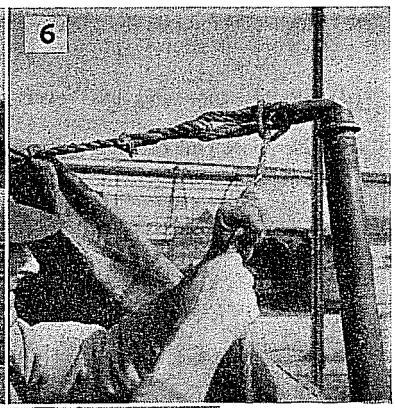
   (*d*) Double rope and pass over slot at top of standard to form a loop (photo. 4).

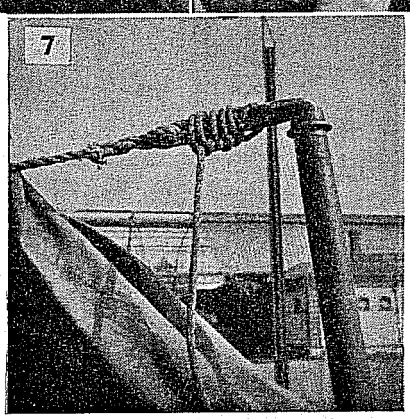
   (*e*) Use loose end of rope to further secure standard.



(*f*) Loops are now at each end of wagon to take place of eyes on fixed ridge gear.

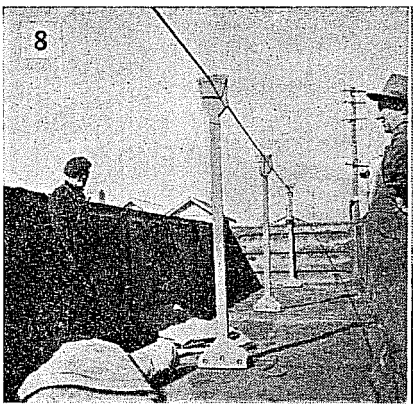
(*g*) Secure one end of ridge rope to loop and run rope length of wagon, pass through loop at other end and take up all slack before tying (photos. 5, 6, and 7).

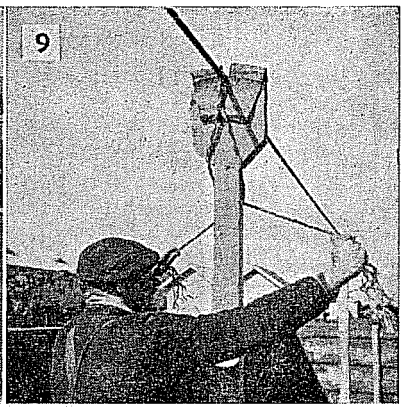




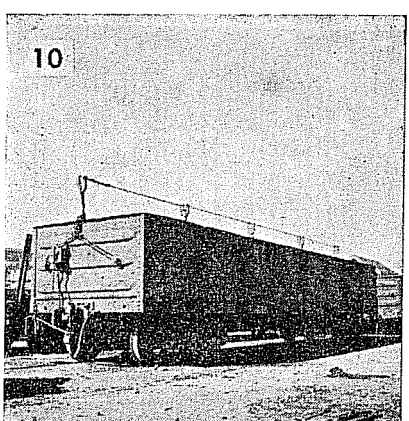
(*h*) Place extra standards along centre of wagon equally spaced.

(*i*) Secure ridge rope in position by light lashing





(*j*) Note finished ridge (photo. 10).



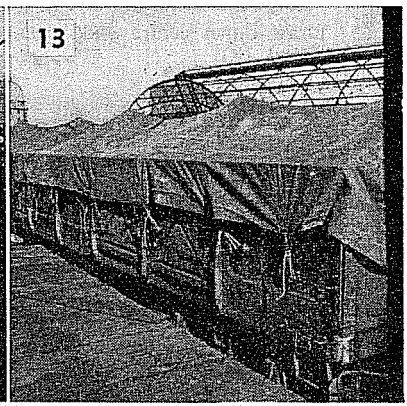
2. **Covering**—Two tarpaulins are necessary

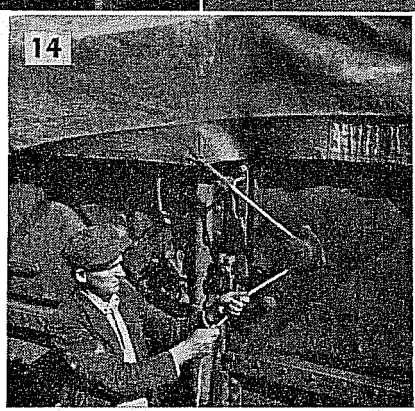
(*a*) Commence at trailing end of wagon by placing one tarpaulin in position leaving sufficient to drape and cover end and sides (photo. 11).

(*b*) Commence tying side ropes at centre of wagon.

(*c*) Pull leading end rope towards leading end of wagon and secure to cleats (photo. 12).

(*d*) Other side ropes should be either straight down or towards trailing end of wagon to prevent sheet buckling (photos. 13 and 14).





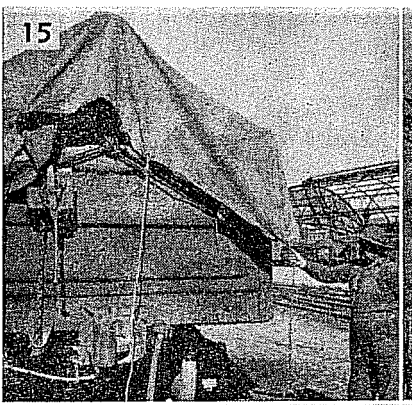
Direction of TRAVEL

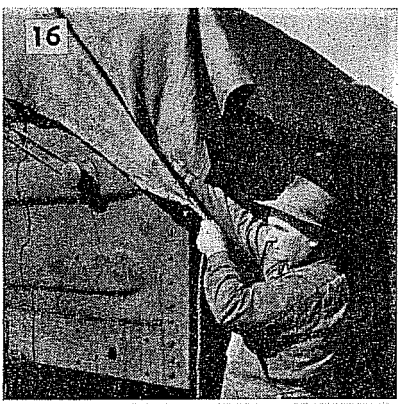
(*e*) Second tarpaulin must adequately overlap bottom tarpaulin with top tarpaulin stretched towards trailing end to allow water to drain off (photo. 12).

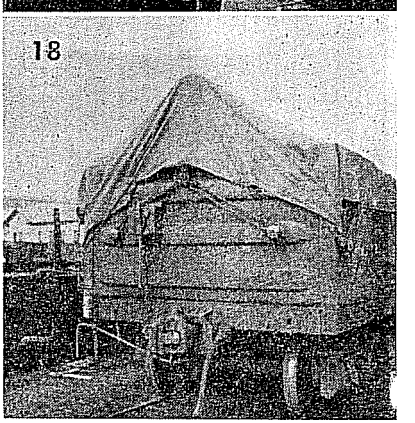
(*f*) Drape ends of wagon.

(*g*) Fold in same manner as for ridged wagons and secure corners of tarpaulin around sides.

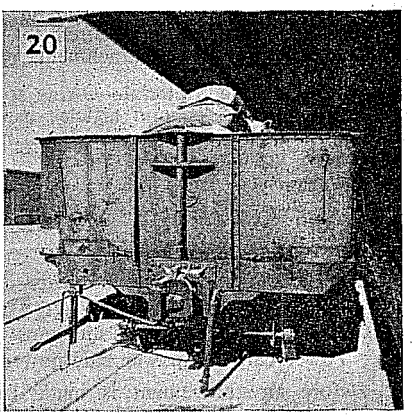
(*h*) Draw down centre end ropes and secure cleats (photos. 15, 16, 17, and 18).







Sheeting Wagons Without Ridge Gear or Standards—Where no equipment is available to ridge a wagon, loading must be arranged pyramid fashion to form a ridge over which a tarpaulin can be draped and drawn tightly down over sides and ends as in ridge wagons (photos. 19 and 20).



NOTE:—Photos. 19 and 20 would enable a tarpaulin to shed water, but the hollow in centre in photo. 21 marked with arrow would allow tarpaulin to dip and hold a trough of water.

Use of Tarpaulins, Ropes, Twitch Sticks, Packing Bags, Etc.—Station Masters must have the abovementioned equipment released and promptly returned, and at once advise the Trucks Officer of particulars.

Lashing on Wagons—Precautions to be Observed—

1. Particular attention is called to the last clause of Rule 60, which reads "Lashings must be secured so as not to interfere with the working of hand or air brakes".

2. The Staff at loading stations must be careful to see that lashings and tie ropes are clear of the brake gear and that the loose ends of the ropes are secured so as to prevent them hanging down; a loose or dangling lashing is always a source of danger. In no instance must a lashing or tie rope be tied to a Shunter's hand-hold, door fastening, or any portion of the automatic coupling gear.

3. Lashing *must not* be secured to the Shunter's safety chain on Victorian wagons, but to the proper attachments provided for the purpose.

Covering of Jute Material—Owing to the risk of fire, bran bags, chaff bags, corn sacks, woolpacks, and articles made of jute must be sheeted. Particular attention must be given to the covering of secondhand bags of any kind as they readily ignite.

RAIL CARS

Rail Car Movements—

1. 100, 250 and 280 class rail cars—Marshalling of 5 car consists.

Consists formed by the use of 100, 250 and 280 class rail cars must be limited to a total of five (5) rail cars and must be marshalled in the following order:

Power car, non-power car, power car, non-power car, power car.

2. Before any movement is made by a power car with or without other vehicles attached, all coupled vehicles must be fully charged with air and the air brake in effective operation throughout the train.

3. Unless specially authorized, power cars must not be used for shunting passenger or goods vehicles, other than non-power cars, or vehicles modified to work with rail cars.

4. The Rail Motor Driver must always drive from the leading Driver's compartment in the direction the movement is made, except as outlined below.

If a movement is made in reverse and the Rail Motor Driver is not operating from the leading end of the rail car in the direction of such movement, the following must be observed:—

(*a*) The Shunter must ride on the leading end of the car and constantly observe the line ahead for signals or obstructions.

(*b*) The Shunter must continuously display a hand signal to the Rail Motor Driver whilst the car is in motion.

(*c*) When a pushing movement is being carried out and the power unit is not in the leading car, an additional employee must be provided in the Rail Motor Driver's compartment on the opposite side of the car to the Rail Motor Driver, and relay to the Rail Motor Driver the signal given by the Shunter from his side of the cars. The Rail Motor Driver is responsible for receiving the signal when given on his side of the cars.

(*d*) Sound the rail car hooter to warn road traffic approaching level crossings, or in an emergency.

(*e*) When movements are being made through non-interlocked switches the Guard or Shunter in charge of the movement must stop the car before alighting to operate the switches.

5. 250, 280, 300 and 400 Class rail cars and non-power cars used in conjunction with them (*i.e.*, 100, 820 and 860 Class) are equipped with electro-pneumatic straight air brake equipment. This equipment, although having an automatic emergency feature, will not work with the brake equipment on any other cars or engines except as specified as follows:—

(*a*) Should a failure occur in service on a 250, 280 or 100 Class car, or a consist of cars, and it is necessary to provide hauling power by using an engine, the following instruction will apply:—

The train pipe of the engine must be connected to the main reservoir pipe with the special adaptor hose located in the tool box of the 250 and 280 Class power cars. This will couple the two air brake systems and permit air to pass from the train pipe of the engine to the main reservoir of the rail car and allow the air brake to become operative on the car or consist being hauled.

Under these conditions the Rail Motor Driver must be at his driving station to apply the brakes independently on the car or consist whenever necessary as the above arrangement does not provide braking from the engine.

The speed of hauling must be limited if there is any mechanical defect which could affect the safety of the movement.

(*b*) If the air brake equipment is inoperative and it is necessary to shunt the movement and the car contains passengers, a Transportation employee must be provided in each car, who must place himself in a position to immediately operate the hand brake in response to whistle signals from the engine crew. The speed of the movement must not exceed 6 km/h.

Guards working Rail Cars must—

1. Ensure that the flaps covering the steps are DOWN in the correct position before reaching a station provided with a platform and that they are secured in the UP position before reaching a station or stopping place not provided with a passenger platform. He must give assistance to passengers when joining or alighting, or pick up or set down their luggage.

2. Immediately on joining the rail car, and after giving the necessary signal, ensure that on Country Lines, all doors of the consist are securely closed. Safety chains, where provided, must be fastened in the correct position.

3. Keep an accurate record, on the prescribed form, of the number of passengers travelling on the rail car from station to station.

4. Ensure that consists have effective lighting, giving due regard to the convenience of passengers and weather conditions.

5. Canvas seat covers are provided which must be used when articles are placed on seats. Articles which may damage seats must be placed on the floor.

Communication Signal—The communication code is—

STOP—One long signal
START—Two short signals
REVERSE—Three short signals

The Guard's joining signal is not required on rail cars equipped with through communication signals.

The Guard, after giving the starting signal, must keep a sharp look-out on the side of the train nearest the platform until the train is clear of the platform, and be prepared to give the "stop" signal in cases of emergency. On trains on which a Collector or a Train Porter is provided this employee must also keep a sharp look-out on the platform side of the train and give the Guard the "all clear" or "stop" signal as may be required.

Passengers in Driving Compartments of Rail Cars—Only officers or employees whose duty requires them to do so must be allowed to travel in the driving compartments of rail cars. They must be in possession of a Gold Pass or passes endorsed "Available for Engine or Brakevan".

Passengers must NOT be allowed to travel in these compartments.

Parcels and other loading in Engine and Driving (Operating and Non-Operating) Compartments—Parcels and other loading must not be placed in the operating or non-operating compartments of 250, 100, 280, 300 or 400 Class rail cars so as to prevent the Rail Motor Driver gaining access to any control equipment.

Seats of Rail Cars and Trailers to be facing direction of travel—Rail cars and trailers working between Adelaide and stations outside of the metropolitan area, must have seating facing the direction of travel.

Rail Car Consists Stabled at Out Stations on Running Lines at Night—"Stop" Signal to be Displayed on—When rail car consists are stabled at night at Out Stations on Running Lines, the employee stabling the consist must place a lighted red lamp at each end of the consist. The lighted lamp must be placed in position at the time of stabling irrespective whether it be day or night and must be in position where it can be clearly seen. The lights must be removed before movement.

TRAIN CONTROL

The movement of all trains on lines worked under Train Control System is under the direction of the Train Controller.

The location of Train Control Offices and the classes of Block Working on the controlled territory is as follows:—

ADELAIDE DIVISION

Train Control Office, Adelaide

Section of Line under Train Control	Number of Lines	System of Block Working
Adelaide to Outer Harbour	Double	Electric Signalling
Glanville to Semaphore	Single	Electric Signalling
Adelaide to Gawler	Double	Electric Signalling
Gawler to North Gawler	Single	Electric Signalling
Gawler to Hamley Bridge	Single	Electric Signalling
Hamley Bridge to Terowie	Single	Electric Staff
Terowie to Peterborough	Single	Electric Signalling
Salisbury to Port Pirie	Single	Electric Staff
North Gawler to Angaston	Single	Electric Staff
Nuriootpa to Truro/Penrice	Single	Train Order
Hamley Bridge to Moonta	Single	Train Order
Balaklava to Gladstone	Single	Train Order
Brinkworth to Kadina	Single	Train Order
Roseworthy to Eudunda	Single	Train Order
Riverton to Spalding	Single	Train Order
Adelaide to Goodwood Junction	Quadruple	Electric Signalling
Goodwood Junction to Brighton	Double	Electric Signalling
Brighton to Hallett Cove	Single	Electric Signalling
Hallett Cove to Port Stanvac	Single	Train Order
Tonsley Junction to Tonsley	Single	Electric Signalling
Goodwood Junction to Belair	Double	Electric Signalling
Belair to Tailem Bend	Single	Electric Signalling
Mount Barker Junction to Victor Harbour	Single	Train Order
Woodville to Albert Park	Single	Electric Signalling
Woodville to Woodville North	Single	Electric Signalling
Albert Park to Hendon	Single	Electric Staff
Port "A" Cabin to Dry Creek	Single	Electric Staff
Dry Creek to Pooraka	Single	Electric Signalling

MURRAY BRIDGE DIVISION

Train Control Office, Murray Bridge

Section of Line under Train Control	Number of Lines	System of Block Working
Tailem Bend to Wolseley	Single	C.T.C.
Wolseley to Serviceton	Single	Electric Staff
Tailem Bend to Barmera	Single	Train Order
Tailem Bend to Pinnaroo	Single	Train Order
Karoonda to Waikerie	Single	Train Order
Karoonda to Peebinga	Single	Train Order
Alawoona to Loxton	Single	Train Order

Train Control Office, Mount Gambier

Section of Line under Train Control	Number of Lines	System of Block Working
Wolseley to Mt. Gambier	Single	Electric Staff
Mt. Gambier Junction to Millicent	Single	Train Order
Naracoorte to Kingston	Single	Train Order

PETERBOROUGH DIVISION

Train Control Office, Peterborough

Section of Line under Train Control	Number of Lines	System of Block Working
Port Pirie to Broken Hill	Single	Electric Signalling
Peterborough to Quorn	Single	Train Order
Gladstone to Wilmington	Single	Train Order

PORT LINCOLN DIVISION

Train Control Office, Port Lincoln

Section of Line under Train Control	Number of Lines	System of Block Working
Port Lincoln to Thevenard	Single	Train Order
Penong Junction to Penong	Single	Train Order
Cummins to Buckleboo	Single	Train Order
Yeelanna to Kapinnie	Single	Train Order

Communications between Stations and Train Control—The selector telephone must not be used, without authority, for other than train working.

Train Control selector telephones are provided at each station, signal cabin, Loco. Depot and other important points, to provide continuous communication with the Train Controller.

A. Method of Communicating with the Train Controller on Train Control Selector Telephones—To speak to the Train Controller, the receiver must be lifted from the hook and the "press to talk" button depressed prior to speaking. The button must be released when listening.

If the line is disengaged the person wishing to communicate with the Train Controller must give the name of the station and then wait until he receives the reply, "Speak ....." from the Train Controller. When the communication is completed, the officer or employee speaking must say "Finished", and the Train Controller will reply, "Finished .....". **The receiver must then be placed on the hook.**

In cases of emergency, the station desiring to speak to the Train Controller may interrupt a conversation that is taking place by calling the station name and saying "Urgent". Station Masters at attended stations must see that immediate attention is given to calls from the Train Controller.

The selector telephone must only be used for conveying information regarding train working to and from the Train Controller and must not be used for communicating between stations.

When a train is waiting at an unattended station, the Guard must, when practicable, remain within hearing of the Train Control selector telephone and answer any calls.

B. Method of Communicating with the Train Controller from Locations not equipped with Train Control Selector Telephones—At Stations not equipped with Train Control selector telephones, the receiver must be lifted from the hook without ringing, and if the line be disengaged, the person wishing to communicate with the Train Controller must give the name of the station from which he is speaking and wait until he receives the reply, "Speak....." from the Train Controller. When the communication is completed, the person speaking must say, "Finished" and the Train Controller will reply, "Finished .....". The receiver must then be replaced on the hook.

C. Method for Connecting the Train Control Line to (a) the Riverton-Spalding party line, and (b) the Gladstone-Wilmington party line.

1. Stations between Riverton and Spalding and between Gladstone and Wilmington, may call Train Control as follows:—

(*a*) Before making a call, the caller must ascertain that no Train Order is in course of transmission or a conversation taking place.

(*b*) If line is being used for local party work and a call is to be made to the Train Controller, such call must be preceded by the announcement "Control required". All other business must cease until the communication with the Train Controller has been completed.

(*c*) To call Train Control, give one continuous ring for not less than five seconds. This will operate equipment at Riverton (from stations on the Spalding Line) and at Gladstone (from stations on the Wilmington Line) which will connect the respective Train Control line to the party line. Give the station name, and wait for the Train Controller to reply.

The connecting ring must not be given as mentioned in paragraph 1 (*c*) above when the Train Controller is already working with the party line.

When business with Train Control is complete, the Train Controller will disconnect the circuits by giving a continuous ring of not less than five seconds.

When code ringing other stations, ensure that all long rings are of less than five second duration.

2. Train Control requiring a station between Riverton and Spalding, or between Gladstone and Wilmington, on the party line will comply with the following:—

(*a*) Give one continuous ring of not less than five seconds. (This will automatically connect the Train Control line to the party line.)

(*b*) Ring the station wanted.

(*c*) After conversation is finished, the Train Controller must give one continuous ring of not less than five seconds. (This will disconnect the party line at Riverton or Gladstone.)

(*d*) A telephone key is provided in the Riverton Signal Cabin and the Gladstone office for use IN CASE OF EMERGENCY ONLY to enable contact between the Train Controller and stations between Riverton and Spalding, and Gladstone and Wilmington, respectively, to be made. These keys must be kept set normal and must not be operated UNLESS DIRECTED BY THE TRAIN CONTROLLER.

D. Method of Communication—Yeelanna-Kapinnie line—The Telephones are provided at Yeelanna and Kapinnie only.

Train Orders governing the movement of trains on this line must be transmitted at Yeelanna to the train crew.

The substance of the normal Train Order issued to the crews of "Down" trains at Yeelanna must authorize the return movement, *e.g.*,

"Proceed to Kapinnie, take Main Line and return to Yeelanna as No..... Report at Kapinnie."

Train Order Books and Telephone Cabinets—At attended stations, the station staff, and at all other locations, the Ganger, is responsible for cleaning all telephone cabinets weekly. He must maintain the supply of Train Order Books and double-faced carbon paper. The Ganger must apply to the accounting Station Master for the provision of Train Order Books and double-faced carbon paper to meet his requirements.

Original Copies of Train Orders—

(*a*) The original Train Order must be collected by the Signal and Telegraph Maintenance employee (Electrical Fitter or Electrical Mechanic) during inspections of unattended stations. These copies must be tied together and forwarded in an "on service" envelope to the respective Divisional Superintendent for checking.

(*b*) The original Train Order must be retained by the Station Master at attended stations for a period of four (4) weeks after which they must be properly secured in a "Waybill" envelope and forwarded to the Divisional Superintendent for checking.

The Movement of Trains under the Supervision of the Train Controller—Trains must not depart from any station without permission first having been obtained from the Train Controller; except at Adelaide and all station between Adelaide, Outer Harbour, Semaphore, Grange, Port Dock, Woodville North, Northfield, Brighton and Mitcham inclusive, such permission need not be obtained except as provided herein under the heading "Sequence of Trains".

The Station Master or Signalman must advise the Train Controller of the time of arrival and departure of all stopping trains, and of the departure time of non-stopping trains passing through their respective stations; except that this does not apply at Adelaide, and all stations to Outer Harbour, Semaphore, Grange, Woodville North, Port Dock, Northfield, Oaklands and Mitcham. Stations in the area mentioned must advise the Train Controller promptly when any train is delayed at their station or in the preceding section for three (3) or more minutes and give the reason for the delay. All Station Masters or Signalmen must keep in close contact with the Train Controller regarding the movement and handling of all local goods trains.

The Train Controller must be promptly advised when any passenger train departs more than two (2) minutes late from Adelaide, Semaphore, Outer Harbour, Port Dock, Albert Park, Woodville, Pooraka, Brighton, Edwardstown, Goodwood and Mitcham.

Sequence of Trains—The Signalman in Adelaide Yard Cabin must promptly advise the Train Controller of trains departing more than two (2) minutes late from Adelaide Station. The Signalman, Adelaide Yard Cabin, must seek

approval of the Train Controller for the dispatch of trains out of scheduled sequence, and upon receipt of such approval, he must promptly advise Wye Cabin of the alteration.

The Signalman, Wye Cabin, must repeat this information to the Signalman at either Mile End Junction, Bowden, North Adelaide, Islington or Dry Creek—which ever is concerned—and this station must similarly advise the station in advance, thence each succeeding station to the destination station. The Signalman at Mile End, Goodwood, Woodville, Albert Park, Port "A", Glanville and Dry Creek Junctions must not alter the scheduled sequence or line of any train without approval or instruction from the Train Controller.

The Station Master, Woodville, must advise the Train Controller of late running of trains on the Grange, Hendon and Woodville North Lines.

The Station Master, Edwardstown, during the hours of station attendance, must promptly advise the Train Controller the movement of *all* "Down" trains for the Tonsley Branch Line passing through his station.

Checking of Clocks—The Train Controller must, once on each control shift, check the time at stations with the clock in the Train Control Office and endorse the Train Control Graph accordingly. If there be any difference in the times, the station clock must be adjusted accordingly.

Station Masters must ensure the times as shown by the station clock for trains arriving and departing are given to the Train Controller.

From the first unattended station that a Guard speaks to Train Control he must check his watch with the Train Controller, and if there be any difference in the time, the Guard's watch must be adjusted accordingly.

Advice to the Train Controller of Loading, Train Consists, etc.—The Train Controller must be promptly advised from the first available point of every case of irregular working or unusual happening of any description whatsoever.

Station Masters in the area Adelaide to Hallett Cove, Grange, Outer Harbour, Northfield and Mitcham must advise the South Line Trucks Clerk by 2.00 p.m. on weekdays and 10.00 a.m. on Saturdays the loading to be lifted, number of vehicles, total mass, contents and destination. Perishable and urgent loading must be specially indicated.

Station Masters outside the area named above must advise the Train Controller in the order shown below before 3.00 p.m. weekdays and 11.00 a.m. Saturdays (or as required by the respective Train Controllers) particulars of outward loading from their station and the sidings under their supervision:—

> Number, class, total mass and destination of loaded and empty livestock vans, loaded and empty goods vehicles, the number of packages and mass and destination of "Pick-ups" and "Take-outs". Perishable and urgent loading must be specially indicated.

The Station Agent, Robertstown, which station is not under the direction of Train Control, must supply the aforementioned information to the Station Master, Eudunda, who must repeat it to the Train Controller. On receipt of this advice, the Train Controller must calculate the actual mass to be moved on this line, and provide the required train service.

Initial stations must advise the Train Controller prior to, or immediately on train departure, full particulars of loads of all trains as follows:—

A. Passenger Trains

Number of each engine.

The names of the Engineman, Fireman and Guard and their respective times of booking on duty.

Individual numbers and classifications of passenger carriages.

The class, numbers and destination and total mass of any other vehicle attached to the train.

The number of the Brakevan.

The total number of vehicles and total mass of the train. (The details must be given in the marshalled order of the train.)

B. Goods Trains

Number and class of each engine.

The names of the Engineman, Fireman and Guard and their respective times of booking on duty.

Total mass on train and equivalent number of four-wheeled vehicles.

The class, number, total mass and destination of vehicles to be detached *en route*.

Particulars of "take-outs" for respective stations and the class and number of vehicles in which loaded.

The position of the "take-out" and "pick-up" vans on the train.

The number of the Brakevan.

C. Rail Passengers Motors

The Rail Motor Driver's and Guard's names and their respective times of booking on duty.

The number of the leading car.

The number of any other vehicles attached to the train.

Preparation of Train Orders—Officers and employees who are required to prepare Train Orders must ensure that only authorised abbreviations as listed in the Rule Book are used.

Train Orders—Cancellation of—When a Train Order has been issued by the Train Controller and removed from the book, and subsequently cancelled before delivery has been effected, the cancelled Train Order must have the word "CANCELLED" boldly written across the face of the Train Order in block letters. The cancelled Train Order must be attached to the new Train Order and handed to the Engineman and Guard concerned.

Examples of the substance of Train Orders issued in accordance with Rule 236:—

A. Train Order Territory

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Motorman Car No. 250.

Train No. 721.....at.....*Hamley Bridge*.....station

Proceed to Balaklava, cross Goods 716 *Engine* 935,
then proceed to Blyth.
Take main line.
Report at Owen.

Received at.....*Hamley Bridge*.....station.....p.m.

Repeated from.....*Hamley Bridge*.....station at.....p.m.

by Station Master.....

.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 2 ..../..../19....
Train No. 716.....at.....*Blyth*.....station
Engine No. 935.

Proceed to Balaklava.
Cross Passenger Motor 721 *Car* 250.
Report at Hoyleton.

Received at.....*Blyth*.....station.....p.m.
Repeated from.....*Blyth*.....station at.....p.m.
by Guard.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 3 ..../..../19....
Train No. 716.....at.....*Hoyleton*.....station
Engine No. 935.

Train Order 2 *is cancelled at Hoyleton.*
Remain at Hoyleton. Take passing siding, cross Passenger Motor 721, *Car* 250, *then proceed to Balaklava.*

Received at.....*Hoyleton*.....station.....p.m.
Repeated from.....*Hoyleton*.....station at.....p.m.
by Guard.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 4 ..../..../19....
Motorman Car No. 250.
Train No. 721.....at.....*Balaklava*.....station

Train Order 1 *is cancelled at Balaklava.*
Now proceed to Hoyleton. Take main line, cross Goods 716, *Engine* 935, *then proceed to Brinkworth.*
Report at Blyth.

Received at.....*Balaklava*.....station.....p.m.
Repeated from.....*Balaklava*.....station at.....p.m.
by Station Master.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 5 ..../..../19....
Train No. 913.....at.....*Port Wakefield*.....station
Engine No. 954.

Proceed to Paskeville.
Take main line, allow light engine 915, *engine* 945, *to pass.*
Report at Melton.

Received at.....*Port Wakefield*.....station.....p.m.
Repeated from.....*Port Wakefield*.....station at.....p.m.
by Guard.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 6 ..../..../19....
Train No. 915 Light Engine.....at.....*Melton*.....station
Engine 945.

Proceed to Paskeville.
Take passing siding, pass Goods 913, *Engine* 954, *then proceed to Kadina.*

Received at.....*Melton*.....station.....p.m.
Repeated from.....*Melton*.....station at.....p.m.
by Engineman.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 7 ..../..../19....
Train No. 242.....at.....*Peake*.....station
Engine No. 842.

Cross Extra Goods 189 *Engine* 845 *at Peake, then proceed to Tailem Bend.*
Report at Moorlands.

Received at.....*Peake*.....station.....p.m.
Repeated from.....*Peake*.....station at.....p.m.
by Station Master.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 8 ..../..../19....

Train No. 189 Extra.....at.....*Tailem Bend*.....station

Engine No. 845.

Proceed to Peake. Cross Goods 242 *Engine* 842
then proceed to Lameroo.

Report at Sherlock and Wilkawatt.

Received at.....*Tailem Bend*.....station.....p.m.

Repeated from.....*Tailem Bend*.....station at.....p.m.

by Station Master.....

.....Controller

Cancellation and Issue of Train Orders when a Train is Divided in a Block on Train Order Territory—When, for any reason, an Engineman is required to divide his train during its passage through a block on Train Order Territory, the following instructions will apply:—

1. Rules 335 and 336 must be complied with.

2. The Engineman must advise the Station Master of the first station in advance if attended or directly advise the Train Controller if the first station in advance is unattended, that he has divided the train and the distance at which the rear portion is standing.

3. On receipt of advice that the train has been divided, the Train Controller must:—

(*a*) Cancel the Train Order held by the Guard and Engineman. The Guard's copy of the cancelling Train Order must be handed to the Engineman for delivery to the Guard prior to moving the rear portion of the Train.

(*b*) Authorize the movement of the train engine (or relief engine) from the station to the rear portion of the train and subsequent movements by Train Order.

4. After the engine has been coupled to the rear portion of the train, the Guard must not give the starting signal to the Engineman until he has received the Train Order authorizing a further movement, and cancelling the Train Order held by him.

5.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 9 ..../..../19....

Train No. 103.....at.....*Tailem Bend*.....station

Engine No. 836.

Proceed to Karoonda.
Report at Wynarka.

a.m.
Received at.....*Tailem Bend*.....station.....p.m.

a.m.
Repeated from.....*Tailem Bend*.....station at.....p.m.

by Station Master.....

.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 10 ..../..../19....

Train No. 103.....at.....*Naturi*.....station
Engine No. 836.

Train Order No. 9 is cancelled.

Proceed to 133·980 *kilometres between Naturi and Tailem Bend in accordance with Rule* 255, *clause* (*c*), *subclause* (1) *and couple to rear portion of Train, then proceed to Naturi. Take Main Line.*

Received at.....*Naturi*.....station.....a.m.

Repeated from.....*Naturi*.....station at.....a.m.

by Engineman.....

.....Controller

To be issued when train engine is required to return for rear portion of a divided train on Train Order Territory. The copy for the Guard must be handed to the Engineman for delivery.

6.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 11 ..../..../19....

Train No. Extra.....at.....*Tailem Bend*.....station
Engine No. 834.

Proceed to 133·980 *kilometres between Tailem Bend and Naturi in accordance with Rule* 255, *clause* (*c*), *subclause* (1), *and couple to rear portion of No.* 103 *Goods, then proceed to Tailem Bend. This Train Order cancels Train Order No.* 9 *held by Guard of No.* 103.

Received at.....*Tailem Bend*.....station.....a.m.

Repeated from.....*Tailem Bend*.....station at.....a.m.

by Station Master.....

.....Controller

To be issued when a relief engine OTHER THAN THE TRAIN ENGINE is used to enter a block for the purpose of clearing the rear portion of a divided train. The copy for the Guard must be handed to the Engineman for delivery.

7. When the Absolute Signal at Snuggery is in the "stop" position and the train crew have a Train Order for the intended journey the following appropriate Train Order must be issued:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....
Train No.....at.....*Snuggery*.....station
Engine No.....

Pass Absolute Signal No. 1 *in the "stop" position and proceed in accordance with Rule* 99, *clause* (*b*).

Reduce speed to eight kilometres per hour approaching the Princes Highway Level Crossing at 523·926 *kilometres and comply with the instructions contained in Rule* 108.

Received at.....*Snuggery*..... station.....a.m./p.m.
Repeated from.....*Snuggery*.....station at.....a.m./p.m.
by Guard.....
.....Controller

B. On Three Position Automatic Signal Territory, Single Line

Train Orders—Handing of to Enginemen and Guards of Non-stopping Trains on Automatic Signal Territory—When it is necessary to deliver a Train Order to non-stopping trains passing through an attended station on Automatic Signal Territory, the Absolute Block Signal at the entrance to the station yard must be kept at "stop" and not cleared until the Signalman has observed that the speed of the train has been sufficiently reduced to enable the Train Order to be safely delivered.

Train Orders—Issue of for Failure of Absolute Block Signal located at the entrance to a Single Line Automatic Block—1. When the Block stations at each end of the affected section are attended appropriate Train Orders must be issued in the following sequence:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....
Signalman or Station Master } Train No.....at.....*Mt. Lofty/Aldgate station*
Engine No.....

Train Order working will operate in lieu of single line automatic signalling between Mt. Lofty and Aldgate. The entering block signal to this section must be kept in "stop" position in accordance with Rule 98, *clause* (*b*) *until this Order is cancelled.*

Received at.....*Mt. Lofty/Aldgate*.....station.....a.m./p.m.
Repeated from.....*Mt. Lofty/Aldgate*.....station at.....a.m./p.m.
by Signalman / Station Master } .....
.....Controller

To be issued to the attended stations simultaneously when possible.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 2 ..../..../19....

Train No. 111.....at.....*Mt. Lofty*.....station
Engine No. 902

Train Order working will operate in lieu of single line automatic signalling between Mt. Lofty and Aldgate.

Pass Absolute Signal No..... in "stop" position and proceed to Aldgate in accordance with Rule 98, clause (d).

a.m.
Received at.....*Mt. Lofty*.....station.....p.m.

a.m.
Repeated from.....*Mt. Lofty*.....station at.....p.m.

by Station Master.....

.....Controller

To be issued after Train Order I has been issued and the Signalmen have advised "out of order" clips have been placed in postion as prescribed in Rule 98, clause (*b*).

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 3 ..../..../19....

Signalman Train No.....at.....*Mt. Lofty/Aldgate*.....station
Engine No.....

Train Order 1 is now cancelled

a.m.
Received at.....*Mt. Lofty/Aldgate*.....station.....p.m.

a.m.
Repeated from.....*Mt. Lofty/Aldgate*.....station at.....p.m.

by Station Master.....

.....Controller

Train Order 3 to be issued simultaneously, when possible, after the Train Controller has been advised as follows:—

(i) By the Signal and Telegraph Engineer or his representative that repairs have been effected and normal working can be resumed.

(ii) By the Station Master or Signalman that all preceding Train Orders issued to train crews have been fulfilled or cancelled.

2. When one of the block stations at each end of the affected section is attended and the other is unattended appropriate Train Orders must be issued in the following sequence:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Signalman or Station Master } at.....*Nairne*.....station

Train Order working will operate in lieu of single line automatic signalling between Nairne and Petwood.

The entering block signal to this section must be kept in "stop" position in accordance with Rule 98, clause (b) until this Order is cancelled.

Received at.....*Nairne*.....station..... a.m./p.m.

Repeated from.....*Nairne*.....station at..... a.m./p.m.

by Station Master.....

.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 2 ..../..../19....

Signalman or Station Master } at.....*Monarto South*.....station

Train Order working will operate between Petwood and Nairne. All "Up" trains must have a Train Order before leaving your station, in accordance with Rule 98, clause (c).

Received at.....*Monarto South*.....station..... a.m./p.m.

Repeated from.....*Monarto South*.....station at..... a.m./p.m.

by Station Master.....

.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 3 ..../..../19....

Train No.....at.....*Nairne*.....station

Engine No.....

Train Order working will operate in lieu of single line automatic signalling between Nairne and Petwood. Pass Absolute Signal No..... in "stop" position and proceed to Petwood in accordance with Rule 98, clause (d). Take main line and report (or take main line, cross Goods 222, engine 903, and report) or (take passing siding, cross Goods 222, engine 903, and report).

Received at.....*Nairne*.....station..... a.m. p.m.

Repeated from.....*Nairne*.....station at..... a.m. p.m.

by Station Master.....

.....Controller

Trains must not leave Nairne or Monarto South until opposing trains are in possession of Train Order and Guard has acknowledged delivery to Engineman.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 4 ..../..../19....

Train No.....at.....*Monarto South*.....station

Engine No.....

Train Order working will operate in lieu of single line automatic signalling between Petwood and Nairne in accordance with Rule 98, clause (c).

Take main line at Petwood and report for orders (or take passing siding at Petwood and report for orders).

Received at.....*Monarto South*.....station..... a.m. p.m.

Repeated from.....*Monarto South*.....station at..... a.m. p.m.

by Station Master.....

.....Controller

The Guard must acknowledge delivery of Train Order to the Engineman.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 5 ..../..../19....

Train No.....at.....*Petwood*.....station

Engine No.....

Train Order working will operate in lieu of single line automatic signalling between Petwood and Nairne. Pass Absolute Signal No. ..... in "stop" position and proceed to Nairne in accordance with Rule 98, clause (d).

a.m.
Received at.....*Petwood*.....station.....p.m.

a.m.
Repeated from.....*Petwood*.....station at.....p.m.

by Guard.....

.....Controller

After the Train Controller has been advised as follows:—

(i) By the Signal and Telegraph Engineer or his representative that repairs have been completed and normal working can be resumed.

(ii) By the Station Master or Signalman that all preceding Train Orders issued to train crews have been fulfilled or cancelled.

The Train Controller must cancel Train Orders Nos. 1 and 2 originally issued to Nairne and Monarto South.

3. When Train Order working is instituted in lieu of Single Line Automatic Block Signalling all the Rules applicable to the issue of Train Orders and movement of trains on single line by Train Order must be complied with.

4. When the Upper Quadrant Absolute Block Signal located at the entrance to Electric Staff or Train Order Territory is at "stop" an appropriate Train Order must be issued as follows after the track and interlocking through the yard had been examined and found to be safe and the train concerned is in possession of the correct Electric Staff or Train Order for the section ahead:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Train No.....at.....*Hamley Bridge*.....station

Engine No.....

Pass Absolute Signal No. ..... in "stop" position and proceed in accordance with Rule 99 clause (b).

a.m.
Received at.....*Hamley Bridge*.....station.....p.m.

a.m.
Repeated from.....*Hamley Bridge*.....station at.....p.m.

by Station Master.....

.....Controller

5. When a Three Position Absolute Block Signal other than the signal located at the entrance to a Single Line Automatic Block is displaying a "stop" indication the signal must not be passed until:—

(*a*) The Signalman issues a "Caution Order" (form 142) in accordance with Rule 99, clause (*a*), subclause (1).

(*b*) Where the signal is situated at such a distance from the signal cabin that undue delay would occur in obtaining a "Caution Order" the following appropriate Train Order must be issued to the Engineman after the switches have been examined and found to be safe. A copy of such Train Order must also be issued to the Signalman simultaneously.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Train No. 319.....at.....*Peterborough*.....station

Engine No. 900.

Pass Absolute Block Signal No. 84 *in "stop" position and proceed in accordance with Rule* 99, *clause* (*a*), *subclause* (1).

Received at.....*Peterborough*.....station..... a.m. p.m.

Repeated from.....*Peterborough*.....station at..... a.m. p.m.

by Engineman.....

.....Controller

6. When a train on Automatic Signal Territory stops during its passage through a Block and it is necessary for it to push back in the direction of the station in the rear, the following appropriate Train Orders must be issued in the following sequence except as prescribed in Rule 218.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

The Signalman.....at.....*Nairne*.....station

Engine No.....

The entering block signal to the Nairne-Mt. Barker Junction Section must be kept in "stop" position in accordance with Rule 217, *clause* (*a*), *until this Order is cancelled.*

Received at.....*Nairne*.....station..... a.m. p.m.

Repeated from.....*Nairne*.....station at..... a.m. p.m.

by Station Master.....

.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 2 ..../..../19....

Train No. 238.....at.....53·500 *kilometres*.....station

Engine No. 936.

You are authorized to push your train back into Nairne preceded by the Fireman, in accordance with Rule 217, *clause* (*a*).

Comply with Rule 321 *in relation to level crossings.*

Received at.....53·500 *kilometres*.....station.....a.m./p.m.

Repeated from.....53·500 *kilometres*.....station at.....a.m./p.m.

by Guard.....

.....Controller

7. When a train or portion thereof on Automatic Signal Territory remains in the Block through accident or other cause a relief train or engine may be advanced into the Block after the following appropriate Train Order has been issued:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Train No. 669.....at.....*Mt. Lofty*.....station

Engine No. 940.

Pass Absolute Signal No. 15 *in "stop" position and proceed from Mt. Lofty to* 33·394 *kilometres for the purpose of pushing Goods* 547 *Engine* 936 *to Aldgate. Comply with Rule* 215, *clause* (c), *sub-clause* (1). *The Guard of Goods* 547 *will pilot you on to rear of train.*

Received at.....*Mt. Lofty*.....station.....a.m./p.m.

Repeated from.....*Mt. Lofty*.....station at.....a.m./p.m.

by Station Master.....

.....Controller

8. When a work train is required to enter a section on Automatic Signal Territory for the purpose of working in both directions appropriate Train Orders must be issued in the following sequence:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....
Train No. 419 Extra.....at.....*Long Gully*.....station
Engine No. 845.

You are authorized to work between Long Gully and 27·370 kilometres for the purpose of loading rails returning to Long Gully not later than 2.30 p.m.

Work in accordance with Rule 219.

Received at.....*Long Gully*.....station..... a.m. p.m.

Repeated from.....*Long Gully*.....station at..... a.m. p.m.

by Station Master.....

.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 2 ..../..../19....
Signalman.....at.....*Long Gully/Mt. Lofty*.....station

The Main Line between Long Gully and Mt. Lofty is blocked.

The Entering Block Signal to this section must be kept in "stop" position in accordance with Rule 219 until this order is cancelled.

Received at.....*Long Gully/Mt. Lofty*.....station..... a.m. p.m.

Repeated from.....*Long Gully/Mt. Lofty*.....station at..... a.m. p.m.

by Station Master.....

.....Controller

9. An appropriate Train Order must be issued in accordance with Rule 107, clause (*e*), to pass a Permissive Signal displaying a "stop" indication as follows:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....
Train No. 311.....at.....*Yunta*.....station
Engine No. 600.

Pass Permissive Signal No. 221 in the "stop" position and proceed in accordance with Rule 107, clause (e).

Received at.....*Yunta*.....station..... a.m. p.m.

Repeated from.....*Yunta*.....station at..... a.m. p.m.

by Station Master.....

.....Controller

C. On Three Position Automatic Signal Territory, Double Line—

1. When a train over-runs its correct stopping place and it is necessary for it to set back, appropriate Train Orders must be issued in the following sequence unless there is an Absolute Block Signal indicating "stop" immediately in the rear to protect the train:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Signalman ..... at .....*Mitcham*..... station

The Entering Block Signal for the Mitcham—Blackwood section must be kept in "stop" position in accordance with Rule 217 until this Order is cancelled.

Received at .....*Mitcham*..... station..... a.m. / p.m.

Repeated from.....*Mitcham*..... station at..... a.m. / p.m.

by Station Master.....

.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 2 ..../..../19....

Train No. 701.....at.....*Clapham*..... station

Engine No. 903.

You are authorized to push your train back to Clapham (or beyond signal No..... and stop immediately on passing signal) preceded by the Fireman in accordance with Rule 217.

Received at.....*Clapham*..... station..... a.m. / p.m.

Repeated from.....*Clapham*..... station at..... a.m. / p.m.

by Guard.....

.....Controller

2. If the Absolute Block Signal at an unattended station, or the signal cabin controlling such signal, be closed, the signal must not be passed when displaying a "stop" indication until the following appropriate Train Order has been issued.

On receipt of this order and after the track through the interlocking has been examined by the Fireman and found to be safe, the train may proceed in accordance with the Rules.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Train No.....at.....*Keswick*.....station

(*when closed*) { or *Goodwood* / or *Blackwood* / or *Mitcham* }

Engine No.....

Pass Absolute Block Signal No..... in "stop" position and proceed in accordance with Rule 99, clause (a), subclause (2).

Received at.....*Keswick*.....station.....a.m./p.m.

Repeated from.....*Keswick*.....station at.....a.m./p.m.

by Guard.....

.....Controller

3. For single line working on double track, an appropriate Train Order must be issued as follows:—

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Station Master.....at.....*Kilkenny and Woodville*.....station

Pilotman.....at.....*Woodville*.....

The "Down" track between Kilkenny and Woodville is obstructed. All trains must travel on the "Up" track in both directions in accordance with Rule 266. Porter.....who will be Pilotman must comply with Rules 265 to 276 inclusive.

Received at.....*Kilkenny/Woodville*.....station.....a.m./p.m.

Repeated from.....*Kilkenny/Woodville*.....station at.....a.m./p.m.

by Station Master.....

.....Controller

The Train Controller and Station Masters concerned must ensure that Rule 268 is complied with regarding provision of Crossing Keepers at level crossings where automatic warning signals are installed.

D. Electric Staff Territory

1. In the event of a staff instrument failure or lost staff, or for reasons as set out in Rule 221, Train Orders must be issued in the following sequence:—

Train Order 1 to be issued to opposing train.

Train Order 2 must not be issued until the opposing train has received and acknowledged receipt of Train Order 1, *i.e.*, not to enter the section referred to. If Permissive Block Signal at "stop", see Rule 107.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....
Train No. 738.....at.....*Burra*.....station
Engine No. 905.

Do not enter the Farrell Flat to Manoora section until this order is cancelled.

a.m.
Received at.....*Burra*.....station.....p.m.
a.m.
Repeated from.....*Burra*.....station at.....p.m.
by Station Master.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 2 ..../..../19....
Train No. 29.....at.....*Manoora*.....station
Engine No. 958.

You are authorized to proceed from Manoora to Farrell Flat without Electric Staff in accordance with Rule 221, clause (a), account Electric Staff lost. (Or account instrument failure, Signalman not in attendance, as the case may be.)

a.m.
Received at.....*Manoora*.....station.....p.m.
a.m.
Repeated from.....*Manoora*.....station at..... p.m.
by Station Master.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 3 ..../..../19....
Train No. 738.....at.....*Farrell Flat*.....station
Engine No. 905.

Train Order 1 is now cancelled.

a.m.
Received at.....*Farrell Flat*.....station.....p.m.
a.m.
Repeated from.....*Farrell Flat*.....station at.....p.m.
by Station Master.....
.....Controller

2. Crossing at unattended stations, see Train Orders 4 and 5. If necessary to cancel Train Order 4, see Train Order 6.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 4 ..../..../19....
Train No. 504.....at.....*Bowmans*.....station
Engine No. 938.

Take Main Line at Kallora, cross Extra Goods 381, *engine* 936.

a.m.
Received at.....*Bowmans*.....station.....p.m.
a.m.
Repeated from.....*Bowmans*.....station at.....p.m.
by Station Master.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 5 ..../..../19....
Train No. 381.....at.....*Long Plains*.....station
Engine No. 936.

Take Passing Siding at Kallora. Cross Fast Goods 504, *engine* 938.

a.m.
Received at.....*Long Plains*.....station.....p.m.
a.m.
Repeated from.....*Long Plains*.....station at.....p.m.
by Station Master.....
.....Controller

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 6 ..../..../19....
Train No. 504.....at.....*Kallora*.....station
Engine No. 938.

Train Order 4 *is now cancelled.*

a.m.
Received at.....*Kallora*.....station.....p.m.
a.m.
Repeated from.....*Kallora*.....station at.....p.m.
by Guard.....
.....Controller

3. Merriton.

(*a*) If "Up" Absolute Signal No. 11564 fails and Engineman is in possession of correct staff for Merriton/Redhill section, the following appropriate Train Order must be issued.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 1 ..../..../19....

Train No. 668.....at.....*Merriton*.....station

Engine No. 900.

Pass Absolute Signal No. 11564 *in "stop" position and proceed in accordance with Rule* 99, *clause* (*b*).

Reduce speed to eight kilometres per hour approaching the level crossing at 186·398 *kilometres and comply with the instructions contained in Rule* 108.

Received at.....*Merriton*.....station.....a.m./p.m.

Repeated from.....*Merriton*.....station at.....a.m./p.m.

by Station Master.....

.....Controller

(*b*) When an Electric Staff for the Merriton/Redhill section cannot be withdrawn from the instrument at Merriton for reasons as set out in Rule 221 the following appropriate Train Order must be issued.

SOUTH AUSTRALIAN RAILWAYS
TRAIN ORDER

Train Order No. 2 ..../..../19....

Train No. 668.....at.....*Merriton*.....station

Engine No. 900.

You are authorized to proceed from Merriton to Redhill without Electric Staff in accordance with Rule 221, *clause* (*a*), *account instrument failure.*

Pass Absolute Signal No. 11564 *in "stop" position and proceed in accordance with Rule* 99, *clause* (*b*).

Reduce speed to eight kilometres per hour approaching the level crossing at 186·398 *kilometres and comply with the instructions contained in Rule* 108.

Received at.....*Merriton*.....station.....a.m./p.m.

Repeated from.....*Merriton*.....station at.....a.m./p.m.

by Station Master.....

.....Controller

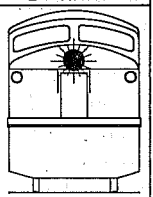
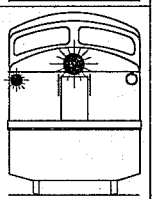
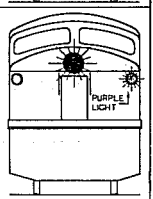
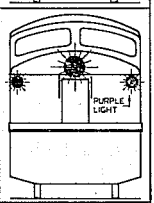
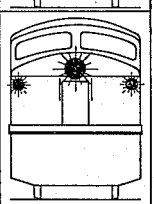
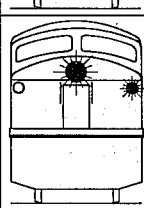
Train Designation Signs and Lights—The following instructions regarding Train Designation signs and lights are applicable to—

(*a*) Light engines from or to depot to work or released from trains on territory shown below.

(*b*) Trains scheduled to work in the territory shown below must have the correct destination sign displayed in the holder provided on the front of the vehicle or engine during daylight hours, and the prescribed lights displayed between sunset and sunrise. (NOTE:—All lights must be white unless otherwise shown in diagrams.)

An Engineman must see that his engine is equipped with a full set of day or night indications.

TRAIN DESIGNATION SIGNS & LIGHTS

ON TRAINS SCHEDULED TO WORK OVER THE FOLLOWING TERRITORY	DESIGNATION	
	BY DAY	BY NIGHT
NORTH. BETWEEN ADELAIDE, ISLINGTON, NORTHFIELD, PENFIELD, GMH ELIZABETH, GAWLER, AND NORTH GAWLER.		
OUTER HARBOUR. BETWEEN ADELAIDE, PORT DOCK, SEMAPHORE, OUTER HARBOUR AND I.C.I.		
GRANGE. BETWEEN ADELAIDE, HOLDENS, HENDON, GRANGE AND ALBERT PARK.		
WOODVILLE NORTH. BETWEEN ADELAIDE AND WOODVILLE NORTH.		
SOUTH. BETWEEN ADELAIDE, MITCHAM, BLACKWOOD, BELAIR, BRIDGEWATER AND LONG GULLY.		
PORT STANVAC BETWEEN ADELAIDE, TONSLEY, BRIGHTON, MARINO, HALLETT COVE, PORT STANVAC.		

Hasler Speed Recorder—Instructions for Operating Crews of Engines and Rail Cars—On engines and 250/280 class rail cars, one unit is a speed recorder, the other a speed indicator. On 300 and 400 class rail cars, Hasler Speed Indicators are fitted at all driving positions.

The Speed Recorder contains a spring controlled clockwork mechanism, and this mechanism must be wound up by the Engineman before the power unit enters traffic. The instrument indicates:—

Speed in kilometres per hour

Time of day in hours and minutes

Total distance covered.

The timepiece contained in the recorder registers on the chart on a 24 hour basis. A small aperture within the clock face indicates white for 0-12 hours (*i.e.*, from midnight to noon—A.M.) and blue for 12-24 hours (*i.e.*, from noon to midnight—P.M.). Enginemen must observe that the correct colour appropriate to the time of day is in view.

The clock must be fully wound before the hands of the clock are turned in either direction. Should it be necessary to turn the minute hand back past the hour mark, it is essential to turn the hands back until the clock stamps the previous hour and then advance them forward to the correct time.

Immediately prior to commencing a journey the Engineman must:—

(1) Wind the mechanism and adjust the clock to the correct time.

(2) With a black lead pencil on the back of the chart roll write:—

(*a*) Date and name of station at which journey is started.

(*b*) Engine or rail car number.

(*c*) Main Line Working—Timetable departure time, number of train.

Shunt Engines—Locality of Duty, time rostered to commence shunt (*i.e.* Wharf S.G. No. 2—Dock—East End) where engine is employed.

(*d*) Engineman's name.

These particulars must be entered on each speed recorder roll of the train, if powered by multiple units, irrespective of the position of the power unit on the train. A neat legible entry on every speed recorder roll is essential for identification of train movements and must be strictly observed. Ink pens, biros, indelible or coloured pencils must not be used in any circumstances.

Enginemen must be particularly careful when opening and closing the door of the speed recorder and handle this equipment in a gentle manner. Rough handling will damage the mechanism and recorder roll.

Speed recorder rolls must only be removed by qualified mechanical branch staff. Operating crews must not interfere in any way with the Speed Recorder or with any speed chart.

If the recorder or the speed indicator is not in proper working order, the Engineman must report the fact to the Officer in Charge, before leaving the Depot at the commencement of the trip.

Any irregularity in the functioning of the equipment must be reported in the Log Book.

A small window on the face of the recorder shows the progress of the chart through the instrument. A black line on the chart indicates that the end of the speed roll is approaching. When the black line crosses the mark on the window the amount of paper left in the instrument is then sufficient for approximately 1 000 km.

Avoidance of Frightening of Livestock on Roads—Enginemen and Rail Motor Drivers must not unnecessarily frighten livestock being driven along adjacent roadways.

Goggles—Use of by Staff—The use of goggles by Enginemen, Firemen, Rail Motor Drivers, Trainee Enginemen, District Foremen, Special Gangers (length runner) and such other grades as may be determined by the Railways Commissioner shall be permissible subject to the following conditions:—

(*a*) The goggles so worn shall have lenses of plain clear glass when used for general eye protection, or approved tinted lenses when used specifically for protection against glare, in each case lenses to be free from distortion.

(*b*) That the goggles be of standard pattern to be approved by the Railways Medical Officer.

Obstructions—Engineman and Firemen must keep a sharp lookout to avoid coming into contact with structures, and must not stand or project parts of their bodies from an engine in motion.

Turntable Operation—When engines, rail cars and other vehicles are to be turned, they must be correctly centred on the turntable. If the engine or rail car is equipped with the independent or straight air brake, the brake valve handle must be placed in the "straight air" or "slow application" position and left there until the turning operation is completed. Engines and vehicles not equipped with the independent air brake must have a hand brake effectively applied before the turntable is moved. In the absence of a hand brake, sprags or chocks must be used. The turntable locking device must be in the locked position, *i.e.*, plunged, at the end of the turntable to be traversed by an engine to or from the turntable. Should a vehicle be standing on a turntable, it must be hand-shunted therefrom before an engine or rail car, or any other vehicle is allowed on the turntable.

The maximum speed of movements over a turntable must not exceed 5 km/h.

Use of Sanding Gear over Switches—Enginemen must abstain from using sand when passing over switches.

Light Engines—If necessary, up to four light engines may run coupled together.

Movement of Diesel Engines Over Main Line—When working Diesel Engines on the Main Line, Enginemen must, except in case of emergency, operate the controls on the left hand side according to the direction of travel.

Double Heading and Push Engines—

1. Double heading of engines may be used for hauling a train under the following conditions, except otherwise prescribed in the Working Timetable:—

All gauges—The restrictions specified under "Maximum Load Behind Couplings", "Length of Trains" and "The Combined Schedule Load" is not exceeded.

2. Push engines may be used during an emergency only to clear a Main Line, to assist any train on any line (day or night) subject to Rule Nos. 343 and 344, and the following conditions:—

(*a*) The push engine must be placed at the rear of the train except where authorized by the Train Controller.

(*b*) The push engine must be coupled to the train, and in all cases the Westinghouse air brake must be continuous throughout.

(*c*) The Engineman of the leading engine, notwithstanding that he has received the Guard's starting signal and observed the necessary block signals have been cleared, must not attempt to start the train until he has given the "Warning" signal and received the "Acknowledgment" signal from the Engineman of the push engine.

700, 600 and 930 Class Engines working in Multiple with 830 Class Engines—If a 700 or a 600 or a 930 class engine is required to work in multiple with an 830 class engine:—

(*a*) The 700 or 600 or 930 class engine must be the leading unit between Adelaide and Tailem Bend and on the Peterborough Division. On other lines either engine may be the leading unit.

(*b*) The load in excess of the 700 or 600 or 930 class schedule load shall be limited to 75 per cent of the 830 class schedule load (Peterborough Division except where the loading must not exceed the scheduled load shown for one 700 or one 600 and one 830 class working).

(*c*) If the combined load is greater than the schedule load for twin 700 or 600 or 930 class engines it must be reduced accordingly.

(*d*) Dynamic braking can only be initiated with the 700 or 600 or 930 class engine leading.

Movement of Engines and Rollingstock Through Water—The following classes of vehicles must not pass through water which exceeds the depth above rail head as shown in the table below:—

	Depth of water above rail head (millimetres)
Diesel Engines	
500-600-700-900 Class	60
830-930 Class	100
800 Class	85
350 Class	75
Power Cars	
250-280 Class	75
300-400 Class	60
Passenger Cars and Brakevans	
Joint Stock Cars	60
Intrastate Cars	140
Brakevans and Passenger Cars	75
Non-power Cars 100 Class	150

A speed of 5 km/h must not be exceeded when passing through any water up to the permitted depth above the rail head.

Numbering of Wheels on Engines and Rail Cars for Identification Purposes—The following instruction must be observed by staff when numbering wheels of engines, rail cars and trailers for the purpose of identifying their position on any unit under discussion.

1. In numbering the wheels, first identify the "A" end of the engine, rail car or trailer. Next establish the right and left hand sides by standing within the Driver's cab or compartment facing towards "A" end and then number the wheels on each side R1, R2, R3, etc., and L1, L2, L3, etc., respectively commencing from the "A" end and numbering towards the "B" end of the unit. "A" end and "B" end title plates are fitted to assist in identifying the ends and sides of engines, rail cars and trailers.

2. In numbering traction motors on diesel engines, a similar procedure is to be used, the traction motors being numbered T1, T2, T3, etc., commencing from the "A" end and numbering towards the "B" end of the engine.

TRAIN BRAKING SYSTEMS

SECTION 1

GENERAL INSTRUCTIONS FOR ALL OFFICERS AND EMPLOYEES

1. **Pressure to be carried in the Train Pipe**—The standard pressure to be carried in the train pipe is 500 kPa (70 p.s.i.), except in continuous heavy down grade working when it is permitted to exceed that amount in order to ensure that the auxiliary reservoirs are adequately re-charged, but standard pressure must be re-established when level or up grades are again met.

2. **Coupling Cocks**—There are two patterns of coupling cocks, the straight and the bent.

The straight pattern coupling cocks have the handle along the line of pipe when closed and across the line of pipe when open.

The bent pattern have the handle across the line of pipe when closed and along the line of pipe when opened.

The cut in the square of the plug lies along the pipe when opened and across it when closed in all pattern cocks.

STRAIGHT PATTERN

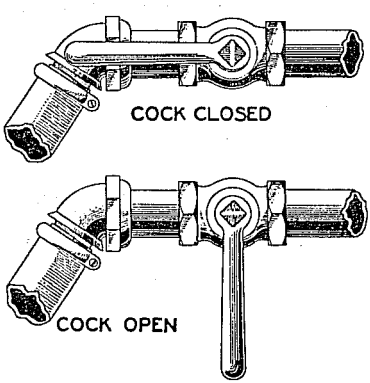
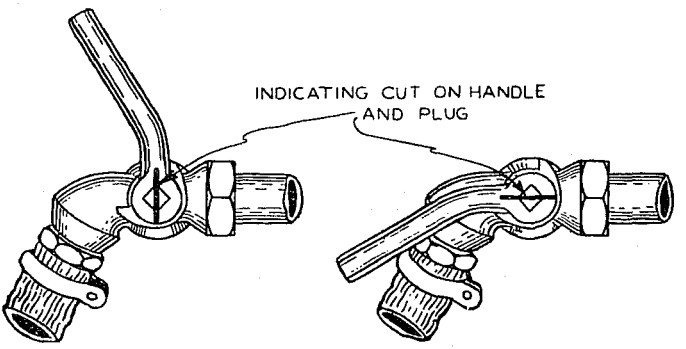


Plate 1

The A.2.R. or Spherical, and Metcalfe Oerlikon coupling cocks (each having a bent handle) are provided with a side vent to permit the exhaust of the air in the coupling hoses when the cock is closed.

An engine or vehicle may be detached from a train without the brakes applying by first closing the coupling cocks on the train pipe at the ends of the vehicles to be separated. The hose coupling must be disconnected before the centre couplings in accordance with the Rules.

BENT PATTERN



COCK CLOSED COCK OPEN

Plate 2

3. **Spare Hoses**—Spare hoses to be carried in brakevans for defective hose replacement as set out in the Rules.

Type of Service	Gauge	Spare Coupling Hoses		Type of Nipple
		Number	Length	
Passenger	Broad and Standard	1 (25 mm diameter)	600 mm	Straight
		1 (31 mm diameter)	600 mm	Straight
	Narrow	1 (25 mm diameter)	450 mm	Straight
		1 (25 mm diameter)	450 mm	Bent
Rail Cars, 250, 280, 300 and 400 class Trailers, 100, 820 and 860 class	Broad	See paragraph below		

If a hose pipe burst on the journey and no spare is available in the brakevan, the hose from the front of the engine or rail car, or from the rear of the last air equipped vehicle or brakevan, must be used to replace the defective hose.

4. **Cut-Out Cocks**—Cut-out cocks for 3-1/2″ improved (I.T.V.) and A.F. (Australian Freight) triple valves are in the branch pipe; when the triple valve is cut in the handle lies along the pipe, and across the pipe when cut out.

On W type triple valves, the handle is in the body of the valve. It is cut in when the handle is in a vertical position, and cut out when in a horizontal position.

The purpose of the cut-out cock is to isolate the brake equipment on any vehicle without interfering with the continuity of the brake pipe.

5. **Hand Release Valves**—The hand release valve provided on each vehicle is operated by a wire or chain which is indicated by an inverted "U" on the side frame. The wire or chain must not be fouled or bent nor must the valve be secured in the open position, as the air brake on that vehicle will be rendered ineffective.

To release a brake by hand, the hand release valve must be held open until the blow of air from it ceases, unless a second blow is heard, in which case the hand release valve must be freed immediately.

To drain the air brake equipment of air when not coupled to an engine—

(*a*) Open the coupling cock at one end of the vehicle, or vehicles, to drain the train pipe.

(*b*) Hold the hand release valve open until the blow of air ceases.

(*c*) With W type triple valves open the hand release valve and release immediately, the valve will remain open and drain the equipment.

To drain the air brake equipment on a vehicle if coupled in the length of a train—The train pipe coupling cocks on the vehicles front and rear of the defective vehicle must be closed before draining the train pipe, and after draining the auxiliary reservoir, the cut out cock must be closed before the hoses are united and coupling cocks again opened.

6. **Piston Travel and Slack Adjusters**

Type of Brake Cylinder	Type of Vehicle	Standing Brake Piston Travel		
		Full	Minimum	Maximum
		mm	mm	mm
Vertical (trunk) fitted to work horizontally	H, HN and HS hopper wagons, FBA wagons and tank wagons TS8415, TS8417, TC8421	160	65	100
Horizontal (AF)	Cafeteria, Roomette, Twinette, AJ, BJ, RBJ, AD, BD and Club Car. CO, PCO, CD and SCD Vans. 100 non-power rail cars, 250, 280, 300, 400 rail cars	200	65	125
Horizontal (piston rod, long stroke)	All passenger cars, except where otherwise shown, bogie goods and livestock vehicles	300	100	180
"UC" type brake cylinder	SFWX, SGMX, SHBX, SHCX goods wagons	180	100	125
"UC" type brake cylinder	FQX, SFKX, LX, SO goods wagons	230	100	125
Horizontal (piston rod, long stroke)	Four-wheel goods and livestock vehicles	300	65 empty 125 loaded	125 empty 180 loaded

Diesel Engines—The brake rigging on all diesel engines must be adjusted to provide a brake cylinder piston travel within the prescribed limits as follows:

Type of Brake Cylinder	Class of Engine	Standing Brake Piston Travel		
		Full	Minimum	Maximum
		mm	mm	mm
Horizontal (AF)	350.....	200	65	125
	500.....	200	50	125
	600.....	200	65	125
	700.....	200	75	125
	800.....	200	65	125
	830.....	200	75	125
	900.....	200	75	125
	930.....	200	65	125

Slack Adjusters—

(*a*) Automatic Slack Adjusters.

The automatic slack adjuster is a device for maintaining a regular brake cylinder piston travel. In most cases the slack adjuster is attached to the pressure head of the brake cylinder.

The ratchet nut on the other end of the screw is the means provided for altering the adjustment manually to take up or let out the brake. On the type "E" and "J" the screw casing is the ratchet nut. On the type "A-I-D" and "A-I-F" the larger of the two hexagons is part of the ratchet nut.

On all types the ratchet nut is turned clockwise to take up (shorten the piston travel) and counter-clockwise to let out the brake rigging (lengthen the piston travel). One complete turn alters the piston travel approximately 6 mm. The crosshead or trunnion block, working on the adjusting screws, must not be permitted to approach any closer than 50 mm to the outer end of its travel, otherwise it may jam.

If this does happen, it may be released for readjustment by unscrewing the set screw in the end of the ratchet nut. This will give sufficient clearance to disengage the pawl of the slack adjuster if it is not cleared.

(*b*) Manually Operated Slack Adjusters.

These are fitted to each of the dead levers of the bogie braking system, *i.e.*, the adjuster will be found on the front corners of the leading bogie and the back corners of the trailing bogie. The adjusting nut is revolved clockwise to take up and counter-clockwise to let out the brake gear. One turn on all four slack adjusters alters the brake cylinder piston travel 19·050 mm.

The brake cylinder piston travel must be adjusted in accordance with section 6 after renewal of brake blocks or adjustment of rigging.

(*c*) Vehicles.

The location of the slack adjuster pipe connection to the air brake cylinder on all vehicles is as follows:

Type of Vehicle	Brake Piston Travel Slack Adjuster Pipe Connection
	mm
Cafeteria, Roomettes, Twinettes, AJ, BJ, RBJ, AD, BD and Club Car. CO, PCO, CD and SCD vans. 100 class non-power rail cars. 250, 300, 400 rail cars	100
All passenger cars except where otherwise shown, bogie goods and livestock vehicles	125
SGMX, SFWX, SHBX, SHCX, FQX, SFKX, LX, SO goods vehicles	125

Diesel Engines—The location of the slack adjuster pipe connection to the air brake cylinder on all diesel engines is as follows:

Class of Engine	Brake Piston Travel Slack Adjuster Pipe Connection
	mm
350	100
900	100
500, 600, 700, 800	—
830, 930	—

7. **Passenger Alarm Signals and Emergency Valves or Cocks**—The emergency cock in brakevans has the handle lying along the line of pipe when closed. To apply the brake, open the cock by pulling the handle down gradually until the handle lies across the line of pipe. (See Rules Nos. 359 and 583).

All passenger alarm signals and emergency valves or cocks are connected to the train pipe and consist of a cock at one end of a branch that leads off the train pipe so that when the cock is opened the train pipe pressure escapes to the atmosphere and the brakes are applied sufficiently to attract the attention of the Guard and the Engineman.

On vehicles fitted with S.E.M. equipment, these valves are connected to the emergency pipe and when operated have the same effect as above.

On the "AE" and "BE" joint stock and "AE", "BE" and "ABE" (Victorian cars) the emergency valve is placed on the end of the car and is opened by a cam located on the shaft secured transversely across the end of the car. A chain running the length of the car through a conduit beneath the ceiling is secured to an arm of this shaft. Openings in the conduit in each compartment make the chain accessible. When the chain is pulled the shaft is rotated and the cam, engaging with the stem of the valve, open it. A disc is also secured to the outer ends of the cam shaft, which extends outwardly past the sides of the car. The disc is normally horizontal, but assumes a vertical position when the chain is pulled and is clearly visible to the Engineman and Guard. Also, the chain, if pulled, hangs down and indicates in which compartment the signal has been operated.

To close the emergency valve, the disc is turned to the horizontal position which allows the valve to close automatically and also restores the disc to its normal position.

On end-loading suburban and centenary type passenger cars, the pipe and the emergency cock are placed adjacent to the end doors, and on some end-loading suburban cars another cock is placed in the centre vestibule. The cock is the same design and is operated in the same manner as the emergency cock in the brakevan, *i.e.* the handle is pulled gradually from the normal vertical position to the horizontal to open it, and returned to the vertical position tc close it.

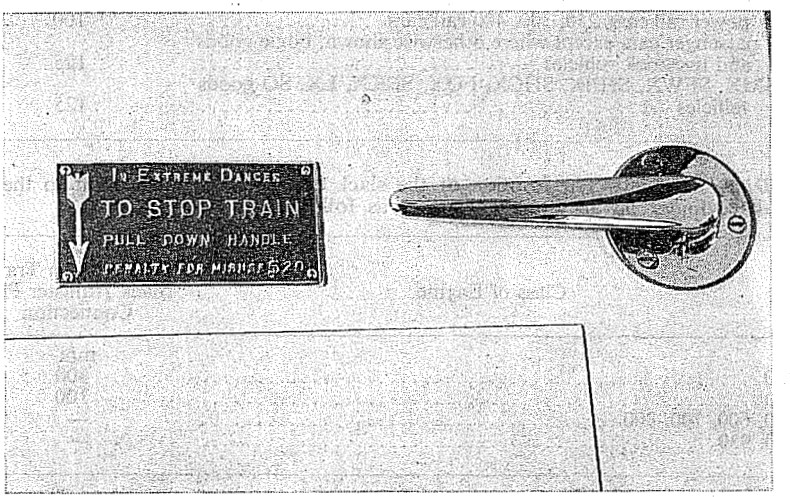


Plate 3

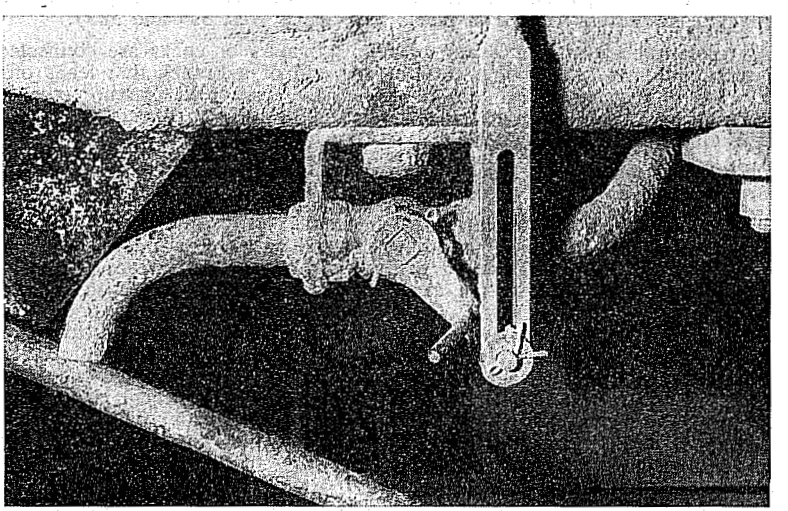


Plate 4

On the 500, 600, 700, 750 and 780 class passenger cars and "AJ", "BJ", "RBJ", Twinette and Roomette air-conditioned cars the emergency cocks and their branch pipes are immediately beneath the underframe headstocks. A handle or lever placed in the vestibule and situated about 2 m from the floor operates a rod extending downwards and attached to the handle of emergency cock. The lever (normally horizontal) is pulled down to operate the cock. The operating rod is slotted at its bottom end so that the emergency cock cannot be closed from the vestibule. It is reset from the ground by first pulling the rod down and then the handle of the emergency valve to its lowest position.

On AD and BD coach cars, club cars, twinette cars *Tawarri, Yankai, Dorai* and *Weroni,* and roomette cars *Allambi* and *Tantini,* the operating handle at the vestibule end is located on the panel adjacent to the air filters. After operation, the valve is reset by operating the reset handle located behind the end panel as shown in plate 5. Access to this handle is by means of the adjacent door in the end panel. The operating handle at the non-vestibule end is located on the cupboard panel. Access to reset the lever is through the cupboard door.

On the 250, 280 class rail cars and 100 class Non Power Cars, the emergency cocks are situated in the Motorman's compartment and are operated in the same manner as the emergency cock in brakevans.

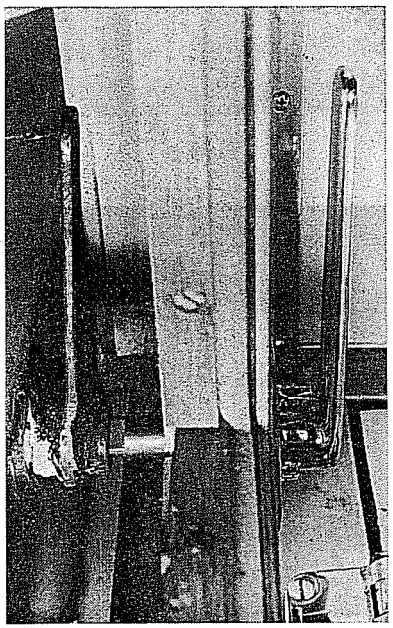


Plate 5

On the 300 and 400 class rail cars, the emergency valve is of the same design as the emergency cock in brakevans and the operating handle is on the side panel of the Motorman's compartment. The handle is pulled down from the horizontal to the vertical position to operate the cock and is reset by returning the operating handle to the horizontal position. Emergency cocks are placed in each Motorman's compartment and are operated in the same manner as emergency cocks in brakevans.

On the 860 class baggage cars, the emergency valve is placed behind the hinged panel on each end of the car and the operating handle is on the side wall adjacent. This type of valve is referred to as a Conductor's Valve. If the valve has been operated the panel has to be opened to permit the valve being reset, by releasing the lever on the valve body.

NOTE:—Do not attempt to replace the operating handle to the horizontal position manually. Pulling the lever to its lowest position will automatically reset the operating handle.

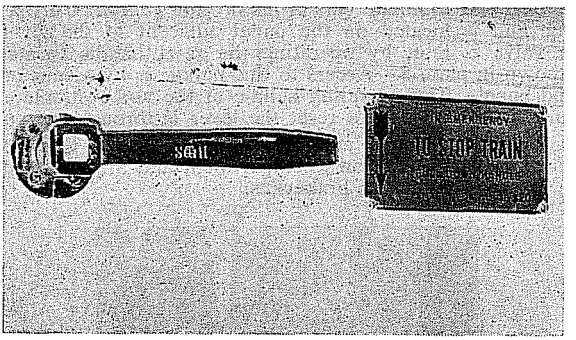


Plate 6

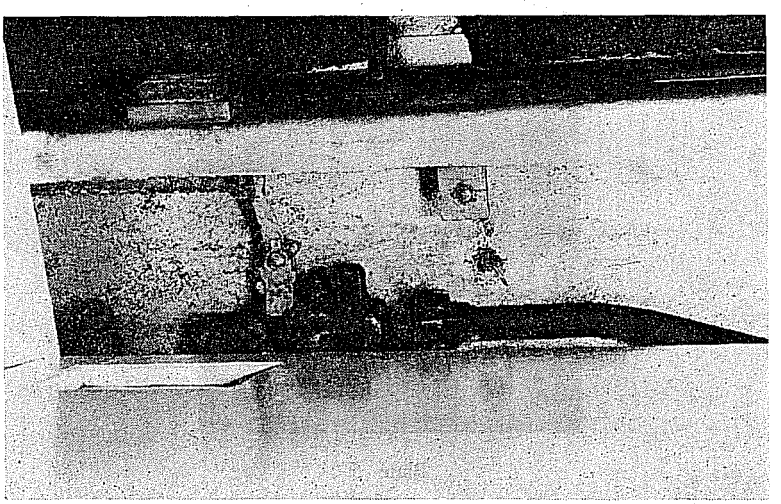


Plate 7

An additional emergency cock is placed in the Guard's baggage compartment. The cock is the same design and is operated in the same manner as the emergency cock in the brakevans.

The 820 class baggage cars have an emergency cock placed adjacent to the end doors and in the Guard's baggage compartment. The cock is the same design and is operated in the same manner as the emergency cock in the brakevans.

In the event of the passenger communication or the emergency valve or cock having been operated, action must be taken as set out in the Rules.

8. **Grade Control Valves—**

Description—Grade control valves are fitted to goods vehicles and each is connected to the brake cylinder exhaust port of the triple valve of its respective vehicle.

Grade control valves are for use on down grade working to retard the escape of brake cylinder pressure, or retain a portion of it, to prevent the train speed from increasing too rapidly whilst the Engineman is recharging the auxiliary reservoirs.

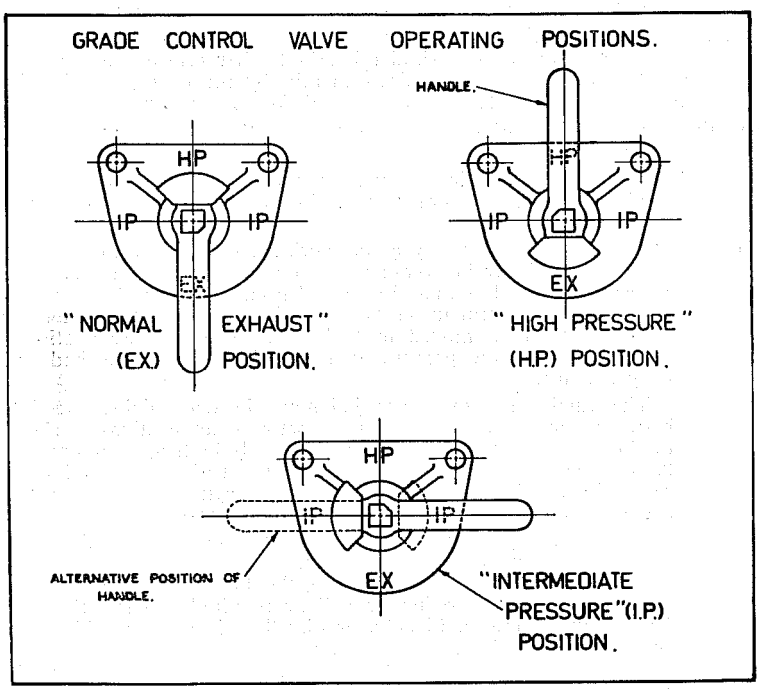


Plate 8

The release of brake cylinder pressure on each vehicle in obtaining a recharge offsets the effect of brake applications on heavy down grades, due to the quick acceleration of the train after the brakes have been released and before the re-charge of the auxiliary reservoirs is fully established. Consequently, it has been necessary to apply hand brakes on vehicles before negotiating heavy grades to control the acceleration of the train during the recharge period.

The grade control valve has been designed for the purpose of retarding the release of pressure from the brake cylinder while the triple valve piston is in the "release" position, thus utilizing the air brake to check the acceleration.

The grade control valve is located on the underframe of the vehicle and connected by piping to the triple valve exhaust, the retarding nipple having been removed. All air pressure exhausting from the brake cylinder through the triple valve is, therefore, controlled to the atmosphere in accordance with the setting of the grade control valve.

9. **Operating Instructions—**

The grade control valve is manually operated from either side of the vehicle and the handle has three (3) positions distinctly marked in the escutcheon plate as follows:

1. EX—Handle pointing vertically downwards—This position permits a normal escape of brake cylinder pressure to the atmosphere.
2. IP—Handle horizontal, pointing either left or right—In this position the rate of release from the brake cylinder is retarded by a choke. The IP setting is used on moderate down grades and allows the whole of the brake cylinder pressure to be slowly exhausted to the atmosphere.
3. HP—Handle pointing vertically upwards—In this position the rate of release from the brake cylinder is still further retarded and a pressure of 50 kPa (7 p.s.i.) is retained therein by means of a spring loaded check valve. The HP setting is used for heavy down grade working.

The three operating positions and a section of the grade control valve are illustrated in Plate No. 8.

(*a*) To gain full benefit in the use of grade control valves the "short cycling method" of brake operation must be used in descending heavy grades.

(*b*) In "short cycling" on heavy grade working, the brakes must be applied as soon as the train commences to accelerate by gravity, using a reduction of not less than 50 kPa (7 p.s.i.). The brake valve handle is permitted to remain in "lap" position for approximately 10-15 seconds, and then moved to "release". The next application must be made before the pressure in the brake cylinder has had time to fully exhaust.

The Engineman must use judgment in determining the interval between applications. If the time between applications is shortened the brake cylinder pressure can be gradually built up to approximately 85 per cent of that being carried in the train pipe (and auxiliary reservoirs). The building up of brake cylinder pressures to this extent, of course, would invariably stop the train.

The brake cylinder, however, can be made to retain sufficient pressure to control the train at an almost constant speed by the correct spacing of applications. As the brake cylinders always contain pressure, lighter reduction will be required and less time needed for recharging the auxiliary reservoirs than in grade working without grade control valves. In consequence of the above, that portion of Rule 567 which states—"Care must be exercised not to waste air by too frequent applications"—does not apply in grade working with grade control valves in operation.

(*c*) When grade control valves are to be cut in for action, the Engineman must ensure that the train brakes have been completely released before the grade control handles are set for the required position.

(*d*) When operating a train on which the vehicles have the grade control valves operating in the No. 2 (IP) position, and approaching a change of grade to either level or rising, care must be exercised to ensure that the last application and release is made in sufficient time to permit the brake cylinders to be completely exhausted of pressure just before the change of grade is met. The appropriate time required is fifty (50) seconds.

(*e*) Enginemen must keep in mind that when working with grade control valves in operation, all braking requirements have to be anticipated considerably more than when working with trains not so equipped and using hand brakes.

(*f*) In the absence of a Train Examiner, the Guard must adjust the grade control valves, as set out above, and advise the Engineman of the number of vehicles on which the grade control is in operation and their position in the train. Every care must be exercised in the correct alignment of the handle positions, as failure to do so will result in dragging brakes with possible damage to wheels through skidding.

When the grade control valve is to be placed out of operation, the Engineman must instruct his Fireman to assist the Guard in placing handles of the grade control valves in the EX position if time can thus be saved.

The air brakes on all vehicles in the train MUST be completely released before the handle is placed in No. 3 (HP) position.

Grade control valves must not be used in the No. 3 (HP) position on vehicles containing 25 per cent or less of their prescribed loading capacity.

When shunting movements are to be performed the handles of grade control valves must be placed in the EX position to facilitate shunting operations.

10. **Settings for Control Valves in Specified Areas—**

The handle of the grade control valve must be kept in position 1 at all times, except as set out in the following Table:

From	To	Direction	Position of Grade Control Valve Handles
BROAD GAUGE			
Mile End.....	Tailem Bend	Down	No. 2 I.P. or No. 3 H.P. as per instruction or if Engineman considers necessary
Mount Barker Jct..	Strathalbyn	Down	
Mount Lofty	Mile End	Up	No. 3 H.P. (see footnote (*a*) hereunder)
Penrice	Penrice Junction .	Up	No. 3 H.P.
Nuriootpa.....	Sandy Creek	Up	No. 2 I.P.
Sandy Creek.....	North Gawler ...	Up	No. 3 H.P.
Melton	South Hummocks	Up	No. 2 I.P. (see footnote (*b*) hereunder)
Barunga Gap	Snowtown	Up	No. 3 H.P.
Barunga Gap	Bute.....	Down ..	No. 2 I.P. (see footnote (*c*) hereunder)
STANDARD GAUGE			
Peterborough	Port Pirie	Down ..	No. 2 I.P.

(*a*) If a stop is made at Belair or Blackwood the handles of the grade control valves must be immediately placed in No. 1 position until the brakes completely release, then replace in No. 3 position.

(*b*) A run-through can be taken at South Hummocks and the handles reset at Port Wakefield.

(*c*) Judgment must be exercised approaching the 221·023 km post to ensure that the brakes have time to completely release before the "Up" grade into Bute is met.

11. **Terminal Testing of Air Brake Equipment—Rule 584—**

In addition to the duties set out in Rule 584, the Train Examiner (or Guard when no Train Examiner is present) must, at the examining station prior to the train working over sections set out herein, place all the grade control valve handles in the HP position as he examines each vehicle, moving from the engine to the rear of the train. When returning he must place each handle in the EX position or IP position according to the current instructions, and observe that there is a light blow of air from the valve and that the brake piston commences to return to the release position.

If the piston has already returned to the release position, with the handle in the HP position, it is an indication that the pipe from the triple valve to the grade control valve is faulty, or the plug type cock of the grade control valve is leaking. (The Train Examiner must check for leaking joints, or broken pipe, and remedy fault or green car the vehicle for attention.)

If there be a very heavy blow when the handle is placed in the EX position from the HP position, he must return the handle to the IP position. If the blow ceases instantaneously it indicates that choke nipple 3 is blocked. (The handle must be then placed in the EX position, the vehicle green carded for attention, and train crew advised not to use any other handle position.)

If brakes will not commence to release, it is an indication that choke No. 2 is blocked.

12. **Load-compensating Equipment on Goods Vehicles—Where Fitted**—Load-compensating air brake equipment, sometimes referred to as Empty Load Brake, is fitted to the framework near the centre of the vehicles.

Description—The load-compensating air brake equipment consists of the normal air brake apparatus fitted to vehicles with the following additional fittings:—

Variable Volume Device, Change-over Cock and Change-over Mechanism—The chang-over cock is manually operated by the change-over mechanism which is fitted on each side of the vehicle and is provided with an escutcheon plate on which the letter "E" is cast. When the operating handle is in the lower position, the letter "E" is exposed, and when placed in the upper position, the letter "E" is covered and the letter "L" is exposed on the operating handle itself. These letters correspond to the two operating positions of the change-over mechanism and are painted white to enable them to be readily distinguished.

(*a*) When goods vehicles fitted with load-compensating air brake equipment are marshalled on trains and a brake test is carried out in accordance with Regulations, it shall be the responsibility of the employee carrying out such brake test to ensure that the operating handle of the load-compensating air brake equipment is in its correct position for the load conditions of the vehicle.

(*b*) Change-Over Position—Goods vehicles fitted with load compensating air brake equipment are also fitted with grade control equipment and are stencilled accordingly with a white circle within a white square on each side of the vehicle.

Stencilled within the circle is a numeral showing the net load in tonnes at or beyond which the operating handle of the load compensating brake equipment is to be placed in the "L" or loaded position.

When the vehicle is empty or the load in tonnes is less than the numeral within the circle, the operating handle is to be placed in the "E" or empty position.

(*c*) Should it be found that at any time, the operating handle is in the incorrect position for the load conditions, the handle must be immediately placed in its correct position.

(*d*) The operation of the hand brake on the vehicle is not affected by the load-compensating air brake equipment.

13. **Defects**—Where defects located in the load-compensating air brake equipment cannot be rectified, the following procedure must be carried out.

(*a*) When the load of the vehicle, indicated by the truck waybill, exceeds the mass shown on the grade control valve symbol and the defects are associated with the variable volume device or the pipe from it, the change-over mechanism must be placed in "L" loaded position.

If the pipe between the brake cylinder and change-over mechanism is defective, the change-over mechanism must be placed in "E" empty position and the air brake equipment cut out, drained and the vehicle green carded for attention.

(*b*) When the vehicle is empty or the load indicated by the truck waybill is less than the mass shown on the grade control valve and the defects are associated with the variable volume device or its pipe connections the change-over mechanism must be placed in "E" position, the air brake equipment must be cut out, drained and the vehicle green carded for attention.

When any defect that cannot be rectified occurs on the equipment when the change-over mechanism is in the "E" empty position for the load conditions of the vehicle, the change-over mechanism must not be placed in "L" position, as damage could occur to the wheels on the vehicle.

When the air brake is cut out of operation the load-compensating air brake equipment is inoperative.

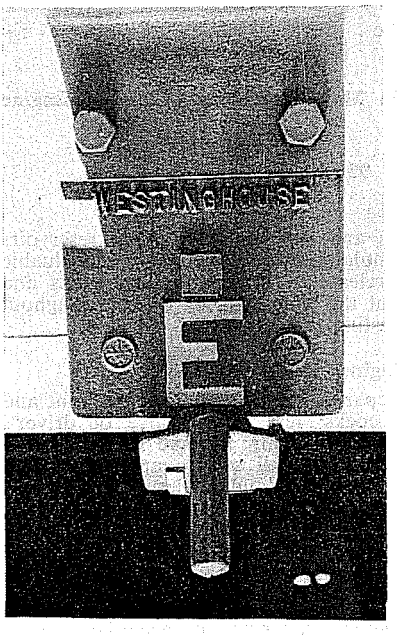


Plate 9a

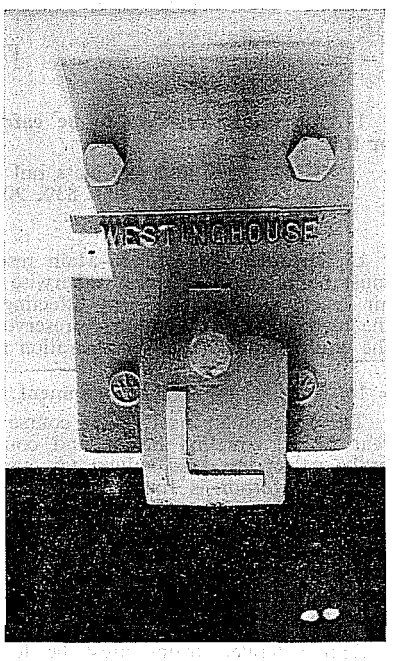


Plate 9b

Identification—Vehicles equipped with load-compensating equipment shall be identified by a white square on a black background painted on diagonally opposite corners just above the class letters and serial number.

Where Grade Control Air Brake Equipment is fitted to the above vehicles, this is denoted by a white circle on a black base.

Vehicles fitted with both load-compensating and grade control air brake equipment have the symbols combined, the white circle being placed inside the white square.

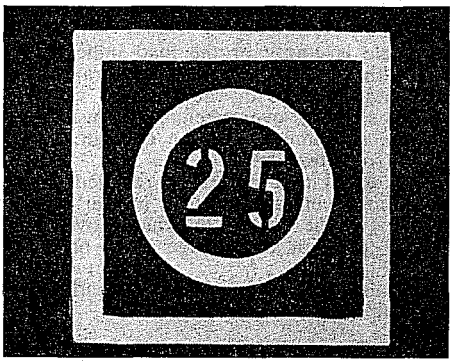


Plate 9c

14. **Maximum Pressure to be carried in Main Reservoirs—Class of Engine or Rail Car—**

250, 280, 300 and 400 class rail cars . . . . 800 kPa (115 p.s.i.)
350, 500, 600, 700, 800, 830, 900 and 930
class engines . . . . . 750 kPa (110 p.s.i.)

15. **Draining Reservoirs**—Main reservoirs and supplementary main reservoirs must be regularly drained, otherwise accumulating water will take up valuable air space, not only seriously affecting the release of brakes on long trains and the recharging of the auxiliary reservoirs, but the water will be taken throughout the equipment affecting its operation and rusting the interior of the pipes.

16. **Testing Air Brake Equipment on Engines (Rule 505)—**

The Engineman must, in the course of preparing the engine, examine front and rear hoses, coupling heads, and coupling cocks; test rotary valve of driver's brake valve; test feed valves; test equalizing piston ring; observe that the compressor governor is functioning correctly; make a full service application and check brake piston travel, thickness of brake blocks and angles of levers and rods; place brake valve in "release" and observe that brakes release promptly, and move brake valve to "running position" to prevent overcharge. Move independent brake valve first to slow, then quick application and notice the build up on pressure gauge, thus checking the setting of reducing valve, move brake valve to slow, then quick release, and note the fall of gauge pressure.

Engine hauled trains must be tested before departure in accordance with Rule 584.

17. **Securing of Engines or Rail Cars when Stationary by means of the Independent or Straight Air Brake—**

Engines—The Engineman must secure the engine or train against movement, when stationary, by placing the independent brake valve in slow application position at all times.

Under no circumstances must the brake valve handles be returned to lap position, for in this position it is possible for the brakes to leak off. This applies to both engines and rail cars.

Rail Cars—The Rail Motor Driver must secure the rail car(s) stationary by:—

250, 280, 300 and 400 class—Full application (not "Handle Off").

NOTE:—Cars must never be left with all brake valve handles in "Handle Off" position unless the car(s) are stabled and hand brakes applied.

18. **Hauling of 350 and 500 class Engines by another Engine**—If 350 or 500 class engines are to be hauled, in addition to closing all brake valve isolating cocks, the independent brake valve handles must be placed in "Running Position" and not "Handle Off" position (lap), as is the case with all other diesel engines.

If the independent brake handles are left in "Handle Off" position (lap), the brakes cannot be released after an application from the operating engine.

Also the distributing valve dead engine device cut-out cock must be opened (handle pointing towards the safety valve), otherwise the main reservoir will not be charged and therefore there will be no brake application available on the engine.

19. **Train Pipe Hose Dual Connection on Vehicles fitted with Dual Train Pipes—** Vehicles fitted with dual train pipe hoses must have the hoses connected directly across on the same side of the automatic coupler, and not crossed underneath the couplers.

Failure to observe this instruction will lead to the parting of air hoses in traffic.

The train pipe coupling cocks on the coupled air hoses must be open in accordance with the requirements of Rule No. 575 (*a*), to ensure the flow of air pressure throughout the train pipe. Where air hoses are not coupled, the train pipe coupling cocks must remain in the closed position.

SECTION 2

RAIL CAR HANDLING

1. **Coupling of Rail Car Consists**—When rail car sets are made up by units being added or reduced at any locality other than a Depot, the coupling or uncoupling of air hoses, electrical jumpers, etc., must be carried out by the Train Examiner or, in his absence, the Guard.

(*a*) After coupling cars and before jumpers are inserted an attempt must be made to drive away from the coupled car to ensure that the automatic coupler has locked.

(*b*) Apply the air brakes and switch OFF master switch in driving cab.

(*c*) Jumper leads must now be inserted in the sockets, the air hoses coupled and the respective air cocks opened. The safety chains between cars must also be coupled. It is the responsibility of the Rail Motor Driver to ensure that jumpers are correctly positioned, all air hoses coupled and the respective cocks opened. All other than the operating car in a multiple unit consist must have all brake and throttle changeover cocks in the non-control position, duplex cocks closed, driver's brake valves in "Handle Off" position with handle removed and Forward and Reverse Switches in neutral and the Master Switches OFF.

(*d*) If the multiple consist is to be moved after coupling, switch ON master switch in driving cab and when full air pressures are obtained, proceed.

(*e*) When rail car sets are coupled the following procedure must be adopted:—

(i) The Rail Motor Driver in charge of the first consist to arrive and to which other rail cars are to be coupled, must, after completing his duties at the driving position, apply the hand brake in the baggage car of that consist.

(ii) The Rail Motor Driver in charge of the second or any subsequent consists to arrive, must remain in his arrival driving position until mechanical coupling of the draw gear is completed.

(iii) The Rail Motor Driver taking charge of the newly formed consist must ensure that coupling is correctly completed before engaging direction gears.

2. **Uncoupling of Rail Car Consists—**

(*a*) When multiple consists are to be uncoupled apply the air brakes and switch OFF master switch in driving cab.

(*b*) When consists are uncoupled it is the responsibility of the Rail Motor Driver to ensure that all jumpers and air hoses are uncoupled and safety chains between cars unhooked, before releasing the automatic coupler. All uncoupled control air hoses shall be securely fitted to the dummy couplers.

(*c*) If part of a multiple consist is to be moved after uncoupling, switch ON master switch in driving cab, check that hand brakes are applied on consist to be parked and when full air pressures are obtained, proceed.

(*d*) When rail car sets are uncoupled, the Rail Motor Driver taking charge of each consist must, after the uncoupling of air hoses, electrical jumpers, etc., and the automatic couplings have been separated, test the air brake to ensure its correct operation from the driving position being used before the departure of each rail car consist.

(*e*) When any rail car trailer or non-power car is uncoupled from a power car, the employee carrying out the uncoupling must secure the trailer or non-power car against movement prior to uncoupling.

3. **Examination of Air Brake Equipment after coupling or uncoupling.**

(*a*) The air brake equipment on all rail car powered trains must be fully charged and tested before departure.

(*b*) If sets have been coupled together, the Train Examiner must proceed to the rear car of a newly formed consist, give the Rail Motor Driver the hand signal to "Apply Brakes" as shown in Rule No. 83, and after seeing that brakes have applied on this car, the Train Examiner must then give the Rail Motor Driver the hand signal to "Release Brakes" as shown in Rule No. 89 and see that the brakes release on the last car.

(*c*) The Train Examiner must then inform the Guard that the brake test is complete.

(*d*) The Guard MUST NOT give the "Starting Signal" to the Rail Motor Driver until he has been informed by the Train Examiner that the brake test is complete and the hand brake has been released in accordance with Rule No. 474.

(*e*) In the absence of the Train Examiner, the above duties of the Train Examiner must be carried out by the Guard.

4. **Changing Ends**—There is a possibility, with the S.E.M. equipment, of the brakes leaking off, when a Rail Motor Driver is changing ends at a terminal or other point.

With all brake valves in the consist in "Handle Off" and with all changeover cocks in non-control position, there is no supply of air pressure to supply leakage in the "straight air" or emergency pipes. Leakage in the "straight air" pipes, or at the release magnet valve(s), would reduce the pressure in the straight air pipes and the brake cylinders to zero.

Any loss of pressure from the "emergency" pipe would cause the R.P. relay exhaust valve to operate, and an emergency application of the brakes throughout the consist would result.

When attempting to release the brakes which have applied under these circumstances, difficulty is often experienced through the R.P. relay exhaust valve failing to reseat correctly.

Under ordinary running conditions these leakages would not be noticeable.

To obviate these undesirable instances when changing ends, the following procedure must be carried out:—

(*a*) Place brake valve in "Handle Off" position and remove handle.

(*b*) Place changeover cock in non-control position.

(*c*) Place other cocks and switches in correct positions for non-control.

(*d*) Proceed IMMEDIATELY to the other end of the consist and place all controls in the correct position for operation. Place the brake valve handle on the brake valve and move to full release position, then promptly back to full service (NOT HANDLE OFF).

This sequence of operations must NOT be departed from and no other matters given attention until items (*a*) to (*d*) have been completed.

5. **Method of Operation of Spring Loaded Handle fitted to the Brake Changeover Cock for 250, 280, 300, 400 Rail Cars and 100 class non-power cars**—The handle is to be pulled outwards until the stop, fixed to it, is clear of the slot in the index plate. When the cock is rotated the operator should ensure that the stop is adjacent to the slot for engaging to the required brake setting before releasing the handle.

When it is necessary to change the driving position on the 250 and 280 class rail cars and 100 class non-power cars, the handle is placed in the non-control position and pulled outwards to remove it from the spindle.

6. **Air Coupling Cocks at ends of 250 Class Rail Cars and 100 class non-power cars**—Particular attention must be given to the air coupling cocks on straight air, emergency and main reservoir pipes behind the pilot when coupling two or more of these cars.

In addition to coupling the air hoses betweeen cars and opening coupling cocks mounted in front of the pilots on each car, it is important that a check be made to ensure that coupling cocks which are fitted behind the pilot are in open position.

The purpose of these cocks is to provide a means of closing the pipes in event of damage to cocks and pipes in front of the pilot.

7. **Failure of Electro-Pneumatic Brake**—In the event of failure all brake changeover cocks except the one at the operating station must be left in non-control position. The brake changeover cock at the operating station must be placed in pneumatic position. The three isolating cocks in the cabinet behind the Rail Motor Driver, which are placed in the pipes leading to the master controller,

the brake application and release valves, must be closed in all cars to ensure correct operation of the brake in pneumatic position.

8. **Releasing Brakes of Dual Air Equipped Cars**—When attaching "RBP" van equipped with the dual air brake systems to 250 or 280 class rail cars or consists, the Rail Motor Driver must (after mechanical coupling has been completed):—

(*a*) Immediately move the driver's brake valve handle at the driving station into "Handle Off" position, and watch the hand of the emergency pipe gauge; when the hand of this gauge commences to fall, (indicating the emergency hoses are connected and their coupling cocks are open) move the brake valve handle into release position until the hand of the emergency pipe gauge commences to rise.

(*b*) Then move the brake valve handle into "Application" position until approximately 140-170 kPa (20-25 p.s.i.) pressure is showing on the brake cylinder gauge, then move the brake valve handle to "Release" position to release the air brakes.

(*c*) Should this method fail to release the brakes, with the brake valve, make an emergency brake application.

This method should ensure the emergency valve being forced to "Release" position on the car being attached and obtaining a complete release of the air brakes.

9. **Hauling 100, 250, 280, 300 and 400 Class Rail Cars with Engines**—Should a failure occur in service on these cars, or a consist of cars, and it is necessary to provide hauling power by using an engine, the following instructions shall apply:—

The train pipe of the engine must be connected to the main reservoir pipe with a special adaptor hose which can be obtained from the Rail Car Depot or from the tool box of the 250 and 280 class cars. This will couple the two air brake systems and permit air to pass from the train pipe to the main reservoir and allow the air brake to become operative on the car or consist being hauled.

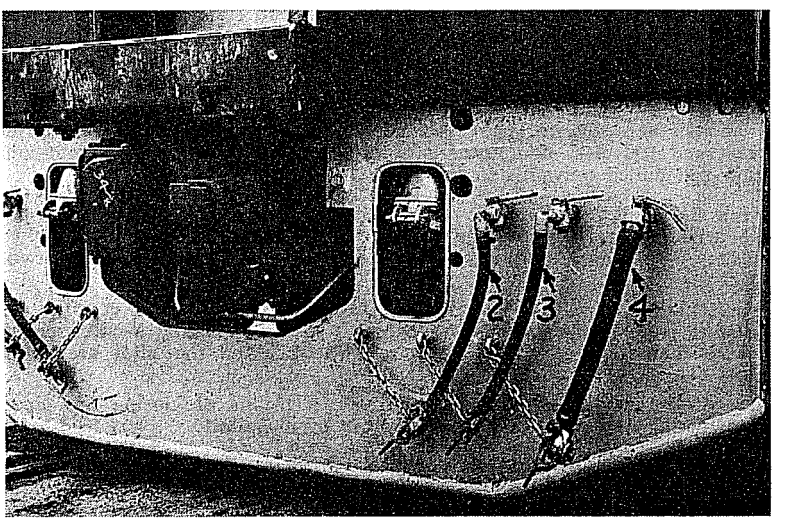


Plate 10

NOTE:—Under these conditions, the Rail Motor Driver must be at his driving station to apply the brakes independently on the car or consist whenever necessary as the above arrangement does not provide braking from the head end.

The speed of hauling should be limited if there is any mechanical defect which could affect the safety of the movement.

When a dual air brake equipped vehicle(s) is coupled to a 250 or 280 class rail car, the straight air pipe (Hose No. 2) and the emergency pipe (Hose No. 4) of the vehicle must be coupled to the appropriate hoses (Nos. 2 and 4) on the rail car.

Dual air brake vehicles must always be marshalled as the trailing vehicle in the consist.

Before coupling a dual air brake equipped vehicle, all air must be drained from the air brake system of the vehicle or vehicles before attaching to the operating train or rail car.

Vehicles fitted with this equipment are:—

"RBP" vans Nos. 9021, 9032

10. **Use of Dummy Couplings**—When air hoses are uncoupled they must be placed on dummy couplers where provided.

SECTION 3

GOODS TRAIN HANDLING

1. **Procedure Before Departure**—The Guard must inform the Engineman, before departure, of the approximate position of groups of empty and loaded vehicles on the train, and in running, of any severe cases of slack action observed, so that the Engineman can take steps to prevent repetitions.

2. **Starting Goods Trains**—The Engineman should not attempt to start the train until the air gauge shows that the air brake equipment is fully charged and the brakes are released. He should keep the engine at a low speed for at least two vehicle lengths in order to avoid excessive drawbar shocks and strains. He should maintain a speed low enough to enable the Train Examiner to inspect all vehicles as they pass, and not accelerate until he receives the Guard's joining signal from the brakevan.

3. **Control of Slack in Goods Trains**—Train slack is the free movement between vehicles after they are coupled. This means not only the actual distance between the pulling and pushing faces of the couplers, but also the distance that the draft or buffing springs have to be compressed before the vehicle body responds. This can be 1 270 mm per vehicle, or 6 m or more in a 100 vehicle train.

The Engineman must keep in mind three (3) main factors in regard to train slack, when handling all trains. The longer the train the more important these factors become. They are:—

(*a*) When the train is being hauled by an engine the slack is pulled out or stretched.

(*b*) A normal brake application first takes effect at the front end and coupled with the fact that vehicles run more freely than the engine when drifting, the slack must then normally commence to run in, or bunch.

(*c*) The braking force on a vehicle, that is the force available to retard its movement, remains constant (except for slight variations due to piston travel) therefore the retarding effect of the brakes on an empty or lightly loaded vehicle is considerably greater than on one heavily loaded. For example:

The braking force is usually 75 per cent of the tare mass of the vehicle. Assuming the tare mass of a "Y" vehicle to be approximately 8 tonnes, with a train of 60 empty "Y" vehicles, there is 360 tonnes of braking force to stop or retard a train weighing 480 tonnes, whilst with 60 loaded vehicles weighing 1 200 tonnes, there is still only 360 tonnes of braking force to control it.

Most trains are composed of empty or lightly loaded vehicles and heavily loaded vehicles. If the majority of empty or lightly loaded vehicles are at the front end of the train, the slack must run in heavily when the brakes are applied, but if they are placed at the rear, the slack will be stretched by an application of the brakes, especially if any attempt has been made to bunch it, before the automatic brake application is commenced.

4. **Controlling the Speed of Goods Trains**—To prevent the breaking of draw gear and/or other damage when goods trains running at normal speed are required to be checked, one brake application must be used, which must consist of two or more reductions.

The procedure must be as follows:

The controller must be left in the notch in which the engine has been operating to ensure the train slack is kept stretched. The first brake pipe reduction must be 50-70 kPa (7-10 p.s.i.). The engine brakes must be prevented from applying by means of the independent brake valve. Sufficient time must be permitted to elapse for each reduction to take effect before the next reduction is attempted.

The object of this method is, firstly, to permit the slack to be adjusted whilst brakes are least effective—that is with a light reduction at high speeds. Secondly, if one reduction is not allowed sufficient time to take full effect before the next is attempted, the two reductions will merge into one resulting in a heavy reduction and probable damage to draft gear and loading.

Further reductions up to full service can be made as required. The brakes must NOT be released with a train of less than equal to 60 vehicles unless a total reduction of 70 kPa (10 p.s.i.) or more has been made. With a train of equal to 60 or more vehicles, a release must not be attempted if the reduction does not total 100 kPa (15 p.s.i.) or more. The object of this is to enable the auto brake valve handle to be left in release long enough to ensure all brakes will release without overcharging the equipment on the leading vehicles. If, however, the train speed drops below 24 km/h the train must be stopped and the brakes released before proceeding.

During this operation, the driving ammeter must be closely watched and if the hand commences to rise, notching back must be commenced immediately. Under no circumstances must power be on at the completion of a stop.

5. **To make a Stop with a Goods Train**—To prevent breaking of draw gear and/or other damage, goods trains must be stopped with one brake application, which may consist of one or more reductions.

(*a*) *When bunching occurs*—If, when approaching a stopping place, the contour of the track is such that the consist of the train will tend to bunch, the controller must be moved to "off" position, in sufficient time to permit the slack to come in.

The independent or the dynamic brake is to be used if necessary to assist the bunching of the train. The first reduction must be 50-70 kPa (7-10 p.s.i.) to permit any further adjustment of slack to take place. Further reductions up to full service may now be made to complete the stop.

(*b*) *When bunching does not occur*—With all goods trains, when the contour of the track or the proportion of empty vehicles in the consist is such that the conditions for bunching as set out above, are neither favourable or available, the train must be stopped with the slack stretched. The stop must be made with one brake application. The first reduction, which may be 50-70 kPa (7-10 p.s.i.) to be made with the controller in power. The engine brakes must be prevented from applying by means of the independent brake valve handle. It may also be necessary to advance the controller a few notches so that the engine(s) can assist in keeping the slack stretched.

During this operation, the driving ammeter must be closely watched, and if the hand commences to rise, notching back must be commenced immediately. Under no circumstances must power be on at the completion of the stop.

NOTE:—In all cases if the speed of the train is 24 km/h or less, the brakes must not be released until the train has stopped and the train pipe reduction total is not less than 100 kPa (15 p.s.i.).

6. **Releasing Brakes when Coupling during Shunting Operations**—In order that the brakes be released when two or more vehicles are being coupled together during shunting operations, the Engineman should make a reduction of 150 kPa (20 p.s.i.) in train pipe pressure, then place the brake valve in "lap" position, leaving it there until the maximum main reservoir pressure is obtained before the coupling cocks are opened. When the train pipe gauge indicates that the coupling cocks have been opened, place the brake valve in "release position" until the train pipe gauge shows not less than the standard train pipe pressure, then move the handle to "running position". Train pipe pressure should settle to about 40 kPa (5 p.s.i.) less than standard. Then make a "kick-off" movement of the brake handle to ensure that the head end brakes, that may have reapplied, will release.

7. **Stopping Long Goods Trains or Rakes of Vehicles that are being Backed at Low Speed**—The Guard or Shunter must apply the hand brakes on the leading vehicles before giving the "Stop" signal in order to prevent damage to draw-gear and couplings on account of the "plucking" action caused by the brakes applying first on the engine end. The Engineman must make a light train pipe 50-75 kPa (7-10 p.s.i.) before power is shut off. If drifting, power must be applied before the brake application is initiated. Power must not be shut off in either case until the blow at the secondary exhaust has ceased and the engine brakes must be kept released with independent handle.

8. **Light Air Brake Applications**—Light applications must be avoided with long goods trains, as when trying to release after light applications, the Engineman cannot use the full driving force of the excess pressure for fear of over-charging the head end auxiliary reservoirs; the friction generated in the train pipe retards the flow of air towards the rear end and the differential pressure across the triple piston is so slight under these circumstances that if a triple piston ring is leaking, even slightly, the leakage may recharge the auxiliary without moving the triple to release.

9. **Release of Air Brakes**—

(*a*) *The most favourable conditions* for releasing brakes are:—

(i) Trains stationary—because with trains stationary slack action is eliminated (except on grades).

(ii) Maximum main reservoir pressure—a high main reservoir pressure gives the necessary excess for rapidly rising train pipe pressure.

(iii) Brakes fully applied—when brakes are applied auxiliary reservior pressure is low and the rising train pipe pressure can more easily cause the triple valves to move to release position.

(*b*) *The most difficult conditions* for releasing brakes are:—

(i) When the train pipe pressure is very low, for example, when the engine has been cut off for some time from the train whilst shunting.

(ii) When recoupling a train which has been divided in two or more portions.

(iii) After a burst hose or train parting or an emergency application.

(iv) After a light application from standard pressure.

These conditions are difficult for release because:—

(i), (ii) and (iii)—The large amount of air required to recharge the train pipe and the auxiliary reserviors of the brakes which released first (those at the head end), makes it difficult to raise the train pipe pressure at the rear end at a sufficiently rapid rate to ensure that the triple valves are forced to release.

(iv) After a light application the full driving force of the excess pressure cannot be used without danger of overcharging, which results in the same slow rise of train pipe pressure at the rear end. Any triple valve having a slightly leaky piston ring may possibly fail to move to release because of the slow build-up in pressure, whereas a normal rate of increase would force it to release without any difficulty.

(*c*) *Complete Release of Air Brakes*—To ensure complete release of all air brakes, assuming an application to have been made on a long goods train, the brake valve should be placed in the release position and left long enough to ensure that all triples are reversed before moving it to running position.

The handle must not be moved back and forth between release and running positions as this breaks the driving force of the air flow. The brake valve handle must be placed and left in release position until the hand on the equalizing reservior control gauge indicates 480 kPa (68 p.s.i.) then the brake valve must be placed in running position. The rate that the hand on the equalizing reservior control gauge rises is the approximate rate of re-charge of the auxiliary reservior on the first vehicle in the train.

If an engine is not equipped with an equalizing reservior control valve, the brake valve handle must be left in release position for approximately one second for every five vehicles before placing the handle in release position. This method could result in a slight overcharge of the head end auxiliary reservoirs, and when train pipe pressure equalizes throughout the train the head end brakes may reapply, but these can be kicked off by placing the brake valve in release position for a second or two.

The total train pipe reduction with trains of 60 vehicles or more, before attempting to release, must be 100 kPa (15 p.s.i.) provide sufficient differential across the triple valve pistons to sensure their complete reversal.

(*d*) *Releasing Brakes at Low Speed*—The speed at which brakes can be safely released on a goods train depends on how heavy a brake application has been made, the amount and volume of main reservior pressure, the length of the train, the position of the slack (whether in or out), and whether the grade and curvature of the line will assist or retard slack action. No common rule can cover all these varying conditions and Enginemen must exercise judgment gained from experience and knowledge of the line.

The dynamic brake on some engines will greatly assist in controlling slack action during release and permit a satisfactory release at lower speeds than when this feature is absent.

However, no attempt must be made to release brakes on a long goods train when the speed has been reduced below 24 km/h.

10. **Attempting to make Accurate Stops with Goods Trains**—It is not a good practice to attempt making accurate stops with goods trains. In fact, it may be considered poor judgment to attempt making an accurate stop, such as a close-up for a switch, with a long goods train. Some Enginemen seem to think it a reflection on their judgment if an accurate stop is not made, but this is not so, due to the fact that no two trains brake alike, and some even may not brake twice alike. Therefore, aim for a smooth stop, which means a safe stop, leaving accuracy out of the question until handling passenger trains.

11. **Method of Stopping and Starting of Heavy Goods Trains on Maximum Up-Grades to Prevent Slack Action and Overloading of Draft Gear**—When a stop has to be made on heavy up-grades, the load behind the engine(s) tends to run on, and bunch the train as power is shut off, in the same way as on level tracks, but to a lesser degree. On heavy up-grades however, the slack will run-out again after the engine(s) is stationary and cause a pluck on the coupling if the independent brake has been applied instead of the automatic.

Also, the Engineman may apply power and commence to move forward again, while the rear portion is still moving backwards subjecting the draft gear to abnormal loading, and could cause breakages and parting of the train.

The following procedure must be carried out on heavy up-grades to overcome the conditions as set out above:—

(*a*) When approaching the point at which the train has to be stopped the speed must be reduced by easing the engine power by notching back on the controller to notch 3 on diesel engines.

When the speed is approximately 10 km/h, the automatic air brake must be applied on the train, using a 50-75 kPa (7-10 p.s.i.) reduction. The engine brakes must be held in release by means of the independent brake valve handle, so that it can continue to move forward and keep the slack stretched, throughout the train.

During this operation, the driving ammeter on diesel engines must be closely watched and if the hand commences to rise, notching back must be hastened. Under no circumstances must power be on at the completion of the stop.

It is imperative that the engine brakes be kept from applying through the brake application.

(*b*) The automatic brake application must immediately be increased to a 100 kPa (15 p.s.i.) reduction of train pipe pressure, and the brake held applied until it is required to restart the train, providing the stop does not exceed five minutes. If after a minute has elapsed and it appears that the stopping time will exceed five minutes, the independent brake must be applied, the automatic brake released, and the train held by the independent brake only.

(*c*) When it is desired to re-start the train, brakes must be released and when the engine brake cylinder pressure falls to approximately 100 kPa (15 p.s.i.), power must be applied to lift the train gradually.

(*d*) If the signal is cleared, as or before the train is on the point of stopping, no attempt must be made to re-start the train until it has been carefully stopped as set out in (*a*) and (*b*) and re-started as in (*c*).

12. **Correct Method of Controlling Trains on a Continuous Heavy Down Grade—**

(*a*) Before making the descent, full regulation pressure must be obtained, and, if necessary, hand brakes applied on vehicles (next to the engine) or grade control valves set to correct position.

(*b*) The relation between the number of vehicles with the air brake in operation with the number of non-air vehicles in the train should be known before beginning the descent. (The relation of empty and/or partly loaded vehicles to loaded vehicles would be indicated by the length of the train for a given mass.)

(c) The ability to control the train should be tested by the first running application. This is especially important when commencing the descent of a steep grade and must be done while speed is low, with a minimum reduction of 50 kPa (7 p.s.i.), and the average speed down the grade should be determined by the result of this test.

(*d*) The speed should be held as near to the average as practicable.

(*e*) Auxiliary reservoirs should be kept as near the maximum pressure as possible. This will necessitate recharging every time the grade, curvature, and main reservoir pressure offer an opportunity. Where these conditions are not favourable, or available, recharging must be assured by slowing down to a speed that will permit of sufficient time for that purpose. Should it be necessary to make a full service application to reduce the train speed promptly, or if the acceleration is too rapid whilst recharging, the train must be stopped and hand brakes (or additional hand brakes) applied to retard the rate of acceleration during the recharging period.

(*f*) Release position must be used to its full extent. Any overcharge of the air brake equipment through doing this can be reduced to normal before the engine(s) starts working again.

13. **Action Necessary when Dividing on a Section (Rule No. 348)**—If a train has been divided on a section the rear part must not be left with the air brakes to hold it until the engine returns. Hand brakes must be applied to hold the vehicles stationary. If sufficient hand brakes are not available, sprags and chocks must be used. If possible, the air brake should be released prior to the engine being detached to ascertain that the hand brakes, etc., will hold the vehicles stationary.

SECTION 4

PASSENGER TRAIN HANDLING

1. **Starting the Train Smoothly**—The Engineman must constantly keep in mind that smoothness of starting must not be sacrificed for a rapid acceleration in the endeavour to gain time, when starting the train.

Each vehicle of the train has to be brought from stationary to a speed corresponding to that of the engine, and this must be achieved as smoothly as possible.

It is possible under extreme conditions to obtain 125 mm of slack action between vehicles—for instance, if the train is at rest with the springs of the couplers under compression due to buffing action, they have to be moved to a condition of stretch under draft action as the train is started, in addition to the play between the faces of the couplers, so that with a train of 12 cars there may be some 1·2 m to 1·5 m of slack to be taken up before the last vehicle responds to the movement of the engine. Therefore, if the Engineman is careless and makes the initial acceleration too rapidly, "pluck" must result, which will cause discomfort, and even danger, to passengers in the rear vehicles.

2. **Correct Method of Making Stops with Passenger Trains**—With passenger trains, it is necessary to make quicker deceleration than with goods trains, and there is a greater liability of wheels skidding because of the heavier application and the fact that the braking ratio is higher than on goods vehicles. To make the quickest stop with the least liability of skidding wheels, and to avoid disagreeable shocks, the two-application method must be used in stopping a passenger train from high speeds.

The first application should be a full service, so made that it will bring the train speed down to 24 km/h at a point three or four vehicles from the required stopping point.

The driver's brake valve should now be placed in release position long enough to start all triples to release, 2 or 3 seconds should suffice and then move the brake valve to graduated release lap until the final application is desired.

To complete the stop, make a light application 40-50 kPa (5-7 p.s.i.), releasing the final application just before completing the stop if the train is less than 10 vehicles in length and hauled by one engine. With 10 vehicles or over, or two engines attached, the final application must not be released until the stop is completed.

If it is found that the train is stretching badly whilst making the first application, the Engineman should not shut off power until the brakes are fully set; this will keep the slack stretched and obviate any plucking.

If lurching occurs on the second application of the two-application stop, the Engineman should keep power applied until the stop is almost completed, and keep the engine brakes released, with the use of the independent handle of the A7P brake valve, for the purpose of keeping the slack stretched.

When endeavouring to make spot stops for station work, remember that the stop must be made smoothly and an emergency brake application must not be made at low speeds.

The heavy lurching and liability of skidded wheels by a brake application at low as compared with high speed, is due to the greatly increased brake block friction at low speed. A very moderate brake cylinder pressure will cause brake blocks to develop as great a retarding effort at low speed as maximum brake power at high speed; hence the reason for full service application at high speed and a release, followed by a moderate application, after the speed is reduced. (Attention is called to Rule No. 577.)

SECTION 5

GENERAL TRAIN HANDLING

1. **Observation of Air Gauges**—The Engineman must observe the air gauges with sufficient frequency whilst running to note promptly and act accordingly on any improper condition thereby shown. The Engineman should also cultivate the habit of observing the air gauge during service applications, as this will give more uniform results than when relying on the sense of hearing.

2. **Overcharging of Train Pipe**—If the train pipe is overcharged the Engineman must reduce pressure by making a full "Service Application." The handle of the brake valve must remain in lap position for at least 10 seconds before the brakes are released.

3. **Train Stopping from Unknown Cause**—If an Engineman finds his train stopping from some unknown cause, he must lap his brake valve to assist the train to stop and conserve the main reservoir pressure for a quick release of brakes, then ascertain the cause. If, however, the train is in a tunnel or on a bridge, he should endeavour to get the train into a safer position to stop by placing the brake valve in release position, and manipulating the engine controller.

The Engineman must place the brake valve in "running position" before he commences to look for it. The feed valve then will supply air to the train pipe to allow the defect to be quickly located, without draining the main reservoir.

4. **Procedure when Engines Working Attached**—

(*a*) *Duties of Engineman*—When two or more engines are working attached, the Engineman of the leading engine controls the brakes. The Engineman of the other engine must:—

(i) Close their isolating cocks to give the Engineman of the leading engine full control of the train pipe.

(ii) On engines with the A7PL brake valve, the automatic handle must be placed in running position and the independent handle placed in lap position and both handles removed.

(iii) Maintain full main reservior pressure in case of having to take charge of brake operation at any time.

(*b*) *Brakes Dragging on Trailing Unit in Multiple-Engine Operation*—Damage could be done to the traction motors and wheels and excessive wear caused to brake blocks on engines if the brakes are dragging on the second unit in multiple-engine working.

The fault (brakes dragging) is clearly revealed on the speedometer charts.

The indications are that the trailing unit brake reapplies usually some short time after a normal service application, and has every appearance of an overcharge of the train pipe when releasing from the preceding application.

It is recognized that in the endeavour to ensure release at the rear end of a long train, the front end may be overcharged, and the latter brakes may re-apply, but the Engineman must always take care of this by moving the *automatic brake valve* handle to release momentarily and thus "kick-off" those brakes which may have re-applied.

Enginemen must ensure, when working diesel engines in multiple, that the brakes on the trailing units are completely released the whole time that power is on.

(*c*) *Equalizing Air Pressures when Changing Ends*—Enginemen are advised that when changing from one engine to the other in multiple-engine operation, working in opposite directions, they must, before first moving, make a 100 kPa (15 p.s.i.) service application to stabilize the air pressures.

This is very necessary due to the differences that may exist in pressure gauge reading and feed valve setting.

5. **Pipe Breakages—Defects and Remedies—**

(*a*) *General—*

(i) Discharge pipe between compressor and main reservoir broken: As it is highly improbable that repairs could be effected on the line, this would have to be regarded as a total air brake failure when using vehicles with only one compressor, otherwise refer to detail (m) in A-7-EL equipment.

(ii) Pipe between main reservoir and supplementary main reservoir broken: If the return pipe (*i.e.*, pipe to driver's brake valve) comes off the main reservoir, blank the broken pipe on the main reservoir and proceed, relying on the reduced volume of main reservoir pressure, taking all precautions for safe working. If the return pipe comes off the supplementary main reservoir, it will cause a total air brake failure.

(iii) Return pipe between main or supplementary reservoir and driver's brake valve broken: This would cause a total air brake failure.

(iv) Iron train pipe broken: This would render the air brakes useless on this vehicle and all vehicles behind it; therefore, close the rear coupling cock on the vehicle ahead of the breakage, drain all vehicles from that point to the rear of the train, and proceed to the first siding where a shunt can be made. Then place the defective vehicle behind the last air-equipped vehicle unless it is a fully air-braked train, in which case the defective vehicle must be placed immediately in front of the brakevan.

(v) Branch pipe between train pipe and cut-out cock broken: As this breakage usually occurs in the train pipe tee, endeavour to plug it with a soft wood plug and secure. These plugs are part of the equipment on the engine. Drain the auxiliary reservoir and brake cylinder and proceed, treating as a piped vehicle. If unsuccessful, treat as in clause (iv).

(vi) Branch pipe between cut-out cock and triple valve broken: Close the cut-out cock, drain the auxiliary reservoir and brake cylinder, and proceed, treating as a piped vehicle.

(vii) Pipe between brake cylinder and hand release valve broken: Endeavour to plug it; if not possible, take no further action.

(viii) Pipe from brake cylinder to slack adjuster broken: Blank or plug the broken pipe or adjust the slack adjuster to give shorter piston travel.

(ix) Pipe connection to load compensating equipment broken: Refer to section 13 (*a*) (*b*). (Page 239.)

(*b*) *A-7-EL Brake Equipment—*

(i) The branch pipe from the train pipe to the distributing valve broken: If possible to plug at the train pipe connection and render air-tight, this must be done; breakage usually occurs at one side or other of the dust collector or on the distributing valve, and there are union joints at these points which may be blind jointed.

The automatic brake will then be operative on the train but not on the engine. The independent brake will be available for use on the engine. If unable to make the train pipe air-tight, bleed the train, carry the automatic brake valve in graduated release lap position, and proceed using the independent brake.

(ii) Pipe from the main reservoir to the pressure gauge broken: Blank joint of broken pipe and proceed.

(iii) Pipe from the pedestal to the equalizing reservoir pressure gauge broken: Blank joint of broken pipe and proceed.

(iv) Pipe from the train pipe to the pressure gauge broken: Blank joint of broken pipe and proceed.

(v) Pipe from brake cylinder to pressure gauge broken (this pipe leads off the brake cylinder pipe adjacent to the distributing valve): Blank joint of broken pipe and proceed.

(vi) No. 3 (control) pipe broken: With this pipe broken it would prevent an independent brake application. A heavy blow would be heard at the broken pipe at the commencement of an application of the automatic brake. When releasing the automatic brake, the engine brakes would release at a fast rate. Independent release available if required, nothing need be done; proceed.

(vii) No. 4 (independent release) pipe broken: Operation of the automatic brake not affected. No independent release available on the engine after automatic application. Independent brake applications still available on the engine (make the release with the independent brake valve handle in the "Running Position").

(viii) Pipe broken between brake valve and minimum reduction reservoir: Use lap position for service reductions of train pipe pressure, use the graduated release lap position to hold the brakes applied between reductions. Independent applications and release available as usual.

(ix) Pipe from brake valve to equalizing reservoir broken: Make a blank joint at the equalizing reservoir control valve and remove the nipple from the secondary exhaust port under the brake valve, plug the port in the nipple and replace the nipple, move the handle of the automatic portion of the brake valve slightly into the emergency position for train pipe reductions. Independent application and release available on the engine as usual.

(x) Main reservoir supply pipe to the distributing valve broken: Either close cut out cock to the distributing valve or make a blank joint and proceed. Brakes are not operative on the engine.

(xi) Pipe from the distributing valve to the brake cylinder broken: If broken between cut-out cock and brake cylinder, close the cut-out cock nearest and break and proceed without the use of that brake cylinder. If broken between the cut-out cock and the distributing valve, close the main reservoir cut-out cock to the distributing valve and proceed. Brakes are not operative on the engine.

(xii) Discharge pipe from compressor to main reservoir broken: If in multiple operation, blank on the main reservoir side of the breakage only.

Proceed relying on the compressor of the good unit. The compressor on the unit with the defective pipe must be permitted to exhaust to atmosphere. If single unit—total failure.

(xiii) Supply pipe to the E.P. control equipment volume reservoir broken: Blank on main reservoir side (or close cut-out cock if not on main reservoir side). This engine will automatically shut down, but air brake is operative.

(xiv) Supply pipe to a sanding valve, hooter or windscreen wiper broken: Blank on main reservoir side. That particular appliance will now be out of operation.

(xv) Return pipe to driver's brake valve broken: Blank on main reservoir side. If single unit—total air brake failure. If multiple working—change to other unit for air brake control.

(xvi) Main reservoir pipe broken: If this pipe, which supplies details from (xiii) to (xv) above, breaks it is a total air failure on that unit.

6. **Operation of Dynamic and Air Braking**—600, 700, 900 and 930 Class Engines—Restriction on Dynamic Braking—Operation of Dynamic and Air-Braking—Dynamic braking must not be in operation in the undermentioned locations. Dynamic braking must not be re-applied until the whole of the train is clear of the restricted areas:—

Between Adelaide and Millswood

Mitcham Station Yard Limits

Belair Station Yard Limits

Mount Barker Junction Station Yard Limits.

Application of Brakes—

(*a*) When using dynamic brakes on two or more engines worked in multiple, the needle of the load meter must not exceed the amperage shown by the line marked on the dial face. This must be strictly observed in order to limit excessive buffing forces.

(*b*) When braking a heavy train on a down grade, the dynamic braking at this dial marking may not be sufficient to hold the desired speed. In such a case, an automatic air brake application must be made to control the speed.

(*c*) Enginemen must ensure that when dynamic braking is in operation and it is necessary to complete a stop with the automatic air brakes on the train, the dynamic brake must be left in operation until the stop is completed.

Releasing of Brakes—

(*a*) When dynamic braking is being used in conjunction with air braking on the train and it is desired to discard all braking, the dynamic brake must be reduced to its minimum value before the air brakes on the train are released.

When the air brakes have been released, the independent handle must be held in the release position while discarding dynamic braking.

(*b*) If it is desired to release the air brakes on the train and still retain dynamic braking, and grade conditions are such that a heavy run-in of train slack may occur after the release, the Engineman must reduce the value of dynamic braking prior to the release of the air brake to allow the train slack to be adjusted smoothly. Dynamic braking may then be progressively increased up to its maximum allowable value as desired.

Attention is drawn to Rule No. 354 in regard to the applying of hand brakes prior to descending a grade.

Releasing Dynamic Brake at Low Speed—When releasing dynamic brake at low speed, Enginemen are instructed that the Independent Brake Valve must be held in the release position whilst the dynamic brake is being discarded. This release must be effected before the speed falls below 15 km/h.

7. **Air Flow Meter**—

(*a*) *Where used*—The 600, 700, 830, 900 and 930 Class Engines are equipped with the Westinghouse Brake Company's flow meter.

The flow meter is a device provided on the engine to give the Engineman both a visual and audible signal should the flow of air through the feed valve to the train pipe exceed 60-70 kPa (8-10 p.s.i.) per minute. This may be caused by excessive leakage, a hose bursting, a train parting, or an emergency valve being opened.

(*b*) *Components of a Flow Meter*—

(i) A metal chamber divided by a diaphragm to form two compartments.

(ii) A Duplex gauge, the red hand showing constant main reservoir pressure. The green hand is indirectly controlled by the velocity of air passing through the feed valve, to move away from or towards the red hand.

(iii) A pipe connection, in the passage between the main reservoir and the feed valve, conveys main reservoir pressure to the top compartment of (i) and to the red hand of the gauge.

(iv) Another pipe connects the top compartment to the green or sometimes black hand of the gauge, but a choke valve in this passage, secured to the diaphragm, controls the flow of air to this hand and also to a vent port.

(v) The lower compartment is piped to the main reservoir passage to a point above (iii), and through a Venturi tube set in the passage, consequently the pressure in this chamber fluctuates accordingly to the velocity of air passing through the Venturi tube.

(*c*) *The Operation of the Flow Meter*—When the flow of air through the feed valve to the train pipe exceeds 60-70 kPa (8-10 p.s.i.) per minute, pressure from the lower compartment will be entrained through the Venturi tube, the diaphragm will move down, carry the valve with it, opening the vent port. This gives an audible signal, whilst the green or black hand of the gauge falling will give a visual signal in proportion to the velocity of the air which is passing to the train pipe. (See plate 11a.)

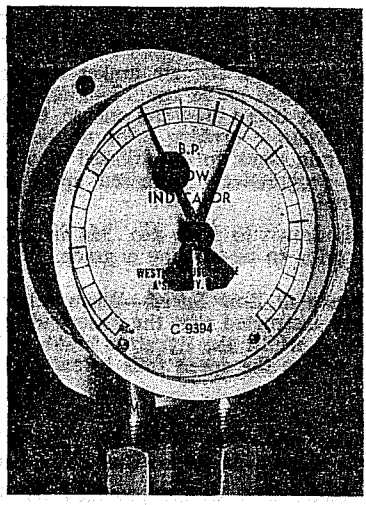


Plate 11a
Green hand moves to left indicating abnormal conditions.

As the train pipe is recharged the velocity of air through the Venturi tube is decreased, consequently the pressure will be regained in the lower compartment and the diaphragm moving up permits the valve to gradually close the vent port, and also permits the building up to register on the green or black hand until equalization takes place. (See plate 11b.)

As set out above, train pipe leakage in excess of the permissible 60-70 kPa (8-10 p.s.i.) per minute will cause a constant blow at the vent port.

In train working, Enginemen must be alert to note any of the indications shown on the flow meter gauge and act in accordance with Rules 356 and 568.

Enginemen must note the train pipe leakage whilst the brakes are applied during the "Terminal Brake" test, and advise the Train Examiner, whose duty it is to endeavour to locate and stop or reduce the leakage if it exceeds the above figure.

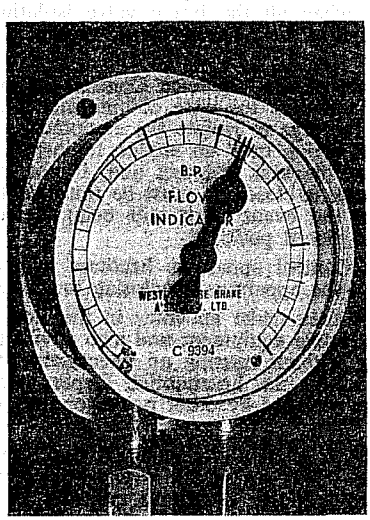


Plate 11b
Normal running position (hands aligned).

8. **Vigilance Control Equipment—Pneumatic Type**—A pneumatic type vigilance control system is fitted to 600, 700, 800, 830, 900 and 930 Class Engines. In the interests of safe working this equipment must always be in operation at the driving station which is being used for train working.

When the vigilance control is in operation a warning blow of air will occur at approximately two minute intervals and must be cancelled by the Engineman or Fireman momentarily depressing the "Cancel" button. If not cancelled within a limited time an emergency whistle will sound and within a few seconds the emergency brake will apply and engine power will be lost.

The "Cancel" button must be depressed for not less than one (1) second nor more than five (5) seconds. If the button is depressed for more than ten (10) seconds the emergency brake will apply and engine power will be lost.

"Cancel" buttons are provided in close proximity to both the Fireman's and the Engineman's seats and when the Fireman is engaged in engineroom inspection a "Cancel" button must be operated by the Engineman.

The "Cancel" button may be depressed at any time before the warning blow occurs, thus delaying the warning for a further two minutes and it is advisable to do this when entering station yards or other areas where the crew's full attention is required for signals and normal driving operations.

A gauge provided with coloured sectors, indicates the time between warnings. The first warning will occur when the gauge needle has traversed the green sector. If the needle enters the red sector the emergency warning is about to operate and if this occurs an emergency brake application will result.

Before releasing the brake after a penalty brake application, the "Cancel" button must be depressed for five (5) to ten (10) seconds, after which the brake may be released in the normal manner.

When the train is stationary, a brake application of at least 200 kPa (25 p.s.i.) in the brake cylinders will automatically cut out the operation of the Vigilance Control system. Also when all the brake valve isolating cocks on an engine are closed, as on a trailing unit operating in multiple, the Vigilance Control system is inoperative.

In the event of failure of the Vigilance Control Equipment, a sealed cut-out cock is provided and located in the nose compartment; the handle of this cock must be turned across the pipe to isolate the equipment. It will be the duty of every Engineman when taking over an engine to inspect the Vigilance Control cut-out cock to see that the seal is intact and, if not, record this in the Log Book. If the cut-out cock is closed, it must be returned to normal position and the system checked; in the event of it still being defective the cut-out cock must be returned to the closed position.

When the Vigilance Control apparatus becomes defective on an engine the Engineman may cut out the apparatus by closing the isolating cock.

The Engineman must then make an entry in the Log Book provided on the engine regarding the defective equipment and also advise the Train Controller at the earliest opportunity without causing an unecessary train delay. The Train Controller must then advise the Locomotive Depot being approached by this engine, so that it can be replaced by other power or the defect on the equipment rectified.

The operation of the Vigilance Control will not interfere with the normal operation of the engine. This equipment is fitted solely in the interests of safe working and the full co-operation of engine crews is therefore expected.

The Engineman must advise the Guard of the train at the next station that the Vigilance Control Equipment is not operating on the engine.

9. **Coupling to Dual Air Brake Equipped Vehicles**—When coupling dual air brake equipped vehicle(s) to power equipped with automatic air brake, the train pipe (Hose No. 1) is the only hose to be connected.

ENGINE WHISTLES

Engine Whistles—

1. The following instructions and code of whistles must be observed in connection with train working and shunting.

2. The sound of the whistle must be distinct, with intensity, duration, or repetition proportionate to the distance the signal is to be conveyed, and the circumstances under which it is used.

3. Enginemen must sound the warning whistle when negotiating curves near which there are private crossings, approaching workmen on the running line, when approaching tunnels, and when otherwise required to do so in accordance with the Rules.

4. Enginemen working trains in the metropolitan area must not sound the whistle when approaching stations, or approaching crossing points, unless the fixed signals are at "Stop" or a wrong signal has been displayed.

Enginemen of trains starting from Woodville Park in both "Down" and "Up" directions must not sound the starting whistle (o). In the absence of such code whistle, all concerned must use care in seeing that no passenger is alighting from, or boarding a train at the time of starting.

Whistle Boards—

1. Whistle boards are placed on the left side of the track, at the approach to all level crossings, and indicate to Enginemen where the code whistle must be sounded, as a warning to the public using the level crossing.

Enginemen of trains starting from Woodville Park in both "Down" and "Up" living in the vicinity of level crossings.

2. When a level crossing is in close proximity to a station, the code whistle for the level crossing will also serve as a warning whistle for the station. Should the signals be in the "Stop" position, the prescribed warning (challenge) whistle for the station may, subsequently, be sounded.

In cases where a level crossing is situated a short distance ahead of a station starting signal, the code whistle for such crossing must be used in place of the starting whistle.

3. The warning whistle must not be sounded for level crossings protected by inter-locked gates, or for level crossings guarded by crossing keepers or station employees.

Code Whistles—

In the following codes "o" means a short whistle, "–" a long whistle. A crow whistle is given in the following manner "– o – o —".

Adelaide—

Code whistles are not used at Adelaide, where movements are controlled by signals, or hand signals from North and South Car Yard Cabins.

Bowden—

Wood Siding or South Siding to Main Line	– –

Kilkenny—

Goods Siding to Main Line	– –

Woodville—

Yard to No. 1 Road	o – o o
Yard to Dead End	o o – o
Holdens to Short Shunt	o – – o
Holdens to beyond 45 Signal	o o o –

Port Adelaide, "B" Cabin

Between Port Dock Yard and South Goods Siding or Canal Siding	– – o o
Between Canal or South Siding and Port Dock Yard	– – – o
Between Port Dock Yard and "C" Cabin	o o – o
Between "C" Cabin and Port Dock Yard	– o – o

"C" Cabin

"Up" Trains from Ocean Steamers Wharf to "Up" Main via "A" Cabin	o o –
"Up" Trains from Ocean Steamers Wharf to Dry Creek Loop Main via "A" Cabin	o o – o
"Up" Trains from Gillman Yard to "Up" Main via "A" Cabin	– – o – –
Port Dock Yard to Gillman Yard	o o o –
Port Dock to Ocean Steamers Wharf	– –
Gillman Yard to Port Dock Yard	o – – –
Gillman Yard to Bennett and Fisher's Wool Store	– o o –
Ocean Steamers Wharf to Gillman Yard	o o – –
Ocean Steamers Wharf to Port Dock Yard	– o – o
Ocean Steamers Wharf to Storage Lines	– o – –
Storage Lines to Ocean Steamers Wharf	– o o o o
Bennett and Fisher's Wool Store to Gillman Yard	– o o –

Glanville, South End

Between Goods Siding and "Up" Main	o o – o
Between Goods Siding and Sugar Refinery Siding	o – o o o

North End

Between Goods Siding and "Down" Main	o – – o

North Adelaide—

Goods Siding to Main Line	– –

Salisbury—

Goods Siding to Main Line	– –

Gawler, South End

Race Course to Shed Road	o – – o
Race Course to "Up" Main	o o – –
Race Course to Middle Road	– o o –
Race Course to "Down" Main	o o – –
Race Course to Western Siding	– – o –
Middle Road to "Up" Main	o o –
"Down" Main to "Up" Main	o o o –
Western Siding to "Up" Main	o – – o o
Traffic Siding to "Down" Main	o o Crow
Traffic Siding to "Up" Main	– – – Crow
Traffic Siding to Middle Road	o o o o o
Traffic Siding to Western Siding	Crow o o

North End

Through Short Road to "Down" Main	– Crow
Through Short Road to Western Siding	– – Crow
Western Siding to Goods Siding	Crow
Western Siding to North or Angaston Main	o o – o
Western Siding to Spur	– – – o
Back Road to North or Angaston Main	– – o – –
Back Road to Spur	– o o – –

Bridgewater, South End

Loco. Siding to Main Line	– –
Main Line to Passing Siding	– o o –

Mount Barker Junction—

"Down" Main Line to Main South Line	o – – o
"Down" Main Line to Victor Harbour Main Line	– o – o

Murray Bridge, Monarto South End

Between Goods Siding and Passing Siding	o – o – o
Between Top Yard and Goods Siding	o – – –

Tailem Bend End

Between Main Line and Goods Siding	o – – o
Between Main Line and Passing Siding	– – o o
Between Ballast Siding and Goods Siding	o o o –

Serviceton—

Melbourne or Adelaide and No. 1 Road	–
Melbourne or Adelaide and the Loop Road	– –
No. 1 Road and Siding "A"	o –
No. 2 Siding and Siding "A"	o o –
No. 3 Siding and Siding "A"	o o o –
No. 4 Siding and Siding "A"	o o o o –
The Engine Roads and Siding "A"	o o o o o –
No. 2 Siding and the Main Line	o o
No. 3 Siding and the Main Line	o o o
No. 4 Siding and the Main Line	o o o o
The Engine Roads and No. 1 Road	– o
The Engine Roads and the Loop Road	– – o

Naracoorte, Adelaide End of Yard

Between Main Line and Passing Siding—Mount Gambier end of yard	– o o –
Between Main Line and Passing Siding	o o –
Between Main Line and Nos. 6, 7 and 8 tracks	o – o o

South Sidings

Between Main Line and Passenger Platform dead-end	o – – o

Mount Gambier, Heywood End

Call for No. 14 switches	– o o –
Call for No. 16 switches	o o – o
Call for Main Line	– –

Peterborough—

Engines between Loco. and Traffic Yard	1 Crow

Gladstone—

Engines between Traffic Yard and Loco.	1 Crow

MAXIMUM SPEEDS AND OTHER RESTRICTIONS ON THE MOVEMENT OF ENGINES AND OTHER ROLLINGSTOCK

1. The maximum speed shown in the Working Time Tables for any section of line is the highest speed permitted over the section.

2. The maximum speed in respect to various lines, or portions of lines, is subject to modifications by:—

(*a*) Special speeds shown hereunder;

(*b*) Special restrictions due to class of engines or rollingstock;

(*c*) Permanent speed restrictions due to curves and other track impediments as shown in the Working Time Tables Books;

(*d*) Temporary speed restrictions as published in the *Weekly Notice*, by Train Notice, Signal Notice or other instruction, or as indicated by Track Speed Restriction Boards.

Special Speeds—

3. The speed of trains over fixed point switches in either direction must not exceed 15 km/h. These switches occur on mixed gauge lines. The speed of trains over oil buffer spring switches when trailing must not exceed 15 km/h.

4. During shunting operations, engines must travel at such speed as may be instructed by the employee in charge of the shunting, who shall be guided by the requirements of safe working, but a maximum speed of 30 km/h must not be exceeded.

Restrictions due to Engines, Rollingstock, Etc.

5. Maximum permissible speeds of engines is as shown hereunder:—

Class	80 lb or heavier Plant Maximum km/h	60 lb Plant Maximum km/h
350	25	25
500	65	65
600	95	—
700	95	—
800	95	70
830	95	80
900	95	—
930	95	70

6. Maximum speed of engines not fitted with dual controls, when running in reverse, must not exceed the following speeds:—

Where Maximum Speed for Line is	Maximum Speed for Engine in Reverse
90 km/h	50 km/h
80 km/h	40 km/h
60 km/h to 30 km/h	30 km/h
Below 20 km/h	Track Speed

7. Speeds of movements conveying welded rails must not exceed half the maximum speed normally permited on all curves, turnouts, etc.

8. The maximum speed allowed for hand-operated travelling cranes is 40 km/h.

Diesel operated Jones KL100 cranes must not exceed a speed of 6 km/h.

Maximum speeds for wrecking cranes are set out under "Movement of Accident Trains" on page 43.

9. The maximum allowable speed for loaded "HCA" wagons on broad or standard gauge is 70 km/h. When empty on broad or standard gauge track, the maximum allowable speed is 95 km/h.

10. Only those goods vehicles specifically listed herein under the heading "Special Class Vehicles" are permitted to travel on passenger or express goods trains.

11. When the Cafeteria Car or Joint Stock Club Cars are being pushed without other vehicles attached, a speed of 5 km/h must not be exceeded, the air brake must be coupled and in effective operation, and the Shunter must precede the movement.

12. Brakevans are permitted to operate at maximum track speeds.

13. Curve speed boards are used exclusively to indicate the maximum speed on curves, and are placed as near as possible to the tangent point of the first curve to which the speed restriction applies.

Name—Curve Speed Board | 65 |

Where speed boards, as shown in the above diagram, are erected adjacent to the line on the Engineman's left, they indicate the maximum permissible speed at which trains may travel on curves to the next curve speed board ahead, except when modified by speed restriction boards or other instruction. The maximum speed at which trains may travel is indicated by the numerals on the board.

Attention is specially directed to the instruction in Train Notices, and each issue of the *Weekly Notice,* under the heading "Temporary Reduction of Speed of Trains".

14. Track Speed Restriction Boards are used exclusively to indicate the maximum permissible speed over sections of track ahead to which they apply.

The attention of Enginemen is directed to Rules 361, 604 and 611. The Caution Speed Restriction Board and the Slow Warning Boards referred to herein are placed at a sufficient distance from the Slow Marker Board to permit an Engineman to reduce speed to that specified before reaching the Slow Marker Board. Enginemen are not required to commence reducing speed until the Caution Board or Slow Warning Board is reached.

When passing a Clear (Speed Restriction) Board, Enginemen must allow for the length of their train, and must not exceed the prescribed speed limit for the disturbed portion of the line until the whole of their train has passed such Board.

Enginemen and Firemen must keep a constant look-out for hand signals which may be given in the absence of a Speed Restriction Board to indicate that speed is to be reduced, or that the train must stop.

The attention of Permanent Way Gangers is directed to Rules 361, 604 and 611. The Caution Board or Slow Warning Board referred to herein must be placed at a sufficient distance from the Slow Marker Board to permit Enginemen to reduce to the specified speed before reaching the Slow Marker Board.

Where the speed in any section is governed by a Slow Warning Board and a Slow Marker Board, as prescribed in Rule 604 (*c*), and where speed must be further reduced in any part of such section, an additional Slow Warning Board and Slow Marker Board shall be placed as prescribed, provided that in emergencies only, a Caution (Speed Restriction) Board must be displayed. Such Caution Board shall be removed as soon as either an additional Slow Warning Board and Slow Marker Board shall have been placed, or the emergency shall have ceased to exist.

MECHANICAL TRACK MAINTENANCE MACHINES

Instructions for the use of:—

GROUP "A"

Heavy Track Maintenance Machines

1. **Description**—These machines are self-propelled and permitted to run at speeds up to 40 km/h. They may be removed from the track on their own "take-offs" or can be run into a siding with the permission of the Train Controller. They may operate singly or in groups.

(1)	Gang Tampers	10-17 tonnes mass
(2)	Jack Tampers	under 5 tonnes mass
(3)	Ballast Regulators	under 8 tonnes mass
(4)	Track Liners	under 3 tonnes mass
(5)	Mannix Undercutter	16 tonnes mass
(6)		
(7)		

These units, with the exception of the Mannix Undercutter, are track insulated and do not operate electric signals or level crossing equipment.

2. **General Instructions**—Each operating gang must be issued with a portable telephone in good working order or have ready access to a permanent telephone installation. Each must also be issued with hand signal flags, lamps, detonators, targets and speed boards, and carry a Train Order Book.

Each gang must be under the supervision of a Ganger, qualified in Train Order Rules. The Ganger may also be an Operator.

Each Operator must be an employee certified for the purpose by the Chief Engineer. He must personally operate his machine and must not allow any unauthorized person to drive, ride on or operate same.

When machines are required to move during the hours of darkness, or over tunnel sections in daylight, Rule 369 (*b*) must be observed.

As the machines are track insulated and do not operate electric signals or automatic level crossing equipment, Rule 372 must be observed.

When passing over the level crossings for which special instructions have been issued in the General Appendix for the movement of Motor Inspection Cars, these instructions must be observed for Heavy Track Maintenance Machines.

Machines must not be left unattended on Main Line or Passing Siding. When removed from the line, they must be secured clear of the track.

The machines must not be operated in the vicinity of interlocking rodding connected to switches or facing point locks, trunking or track connection cables.

3. **Moving Through a Section**—

(*a*) *General*—The machines may travel singly or in a group through a section under the following conditions:—

A Train Notice must be issued by the Superintendent, which must describe all machines concerned in the movement. The Train Notice covering the movement must be shown to each Driver by the Traffic Employee in Charge.

The machines in the group must travel as close together as is consistent with the requirements of safety.

A Traffic Employee, qualified in Train Working Rules for the section is to be in charge of, and accompany the movement. He must travel on the first machine and see that Rule 372 is complied with for all units. He must show all Train Orders, or Electric Staffs, to the Ganger in Charge.

When travelling through a section and any delay occurs *en route*, the Train Controller must be advised of the fact by means of wayside or portable telephone.

No machine is permitted to enter a section for the purpose of following a train.

The movement of the machine or group of machines through a section must be recorded on the Train Control Graph by the Train Controller.

(*b*) *Movement on Automatic Signal Territory*—Machines must travel under signal indication except as otherwise herein provided. Any machine or group of machines travelling over any section between Nairne and Tailem Bend, and between Brighton and Hallett Cove, must carry a Train Order, issued by the Train Controller, for such section. The Train Order must indicate the names of the unattended stations at which the Traffic Employee in Charge must report.

When a fixed signal at the entrance to a station yard cannot be cleared, the machines may be admitted by hand signal, displayed from the facing points, after the route has been checked.

When machines are passing through station yards, care must be exercised in the operation of signal and switch levers in the area occupied as the track circuits are not actuated by such machines.

(*c*) *Movement on Electric Staff Territory*—The Traffic Employee in Charge must carry an electric staff for the section.

(*d*) *Movement on Train Order or Permissive Block Territory*—The machine or group of machines must travel under similar instructions as a train. The Traffic Employee in Charge must report his arrival at unattended stations.

4. **Moving on a Block Section to and from a Working Location**—The Ganger must have a Train Order issued by the Train Controller authorizing the movement. He must advise the Train Controller immediately upon arrival at this destination, and seek further direction if the machine or group of machines is required to remain on the track.

5. **Working on a Block Section or in a Station Yard**—When the machines are required to work on a section of track, a Temporary Standing Train Notice must be issued by the Superintendent, advising all staff concerned that trains must not exceed a speed of 15 km/h "Where and when signals are exhibited". The Train Notice must specify the distance within which the machine or machines may work.

A machine or machines may only be placed on the track on authority of a Train Order issued to the Ganger by the Train Controller. The Train Order must show the Main Line distances or the track in a Station Yard within which the machines may work and the time at which the Ganger is to seek further directions.

When directed to do so by the Train Controller, the Ganger must remove the machines from the track and immediately advise the Train Controller that he has done so.

The Train Controller must record on the Train Control Graph the position of the machines and the times at which the Ganger advises the track is clear.

Immediately a train, for which the track has been cleared, passes the machines on the "take-offs" the Ganger must advise the Train Controller of its time of passage. A Train Order authorizing machines to commence or resume operations must be issued forthwith provided no other train movement is affected.

Whilst these machines are working on the Main Line, in a section, or in a station yard, or a Passing Siding, the protection prescribed in Rule 605 must be applied except that flagmen need not be employed.

6. **Movement of Trains**—No trains must be permitted to enter a Block Section on which any machine is working or moving.

If there is an Absolute Signal at the entrance to the Block Section, and the station is attended, the Train Controller must issue an order to the Station Master that such signal must be kept in the "Stop" position. If the station is unattended, Train Orders must terminate at such station.

GROUP "B"

Light Track Maintenance Machines

1. **Description**—These machines are propelled either mechanically or manually or towed at low speed on their own carriages or special transporters. They are sometimes clamped to the rails during operation. They can be removed from the track either on to hard surfaces at rail level or on to their own portable "take-offs", or can be run into a siding with the permission of the Station Master at an attended station, or the Train Controller at an unattended station. They may operate singly or in groups.

(1) Light Weight Tampers.
(2) Sleeper Exchangers.
(3) Sleeper Adzers.
(4) Sleeper Spacers.
(5) Dogspike Drivers.
(6) Sleeper Multi-Borers.
(7)
(8)

These units are all track insulated and do not operate electric signals or level crossing equipment.

2. **General Instructions**—Each operating gang must be issued with a portable telephone in good working order or have ready access to a permanent telephone installation. Each must also be issued with hand signal flags, lamps, detonators, targets and speed boards.

Each gang must be under the supervision of a Ganger, who may also be an Operator.

Each Operator must be an employee certified for the purpose by the Chief Engineer. He must personally operate his machine and must not allow any unauthorized person to drive, ride on or operate same.

When required to move during the hours of darkness, or over tunnel sections in daylight, Rule 369 (*b*) must be observed.

As the machines are track insulated and do not operate electric signals or automatic level crossing equipment, Rule 372 must be observed.

Machines must not be left unattended on Main Line or Passing Siding. When removed from the line, they must be secured clear of the track.

The machines must not be operated in the vicinity of interlocking rodding connected to switches or facing point locks, trunking or track connection cables.

All instructions given to the Ganger in Charge must be verified by repeating back to the Train Controller, or Station Master, as the case may be.

3. **Moving Through a Section or to and from a Working Location**—Machines may travel singly or in a group travelling as close together as is consistent with the requirements of safety.

No machine must leave a Station or any wayside locality without the Ganger in Charge first obtaining authority from the Train Controller.

Upon arrival at the destination, the Ganger in Charge of such movement must report to the Station Master or Officer or Ganger in Charge at attended Stations or direct to the Train Controller at all other places, that the movement is complete and if the machine or group of machines is required to remain on the track, seek further directions.

If any delay occurs *en route*, the Train Controller must be advised of the fact by means of wayside or portable telephone.

4. **Working on a Block Section or in a Station Yard**—When the machines are required to work on a section of track, a Temporary Standing Train Notice must be issued by the Superintendent, advising all staff concerned that trains must not exceed a speed of 15 km/h "Where and when signals are exhibited". The Train Notice must specify the distance within which the machine or machines may work.

The machines may only be operated or placed on the track with the authority of the Train Controller. When giving such authority the Train Controller must advise the Ganger the time at which he is required to report for further directions.

When the Ganger reports, the Train Controller must advise the Ganger the time that the next train is due to enter the section. Except as provided for below, no train must be permitted to enter the section until the Ganger has spoken and been advised of the next movement. If the Ganger has not been advised of the next movement, a train may proceed into the section on the authority of a Train Order which shall stipulate the location where the machines are working in order that the train shall reduce speed to 15 km/h and be prepared to stop if necessary.

The Ganger must remove the machines, or group of machines, from the track ten (10) minutes prior to the expected arrival of the train at the working locality, and advise the Train Controller that the track is clear. The Train Controller must record on the graph the position of the machines and the time at which the track is clear.

Immediately a train for which the track has been cleared passes the machines on "take-off", the Ganger must advise the Train Controller the time of its passage. Providing no other train movement is affected, authority for the machine, or group of machines, to commence or resume operations must be given forthwith, with a further instruction to the Ganger regarding the time at which he is required to report for further directions.

When any of the machines operate with or in a group of heavy track maintenance machines, they shall, for the purpose of safe working procedures, be considered as heavy track maintenance machines.

5. **Movement of Trains**—No train must be permitted to enter a Block Section on which any machine is working or moving until the Ganger has reported and has been advised of the time it is expected the train will enter the section, except as prescribed in clause 4. In the meantime if there is an Absolute signal at the entrance to the Block Section, and the station is attended, the Train Controller must issue an order to the Station Master that such signal must be kept in the "Stop" position. If the station is unattended, Train Orders must terminate at such Station.

MATISA TRACK RECORDING CAR

Description—The Matisa Track Recording Car is a diesel powered self propelled machine weighing ten (10) tonnes used to measure and record the physical condition of the track. It can travel and record in either direction and has seating accommodation for seven persons.

Speed of Travel—When recording, the speed of the vehicle is 30 kilometres per hour.

When travelling over switches and leads, also level crossings the speed is to be reduced to 10 kilometres per hour.

The machine may travel at a maximum speed of 60 kilometres per hour when travelling under its own power and not recording.

The recorder may be attached to a train in the event of a breakdown and is equipped with standard draw gear for this purpose. When attached to a train it must always be the last vehicle and the speed of the train must not exceed 50 kilometres per hour or whatever lesser speed the Driver of the recorder determines.

Shunting—The machine must not be loose shunted under any circumstances.

When being attached to a train the machine must be hand shunted to arrange the coupling without shock.

The machine may only be shunted by another powered vehicle when it is disabled by mechanical breakdown in the prime mover, and care must be taken to avoid shock to the Track Recording Car.

At the completion of each days work the Track Recording Car must be placed on a siding and locked away from other vehicles that may be shunted and collide with the car. Where it is impractical to securely lock the car away in such a situation, after stabling the car it must be protected from shunting in accordance with the Rules.

The Ganger for the section on which the car is located shall assist the Driver to apply temporary sprags or chocks and switch clamps.

Stop signals, when used, shall be erected approximately 30 metres from the car.

At attended stations the Station Master must decide the most suitable location in the yard for the car to be stabled. He must ensure that station staff and the Train Controller are advised the details of switches clamped and the location of the car. At unattended stations it will be the responsibility of the Traffic employee travelling with the car to make the necessary arrangements with the Train Controller.

The Movement of the Track Recording Car over Various Lines—

1. The Track Recording Car is not insulated and may operate track circuits under some conditions. Owing to the relatively light weight of the car (10 tonnes), operation of the track circuits is not reliable and must not be depended upon for the operation of level crossing warning signals. At such crossings the Driver must ensure that road traffic is not approaching the railway before entering the crossing. When necessary to stop road traffic in order to pass over protected crossing the Traffic employee or other qualified employee must act as a Crossing Keeper.

2. A white headlight must be displayed on the front of the vehicle and two red marker lamps must be displayed on the rear of the vehicle at times whilst the vehicle is in traffic.

3. A qualified Transportation employee must accompany the car at all times.

4. The car must be equipped with hand signal flags, lamps, detonators, targets, portable telephone and Train Order Book prior to entering traffic.

5. A train notice describing the intended movements of the car must be issued by the Superintendent of the Division over which the car will work.

6. On Automatic Signal Territory and Centralized Traffic Control Territory, the movement of the car must be on the authority of a Train Order issued by the Train Controller and a copy of the Train Order must be in the possession of the Traffic employee travelling with the car, who must show the Train Order to the Driver. The Train Order must show the names of unattended stations at which the Traffic employee is required to report.

(*a*) On double lines the Track Recording Car must work under Signal indication except as described in clause (*c*) below. A following train must not be permitted to enter the section on which the car is working until the car has arrived at the next Block station ahead. If the station is unattended the Traffic employee travelling with the car must report the car's arrival to the Train Controller.

(*b*) On single lines the Absolute Signal at the entrance to the Block must be cleared for the passage of the car. If the Absolute Signal is manually controlled the lever or switch controlling the signal must be retained in the "signal clear" position until such time as the car has arrived at the next Block station, or it becomes necessary to hold the Absolute Signal in the "Stop" position to prevent a following train entering the section before the car has arrived at the next Block station.

(*c*) At level crossings where Absolute Signals have been installed to work in conjunction with level crossing warning signals, and such signals will not clear for the passage of a Track Recording Car, the car must stop at the Absolute Signal. If the approaches to the crossing are clear of road traffic the car may pass the Absolute Signal in the "Stop" position at low speed and proceed at that speed until the whole of the car is clear of the crossing.

The requirements of the Rules must be complied with.

(*d*) A Track Recording Car may be admitted to a station yard, or an occupied line, by hand signal displayed from the facing switches, when the final signal at the entrance to the yard cannot be cleared for the movement. During the passage of the car over the facing switches and through the yard, the Signalman in charge of the cabin must take care not to operate switches in the route of the car's movement. In the case of movements over switches that are remotely controlled, prior to the movement commencing the Traffic employee travelling with the car must seek approval to make the move from the Train Controller before displaying a hand signal. He must report to the Train Controller when the move is completed.

(*e*) A Track Recording Car may be authorized by a Train Order issued by the Train Controller to follow a train into a section on Automatic Electric Signal Territory, providing that in maintaining a close, but safe distance behind the train the Track Recording Car is not required to exceed the authorized speed limits laid down herein.

Prior to issuing the Train Order authorizing the movement the Train Controller must ensure that no following or opposing train will enter the section whilst it is occupied by the Track Recording Car. The staff of attended Block stations at the ends of the section to be occupied must be advised that the car will be following the train and that care must be taken to determine the position of the car prior to operating switches following the arrival of the train.

The arrival of the car at the next Block station must be immediately reported to the Train Controller by resident staff at attended Block stations, or the Traffic employee travelling with the car.

The Train Order authorizing the movement must include names of stations in the section at which the Traffic employee must report.

7. On Electric Staff Territory movement of the Track Recording Car on Block sections must be made whilst in possession of a staff for the section, except that the car may follow a train with a staff into the section, on the authority of a Train Order issued by the Train Controller. The Track Recording Car must remain close as possible but at a safe distance, behind the train, but in so doing must not exceed the authorized speed limit laid down for the car.

The Train Controller must advise the Station Master of Attended stations at the end of the section that the car is following the train and the train staff must not be placed in the Electric Staff Instrument until the car has arrived. At unattended stations the Train Controller must not permit a following or opposing train to take possession of a staff for the section until the car has arrived.

8. *Train Order Territory*—A Track Recording Car must carry a Train Order for the section, except that a car may be authorized by a Train Order, issued by the Train Controller, to follow a train closely at a safe distance (provided that by so doing the authorized speed of such car is not exceeded). The Train Controller must not issue a Train Order authorizing a train to enter the section until the arrival of the car has been reported to the Train Controller by the Station Master at attended stations or the accompanying qualified Transportation employee at unattended stations.

9. *Permissive Block Territory*—A Track Recording Car must work under the same conditions as a train.

MOVEMENT OF MOTOR INSPECTION CARS, TRACK MAINTENANCE MACHINES, ETC.

The movement of Motor Inspection Cars, Track Maintenance Machines, etc., over the various lines is governed by the following instructions:—

1. **Automatic Signal Territory—**

(*a*) *Double Line*—Except as prescribed in Paragraph 5, an M.I.C. must work under signal indications. A following train must not be permitted to enter a section until the M.I.C. has arrived at the next Block station in advance, and if such station be unattended the M.I.C. Driver must report his arrival to the Train Controller.

(*b*) *Single Line*—

(i) When an M.I.C. is to travel between two adjoining attended stations, the Absolute Block Signal at the entrance to single line automatic block at the starting station must be cleared for such M.I.C. and must not be returned to "Stop" until advice has been received from the station in advance that the M.I.C. has arrived, or it becomes necessary to hold a following train at the station in the rear until the section ahead has been cleared by the M.I.C.

(ii) An M.I.C. may follow closely behind a train but at a safe distance (provided that by so doing the speed limit for such M.I.C. is not exceeded) when authorized to do so by the Train Controller, who must advise the Station Master in advance that the M.I.C. is following the train. No opposing or following train must be allowed to enter the section until the M.I.C. has cleared such section.

(iii) An M.I.C. travelling over any section between Nairne and Tailem Bend, Brighton and Hallett Cove, Peterborough and Port Pirie, Peterborough and Broken Hill, Roseworthy and Hamley Bridge or Terowie and Peterborough must carry a Train Order, issued by the Train Controller, for such section. The Train Order must indicate the names of the unattended stations at which the M.I.C. Driver must report. Where an Absolute Signal governing any part of the section concerned is controlled by a lever located in a signal cabin or office, an "Out of Order" clip must be placed on the lever to indicate that the section is occupied for a movement in

either direction. The lever must be retained in the normal (signal at Stop) position while the "Out of Order" clip is attached, and which must not be removed until it has been ascertained that the M.I.C. has cleared the section concerned.

(*c*) The Signalmen at each end of the section must immediately advise each other of the arrival and departure respectively of the M.I.C.

(*d*) M.I.C.'s must be brought to a stand prior to passing over interlocked switches controlled from a remote location and permission to proceed obtained from the Operator at the control location.

2. **Centralized Traffic Control Territory—**

(*a*) The movement of an M.I.C. must be on the authority of a Train Order issued by the Train Controller. The order must show the names of unattended stations at which the M.I.C. driver is to report.

(*b*) The Absolute signals at the entrance to a single line block must be kept in the "Stop" position.

(*c*) The Train Controller must place an "Out of Order" clip on the two station address miniature levers or push buttons controlling the section concerned, and in addition place a "Block Marker" on the respective section of the miniature illuminated diagram.

The "Out of Order" clip and the "Block Marker" must not be removed until the Train Controller has been advised that the M.I.C. has cleared the section.

(*d*) An M.I.C. must be brought to a stand prior to passing over interlocked switches and permission to proceed obtained from the Train Controller.

Where practicable the signal governing the move over the switches must be operated.

When the M.I.C. is clear of the interlocked switches the Train Controller must be advised.

During the passage of the M.I.C. care must be exercised by the Train Controller (or the Signalman, if the station is in local control) not to operate switches in the route of the M.I.C.'s movement.

(*e*) When an M.I.C. is to cross or pass a train, the Train Order must show the line to be taken.

(*f*) An M.I.C. may be authorized in the Train Order to follow closely behind a train, but at a safe distance (provided that by so doing the speed limit for such M.I.C. is not exceeded).

No opposing or following train must be permitted to enter the section, until the M.I.C. has cleared such section.

3. **Electric Staff Territory**—M.I.C.'s must carry a staff for the block, except that an M.I.C. without a staff may be authorized to follow closely behind a train, at a safe distance (provided that by so doing the speed limit for such M.I.C. is not exceeded). The Train Controller must advise the Station Master at the starting station, and also the Station Master at the station in advance, that the M.I.C. is to follow the train.

4. **Train Order Territory**—An M.I.C. must carry a Train Order for the section, except that an M.I.C. without a Train Order may be authorized to follow a train closely, at a safe distance (provided that by so doing the speed of such M.I.C. is not exceeded). The Train Controller must not issue a Train Order authorizing a train to enter the section until the M.I.C. Driver has reported his arrival to the Train Controller.

5. **Permissive Block Territory**—An M.I.C. must work under the same instructions as a train, except that it may closely follow a train, but at a safe distance.

6. **Track circuited Territory**—

(*a*) An M.I.C. may be admitted to a station or on to an occupied line, by hand-signal, when the fixed signal cannot be cleared for such movement.

(*b*) Where Absolute Signals have been installed to work in conjunction with Level Crossing Protection and such signals cannot be cleared for the passage of an M.I.C., the M.I.C. Driver must stop at the respective Absolute Signal. If the approaches to the crossing are clear of approaching road traffic, the Absolute Signal may be passed in the "Stop" position at low speed until such time as the M.I.C. has moved clear of the level crossing. Normal speed can be resumed:—

(i) *On Automatic Signal Territory*—When the indications of the next signal ahead is observed and the line ahead is clear.

(ii) *On Centralized Traffic Control Territory*—If in possession of a Train Order for the section, and if following a train movement if the line ahead is clear.

(iii) *On Electric Staff Territory*—If in possession of a staff for the section, or if following a train movement if the line ahead is clear.

(iv) *On Train Order Territory*—If in possession of a Train Order for the section, or if following a train movement if the line ahead is clear.

(*c*) Special "Key Operated Two Way" switches have been installed at each side of certain level crossings to enable the Level Crossing Warning Devices to be manually controlled for "Up" and "Down" M.I.C. movements. A special key labelled "Crossing Switch" has been installed in each Adelaide Division M.I.C. These keys must only be removed from the vehicles when required for use.

Method of Operation—The M.I.C. must be stopped short of the Level Crossing and the following procedure adopted:—

(i) Insert the key in the switch attached to adjacent Relay Box.

(ii) Turn the key and withdraw it as soon as the Level Crossing Warning Devices begin to operate.

(iii) The employee must then walk to the other side of the roadway and insert the key in the special switch attached to the Relay Box.

(iv) The M.I.C., after ensuring that the road traffic has been brought to a stop, must then proceed over the roadway.

(v) When the M.I.C. is clear of the roadway, the key must be promptly turned to the reverse position.

(vi) After the Level Crossing Warning Devices have ceased to operate, the key must be withdrawn from the switch and returned to the M.I.C.

NOTE:—If the Level Crossing Warning Devices continue to function after the key has been withdrawn from the second switch due to a train approaching in the opposite direction, to ensure that the second switch has been correctly operated, the M.I.C. must not proceed until the warning devices have ceased to operate.

(*d*) *Movement over Emerson Crossing*—Movement of M.I.C.'s must not be made over Emerson crossing unless the automatic gates have been lowered for a train movement. The Officer in Charge must arrange either to closely follow a train or to pass over the crossing while the gates are in a lowered position for an opposing movement.

(*e*) North Adelaide Level Crossing—When the Signal Cabin at North Adelaide is closed, M.I.C.'s are to cross the level crossing in accordance with the following:—

(i) On a "Down" Journey, pass No. 2 signal in the "Stop" position and proceed at low speed to the "Up" side of the level crossing. The officer or employee accompanying the M.I.C. Driver must operate to the "R" position the switch in the box located adjacent to the siding on the Adelaide side of the crossing and locked with an "S" lock. When the automatic gates are closed to road traffic the M.I.C. may then proceed over the level crossing. The switch must then be restored to the "N" position and the box locked. The M.I.C. must proceed at low speed until such time as the indication of the next signal ahead is observed and the line ahead is clear.

(ii) On an "Up" Journey, the M.I.C. must stop at No. 3 signal. The officer or employee accompanying the M.I.C. Driver must operate the switch as described in paragraph (i) above. When the automatic gates are closed to road traffic, the M.I.C. may then proceed past No. 3 signal in the "Stop" position and proceed over the level crossing at low speed. The switch must then be restored to the "N" position and the box locked. The M.I.C. must proceed at low speed until such time as the indication of the next signal ahead is observed and the line ahead is clear.

In the event of shunting movements taking place on the sidings in the vicinity of the level crossing, the Shunter in Charge must be advised of the intended movement over the level crossing.

(*f*) When an M.I.C. is passing through a station yard, or other track circuited territory, Signalmen must exercise care in manipulating the levers controlling the switches in the section occupied by such M.I.C. as the track-circuiting is not affected by it.

7. **Driver to be Accompanied**—A male officer, employee, or passenger must always accompany the Driver of an M.I.C.

8. **Advice of Running**—An M.I.C. Driver must show on the prescribed form the number of the M.I.C. making the trip. If another M.I.C. be substituted for that originally scheduled, advice of the alteration must be given immediately to the nearest Station Master or Signalman, who must advise the Train Controller without delay.

9. **Authorized Speeds**—The Speed of an M.I.C. must not exceed:—

70 km/h on lines of 80AS plant or heavier.

65 km/h on lines of 50A and 60A plant.

55 km/h on lines of under 50A plant.

These speeds are subject to prescribed local speed restrictions, to restrictions on curves, and to Rule 372.

10. **Burning of Headlights**—A white headlight must be displayed on M.I.C.'s during all hours while the vehicle is in traffic.

SHUNTING

Employees engaged in shunting must exercise care and judgment to prevent rough handling. Hand brakes must be used when necessary.

A Shunter must not leave any shunting movement that is under his charge and in progress for the purpose of obtaining instructions, or for any other reason, until he has advised his Engineman or has instructed his Assistant Shunter to take charge during his absence. If there be no Assistant Shunter available, the Engineman must be instructed not to accept any hand signal during the Shunter's absence, except in an emergency, when the Engineman must satisfy himself that the signal is intended for him and not for any other movement in his vicinity.

Kicking-Off—Before kicking-off a vehicle, the employee making the shunt movement must satisfy himself that the brake equipment of the vehicle is in effective condition.

The speed of loosely propelled vehicles must be regulated to avoid colliding heavily. Full use of the hand brakes must be made to regulate the speed of vehicles.

Vehicles must not be loosely shunted against carriages containing passengers or vans containing livestock or explosives.

Vehicles must not be kicked-off towards other stationary vehicles unless a competent person is available to apply the hand brakes as required.

Fly Shunting—To perform a fly shunt, the engine is attached to the vehicles which require to be so shunted or diverted to an adjacent line. The vehicles are hauled towards the switches controlling the siding at a speed not in excess of that at which the vehicles can be uncoupled. When the vehicles to be diverted are uncoupled, the engine is accelerated clear of the switches with such vehicles as may remain attached, thereby enabling the switches to be safely thrown in front of the following vehicles, diverting them to the adjacent line. The Shunter must accompany the diverted vehicles so that the hand brakes can be applied to bring the vehicles to rest where required. Fly shunting is not permitted with passenger carriages or loaded vans containing livestock or explosives.

Trailing Switches—Switches operated by motor, lever and rodding, switchstand, or cheese knob, must not be trailed through unless correctly set for the line over which the movement is to be made.

Trailing Spring Switches and Trailable Switchstands—Switches operated by a spring lever may be trailed in either direction irrespective of the position of the blades, but the speed, when the switches are not set for the movement must not exceed 10 km/h.

The employee directing such movement must ensure that the switches trailed through are correctly set for any subsequent facing movement over them.

Engines Shunting over Interlocked Switches—An Engineman when shunting over interlocked switches, accompanied by a traffic employee, must see that his engine is clear of the switches before giving the code whistle for any subsequent movement over them; and must as far as practicable, see that the switches are correctly reset. The necessary signal must be obtained before moving.

Shunting over Turntables—Before shunting over a turntable, the employee in charge of the shunt movement or the Engineman in charge of a light engine, must ensure that the locking bolts are in their proper position. A speed of 5 km/h must not be exceeded when passing over turntables.

Livestock Vans—To be Placed at Stock Ramps—When the station is attended the Station Master must ensure that livestock vans are placed as required.

Guards detaching livestock vans at an attended station during the hours when such station is closed must place the livestock vans as directed in the book of instructions left by the Station Master for the guidance of Guards.

Guards detaching livestock vans at unattended stations must place same in position for loading or unloading as required at the livestock ramp.

Shunting of Vehicles to and from Dead Ends—When placing vehicles:—

(*a*) As far as practicable, only the vehicles to be placed must be attached to the engine when making this movement.

(*b*) The movement must be stopped one bogie vehicle length clear of the ramp and then eased up until the leading vehicle is in position at the ramp.

When lifting vehicles from the ramp:—

(*a*) As far as practicable, the engine only must be used when making this movement.

(*b*) The engine must be stopped one bogie vehicle length clear of the vehicles at the ramp, then eased up until coupling is effected.

Shunting on Tracks or in Sheds whilst Vehicles are being Loaded or Discharged—Shunt movements must not be made on any siding to contact standing rail vehicles which are being discharged or loaded until the following action has been taken by the employee in charge of the shunt movements:—

(*a*) Personally advise all personnel engaged in the unloading or loading operations of the details of movements to be made.

(*b*) Ensure all goods in the rail vehicles being unloaded or loaded are secured against any damage which may occur through contact with the shunt movement.

(*c*) Ensure all road vehicles and other equipment are clear of the track over which the shunt movement is being made.

Shunting Movements over Level Crossings other than those provided with Gates, Bars, or Electrical Warning Signals which operate to protect such Movements—Rule No. 321 must be strictly complied with and the following instructions must also be observed during shunting movements over level crossings:—

1. Before commencing a shunting movement, the employee in charge must see that all vehicles are fully coupled.
2. "Kicking off" vehicles over the crossing is prohibited.
3. A qualified employee must precede the leading vehicle and keep a sharp look-out to protect road traffic and be prepared to stop the train or vehicle.

Movements over Level Crossings Protected by a Manually Controlled Electrical Warning Signal—When a manually controlled electrical warning signal is switched on for the passage of a train or shunting movement over a level crossing, it must not be switched off until such train or shunting movement is clear of the crossing.

Trains Standing on Level Crossings—Trains must not be allowed to stand on a level crossing at the entrance to a station yard longer than is absolutely necessary. At wayside stopping places, adjacent to level crossings, trains must be stopped clear of the roadway.

Elsewhere, if a train stops due to a breakdown or any other cause, the Guard must endeavour to remove the train clear of any level crossing.

Train and Shunting Movements through Streets, and over Wharves, Jetties, Private Sidings, and Footpaths—Unless otherwise prescribed, the following must be carried out:—

(*a*) Before any movement is commenced, the employee in charge must see that the air hoses are fully coupled and the brake in effective operation throughout the train or rake of vehicles;

(*b*) Shunting movements with the engine hauling or pushing must not exceed a speed of 5 km/h;

(*c*) The employee in charge must see that vehicular traffic and pedestrians are warned at street intersections by an employee walking ahead of the leading vehicle and in such a position that he can signal to the Engineman or Fireman.

Delivery of Rail Vehicles to the Gateway of Premises or Works—Where delivery of rail vehicles is given at the gateway of premises or works the delivery must be placed at gateway and not kicked off.

Vehicles Removed from Private Sidings, Stores, or Wharves—Examination of—Before vehicles are removed from a private siding, store or wharf, the Shunter must examine the vehicles and if found to be damaged the owner or agent at the wharf, private siding, or store must be advised of such damage before the vehicles are removed, and the matter reported to the Station Master.

Shunting with Tractors and Truck Placers—The drivers of Departmental tractors and truck placers must be qualified to operate these machines and be in possession of the certificate issued.

Drivers of tractors and truck placers must, before placing such machines into traffic, ensure that the radiator is full of water and that there is an ample supply of fuel and oil available to cover the duration of the shift for which the machine is rostered. They must promptly report any defect noted in the machine so that the necessary attention can be arranged.

In order to obviate damage to these types of machines, it is necessary that the load limits specified be rigidly complied with. The Station Master is responsible for seeing that the load limit hauled by all existing Departmental shunt tractors and truck placers when either pushing or pulling on level track in dry condition does not exceed 180 tonnes.

The maximum load shunted will depend on the traction available due to the existing ground or rail conditions; therefore, some reduction in load will be necessary for grade, curve and weather conditions.

Machines which are equipped with a transmission temperature warning light, must, on no account, be operated with this warning light on. The speed of all shunting movements made with tractors and truck placers must not exceed 15 km/h.

When shunting with either private or Departmental tractors or Departmental truck placers, the employee in charge of the movement must be satisfied:—

(*a*) The hand brake equipment of the rail vehicle to be shunted is in effective operation;

(*b*) The switches and derails are correctly set for the line over which the movement is to be made;

(*c*) The line is clear and there is no obstruction to foul the movement.

When shunting with either private or Departmental tractors, the employee in charge of the movement must be satisfied:—

(*a*) The hauling rope or chain is applied to the rail vehicle at the proper hauling point and not attached where it will cause damage to the vehicle;

(*b*) The hauling rope or chain will not foul switches, switch levers, switch-stands or other similar equipment;

(*c*) That tractors must not pass over switches or rodding attached thereto. Care must be taken to ensure that tractors do not come into collision with signal battery wells or apparatus cases and track connection cables or trunking.

When the tow ropes and chains are not in use, they must be securely stored on the tractor to prevent them falling off and becoming fouled whilst the tractor is in motion.

When pushing rail vehicles with a tractor, care must be exercised to avoid damage to the train pipe, hoses, steps, hand rails, auto-coupling operating gear, and the corners of wagons with wooden bodies.

The rail guide wheels on Departmental truck placers are not insulated, therefore, these machines must not remain on the track in track circuited areas other than for actual shunting movements.

Riding on Sides of Vehicles—Care must be exercised when riding on the sides of vehicles as there is a risk of injury through fouling permanent structures or vehicles on adjoining lines.

LIST OF INFRINGEMENTS OF MINIMUM STRUCTURE GAUGE

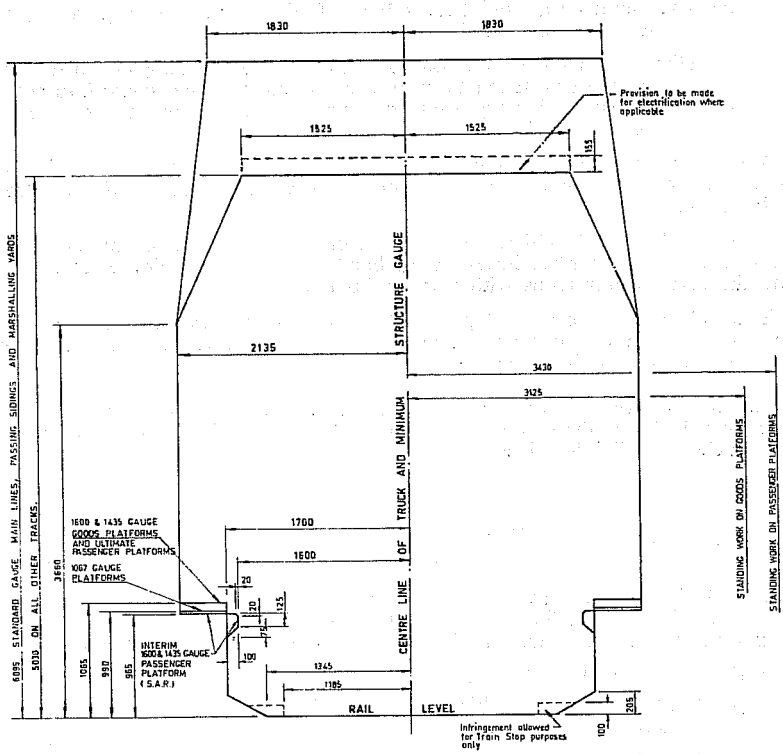
The Minimum Structure Gauge is the outline which specifies in relation to any track the distance that fixed structures by the side of the line or overhead must be placed from track centre (horizontally) or above rail level (vertically).

Infringements are brought about either by:—

(1) Existing Structures which were built during a previous era to a smaller gauge, or

(2) New Structures which are built close to the rollingstock to permit satisfactory loading or unloading arrangements or to allow ease of maintenance on the rollingstock.

The diagram following shows the current Minimum Structure Gauge in use at the present time for the three gauges on S.A.R. This is followed by a list of the known infringements. Passenger and goods platforms built nominally in accordance with the gauge but fail only due to track misalignment have not been included.



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LIST OF INFRINGEMENTS OF MINIMUM STRUCTURE GAUGE

ADELAIDE DIVISION

1. **Mile End Yard—**

Locality	Infringement
Mile End—Signal No. 122	Corner Brace—height
Hilton End—Hilton Bridge No. 1 opening (eastern freight)	Girder—height
Mile End—Hilton Bridge No. 1 opening (western freight)	Girder—height and abutment top corner—width
Mile End—Hilton Bridge No. 2 opening	Eastern abutment top corner—width and pipe over all tracks—height and western abutment—height and width
Mile End—Hilton Bridge No. 4 opening	Pipe over all tracks—height
Mile End—Perry Engineering Private Siding	First Siding—First Shed—height
Mile End—Perry Engineering Private Siding	First Siding—Second Shed—height
Mile End—Whiting & Chambers Private Siding	Grain Store Platform Verandah—height
Mile End—S.A. Cold Stores Private Siding	Verandah—height
Mile End—National Egg Ltd. Private Siding	Stairway—width
Mile End—William Charlick (North) Private Siding	Verandah Roof—height

1. **Mile End Yard**—continued

Locality	Infringement
Mile End—William Charlick (South) Private Siding	Verandah Roof—height
Mile End—Southern Farmers Co-op Ltd. Private Siding	Pipe over track—height
Mile End—Southern Farmers Co-op Ltd. Private Siding	Verandah Roof—height
Mile End—Humes Ltd. Private Siding	Pipe over track—height
Mile End—Humes Ltd. Private Siding	Corner of building and down pipe—width
South of Hilton Bridge	
Mile End—"B" Store Yard	Gantry Crane—height
Mile End—New Plant Depot	Pipes over track—height
Mile End—Carriers Shed No. 1	Shed Roof—height
Mile End—Carriers Shed No. 2	Shed Roof—height
Mile End—Carriers Shed No. 1 and No. 2	Downpipe line outside sheds—width
Mile End—Outwards Goods Shed	Shed Roof—Eastern track and middle Road—height
Mile End—Inwards Goods Shed	Shed Roof—Eastern and Western track—height
Mile End—Yard Master's Office on dead end near Hilton Bridge	Roof overhang—width
Mile End—No. 10 Carriers Shed	Shed Roof—height
North of Hilton Bridge	
Mile End—Brambles (3 sheds)	Shed Roof (3 sheds)—height
Mile End—Cellulose	Verandah Roof—height

2. **Mile End to Port Adelaide and Outer Harbour including Woodville North and Hendon and Grange and Semaphore—**

Locality	Infringement
Kilkenny—Mineral Earth Siding	Telephone Pole and Building—width
Alberton—Pedestrian Overway Bridge ("Up" and "Down" tracks)	Girders—height
"A" Cabin—Grand Junction Road Bridge (all tracks)	Girders—height
Glanville—Ballast Siding	Ballast Bins—width
Glanville—E. & W.S. Siding	Shed—height and width
Glanville	Gateposts in yard across line leading to Musgrave Wharf—width
Outer Harbour—Wharf	Gateposts No. 1 Shed—width
Outer Harbour—Wharf No. 1 Shed	Roof Brace—height
Outer Harbour—Wharf No. 4 Shed	Roof—height
Albert Park—Hendon Branch	Signal Bracket—height
Woodville North—Department of Supply	Building No. 3—height
Woodville North—Department of Supply	All Stores Buildings—height

2. **Mile End to Port Adelaide and Outer Harbour including Woodville North and Hendon and Grange and Semaphore**—continued

Locality	Infringement
Woodville North—Department of Supply	Building No. 4—width
Woodville North—Department of Supply	Loading Platform Handrail—width
Woodville North—Department of Supply	Gates (Grand Junction Road)—width

3. **Dry Creek and Port Adelaide—**

Locality	Infringement
Dry Creek—Nightingale Chemicals	Building—width
Dry Creek—Nightingale Chemicals	Fence Post—width
Dry Creek—Unilever	Shed Roof—height and width
Dry Creek—Special Loading Gauge	Gauge—height
Dry Creek—Goods Shed	Shed Roof—width
Dry Creek—Stock Platform	Posts—width
Dry Creek—Explosives Shed	Shed Roof—height
Dry Creek—Water Tank Stand	Tank Stand—width
Gillman Yard—Brighton Cement Siding	Gates—width
Gillman Yard—Brighton Cement Siding	Loading Shed—width
Gillman Yard—Eastern Parade Platform	Shelter Shed Roof—width
Gillman Yard—S.N. Rodda Siding	All verandah Roofs—height
Gillman Yard—S.N. Rodda Siding	Gates—width
Port Adelaide—Between "C" and "B" Cabins	Telephone Wires—height
Port Adelaide—Special Loading Gauge	Gauge—height
Port Adelaide—Goods Shed Platform Track	Shed Roof—height
Port Adelaide—Goods Shed through Track	Shed Side—width
Port Adelaide—No. 2 and 3 Signal	Ladder—width
Port Adelaide—Brambles Shed	Shed—height and width
Port Adelaide—S.A.F.U. Shed	Shed Roof—height
Port Adelaide—Jacketts Shed	Verandah Roof—height
Port Adelaide—Water Column	Water Column Spout—width

4. **Port Adelaide Area—**

Locality	Infringement
Port Adelaide—Lipson Street	Fence—width
Port Adelaide—Sinclair Street—Thomas Milling Co.	Shed—height
Port Adelaide—Australian Timber	Shed—height
Port Adelaide—Bunge Millers—Dead End	Shed—height and width
Port Adelaide—Bunge Millers—Through Line	Shed—width

4. **Port Adelaide Area**—continued

Locality	Infringement
Port Adelaide—Princess Wharf Adelaide Milling	Shed—height
Port Adelaide—Bennett & Fisher	Building verandah—width
Port Adelaide—Opposite Bennett & Fisher	Telephone Pole—width
Port Adelaide—Opposite Bennett & Fisher	Capstan Shed—width
Port Adelaide—Bedford Street Crossing into Goldsbrough Mort	Fence—width
Port Adelaide—Goldsbrough Mort	Pipes over two tracks—height
Port Adelaide—Goldsbrough Mort	Loading Platform—width
Port Adelaide—A.C.I. Shed	Shed Roof—height and Loading Hoppers—width
Port Adelaide—A.C.I. Shed—Passing Track	Overhead Cable—height
Port Adelaide—A.C.I. Shed	Roof and Hoppers—height and width
Port Adelaide—A.C.I. Shed	Open Building Roof—height
Port Adelaide—A.C.I. North Super Shed	Conveyor—height
Port Adelaide—A.C.I. North Super Shed Passing Track	Pipe—height and Shed—width
Port Adelaide—A.C.I. Acid Loading Shed Passing Track	Pipe for E.T.S.A. Cable—width
Port Adelaide—A.C.I. Acid Loading Shed Passing Track	Down Pipe—width
Port Adelaide—A.C.I. East Super Shed	Shed Roof, Down Pipe and Conveyor—height
Port Adelaide—A.C.I. Sheds on Spur Line	Shed Roof—height and Shed Walls—width
Port Adelaide—Bulk Grain Handling—Both Passing Lines	End Columns and Down Pipe—width
Port Adelaide—Shed No. 2	Electric Light—height
Port Adelaide—Shed No. 3	Down Pipe and Notice Board—height

5. **Birkenhead, Elder Road and Osborne Area**—

Locality	Infringement
Birkenhead—Darling's Wharf	Fence—width
Birkenhead—A.C.I. Shed—Wooltana	Shed Roof—height
Birkenhead Wharf—Wallaroo Fertilizers	Shed Roof—height
Birkenhead Wharf—Wallaroo Fertilizers	Shed Valance—height
Birkenhead Wharf—Wallaroo Fertilizers	Shed Doors—height
Elder Road—Wallaroo Fertilizers	All Sheds—height
Elder Road—Wallaroo Fertilizers	Shed Conveyor—height
Elder Road—Adelaide Cement	Shed—height
Elder Road—Shell Company	Staging and Pipes—width
Elder Road—Shell Company	Tank Filling Structure—height and width

5. Birkenhead, Elder Road and Osborne Area—continued

Locality	Infringement
Elder Road—Shell Company	Shed (near gates)—width
Elder Road—Shell Company	Gates—width
Elder Road—Bitumen Company	Pipes over entrance—height
Elder Road—Bitumen Company	Pipe Supports—width
Elder Road—Caltex Company	Pipes at entrance—height
Elder Road—Caltex Company	Shed Verandah—height
Elder Road—Caltex Company	Tank Filling Structure—width
Elder Road—Golden Fleece	Pipe Supports and Platform—width
Elder Road—Ampol	Pipes—height
Elder Road—B.P.	Pipes Support and Platform—width
Elder Road—B.P.	Cyclone Screens for Capstans—width
Elder Road—B.P.	Electric Switch Box—width
Elder Road—Sulphuric Acid	Filling Supports and Platform—height and width
Elder Road—I.C.I.	Super Loading Structure—width
Elder Road—I.C.I. Track adjacent to Boiler House	Overhead Pipes—height
Elder Road—I.C.I. No. 1 Building . .	Doorway—width
Osborne—S.A. Gas Company	Hoppers—height
Osborne—S.A. Gas Company—Spur Line	Loading Structure—height and width
Osborne—Power Station	Overhead Crane Platform—height and width
Osborne—Power Station	Gates near Wharf—width
Osborne—S.A.R. Spur Line	Gates—width

6. Dry Creek and Pooraka—

No Infringements

7. Mile End and Peterborough—

Locality	Infringement
Old Tramway Bridge—Port Road—"Up" and "Down" freights	Girders—height
Port Road Bridge—"Up" and "Down" freights	Girders—height
Torrens Bridge—"Down" track	Girders—height and width
Torrens Bridge—"Up" track	Girders—height
North Adelaide—"Down" track	Station Building Verandah Roof—height and width
North Adelaide Yard—Fuel Siding . .	Verandah—height
North Adelaide Yard—Flour Siding . .	Verandah—height
Ovingham—Old tramway Bridge—"Up" track	Girders—height
Islington—T.N.T. Sidings	Shed (on dead end) width
Islington—T.N.T. Sidings	Transfer Shed—height and width
Port Wakefield Road Bridge—All tracks	Girders—height
Salisbury—Dead End	Heidenreich's Flour Shed—height
Elizabeth South—"Up" track	Telephone Wires—height
Smithfield Goods Siding	Goods Shed—height and width
Gawler—Signal No. 12	Corner Brace—height, mast width

7. **Mile End and Peterborough**—*continued*

Locality	Infringement
Gawler—Goods Siding	Goods Shed—height and width
Gawler—Track outside Goods Shed	Goods Shed Wall—width
Gawler—Island Platform both tracks	Platform Building—height and width
Gawler—Overway Bridge	Girders—height
Roseworthy—Goods Siding	Station Building—Width
Roseworthy—Signal No. 16 Passing Siding	Corner Brace—height
Roseworthy—Goods Siding Dead End	Goods Shed—height
Roseworthy—Stock Siding	Telephone Wires—height
Wasleys—Signal No. 18 Main Line	Corner Brace—height
Hamley Bridge—Main Line	Station Building Roof—height and width
Hamley Bridge—Passing Siding	Station Building Roof—height and width
Hamley Bridge—No. 1 Goods Siding	Station Building Roof—height and width
Hamley Bridge—Dead End	Loading Platform—width
Stockport—Goods Siding	Goods Shed—width
Tarlee—Goods Siding	Goods Shed—height and width
Riverton—Goods Siding	Goods Shed—height
Riverton—Dead End	Flour Mill—width
Manoora—Goods Siding	Goods Shed—height and width
Merildin—Goods Siding	Goods Shed—height
Merildin—Passing Siding	Goods Shed Wall—width
Farrell Flat—Goods Siding	Goods Shed—height
Farrell Flat—Goods Siding	Silo Corner Brace—height
Farrell Flat—Goods Siding	Sheep Ramp—width
Burra—Goods Siding	Goods Shed Down Pipe—height
Burra—Turntable Track	Coal Stage—width
Hallett—Goods Siding	Goods Shed Down Pipe—height
Terowie—Goods Siding	Goods Shed Down Pipe—height
Peterborough—Transfer Siding	Platform Canopy—height and width

8. **Salisbury and Port Pirie, Bumbunga and Lochiel—**

Locality	Infringement
Virginia—Goods Siding	Loading Shed—height
Mallala—Goods Siding	Goods Shed—height
Snowtown—Goods Siding	Goods Shed—height
Snowtown—Goods Siding	Wheat Shed—height and width
Redhill—Goods Siding	Goods Shed—height
Port Pirie—Transfer Yard	Platform Canopy—height and width
Port Pirie—Wharf Track to Silo	Silo Loading Girders—height
Lochiel	Building—width

9. **Gawler and Angaston, Nuriootpa and Truro and Penrice—**

Locality	Infringement
Gawler—Overway Bridge	Girders—height
North Gawler—Overway Bridge	Arch Concrete—height
23.845 km—Bridge	Girders—height
Lyndoch—Goods Siding	Goods Shed—height

9. **Gawler and Angaston, Nuriootpa and Truro and Penrice**—continued

Locality	Infringement
Lyndoch—Passing Siding	Telephone Wires—height
60.517 km—Bridge	Girders—height
Rowland Flat—Dead End	Loading Platform—width
Tanunda—Pedestrian Bridge	Girders—height
Tanunda—Passing Siding	Girders—height
Nuriootpa—Goods Siding	Goods Shed—height
Angaston—Goods Siding	Loading Ramp—width
Angaston—Goods Siding	Goods Shed—height
Angaston—Stock Siding	Cattle Ramp—width
Stockwell—Goods Siding	Loading Shelter—height and width
Truro—Dead End	Loading Ramp—width
Penrice Quarries—Both Tracks	Loading Gantry—height
Penrice Quarries	Loading Ramp—height and width

10. **Roseworthy and Robertstown**—

Locality	Infringement
Freeling—Goods Siding	Goods Shed—height and width
Freeling—Stock Siding	Cattle Ramp—width
Freeling—Goods Siding	Wires to Goods Shed—height
Fords—Goods Siding	Goods Shed—width
Kapunda—Goods Siding	Goods Shed—height and width
Kapunda—Goods Siding Outside Shed	Goods Shed Wall—width
Kapunda—Stock Siding	Cattle Ramp—width
Eudunda—Dead End	Loading Ramp—width
Eudunda—Dead End	Cattle Ramp—width
Eudunda—Dead End	Laudke Flour Shed—width
Robertstown—Goods Siding	Goods Shed—height
Robertstown—Goods Siding	Wood Loading Plant—width

11. **Riverton and Spalding**—

Locality	Infringement
Auburn—Goods Siding	Goods Shed—height
Clare—Goods Siding	Goods Shed—height and width
Spalding—Goods Siding	Goods Shed—width

12. **Hamley Bridge and Moonta**—

Locality	Infringement
Owen—Goods Siding	Telephone Wires—height
Balaklava—Goods Siding	Goods Shed—height and width
Balaklava—Goods Siding	Electric Light Pole adjacent to Goods Shed—width
Balaklava—Turntable	Turntable Structure—height
Melton—Goods Siding	Station Building—width
Paskeville—Goods Siding	Cattle Ramp—width
Kadina—All Tracks	Pedestrian Bridge—height
Kadina—Goods Siding	Goods Shed—height and width
Kadina—Dead End	Pig Ramp—width
Wallaroo—Goods Siding	Goods Shed—height and width

12. **Hamley Bridge and Moonta**—continued

Locality	Infringement
Wallaroo—Dead End	Cattle Ramp—width
Wallaroo—Cresco Fertilizers Siding	Sulphuric Acid Filler—width
Wallaroo—Mt. Lyell Sidings	All Sheds—height and width
Wallaroo—Silo Tracks	Silo Structures—height and width
Wallaroo—Barley Sidings	Shed—height and width
Wallaroo—Overway Road Bridge	Girders—height, trestle legs—width
Wallaroo—Loco. Yard	Turntable Structure—height and width
Moonta—Goods Siding	Goods Shed—height and width

13. **Balaklava and Gladstone**—

Locality	Infringement
Hoyleton—Goods Siding	Goods Shed—height and width
Blyth—Goods Siding	Goods Shed—height and width
Blyth—Goods Siding	Silo Column—width
Brinkworth—Turntable Track	Turntable Structure—height
Brinkworth—Turntable Track	Coal Stage—width
Brinkworth—Dead End	Telephone Wires—height
Brinkworth—Dead End	Cattle Ramp—width
Yacka—Dead End	Cattle Ramp—width
Gladstone—Goods Siding	Goods Shed—height

14. **Kadina and Brinkworth**—

Locality	Infringement
Bute—Stock Siding	Cattle Ramp—width

15. **Adelaide and Keswick**—

Locality	Infringement
Adelaide Yard—North Car Shed All Tracks	Roof Beams—height
Adelaide Yard—North Car Shed Track No. 7	Downpipes—width
Adelaide Yard—North Car Shed Tracks Nos. 1, 2, 3 and 4	Roof Bracing—height and width
Adelaide Yard—Rail Car Depot	Loading Ramp (western track)—width
Adelaide Yard—Rail Car Depot All Sheds	Roof Bracing—height and width
Adelaide Yard—Rail Car Depot All Sheds	Water Service on Columns—width
Adelaide Yard—Rail Car Depot Tracks Nos. 4 and 6	Public Address Speakers—width
Port Road Bridge—All Tracks	Girders—height
Old Tramway Bridge—Port Road All Tracks	Girders—height
Bakewell Bridge—Mains and Suburban Tracks	Girders—height
Hilton Bridge—No. 1 Opening	Girders—height and abutments—width

16. **Mile End and Murray Bridge—**

Locality	Infringement
12.072 km Tunnel—Both Tracks . .	Tunnel Structure—height
14.896 km Tunnel—"Down" Track . .	Tunnel Structure—height
Blackwood—"Up" Track—Island Platform	Shelter Shed Roof—height and width
Blackwood—Passing Siding—Island Platform	Shelter Shed Roof—height and width
Blackwood—Pedestrian Bridge	Girders—height
Blackwood—Signal No. 3B—"Up" Line	Corner Bracket—height
Belair—Overway Bridge	Girders—height
24.629 km—Tunnel	Tunnel Structure—height
Long Gully—Signal No. 4A	Corner Bracket—height
27.039 km—Tunnel	Tunnel Structure—height
29.407 km—Tunnel	Tunnel Structure—height
Mt. Lofty—Signal No. 14—Passing Siding	Trunking—height
Mt. Lofty—Signal No. 2E	Corner Bracket—height
Mt. Lofty—Signal No. 15A and 15B—Passing Siding	Corner Bracket—height
Aldgate—Goods Siding	Goods Shed—height and width
Bridgewater—Main Line	Goods Shed Roof—height and width
Bridgewater—Signal No. 3 and 3D	Corner Bracket—height
39.850 km—Tunnel	Tunnel Structure—height
Balhannah—Goods Siding	Goods Shed—height and width
Nairne—Goods Siding	Goods Shed—height and width

17. **Goodwood and Tonsley and Port Stanvac—**

Locality	Infringement
Warradale—"Up" Track	Telephone Wires—height
17.786 km—Bridge	Girders—height
Marino—Goods Siding	Loading Ramp Wall—width

18. **Mount Barker Junction and Victor Harbour—**

Locality	Infringement
Mount Barker—Goods Siding	Goods Shed—height
Mount Barker—Dead End	Tank Stand—width
Strathalbyn—Goods Siding	Goods Shed—height and width
Strathalbyn—Siding Outside Shed . .	Shed Wall—width
Goolwa—Goods Siding	Goods Shed—height
Middleton—Passing Siding	Cattle Ramp—width
Victor Harbour—Goods Siding	Goods Shed—height and width
Victor Harbour—"Pipiriki" Siding . .	Power Poles—width
Victor Harbour—"Pipiriki" Siding . .	Hoarding—width
Victor Harbour—Turntable	Turntable Structure—height and width

19. **Monarto South and Cambrai—**

No Infringements

MURRAY BRIDGE DIVISION

20. Murray Bridge and Serviceton—

Locality	Infringement
Murray Bridge Wharf Area—S.A.F.U. Siding	E.T.S.A. Stobie Poles—width
Murray Bridge Wharf Area—S.A.F.U. Siding	Overhead Pipes—height
Murray Bridge Wharf Area—S.A.F.U. Egg Depot	Overhead Pipes—height
Murray Bridge Wharf Area—Noske's Building	Building—height and width
Murray Bridge Wharf Area—Weighbridge Siding	Office Building—width
Murray Bridge—Ballast Siding	Ballast Bin—height and width
Murray Bridge—M.I.C. Garage	M.I.C. Garage—height and width
Tailem Bend—No. 11 and No. 12 Tracks	Transfer Shed—height
Tailem Bend—Loco. Yard Turntable Tracks	Fuel Tanks—height and width
Tailem Bend—Dead End	Boiler House—width
Cookes Plains—Goods Siding	Loading Ramp—width
Yumali—Dead End	Retaining Wall—width
Tintinara—Goods Siding	Goods Shed Roof—height
Tintinara—Passing Siding	Goods Shed Downpipe—width
Keith—Goods Siding	Goods Shed Roof Brace—height
Bordertown—Goods Siding	Goods Shed Roof—height
Serviceton—Signals	Signals—height

21. Wolseley and Mount Gambier—

Locality	Infringement
Bangham—Stock Siding	Sheep Ramp—width
Frances—Goods Siding	Goods Shed—height
Frances—Goods Siding	Cattle Ramp—width
Frances—Goods Siding	Sheep Ramp—width
Kybybolite—Goods Siding	Goods Shed—height
Kybybolite—Goods Siding	Sheep Ramp—width
Hynam—Goods Siding	Goods Shed—height
Hynam—Goods Siding	Sheep Ramp—width
Naracoorte—Signal No. 22 Main Line	Corner Brace—height
Naracoorte—Main Line	Overhead Wires—height
Naracoorte—Loco. Yard	Overhead Pipes inside Shed—height
Naracoorte—Loco. Yard	Overhead Pipes outside Shed—height
Naracoorte—Turntable	Turntable Structure—height
Naracoorte—Loco. Yard	Coal Bin—height and width
Naracoorte—Dead End	Watersoftener Building—width
Glenroy—Stock Siding	Sheep Ramp—width
Penola—Goods Siding	Goods shed—height
Kalangadoo—Goods Siding	Goods Shed—width
Kalangadoo—Stock Siding	Sheep Ramp—width
Kalangadoo—Weighbridge Track	Weighbridge Office—width
Mt. Gambier Junction—Sidings	Electric Light Poles—width
Mt. Gambier Junction—Stock Siding	Sheep Ramp—width
Mt. Gambier—Loco. Yard	Overhead Pipe inside Shed—all tracks height
Mt. Gambier—Turntable	Turntable Structure—height and width
Mt. Gambier—Goods Siding	Goods Shed—height
Mt. Gambier—Main Line	Platform Roof—height and width

22. **Naracoorte and Kingston—**

Locality	Infringement
Naracoorte—Main Line	Overhead Wires—height
Stewarts—Passing Siding	Sheep Ramp—width
Lucindale—Goods Siding	Goods Shed—height
Kingston—Stock Siding	Sheep Ramp—width

23. **Mount Gambier and Millicent—**

Locality	Infringement
Marte—Goods Siding	Chemical Co. Building—width
Tantanoola—Stock Siding	Loading Ramp—width
Millicent—Goods Siding	Goods Shed—height
A.P.C.E.L.—Private Siding	Building (on Dead End)—width
A.P.C.E.L.—Private Siding	Acid Pipe—width
A.P.C.E.L.—Private Siding	Pipe Gantry—height
Cellulose—Private Siding	Fence—width
Cellulose—Private Siding	Buildings—height

24. **Tailem Bend and Pinnaroo—**

Locality	Infringement
Sherlock—Goods Siding	Sheep Ramp—width
Buccleuch—Goods Siding	Sheep Ramp—width
Geranium—Main Line	Telephone Wires—height
Geranium—Triangle Track	Sheep Ramp—width
Parrakie—Goods Siding	Cattle Ramp—width
Parrakie—Main Line	Telephone Wires—height
Wilkawatt—Goods Siding	Cattle Ramp—width
Lameroo—Triangle Track	Cattle Ramp—width
Parilla—Dead End	Cattle Ramp—width
Pinnaroo—Passing Siding	Platform Fence—width
Pinnaroo—Dead End	Cattle Ramp—width
Pinnaroo—Loco. Yard	Coal Stage—width

25. **Tailem Bend and Barmera—**

Locality	Infringement
Wynarka—Goods Siding	Goods Shed—width
Karoonda—Goods Siding	Goods Shed—width
Karoonda—Dead End	Coal Stage—width
Karoonda—Stock Siding	Sheep Ramp—width
Borrika—Goods Siding	Goods Shed—width
Borrika—Dead End	Cattle Ramp—width
Sandalwood—Dead End	Cattle Ramp—width
Halidon—Dead End	Cattle Ramp—width
Mindarie—Main Line	Telephone Wires—height
Mindarie—Dead End	Cattle Ramp—width
Wanbi—Dead End	Cattle Ramp—width
Alawoona—Main Line	Station Building Roof—width
Paruna—Goods Siding	Cattle Ramp—width
Meribah—Dead End	Cattle Ramp—width

25. **Tailem Bend and Barmera**—continued

Locality	Infringement
Paringa—Goods Siding	Silo Hopper—width
Renmark—Goods Siding	Goods Shed—height and width
345.855 km—Main Line	Telephone Wires—height
Riverland Siding	Conveyor between Sheds—height
Berri—Goods Siding	Goods Shed—width
Berri—Co-op Siding	Buildings and Verandahs—height and width
Berri—Co-op Siding	Overhead Pipes—height
Berri Co-op Siding	Overhead Wires—height
376.992 km—Siding	Building—width
Barmera—Dead End	Coal Stage—width

26. **Karoonda and Waikerie**—

Locality	Infringement
Perponda—Goods Siding	Cattle Ramp—width
Mercunda—Goods Siding	Cattle Ramp—width
Maggea—Dead End	Cattle Ramp—width
Waikerie—Goods Siding	Goods Shed—height
Waikerie Packing Shed Sidings	Electric Light Poles—width
Waikerie—S.A.F.U. Siding	Building—width
Waikerie—S.A.F.U. Siding	Electric Light Pole and Fence—width
Waikerie—Riverland Siding	Building—width

27. **Karoonda and Peebinga**—

No Infringements

28. **Alawoona and Loxton**—

Locality	Infringement
Pata—Stock Siding	Cattle Ramp—width
Loxton—Goods Siding	Goods Shed—height
Loxton—Layby Siding No. 1	Tree—height
Loxton—Noske's Siding	Mill Verandah—height and width
Loxton—Co-op Producers Siding	Entrance Gates—width

PETERBOROUGH DIVISION

29. **Peterborough and Broken Hill**—

Locality	Infringement
Peterborough—Transfer Yard	Transfer Platform Canopy—height and width
Ucolta—Goods Siding	Sheep Ramp—width
Mannahill—Stock Siding	Sheep Ramp—width
Olary—Goods Siding	Loading Ramp—width
Olary—Goods Siding	Sheep Ramp—width
Mingary—Goods Siding	Sheep Ramp—width

30. **Peterborough and Port Pirie—**

Locality	Infringement
Crystal Brook—Goods Siding	Sheep Ramp—width
Port Pirie—Transfer Yard	Transfer Platform—height
Port Pirie—North End of Yard	Fire Extinguisher Boxes—width
Port Pirie—East Side of Yard	Shed for Ready Mixed Concrete—width
Port Pirie—North End of Yard	B.H.P. Ore Weighbridge Structure—height and width
Port Pirie—Commonwealth Shed	Shed—height

31. **Peterborough and Quorn—**

Locality	Infringement
Black Rock—Goods Siding	Cattle Ramp—width
Black Rock—All Tracks	Telephone Wires—width
Orroroo—Goods Siding	Goods Shed—height and width
Orroroo—Passing Siding	Goods Shed Wall—width
Orroroo—Stock Siding	Electric Light Poles—height and width
Walloway—Goods Siding	Cattle Ramp—width
Eurelia—Goods Siding	Goods Shed—height and width
Eurelia—Goods Siding	Cattle Ramp—width
Eurelia—Main Line and Passing Siding	Water Columns—width
Carrieton—Dead End	Loading Ramp—width
Moockra—Passing Siding	Overhead Wires—height
Hammond—Passing Siding	Water Column—width
Hammond—Dead End	Cattle Ramp—Width
Hammond—Dead End	Loading Ramp—width
Quorn—Goods Siding	Goods Shed—height and width
Quorn—Loco. Yard Tracks	Overhead Oil Pipe—height
Quorn—Loco. Yard	Loco. Shed—height and width
Quorn—Dead End	Water Tank—width

32. **Gladstone and Wilmington—**

Locality	Infringement
Laura—Goods Siding	Goods Shed—height and width
Laura—No. 1 Track	Water Column—height and width
Laura—Goods Siding	Cattle Ramp—width
Laura—Dead End	Sheep Ramp—width
Wirrabara—Dead End	Cattle Ramp—width
Wirrabara—Dead End	Sheep Ramp—width
Yandiah—Dead End	Combined Sheep and Cattle Ramp—width
Booleroo Centre—Track to Triangle	Gate Posts—width
Booleroo Centre—Dead End	Pig Ramp—width
Booleroo Centre—Dead End	Loading Platform—width
Melrose—Goods Siding	Goods Shed—height and width
Melrose—Dead End	Sheep Ramp—width
Wilmington—Goods Siding	Goods Shed—height and width
Wilmington—Triangle	Cattle Ramp—width
Wilmington—Goods Siding	Overhead Wires—height
Wilmington—Loco. Spur Line	Overhead Wires—height

PORT LINCOLN DIVISION

33. **Port Lincoln and Thevenard—**

Locality	Infringement
Port Lincoln—London Street Bridge—All Tracks	Girders—height
Port Lincoln—Dublin Street Bridge—All Tracks	Girders—height
Port Lincoln—Wharf Area—Grain Silos	Structures over Track—height
Port Lincoln—Tracks to Machine Shop	Overhead Wires—height
Port Lincoln—Machine Shop Doorways	Overhead Pipes—height
Port Lincoln—Stores Hoist	Beam—height
Port Lincoln—Paint Shop	Doorways—height and width
Port Lincoln—Carpenter's Shop	Doorways—height and width
Wanilla—Goods Siding	Sheep Ramp—width
Cummins—Goods Siding	Goods Shed—height
Cummins—Goods Siding	Silo Platform—width
Cummins—Coaling Track	Coal Stage—width
Cummins—Coaling Track	Coal Gantry—height and width
Tooligie—Main Line	Tank Spout—height and width
Tooligie—Goods Siding	Sheep Ramp—Width
Lock—Goods Siding	Goods Shed Roof—height and width
Lock—Goods Siding	Sheep Ramp—width
Wudinna—Goods Siding	Goods Shed—height and width
Minnipa—Goods Siding	Silo Platform—width
Minnipa—Triangle	Cattle Ramp—width
Minnipa—Loco. Yard	Loco. Shed Stand Pipe—width
Minnipa—Loco. Yard	Light Pole at Coal Gantry—width
Wirrulla—Goods Siding	Sheep Ramp—width
Ceduna—Goods Siding	Cattle Ramp—width
Thevenard—Goods Siding	Goods Shed Wall—width
Thevenard—Goods Siding	Overhead Wires—height
Thevenard—Loco. Yard	Loco. Shed—height and width
Thevenard—	Wheat Board Shed—width
Thevenard—Wharf	Conveyor Structures—height and width
Thevenard—	Gypsum Unloading Shed—height

34. **Cummins and Buckleboo—**

Locality	Infringement
Cockaleechie—Goods Siding	Sheep Ramp—width
Rudall—Goods Siding	Sheep Ramp—width
Kielpa—Goods Siding	Cattle Ramp—width
Darke Peak—Goods Siding	Sheep Ramp—width
Darke Peak—Triangle	Ballast Ramp—height and width
Kimba—Main Line	Water Tank—height and width
Kimba—Goods Siding	Sheep Ramp—width
Kimba—Goods Siding	Cattle Ramp—width

35. **Penong Junction and Penong—**

Locality	Infringement
Kevin—C.S.R. Dead End	Loading Ramp—width
Kevin—Waratah—Dead End	Ballast Bin—height
Kevin—Waratah—Dead End	Loading Ramp—height and width
Penong—Dead End	Cattle Ramp—width

36. **Yeelanna and Kapinnie—**

No Infringements

TICKETS

Ticket Nippers—Half-Yearly Returns—Returns of all ticket nippers held on 30th June and 31st December each year must be supplied to the Superintendent in time to reach the Supervisor, Laundry and Equipment, not later than 10th July and 10th January respectively. Such returns must set out:—

Number, type and divisional brand (if any)

To whom issued

Station.

Examination and Collection of Tickets and Passes—All concerned must make themselves fully acquainted with the information and instructions regarding the issue and handling of tickets contained in the Coaching Book, Addenda to the Coaching Book, Metropolitan Passenger Fare Tables Book, and Working Time Tables Book.

It is the responsibility of all officers and employees whose duties involve the examination, checking and collection of tickets to see that every passenger (with the exception of children under four years of age entitled to travel free) holds a ticket or pass available at the time for the journey and for the class of travel being undertaken.

As a very large proportion of revenue is obtained from the sale of tickets, it is most important that the Staff should exercise the utmost vigilance in seeing that passengers have proper tickets for their journeys, that the tickets are properly nipped and checked and duly collected, and are *not* out of date. This duty, if energetically carried out will, without doubt, be the means of deterring many from defrauding the revenue. Special attention must be given in the case of children travelling "Free" and "Half fare".

Passes showing alteration must not be accepted unless the correction is initialled by an officer authorized to sign passes.

Guards and Collectors must not accept tickets of any description on which there has been an erasure or alteration. Such tickets must be impounded and name and address of the holder obtained.

Tickets must not be issued to passengers for travel to a destination other than asked for, notwithstanding that in some instances the fares to more than one station in the same direction may be the same.

No passenger ticket after issue is to be cut, dated, or in any way defaced.

Concession Tickets for Officers and Employees—Monthly, Quarterly, Half-Yearly, and Yearly Tickets at half the fare charged the public will be issued on production of certificate of the Head of Branch to those officers and employees who travel to and from their work. First Class Tickets will be issued only to those members of the Staff entitled to First Class Passes. Railway Employees'

children attending school may obtain Season Tickets at half the scholar's rate, rounded to next five cents in advance. These tickets must be debited on Classification at Scholar's Rate, and credit for the difference claimed on Form 119. Scholar's certificate must be endorsed by parent quoting Service No., position, and Branch.

Bicycle Tickets and Passes—Season bicycle tickets for the carriage of bicycles, accompanied by owner, will be issued to Railway Employees only, who hold a periodical rail ticket or pass without restriction as to hours of duty or distance traversed, at the prescribed fee.

Application must be made on Form No. 759—Application for Employee's Season Ticket—and the word "bicycle" shown in the column under heading "Class", and debit raised through Season Ticket Classification Sheet.

A free bicycle pass is issued to an employee who holds a periodical ticket or a pass between the station nearest his place of residence and the station at which he is employed and whose hours of duty commence before the first train in the morning or finish after the departure of the last train at night.

Each pass bears the name and grade of the holder, the number of his periodical ticket or pass, the name of the issuing station, and the initials of the issuing officer.

Each journey must be specially authorized at either the residential or the duty station, where the responsible officer shall initial the pass opposite the date of journey, and punch out the date with his ticket nippers. In the absence of any of these particulars or the nip, the pass shall not be honoured.

EXCESS FARES AND BOOK TICKETS

EXCESS FARE AND BOOK TICKET BOOKS

(1) **Handling of at Adelaide by Adelaide Transportation Staff**—Each employee whose duty requires him to be issued with Book Tickets and Excess Fare Ticket Books will be issued with such books for his next day's work prior to booking off duty, and the Book Ticket and Excess Fare Ticket Books, also fares collected must be dealt with as set out hereunder:—

(*a*) Each employee to whom Book Ticket or Excess Fare Ticket Books have been issued must present same to the Excess Fare Clerk, Adelaide Ticket Office, prior to going off duty *daily*, for payment of any fares collected or for inspection. The Excess Fare Clerk must, in each instance, initial and date the back of the retained copy of the last ticket issued as certification of the check made, and report all instances of Book Ticket and Excess Fare Ticket Books not so produced.

(*b*) The Excess Fare Clerk, after checking the returned books and cash and making the necessary records, will issue the employee concerned with books for his next day's duties. As far as possible the same books will continue to be re-issued to the same employee until such books have been completed.

When the books handed in by an employee for the purpose of paying in cash, for inspection, or for other purpose, are not immediately returned to such employee, a receipt for the books must be given by the Excess Fare Ticket Clerk, and this must be retained by the employee for future reference.

Employees not issued with books, and rostered for train duty the next day, must obtain Book Ticket and Excess Fare Ticket Books prior to booking off duty.

Employees going on leave or booked off duty for more than two (2) days or who are not rostered for Ticket Collecting Duties on their next shift, must, prior to finishing duty, hand in their Excess Fare and Book Ticket Books to the Excess Fare Ticket Clerk, informing him that a re-issue will not be necessary.

(*c*) Each employee in possession of Book Ticket and Excess Fare Ticket Books must present them at the Excess Fare Office immediately on return to Adelaide on any train arriving after 10.00 p.m. and before midnight for the purpose of paying in all moneys collected prior to departure on their last trip out from Adelaide, or for inspection if no cash has been collected during the shift.

(*d*) The train Staff arriving in Adelaide after midnight must enclose their cash and books in a value envelope and after sealing it, deposit the envelope in the special safe in the Station Master's Office. The envelope must be endorsed with the name of the employees depositing, amount of cash, and the date.

Such employees if rostered for train duty the following day, will not then be in possession of Book Ticket or Excess Fare Ticket Books, but must obtain them from the Excess Fare Office prior to commencing duty. If, however, he has no excess fares to deposit in the special safe, the books must be retained for the next day's duty.

(*e*) In case of emergency, when the Excess Fare Office is closed, the Station Master, Adelaide, holds four each of Book Tickets and Excess Fare Ticket Books, and the employees to whom these books are issued must deal with them in the same manner as if obtained from the Excess Fare Office.

(2) **Handling at Stations Within the Metropolitan Area, Adelaide Excepted**—Excess Fare and Book Ticket Books issued at stations within the metropolitan area, other than Adelaide, as far as possible must be handed in at the issuing station before the holder goes off duty.

(3) **Handling at Stations Outside the Metropolitan Area**—

(*a*) Each Excess Fare Ticket Book issued to an employee must be recorded in the register kept for the purpose (Form No. 348). The opening number for issue must be shown in the column "Excess Fare Book". The employee to whom the book is issued must sign the register for it in the column provided.

(*b*) Each employee to whom an Excess Fare Ticket Book is issued must, on return to his depot station, deliver to the officer authorized to receive excess fares, his Excess Fare Ticket Book and pay in all moneys collected and not paid in elsewhere. Except at Tailem Bend, Peterborough Marshalling Yard, and Port Pirie, if no officer is on duty, the Excess Fare Book and cash must be deposited in the safety box provided.

The officer receiving the book must, after giving a receipt for money paid in, on the back of the retained copy of the last ticket issued, give a receipt for the Excess Fare Ticket Book (in the presence of the employee handing same in) alongside the entry in the Excess Fare Ticket Register, showing date of return, together with the closing number of the issue.

Excess Fare Ticket Books received by the Station Master from the safety lock-up box must be referenced off in the Register (Form 348) and necessary action taken with employees who have returned to their depot stations but have failed to hand in their Excess Fare Ticket Books.

(*c*) The officer issuing Excess Fare Ticket Books must examine the register daily, and, if an Excess Fare Ticket Book has not been received immediately on the return of the employee to his depot station, he must bring the matter under the notice of his superior officer.

(*d*) At Tailem Bend, Peterborough Marshalling Yard, and Port Pirie, if an officer is not on duty, the Excess Fare Book and cash (if any) must be handed to the employee deputed to accept the Excess Fare Book and cash, who will give the Guard a receipt and then deposit the Excess Fare Book and cash in the safety box provided.

EXCESS FARES

Whenever it is necessary to collect any excess fare, a ticket prepared and signed by the person collecting must be issued from an Excess Fare Book to the payor, using double faced carbon. Counter parts must not, under any circumstances, be torn out of the Book. Indelible pencil must not be used to prepare Excess Fare Tickets.

When excess is collected on any ticket, such tickets must be marked "XC" and the number of the excess fare ticket entered on the back. When no excess is collected the ticket must be marked "NXC".

Commencing "M" series excess fare tickets, duplicate (blue) to be issued and original (white) to remain in book. Use double faced carbon.

Any person 15 years of age and over found travelling on a child's ticket must be charged the difference between the half and full ticket. This does not apply in instances where a child reaches the age of 15 years subsequent to the date shown on the ticket.

Excess fares are subject to the minimum charges current from time to time, and half rates for children.

When an employee is issued with Book Ticket or Excess Fare Ticket Books, he must as soon as possible, examine the blank pages of the books and satisfy himself that each book is complete.

The foregoing will also apply where the same Book Ticket and Excess Fare Ticket Books have been re-issued to the employee. Should any of the pages be missing, he must immediately report the matter.

Cash collected on account of Excess Fare and Book Tickets issued must be paid in as frequently as possible, and at convenient points, but on no account must a Guard or Collector go off duty without paying in either the whole or the balance, as the case may be, of the cash collected during his period of duty. In cases where a Guard or Collector books off duty at a station which is temporarily unattended, the cash must be deposited in the special lock-up box where provided for that purpose. The Superintendent must arrange for such lock-up box to be provided by the Comptroller at stations where conditions so require.

For all cash paid in on account of Excess, the Receiving Officer must endorse in each book, on the back of the retained copy of the last ticket issued, the amount received, the name of the station at which paid in, the date of such payment, together with his signature.

Excess Fare and Book Ticket Books must not be exchanged between different Collectors, but each must retain his own books until handed in, in accordance with these instructions.

Excess Fare and Book Tickets defaced or prepared in error, on which money has not been collected, must be sent with the book to the Revenue Accountant immediately for cancellation, together with a full explanation.

Book Ticket Books are supplied to suburban stations at which Guards and Collectors are located for issuing tickets to passengers joining trains at stopping-places where ordinary tickets are not issued. These tickets must be nipped at the top before being issued to passengers. The tickets are in book form without any heel. The forms are numbered in duplicate, and when being filled in a double-faced carbon sheet must be placed between the duplicate numbers, the duplicate form being issued to the passenger, and the bottom form retained in the book.

The original must not be torn from the book, nor must any form be issued with an alteration or erasure on it.

Book Tickets must be issued between stations within the metropolitan area only, and must not be issued between stations outside the metropolitan area, or between two stations, one of which is outside the metropolitan area. They must be issued in the same way as ordinary tickets by Guards and Collectors to passengers who join trains at stations where tickets are not sold, instead of passengers being required to purchase another ticket at the nearest booking station. Thus, for a passenger joining a train at any metropolitan station for travel to any other metropolitan station, a duplicate copy of Book Ticket for the whole of the journey must be issued.

Book tickets must not be issued to passengers holding privilege or departmental orders.

Passengers joining trains at stopping-places where tickets are not sold must be charged single, return, excursion, or special fare, as the case may be, as follows:—

(i) From a stopping-place within the metropolitan area to any other station in the metropolitan area.

(ii) Between any two country stations, or a country and a metropolitan station, on the direct line served by the same train without the necessity of changing trains, or to Adelaide (or to Port Lincoln in the case of Eyre Peninsula stations), as set out in the tables of fare supplied.

(iii) Where necessary to change trains at junction or transfer stations, and a fare to destination is not quoted in the table of fares, the passenger must be booked to such junction or transfer station and advised to re-book to destination from that station.

When special Excursion Fares (interstate excepted) apply, and such fares have been published, either in the Coaching Book, by the issue of a placard, or by an instruction, the special fare must be collected, and an Excess Fare Ticket issued through to destination, such ticket being endorsed "Special Excursion".

Passengers holding departmental orders for tickets, and joining trains where tickets are not issued, must be handed an Excess Fare Ticket to destination station in exchange for the order. No money is to be collected, and no amount entered on the ticket. The number of the Excess Fare Ticket must be entered on the back of the order, and the "Why Excessed" column on the Excessed Fare Ticket must show number of the order and department debitable, in addition to description and class of ticket. The order must be handed in by the Guard or Collector at the paying-in station, where debit must be raised for the full journey and the order held for attaching to the monthly account. The fare for the journey from the station where the passenger joined the train to destination station must be debited in the Excess Fare Return.

Naval and Military Warrants—When a Naval or Military Warrant is presented at an unattended station, the Guard or Collector must collect the warrant and issue ONE Excess Fare Ticket to the destination station for all the personnel travelling.

The Excess Fare Ticket must have the number of warrant endorsed thereon, and the number of the Excess Ticket must also be endorsed on the warrant.

Cash is not to be collected for the Excess Fare Ticket. The warrant must be handed in by the Guard or Collector at his paying-in station.

The "Why Excessed" column of the Excess Fare Ticket must show "Naval", "Military", or "R.A.A.F.", in addition to the number of personnel travelling and the class of ticket.

Concession Tickets from Stations at which Tickets are Not Issued—On presentation of the prescribed order correctly filled in, the Guard or Collector must collect the fare at the reduced rate from non-booking station to destination station, if the ordinary fare to such station is shown in the Fares Tables Book held, and the order handed in by the Guard or Collector at his paying-in station.

If ordinary fare to destination station is not shown, the Guard or Collector must collect the fare at the reduced rate from non-booking station to the next junction or refreshment room station where the order must be exchanged for a ticket.

In each instance the "Why Excessed" column must show the nature of the ticket (*e.g.*, as school, conference, etc.) and the number of the Excess Fare Ticket must be endorsed on the back of the order.

Passengers Holding Privilege Ticket Orders Joining Trains where Tickets are Not Issued—The full privilege charge shown on the order must be collected and the amount entered on the Excess Fare Ticket, which must be made out to the destination station, the "Why Excessed" column to show "Privilege" with the employee's name. The number of the Excess Fare Ticket must be written on the face of the Privilege Order, which must be handed in by the Collector at the station where the Excess is paid in.

Privilege Tickets—Change of Class—A passenger holding an economy class Privilege Ticket must not be allowed to travel in a first class car by paying the difference in the two fares. He must be excessed the amount of the full first class fare except that holders of economy class privilege tickets travelling intrastate may excess to first class only in order to obtain sleeping accommodation. The normal restrictions that are relevant in the reservations of sleeping berths and passes will apply to holders of privilege tickets.

Passes—Change of Class—The holder of an economy class pass is permitted to travel first class on payment of the difference in fares as follows:—

(*a*) South Australian employees travelling on the South Australian system—

Holder of a single journey pass	The difference between the first and economy class single fares for the journey to be made in the higher class
Holder of a return journey pass (including station to station)—	
(i) Change of class in one direction	Half the difference between the first and economy class ordinary return fares for the journey to be made in the higher class.
(ii) Change of class for both the forward and return journeys	The difference between the first and economy class return fares for the return journey to be made in the higher class.

(*b*) Employees of any System making an inter-system journey: South Australian employees making a local journey on another System: Employees of other systems making a local journey on the South Australian System.

Holder of a single journey pass	The difference between the first and economy class single fares for the journey to be made in the higher class.
Holder of a return journey pass—	
(i) Change of class in one direction	(*a*) For travel over two or more Systems—half the difference between the first and economy class return fares for the journey to be made in the higher class.
	(*b*) For travel over one System—the difference between the first and economy class single fares for the journey to be made in the higher class.
(ii) Change of class for both the forward and return journeys	The difference between the first and economy class return fares for the travel to be made in the higher class.

The pass holder must present the pass at the Station from which the journey will be commenced, pay the difference in fares, and obtain excess fare receipt. After excessing, a sleeping berth may, if available, be booked at the regulation charge.

Excess Luggage—Excess luggage belonging to passengers joining trains at unattended stations must, where time permits, be waybilled to the next attended station. If time does not permit, or if the luggage be for another unattended station the Guard must charge through "Excess Fares", giving receipt upon a form taken from his Excess Fare Receipt Book, and pay in the cash accordingly. The same course must be followed in the case of passengers found *en route* to have excess luggage. When excess luggage is dealt with through "Excess Fares" it must not be waybilled.

Lost Tickets—In all cases where ownership cannot be definitely established lost tickets, both *season* and *ordinary*, picked up by officers or employees in the course of their duty, or tickets which have been found and handed in at stations by members of the public, must be forwarded to the General Traffic Manager for handling with owners direct.

In cases where ownership is proved and ticket is handed over by station staff to the claimant, a suitable receipt, which should include details of such ticket and address of claimant, must be obtained and held at station for record purposes.

When ownership cannot be proved and the applicant purchases a ticket or tickets to replace a missing ticket, a receipt must be issued for amount paid for such ticket or tickets with a view to facilitating any subsequent application for refund.

Privilege Tickets (First Class) from Stations which do not Stock First Class Tickets—When privilege order forms for first class tickets are presented at stations not holding first class tickets, and the travel covers portion of the journey where first class travel is available an excess fare ticket must be issued (first class) for the whole of the journey. Under no circumstances must an economy class ticket be issued and then excessed to first class.

Excess Fare Tickets—No Charge, Employees Entitled to Issue to Rectify Errors—"No Charge" excess fare tickets may be issued when rectifying errors, etc., only by the following:—

(i) At the office of the General Traffic Manager above the stamp "For General Traffic Manager".

(ii) At the office of the Station Master, Adelaide, above the stamp "For Station Master, Adelaide".

(iii) By the Senior Ticket Examiner or a member of his Ticket Examining Staff.

The words "No Charge" must be inserted in the space provided for "Amount".

These excess fare tickets are subject to audit, and must be honoured when issued as "No Charge".

The words "No Charge" must not be shown on excess fare tickets except by those authorized in paragraphs (i), (ii) and (iii) above.

All other Employees, whether at a station or on a train impounding a ticket on account of same being incorrectly issued, must issue an excess fare ticket for the remainder of the journey, without charge to the passenger, the words "Without Charge" being entered in the space provided for amounts. Debit for its value must be raised by the Accounting Station and credit claimed against "Re-booking" in accordance with instructions in Accounts Instruction Book and the Addenda to the Coaching Book.

When either "No Charge" or "Without Charge" excess fare tickets are issued in connection with the combination rail and road, or rail and boat tickets, only the rail portion or portions of the ticket must be collected, that for the road or boat service being returned to the holder.

When a "No Charge" or "Without Charge" excess fare ticket is being issued to replace a ticket impounded on account of same being defaced or incorrectly issued, in accordance with the above instructions, the employee impounding the ticket must only issue such "No Charge" or "Without Charge" excess fare ticket to the station to which the original ticket was issued, unless the original issuing station confirms that the ticket was wrongly issued to a station short of that applied for, and that such station will be responsible for the difference in fare to cover the journey to the correct station. Such ticket must only be issued for the remainder of the journey.

The station originally issuing the ticket, if an excess fare ticket has not already been issued for the amount collected in excess of the fare for the ticket actually issued, will subsequently be debited with the difference in fare.

When a confirmation cannot be obtained that the ticket was incorrectly issued, the passengers must be issued with a ticket for the extended journey, and the fare collected, full particulars being taken of the ticket held, the amount paid and the name and address of the holder, who must be informed that the matter will be reported to enable inquiries to be made and the holder subsequently communicated with by letter.

PASSENGER TRAFFIC

Booking of Sleeping Berths—In order to regulate the booking of sleeping berths the following directions must be observed by the Booking Staff:—

1. Office diagrams must be written up in detail as set forth in the headed columns. All entries must be made in ink, including cancellations.

2. Local telephone applications for sleeping berths may be accepted under the following conditions:—

(*a*) 24 hours grace will be allowed for applications made one week before departure.

(*b*) 3 working days grace (Saturdays and Sundays excluded) will be allowed for applications made in excess of one week and up to one month before departure.

(*c*) One weeks grace will be allowed for applications made in excess of two months before departure.

(*d*) Deposit Reservation Orders—Instructions regarding the handling of applications from passengers who apply for reservations but do not desire to pay the full fare at the time of booking are listed in the Coaching Book.

3. Letters, telegrams, and long-distance telephone messages must be filed by Diagram Clerk for each line and correctly docketed for future reference. The date and time of receipt must be noted on the letters and telegrams.

4. Letters ordering berths must be scrutinized by the Officer in Charge, allotment made, and a prompt reply sent giving particulars and requesting remittance of sleeper fare by a given date (affording reasonable margin for transmission, etc.).

5. The granting of time to personal applicants for berths must not exceed 2 hours. Reservations cannot be made unless the fee is paid within this period.

6. Applications by telegram to the Adelaide or other terminal booking office, which cannot be met at the time must be noted in the "Waiting List". Should allotment be subsequently made, proper particulars of reservation must be wired to ordering stations.

7. When existing accommodation is fully booked, subsequent applications must be recorded showing:—name, address, telephone number if available, together with date of application. Allotment of berths from the waiting list must be made strictly in order of application. Passengers must be advised immediately by telephone or letter when accommodation is available and they must be informed of the conditions relating to telephone applications *vide* clause 2 above.

8. The Senior Ticket Clerk at the Adelaide Office and Station Masters at other terminal booking stations must closely supervise the booking of berths and see that applications by letter are promptly replied to, *vide* clause 4; also that a complete record of all orders is preserved for handy reference.

9. When a message is sent regarding sleeping berth accommodation the words Mr., Mrs., or Miss must not be used, the words Lady or Gent, Boy or Girl, as the case may be, to be used in lieu thereof.

10. If joining at other than the commencing station, the station where joining must be endorsed on the diagram.

Instructions to Sleeping Car Conductors and Train Porters—Specific instructions to Sleeping Car Conductors and Train Porters are embraced in a booklet under the above title, and all employees performing the duty of a Sleeping Car Conductor and/or Train Porter must make themselves conversant with the contents of this book.

Footwarmers—Footwarmers are sealed metal receptacles charged with acetate of soda. When required to be heated, they must be completely immersed in boiling water for at least 75 minutes, when they may be removed, then placed inside the canvas covers and secured with straps and buckle. Should a footwarmer at any time be found to be leaking, it must be forwarded to the Islington Works for repairs, and the matter reported to the Superintendent. Should a footwarmer emit bubbles when immersed in the heating boiler, it is leaking. Covers must not be placed over footwarmers whilst still in a wet condition. Footwarmers must be handled carefully to avoid damage to cars and footwarmers, and must NOT be shaken.

Footwarmers must be handled with care, and when equipping compartments, they must, where possible, be placed under the seats with the ends slightly projecting, in order to be readily observed, but not far enough to trip passengers entering such compartments.

The canvas covers for footwarmers are equipped with two lugs, and when a footwarmer is lifted for any purpose the lugs must be used and not the straps.

Generally footwarmers will be placed in certain trains from 1st May to 14th September each year. The trains to be equipped with footwarmers and the number to be placed in each compartment will be indicated by general notice bringing them into use each season.

If a carriage equipped with footwarmers is detached at a roadside station and replaced by another carriage, footwarmers must be transferred to the latter. If the carriage detached is required to be attached to another train, the footwarmers must not be removed.

Passengers Alighting at Places where an Elevated Platform is not Provided—Guards, Train Porters and Collectors must advise passengers of the means provided for alighting when trains stop at a station or stopping place not provided with an elevated platform.

Passengers Travelling in Brakevans or Baggage Compartments of Rail Cars—Passengers must not travel in:—

(*a*) Brakevans or rail car baggages of country trains, except in the case of invalids in their conveyance, and the invalid's necessary attendants.

(*b*) The baggage compartments of suburban movements, except—

(i) Invalids in their conveyance and their necessary attendant, and children in a chair, cot, perambulator or push-cart with attendant.

(ii) Other passengers when all other seating is occupied. If requested to do so by the Guard, these passengers must move into the ordinary passenger compartments.

(*c*) The brakevans of goods trains, except as shown in the Coaching Book.

(*d*) The driving compartment of any rail car.

Officers and employees holding passes endorsed "Available for brakevan" may travel in such compartment only when this is necessary to carry out their duties, or when other accommodation is not available.

When it is apparent to Guards that insufficient baggage space will be available to accommodate the conveyances and passengers enumerated in clauses (*a*) and (*b*) (i), they may then approach mothers with one child and request them to move to the adjacent compartments, either by the mother removing the child from the conveyance, or by the Guard assisting the mother to move the conveyance (push-carts only) to the aisle of the adjacent compartment.

On certain trains, Guards may anticipate this congestion and arrange to take action as set out above at the commencement of the journey, with a view of preventing congestion and delays *en route*.

At all times, every consideration must be given to the mothers and their children by the train staff concerned.

Passengers Travelling by Goods or Livestock Trains—The conditions under which passengers may travel in brakevans attached to goods or livestock trains are shown in the Coaching Book.

Both portions of Risk Notes must be endorsed with details of the ticket or pass held by the passenger. Each passenger, unless in possession of a standing

indemnity, must sign the Risk Note. The portion of the Risk Note provided and handed to the passenger must be collected, during or at the end of the journey, and forwarded to the Comptroller with collected tickets. The Risk Note need not be signed by holders of privilege tickets.

Where a passenger signs a standing indemnity covering the availability of his ticket, the issuing officer must endorse the ticket "Available in brakevan of goods train where a carriage is not available".

Goods and livestock trains must not be stopped expressly to pick up or set down passengers except as provided hereunder:—

Passengers must not be allowed to travel by goods or livestock trains to or from Mile End. Persons in charge of livestock, who hold either a ticket or a pass may, however, be permitted to do so. Passengers not in charge of livestock, for Mile End must leave the train at Goodwood or North Adelaide, as the case may be; the trains must be stopped to allow such passengers to alight. Station Masters must advise passengers accordingly.

Manipulation of Flaps of Step-down Rail Cars and Carriages—Guards must ensure that:—

(1) The flaps covering the steps are DOWN in correct position before reaching a station provided with a platform.

(2) The flaps are secured in the UP position before reaching a station or stopping place not provided with passenger platform.

(3) Passengers are given assistance when joining or alighting, and pick up or set down their luggage.

Country Passengers for Suburban Stations—When passengers are booked at country stations for suburban stations, the officer issuing the tickets must point out, when necessary, that the train by which they propose to travel is not scheduled to stop at such suburban stations, and indicate the action the passengers must take in order that they may not be over-carried or inconvenienced.

Passengers Travelling by Sea—Station Masters must ensure that when forwarding passengers' luggage, etc., to Port Adelaide and Outer Harbour, the name of vessel by which passengers are embarking, is distinctly shown on the luggage, as well as the correct destination station.

Thermos Flasks—Thermos flasks, where provided on trains, must be filled with clean drinking water before departure from terminal stations, and when necessary, must be replenished *en route*.

Ice Receptacles—Ice must be placed in the receptacles where provided in carriages and rail cars, as arranged by the Superintendent.

Ice Boxes—Insulated Type—Ice boxes containing ice for stations beyond Tailem Bend, Mount Barker, Roseworthy and Bowmans must be sealed and receiving Station Masters must report any instances of the seals being broken or of the boxes not being sealed.

Ice boxes loaded or empty must be stored with the lid facing upwards.

If it be necessary to break the ice, the blocks must be taken out of the containers. Ice must NOT be broken while in any container or ice box.

The water must be emptied out of the containers and the lids properly secured before returning the boxes to Adelaide.

Refreshment Room Stations—A verbal warning must be given at three (3) minutes and also at one (1) minute before departure of trains from Refreshment Room stations where refreshments have been served.

Passengers are not permitted to remove crockery, cutlery or any Cafeteria equipment from the Refreshment Rooms.

When a train is running late and the allotted time at a Refreshment Room Station is 15 minutes or in excess thereof, the time may be reduced to 10 minutes, provided the Refreshment Room is clear of passengers. When it is intended to reduce the allotted time as set out above, the Station Master, must advise the Manager of the Refreshment Rooms accordingly before the arrival of the train.

Refreshment Room Services—Officers or employees travelling on departmental business must patronize Railway Refreshment Services, where available.

Crockery and/or other articles belonging to the Railway Refreshment Services found in trains or on station premises, or received from passengers or other persons, must be at once handed in to the Local Departmental Refreshment Room, or packed and waybilled free to the nearest Room. The waybill must show full particulars of the articles forwarded. Any article belonging to the Railway Refreshment Services must not be used for Departmental purposes, nor in mess or other staff rooms.

Laundry—Linen, either clean or soiled, must be conveyed between the Railway Laundry, Adelaide, and stations and depots where such linen is required in approved containers.

The containers consist of:—

(1) A canvas bag fitted with web-tied straps containing two steel rings so that it can be sealed. This type of bag must be used for other than Refreshment Room Services.

(2) A cane hamper equipped with bar and padlock which must be used for linen to and from the Refreshment Room Services.

Each bag must be tightly tied and sealed through rings so that no strain is placed on the seal. The Supervisor, Laundry and Equipment, when forwarding linen to stations or depots, must record in a Seal Book the number of the seal on each bag forwarded and also show the number of the seal on the linen list.

Station Masters and others forwarding linen to the Laundry must record in the Seal Book the number of the seal attached to the bag.

The Supervisor, Laundry and Equipment, must record the number of the seal in the Seal Book when bags are received, and Station Masters and others must similarly record in their books particulars of the seals received on consignments from the Laundry.

The name of the forwarding station must always be shown on the label attached to the container when linen is being forwarded to the Laundry, Adelaide. Linen list No. 934 must be used by all Branches except Refreshment Services, and this list must show the number of the seal on each bag. The seal number must be checked with the number shown on the linen list, and should there be a discrepancy between the number shown on the bag and the linen list, the Supervisor, Laundry and Equipment, must promptly advise the Comptroller and Station Master, and others receiving linen must promptly advise their Superintendent.

Linen List No. 935 must be used solely by the Refreshment Services.

The linen lists (Forms Nos. 934 and 935) must in all cases be enclosed in the container containing the linen and not forwarded under separate cover. Stations or depots not at present equipped with seals must make application for a supply.

All consignments of linen must be waybilled, and where train arrangements permit, forwarded to reach Adelaide by trains arriving there at night.

All articles for Laundry must bear the distinguishing mark of the office or depot to which they belong and the Supervisor, Laundry and Equipment, must see this is done. Similarly, the Supervisor, Refreshment Services, will arrange for any additional marking of linen required by Refreshment Services. The Supervisor, Laundry and Equipment, must arrange for the bags used for conveyance of linen to be legibly branded and numbered.

The bag number must be shown on Laundry Waybill, Form No. 919, and on Linen List, Form No. 934, by the forwarding stations and depots and also by the Laundry when returned.

Blankets and mattress covers for washing must be accompanied by a Special Linen List and as many blankets and covers as possible sent in each consignment. Relief blankets and covers can be obtained, when necessary, on application to the Supervisor, Laundry and Equipment.

Pillows and mattresses in barracks needing attention should be sent to the Supervisor, Laundry and Equipment, after consultation with that officer, who will provide replacements.

When writing to the Supervisor, Laundry and Equipment regarding linen short or wrongly received, the number of linen list must be quoted.

Equipment of Trains—The Supervisor, Laundry and Equipment is responsible for the necessary linen being provided in trains leaving Adelaide, and for the collection of soiled linen from all trains arriving at Adelaide.

He must also provide soap, paper towels, toilet paper and drinking glasses or paper drinking cups in carriages and rail cars leaving Adelaide on country trains.

The Station Master, at stations where carriages and rail cars on country trains are stabled or commence their return journey, must ensure that sufficient spare equipment is held in stock to replenish the abovementioned supplies before the train commences its journey.

CASH AND VALUES-RECEIPT, CUSTODY, ETC.

1. **Value Letters or Parcels**—All cash to be transmitted to a Railway Officer must be sealed, marked "Value" waybilled, and forwarded only by a train carrying a safe in the Guard's brakevan or baggage compartment (in the metropolitan area by specified trains only). A signature must be obtained, in the printed book provided, from each person into whose hands the "Value" passes in transit from sender to consignee.

A parcel waybill (Form 14) must be used for "Values" other than those for the Cashier, Adelaide. Entries for ordinary parcels traffic must not be shown on a waybill containing a "Value" entry. Waybill (Form 28) must be used for "Values" addressed to the Cashier, Adelaide.

2. The Station Master, at stations where trains carrying safes commence their journey must supply the Guard with Form 28. The date and the number of train must be shown thereon, together with an entry for "Value" (if there be one), or a "Nil" entry if there is no "Value" to forward. The Station Master at each subsequent station *en route*, having a "Value" to forward, must obtain the waybill from the Guard, and make an entry thereon in accordance with instructions at foot of the waybill. A Station Master must obtain a receipt in his "Value" book from the Guard who accepts a "Value" for transit.

3. The Guard, on receiving a "Value" must promptly lock it in the safe on the train. When a Guard is relieved, he must deliver all the "Values" and waybills to the relieving Guard, and obtain the latter's signature for receipt of the "Values". In the event of being unable to personally transfer to the relieving Guard, the contents of the safe must be handed over to the Station Master, whose receipt must be obtained.

4. The Guard of a train on which a safe is carried must, on arrival at Adelaide, empty his safe of all "Values" and immediately deliver them (subject to clause 5) as follows:—

"Values" for the Cashier—

(*a*) Direct to Cashier—

On ordinary week days, Mondays to Fridays from 9.00 a.m. to 4.15 p.m.

On Saturdays from 8.15 a.m. to 10.30 a.m.

On public holidays from 8.00 a.m. to 12.30 p.m.

(*b*) Direct to the Officer in Charge, Adelaide Ticket Office on Sundays and at all other times other than those specified in (*a*) preceding.

The Cashier or Officer in Charge, Adelaide Ticket Office, after checking each "Value" against the waybill must sign the Guard's receipt book for the "Values" received.

In the case of the Adelaide Ticket Office, the Officer in Charge must, in the presence of the uniformed escort specified in Clause 5, then endorse the waybill in writing or by a rubber stamp provided:—

"..... Values as enumerated hereon have been checked and deposited in the safe provided."

The "Values" must be placed in the safe and the waybill, after being dated and the endorsement signed by both the Officer in Charge and the uniformed escort, must also be placed in the safe.

The Cashier, in the presence of the Officer in Charge, Adelaide Ticket Office, must check all "Values" removed from the safe with the waybills and receipt same.

"Values" other than those for the Cashier, must be delivered to the Excess Clerk, Cloak Room, Adelaide, whose signature must be obtained for same. The Excess Clerk will be responsible for its delivery or forwarding of these "Values" as required.

5. The Station Master, Adelaide, must arrange for a uniformed armed escort to meet the train on arrival.

The Escort must:—

(*a*) Be provided with an empty canvas bag.

(*b*) Accompany the Guard to the Cashier's Office or Ticket Office with the "Values" enclosed in such bag.

When the rostered train working of any Guard having custody of "Values" of any description does not provide the time necessary for him to personally deliver them to the Cashier, Ticket Office, and/or Excess Clerk, Cloak Room, Adelaide, as the case may be, the Station Master, Adelaide, will provide a uniformed employee who will receive from such Guard and give his signature for such "Values", and deliver them accompanied by the uniformed armed escort provided, in accordance with paragraph 4.

6. The loss or miscarriage of any "Value" letter or parcel must be promptly reported to the General Traffic Manager and the Comptroller.

7. Envelopes containing salaries and wages receipts must be sent as waybilled parcels, and not as "Value" letters.

8. Credit forms 119, 158, 160 and 163, with tickets and vouchers to cover the entries must be waybilled as a parcel, and not sent as a "Value".

9. The Station Master, when forwarding "Values", must plainly mark on such "Values" the number of the waybill as follows:—

Waybill No. .....

10. Envelopes or parcels marked "Value" forwarded from the Eastern States Railways to the South Australian, Commonwealth, or Western Australian Railways properly labelled and waybilled, must be checked and signed for by the South Australian Guard when taking over from an Eastern States Guard, irrespective of how such letters or parcels are sealed, provided they are properly secured.

The same conditions apply to "Values" forwarded from the Western Australian or Commonwealth Systems to South Australia or the Eastern States.

Similarly South Australian Guards must obtain a signature for each "Value" handed over to another Guard.

The abovementioned does not apply to *The Overland.*

Safes and Safety Boxes—Safes and other cash receptacles must be used only for cash, valuables or books held in connection with Departmental business.

Each Guard will be provided, when necessary, with a safe or safety box. The key must not be placed in the hands of any other person except as authorized.

In all cases receipts must be given and taken for safe keys transferred from one member of the staff to another.

Unauthorized persons must not be allowed to have possession of safe keys.

Where the absence of a safe in any train occasions serious delay in forwarding valuables, the Station Master at attended stations, and Guards at unattended stations, must promptly advise the Train Controller who must immediately seek a direction from the Divisional Superintendent. The matter must also be reported in writing to the Divisional Superintendent by all officers and employees concerned.

Every travelling cash safe shall, wherever practicable, be kept under cover, and no safe shall at any time be unnecessarily exposed to the weather.

In every case where safe keys are forwarded from one station to another they must be sent in "Value" letter. If a safe or cash box cannot be unlocked, under NO circumstances must any attempt be made to force the lock or lid.

In the event of repairs being needed to safes or safety boxes, the Comptroller must be immediately communicated with, and no such repairs undertaken without that officer's concurrence.

No alteration must be made to the instruction relating to the working of safes on trains unless authorized by the Train Controller, who must, wherever possible, obtain the approval of the Divisional Superintendent.

LIVESTOCK TRAFFIC

Livestock Killed or Injured on the Railways—When Livestock is struck by passing trains, the matter must be reported to the Train Controller or nearest Station Master, who must instruct the Ganger to examine the livestock as early as possible. Steps must be promptly taken to advise the owner. When an animal is so badly injured that it must be destroyed, the carcass must not be buried or burned until the owner (if known) has been communicated with and his wishes in the matter ascertained. If it be impossible to trace the owner, and the beast is seriously injured, it must be destroyed and the carcass burnt, if the locality is outside the Metropolitan Abattoirs Area; but if within that area, the carcass must be put on one side, and the following action taken:—

Any stock which dies or is killed on Railway property within the Metropolitan Abattoirs Area shown below, must be placed on the side of the line, and the Abattoirs Board advised.

Adelaide to Salisbury
Port Adelaide to Dry Creek and Northfield
Adelaide to Outer Harbour and Semaphore
Woodville to Grange
Adelaide to 15·643 km and from 21·269 km to 22·899 km, South Line
Goodwood to 18·081 km (near Marino)

Instances of livestock noticed injured or dead whilst in transit must be promptly reported to the nearest Station Master, who must advise the Livestock Agent.

Advice must be given at Peterborough, Gladstone and Port Pirie to the representative of the Stockowners' Association regarding livestock received injured or dead at such stations. This representative will take charge of such stock.

In the event of loss or injury to livestock of any description, which may involve the Department in a claim, full particulars must be telegraphed to the Claims Agent.

Livestock Straying on Railway—Enginemen must verbally advise the nearest Station Master when livestock is observed straying on railway property, stating the distance. This information must subsequently be shown on the Engineman's Daily Report. The Station Master must take immediate steps to have the livestock removed and, if possible, ascertain the name of the owner.

Straw in Livestock Vans—Straw may be placed in livestock vans for the purpose of bedding down livestock.

Other inflammable material must not be placed in livestock vans in any circumstances, except when authorized by the General Traffic Manager.

Cleaning of Livestock Vans—

1. Equipment is available at Pooraka, Mount Gambier and Peterborough for washing out livestock vans, and as far as practicable the floors of all sheep and cattle vans passing through these centres must be washed out.

2. (*a*) Station Masters at loading stations must inspect all sheep and cattle vans as they are supplied, and arrange for dirty vans to be hand-cleaned.

(*b*) In the case of vans loaded inwards and not required for outwards use, any dirty vans should be cleaned before they are dispatched empty, if there be time between the discharging of the stock and the dispatch.

3. When vans are being washed out the space between the floor grating must be thoroughly clean and all debris underneath the floor grating removed, also the space between the sliding door pulley runners of the side doors, so as the side door is cleared and free from debris, in order to prevent the wheels from being pulled out of position and thus allowing the doors to swing open.

4. Station Masters at loading stations must see that the side doors are in proper working order before loaded vans are dispatched.

5. Vans used for the carriage of livestock must be cleaned as quickly as possible after use and droppings removed from the van bodies and bogies.

6. The Station Master must give his personal attention to these instructions so as to ensure that vans will be in a clean condition for loading.

Troughs in Livestock Yards—Station Masters must see that water troughs in Livestock Yards are kept in a clean condition.

Livestock—Conveyance of—Before accepting live animals or birds for transit, the dispatching station must see that the train connections will not cause a lengthy delay to such freight at a station *en route*.

Transport of Livestock—

1. Staff at loading and transfer stations should, as far as possible, see that livestock is in a proper condition for transport. If it be apparent that too many animals have been loaded in a van or compartment, or are not fit to travel, the owner or agent should be requested to off-load some of the consignment. If he refuses to do so and the Station Master considers that the overcrowding or condition of the livestock constitutes cruelty to the animals, he must advise the Police Officer, if one be available, who is authorized (under the Prevention of Cruelty to Animals Act) to give directions according to his judgment

If there be no Police Officer available and the owner or agent insists that the loading is satisfactory to him, such livestock may be forwarded as consigned, the consignment note, invoice and transfer note, if transfer be involved, being endorsed accordingly, and the matter immediately reported so that the condition of the stock on arrival at destination can be ascertained.

The Staff at loading and transfer stations must also be alert and if stock is subjected to any rough treatment report the matter.

2. The quickest possible transit must be given.

3. Shunting must be reduced to a minimum.

4. Guards and Assistants must frequently inspect livestock wherever possible *en route,* and if it is necessary to lift sheep or lambs on to their feet, the animals must not be prodded with a stick of any description, or lifted by the wool, as this method causes considerable bruising. Station Masters must, as far as possible, prevent this practice, and report any injury so caused which comes under their notice.

5. Guards and Assistants must report to the Station Master at the destination station particulars of every instance of livestock being down *en route,* also show on their train journals details of any rough shunting or handling which takes place whilst they are on duty, recording this information with the number of the van and compartment in which such livestock is conveyed.

6. The Staff concerned at loading and receiving stations must co-operate with the loading agents to facilitate the careful handling of livestock.

7. The Station Master at the destination station must promptly advise the consignee of the arrival of his livestock, inspecting same immediately after arrival.

8. Station Masters must promptly report any defect in equipment, particularly if such defect is likely to cause injury to stock, also closely inspect the cattle and sheep yards at their stations before sheep or cattle are yarded or loaded, and see that there are no projections which are likely to bruise stock; and that the ramps are in good order, particularly the flooring.

9. When a drover is in charge of the stock, the Guard must co-operate with him in handling the consignment while *en route,* and all instances of stock down, overcrowded, injured, etc., must be noted, and the action taken with the drover shown on the train journal.

10. Station Masters and Guards must see that in addition to the outside doors of sheep vans being properly secured, the partition doors separating the various compartments are properly closed and fastened, in accordance with the accommodation ordered, before attaching such vans to trains.

Roping of Bulls or Other Fractious Animals to Sides of Cattle Vans— *Station Masters and Freight Clerks* must show particulars on transfer notes of all *bulls or other stock of a fractious nature* loaded in cattle vans which are secured by head ropes to the sides of the vans to prevent interference with other beasts loaded in the same compartment.

The transfer notes should bear the endorsement of the number of beasts so secured, and should be shown, as the case may be:—

2 bulls tied
1 cow tied
2 steers tied

Guards picking up stock at unattended stations must show similar information on consignment notes.

On arrival at transfer stations all cattle consignments must be examined and, during transfer, the Checkers must ensure any beasts having head ropes are tied to the vans for continuing the journey, irrespective of whether such animals arrive tied up or have temporarily broken away the tethering ropes.

Livestock vans and Tarpaulins for Show Traffic—Supply of—Livestock vans and tarpaulins ordered for the carriage of Show exhibits, should be supplied to loading stations one day prior to the date of forwarding livestock, if possible.

Station Masters must immediately advise the Livestock Agent or Trucks Officer on the Division concerned if there be any delay in this supply. As the animals conveyed are of more than ordinary value, and are for Show purposes, it is imperative that they travel under clean conditions. The vans supplied, therefore, must be scrupulously clean.

Station Masters must inspect these vans on arrival, to see that the foregoing is complied with.

The Livestock Agent or Trucks Officer, as the case may be, must arrange for the vans to be cleaned before being sent to an unattended station to load livestock Show traffic.

Method of Loading Livestock Vans for Victorian Stations—When livestock is loaded for any station in Victoria the following instructions must be strictly observed to avoid adjustment of the stock on arrival at border stations:—

Sheep Vans—

Full bogie van order	Whether loaded or transferred into one bogie van or two single vans, stock must be equally distributed on both tiers and in all compartments.
Three-quarter bogie van order	When loaded or transferred into bogie van the lower tier must be fully loaded in both compartments and the balance of the stock equally distributed in both compartments on top tier. When transferred into two single vans, stock must be equally distributed on each tier of one van, and the second van must be loaded or transferred to lower tier only and top tier left empty.
Half bogie van order . . .	Stock must be loaded or transferred into single van and stock must be equally distributed on each tier.
Quarter bogie van order .	Stock must be loaded or transferred to lower tier of single van and top tier left empty.

The practice of loading in top tiers only or loading portions of top and lower tiers of bogie sheep vans is not permitted.

Cattle Vans—

Half bogie van order . . .	Stock must be loaded or transferred to single cattle van only.

Station Masters at transfer stations must give special attention to this matter and advise transhipping contractors accordingly.

Livestock Spelling at Stations to Re-load for Connecting Trains—Stockyard Gates to be Locked—Livestock arriving at transfer or junction stations, which is required to spell in Departmental stockyards for feed and water while waiting for connecting trains to go forward to destination stations, must be held in stockyards most suitable for the purpose and located so that use of ramps and yards for other loading will not be prevented. The gates of yard holding such stock must be secured with chain and "G" lock until such time as stock is to be moved to ramps for re-loading.

Livestock Hurdles for separating Mixed Consignments—Hurdles complete with chains for attaching to the sides of cattle vans for the use of clients in separating stock when loading mixed consignments of pigs and calves are available on application to the Livestock Agent. These hurdles are located at the following Depot Stations.

Pooraka	Plain
Tailem Bend	Green band on each end
Mount Gambier	Yellow band on each end
Peterborough	Red band on each end
Gladstone	Blue band on each end

Hurdles are numbered consecutively for each station, marked with the station brand and a distinquishing colour band on each end of frame and must be recorded in the respective Station Property Book.

The procedure covering the use of the hurdles is as follows:—

1. When a consignor requires a hurdle, he must stipulate such requirement on the livestock order. This order will either be received directly by the Livestock Agent, or forwarded by the Station Master to the Livestock Agent in the usual manner.

2. The Livestock Agent will arrange the supply of the hurdles from the Depot Station in the same way as he directs the supply of livestock vans to meet orders.

3. The Livestock Agent will advise the loading station particulars of hurdles required on the Livestock Loading Advice.

4. Hurdles ordered by the Livestock Agent must be labelled and waybilled to the loading station by the forwarding station and be treated as take outs whether dispatched in the take-out vehicle on a train or forwarded in a livestock van.

5. The forwarding station must show on the livestock invoice the individual number of each hurdle in each van, and the receiving station must check receipt of such hurdles on arrival of the livestock.

6. Stations receiving hurdles must advise the Livestock Agent on their daily Van Return particulars of hurdles on hand as well as the individual number of each hurdle received on the previous day, the depot station to which it belongs, and if still on hand. Hurdles received with Inwards livestock must be removed from the van and be held (excepting as provided in paragraph 7) pending receipt of forwarding instructions from the Livestock Agent.

7. A depot station receiving a hurdle belonging to another Depot with an inwards consignment of livestock must, unless otherwise directed by the Livestock Agent, immediately label, waybill, and return such hurdle to the depot to which it belongs. In each instance the individual number of the hurdle must be shown on the waybill.

8. The Depot Station Master must show on his daily Livestock Van Report to the Livestock Agent the actual number of hurdles belonging to his station and the individual number of hurdles belonging to other depots on hand as at 12 midnight.

9. Depot stations must keep an inwards and outwards record of every movement of each hurdle.

10. Receiving stations must search every cattle van received whether loaded or empty and record the number of each hurdle (if any) found therein, forwarding particulars thereof on the daily Van Report. Particulars of unentered hurdles received in any van must be reported to the Superintendent with number of van in which received, train number, and date of arrival.

11. Stations must report by multiple telegram to the Superintendent and Livestock Agent every instance where a hurdle has not been supplied to meet an order.

12. Hurdles ordered to stations to which a cattle van is also ordered should be loaded in such van.

Hurdles to be dispatched to stations to which no van is being forwarded should be loaded in cattle vans booked for destinations beyond the required siding or station.

GOODS TRAFFIC

Care must be exercised at all times in handling and stowing goods. Instructions for the handling of goods are published from time to time for the information of the staff. Officers and employees, who are issued with these instructions, must see that they are retained in the binders supplied for the purpose, and that they are kept up to date, in accordance with the requirements of Rule 1.

Consignment Note and Sender's Receipt for Goods and Parcels Traffic—Checkers and other employees accepting goods and parcels for dispatch by rail must sign their names in full on both the consignment note and on the sender's receipt copy. The practice of initialling is not permitted.

Private Furniture Removals in Furniture Boxes by Rail and Road—The Department has furniture transport boxes available for hire to the general public, together with necessary packing material, and also undertakes the removal of furniture from house to house, either from one country town to another, or from country town to city or suburbs, and *vice versa,* when customers are quoted for the complete service, and the Railways will engage local carriers in country towns for packing boxes, cartage to rail, and delivery service at destination stations. All packing and delivery services to and from houses in city and suburbs will be performed by Railways Road Motor Services.

1. All furniture removals and the allocation of furniture boxes for hire by private persons is controlled by the General Traffic Manager. All applications for such services are to be referred to the Road Motor Officer, General Traffic Manager's Office. At least seven (7) days' notice should be given.

2. Quotations will be given as under:—

(*a*) Complete removals, or

(*b*) Hire of furniture boxes.

3. Furniture boxes are only available for intrastate movements between stations on the S.A. Railways system and to Broken Hill.

4. The internal cubic capacity of the furniture boxes are 15 m^3, 19·4 m^3 and 22·8 m^3 respectively.

5. When the first application from the customer is made to a Station Master, the following particulars must be forwarded to the General Traffic Manager:—

(*a*) Complete removals from house to house—

(i) Customer's name

(ii) Date removal is to take place

(iii) Forwarding and receiving stations

(iv) Estimated weight

(v) Local carrier's charge for packing and carting furniture box.

Furniture is to be inspected by the local Station Master and total mass estimated.

(*b*) Hire of furniture boxes—

(i) Customer's name

(ii) Date required

(iii) Forwarding and receiving stations

(iv) Type of box required (large or small).

In connection with the removal of household furniture contracted for by the Railways Road Motor Staff or by country carriers (working in conjunction with Road Motors) on behalf of the Railways Commissioner, it is essential that the interests of the Commissioner be protected as far as possible, to avoid claims for damage which may have occurred prior to the furniture being handled by the representative of the Department. Damaged articles must be noted and full details of damage must be recorded in triplicate by Road Motor employee or country carrier packing furniture into transport boxes or packing loose furniture. One copy to be retained by originating station, one copy to Road Motor Officer, and one copy to destination station.

All types of packing must be kept clean and free from foreign matter.

Station Masters must constantly impress on carriers the necessity for taking every care, and give advice and assistance wherever possible to ensure efficient workmanship in handling all furniture.

Station Masters must immediately report to the General Traffic Manager details of any defects noted in furniture boxes such as broken boards, holes, defective doors, etc., whereby damage to furniture could occur through water or other causes.

Furniture boxes must be properly sealed at the forwarding station or inward attended station if the forwarding station is unattended.

The staff concerned must ensure that when furniture boxes are dispatched, they are properly addressed and labelled. This instruction applies to empty as well as loaded boxes. When dispatched empty, the box should be addressed to the Station Master at the relevant station, *e.g.*

"S.M. BURRA—ACCOUNT ....."

Handling Furniture—A careful inspection must be made, when receiving furniture for transport, regarding its condition, packing or crating. If it is in any way damaged, or insufficiently packed, the sender's receipt and consignment note must be endorsed accordingly. The trade terms to describe damage are as follows, and will enable the staff to accurately specify the nature of such damage:—

Surface rubbed	A slight abrasion marring varnish or polished surface.
Scratched	Any mark that breaks the finished surface—narrow and long, as made by a sharp point.
Gouged	Any mark made that is an indentation breaking the finished surface, or injuring wood underneath.

Dent	Any bruise or indentation not breaking finished surface.
Stained	Any showing of spots or discolouration cause by liquid.
Upholstery rubbed	A chafing on face of material causing the nap or weave to show signs of wear.
Ripped	Any opening of a sewed seam in upholstery work.
Torn	Any breaking apart of upholstery material not at a seam.
Mirror or glass	State whether cracked or shattered.

Television and Radio Sets—Television and Radio Sets must be protected by adequate packing, bags, etc., and be loaded and stowed in their normal upright position in a manner that will prevent movement and damage.

Cement Washtroughs—Unpacked—Handling of—In order to minimize damage to cement washtroughs when being handled, these are to be stood on end on an even surface and the hand truck placed so that the back of the trough rests on the rails of the hand truck. Under no circumstances must the top or bottom of the trough rest on the rails of the hand truck when the trough is being carried.

Care is to be exercised that the lip of the hand truck is not forced against the trough.

Troughs, cement stands, etc., must be stowed lengthwise on soft packing placed on the floor of the goods vehicles and protected from contact with hard surfaces during transit.

Handling of Cradles for Conveyance of Goods—When septic tanks, concrete pipes and similar goods are received in cradles for dispatch by rail, the Staff must inquire from the senders whether the cradle is to be returned to forwarding station, and if so, consignment notes and invoice entries must be endorsed accordingly. Care must be taken to see that cradles to be returned are suitably marked to this effect, and receiving Station Masters must see that the cradles are promptly returned to dispatching stations.

In the case of consignments to unattended stations, the Accounting Station Master must, upon receipt of entry, take suitable action for the return of cradles from the unattended stations concerned.

"Fragile"—Canvas Signs—For Attachment to Vehicle Load Consignments—

1. Numbered canvas signs bearing the word "Fragile" in yellow paint on one side, and on the other—

"S.A.R.
Return to Superintendent Freight, Mile End"

are held by the Superintendent Freight, Mile End.

2. One of these signs must be attached to the left-hand leading corner of the vehicle in the direction of travel on vehicle load consignments of any of the following commodities:—

(*a*) Wine and spirits in casks.
(*b*) Earthenware or concrete pipes.
(*c*) Bottles—All, excluding empty returns.
(*d*) Uncased—containers containing oil, honey, pulp, etc.
(*e*) Furniture, loose.
(*f*) Other goods of a fragile nature.

NOTE:—These signs must also be attached to vehicles specially set aside for the carriage of eggs.

3. Station Masters at dispatching stations or unattended stations for which they account, upon receiving an order for a vehicle to load a consignment of any of the goods enumerated in paragraph 2 above, must make a prompt telephone application to the Superintendent Freight, Mile End, for one canvas sign for each vehicle, and ensure that the sign is secured by the ropes attached thereto to the leading left-hand corner of the vehicle containing such fragile consignments before the vehicle is dispatched.

4. Guards, Shunters, Assistant Shunters, Enginemen, and all other employees concerned must observe these "Fragile" signs and regulate their working accordingly. Loose shunting of any vehicle to which there is attached a "Fragile" sign is strictly prohibited; neither must any other vehicle be loose shunted against nor towards such vehicle.

5. Receiving stations must, after the wagon has been unloaded, immediately detach the "Fragile" sign, fold, and waybill it to the Superintendent Freight, Mile End, quoting the number of the "Fragile" sign on the waybill, retaining a copy of such waybill for future reference. Similar action must be taken by the Accounting Station Master, in connection with "Fragile" signs received at unattended stations.

6. Station Masters at Berri, Renmark, Loxton, Waikerie, Pinnaroo, Port Pirie, Gladstone, and Peterborough, are authorized to retain as part of the station property equipment three of these canvas signs and this stock must be replenished by request to the Superintendent Freight, Mile End.

7. When vehicles are received at break-of-gauge or border stations bearing canvas "Fragile" signs, the Station Master, must handle in accordance with the following procedure:—

Peterborough and Gladstone:—The Station Master must transfer the canvas sign to the vehicle into which the consignment has been transferred, and record particulars of the number of the vehicle and the "Fragile" sign on the transfer note or invoice. The Station Master, Peterborough, must advise the Superintendent, Peterborough, particulars of the "Fragile" signs attached to vehicles labelled to Broken Hill. The Superintendent, Peterborough, must arrange for the Station Master, Broken Hill to immediately waybill these canvas signs back to the Superintendent Freight, Mile End, as they must not be worked beyond Broken Hill.

The above instruction also applies in relation to vehicles which are handled through the Bogie Exchange Depot for Broken Hill.

Port Pirie:—The Station Master, must, after the goods have been transferred, return to the Superintendent Freight, Mile End, all "Fragile", signs received on consignments booked for stations beyond Port Pirie.

This instruction also applies to such signs attached to vehicles which are handled at the Bogie Exchange Depot—

S.A.R. "Fragile" canvas signs must not be used for consignments to any station beyond Port Pirie.

Victorian Border Stations:—Any "Fragile" canvas signs on vehicles must not be removed from such vehicles working into or from Victoria for any Victorian or South Australian Railway destination.

The Border stations Pinnaroo, Wolseley and Mount Gambier must record the individual numbers of such "Fragile" signs moving in both directions in the Truck Record Books for future reference and checking.

The Station Master, Mount Gambier, must ensure that S.A.R. "Fragile" canvas signs are not attached to any Goods vehicles loaded at Mount Gambier station for destinations in Victoria or beyond. Victorian Railway "Fragile" signs on vehicles consigned to a South Australian destination must not be removed at Wolseley, Pinnaroo or Mount Gambier.

Receiving stations must, after the vehicle has been unloaded, immediately detach the "Fragile" signs, fold and waybill to the Superintendent Freight, Mile End, quoting the number of the "Fragile" signs on the waybill, retaining a copy of such waybill for future reference. Similar action must be taken by the Accounting Station Master in connection with "Fragile" signs received at unattended stations for which he accounts.

Sheep Skin Traffic—In view of the high value of sheep skins, the Staff are advised that each consignment must be dealt with as follows:—

1. Be carefully checked, weighed and mass accurately recorded to the nearest kg.
2. Be properly and securely addressed with at least one, preferably two, additional addressed labels secured in each lot between the skins, showing in full the names and addresses of both consignor and consignee.
3. Be loaded in a van used for skin traffic which must be sealed as prescribed for pick-up vans, *vide* instruction herein.
4. If a van be not available for skin pick-ups, the Guard must make an accurate list of the pick-ups for delivery to the Station Master or Yard Master at the terminal station or to the relief Guard if relieved *en route*. This Station Master or Yard Master must check the number of consignments and arrange for transfer and dispatch in a sealed van.

Fresh and Dried Fruits, etc.—Method of Stowing—When more than one consignment of fresh or dried fruit is loaded into large capacity vehicles, consignors must be advised of the position each consignment is to be placed in the vehicles, and the following instructions must be observed, as far as possible:—

1. Originating and transfer stations must see that vehicles containing fruit for roadside stations are loaded, with roadside goods, close to the door on the side of the vehicle, as set out in the instructions for the Division concerned.
2. Consignments *ex* South line for Port Adelaide and Outer Harbour be loaded in separate vehicles. Consignments for Port Adelaide in Outer Harbour vehicles must be stowed as to be available for discharge without the necessity for moving or walking over cases consigned to Outer Harbour, and still leave the vehicles evenly loaded after the necessary breaking down.
3. Mixed consignments for Port Adelaide, loaded in a Port Adelaide vehicle, including any consigned to the Government Produce Department, or direct to a wharf or private siding, must be loaded so that consignments to be handled by the Produce Department can be readily taken out without moving or walking on other consignments which have to be shunted to a wharf or private siding.
4. Vehicles containing "Take-out" consignments must be labelled with "Take-out" labels, (No. 259 or 260). The number of "Take-outs" to be handled, and the position in the vehicle must be shown on both labels. The number of packages consigned and the position of each consignment in the vehicle, when a vehicle contains more than one consignment for one station, must be shown on the back of both labels, to facilitate prompt delivery.
5. Cases with bulging sides containing fresh fruit must be stowed in the perpendicular position.
6. Invoices must accompany or precede the vehicle.

7. Attention is called to the Regulations under the "Prevention of Injury to Fruit and Vegetables Act," repeated below:—

"Prevention of Injury to Fruit and Vegetables Act, 1927"

(1) No person shall handle, stack, load or unload any case or receptacle in the course of transit and containing fruit or vegetables in such manner that such fruit and vegetables are, or may be, subjected to shock or pressure sufficient to bruise or injure such fruit and vegetables, whether such fruit or vegetables actually do or do not display any bruising or injury therefrom at the time when the shock or pressure occurs.

(2) No person shall walk over or stand upon any case in course of transit, and containing fruit or vegetables, unless such case be stacked on its end; or be protected from the mass of the person standing upon or walking over such case by planking which is not less than 25 mm in thickness and 150 mm in width.

(3) Any person committing a breach of these regulations shall be liable to a fine for the first offence, not exceeding $2; and for a second or subsequent offence, not exceeding $20.

8. Station Masters must bring this prominently under the notice of the Staff, and all concerned must exercise needful care in handling and stowing such produce.

9. Cased goods of any description must not be allowed on top of bags containing fruit or vegetables.

"Fruit and Vegetables from Country Stations to Mile End or Adelaide"—When consignments of fruit and vegetables, other than single case lots, are forwarded from country stations to Mile End or Adelaide, the sending station must dispatch an urgent telegram addressed to the receiving Station Master, Train Control, Adelaide, and Trucks, Adelaide (also Train Control, Murray Bridge and Station Master, Tailem Bend, if from a station on the Murray Bridge Division) advising:—

(*a*) Number of cases or packages from each consignee.

(*b*) Number of vehicle in which loaded and destination.

(*c*) Number of train by which vehicle dispatched.

If from an unattended station, the Guard must advise the next Station Master at the attended station in advance who will be responsible for the forwarding of the telegram.

This information is necessary in order that receiving merchants may arrange their road transport accordingly.

Loading and Carriage of Agricultural Machinery, Etc.—Particular care must be exercised in loading, unloading, and transferring machinery and agricultural implements. This work must not be left to inexperienced members of the Staff, but must be performed under the direction of a competent officer or employee. Machines must be inspected at transfer stations before transfer is effected, and any damage noted must be endorsed on the transfer note. Details of the damage must also be reported to the Superintendent.

The ropes holding the machine or implement in position must be effectively secured, and if necessary twitched. The machine or implement must be placed in a position in the vehicle where it will not strike the end or side of such vehicle in the event of the ropes slackening. Bagging, canvas or old tyres must be used to prevent the ropes from chafing.

Where articles are consigned to stations not provided with a crane, the forwarding Station Master must ensure that a "long door" or flat wagon is provided for the carriage of machines, implements, vehicles or any item of a size and shape likely to involve difficulty in unloading.

Implements and machinery and other articles consigned to stations not equipped with cranes must only be loaded on the type of vehicle from which they can be readily handled at destination station, which must also be provided with a platform and ramp.

When lifting or transferring implements and machines by means of cranes, the slings must be so placed that they will not damage the article being lifted. The article must be lowered carefully, and must not be dropped, or strike against any other object.

Before using a crane the brake gear must be tested. Agricultural machinery, implements, etc., before being accepted at a broad-gauge station for narrow-gauge lines, must be dismantled by the consignor to the required size, where such loading exceeds the narrow-gauge loading gauge (*vide* Rule 61).

When agricultural machinery, etc., requiring the use of a crane for its discharge, is dispatched to stations in Victoria, full particulars of the consignment and wagon numbers must be telegraphed to the Station Master, Serviceton, Mount Gambier or Pinnaroo, as the case may be. The Station Master, Pinnaroo must promptly forward any advices he may receive to the Station Master, Murrayville.

As a general principle, wagons with wooden floors, either "long door" or flats, must be used for the carriage of agricultural machinery, implements, vehicles and any articles of a size and shape involving difficulty in unloading, and the loading must be made secure by the use of chocks which should be nailed to the floor of wagons. Where a wagon has a steel floor the chocks must be driven tightly against the implement or machine, and the Station Master must inspect the loading before dispatch.

Stations requiring chocks should make early application to the Superintendent Freight, Mile End. Stations receiving implements or machines must return all chocks to the Superintendent Freight, Mile End, by the first convenient train.

Handling of Motor Spirit, Kerosene, Oil, Etc., in Cases and Drums—Cases containing motor spirit, kerosene, oil, etc., must not be dropped, but carefully placed—heel first—and slid into position. Tests with tins containing motor spirit, kerosene and oil in cases have revealed that by dropping one end only of the case from a height of 150 mm or more, the two were damaged and in some instances a leakage resulted.

Drums must be tightly loaded into vehicles, and when such vehicles are not fully loaded, the drums must be secured and lashed to prevent undue movement *en route*. Considerable losses have occurred from drums of the "light" type. It is found that when these drums are used several times the ends bulge beyond the protecting rim, resulting in friction wear. When the containers are refilled at the oil depot, and the bulges knocked in, a fracture may result. This fracture may develop into a leak during subsequent handling. The heads of the containers are usually repainted after refilling, therefore a close inspection should be made when accepting delivery. The attention of the consignor drawn to any faulty drum which if accepted for conveyance, must be signed for as "In bad order" and the consignment note endorsed accordingly.

The handling of cases and drums by the consignors, consignees, or carriers must be kept under surveillance; and in instances where a leakage is observed before delivery, the tins or drums, if possible, must be closely inspected.

The full details of the damage and apparent cause must be reported to the Claims Agent, in addition to the endorsement of the consignment note, invoice, mate's receipt, etc.

All instances of rough and careless handling by the customers or Railway Staff must be promptly reported to the Superintendent.

At transfer stations, particular attention must be given to the manner in which this commodity is handled by the transfer staff.

All concerned must be instructed and constantly reminded of the need for careful handling in order to avoid damage and subsequent loss.

Three Compartment Fuel Tanks—Three compartment tanks are used for the conveyance of fuel. These tanks must not be accepted for transit unless the two end compartments are uniformly filled, irrespective of the contents of the centre compartment.

Loading of Kerosene, Petrol, Oils, Disinfectants, Acids (in Batteries or in Separate Containers) and Chemicals of an Offensive Nature—When small consignments of any of the foregoing commodities have to be stowed in sundry vehicles with foodstuffs, and other goods subject to damage, care must be taken to carefully segregate such items, which emit offensive odours or, if the container was damaged, would permit liquids or fumes to contaminate other goods. Such potentially offensive goods must be stowed at the opposite ends of the vehicle, properly secured and suitably packed around with sawdust which must also be spread on the floor of the vehicle.

Such items as flour, sugar, tea, rice, salt and cereal products are particularly prone to contamination due to the absorption of permeating vapours and moisture.

Whenever the quantity of kerosene, petrol, oils, etc. (as listed above) warrants it, they must be stowed in a separate vehicle.

Station Masters at principal loading stations, and break of gauge stations, must give special attention to this matter.

Consignments for Shipment "Wagon Loads"—The waybill and transfer note (if any) for the wagon load consignments other than wheat, barley, and other grain, or full wagon loads of mixed consignments for rail to Port Adelaide, thence for shipment, must be endorsed accordingly and accompany the consignments.

When wagons are ordered at an unattended station, for Port Adelaide, the accounting Station Master, must ascertain from the consignors if the loading is for shipment and arrange for the multiple addressed telegram or phonogram to be sent as shown below.

The truck label must be endorsed clearly with the name of the ship and berth wherever possible.

This information should, where possible, be obtained from the consignor.

Wagon load consignments must be waybilled to Port Adelaide for Berths 1 to 27 and to Glanville for Berths "D" to "H" (refer herein for schedule of wharf areas).

Small Consignments—The waybill and transfer note (if any) for small consignments for rail to Port Adelaide thence for shipment, must be endorsed accordingly and accompany the consignment.

The consignments if loaded in "pick-up" wagons must be placed in a position near the door for quick handling.

From Unattended Stations—The Guard must advise the Station Master at the junction or transfer stations when small consignments for Port Adelaide are picked up at an unattended station. The Station Master at the junction or transfer station must arrange for the multiple addressed telegram or phonogram to be sent as shown on page 320.

General—The following must be carried out for both wagon load and small consignments:—

Multiple address telegrams or phonograms must be sent from dispatching, junction or transfer station as the case may be, as follows:—

(*A*) *Adelaide Division*—

(1) From Stations North of Mile End.

Train Control, Trucks Adelaide, Station Masters, Pooraka and Port Adelaide, Superintendent Freight, Mile End.

(2) From Stations South of Mile End.

Train Control, Trucks Adelaide, Superintendent Freight, Mile End, Station Master, Port Adelaide.

(*B*) *Peterborough Division*—

(1) From all Stations on the Division, including Broken Hill.

Train Control, Trucks, Peterborough, and the Station Master at the transfer station (*e.g.*, Peterborough, Port Pirie or Gladstone as the case may be).

(2) From the Station Master at the relevant transfer station after the transfer or bogie exchange has been effected.

Train Control, Trucks Adelaide, Station Masters, Pooraka and Port Adelaide, Superintendent Freight, Mile End.

(*C*) *Murray Bridge Division*—

(1) From all Stations on the Division.

Train Control and Trucks, Murray Bridge, and Adelaide, Station Masters, Tailem Bend and Port Adelaide, Superintendent Freight, Mile End.

(*D*) Full particulars must be given so that the consignment may be forwarded from Dry Creek or Mile End to Port Adelaide to make necessary connection with the ship. The name of the ship, if known must be included in the advice.

Colas, Bitumen, Tar, and Other Commodities in Drums—When drums of colas, bitumen, tar, and other commodities are forwarded in vehicle loads, the drums must be tightly loaded to prevent movement *en route*.

When loaded singly, or in less than vehicle loads, old packing must be placed under the drums, which must be securely lashed to prevent any movement *en route*.

"Inspection"—Drums must be inspected when accepted and, if found leaking or defective, the consignment note and sender's receipt must be endorsed accordingly.

Hooks—Use of—Hooks must not be used when handling the following:—

Cement—either "in paper or other types of bags"
Sugar
Superphosphate
Salt
Other free-running articles in bags of any type

(Cement in paper bags must be handled carefully, and not dropped to the floor of vehicles or platforms, nor placed on anything which is likely to puncture the bags, *e.g.*, stones, nails or screws protruding from the floor.)

Cream and Milk Cans—Handling of—All concerned must exercise every care in handling cream and milk cans at loading, transhipping, and off-loading points, to prevent loss through cans being upset. Cans must be stowed in a manner that will minimize the risk of falling over *en route*.

The handles provided on the cans must be used for lifting same.

Water and Gas Piping—Handling of—Care must be exercised at all times to prevent damage when handling piping. Station Masters must see that the staff delegated to this duty are instructed in the proper handling of this material.

Dry Batteries—Protection of—Dry batteries must be properly protected from the sun or rain, whilst awaiting transport, during transit, and whilst awaiting delivery, otherwise serious damage is caused. At attended stations, Station Masters must see that the above is carried out. Guards must give the matter due attention during transit and after discharging at unattended stations.

Dry batteries are distinctly labelled as such.

Motor Cars—Protection of During Shunting and in Transit—Wagons containing loading overhanging the end must not be shunted against vehicles containing motor cars, or marshalled with such end over-lapping a vehicle containing a motor car.

When a damaged motor vehicle is consigned for transit by rail, the electric wires of battery terminals must be disconnected, and placed in such a position that they will not come in contact with the terminals or any metal part of the battery.

If the vehicle be the property of the Railways, the foregoing must be carried out by the employee in charge of the loading.

If the vehicle is privately owned, the Station Master or other responsible officer or employee must ensure that the terminals are disconnected by the consignor.

Advice by Telephone of Arrival of Parcels and Goods—At stations where such facilities exist, consignees connected with the public telephone exchange must be promptly advised, free of charge, of the arrival of parcels and goods.

The advice notes for goods must be promptly prepared and made available for delivery to the consignees.

Homing Pigeons—Handling of—

1. Station Masters and Supervising Officers must pay strict attention to the handling of hampers of homing pigeons.

2. The crates or hampers must be lifted and carried bodily. They must not be tilted in any way. This is important, as such handling causes damage to the wing flight of the birds.

3. The crates and hampers must not under any circumstances, be dropped or thrown, but must be placed either in the brakevan or on the platform or platform trolleys for discharge.

4. Crates and hampers must not be carried on sack trucks, and only four-wheeled platform trolleys must be used for transport at stations. If for loading or discharge at stations it is necessary for the hampers to be moved, and there are no platform trolleys available they must be carried individually by hand.

5. Station Masters and Guards must see that pigeon hampers and crates, whether empty or loaded, are not placed on top of cream cans, foodstuffs, perishables, or other freight liable to contamination.

6. Station Masters receiving pigeons for release **must have the hampers or crates cleared of all droppings, litter, etc., after the birds have been released** and before the hampers are returned.

7. Pigeon hampers are NOT TO BE CARRIED IN 400 CLASS RAIL CARS.

In the Metropolitan area pigeon hampers must only be given transit in trains of which the consist includes baggage car accommodation.

Conveyance of Frozen Egg Pulp—

1. Only "T" (Victorian) or S.A.R. insulated vans must be used for the conveyance of frozen egg pulp from Mile End to Victoria and New South Wales.

2. When an order is lodged to load egg pulp the Superintendent Freight, Mile End, must:—

(*a*) Promptly advise the Sub-Foreman, Rollingstock Depot, Mile End, the number and class of van which will be loaded.

(*b*) Obtain an Examiner's certificate that the van is in a satisfactory condition (see sample certificate Clause 3).

(*c*) See that the vans are properly sealed.

(*d*) See that the labels on each side of the van are legibly endorsed "EGG PULP".

(*e*) Advise "Trucks", Adelaide, the number and class of van, and the mass of contents as soon as the van is loaded.

3. The Sub-Foreman, Rollingstock Depot, Mile End, will promptly, on advice from the Superintendent Freight, Mile End, of the number and class of van required, instruct an Examiner to make a special examination, and supply the Superintendent Freight, Mile End, with a certificate in the following form:—

South Australian Railways

I certify that I have this day examined insulated Van No. ....., as follows:—

(1) Axle boxes examined and oiled to a maximum gauge level and packing checked over—good condition.

(2) Westinghouse brakes examined and tested—good order.

(3) All undergear, drawgear, wheels, etc., examined and found in good condition.

(4) Insulated van generally in good condition.

Mile End ....., 197.... .....Train Examiner

4. "Trucks", Adelaide, must, as soon as the van is loaded, telegraph the number and class of van and the mass of the contents to the following:—

If for Victoria	If for New South Wales (via Victoria)
Superintendent and Train Control, Murray Bridge.	Superintendent and Train Control, Murray Bridge.
Loco. Foreman and Station Master, Tailem Bend.	Station Master, Serviceton.
Station Master, Serviceton.	"Trucks", Melbourne.
"Trucks", Melbourne.	Station Master, Albury.
	Loco. Foreman and Station Master. Tailem Bend.
	District Superintendent, Junee.
	"Rolls", Sydney.

5. The Examiner at Tailem Bend must closely examine these vans.

6. Should the van be detached on account of hot box or other defect, the Station Master—or Guard, if at an unattended station—must promptly advise the full particulars of consignment and nature of defect to the following:—

(*a*) The Train Controller, by Selector Telephone.

(*b*) Claims Agent by Urgent Telegram.

(*c*) Consignor by Urgent Telegram.

(*d*) Movements by Urgent Telegram.

NOTE:—When the van is detached at an unattended station the Train Controller, and not the Guard, must advise the Claims Agent, Movements Officer, and Consignor.

7. The Train Controller, on receipt of advice of detaching the van must:—

(*a*) Immediately have an insulated van examined, *vide* Clause 3, and fully equipped with ice, and forwarded by first available train to the Station where the loaded van has been detached.

(*b*) If the van be detached on the Murray Bridge Division, and an "R" or "RB" van is available, the Train Controller must arrange with "Control", Adelaide, to forward a supply of ice by the first train.

(*c*) If the van be detached on the Murray Bridge Division, and an "R" or "RB" van is not available, the Train Controller must immediately arrange with "Control", Adelaide, to supply a van equipped with ice by the first train.

(*d*) The Train Controller, Murray Bridge, must advise by telegram, the Station Master, Serviceton, and "Trucks" Melbourne, if the van has been detached *en route*, and state when the van will be forwarded. If reloaded into another van full particulars must be given.

8. The seals of the van must not, in any circumstances, be broken nor the doors opened, until the arrival of a representative of the consignor, who will supervise the unpacking and reloading of the egg pulp, which must be performed by the Station Staff or as arranged by the Superintendent.

The reloaded van must be sealed.

Louvred Vans—Louvred vans must when practicable be reserved for the conveyance of fresh fruit, vegetables, and other perishable produce. Station Masters must therefore arrange for at least one louvred van to work as "Take Out" and "Pick Up" van on each country train. Less than van load consignments of suitable perishable goods must be loaded into such vans at initial and roadside stations.

When there is insufficient perishable goods to fill the van other suitable goods may be loaded into the van, but goods of an offensive nature must not be loaded in the same van with perishables; *e.g.*, any goods giving off a strong odour must not be loaded in a van which contains eggs and butter.

On Broad Gauge lines every endeavour must be made to promptly return louvre vans to Mile End, loaded if possible. If loading is not available, instruction for disposal must be sought from the Trucks Officer.

The Superintendent Freight, Mile End, must see that louvre vans are thoroughly cleaned, and when necessary, washed and disinfected.

Insulated Vans and Containers—Station Masters must see that Insulated Vans and Portable Containers are forwarded by the trains prescribed from time to time. Station Masters requiring Insulated Vans or Insulated Containers must communicate with the Trucks Officer on the Division concerned.

The doors of Insulated Vans on trains must not be left open longer than necessary to quickly load or discharge any goods. The doors of Portable Insulated Containers must be left unfastened when not in use, so that air may pass to the interior woodwork and minimize the possibility of dry rot.

To clean Insulated Vans, raise wooden floor grids and hook to side wall. Remove drip traps at either side of van below ice container. Sweep or hose van out thoroughly. Replace drip traps and screw **hand tight only.**

Drip traps will automatically seal with drainage water when van is iced. When van is not iced, fill each trap with water.

Icing—Blocks of ice must be cleaned and free from sawdust and pieces of bagging, before being placed in the ice troughs. The drain from the ice receptacles in the vans must be cleaned regularly to prevent water accumulating and splashing over the contents of the van.

Ventilation—Goods such as chilled meat, butter, eggs, egg pulp, and cheese do not require ventilation, and when these are carried, the ventilator at end of van must be closed. When carrying fruit, vegetables, and goods requiring ventilation, the ventilator must be opened.

Where the vans work several trips between the same ship and Refrigerator Stores, the Station Master at the loading point must have the vans inspected after each trip to ensure that the drip traps have not become blocked by sawdust or that packing has not entered the drainage well during the handling of the cargo from van to ship.

CLASS 2500 REFRIGERATED CONTAINERS

OPERATING INSTRUCTIONS FOR POLARSTREAM LIQUID NITROGEN REFRIGERATION EQUIPMENT—MODEL PS. 205

1. **Safety Precautions**—All personnel who are to operate this equipment must become thoroughly familiar with the following safety precautions.

(*a*) Never enter or remain in the container when the liquid nitrogen system is in operation, or when the nitrogen container is being filled with liquid nitrogen.

This precaution is necessary to avoid accidental contact with the liquid nitrogen spray, and to avoid the possibility of asphyxiation through lack of oxygen if the doors were closed. If the system should begin to operate while a person is in the container, or if the doors are closed with a person inside, the emergency valve located adjacent to the door should immediately be turned to OFF.

(*b*) Never allow operating personnel to crawl between the ceiling of the container and the cargo or into "pockets" between stacks of cargo.

This precaution is necessary because of possible low concentration of oxygen in such areas.

(*c*) Avoid any contact with the liquid nitrogen as such contact can freeze the flesh, causing injury similar to a burn.

(*d*) Do not touch any frosted valves, lines, or fittings with bare hands.

These items may be extremely cold and may cause the skin to stick fast.

(*e*) If the system has been operating for ONE HOUR OR MORE since last entry into the container, wait 3 MINUTES with the doors wide open before entering, to allow the oxygen concentration to return to normal.

2. **Description**—

(*a*) *General*—

The Polarstream refrigeration system uses liquid nitrogen as a refrigerant and is capable of reducing the temperature inside the container to the preselected temperature within a matter of minutes.

When the liquid is sprayed into the container it vaporizes and the resulting cold gas expands rapidly blanketing the loading and absorbing heat. The space around the cargo is automatically maintained at the selected temperature between —30°c and ambient (outside air temperature) by a temperature controller which regulates the amount of liquid nitrogen emitted from the spray header.

The PS. 205/2 system consists of two (2) nitrogen cylinders or bottles which are permanently fixed on one end wall inside the container, a control box and fill box mounted on the outside adjacent to the door and protected by a hinged grille with a budget lock, together with the necessary control components, piping, etc., inside the container.

(*b*) *Specifications*—

Number of nitrogen cylinders	2
Liquid capacity per cylinder	375 lb.
Total capacity	750 lb.
Normal operating pressure	60-150 kPa (8-22 p.s.i.)
Evaporation rate when not in use	2% per 24 hours.

3. **Operating Instructions**—

(*a*) *Loading*—

(i) Prior to loading, open the control box Fig. 1.1 and check the quantity of liquid nitrogen in the two bottles (see paragraph 4 (*b*)) to ensure sufficient supply for the intended service.

(ii) Check that the emergency shut-off valve located inside the container adjacent to the doorway is turned to the "ON" position.

(iii) After loading, open the control box Fig 1.1 and turn the adjusting knob to set the temperature controller Fig. 1.3 to the desired temperature. Then close the box. The set pointer is red and operates on the lower side of the scale which is graduated in degrees Celsius, while the indicating pointer is black and operates on the top of the scale.

(iv) Close the loading door and turn the main control valve Fig. 1.2 on the side of the control box to the "ON" position.

(v) After approximately 15 minutes open the control box and check the temperature gauge. The indicating pointer (black) should indicate the same temperature as the set pointer (red). If there is a wide divergence see Service Difficulties paragraph 7.

(vi) Ensure that the hinged protection grille covering the control box is closed and locked.

(*b*) *In Transit*—

(i) It is good practice to periodically check that the indicated temperature (black pointer) is on or within a few degrees of the set valve (red pointer).

(ii) If there is a wide divergence between the set temperature and the indicated temperature see Service Difficulties paragraph 7.

(*c*) *Unloading*—

(i) Prior to unloading turn the main control valve on the side of the control box to the "OFF" position before opening the doors.

WARNING! If a hissing sound is heard when the doors are opened do not enter the container; the hissing sound occurs for 10 to 15 seconds before liquid nitrogen starts spraying from the spray header and indicates that the system has not been turned off.

(ii) If the system has been operating for more than ONE HOUR wait at least 3 MINUTES after opening the door before entering the container. This waiting period is necessary to permit the oxygen concentration inside the container to return to normal. (See Safety Precautions, paragraph 1.)

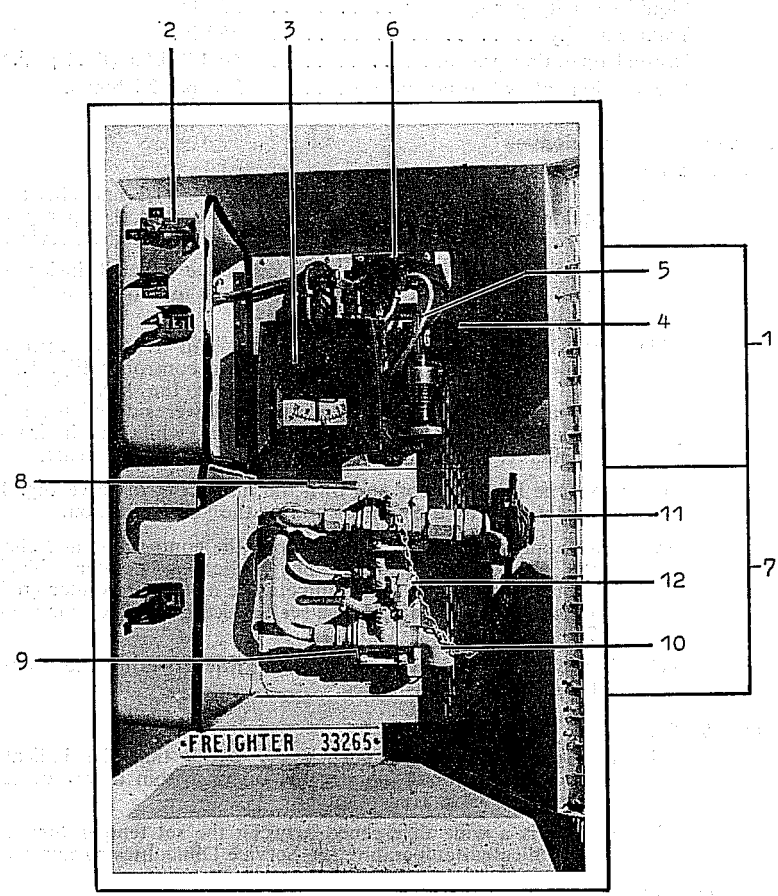

FIG. 1. CONTROL BOX AND FILL BOX

1. Control box.
2. Main control valve.
3. Temperature controller.
4. Pressure gauge.
5. Liquid level gauge.
6. Liquid level gauge selector.
7. Fill box.
8. Fill valve.
9. Vent valve.
10. Vent valve outlet.
11. Dust cap—fill connection.
12. Pressure relief valve.

4. **Liquid Nitrogen Gauge—**

(*a*) *Description*—The liquid level gauge is located inside the control box Fig. 1.5 and is in the form of a glass tube with a red indicating plunger.

It is necessary to operate the selector valve to check the quantity of liquid in each container individually.

Some gauges are graduated in pounds weight whilst other merely indicate "full", "¾ full", etc.

There may be considerable difference in the levels in the two liquid nitrogen cylinders but this condition has no effect on the operation of the equipment. All of the liquid will eventually be withdrawn through the primary container.

(*b*) *Checking liquid nitrogen supply—*

(i) Open control box and turn selector knob Fig. 1.6 to "1st container" position (horizontal) and note reading on vertical gauge Fig. 1.5.

(ii) Turn selector knob to "2nd container" position (vertical) and note reading on vertical gauge.

NOTE:—The total mass of the liquid nitrogen supply is the sum of the "1st container" plus the "2nd container" readings.

5. **Filling the Liquid Nitrogen Cylinders—**

(*a*) Open the hinged cover on the fill box Fig. 1.7 and remove the dust caps from the fill connection Fig. 1.11 and from the flexible hose of the liquid nitrogen supply.

(*b*) Attach the hose to the fill connection and hand tighten.

(*c*) Open the vent valve Fig. 1.9 by turning the handle outwards.

(*d*) Open the liquid fill valve Fig. 1.8 by turning the handle outwards.

(*e*) Start the fill by opening the withdrawal valve of the bulk storage supply. Filling is complete when liquid starts to issue from the vent valve outlet Fig. 1.10.

(*f*) When the bottles are full close the vent valve and close the liquid withdrawal valve on the bulk supply tank.

(*g*) Check the liquid nitrogen system pressure by observing the pressure gauge Fig. 1.4 in the control box. If the pressure is less than 135 kPa (20 p.s.i.), additional gas should be added by re-opening and re-closing the liquid withdrawal valve of the supply tank.

(*h*) Close the liquid fill valve.

(*i*) Bleed pressure from the filling hose before disconnecting it by opening the hose blow down valve and the supply tank installation. Remove hose from the connection using caution because liquid nitrogen may still be present in the hose.

(*j*) Close hose blow down valve and install the dust caps on both the liquid fill connection and the filling hose on the supply tank.

NOTE:—The system may be partly filled with liquid nitrogen. Check the quantity added on the liquid level gauge and ensure the system pressure is satisfactory (see paragraph (*g*)) and remember the primary bottle fills first.

6. **Pressure Relief Valve**—The operating pressure is maintained in the system by a relief valve located in the Fill Box Fig. 1.12.

(*a*) In normal operation the periodic withdrawal of liquid for refrigeration keeps the nitrogen pressure below the relief valve setting.

(*b*) When the refrigeration is turned off the pressure is under the control of the relief valve and a continuous blow of gas will be observed.

(*c*) When the selected refrigeration temperature is close to the ambient temperature comparatively long periods will elapse between the withdrawal of liquid and an intermittent release of gas from the relief valve may be observed.

7. **Service Difficulties**—When trouble develops in the system during a run, check the possible causes listed below.

Trouble Symptoms	*Procedure to Follow*
System will not operate; temparture rises considerably above set point.	1. Make sure that the emergency valve (inside the container) and MAIN CONTROL valve are both in the "ON" position. 2. Check pressure gauge (in the control box) to be sure that the system is at least 60 kPa (8 p.s.i.). If pressure is too low, check that fill valve and vent valve are fully closed. If a valve was open, wait for pressure to build up normally. 3. Check liquid nitrogen level in both bottles by following procedure set out in paragraph 4 (*b*). 4. If the difficulty is not detected and corrected by the above actions, report immediately.
System will not turn off; temperature drops far below set point.	1. Turn MAIN CONTROL valve to the "OFF" position. If this causes the system to stop spraying nitrogen, the controller is defective. 2. If nitrogen continues to spray after MAIN CONTROL valve is turned to "OFF", the liquid control valve is probably frozen open. To prevent complete loss of liquid nitrogen, open the fill box, and open the vent valve to depressurize the system. Leave the vent valve open, and report immediately.

Shipping Containers under Fumigation—Precautions to be Observed in Rail Transport—Poisonous gas is used as a fumigant for some containerized consignments transported by rail, consequently the following instructions must be strictly observed:—

Foodstuffs such as dried fruits and grain, during storage or transportation are subject to attack by insects such as weevils. To destroy the weevils, pesticides are used.

With the introduction of shipping containers, the use of vapour insecticides is possible, the advantage being that after killing insects and their eggs and larvae, the vapour disperses.

The rate at which the vapour insecticides, viz., methyl bromide, disperses makes it very safe to use in transportation. Tests with methyl bromide under the supervision of the Public Health Authorities, indicate that, under normal handling conditions, there is negligible risk to personnel. To the methyl bromide is added 2% by weight of chloropicrin which causes smarting of the eyes, thus indicating the possibility of escaping gas from the container. If any other type of fumigant is used or the fumigant process is extended to additional products, approval for carriage must first be obtained from the General Traffic Manager.

Fumigation of the containers is the responsibility of the consignor. The following precautions should, however, be followed by railway personnel whilst containers are being fumigated on railway property or are in transit, having been fumigated:—

(i) During fumigation: No railway staff are to approach closer than 6 m to the container or any part of the fumigation equipment.

For this purpose, the Station Master concerned is to arrange for the consignor to provide warning notices around the wagon to indicate that fumigation is in course.

(ii) Following completion of fumigation: Wagons carrying containers which are under fumigation shall only be accepted for transit when they bear an approved warning label as follows:—

Minimum size 250 mm x 250 mm with white background and red border.

The word "DANGER" shall be in red letters of minimum height of 50 mm and the words "UNDER METHYL BROMIDE FUMIGATION" in red letters of minimum height of 25 mm.

The label provides for the date and time of fumigation to be shown thereon.

The label is to be attached to the container door capable of being opened first at not less than 1.6 m from the base. The attachment of the label to the container is the responsibility of the consignor. The Station Master concerned shall ensure that containers which are under fumigation have the approved warning label with date and time of fumigation duly entered thereon displayed on each container before it is accepted for transit. Containers under fumigation with methyl bromide which are not of solid construction throughout, including the roof, will not be accepted for rail transit.

(iii) Containers in transit: Doors of containers must be well fitting and correctly shut. The doors shall not be opened during transit.

Should it be observed that a container door is partly open, no person shall approach closer than 6 m to that container for one hour after the first observation is made.

The door may then be closed by one or more rope hitches provided that no person approaches closer than 1.2 m to any part of the doors. (This can usually be achieved by working from the back of the container.)

(iv) In the event of a mishap: In the event of a wagon carrying a container labelled "DANGER, UNDER METHYL BROMIDE FUMIGATION" being in a mishap involving damage to that container, no person shall approach closer than 6 m to such container. The Superintendent and Claims Agent shall be informed immediately when instructions will be given for the procedure to be followed.

If in the opinion of the Officer in Charge of operations it is essential to move a container with the least delay, then, provided the container is in the open air and at least two hours have elapsed since the mishap occurred, the container may, with the approval of the Officer in Charge, be moved by a bulldozer, fork lift truck or other mechanical device providing the operator can be kept a minimum of 1.2 m from such container.

Containers under methyl bromide fumigation shall be consigned on a Dangerous Goods consignment note unless the consignor is authorized to use his own consignment note. Each consignment note presented for the transport of loaded containers shall show whether the container is under fumigation or not and if the former, the time and date of fumigation is to be shown thereon. This information must also be transcribed on to the relevant invoice.

All consignors shall be made fully aware of this Department's requirements in respect of fumigating shipping containers and any change of fumigant or extension to other cargoes shall immediately be reported to the Superintendent and Claims Agent.

Wagons conveying shipping containers under fumigation will receive normal dispatch conditions, but must not be loose shunted.

Insulated Fibre Glass Containers—These containers are constructed of inner and outer shells of fibre glass reinforced plastic with a suitable insulating core material bonded to the two shells and moulded as a single unit to form a box. The containers have a steel base with provision for lifting by either an overhead crane or fork lift vehicle.

These containers are used for the carriage of frozen meat, etc., in cartons or packages.

Double doors are provided in one side only with a clear opening of 1.52 m wide by 1.98 m high. Provision has been made for the fitting of liquid nitrogen or carbon dioxide refrigeration equipment.

After these containers have been unloaded they must be thoroughly swept and cleaned out.

The double doors must be secured at all times except when loading, unloading or cleaning out.

Insulated Produce Containers—These containers are constructed of timber with the interior lined with galvanized iron. Removable trays are provided for loading of produce and cooling is by means of ice placed in an overhead ice box. Lifting facilities are provided at the top corners of each container. Double doors are provided on one side only.

Station Masters requiring these containers must communicate with the Trucks Officer on the Division concerned.

The doors of these containers on trains must not be left open longer than necessary to quickly load or discharge any goods, however, when not in use the doors must be left unfastened so that air may pass to the interior woodwork and minimize the possibility of dry rot.

Blocks of ice must be clean and free from sawdust and pieces of bagging before being placed in the ice trays. The drain from the ice receptacles must be cleaned regularly to prevent water accumulating and splashing over the contents of the container.

After these containers have been unloaded, they must be swept and cleaned out thoroughly.

Butter—Transport of—During the summer months butter must be loaded in insulated vans when such are working, and in louvre vans when insulated vans are not attached.

1. **Eggs—Carriage of**—Officers and employees whose duty it is to receive and load consignments, must carefully examine cases containing eggs when delivered.

2. Where damage to a case or its contents is apparent, consignor's attention must be drawn to the matter, and request made for the case to be opened for inspection.

Brief particulars of any damage noted must be endorsed on the consignment note, sender's receipt, and invoice. Guards must similarly endorse consignment notes where damage is noted at unattended stations.

3. Where consignors tender consignment of eggs packed in cases which are dilapidated or out of repair, attention must be drawn to the conditions contained in the Goods and Livestock Rates Book, whereby the Commissioner reserves the right to refuse to accept goods which are considered to be unsafe for carriage. Consignment notes and sender's receipts in such instances must be clearly endorsed "Insufficiently Packed".

4. Consignors must be advised that standard cases of a type approved by the Department are available from the firms comprising the "Wholesale Egg Agents Association of South Australia", who act as sub-agents of the South Australian Egg Board.

Under Department of Commerce Regulations, eggs packed in chaff must not be accepted by any licensed agent on any egg grading floor.

Eggs packed in cases without lids must not be accepted for transit by rail.

5. *Handling*—Officers and employees handling cases of eggs must use the utmost care to prevent damage.

Cases containing eggs must be:—

(*a*) Carefully handled and not dropped even the slightest distance.

(*b*) Carried by hand in preference to wheeling on a sack truck.

(*c*) Carefully stowed in the van. Cases must be firmly held in position by battens or ropes where necessary, and efficient use made of the mats or other packing material provided.

(*d*) Placed under cover or otherwise protected from excessive sunlight, dampness or draughty conditions.

(*e*) Employees must never stand on cases containing eggs.

6. Consignments of eggs must (except in very special circumstances) be loaded into louvre vans to ensure effective ventilation and protection from adverse weather conditions. When box vans are used and are not fitted with louvred doors or side panels, one door at least must be secured in a partly open condition.

The use of open-type wagons on lines is permissible only when covered vans are not available, and the following precautions must be taken to avoid loss or damage to the consignments:—

(*a*) Cases must be loaded fore and aft and packing mats must be used to prevent the boxes coming into contact with the sides and ends of the wagon.

(*b*) Consignments must be secured against movement by placing other loading of a suitable nature in position. If bags of grain are used for this purpose, the bags must be laid sideways on the floor of the wagon and must not be placed vertically or in a leaning position against the cases.

(*c*) No loading is to be placed on top of the cases of eggs.

(*d*) The wagon must be covered with a tarpaulin, effectively ridged to prevent it coming into contact with the cases, and an open space left at each end to permit a current of air to pass over the consignments.

(*e*) Tarpaulins must not be wrapped around the stock of egg cases as this method prevents the free circulation of air and causes deterioration in quality.

Station Masters must advise the Superintendent when louvre vans are not available for the loading of eggs, including pick-up consignments from unattended stations.

7. *Labelling*—All concerned must see that each consignment is plainly and correctly addressed before being accepted for dispatch. Care must be exercised to ensure that each case is labelled and addressed in accordance with the consignment note tendered. Where consignments are received improperly or insufficiently addressed, the sender's attenion must be drawn and the matter rectified. Old labels must be removed.

Where a consignor shows his postal address on the label, the Railway Station from which the consignment is forwarded must also be shown for the information of the receiving staff in effecting delivery. The consignors should be requested to show both the postal address and the railway station from which the consignment is forwarded. Instances have occurred where consignments have been received showing sender's postal address only, and when such place is served by a railway station, but not the station from which the eggs were consigned, there has been considerable confusion resulting in costly and unnecessary inquiries and correspondence, *e.g.*, T. Jones, whose residence and postal address is Halbury, for some reason visits Balaklava, and whilst there consigns eggs to Mile End, but only shows his postal address on the label. It can be appreciated the difficulty the receiving staff would have in relating this particular consignment with the entry received from Balaklava.

This aspect must have the particular attention of the forwarding staff.

8. A standard label has been adopted by the Wholesale Eggs Agents' Association for the use of consignors forwarding consignments of eggs to the undermentioned firms. On this label a code letter has been heavily overprinted in red. The names of the firms and the code letters are as follows:—

Farmer Brown Egg Pty. Ltd. (Gawler)	Plain
F. M. Pritchard Ltd. (Mile End)	P
Redcomb Egg Co-op. Scty. Ltd. (Mile End)	R

The standard label must be securely placed in the metal label holder provided on the standard cases. On all other cases, the labels must be securely affixed to the end of case by *not less than four tacks.* Labels must not be placed on the lids, because they can be damaged by contact with other cases.

In addition to effectively labelling each case, the consignor should be encouraged to place in the case a packing slip or additional label showing his name and address and the number of eggs packed in the case, which will permit of its identification should the outside label become detached.

9. *Special Equipment and Vans for the Conveyance of Eggs*—On certain routes, as the traffic warrants, specially fitted egg vans are provided for the transport of egg consignments. The special equipment in these vans comprises a mattress covering the inside ends and floor of the van and ring bolts, hurdles, or crossbars for the effective lashing of cases in position in the various sections of the van. The cases must be carefully and firmly stowed, using small mats or packing bags between the cases and the sides of the vans. When sufficient cases have been packed in position, the crossbars or hurdles must be lashed across the van to secure the stack against movement; sufficient packing mats being placed between the bar or hurdle and the cases to absorb shock of train movement. If it is necessary to remove the hurdle or bar to place other loading in position at roadside stations, such a bar or hurdle must again be secured in position when the loading is completed.

Where specially equipped egg vans are not provided, and it is necessary to load egg consignments in brakevans, "pick-up" vans, or ordinary wagons, special care must be exercised in the loading and stowing of such cases. Wherever possible, a section of the van or wagon must be set aside for egg consignments only, and other goods of an offensive nature, such as skins or fat, must not be placed in the same van as eggs. If another van is not available, and there is insufficient room in the brakevan, the eggs must be stowed as far as possible from the offensive goods. Bundles of skins, motor tyres, heavy cases or packages, or other goods liable to cause damage, must not be loaded against or on top of cases of eggs.

Ample supplies of packing mats, viz., small bags filled with straw, are available at Mile End, Peterborough, and other stations as arranged by the Superintendent of the Division concerned. Requests for the supply of mats required by stations on the Murray Bridge Division, must be made to the Superintendent, Murray Bridge, who must make arrangements for the necessary supplies to be forwarded.

Each transfer station must keep on hand a supply of packing mats sufficient for one week's requirements, and must equip "pick-up" vans originating at those stations with not less than 12 mats each throughout the egg season. If any station receives a greater supply of mats than is necessary, the Superintendent Freight, Mile End, must be advised to cease further supplies, or the surplus mats must be returned to Mile End for distribution elsewhere.

10. *Transit*—Train and Yard Staffs must be advised the number and position on the train of any van containing eggs, and special attention must be given such vans during transit. Loose shunting of vans containing eggs, or the loose shunting of vehicles against vans containing eggs *is prohibited*. Enginemen must endeavour to prevent bumping or plucking of the vans during shunting operations, and wherever practicable vans containing eggs must be promptly placed under cover at the destination station, particularly during hot weather conditions.

11. *Consignment of Eggs for Port Adelaide from Stations North of Dry Creek*—Consignments of eggs for Port Adelaide from stations north of Dry Creek must be forwarded via Dry Creek, and where possible loaded in vans going direct to Port Adelaide. Should consignments be loaded in other than Port Adelaide vans, a transfer note headed "Dry Creek" must be prepared and accompany the consignment.

Guards must see that consignments picked up at unattended stations are, where possible, placed in Port Adelaide vans, but if not so loaded, they must be transferred at Dry Creek.

12. *Port Augusta-Port Pirie (Commonwealth Railways)*—Eggs forwarded from stations on the Port Augusta-Port Pirie section of the Commonwealth Railways must be transferred into the brakevan, or special egg van, if provided, on the first "Up" goods train from the latter station to Mile End.

Consignments forwarded on Saturdays from the stations mentioned must be transferred into the brakevan of the connecting "Up" passenger train *ex* Port Pirie. These consignments must be taken out at Snowtown or Bowmans and forwarded by the first available goods train to Mile End.

13. *Empty Return Egg Cases*—Empty return egg cases *must be*:—

(*a*) Carefully handled to avoid damage. They must not be thrown into or out of vans and sheds. Any loose lids must be placed with the cases.

(*b*) Placed in goods sheds or otherwise securely protected from damage by rain, dampness, or excessive sunlight.

(*c*) Properly stowed in vans to avoid damage to cases, lids or fillers.

Empty return egg cases for Mile End (whether equipped with paper board filler or not) must not be sent to the "Empty Return Park" but instead, must be forwarded in covered "shed" vans. If open wagons only are available, the cases must be protected against rain or dampness.

14. *Sealing of Cases Containing Eggs*—

(*a*) Some cases of eggs are sealed by consignors with a bulb-type seal. Each seal has stamped on it "Egg" and a consecutive number.

(*b*) Consignors must be encouraged to use these seals and can be advised that they may be obtained from the Wholesale Egg Agents. When used, seals must be affixed by the consignor or his agent, before being delivered to rail.

(*c*) Station Masters and other railway employees receiving, loading, checking, handling, or giving delivery of egg consignments must carefully examine any sealed cases. If a case with a seal attached is improperly sealed, *i.e.*, has the seal broken, incorrectly applied, attached to an insecure fastening which permits access to the contents, or the case is otherwise defective such action must be taken by the staff as will protect the Commissioner against claims for loss. The consignment note, invoice, or advice note must be endorsed with particulars, and the matter reported to the Station Master. At Mile End, the Superintendent Freight, Shed Foreman, or Detective Staff must be advised and the particulars specially noted on the manifest, mate's receipt, advice note, or other document when unloading the case but before giving delivery of a consignment.

1. **Waybills for Goods and Livestock consigned to Victoria, New South Wales and Queensland**—Original waybills for all traffic to Victoria and other eastern States, routed via Victoria, must go forward affixed to the vehicles in which the goods or livestock is loaded, except as provided in paragraph 17.

2. Separate waybills are to be prepared for each vehicle (livestock excepted, see paragraph 10).

3. Original waybills for the respective vehicles are to be enclosed in special invoice envelope (Form No. 397) and the necessary details typewritten or suitably inscribed on the face of the envelope, viz.—Station from, Station to, vehicle numbers, contents, mass, date and consignee.

4. Station Masters at forwarding stations must arrange for the envelope containing waybills to be placed in the waybill holder on the respective vehicles on the left-hand side facing the engine.

5. Envelopes containing waybills for vehicles not fitted with waybill holders are to be placed behind the label or securely tied in a conspicuous position as near as possible to the label.

6. Where transfer is involved at break-of-gauge or other transfer stations, the waybills are to be removed from the original vehicle and both the waybills and envelope endorsed with the number of the vehicle into which the goods or livestock has been transferred and the envelope containing the waybills affixed to the new vehicle, *vide* paragraphs 4 and 5.

7. (*a*) Consignment notes for traffic, *ex* unattended stations, are to be endorsed with the vehicle number, enclosed in special waybill envelope (Form No. 397), which must be addressed to the waybilling station (see paragraph 13) endorsed with the vehicle number, and affixed to the vehicle by the Guard. Guards are to obtain the necessary supplies of envelopes at the home or commencing station.

(*b*) Waybilling stations are to arrange for the removal of consignment notes from vehicles on arrival at their station, prepare necessary waybills, enclose in special waybill envelope (Form No. 397) with completed details, and affix same to vehicles in which the goods or livestock is dispatched from their station (*vide* paragraphs 4 and 5).

8. Waybills for small consignments, *ex* attended stations which are to be "picked up" during unattended hours, must be enclosed in an addressed envelope (Form No. 397) and left in the recognized place for picking up by the Guard of the train who will endorse the waybill and envelope with the number of the vehicle and goods or livestock was loaded into, and affix to vehicle.

9. Waybills for small consignments loaded into brakevans are to be endorsed with the brakevan number, enclosed in addressed envelopes (Form No. 397), which must also be endorsed with the number of the brakevan, and handed to the Guard, who will subsequently hand in same at the terminal station.

10. Consignments of livestock may be "group waybilled", that is, each consignment of livestock consisting of one or more vans for the same station may be entered on the one waybill.

In cases where there is more than one van in the consignment the waybill is to be enclosed in the prescribed envelope (Form No. 397) and affixed to the waybill holder of the first van, and the van number endorsed on the envelope.

An envelope is also to be affixed to each other van entered on the covering waybill, and each such envelope must be endorsed with the respective van number and the words, "Waybill No.....is attached to van No.....".

11. A copy of each waybill is also to be forwarded to the destination station under separate cover by passenger train, and other necessary copies distributed in accordance with instruction set out in the Accounts Instruction Book (interstate invoice envelopes, Form No. 396, to be used).

12. Waybills for traffic, *ex* Commonwealth and Western Australian Stations are to be handled at Port Pirie in accordance with paragraphs 3, 4, 5 and 6.

13. For the information of Guards the following are the waybilling stations for traffic from South Australian unattended stations to Victoria and other eastern states, routed via Victoria:—

Unattended Stations	Waybilling Station
Between—	
Wilmington Line	Gladstone
Caltowie	Gladstone
Peterborough and Quorn	Peterborough
Peterborough and Broken Hill	Peterborough
Yongala and Mannannarie	Peterborough
All other stations north of Mile End	Mile End
Outer Harbour and Grange Lines	Mile End
Tonsley and Port Stanvac Lines	Mile End
Victor Harbour Line	Tailem Bend
Cambrai Line	Tailem Bend
Between—	
Waikerie, Peebinga, Loxton and Barmera Lines	Tailem Bend
Pinnaroo Line—	
Via Pinnaroo	Pinnaroo
Via Serviceton	Tailem Bend
Via Mount Gambier	Tailem Bend
Between—	
Tailem Bend and Wolseley, via Pinnaroo	Tailem Bend
Tailem Bend and Wolseley, via Serviceton	Wolseley
Tailem Bend and Wolseley, via Mount Gambier	Wolseley
Between—	
Wolseley and Mount Gambier, via Pinnaroo	Wolseley
Mount Gambier and Millicent, via Serviceton	Wolseley
Naracoorte and Kingston, via Mount Gambier	Mount Gambier

14. Station Masters, Tailem Bend, Pinnaroo, Wolseley, and Mount Gambier must report to their Superintendent every instance where such traffic is received at or forwarded from their station without the waybills being affixed to the vehicle in accordance with the foregoing instructions.

15. In addition to the ordinary truck labels, "To Weigh" labels showing the station at which to be weighed, must be inserted in the label holders in front of the ordinary labels.

16. (*a*) Station Masters at Port Pirie, Gladstone, Peterborough, Wallaroo, Gawler, Dry Creek, Mile End, Tailem Bend, Pinnaroo and Mount Gambier (interstate weighing stations) are supplied with weighbridge tickets in triplicate. Unless otherwise directed a vehicle arriving at any of these stations for the Eastern States bearing a "To Weigh" label must be weighed, and weighbridge tickets prepared by the employee performing the weighing who must securely gum one copy (pink) to the invoice in the vehicle waybill envelope accompanying the goods.

At least once in every twenty-four hours the Station Master is to ensure that the entries in the weighbridge book coincide with the mass shown on the weighbridge tickets and forward the second copy (pink) under cover to the forwarding station, which must see that adjustments, if necessary, are made. The original copy is retained in the weighbridge ticket book.

(*b*) The "To Weigh" labels must be removed from the vehicle after weighing, and the correct mass inserted on the ordinary truck label.

(*c*) Vehicles from unattended sidings north of Salisbury consigned to the Eastern States are weighed at Dry Creek and invoiced at Mile End. In these circumstances the weighbridge attendant Dry Creek, must place one copy (pink) of the weighbridge ticket in an envelope addressed to the Senior Freight Clerk, Mile End, and this envelope must be delivered to the Guard of the train by which the vehicle is forwarded, or an earlier train, if possible.

Waybill Envelopes for Vehicles Dispatched by Interstate Express Goods Trains—

(*a*) *From Eastern States*—Waybill envelopes for vehicles arriving *ex* Victoria per interstate express goods train will be carried in the train brakevan.

(i) Upon arrival at Mile End the envelopes for vehicles consigned to that station will be delivered to the Senior Freight Clerk. Those for other stations will be placed in the envelope clip on the side of each vehicle prior to it being dispatched to its destination.

(ii) *Detaching "en route"*—Should a vehicle be detached *en route* between Serviceton and Mile End the envelope must be handed to a responsible member of the Station Staff.

In the case of an unattended station the envelope must be placed in the clip. The Station Master, Tailem Bend, will place the envelopes in the clips of vehicles detached at his station.

(iii) *Attaching "en route"*—If detached vehicles are subsequently sent forward by an express goods train the envelope must be removed by the Guard as he records the numbers of the vehicles. If they are subsequently forwarded by other than express goods trains the envelopes will remain in the clips.

(*b*) *To Eastern States*—The special envelopes (Form 397) containing invoices for vehicles dispatched per east bound interstate *express* goods train must be carried in the brakevan instead of in the clip provided on the side of each vehicle. In this connection the following will be observed:—

(i) At the completion of loading the envelopes of vehicles consigned to the Eastern States must be placed in the holders.

(ii) When the Guard of the express goods train is preparing his train he must remove the envelopes and place them in the brakevan.

(iii) For reasons of expediency at Mile End only the envelopes for traffic from that station, being forwarded per interstate express goods, will not be placed in the clips. They will instead be placed directly into the train brakevan as arranged by the Superintendent Freight.

(iv) *Attaching "en route"*—The envelopes of vehicles attached at Tailem Bend or roadside stations must be removed from the clip by the Guard and placed in the brakevan.

(v) *Detaching "en route"*—

Attended Stations: The envelope is to be handed to a responsible member of the station staff.

Unattended Stations: The envelope is to be placed in the clip on the side of the vehicle.

Loading of Rails and other Lengthy Articles—Rails and other long articles, when loaded on bolsters, with ends projecting must, when necessary, be protected by safety vehicles or fenders. Greasy rails must be covered with sand or have the grease removed before being loaded to avoid the possibility of moving when in transit.

1. **Goods for Western Australia (including Port Pirie-Kalgoorlie Line) from Eastern States and South Australia**—For traffic from Eastern States, transfer waybills, in duplicate, will be forwarded to Mile End, transfer details being endorsed thereon; one copy is to be retained for record purposes, the other to be forwarded under cover and addressed to the Commonwealth Goods Clerk at Port Pirie.

2. For traffic from South Australian Stations for Stations Kalgoorlie and beyond, two copies of each waybill are to be forwarded under cover and addressed to the Commonwealth Goods Clerk at Port Pirie.

In addition, one copy of the invoice must be enclosed and addressed to Station Master, Parkeston (Kalgoorlie). The original waybill must be forwarded direct to destination station.

3. For traffic from South Australian Stations to Stations on Trans-Australian Line (Kalgoorlie excepted), two copies of transfer notes to be prepared and forwarded under cover and addressed to Commonwealth Goods Clerk at Port Pirie.

4. In all cases waybill and/or transfer notes must accompany or precede the goods to Port Pirie.

5. The transfer notes must be completed at Port Pirie and forwarded by the same train as the goods. The transfer waybills must be endorsed at Port Pirie:—

"Transferred at Port Pirie to Vehicle No. .....
on ..../..../19....".

The completed transfer waybill must be enclosed in an envelope endorsed "Invoices for Western Australia" waybilled and forwarded by the same train as the goods.

1. **Perishable Traffic for Western Australia (including Port Pirie and Kalgoorlie Lines) and Central Australia Line ex Mile End**—Perishable consignments will be received at, and handled from, Mile End for Stations Port Germein to Kalgoorlie, inclusive and for stations in Western Australia; also for stations Emeroo to Alice Springs, inclusive, in accordance with the perishables circular issued in conjunction with the current Working Time Tables Book.

2. The necessary transfer notes and transfer waybill for Port Pirie must be prepared at Mile End, waybilled and forwarded to the Commonwealth Goods Clerk, Port Pirie, by the train on which the perishable consignments are dispatched.

Parcels, Goods and Livestock Traffic to and from Stations on Commonwealth Lines—Waybills for parcels, goods and livestock traffic from unattended stations on Central Australia and Trans-Australian Lines to stations in South Australia and beyond will be handed to the South Australian Railways Staff by the Commonwealth Railways Staff at Port Pirie.

The consignment notes, coloured pink for goods and livestock traffic, or yellow for parcels, from unattended stations in South Australia to stations on Central Australia and Trans-Australian Lines, must accompany the consignment to the Station where the entry is prepared. The Station Master preparing the entry must forward one copy with the consignment, one copy to the Accounting Station, and file the third copy.

The waybills for parcels, goods and livestock traffic from stations without Resident Accounting Staff on S.A.R. territory, for stations on other Railway Systems must be prepared in accordance with the appropriate instructions listed in the Accounts Instruction Book.

Goods Rates Books—Where Staff are not supplied with Goods Rates Books, they must refer by telephone to the nearest Station Master, with regards to rates for the Goods items concerned.

1. **Portable Containers**—Departmental containers are available for the carriage of goods of various descriptions.

Particulars of sizes and capacities of containers and rates and conditions may be obtained from the Commercial Manager.

2. Classification of Containers—

Class	Capacity of Container
Chilled and frozen rabbits	850 pairs
Ice (in blocks)	3 tonnes
Cheese (new or chilled)	2·25 tonnes
Butter	3 tonnes
Frozen egg pulp (in tins or cartons)	3 tonnes
Suitable general merchandise	2 tonnes to 4 tonnes
Tiles, slates, bricks and loose castings	1·5 tonnes

3. Station Masters must keep in close touch with consignors who have for transport any of the commodities enumerated above to ensure that demands for containers may be met.

4. The number and tare mass is painted on each container and these must be entered on the consignment notes, invoices, and transfer note must be prepared for each container.

5. Each container must be labelled with a Perishable or Urgent label (No. 254 or 258, or if for transfer, label No. 256 or 257). A metal label holder is affixed to the door of each container for this purpose. The vehicle in which the container is loaded must also be labelled.

6. Station Masters must keep a record of containers, removed from, and returned to, their station by consignors and consignees.

When giving a receipt to the consignor for commodities loaded in a container the number of the container must be entered on such receipt. Similar information must be entered on the receipt obtained from consignees when a container is removed from Railway premises.

7. Mile End is the depot for all containers and Station Masters must make application to the Superintendent Freight, Mile End, for their requirements.

8. Containers must not be sent empty to meet orders when there is suitable merchandise available for loading therein, except when such merchandise would delay the loading for which the containers were ordered.

9. Stations dispatching containers must telegraph the destination station, and transfer station if transfer involved, stating the container number, contents, and vehicle number in which loaded. Transfer stations must forward loaded or empty containers by the first connecting train and telegraph the destination station the number of the vehicle into which the containers are transferred, and the train number and date forwarded. Station Masters at receiving stations must arrange for containers to be promptly discharged and thoroughly cleaned before being again loaded or returned empty.

10. The Superintendent Freight, Mile End, must maintain a constant inspection of all containers, and any requiring repairs must be delivered to the Sub-Foreman, Rollingstock Depot, Mile End, for the necessary attention. If it is found necessary to take a container out of service for repairs, the Superintendent Freight, Mile End, must arrange for prompt replacement.

11. In the event of the wagon in which containers are loaded being red carded for repairs, arrangements must be made for prompt transfer of the containers to avoid delay, and destination and transfer stations advised of the changed vehicle number.

12. The Superintendent Freight, Mile End, must keep a complete record of containers, showing the date and full particulars of each outward and inward movement for each container, and furnish a return to the Superintendent on the last day of each month, setting out the disposition of containers on that date.

Flour—Carriage and Protection of in Vehicle Loads—The following must be observed for the protection and safe carriage of flour:—

1. Vans must, wherever possible, be supplied for the carriage of flour in vehicle lots.
2. If vans are not available, permission must be obtained from the Superintendent to use open wagons.
3. Tarpaulins must be provided for covering wagons and sufficient sawdust must be available to cover the floor of the wagon should such be necessary.
4. All vehicles must be swept before loading is commenced and consignors must be supplied with sawdust to protect flour from contamination.
5. Standards must be supplied for wagons not fitted with stanchions and tarpaulins must be properly ridged and secured to protect the load.
6. Flour loading stations must requisition for and keep on hand a minimum reserve of 10 bags of clean, dry sawdust for this traffic.

Honey—Carriage in Unprotected Tins—The following instructions relating to the inspection, stowing and carriage of consignments of honey in unprotected tins are to be observed by all concerned:—

1. Stations Masters at forwarding stations where honey is loaded each season must see that the protective packing materials mentioned herein are supplied and used with each consignment dispatched from stations under their control and that the prescribed charges are raised in accordance with the current rates and conditions for this traffic.
2. The materials required for protection purposes are:—
   (*a*) Pieces of worn canvas or bagging.
   (*b*) Sawdust.
   (*c*) Ropes for lashing incomplete stacks in position.
3. Before being accepted for carriage each tin of honey must be inspected, and if not in sound condition, the sender's receipt, consignment note and invoice must be endorsed accordingly.

4. Wherever possible vans must be used, but a wagon may be used when a van is not available. For vehicle load consignments, vans must be supplied unless the consignor is prepared to load into a wagon.
5. Before unprotected tins of honey are loaded into a vehicle with a steel floor, pieces of canvas or bagging must be placed on the floor for better protection and to prevent the tins from sliding about during transit.
6. Loading of consignments:—
   (*a*) Tins placed on the floor must be spaced about 10 mm apart and the crevices filled with sawdust.
   (*b*) Before a second layer of tins is loaded, additional sawdust must be spread over the top of the tins in the first layer and also placed between the tins of the second tier.
   (*c*) During loading operations pieces of canvas or bagging must be placed between the tins and the sides and ends of the vehicle.
   (*d*) When the consignment is insufficient to cover the full floor space of the vehicle the tins are to be lashed to prevent movement and protective packing material must be placed between the tins and the ropes. Any other loading in the vehicle must be secured to prevent contact with the tins of honey.
   (*e*) Should there be insufficient tins to complete the second tier, the incomplete section must be secured as outlined in (*d*).
7. A nominal charge of 14 cents per bag of sawdust is to be levied against customers which is to be raised through Miscellaneous, and where consignors do not desire to pay this charge, or in the case of consignments forwarded from unattended stations, the amount is to be made "Paid on" to the destination station and collected from the consignees either by cash or through their monthly credit accounts.
8. *Packing Materials*—Packing used for the protection of consignments must be shown on the waybills which must be endorsed "Return O.S. free to S.M., ...".

   Station Masters at destination stations must ensure that the protective packing is promptly returned labelled and waybilled to the forwarding station.

   Sufficient sawdust and packing must be maintained at forwarding stations for anticipated consignments. Sawdust may be obtained locally by the Station Master on receipt of authority from the Railway Storekeeper or requisitioned for direct supply through the Stores Branch.

   Empty bags which become available from sawdust and packing received from the Railway Storekeeper must be returned immediately, waybilled, and labelled to "B" Store.
9. At break-of-gauge stations consignments for transfer must be stowed and protected in accordance with these instructions.

Open Wagons—Loading of for Hauling on Express Goods Trains—Open wagons (with sides) which are to be loaded for movement on Express Goods trains in or via the South Australian, Victorian and New South Wales systems must conform to the following requirements:—

(*a*) Loading must not exceed the normal loading gauges and must be carefully stowed, lashed, and where necessary, sheeted.

(*b*) When loaded with small consignments, the items in the top layer must be at least 75 mm below and not more than 1.22 m above the gunwale of the wagon.

(*c*) Clause (*b*) does not apply to motor body traffic which is secured with special equipment.

Break of Gauge Stations—To Keep Supplies of Packing Materials, Etc., at— Each break-of-gauge station must retain on hand as station equipment sufficient supplies of ridge standards for securing ridged tarpaulins on open type wagons not provided with fixed ridging poles, and also sufficient supplies of buffers, packing bags, packing material, strips of canvas and sawdust to meet the station requirements for a fortnight in advance.

A record of the standards and packing used each day must be kept at the stations, and on Monday of each week a telegraphed request must be made to the Superintendent Freight, Mile End, for replacement of equipment used during the previous week, excepting sawdust, which will be supplied by the Superintendent of the Division on request from the Station Master.

Open type wagons must not, except with the approval of the Superintendent, be used for the carriage of drapery, boots, clothing, cartoned and other commodities which may be pilfered or damaged by water.

PROTECTION AND TRANSPORT OF WINES, WINE SPIRIT, BRANDY, VINEGAR, OR OTHER LIQUIDS IN BARRELS, CASKS, OR HOGSHEADS

1. The following instructions relating to the protection, inspection and transport of bulk consignments of wine, spirits, vinegar and other liquids in barrels, casks or hogsheads must be strictly observed by the staff concerned with the receipt and safe transit of consignments.

2. Special equipment for protection purposes consists of:—

(*a*) Buffers—

(i) Rubber-made from discarded Westinghouse air hose pipes and roped together.

(ii) Rubber-made from discarded rubber water hoses and roped together.

(iii) Four-bagged, each bag measuring 740 mm x 483 mm and roped together.

(iv) Two-bagged, each bag measuring 740 mm x 483 mm and roped together.

(*b*) Strips of old canvas or bagging.

(*c*) Ropes.

3. **Buffering Casks—**In each instance the cross ropes of buffers must be placed over the tops of the casks in such a manner to prevent movement and with the bags or rubber buffers protecting the bilges to prevent casks contacting each other, or the sides or ends of vehicles. Rubber buffers are of two sizes, large and small, and must be used according to the types of casks requiring protection.

4. **Buffers—Care of—**Station Masters must see that buffers are neatly stored under cover, protected from damage by weather or rodents, and readily available for use when required. Damaged buffers or those with ropes missing must be waybilled to the Superintendent Freight, Mile End, for repairs.

5. **Types of Vehicles to be used—**Wooden floored vehicles should be used for bulk wines, spirits, etc., but if not available and steel floored vehicles are used, strips of old canvas or bagging must be placed on the floor to minimize slipping.

6. **Station Masters responsibility to supply proper equipment—**Station Masters must keep in touch with consignors at Stations where this traffic originates with a view of seeing that suitable buffers are available at the loading station in ample time to afford necessary protection when loaded.

7. **Supply of packing to unattended stations**—The Station Master, for an unattended station under his control, must see that buffers are supplied for wine loaded at such station, and that consignors understand the correct method of applying the various types of buffers.

8. (*a*) **List of country stations holding buffers and packing**—The following stations at which wine is regularly loaded must keep on hand buffers and packing as follows:—

Station	Buffers	Scrap canvas or bagging
Clare	Sufficient for one bogie vehicle	Sufficient for one 4-wheeled vehicle
Sevenhill	Sufficient for one bogie vehicle	Sufficient for one 4-wheeled vehicle
Strathalbyn	Sufficient for one 4-wheeled vehicle	Sufficient for one 4-wheeled vehicle
Lyndoch	Sufficient for one 4-wheeled vehicle	Nil
Rowland Flat	Sufficient for one 4-wheeled vehicle	Nil
Tanunda	Sufficient for one bogie vehicle	Sufficient for two 4-wheeled vehicles
Nuriootpa	Sufficient for three bogie vehicles	Nil
Angaston	Sufficient for one bogie vehicle	Sufficient for one 4-wheeled vehicle

When loading order is received which will require the use of the reserved supply or any greater quantity, the Station Master must make immediate application to the Superintendent Freight, Mile End, for such equipment as is necessary to provide protection for the loading and to restore his reserve supply of buffers and old canvas and bagging.

(*b*) The following stations at which wine is regularly loaded must keep on hand buffers and packing as follows:—

Station	Buffers	Scrap canvas or bagging
Penola	Sufficient for one 4-wheeled vehicle	Nil
Renmark	Sufficient for six bogie vehicles	Sufficient for two 4-wheeled vehicles
Karoom	Sufficient for four bogie vehicles	Nil
Waikerie	Sufficient for two bogie vehicles	Sufficient for two 4-wheeled vehicles
Loxton	Sufficient for four 4-wheeled vehicles	Sufficient for two 4-wheeled vehicles

When a loading order is received which will require the use of the reserved supply or any greater quantity, the Station Master must make immediate application to the Station Master, Tailem Bend for such equipment as is necessary to provide protection for the loading and to restore his reserve supply of buffers and scrap canvas or bagging.

9. **Buffers and packing—Stock held by Superintendent Freight, Mile End**—The Superintendent Freight, Mile End, must keep on hand a stock of buffers and strips of scrap canvas to meet requirements.

10. **Buffers and packing—Stock held by Station Master, Tailem Bend**—The Station Master, Tailem Bend, must keep a supply of 500 buffers and sufficient old canvas and bagging for eight 4-wheeled vehicles, and as this is distributed he

must make application to the Superintendent Freight, Mile End, for a further supply to restore his reserve. The buffers at Tailem Bend may also be used, if required, to complete buffering of any consignments not satisfactorily buffered when inspected at this station.

11. **Details of Equipment used to be shown on Waybill, Etc.**—The number and type of buffers forwarded with each consignment must be shown on the waybill and transfer note, if transfer be involved.

12. **Return of Buffers**—Immediately the buffers are freed from the loading they must be forwarded to the Superintendent Freight, Mile End, accompanied by an O.S. Waybill. Delays in returning buffers or any irregularity in their use must be immediately reported to the Superintendent.

13. **Forwarding stations to advise Mile End**—Forwarding stations must, on dispatch of the consignments, immediately advise the Superintendent Freight, Mile End, the number and type of the buffers used in each vehicle, quoting the date of forwarding, the number of vehicle and destination station.

14. **Return of buffers from and to Victoria to be checked by Superintendent Freight, Mile End**—The Superintendent Freight, Mile End from the information received from forwarding stations, must see that buffers used for loading for Victoria and Eastern States are returned to his station, and to this end must keep in contact with the Goods Superintendent, Melbourne. Similarly the Superintendent Freight, Mile End, must when no loading is in sight requiring these buffers, waybill spare buffers and packing belonging to Victoria, received at his station to the Goods Superintendent, Melbourne.

15. **Procedure handling buffers and packing at Transfer Stations**—When vehicles loaded with wine, spirits, etc., are received at transfer stations, the buffers must be dealt with in accordance with the following procedure:—

(*a*) *Peterborough and Gladstone*—The Station Master must see that buffers are transferred with the consignments and show full particulars on the transfer note or transhipping advice. Advise the Superintendent, Peterborough, who will arrange with the Station Master, Broken Hill, for their return to the Superintendent Freight, Mile End. These buffers must not work beyond Broken Hill.

(*b*) *Port Pirie*—The Station Master must return buffers received with consignments on the broad gauge to the Superintendent Freight, Mile End. These buffers must not work beyond Port Pirie.

16. **Buffers used on consignment for shipment**—The Station Masters, Port Adelaide and Outer Harbour must not permit buffers used on consignments for shipment to be taken from the railway vehicles by unauthorized persons and must see that they are collected and promptly dispatched to the Superintendent Freight, Mile End, accompanied by an O.S. Waybill.

17. **Buffers forwarded with consignments for Victoria or beyond**—For consignments to Victoria, the waybills must be endorsed "Return buffers and packing to Superintendent Freight, Mile End", and for those beyond Victoria for waybill to be endorsed "Buffers not to go beyond Albury or Tucumwal", as the case may be.

Buffers forwarded with consignment for Victoria or beyond, also Western Australian and Eastern States dispatched via Broken Hill, loaded into Bogie Exchange vehicles, must be endorsed on the invoice "Return Buffers and Packing to Superintendent Freight, Mile End".

18. **Buffers received from Interstate**—Stations receiving either Victorian or South Australian buffers from Victoria, must immediately forward them to the Superintendent Freight, Mile End. A waybill must accompany the buffers and show from whence they came.

19. **Ordering of Wagons, Vans and Equipment**—Wagons or vans for the conveyance of bulk wine, spirits etc., in wagons or van loads must be ordered on the prescribed form (No. 83) in accordance with the Goods and Livestock Rates Book. When ordering vehicles the Station Master must also order sufficient buffers, old canvas or bagging and ropes, and advise whether the consignments are at Owner's Risk or Commissioner's Risk. Orders for buffers, ropes and strips of canvas must be forwarded to the Superintendent Freight, Mile End, or Station Master, Tailem Bend as the case may be, not later than 10.00 a.m., Saturdays and 12 noon other days.

20. **Order of priority when buffers in short supply**—Should sufficient buffers not be available to meet all demands at a station, preference must be given to the consignments carried at Commissioner's Risk, and an immediate report must be sent to the Superintendent, giving full particulars of consignments loaded without buffers or insufficiently lashed.

21. **Loading of Wagons—Less than Wagon-load consignments—**

Broad Gauge: *Bogie and four-wheeled vans and wagons equipped with inside Ring Bolts*—In addition to the application of buffers, etc., the front rows of casks are to be lashed transversely with ropes secured to the ring bolts to the rear of the front row of casks.

"OW" or "W" wagons—The casks are to be secured together by a ring rope placed around the outside of the casks.

Open type four-wheeled Steel Wagons—The casks are to be loaded away from the stanchion door standards and the end of wagon and secured together by ring ropes placed below and above the bilges of the outer circle of casks, looped together at each end of the loading in a manner to prevent the ropes slipping up or down, and the ropes secured to the lashing bolts at each end of the wagon.

22. **Consignments to be carried at Commissioner's Risk**—Wine and spirits in bulk must not be accepted at Commissioner's Risk unless contained in sound casks loaded in wagons with wooden floors fully protected with sufficient buffers and secured with ropes.

Consignments of wine "under bond" (special arrangements excepted) must not be accepted at Commissioner's Risk to or from unattended stations, private sidings, wharves, jetties or private frontages.

23. **Consignments of Wine in Wagons not tightly stowed or Wagons partially Loaded**—When consignments in wagons are not tightly stowed or wagons are only partially loaded, the casks must be secured together by a ring rope applied above and below the bilge of the casks in a manner that will not allow the rope to slip up or down. The ropes must be secured to each end of four-wheeled wagons and to side ring bolts of bogie wagons.

24. **Labelling**—Wine and spirits in wagon-loads must be labelled "Urgent". Wagon labels must be appropriately endorsed with the word "Wine" printed diagonally across the face of the label.

Station Masters at transfer points must see that wagon-loads of wine and spirits are labelled in accordance with the foregoing before dispatch from their station.

Guards attaching wagon-loads of wine and spirits at unattended stations must see that "Urgent" labels endorsed "Wine" are used at the starting point, failing which the Train Controller must be advised, who must arrange for the correct labelling of the vehicle at the next station at which a stop is made.

25. **Canvas "Fragile" signs**—Canvas "fragile" signs must be attached to wagons or vans containing wine, etc., in accordance with the instructions herein.

26. **Transit**—Station Masters forwarding consignments of wine, spirits, etc., must advise Guards accordingly. Guards must take special not *en route* of all vehicles labelled "Wine" and immediately report any instances of damage, or suspected damage, showing wagon or van number, date, forwarding and destination station, and probable cause of damage.

27. **Damage in Transit**—When a cask of wine or spirits is found damaged or in a leaking condition, the Inspecting officer or employee must immediately report the matter to the Station Master who must, if practicable, effect temporary repairs or stop the leakage to prevent further loss. If temporary repairs cannot be effected the cask must be removed from the vehicle and held pending instructions from the Claims Agent. In either case when damage or leakage is noted, the Claims Agent and Superintendent must be immediately advised and a written report forwarded. If the cask is removed from the vehicle the balance of the loading must be re-adjusted, buffered, and roped to prevent movement.

28. **Consignments for Shipment**—

(*a*) *Wagon Loads*—The invoice and transfer note (if any) for wagon load consignments, or full wagons or mixed consignments railed to Port Adelaide for shipment, must be endorsed.

(*b*) *Small Consignments*—The waybill and transfer note (if any) for small consignments railed to Port Adelaide for shipment, must be endorsed accordingly and accompany the consignment. If loaded in "pick-up" vehicles, the consignments must be placed in a position near the door for quick handling.

Advice to Train Control—The forwarding station must advise the Train Controller full particulars, if possible, of each consignment, including name of ship (if available) for which the wine is to be loaded.

29. **Restrictions on the Carriage of Empty Return Wine Casks from other States to South Australia**—The attention of the staff is drawn to the regulation covering the carriage of empty return wine casks from other States to South Australia, vide the Addenda to the Goods and Livestock Rates Book.

Provision is made therein whereby such casks may be railed direct to stations in South Australia if accompanied by a declaration from the sender that they have been stored, and have not been taken into vineyards or been in contact with grapes or other fruit whilst out of the State.

Receiving Stations must deliver the certificates or declarations to the local inspector of the Department of Agriculture, and where there is not a local inspector of the department they are to be forwarded to the Chief Inspector, Agricultural Department, c/o Superintendent Freight, Mile End.

In cases where consignments are received without certificates or declarations, Station Masters are to immediately report the matter to the Superintendent in order that the Department of Agriculture may be advised and take whatever action is necessary.

GOODS "UNDER BOND" OR "DUTIABLE"—INSTRUCTIONS CONCERNING HANDLING, CARRIAGE, AND DELIVERY OF

30. In connection with the carriage of goods "under bond" or "dutiable" the Railways Commissioner has given security to the Minister of Trade and Customs for the safe custody and delivery of such goods when conveyed over the South Australian Railways, and in the event of delivery being given before examination and release by a Customs Official, is liable to forfeiture of the heavy bond entered.

The Commissioner, in certain circumstances, is also responsible for excise duty due on "bonded" goods lost during transit by rail.

The staff will, therefore, readily realize the importance of excercizing every care in dealing with such traffic, and the following instructions are issued for the information and guidance of all concerned.

31. **Outward Traffic—**

(*a*) *Inspection Before Acceptance*—When goods "under bond" are tendered for dispatch by rail, the consignment must be carefully examined and if the goods are not packed to the satisfaction of the receiving official, or where containers are defective in any way, it must not be accepted. Particular attention must be paid to casks and drums containing wine or spirits, and to cartons, cases and boxes of tobacco.

(*b*) *"Dispatch Notes"*—Each consignment must be accompanied by a Dispatch Note signed by a Customs Official. This Dispatch Note is the authority to forward "under bond" goods and such consignments must not be accepted without it. When release for the goods is given at destination the Dispatch Note is to be surrended to the Customs Official.

For wines and spirits "under bond" railed from country distilleries and wineries, Customs Advice Note "A" is to be used. (See paragraph 15 *re* attaching of Dispatch Note and/or Customs Advice Note "A" to invoice or waybill (to the consignment note) in cases of goods from an unattended station).

(*c*) *Consignment Notes*—Consignment notes for goods "under bond" must bear the endorsement "under bond" or "dutiable" plainly stamped or written on the note. Other goods must not be entered on these consignment notes, and the particulars must be carefully checked in order to ensure that there are not discrepancies regarding marks, mass, descriptions, etc. Failure to declare on consignment note for goods in bond that such goods is "under bond" renders consignor liable to a penalty.

(*d*) *Customs "Dispatch" Notes*—If requested to do so, the receiving official at the forwarding station must sign the Customs Department "Dispatch Note" in the appropriate place, first making certain that the pariculars shown thereon are correct.

(*e*) *Branding and Stowing of Small Consignments*—Receiving officials must see that goods "under bond" are branded accordingly before being accepted for transit by rail. (See paragraph (*f*) *re* wagon load consignments.) This is essential in order that destination stations will be aware, in the event of entries not being received with the consignments, that the goods are under Customs control and are not to be delivered without the necessary release being obtained.

Each cask, case, or other container must be distinctly branded "under bond" or "dutiable", and is to be carefully and securely stowed. Where several small consignments are forwarded in the same vehicle they should be stowed together. Small consignments conveyed in brakevans are to be kept separate from other consignments.

(*f*) *Branding of Wagon Load Consignments*—When forwarded in wagon loads to a station not involving transfer *en route*, the cases, casks, or other containers need not be individually marked "under bond" but should transfer be necessary, each container must be branded as indicated in paragraph (*e*).

(*g*) *Truck Labels*—Truck labels (Nos. 253 and 255, as the case may be) are to be placed on each side of vehicles containing wagon load consignments of goods "under bond" and must have a printed "under bond" or "dutiable" slip attached, or such words written diagonally across the face of each label.

(*h*) *Sealing of Vehicles*—Where practicable, vehicles containing goods "under bond" must be sealed each side.

(*i*) *To or from Unattended Stations*—In the case of Goods "under bond" being required to be forwarded to or from an unattended station, unless otherwise directed by the General Traffic Manager, not less than four working days' notice

must be given the Station Master at the forwarding station (the controlling Station Master in the case of an unattended station) of the intention to forward such goods. Immediately upon receipt of such advice the Station Master must telegraph full particulars to the General Traffic Manager, who will advise whether the consignment may or may not be accepted.

(*j*) *To or from Private Sidings, Wharves, Jetties or Private Frontages Prohibited*—Goods "under bond" must not be accepted for delivery on wharves, jetties, private sidings, or private frontages, nor should such goods be accepted at any of these points for transit by rail.

(*k*) *Dispatch*—The Customs and Excise Acts require that consignments subject to Customs control shall be forwarded as quickly and directly as possible to the destination station. Consequently, "under bond" traffic must be afforded the most expeditious transit possible.

WAYBILLING, ETC.

(*l*) *Wine "Under Bond" at Owner's Risk*—Wine "under bond" may, should the consignor so desire, and providing consignment notes are endorsed Owner's Risk in the "At Whose Risk" column, be accepted for conveyance at owner's risk, and will not be subject to the surcharge of 10 per cent, but all other instructions in regard to "under bond" traffic contained herein must be strictly complied with.

(*m*) *Fortifying Spirit "Under Bond" at Owner's Risk*—Spirits in bulk for fortifying wine consigned by the undermentioned firms only, may also be accepted for conveying at Owner's Risk, and without the addition of the 10 per cent surcharge under the conditions outlined in paragraph (*l*) above:—

Renmark Growers' Distillery Ltd.
Waikerie Co-op. Distillery Ltd.
Berri Co-op. Winery and Distillery Ltd.

(*n*) *Preparation of Waybills, Invoices and Transfer Notes*—Separate waybills or invoices must be prepared for "under bond" goods, and if transfer be involved, separate transfer note is also to be provided. The words "under bond" must be plainly endorsed on waybills and transfer notes, and the Dispatch Note or Customs Advice Note "A" (see paragraph (*b*)) is to be attached to invoice or waybill (to the consignment note for goods from an unattended station).

(*o*) *Handling of Waybills, Etc.*—Waybills and consignment notes must be handed to Guard of train concerned, who will deliver same to either the Station Master at destination or station at which he gives up the train, or to Relief Guard should the train be handed over *en route*, the attention of the latter to be drawn to any bonded goods loaded in the brakevan.

(*p*) *Station Masters to Instruct Guards*—Station Masters in charge of stations and sidings from which "Bonded" goods are forwarded must ensure that Guards and others are conversant with the correct method of handling consignment "dispatch" and transfer notes, "Transfer" labels and entries in accordance with the foregoing.

TRANSFER STATION

(*q*) *Transfer Station*—At transfer stations the instructions shown for the handling of "under bond" traffic where applicable must be strictly carried out.

(*r*) *Damage occurring in Transit*—When leakage or damage is observed in any vessel or container containing wine, spirit, or other goods under bond, whilst in transit, the container must be removed from train at the first attended station reached after leakage or damage is noted. Whatever temporary repairs or action necessary to prevent further loss must be effected or taken, and the gross mass of the container ascertained and recorded. The container must then be forwarded

to destination by first available train and full report giving all information possible concerning the damage or loss, forward immediately to the General Traffic Manager. Telegraphic or telephonic advice must also be given promptly to "Claims" who will advise the Customs Department.

INWARDS TRAFFIC

(*s*) *Arrival at Destination*—On arrival at destination vehicles containing "under bond" goods must be promptly placed in position for unloadng and kept under close surveillance until ready for discharge.

(*t*) *Consignments Received in Brakevan*—Small consignments received in brakevans must be handed over by the Guard to the Station Master at destination.

(*u*) *Unloading*—"Under bond" traffic must be unloaded as soon as possible after arrival in a separate bay, or specifically selected place in the parcels office, goods shed, or yard, away from other goods, and is to be kept under supervision until delivery is effected.

(*v*) *Examination and Checking on Arrival*—Each package unloaded must be carefully examined and any defects noted. If containers be noted leaking or damaged the attention of the Customs official must be at once drawn to same. Leaking or damaged containers must be weighed and the gross mass recorded.

The goods must be carefully checked with waybills and transfer notes and discrepancies reported immediately to the General Traffic Manager by telegraph or telephone, full report to be submitted with Form 129, as early as possible. Sending and transfer stations (if any) are also to be advised promptly.

(*w*) *Advice Notes*—An advice note, on which other goods must not be entered is to be delivered to the consignee immediately the goods have been unloaded and checked. If in vehicle loads, consignee must be advised by telephone if possible. The Customs officials must also be informed of the arrival of consignments.

(*x*) *Delivery*—Goods "under bond" must not be delivered to consignee except upon the written authority of a Customs Officer, or to a "licensed carrier" who must have Customs authority. The licensee of each licensed vehicle is supplied by the Collector of Customs with a number plate (blue enamel, size 150 mm x 75 mm) bearing a representation of the Crown, the letters "H.M.C." and the licence No. assigned to the vehicle. This licence plate is affixed to each vehicle.

Emphasis is again laid on the urgent necessity for exercising every care in handling "under bond" traffic, and the Staff concerned are enjoined to make themselves thoroughly conversant with the foregoing instruction, which must be strictly observed.

(*y*) *Handling of Goods in Bond*—The following procedure will be adopted in conjunction with the Department of Customs and Excise, in respect to the carriage of goods subject to Customs and Excise Control.

(i) The consignor or "Licensed Carrier" will tender consignments at forwarding rail station or depot accompanied by a sealed window faced Customs "Under Bond" envelope (containing form 20 or form 33), addressed to the consignee and appropriate consignment notes plainly endorsed "Goods Under Bond".

Where split loads are involved, Customs Cart Notes (form G.80) will continue to be used.

Goods should be clearly branded "Under Bond".

(ii) The Railway employee receiving Goods and sealed Customs "Under Bond" envelope must give receipt to consignor or "Licensed Carrier" in similar manner to ordinary goods consignment.

(iii) The number of the relevant goods waybill must be endorsed on the face of the "Under Bond" envelope. The "Under Bond" envelope together with the Goods invoice to be dispatched to the destination rail station or depot by quickest available method to ensure arrival at such destination prior to, or not later than the goods.

This aspect to be given special attention by all concerned.

Goods Waybill should also be endorsed "Under Bond".

(iv) At the destination station or depot the goods and "Under Bond" envelope are to be delivered to the consignee or "Licensed Carrier" for on-forwarding to the address shown in envelope.

The Railway employee must obtain signature for goods and documents from consignee or "Licensed Carrier" authorized to take delivery of the goods on behalf of the consignee or his agent.

(A customs release will not be required by the Railways).

(v) "Under Bond" traffic may only be diverted on the written authority of the Department of Customs and Excise.

The above detailed procedure applies to both Intrastate and Interstate "Under Bond" traffic.

TOBACCO AND CIGARETTES—HANDLING OF CONSIGNMENTS OF, FROM ADELAIDE AND MILE END

ADELAIDE STATION

1. Consignments tendered at the Parcels Office, Adelaide, must be handled in the following manner:—

2. Any consignments showing the slightest sign of damage or interference to the wrapping *must not* be accepted for transit.

3. The Tobacco Scales Porter receiving the parcel must enter in the record of "Tobacco Book"—

Date of receipt
Consignor
Mass
Consignee
Destination station.

4. Parcels Porters will be rostered to receive parcels of tobacco, cigarettes, etc., and will be responsible for depositing such parcels in the approved cage provided for the storage of consignments.

5. The Parcels Record Book of tobacco consignments must be kept in the Tobacco Scales Porter's locked counter box.

6. Two keys are provided for the tobacco cage, to be allotted as follows:—

One for the use of the Parcels Porter referred to in clause 4.

One to be held by the Senior Parcels Clerk.

7. The Parcels Porter on evening shift, after checking the parcels and locking the cage must hand the key to the Supervisor, who will inspect the cage with the employee concerned and, if satisfied that same has been secured and locked, deposit the key in the safe. The Supervisor, next morning, will inspect the cage with the morning Parcels Porter and, if in order, hand the key to that employee.

8. Parcels of tobacco will be forwarded once a day where service permits.

9. The Parcels Porter referred to in clause 4 will be responsible for forwarding parcels of tobacco in approved containers by the nominated trains, and he must

obtain a certificate in the "Tobacco Book" from the Supervising Officer concerned that each parcel entered has been forwarded. In addition to waybills, a statement showing number of train, date, consignor, consignee, destination, and number of parcels must accompany the container; the statement must be checked and endorsed by the Supervising Officer, who must hand it to the Guard.

10. The Guard must sign on the Parcels Office copy of the hamper waybill for the key of the tobacco hamper.

11. Guards must, as early as is possible after train departure, check the contents of the hamper with the statement handed to him by the Supervising Officer, after which he must lock the hamper and retain the key.

12. Guards must certify on the waybill particulars of delivery of every consignment at or to stations.

13. Guards handing over to another Guard, either *en route* or at a transfer station, must deliver any parcels still in his care to the Guard concerned and obtain his receipt in the Guard's Value Receipt Book for same and for the key of the container.

14. Guards, on arrival at destination, must certify on the statement that all parcels have been put out at the respective station, and hand the statement, together with the key of the container, if any, to the Station Master at such destination station, or, where the destination station is unattended, to the Station Master at the first attended station passed through after the last consignment has been delivered, obtaining a receipt for the statement and key (which receipt must show the number of such statement and the number of the key) in the Guard's Value Receipt Book.

The Station Master receiving the statement and container key, must value same in the one envelope to the Senior Parcels Clerk, Adelaide, by the first train after receipt, showing the number of the statement, and the number of the key in his Station Value Book and on the waybill accompanying, and endorse the value envelope "Tobacco statement No. ..... and key No. ....." The Senior Parcels Clerk, on receipt, must file the statement for reference.

Should the Guard of the train be returned to Adelaide working the next return movement, such as the return of the Adelaide-Peterborough, Adelaide-Port Pirie or Adelaide-Semaphore train, in lieu of handing out the statement and key, as set out above, he may bring the statement, key and container back to Adelaide and deliver the statement and key to the Excess Luggage Clerk, obtaining a receipt for same in his Value Receipt Book in which the numbers of such statement and key must be entered.

15. Guards must, when a container is forwarded, hand over the empty container to the Station Master at the station to which the statement and key are delivered, and the receipt given for the statement and key in the Guard's Value Receipt Book will be an indication that the container was also handed over.

The Station Master must waybill the container to the Senior Parcels Clerk, Adelaide, by the first train.

MILE END STATION

16. Consignments forwarded by goods train from Mile End must be handled in the following manner:—

17. A Check Porter will be rostered to receive consignments at the regular point of acceptace, which is at the Tobacco Shed in the outwards area. *No other employee is permitted to accept consignments of tobacco and cigarettes.*

18. Any consignment showing the slightest sign of damage or interference to the wrapping *must not* be accepted.

19. The Check Porter referred to in paragraph 17 will, upon receipt of consignments, record in the tobacco book the following particulars:—

Date of Receipt
Consignor
Mass
Consignee
Destination station.

After which the consignments must be placed in the Tobacco Shed provided for storage. This Shed, when not in use for receipt or discharge of contents, must be kept locked.

20. The Tobacco Record Book must be kept in the Tobacco Shed.

21. One Key of the Tobacco Shed will be kept in the Time Office Safe and will be issued each morning to the Check Porter in charge of this traffic. This key must be signed for on issue. The duplicate key of the Tobacco Shed is held by the Senior Detective, Mile End.

22. The Check Porter in charge of tobacco consignments must each day at such times as may be directed by the Superintendent Freight, Mile End, arrange to dispatch all consignments in accordance with the authorized schedules:—

Consignments dispatched in Tobacco Hampers and Containers from Broken Hill —After placing the packages in the hampers or containers the Check Porter must lock same. The following particulars must be recorded:—

No. of the lock
No. of the hamper or container
No. of the vehicle in which loaded
No. of the train by which dispatched
Date of dispatch.

NOTE:—As far as practicable, hampers must be used for consignments beyond the break-of-gauge stations and for broad gauge stations when closed vans are not available. Keys for hampers beyond break-of-gauge stations must be waybilled to the transfer station concerned, and the Station Master thereat will deliver same to the Guard of the train, who must handle the consignments, keys, and hampers, as prescribed in paragraphs 11, 12, 13, 14 and 15 of this instruction, except that Senior Parcels Clerk, Adelaide, shall be read as meaning Senior Freight Clerk, Mile End.

23. The Officer in Charge at stations receiving hampers must place the contents in a secure position for delivery and waybill the empty hamper and key thereof to the Senior Freight Clerk, Mile End, by first train.

24. The Officer in Charge of any station where it is necessary to break the seal of a van conveying consignments of tobacco must personally supervise the opening and resealing of such van.

25. The Officer in Charge at junction and transfer stations must make adequate arrangements for the safe custody of consignments during the time they are held at such station.

TRANSFER NOTES

1. Transfer notes must accompany all goods and livestock to be transferred at break-of-gauge or other stations. The notes must be prepared in duplicate, using good carbon paper and soft black lead pencil. They must be addressed to the transfer station concerned, and be complete in all particulars, except the column to be filled in by the transfer station.

2. The Station preparing transfer notes must send both copies to the transfer or junction station.

3. The necessary information according to the headings must be shown on both the original and carbon copies at the transfer station. The carbon copy must be sent from the transfer station with the goods or livestock and the original copy retained at the transfer or junction station, where the transfer notes for each day must be tied in brown paper and the package dated.

4. Should it be necessary to remove the original copy for attaching to other papers, a duplicate copy must be placed in the bundle, and the reason why the original was removed endorsed across the face of the duplicate.

5. Where consignments pass through more than one transfer station, a separate transfer note (in duplicate) must be sent to each transfer station.

6. If a memo. transfer note be sent, it must be prepared in duplicate, the mass shown, and otherwise treated as an ordinary transfer note.

7. Transfer notes must be enclosed in a green envelope (except as provided in clauses 8, 22 and 23) provided for the purpose and addressed to the transfer station and not the destination station of the goods or livestock, and the envelope must contain only transfer notes with pink consignment notes (attached to their respective transfer notes) for goods consigned to unattended stations. Each green envelope must be plainly endorsed to indicate the class of goods shown on the transfer notes it contained *i.e.*, sundries, perishables, livestock, etc.

8. When goods involving transfer are carried in the brakevan or "Take Out" vehicle, the transfer notes must be handed to the Guard, and not enclosed in the green envelope.

9. Transfer notes must be used for checking off goods when transferring. The columns headed "Transferred to vehicle No.....", "Date received at transfer station", "By train No.....", "Date forwarded from transfer station", and "By train No.....", must be filled in at the transfer station. The note must then be forwarded with the goods or livestock to destination.

10. When there is more than one entry on a transfer note, the mass must be carefully totalled and shown on the transfer notes at the forwarding station.

11. When goods are forwarded in vehicle load consignments (as shown in the Goods and Livestock Rates Book) the mass of each vehicle must be shown separately on the transfer note.

Transfer notes for break-of-gauge stations must show the class at which the goods are waybilled in the column provided for the purpose.

12. Transfer notes must in all cases, agree with the waybills when received at destination stations and filed after having been marked with the receiving stations waybill number, to permit easy reference in case of dispute.

13. The numbers of the vehicles into which the goods or livestock is loaded at the sending station must always be shown on the transfer notes. If loaded into the brakevan, the abbreviation "G.B." followed by the number must be shown. The abbreviation "P.U." must not be used, the number of the vehicle must be shown.

14. For goods involving transfer at two (2) or more break-of-gauge stations (including Mile End), a transfer note must be prepared by the sending station for each of the transfer stations; for example "one case of apples, Blackwood to Wirrabara" separate transfer notes must be prepared for Mile End and Gladstone. The transfer notes for each transfer station must be sent from the station at which it is prepared direct to the transfer station to which it is headed. The number of the vehicle in which the goods are loaded at the sending station must be shown on each of the transfer notes in the first column headed "Vehicle No.....". These transfer notes must be dealt with as follows:—

(*a*) The transfer note headed Mile End must have the number of the vehicle to which the goods are transferred at Mile End endorsed thereon, and enclosed to the Station Master, Gladstone, and must reach the latter station with the goods. The transfer note headed Mile End must be filed at Gladstone.

(b) The transfer note headed Gladstone must have the number of the vehicle to which the goods are transferred at Gladstone endorsed thereon, and enclosed to the Station Master, Wirrabara, and must reach the latter station with the goods. The transfer note must be held at Wirrabara.

15. Should it be necessary to divide a consignment entered on a transfer note at the break-of-gauge or other station, the original transfer note must be forwarded with the first portion of the consignment, and a memo. transfer note with full particulars for the balance.

16. Transfer notes for vehicle load consignment of "Manure", "Firewood", "AP", "Miscellaneous", "A", "B", and "C" classes when sheeted or lashed must bear the endorsement "Sheeted" or "Lashed" in large letters. The number of all tarpaulins and ropes used on such wagons must be endorsed on the transfer note. The station responsible for the preparation of the transfer note must make the endorsement for goods from unattended stations.

17. The Station Master forwarding the goods must make arrangements to ensure that the transfer notes will accompany or precede it to the transfer station except as shown in clauses 23 and 25.

18. Transfer notes for brakevan or take out consignments must be initialled and dated by each Guard through whose hands they pass.

19. Transfer notes must be forwarded for all O.S. traffic which is to be transferred. When such goods are consigned "O.S. FREE" on Form No. 19, the transfer note must be so marked, but when the goods are consigned on the ordinary consignment notes and charged to an A.F.E. it must be treated as ordinary goods.

20. The Station Masters at depot or junction stations enumerated below must make effective arrangements to ensure that transfer notes (either loose or in envelopes) received at their stations, are sorted and despatched by the proper trains, in order to accompany or precede the goods. (See also Clause 24).

Mile End	Port Adelaide	Snowtown
Mount Barker Jct.	Pooraka	Brinkworth
Monarto South	Salisbury	Port Pirie
Tailem Bend	Gawler	Gladstone
Karoonda	Nuriootpa	Peterborough
Alawoona	Roseworthy	Broken Hill
Renmark	Hamley Bridge	Cummins
Wolseley	Riverton	Thevenard
Naracoorte	Balaklava	
Mount Gambier	Kadina	

21. Consignments requiring separate transfer notes. All the contents of a vehicle may be entered on one transfer note, but when more than one vehicle is forwarded, a separate transfer note must be prepared for the contents of each vehicle. For full "vehicle load" consignments of goods (as shown in the Goods and Livestock Rates Book) more than one vehicle may be entered on the transfer note provided all the vehicles on the one transfer note are for the same consignee, and are forwarded by the same train.

22. Separate transfer notes must be prepared for the following:—

Livestock:—For each consignment of livestock (Form No. 104) and must be enclosed in the green envelope and endorsed "Livestock".

Perishable Goods:—For all perishable goods, the transfer notes must be endorsed "Perishables" and enclosed in a green envelope also endorsed "Perishable" and separate from other transfer notes.

Commissioner's Risk Goods:—For "Owner's Risk" goods carried at Commissioner's Risk, the transfer notes must be endorsed "Commissioner's Risk". For dried fruits, the kind of fruit (raisins, currants, etc.) must, in addition be shown on the transfer note. It is not sufficient to describe the article as "Dried Fruit".

Under Bond Goods:—For all under bond goods, the words "Under Bond" must be plainly written or stamped on the transfer notes. These notes must be enclosed in a green envelope endorsed "Under Bond" and handed to the Guard who must deliver them to the Station Master at the station at which he gives up his train or to the Guard to whom he hands over the train.

Consignments for Victoria:—For full vehicle load consignments (as shown in the Goods and Livestock Rates Book) from South Australian to Victorian stations, a separate transfer note must be prepared for each vehicle.

Explosives and Dangerous Goods:—For all explosives and dangerous goods a transfer note with three red lines across the face must be used, and enclosed in a green envelope endorsed "Explosives" separate from other transfer notes.

Insured Goods:—For all "Insured Goods" the transfer note must be endorsed "Insured" and enclosed in a green envelope endorsed "Insured" separate from other transfer notes.

Vehicles:—For all vehicles as specified in the Goods and Livestock Rates Book.

Agricultural Implements and Machines:—For all agricultural implements and machines, as described in the Goods and Livestock Rates Book.

Wool Traffic:—The transfer note must show the number of bales, bags and packages in each consignment, also the marks and brands and whether the wool is greasy or scoured. The transfer notes for wool for Port Adelaide must be enclosed at the transfer station in a green envelope and sent by the first passenger train to Port Adelaide, unless a goods train will reach that station earlier.

Hides, Skins, etc.:—For all consignments of bones, fat, hair, skins of all kinds, and tallow for Mile End.

23. **Junction stations**—Sending stations must prepare transfer notes for goods to be transferred at Junction stations. These transfer notes must not be enclosed in a green envelope, but must be handed to the Guard of the train by which the goods are dispatched. When goods are transferred at a Junction station necessitating transfer at another junction station before the destination is reached, the junction station at which the goods are loaded must prepare and forward a transfer note to the junction station in advance. The following is a list of junction stations:—

Mount Barker Junction
Monarto South
Tailem Bend
Karoonda
Alawoona
Wolseley
Naracoorte
Mount Gambier
Port Adelaide (for Glanville and Outer Harbour)
Dry Creek (for Pooraka line and Port Adelaide loop line)
Gawler (for Angaston and Robertstown lines)
Nuriootpa
Hamley Bridge
Roseworthy
Riverton
Balaklava
Bowmans

Kadina	Peterborough
Snowtown	Port Pirie
Lake View (for Port Broughton)	Cummins
Brinkworth	Thevenard
Gladstone	

24. Consignments for transfer from unattended stations: Transfer notes for goods forwarded from unattended stations and involving transfer at break-of-gauge or other station (see also clause 23) must be prepared at the stations mentioned in the schedule hereunder:—

Traffic From	Station at which Transfer Notes are to be prepared
Tonsley and Port Stanvac Line . . .	Mile End
Victor Harbour Line	First station at which transfer is necessary
Cambrai Line	Monarto South
Pinnaroo Line	"Down" journey—Pinnaroo "Up" journey—Tailem Bend
Murray Lands Lines	Tailem Bend
Stations Cookes Plains to Cannawigara	"Down" journey Wolseley
Stations Cannawigara to Cooke Plains	"Up" journey Tailem Bend
Stations south of Wolseley	First station at which transfer is necessary
Millicent Line Victorian Stations via Mount Gambier Border	Mount Gambier
Victorian Stations via Serviceton . . .	Wolseley
Victorian Stations via Pinnaroo . . .	Pinnaroo
Stations— Virginia to Nurom Port Pirie to Port Augusta South Hummocks Hart to Halbury Owen and Stockyard Creek Point Pass to Fords Stockwell to Sandy Creek Andrews to Rhynie Merildin Black Rock to Bruce Yongala, Mannanarie, Caltowie Stone Hut to Terka Mingary to Ucolta	First station at which transfer is necessary
Beyond Port Augusta	Port Augusta

25. Transfer notes for consignments through Mile End:—All goods involving transfer at Mile End must be accompanied by transfer notes headed "Mile End". (Transfer notes are not necessary for goods in van load consignments (as shown in the Goods and Livestock Rates Book) which will not be transferred at Mile End.) These transfer notes must be enclosed in a green envelope and endorsed in large letters "Transfer Notes" and addressed "Superintendent Freight, Mile End". The envelope must be handed to the Guard of the train by which the goods are forwarded and the Guard and others concerned must see that the envelopes reach Mile End with the goods. Invoices must not be enclosed with transfer notes, but must be enclosed separately and addressed to the destination station. Guards must place these envelopes in the correspondence box at the Mile End Freight Office.

26. **Transfer Notes for Consignments on Central Australian Line**—A transfer note must be forwarded to the Commonwealth Goods Clerk, Port Pirie and to Port Augusta for all stations to Marree, for all stations beyond Marree a transfer note must be forwarded to the Commonwealth Goods Clerk, Port Pirie and to Marree.

27. **Transfer Notes for Consignments on Trans-Australian Line (Kalgoorlie excepted)**—A transfer note must be forwarded to the Commonwealth Goods Clerk, Port Pirie and to Port Augusta.

Station Master, Port Pirie must arrange for all transfer notes received at that station to be handed over to the Commonwealth Goods Clerk at Port Pirie immediately after receipt of same in order to avoid any delay in handling and trans-shipment of goods.

In all cases transfer notes must accompany or precede the goods to Port Pirie.

28. **Transfer notes for consignments to Port Broughton via Lake View**—Two copies of transfer note for consignments to Port Broughton must be forwarded to Lake View by all stations with the exception of Mile End, Port Adelaide, and Glanville, who will prepare an extra copy of invoice.

EXPLOSIVES—DISPATCH OF FROM DRY CREEK

When consignments of explosives are dispatched from Dry Creek for transfer at Gladstone, Port Pirie or Peterborough, the Station Master, Pooraka, must telephone the General Traffic Manager's Office (Movement Section), advising:—

(*a*) Number of packages
(*b*) Class of explosives
(*c*) Whether in magazines or not
(*d*) Vehicle number
(*e*) Date and train number of dispatch.

If such consignments are loaded in a vehicle for transfer at Mile End Station, the Station Master, Pooraka must telephone the Superintendent Freight, Mile End, giving particulars of the vehicle numbers and dispatch from Dry Creek. The Superintendent Freight, Mile End, must telephone the General Traffic Manager's Office (Movement Section), stating the altered vehicle numbers into which the consignments are transferred and also the dispatch from that station.

CARRIAGE, EXCHANGE, AND RECEIPT OF MAILS

The following information regarding the carriage of mails in the South Australian Railways is given for the guidance of the staff in connection with the agreement existing between the Railways Commissioner and the Postmaster-General of the Commonwealth of Australia:—

1. (*a*) Mails for conveyance by Railway under this agreement shall be delivered by the Postmaster-General to Commissioner.

(i) properly enclosed in suitable sealed bags or other coverings or in boxes or baskets of reasonable dimensions; and

(ii) with the name of the station to which they are to be conveyed by railway legibly written or stamped on the enclosing bags, boxes, baskets, or coverings or on labels attached thereto; and

(iii) accompanied by or having attached thereto a waybill invoice or other document in a form from time to time prescribed by the Commissioner and stating the name of the station to which the mails are to be conveyed by railway; and

(iv) at an appointed entrance to the railway station in the capital and other cities, as may be required by the Postmaster-General and at the guard's van through an entrance to the platform adjacent thereto at other railway stations; and

(v) by being (within a reasonable time before the scheduled time for the departure of the train by which they are to be conveyed) given into the custody of the Guard of such train or of some other officer appointed by the Commissioner to receive them.

(*b*) The Commissioner shall receive and convey to the station to which they are to be conveyed by railway all mails delivered by the Postmaster-General to the Commissioner for conveyance under this agreement.

(*c*) The Guard or other officer appointed by the Commissioner to receive mails shall on receipt of any mails sign in a clear and legible manner a receipt for such mails, including "Private Bags", in a book or form provided by the Postmaster-General for the purpose.

(*d*) The Commissioner shall take all reasonable measures and precautions for the safe custody and conveyance of all mails delivered to him for conveyance.

(*e*) On arrival of any mails at the station to which they are to be conveyed by railway the Commissioner shall with all reasonable dispatch deliver such mails to a duly authorized servant or contractor of the Postmaster-General together with (when practicable) a docket or waybill stating the number and address of the mails so delivered.

(*f*) Mails shall be delivered by the Commissioner as aforesaid at the appointed entrance to the railway station in the capital and other cities as may be required by the Postmaster-General and at the guard's van at all other stations.

(*g*) At stations where a railway officer is on duty between 6 p.m. and 8 a.m. and where it is not convenient to the Postmaster-General to deliver or take delivery of mails on the departure or arrival of a train between these hours:—

(i) The Commissioner shall when practicable at any time between those hours receive, safely keep and convey in due course mails to be conveyed by trains departing between those hours; and

(ii) The Commissioner shall when practicable take custody of and safely keep all mails received by trains arriving between those hours until delivery thereof is given to a duly authorized servant or contractor of the Postmaster-General.

(*h*) At railway stations where railway officers are not continuously employed and at other stations mutually agreed upon the Postmaster-General may provide and place on the railway platform a suitable box or receptacle for mails. If on the arrival of a train at or departure of a train from any such station there is not present a servant or contractor of the Postmaster-General duly authorized to receive or deliver mails conveyed or to be conveyed by the train, the Guard or other employee of the Commissioner shall:—

(i) place and securely lock in the box or receptacle all mails conveyed to the station by railway together with a docket or waybill provided by the Postmaster-General stating the number and addresses of mail bags placed therein; and

(ii) remove from the box or receptacle all mails to be conveyed by the train from the station and cause them to be duly conveyed; and

(iii) sign in a clear and legible way in a book or form provided by the Postmaster-General for the purpose a receipt for the mails removed from the box or receptacle and place and securely lock such receipt in a box or receptacle.

Conveyance and Safe Custody of Mails—The following instructions must be strictly observed in connection with the waybilling and conveyance of mails by rail. All members of the staff must exercise continual watchfulness to give safe transit of mails over the railway.

Station Masters receiving mails must ensure that the mails are effectively protected against theft or damage while in their possession and during transit from or to brakevans and offices. Station Masters must report to the Superintendent any failure on the part of any officer or employee to carefully observe these instructions. Telegraphic advice must be sent to the Claims Agent of any lose, damage, or pillage of mails.

"Down" Journey—

1. The three kinds of forms in use for mails carried in the charge of Guards are, in the following instructions, referred to as:—

(*a*) Mail Waybill (used by Guards).

(*b*) Train Mail Docket P.M. 8 (used by Guards).

(*c*) Receipt for mails dispatched by train P.M. 4 (used by Post Office officials and contractors).

2. The waybills are used solely by the Guards when carrying mails in the van—one waybill to serve each train. The "Down" journey forms are of white paper.

3. The number of bags received and delivered by the Guard must be shown on the waybill form in the columns provided for the purpose and the Guard must obtain a receipt from the person to whom the bags were delivered. Where the Guard places mails in the P.M.G. "Lock-Up" box or receptacle, he must initial the entry on the waybill indicating that the mails were so handled.

4. Guards must, whenever possible, obtain receipts for mails delivered to private bag holders or their representatives failing which an initialled entry must be made on the mail waybill indicating that the private mail bag had been put off. If the recipient refuses to give a receipt, the bag must be treated as if no-one is in attendance to receive same.

5. Particulars of mails dispatched from the General Post Office, Adelaide, will be entered by the Mail Officer on the waybill for the line concerned. The Branch line waybill will be forwarded in charge of the Guard leaving Adelaide, and handed by him to the Guard of the train on the Branch line with the mails. (In the absence of the Branch line Guard, the Station Master at the junction station must take charge of the mails and waybill for the time being, and afterwards hand them to the Guard.) The Branch line Guard or the Station Master at the junction station (as the case may be) must sign the Main line waybill for the number of mails for the Branch line as entered thereon, after checking with the mails entered on the Branch line waybill.

6. Certain Post Offices will also issue the "Down" Branch waybills (this applies to lines where the mails do not originate from the General Post Office, Adelaide).

7. The Guard receiving the mails at roadside stations, or mails at starting stations other than those appearing on the waybill received from the Postal Department, must make the necessary entries on the waybills.

8. The waybills, when completed by the necessary receipts thereon, must be handed over to Station Masters at terminal stations, who, after satisfying themselves that mails have been duly signed for, must file the waybills. Any discrepancies must be reported at once by telegram to the Superintendent and the station concerned.

9. Mails dispatched to Post Offices situated away from the Railway and shown on the Guard's waybill, and taken delivery of by a Contractor or other Post Office Official must be accompanied by a Mailman's Waybill which must be

handed by the Guard to the Contractor or other Post Office Official, who will receipt the Guard's waybill.

10. The Mailman or Post Office Official will hand Form P.M. 4 to the Guard for mails received from Contractor, or other Post Office Official, and the Guard must enter the total number of mails on the Guard's waybill, receipt Form P.M. 4, and return this to the Contractor, or other Post Office Official.

11. The Guard, before giving a receipt on the waybill presented by the Postal authorities, must satisfy himself that the number of bags correspond with the entry on the waybill or other mail docket receipted by him.

12. Receipts other than those provided for on the Guard's waybill, as set out in Clauses 9 and 10, are not necessary between Railway employees, but Station Masters or others who take charge of mails, and afterwards hand them to a Post Office Official, must obtain a receipt for the number of bags delivered on Form P.M. 8; such receipt must be filed.

13. Mails handed to a Railway employee for custody and subsequent handing to a Guard must be accompanied by Form P.M. 4 (in duplicate), the Post Office Official being given a receipt on one portion, and the other must be filed by the Station Master.

"Up" Journey—

1. The three kinds of forms in use for mails carried in charge of Guards are, in the following instructions, referred to as:—

(*a*) Mail Waybill (used by Guards).

(*b*) Train Mail Docket P.M. 8 (used by Guards).

(*c*) Receipts for mails dispatched by train P.M. 4 (used by Post Office Officials and contractors).

2. The waybills are used solely by the Guards when carrying mails in the van—one waybill to serve each train. The "Up" journey forms are of yellow paper.

3. The number of bags received and delivered by the Guard must be shown on the waybill form in the columns provided for the purpose and the Guard must obtain a receipt from the person to whom the bags were delivered. Where the Guard places mails in the P.M.G. "Lock-up" box or receptacle, he must initial the entry on the waybill indicating that the mails were so handled.

4. Guards must, whenever possible, obtain receipts for mails delivered to private bag holders or their representatives failing which an initialled entry must be made on the mail waybill indicating that the private mail bag had been put off. If the recipient refuses to give a receipt, the bag must be treated as if no-one in attendance to receive same.

5. The Guard of an "Up" train on a Branch line must obtain a signature on the Guard's waybill from the local Station Master, or the Guard of the Main Line train for the mails handed over. The Branch waybill must be filed by the Station Master at the junction station after satisfying himself that it has been duly completed. The Guard of the "Up" Main Line train must enter such mails on his waybill.

6. "Up" waybills will be issued by terminal Post Offices.

7. The Guard receiving mails at roadside stations must make the necessary entries on the waybills.

8. The waybill, when completed by the necessary receipts, must be handed to the Station Master at the terminal station, who after satisfying himself that all mails have been duly signed for, must file the waybill. Any discrepancies must be reported at once by telegram to the Superintendent and the station concerned.

9. The Mailman or Post Office Official will hand Form P.M. 4 to the Guard for mails received from a Contractor or other Post Office Official, and the Guard must enter the total number of mails on the waybill, receipt Form P.M. 4 and return this to the Contractor or other Post Office Official.

10. The Guard, before giving a receipt on the waybill presented by the Postal Authorities, must satisfy himself that the number of bags correspond with the entry on the waybill or other mail docket receipted by him.

11. Receipts other than those provided for on the waybill as set out in clauses 9 and 10, are not necessary between Railway employees, but Station Masters or others who take charge of mails, and afterwards hand them to a Post Office Official, must obtain a receipt for the number of bags delivered on Form P.M. 8; such receipts must be filed.

12. Mails handed to a Railway Employee for custody and subsequent handing to a Guard must be accompanied by Form P.M. 4 (in duplicate), the Post Office Official being given a receipt on one portion, and the other filed by the Station Master.

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1. Station Masters must see that at least a six weeks' supply of mail dockets is always on hand.

2. All Mail Contractors and Postal Officials concerned in the dispatch and receipt of mails by trains are furnished with a certificate of authority. When Guards or others are in doubt as to the *bona fides* of the person handling mails they may demand to see such certificate.

3. Guards are prohibited from handling any loose mail matter, except at places where there are no facilities for posting.

4. Mail bags must be stowed away from cans of cream or other loading likely to cause damage *en route*.

Clearing of Letter Receivers at Wayside Stations—Guards must clear Letter Receivers at the stopping places shown on the mail waybill. All such letters together with those handed to them must be placed in a bag provided for the purpose. This bag must be delivered to the Post Office Official receiving the mails.

Guards must not accept letters or any other article not properly stamped.

Guards must retain the key of the receivers, and see that they are securely locked after clearing them.

Mails in Mail Vans or Brakevans other than Train Brakevans—Before commencing to load mails in a "CE" brakevan, the dispatching Station Master must see that doors of dog-boxes are bolted on the inside, and where possible, sealed; also that sliding windows in the Guard's canopy are effectively bolted on the inside.

Loading in "D" mail vans and "CE" brakevans must be evenly distributed over the floor space, and stacked in front of the doors in a manner that loading will not press against the sliding door and make it difficult to open at destination.

When provided, the door protection bars must be placed in position in mail vans.

These vans must be sealed with "Brookes" seals in accordance with instructions and in addition securely lock. Guards must examine the seals and locks on each side:—

(*a*) when taking charge of train,

(*b*) *en route* as often as opportunity permits,

(*c*) on arrival at refreshment room stations,

(*d*) immediately on arrival at destination.

At break-of-gauge or any other station where a mail or brakevan is detached and the mails forwarded by a different train the "Brookes" seals must be examined by the officer or employee responsible.

Mails in Train Brakevans or Rail Cars—Guards of trains on which mails are carried must:—

(*a*) prevent unauthorized persons travelling in train brakevans and engine compartments of rail cars;

(*b*) frequently examine compartments of brakevans and Rail Cars carrying mails to prevent theft or interference;

(*c*) lock the side doors of compartments of brakevans carrying mails;

(*d*) when leaving brakevan for any length of time, lock all doors and cab windows.

When mails are carried in special vehicles, the doors must be secured with special locks.

Bags and baskets of mails for Melbourne must be stowed in such a manner that upon arrival they can be cleared from either doorway.

The bags and baskets first loaded must not be placed quite against the door. Any large baskets stowed in the doorway must be placed lengthways across the van, so that if necessary they can be pulled through the doorway.

Mails from Broken Hill must be stowed in the broad-gauge van at Peterborough, so that they can be obtained immediately after the train arrives at the Adelaide Station.

BRAKEVAN EQUIPMENT

A Guard must ensure that, prior to departure, his brakevan is equipped with the following:—

Goods Train Brakevan—

1 emergency oiling kit
1 coupling hook (narrow gauge only)
1 coupling pin (narrow gauge only)
1 Ambulance Box, stretcher, and other Ambulance equipment
1 fire extinquisher
2 sprags and 2 chocks (narrow gauge)
2 sprags and 4 chocks (broad and standard gauge)
2 spare air hoses (narrow gauge)
3 spare air hoses (broad and standard gauge) = 1 only 600 mm x 25 mm, 1 only 750 mm x 25 mm, 1 only 600 mm x 31 mm, in accordance with instruction herein
1 rope
1 glass fronted accident case
1 container (detonators and fusees)
2 marker lamps and brackets (narrow gauge and broad gauge)
2 marker lamp brackets (standard gauge)

Passenger Train Brakevan

1 emergency oiling kit (end loading suburban trains excepted)
1 Ambulance Box, stretcher and other Ambulance equipment
1 fire extinquisher
2 sprags and 2 chocks (narrow gauge)
2 sprags and 4 chocks (broad and standard gauge)
1 air hose in accordance with instructions herein
1 glass fronted accident case
1 container (dentonators and fusees)
1 rope

Equipment for a Goods Train Guard—

"M" Key
"S" Key
"G" Key
"Car" Key
Ticket nippers
Goods and Livestock Rates Book
General Appendix to the Rule Book
Rule Book
Working Time Table Books
Book Tickets Book (where required)
Excess Fare Book
Passenger Fare Table, etc., Books
Value Receipt Book
Train Journal
Consignment Notes
Road Bills
Risk Note Book
1 mouth whistle
Car Report Forms (Form No. 79) for unattended stations
Crossing and Proceed Orders (where required)
10 Green Labels (Form No. 263), 6 Red Labels (Form No. 264)
1 dispatch box
1 watch
1 red flag
1 green flag
1 hand signal lamp

Equipment for Passenger Train Guard—

"S" Key
"G" Key
"Car" Key
Ticket nippers
Passenger Fare Books
Excess Fare Book
Book Tickets Book
General Appendix to Rule Book
Rule Book
Working Time Table Books
Value Receipt Book
Train Journal
Consignment Notes (Country Passenger Trains only)
Road Bills (Country Passenger Trains only)
1 mouth whistle (Country Passenger Trains)
1 Dispatch box
10 Green Labels (Form 263), 6 Red Labels (Form 264) (Country Passenger Trains only)
1 watch
1 red flag
1 green flag
1 hand signal lamp
1 Coaching Book (Country Passenger Trains only)

FUSEES AND DETONATORS

To be Carried as Engine, Rail Car, Brakevan and Motor Inspection Car Equipment—Each rail car, brakevan and motor inspection car is equipped with a container as a permanent fixture for the storage of fusees and detonators. This container must be equipped with eight detonators and four fusees.

Each engine has a container in the sealed tool box in which are contained eight detonators.

Each container must be sealed with a standard seal, the stem of which must be passed through the metal fastenings twice before it is inserted in the bulb and sealed.

The Guard when taking up duty, must examine the container and ensure that it is effectively sealed. He must endorse the Train Journal accordingly. If the seal is broken, the Guard must immediately advise the Station Master, who must check the contents, and if necessary replenish the container with the required number of detonators or fusees. The Station Master must then reseal the container.

If the Guard is required to break the seal of the container he must show the relevant particulars on his Train Journal and advise the Station Master at the terminal station, who must, if possible, immediately re-equip and reseal the container.

If the Guard is relieved *en route* the attention of the relief Guard must be drawn to the incomplete equipment. The relief Guard must advise the Station Master at the terminal station accordingly.

A supply of detonators and fusees is kept on hand at Gillman Yard for equipping brakevans in case of emergency.

Fusees and detonators carried as part of brakevan equipment must be examined every two (2) years.

Joint Stock Brakevans—Joint stock brakevans classified as "CO", "PCO" and "JCP" are equipped with containers for the purpose of storage of detonators and fusees.

"CE" brakevans are not equipped with this container; Guards of "Down" trains on which "CE" brakevans are working must obtain eight detonators and four fusees from the Station Master, Adelaide, and hand them, on arrival, to the Station Master, Serviceton.

Guards of "Up" trains on which a "CE" brakevan is working, must obtain eight detonators and four fusees from the Station Master, Serviceton, and on arrival hand them to the Station Master, Adelaide.

The Station Master, Serviceton, must keep a stock of 12 fusees and 24 detonators on hand.

Foreign System Brakevans—Victorian brakevans must not work into South Australia unless the permission of the Divisional Superintendent, Murray Bridge is first obtained. If it is necessary, as the result of an emergency, to work a Victorian brakevan into South Australia, the Guard must obtain four fusees and eight detonators from the Station Master, Serviceton, and hand them to the Station Master, Adelaide; Superintendent Freight, Mile End; or other station at which the train terminates if short of Adelaide or Mile End. The brakevan must be immediately returned to Serviceton as a spare van.

New South Wales brakevans must only work on S.A.R. standard gauge trains from Broken Hill on the approval of the Divisional Superintendent, Peterborough. New South Wales brakevans must be immediately returned to Broken Hill because of the detention charges involved. These brakevans may be used as train brakevans for return working to Broken Hill.

The Station Master, Broken Hill, must equip New South Wales brakevans which are approved to work into South Australia with boxes containing detonators and fusees.

These boxes are painted green and weigh about 1·8 kg. Each box contains eight detonators and four fusees.

Six (6) such boxes have been supplied to the Station Master, Broken Hill. The boxes are numbered 1 to 6 inclusive and each lid has been stencilled RETURN TO BROKEN HILL.

Two spare boxes have been supplied to the Station Masters, Peterborough and Port Pirie. These boxes have been stencilled accordingly.

The Station Master, Broken Hill, will arrange for the removal of these boxes from the New South Wales brakevans immediately on arrival at that station.

Whilst New South Wales brakevans remain on the South Australian system, the Station Masters at terminal stations must arrange for the safe custody of these boxes and ensure that the same boxes are subsequently returned to Broken Hill in the same brakevan.

Brakevans Sent to Islington Works for Repairs—All Ambulance equipment, fusees, detonators and marker lamps must be removed from brakevans by the Station Masters at the forwarding stations before such brakevans are sent to Islington Works.

Such brakevans must not be used as a train brakevan when being forwarded to Islington Works.

Transportation Branch—Detonators and fusees must be kept at the following stations:—

ADELAIDE DIVISION

Adelaide	Islington	Victor Harbour
Bridgewater	"B" Store	Snowtown
Dry Creek	Port Adelaide	Wallaroo
Gawler		

MURRAY BRIDGE DIVISION

Murray Bridge	Wolseley	Mount Gambier
Tailem Bend	Naracoorte	Karoonda

PETERBOROUGH DIVISION

Peterborough	Port Pirie
Broken Hill	Gladstone

PORT LINCOLN DIVISION

Port Lincoln	Thevenard
Minnipa	

Where stocks of detonators and fusees are held, this equipment must be kept under lock and key and must be closely controlled by the Station Master or senior Officer in charge on duty. Superior type padlocks must be used on all containers in which stocks of detonators and fusees are stored.

Chief Engineer's Branch—

1. Detonators must be carried on trolleys and vehicles used to transport gangs to their work sites.

Employees carrying out track inspection, track protection, the operation of "on track" machines or for any other duties where track safety may be affected, must have access to flags and detonators.

2. All employees having custody of detonators must ensure that they are transported and stored safely at all times.

Dentonators must be transported in weatherproof containers, securely packed and protected against crushing or unnecessary shock. Metal to metal contact between detonators must be prevented.

3. Employees must use care to prevent the loss or theft of detonators. When vehicles or machines carrying detonators are not in use, and cannot be locked away in a shed, the detonators must be secured in a locked compartment or tool box. Instances of loss or theft must be reported promptly and the Train Controller advised.

4. (i) When requisitions for detonators are prepared, form 669 must state the reasons for the issue; *e.g.*:—

(*a*) "New issue for ..... (gang or machine)."

(*b*) "Replacement for detonators exploded on ..... (date) at ..... (distance and line)".

(*c*) "Replacement for ..... (quote number of detonators) returned to ..... (store or depot) with form 668 No. .....".

(*d*) "Replacement for loss, theft, etc.".

Requisitions not accompanied by a supporting statement may be fulfilled. Inquiries must be made to ascertain the reason and the Chief Engineer advised.

(ii) Detonators held by members of the Chief Engineer's Branch must be replaced at intervals of two years, for inspection by the Engineer of Tests, Islington Works.

New detonators must be obtained before returning the old ones.

Detonators returned to store must be accompanied by a form 668. They must be packed in accordance with Clause (2) above and clearly labelled "DETONATORS FOR INSPECTION".

Enginemen, Rail Motor Drivers, Guards (Goods and Passenger) Learning Lines—The following instructions apply to Enginemen, Rail Motor Drivers and Guards learning the various lines on the different Divisions:—

Enginemen—

1. Before being permitted to learn a particular line, Enginemen must be qualified in the method of Block Working, *i.e.*, Train Orders, Permissive Block, etc., for such line.

2. Enginemen, when learning a line, must be the third man on the engine, and on the final trip in each direction must be in charge of the engine under the direction of the Engineman rostered to take charge of the engine; except where rail car only is stipulated, Enginemen may learn on either an engine or rail car.

3. An Engineman, after learning the line, must be given two (2) return trips in charge of a train over such line, within two (2) months, failing which he must be given one (1) additional return trip under instruction, and should he not take charge of a train during the subsequent three (3) years, he must again be given one (1) return trip over the line. (This will not apply to the Port Lincoln Division or as listed below.)

4. Lines listed to be learnt are to the terminal stations only. On the last trip when learning a line, the Engineman under tuition must be rostered to remain at the terminal station while stabling is performed and on the return trip book on at the same time as the Engineman so that conditions at the terminal may be observed.

5. If an Engineman advises, after stipulated period, that he is not yet prepared to take charge of the engine, he must work as Fireman on such engine until he is conversant with the line.

6. After an Engineman has learnt the following lines, a Locomotive Inspector must ride with the Engineman to determine whether the Engineman is conversant with that line.

Adelaide-Peterborough
Mile End-Peterborough
Adelaide-Tailem Bend
Adelaide-Port Pirie
Mile End-Port Pirie
Tailem Bend-Serviceton
Port Pirie-Broken Hill

7. The following return trips will be allowed:—

Adelaide Division—Metropolitan Area

Adelaide-Glanville Mile End-Glanville Gillman Yard-Dry Creek Dry Creek-Pooraka Woodlands Park-Tonsley Glanville-Osborne	Two (2) return trips on Goods Trains. (First return trip may be on a rail car)	
"D" Cabin, Port Adelaide "A" Cabin Port Adelaide (via Loop) Osborne-Outer Harbour Woodville-Woodville North Area Albert Park-Hendon Salisbury-G.M.H. Siding (Elizabeth) Salisbury-Penfield (via Loop)	One (1) return trip on rail car	No additional trips will be given as detailed in Paragraph 3
Port Stanvac Junction-Port Stanvac Dry Creek-Export Siding Pooraka	One (1) return trip on Goods Train	
Gillman Yard-Port Dock-Glanville-Birkenhead Adelaide Yard Mile End Yard	One (1) complete shift of eight (8) hours working over this area	

Northern Lines—

Adelaide-Peterborough Mile End-Peterborough	Three (3) return trips on Goods trains, including one (1) trip into Dry Creek Yard from the south end.
Riverton-Spalding	Three (3) return trips on Goods trains
Roseworthy-Eudunda	Three (3) return trips on Goods trains
Eudunda-Robertstown	One (1) return trip on Goods train
Gawler-Angaston	Three (3) return trips on Goods trains
Nuriootpa-Penrice	One (1) return trip on Goods train
Penrice Junction-Truro	One (1) return trip on Goods train

Western Lines—	
Bowmans-Wallaroo	Three (3) return trips on Goods trains
Wallaroo-Moonta	One (1) return trip on Goods train
Kadina-Brinkworth	Three (3) return trips on Goods trains
Adelaide-Port Pirie Mile End-Port Pirie	Two (2) return trips on Goods trains, including one (1) trip into Dry Creek Yard from the south end. One (1) return trip on Passenger train
Bumbunga-Lochiel	Nil
Hamley Bridge-Gladstone	Three (3) return trips on Goods trains
Balaklava-Bowmans	One (1) return trip on rail car or Goods Train No additional trips will be given as detailed in Paragraph 3
Southern Lines—	
Adelaide-Tailem Bend Mile End-Tailem Bend	Four (4) return trips on Goods or Mixed trains
Mile End-Port Stanvac Jct.	Three (3) return trips on Goods trains
Mount Barker Jct.-Victor Harbour	Three (3) return trips on Goods trains
Monarto South-Cambrai	Two (2) return trips on Goods trains
Murray Bridge Division—	
Tailem Bend-Serviceton	Two (2) return trips on Goods trains, One (1) on *The Overland*
Tailem Bend-Barmera	Three (3) return trips on Goods or Mixed trains
Karoonda-Waikerie Karoonda-Peebinga Alawoona-Loxton	Two (2) return trips on Goods or Mixed trains
Tailem Bend-Pinnaroo	Three (3) return trips on Goods trains
Wolseley-Mount Gambier	Three (3) return trips, one (1) return trip must be made on a Passenger train
Naracoorte-Kingston Mount Gambier-Millicent	Two (2) return trips on Goods trains
Peterborough Division—	
Peterborough-Quorn Gladstone-Wilmington	Two (2) return trips on Goods trains
Peterborough-Broken Hill Peterborough-Port Pirie	Three (3) return trips on Goods trains
Port Pirie Yard (Shunt Engine only) Peterborough Yard (Shunt Engine only)	One (1) complete shift of eight (8) hours working over this area

Port Lincoln Division—

Port Lincoln-Thevenard	Three (3) return trips on Goods trains
Port Lincoln-Kimba	
Kimba-Buckleboo	Two (2) return trips on Goods trains
Thevenard-Kevin-Penong	
Cummins-Kapinnie	

Rail Motor Drivers—

1. Before being permitted to learn a particular line, Rail Motor Drivers must be qualified in the method of Block Working, *i.e.*, Train Orders, Permissive Block, etc., for such line.

2. Rail Motor Drivers, when learning a line, must be the second man in the driving compartment of the rail car, and on the final trips in each direction must be in charge of the rail car under the direction of the Rail Motor Driver rostered to take charge of such rail car.

3. Rail Motor Drivers, after learning the line, must be given two (2) return trips in charge of the rail car within two (2) months. Should he not take charge of the rail car during the subsequent three (3) years, he must be again given one (1) return trip over the line. (This will not apply where listed below.)

4. Any employee working as Motor Inspector Car Driver must have one (1) return trip learning a line if he has not previously learnt the line.

5. The following return trips will be allowed:—

All lines on all Divisions—two (2) return trips except:—

Eudunda-Robertstown	One (1) return trip No additional trips will be given as detailed in Paragraph 3
Wallaroo-Moonta	
Nuriootpa-Truro	
Bowmans-Balaklava	
Woodville-Woodville North Area . .	
Woodville-Grange	
Albert Park-Hendon	
Salisbury-G.M.H. Siding (Elizabeth)	
Salisbury-Penfield (via Loop)	
Mile End Junction-Mile End Loco. .	

6. Adelaide Yard—One (1) complete shift of 8 hours working over this area.

Guards—(Goods Trains)—

1. Before being permitted to learn a particular line, Guards must be qualified in the method of Block Working, *i.e.*, Train Orders, Permissive Block, etc., for such line.

2. Guards when learning the line, must travel in the brakevan and assist the Guard in charge of the train, and on the last return trip must take charge under the direction of the Guard rostered for this duty.

3. A Guard, after learning a line, must be given two (2) return trips in charge of the train within two (2) months, and should he not take charge of a train during the subsequent three (3) years, he must again be given one (1) return trip over the line. (This will not apply to the Port Lincoln Division, Snowtown-Barunga Gap, Snowtown-Brinkworth, Bowmans-Balaklava, Monarto South-Cambrai.)

4. Guards learning the line will be allowed the same number of return trips as Enginemen, with the exception of the following:—

Monarto South-Cambrai	One (1) return trip
Snowtown-Barunga Gap	One (1) return trip
Snowtown-Brinkworth	One (1) return trip
Strathalbyn-Victor Harbour	One (1) return trip
Bowmans-Balaklava	One (1) return trip
Monarto South-Tailem Bend	Two (2) return trips
Gillman Yard-Port Dock-Glanville-Birkenhead Area	Nil
Port Pirie Yard	Nil
Adelaide Yard	Nil
Mile End Yard	Nil
Glanville-Birkenhead	One (1) return trip
"A" Cabin, Port Adelaide-Gillman Yard	One (1) return trip
"A" Cabin, Port Adelaide-Port Dock	One (1) return trip

5. In the Metropolitan area (as defined by lines embracing Bridgewater, Hallett Cove, Grange, Semaphore, Outer Harbour, North Gawler and Northfield) any adult fully qualified male employee who has had six (6) return trips or more as a Ticket Collector on any line may act as a Guard on that line, without further learning trips, provided that he shall have had at least one (1) return trip on any one Suburban Line acting as Guard under supervision.

Guards—(Passenger Trains)—

1. Before being permitted to learn a particular line, Guards must be qualified in the method of Block Working, *i.e.*, Train Orders, Permissive Block, etc., for such line.

2. Guards, when learning a line, must assist the Guard in charge of the train and on the last return trip must take charge under the supervision of the Guard rostered for this duty.

3. A Guard after learning a line must be given two (2) return trips in charge of the rail car within two (2) months, and should he not take charge of a rail car during the subsequent three (3) years, he must be again given one (1) return trip over the line. (This will not apply to the Port Lincoln Division, Snowtown-Barunga Gap, Snowtown-Brinkworth, Bowmans-Balaklava.)

4. Guards will be allowed the same number of return trips as Rail Motor Drivers except the following:—

Monarto South-Tailem Bend	Two (2) return trips.
Snowtown-Brinkworth Snowtown-Barunga Gap Strathalbyn-Victor Harbour Burra-Peterborough Bowmans-Balaklava Eudunda-Robertstown Wallaroo-Moonta Nuriootpa-Truro Woodville-Woodville North area Albert Park-Hendon Salisbury-G.M.H. Siding (Elizabeth) Salisbury-Penfield (via Loop) Mile End Junction-Mile End Loco. "A" Cabin, Port Adelaide-Port Dock	One (1) return trip. No additional trips will be given as detailed in paragraph 3.

5. In the Metropolitan area (as defined by the lines embracing Bridgewater, Hallett Cove, Grange, Semaphore, Outer Harbour, North Gawler and Northfield) any adult fully qualified male employee who has had six (6) return trips or more as Ticket Collector on any line may act as Guard on that line, without further learning trips, provided that he shall have had at least one (1) trip on any one Suburban Line acting as Guard under supervision.

General—

1. Each Rosterman must keep a book and record therein, names of Enginemen, Rail Motor Drivers, Guards (Goods and Passenger) who have learned the various lines. In addition, the qualifications of each man must be recorded.

Qualifications and Examinations—Locomotive and Traffic Transportation Staff—The following procedure must be observed in regard to qualifications and examinations:

Locomotive Running Staff—

1. Junior Trainee Enginemen and Trainee Enginemen will be required to qualify in the following examinations:—

(*a*) Trainee Engineman's Preliminary Paper
(*b*) Trainee Engineman's Train Protection Rules
(*c*) Train Order System
(*d*) Three Position and Automatic Block Signals
(*e*) Electric Staff System
(*f*) Permissive Block Working
(*g*) Fireman's Locomotive Instruction Paper.

2. No Junior Trainee Engineman or Trainee Engineman will be permitted to act in the capacity of Fireman until such time as he has passed Trainee Engineman's Preliminary, Trainee Engineman's Train Protection Rules and the necessary examinations covering the territory over which he will be required to work.

3. A Junior Trainee Engineman or Trainee Engineman must qualify in examinations (*a*)-(*f*), and have completed 500 hours as an Acting Fireman before sitting for the Fireman's Locomotive Instruction Examination.

4. No Fireman will be permitted to act in the capacity of Engineman (Driver) unless in possession of Air Brake and Engineman's Locomotive Instruction Certificates, and has passed Locomotive Train Working and Signal Rules, and be passed by a Board selected for the purpose as to his suitability to act in the higher grade.

5. No employee will be permitted to act in the capacity of a Rail Motor Driver until such time as he has qualified in:—

Rail Motor Driver's Theoretical, including Air Brake
Rail Motor Driver's Practical.

Traffic Transportation Staff—

1. Youth Porters and Porters will be required to qualify in the following examinations:—

(*a*) General Rules including Crossing Keeper's Duties
(*b*) Train Working Rules
(*c*) Train Order System
(*d*) Three Position and Automatic Block Signals
(*e*) Electric Staff System
(*f*) Permissive Block Working
(*g*) Guard's Duties
(*h*) Signalman's Duties

(*i*) Guard's and Engineman's Sheets
(*j*) Ticket collection and examination
(*k*) Transportation Air Brake
(*l*) Ambulance (beyond grade of Porter)

2. No Porter will be permitted to act in the capacity of Shunter, Signalman, Guard, Train Porter, or Sleeping Car Conductor, until such time as he has passed the examinations set out in (1) hereof, and, in addition, is in possession of a First-Aid Certificate.

RE-EXAMINATIONS

Locomotive and Traffic Transportation Staff—

1. Trainee Enginemen, Firemen, Enginemen, Rail Motor Drivers, Porters, Shunters, Guards, Signalmen, Train Porters and other grades associated with train working operations, will be examined in the rules and subjects prescribed for the respective grades, and re-examined as required. Such examination will be written, oral or practical, and will consist of subjects, a knowledge of which is essential for the duties an employee is called upon to perform.

2. Trainee Enginemen, Firemen, Enginemen, Rail Motor Drivers, Porters, Shunters, Guards, Signalmen, Train Porters and other grades associated with train working operations, failing to qualify in any of the examinations prescribed for their respective grades may be retained in their positions pending re-examination, or, in the event of failure to qualify in any subjects vital to safe working, may be employed on other duties according to their suitability and qualifications pending re-examination.

LECTURES AND EXAMINATIONS

Educational facilities will be provided for instructing the Staff prior to examinations they will be called upon to pass.

Classes will be formed at the Railways Institute, Adelaide, Tailem Bend, Peterborough, Port Lincoln, and at other stations and depots where practicable. Lecturers from the Railways Institute will conduct these classes, and employees will attend as instructed by the Superintendent. Where employees are stationed at outlying districts, lectures will be given through a course of correspondence.

A syllabus will be issued by each Instructor, showing the nature of lectures to be given each month, and the time and date set down for commencing each lecture.

Employees called up for examination in rules, etc., or for re-examination, will be allowed time off. The Staff will attend lectures, however, in their own time in order to acquire a knowledge of the rules or mechanical work in which they will be examined.

Lectures in accordance with each syllabus will be followed by examination, and, therefore, the attention of the Staff is drawn to the advantage gained by taking full opportunity to attend training classes prior to the date fixed for their examinations.

Attendance at classes for RE-EXAMINATION is optional, and are provided for by the Department to assist as a refresher course for RE-EXAMINATION.

Training and Instruction of Locomotive Running Staff—Courses for the instruction of Locomotive Running employees are as follows:

(*a*) *Trainee Engineman's Preliminary Paper*—The examination of this course will be conducted orally.

(*b*) *Fireman's Locomotive Instruction Paper*—The examination of this course will be conducted orally.

(*c*) *The "Westinghouse" Air Brake Instruction Paper*—To be followed by an oral and written examination.

(*d*) *Engineman's Locomotive Instruction Paper*—The examination of this course will be part written and part oral.

Enginemen and Firemen to be on Engine—An engine must not be moved on the Main Line, shunting lines, or in shunting or marshalling yards unless both the Engineman and Fireman are on the engine except in an extreme emergency or as otherwise provided in the Rules.

Engine Crew's Responsibility when Inspector or Instructor is on an Engine—

1. The presence of an Inspector or Instructor on an engine does not relieve the Engineman and Fireman of responsibility for the efficient discharge of their duties and the observance of all safe working rules and other working instructions.

2. An Inspector or Instructor when travelling on an engine for any purpose whatsoever must carry out his duties in such manner as not to distract the attention of either the Engineman or Fireman from the discharge of his duties and the observance of safe working.

3. An Inspector or Instructor when riding on an engine is equally responsible, with the employee he is instructing, for the efficient discharge of his duties and the proper observance of safe working rules, and other working instructions. When not actually instructing a member of the crew he must ensure that both the Engineman and Fireman observe all safe working rules and other working instructions.

Engine Crews—Pilot Duties—Enginemen and Firemen who are rostered for pilot duties are required to report for duty with sufficient food to cover a full shift for which they are rostered. They are required to carry out the following duties:—

(*a*) Replace an employee who has failed to report for duty.

(*b*) Work any train in emergency due to any accident, or failure, or other cause.

They may be required to work away from their "home" station, in which case one of the following arrangements must be made by the employee rostered for pilot duties, to permit of such working being given effect to:—

(*a*) (i) Request to the Officer in Charge of the Depot to obtain food from his home for forwardingly by the first available train.

(ii) To arrange for a cash advance to be made available to that employee at a convenient attended station to enable food to be purchased.

(*b*) Request the Officer in Charge to arrange with the Train Controller to supply food *en route* at Railway Refreshment Rooms or other sources.

When not engaged on duties in accordance with the foregoing, pilot crews are required to prepare and stable engines, relieve crews who have been on duty excessive hours, and perform such duties as may be required by the officer or employee in charge of the depot.

ENGINEMAN'S DAILY REPORT AND TRAIN JOURNAL

Instructions Regarding Preparation of—*The following instructions apply to* Form 427, which must be used by Enginemen working in charge of an engine hauled train, light or assistant engine. Enginemen engaged on other duties, see instructions regarding use of Form 427A. When two of more Enginemen are engaged as Enginemen on the engine for any purpose, those Enginemen not in charge of the engine must complete Form 427A, provided it has not, or will become, necessary to complete Form 427 for the working on any other part of that shift.

The form is divided into 12 sections, and the information must be entered in the various sections by either the Engineman or Guard.

Front of Sheet (Sections 1 to 7).

Section 1—Enginemen commencing duty must obtain a copy of Form 427 from their depot, and register the appearance time in the place provided for the purpose in the left-handed corner of the form, using the time recording clocks where such are provided, and at other booking-on places the time is to be inserted by hand. This section is self-explanatory, and must be carefully filled in by those concerned.

Section 2—This section must be prepared by Enginemen for any time engaged travelling as passenger, waiting, or walking, giving full particulars, and the times of commencing and completing such duty.

Section 3—When an Engineman relieves (or is relieved by) another Engineman, he must show fully particulars in this section.

Section 4—Enginemen must show all particulars in this section. Exact times must be shown in every instance. The signature of the Guard or Shunter must be obtained when the engine is received into, or released from, traffic (Adelaide excepted). Time running from Loco. switches to station yard, or *vice versa* must not include any time standing or shunting, or time occupied shunting before departure, or shunting after arrival. This refers to shunting performed by engine not under the supervision of Guard. If done under the Guard's supervision, the Guard will show full particulars in section 9 on the back of sheet.

Shunting done inside Loco. switches must on no account be shown in this section, but in the space provided in section 5.

Section 5—Enginemen engaged in preparing and stabling engines other than their own, must enter particulars of the time thus occupied, and also the time in excess of authorized allowances, marshalling, fueling engines, standing by, terminal interval, pilot duty, lighting-up engines, or any shed time.

Section 6—This section must be entered by Enginemen. In the event of crews being relieved or changed over *en route,* particulars of amount of fuel at change-over must be mutually agreed upon by Engineman.

Section 7—An Engineman must hand his daily report to the Shunter immediately on commencing to shunt, and the Shunter must enter, on the line specified, the time engine commenced shunting, sign the form, and at once hand it back to the Engineman. On the completion of his shift or shunting operations, the Engineman will again hand his daily report to the Shunter, who will enter on the line specified the time the engine finished shunting, sign the form, and return it to the Engineman.

Back of Sheet (Sections 8 to 12)—With the exception of engine number and class, in section 8, which must always be shown by the *Engineman,* Guards are responsible for entering particulars under the proper headings in sections 8 to 12 for all trains.

Section 8—On a return journey with the same Engineman, one line only need be used for the "Down" and "Up" trip. The engine number and class is to be shown by the Engineman. All other particulars must be entered by the Guard.

Section 9—The name of each station must be shown in this section. When arrival and departure times at stations are not shown in the time table, Guards must enter the actual arrival and departure, or passing time for a non-stopping train, except for passenger trains starting and terminating within the following area:—

Adelaide and Bridgewater	Adelaide and Semaphore and Outer Harbour
Adelaide and Hallett Cove	Adelaide and Penfield and Northfield
Adelaide and Tonsley	Adelaide and North Gawler
Adelaide and Grange	Port Adelaide and Dry Creek

In the above cases the starting and terminal stations must be shown in each instance, and the total time between these stations allocated to the various columns.

Guards must fill in the times in each of the respective columns provided, and the whole of the time must be accounted for from departure of train at starting point until the arrival of train at destination point.

Should an engine run light over any section of the line between stations, or to a Loco. Depot from an out-station, or *vice versa,* unaccompanied by a Guard, particulars of the running must be entered by the Engineman in section 9 in the same manner in which the running of trains is recorded by Guards. In such instances he must show time of departure from, or arrival at, Loco. switches. When, as in the case of suburban passenger trains, the sheet is in the Engineman's possession, at terminal station the Engineman must enter particulars of time spent at terminal station under the respective headings in section 9. Standing time must be shown in column "Take Outs and Pick Ups". If the Guard retains possession, he will be responsible for entering these particulars.

Section 10—Guards must fill in "Gross Mass" of trains leaving each station.

Section 11—Guards must fill in an accurate description of loads. Vehicles to and from the same station may be grouped together. Details of passenger cars, brakevans, loaded goods vehicles, and empty goods vehicles must be entered on separate lines. Only gross mass of passenger cars must be entered. Bogie vehicles must be counted as one unit. Station names may be abbreviated.

Brakevan of passenger train must be shown in coaching column, brakevan of mixed or goods trains must be shown in goods column.

When more than one engine is attached to the train, the particulars of loading must not be shown in section 11 for the Engineman of other than the train engine.

The daily report for the Engineman of the assistant or coupled engine must only show the total load of the train and the train engine number in the "Remarks" column.

The method of computing mass of trains is shown under the subheading "Computing mass of Trains" herein.

Section 12—The Guard must show on Train Enginemen's Sheet the particulars of assistant engine required over the whole journey. Engines running coupled to the train, *i.e.*, where train engine does not require assistance, must not be shown in this section.

General—On completion of shift, Form 427 must be completed in all respects in accordance with these instructions, and then be deposited in the receptacle provided for the purpose before leaving duty.

(9) Station	Train Running			Particulars Showing How the Whole Time Occupied at Stations is Divided								(10) Gross Mass of Train Leaving Each Station
				Traffic					Loco.			
	Actual Arr. H.M.	Actual Dep. H.M.	Running Between Stations	Shunting	Take-outs and Pick-ups	Crossing Trains	Signals	Checking Tickets	Water	Other Loco. Requirements	Lost Running	
Mile End.		12 05										399
Nth. Adel.		12 10										
Islington .		12 14										
Dry Creek	12 25	12 33	20	8								542
Salisbury.		12 53	20									
Smithfield	1 12	1 22	19		10							
Gawler...	1 42	2 02	20	14	4	2						
Rose-worthy.	2 26	2 30	24		4							632
Wasleys .	2 46	2 56	16		10							
Hamley Bridge .	3 28	3 48	32	10	5		1		4		2	612
Stockport	4 09	4 11	21		2							
Tarlee ...	4 32	4 38	21		6							
Riverton .	5 11	5 40	33	25	4							644
Saddle-worth .	6 02		22									

Number of Vehicles		Loaded "L", Empty "E", Brakevan "BV"	Stations at Which Vehicles		Mass		Allowance	(11) Office Use Only	
Coaching	Freight		Attached	Detached	Contents	Gross			
	1	BV	ME	SAD	2	23			
1		HB	ME	SAD		25			
1		MAIL	ME	RIV		28			
	12	L	ME	SAD	161	323	12		
	3	L	DC	SAD	70	115			
	1	L	DC	RIV	10	28	2		
	2	L	GAW	RIV	5	32	3		
	1	L	GAW	HB	40	58			
	2	L	HB	SAD	20	38			
	5	L	RIV	SAD	47	102	3		
	1	E	RIV	SAD		18	2		

(9) Station	Train Running			Particulars Showing How the Whole Time Occupied at Stations is Divided								(10) Gross Mass of Train Leaving Each Station
				Traffic					Loco.			
	Actual Arr. H.M.	Actual Dep. H.M.	Running Between Stations	Shunting	Take-outs and Pick-ups	Crossing Trains	Signals	Checking Tickets	Water	Other Loco. Requirements	Lost Running	
Adelaide .		5 14										192
Semaphore	5 50		28	5	8 5					7		
Semaphore		6 07										192
Adelaide .	6 42		28		7							
				5	26					8		
Adelaide .		7 21										155
Marino ..	8 02		35		6							
				5	10							
Marino ..		8 17										155
Adelaide .	8 55		34		4							

Number of Vehicles		Loaded "L", Empty "E", Brakevan "BV"	Stations at Which Vehicles		Mass		Allowance	(11) Office Use Only	
Coaching	Freight		Attached	Detached	Contents	Gross			
6			AD	SEM		192			
6			SEM	AD		192			
5			AD	MAR		155			
5			MAR	AD		155			

ENGINEMAN'S (SHUNTING) DAILY REPORT

(FORM 427A)

This form to be used by Shunt Enginemen, Pilotmen and Enginemen acting as Shunt Enginemen, Enginemen travelling on duty and Enginemen learning lines, provided it has not been necessary to complete Form 427 for the working on any other part of that shift.

It incorporates the same details as the front of Form 427, sections 1 to 3 being on the front and sections 4 to 7 on the back.

The instructions herein under the subheading "Engineman's Daily Report and Train Journal" with regard to sections 1 to 7, Form 427, also apply to this Form.

Should it become necessary for one of the above employees to work a train, he must obtain a copy of Form 427 before working such train.

RAIL MOTOR DRIVER'S DAILY REPORT

Instructions to Rail Motor Drivers and Guards or Porters in charge of the train for Compilation of Form 192.

Section 1—Rail Motor Drivers commencing duty must obtain a copy of Form 192, register the appearance times in the place provided for the purpose in the left-hand corner of the form, using the time recording clocks where such are provided, and at other booking-on places inserting the times by hand.

This section is self-explanatory, and must be carefully filled in.

Section 2—This section must be prepared by Rail Motor Drivers who travel as passengers or who are waiting or walking, giving full particulars and the times of commencing and completing such duty.

Section 3—When a Rail Motor Driver relieves, or is relieved by another Rail Motor Driver, he must show full particulars in this section.

Section 4—Rail Motor Drivers must show all particulars in this section. Exact times must be shown in every instance. Time running from depot to station yard, and *vice versa,* must not include any time standing or shunting before departure or after arrival. The signature of a responsible employee must be obtained each time the car is received into, or released from, traffic (Adelaide excepted).

Section 5—Rail Motor Drivers engaged at Depot performing work other than preparation of their own cars, must enter particulars of such time in this section.

Back of Form 192—This side of form must be prepared by the Guard or Porter in Charge of the train and handed to the Rail Motor Driver on the completion of each trip, or return trip made in the same day.

Trailer numbers as well as car numbers must be entered by Guard or Porter in charge of the train in columns provided at the top of form. The stations between which trailers are hauled must also be shown.

The name of each station must be shown in this section. When arrival and departure times at stations are not shown in the Time Table, the Guard or Porter in Charge of the train must enter the actual time of arrival and departure, or passing time for non-stopping trains, except for rail cars starting and terminating their trip within the following area:—

Adelaide and Bridgewater	Adelaide and Semaphore and Outer Harbour
Adelaide and Hallett Cove	Adelaide and Penfield and Northfield
Adelaide and Tonsley	Adelaide and North Gawler
Adelaide and Grange	Port Adelaide and Dry Creek

In the abovementioned cases the starting and terminal stations must be shown in each instance, and the total time between these stations allocated to the various columns.

When computing the mass of rail cars, trailers, and brakevans, the tare mass of empty and the loaded cars must be used, except that when brakevans are partly loaded a proportion of the difference between the 50 mm and 125 mm figures must be taken according to the amount of loading in the van.

Only the actual tare mass of goods or livestock vehicles, plus the actual mass of contents, must be shown in column headed "Gross Mass".

When more than one sheet is required, a second copy of Form 192 must be used. Before commencing the journey, the Rail Motor Driver must see that there is sufficient space for the Guard or Porter in Charge of the train to enter all particulars for the trip. Care must be taken to utilize all space on these forms. When a car works on more than one line, a separate sheet must not be taken for each line; *e.g.*, when a rail car runs to Edwardstown and then to Northfield, both trips must be shown on the one sheet; single spacing must be used in every case.

Rail Motor Drivers must deposit Form 192 complete in all respects in the appointed place before leaving duty.

GUARD'S DAILY TIME AND EXPENSES SHEET

Instructions Regarding Compilation of Form No. 195A—

Guards commencing duty must obtain a copy of Form 195A and enter full details of time claimed.

This time sheet will also be used by Assistant Guards.

The section with regard to Road Bills must be filled in and signed in every case.

Road Bills must be attached to this form and deposited in the appointed place each day before leaving duty.

GUARD'S JOURNALS

(1) **Instructions Regarding Compilation of Form No. 196—**

Guards must when necessary obtain a copy of Form 196 on commencing duty. When a Guard is relieved *en route* he will hand this form to his successor, who will continue to use it. The Guard in charge of the train at the terminal point will attach it to his Daily Time and Expense Sheet, together with any Road Bills and Train Orders and deposit them in the appointed place before leaving duty.

Guards' Journals will not be required for Suburban Passenger Trains or Passenger Motor Trains.

The following procedure must be carried out by Guards when compiling Form 196:—

(*a*) At starting stations other than where the train is prepared, Guards must, if entries have been made prior to marshalling, check the entries with the vehicles after the train is fully assembled.

(*b*) At wayside stations, if entries have been made on the journals prior to the vehicles being attached, the entries must be checked after the vehicles have been attached to the train.

(*c*) If loaded livestock vans be attached, Guards must see that either the original invoices, a pro forma invoice, or transfer note accompanies each van and the invoice or transfer note must be checked with the Guard's Journal.

Guards working goods trains into other border stations on broad gauge, viz. Pinnaroo, Mount Gambier, and Port Pirie and on all intrastate goods trains will continue to use the Guards' Journal (No. 196).

On "Up" trains from Serviceton, other than Express Goods trains, the Guards' Journal No. 196 is still to be used as copies are not required.

Guards working all trains on narrow gauge will continue to use journal No. 196.

(2) **Instructions regarding Compilation of Form No. 196A—**

A Guard's Journal (No. 196A) printed on one side only to enable carbon copies to be prepared, for use by Guards working trains into Serviceton, and for standard gauge working on the Peterborough Division trains working into Broken Hill and Port Pirie.

The Guards concerned must, when necessary, obtain copies of No. 196A on commencing duty.

(A) STANDARD GAUGE

Guards working Standard Gauge trains between Broken Hill and Port Pirie are to use Guards' Journal (No. 196A) and prepare and handle copies as follows:—

The Indian-Pacific Passenger Trains—Eastbound and Westbound—Between Peterborough and Broken Hill—

New South Wales Guards Working Westbound *The Indian-Pacific* into Broken Hill will prepare S.A.R. Guards Journals for handing to S.A.R. Guards at Broken Hill.

S.A.R. Guards will prepare N.S.W.G.R. Journals on Eastbound *The Indian-Pacific* for handing to N.S.W. Guards at Broken Hill.

Through Express Goods Trains Broken Hill to Port Pirie—

Original and two carbon copies.

The second carbon copy to be collected from the Guard by a member of the Broken Hill staff before departure.

Original and first carbon copy to be handed over to the relief Guard if relieved *en route.* On arrival Port Pirie, retain original and attach to timesheet and copy deposited with Station Master.

Through Express Goods Trains Port Pirie to Broken Hill—

Original and two carbon copies.

The second carbon copy to be collected from the Guard by a member of the Port Pirie staff before departure.

Original and first carbon copy to be handed over to the relief Guard if relieved *en route.* On arrival Broken Hill retain original and attach to timesheet and copy deposited with Station Master for interchange purposes.

"Down" Goods Trains working into Broken Hill, other than Express Goods—

Original and one carbon copy.

On arrival Broken Hill original to be retained and attached to timesheet. Carbon copy to be deposited with Station Master for interchange purposes.

"Up" Goods Trains working from Broken Hill, other than Express Goods—

Original and one carbon copy.

The carbon copy to be collected from the Guard by a member of the Broken Hill staff before departure.

The original to be handed over to relief Guard if relieved *en route* and attached to timesheet at destination.

"Down" Goods Trains working into Port Pirie, other than through Express Goods—

Original and one carbon copy.

Both copies to be handed over to relief Guard if relieved *en route*. On arrival at Port Pirie, the original to be retained and attached to timesheet. The carbon copy to be deposited with the Station Master.

"Up" Goods Trains departing from Port Pirie, other than through Express Goods—

Original and one carbon copy.

The carbon copy to be collected from the Guard by a member of the Port Pirie staff before departure.

Original to be retained and handed over to relief Guard if relieved *en route* and attached to timesheet at destination.

"Down" and "Up" Goods Trains commencing from and terminating at stations short of either Broken Hill and Port Pirie—

Original copy only, to be retained and attached to timesheet at destination.

All must ensure that carbon paper used in the preparation of Journal No. 196A is in good condition and sufficient pressure is applied in their preparation to ensure that good copies are produced as they will play an important role in interchange matters.

(B) BROAD GAUGE

Preparation of Guard's Journal working Express Goods Trains—

Guards working goods trains into Serviceton will prepare an original and three carbon copies of Journal No. 196A. On arrival at Serviceton, Guards working trains terminating at that station will attach the original to their time sheet and hand the three copies in at Serviceton. On Express Goods trains the original must be handed to the relief Victorian Guard and the three copies in at Serviceton.

Guards working trains into Serviceton must pay particular attention to vehicles detached *en route* and ensure that the station at which they are detached is shown in the appropriate column.

(1) "Down" Express Goods Trains from Dry Creek, Mile End or Tailem Bend.

(*a*) Guards must use Guards' Journal No. 196A.

(*b*) They must prepare an original and three carbon copies.

(*c*) All copies must be handed over to the Relief Guard if relieved *en route*.

(*d*) On arrival at Serviceton the original must be handed over to the Relief Victorian Guard and the three carbon copies handed in at Serviceton. This will result in the Guard not having a copy for attaching to his time sheet.

(*e*) The Victorian Guard will prepare his own Truck Sheet from the contents of Journal No. 196A handed to him.

(*f*) As the copies handed in at Serviceton play a vital role in interchange transactions, Guards are to ensure that the carbon paper used is in good condition.

(2) "Up" Express Goods Trains from Melbourne.

(*a*) Victorian Guards will prepare an original and three carbon copies of Victorian Truck Sheet TR 44.

(*b*) On arrival at Serviceton, the original will be handed over to the Relief South Australian Guard and the three copies handed in at Serviceton.

(*c*) Guards working these trains will not be required to transfer all vehicle numbers and particulars of each to a South Australian Guards' Journal.

(*d*) Guards will only complete the top front portion (Guards' signature, etc.) and rear lower portion (Engine Nos., Class, From, To, Engineman's Name, Condition of brakevan, and its equipment, etc.), of the current small journal No. 196 and attach it to the original copy of Truck Sheet, TR 44 handed over by the Victorian Guard.

(*e*) Both the Guards' Journal 196 and Victorian TR 44 must be handed over to the Relief Guard if relieved *en route*.

(*f*) On arrival at destination the Guard must attach Journal 196 and Truck Sheet TR 44 to his time sheet.

These instructions will relieve Guards working "Down" Express Goods Trains of preparing Victorian Truck Sheets. Likewise it will relieve Victorian Guards preparing South Australian Guards' Journals *en route* to Serviceton.

All must ensure that carbon paper used in the preparation of Journal No. 196A is in good condition and sufficient pressure is applied in their preparation to ensure good copies are produced as they will play an important role in interchange matters.

GUARD'S STATEMENT OF RUNNING, SHUNTING, STANDING, ETC.

Instructions regarding compilation of sections 8 to 12 inclusive of Form No. 427 (Engineman's Sheets) are as follows:—

The Guard of a train must enter particulars of statistics (items 8 to 12 inclusive) in the spaces provided on the reverse side of the Train Engineman's Sheet.

It is most important that the whole time occupied at a station be accurately divided and recorded in the appropriate columns provided.

Back of Sheet (Sections 8 to 12)—With the exception of engine number and class, in section 8, which must always be shown by the Engineman, Guards are responsible for entering particulars under the proper headings in sections 8 to 12 for all trains.

Section 8—On a return journey with the same Engineman, one line only need be used for the "Down" and "Up" trip. The engine number and class is to be shown by the Engineman. All other particulars must be entered by the Guard.

Section 9—The name of each station must be shown in this section. When arrival and departure times at stations are not shown in the Time Table, Guards must enter the actual arrival and departure, or passing time for a non-stopping train, except for passenger trains starting and terminating within the following area:—

Adelaide and Belair	Adelaide and Semaphore and Outer Harbour
Adelaide and Marino	Adelaide and Penfield and Northfield
Adelaide and Grange	Port Adelaide and Dry Creek

In the above cases the starting and terminal stations must be shown in each instance, and the total time between these stations allocated to the various columns.

Guards must fill in the times in each of the respective columns provided, and the whole of the time must be accounted for from departure of train at starting point until the arrival of train at destination point.

Should an engine run light over any section of the line between stations, or to a Loco. Depot from an out-station, or *vice versa,* unaccompanied by a Guard, particulars of the running must be entered by the Engineman in section 9 in the same manner in which the running of trains is recorded by Guards. Standing time must be shown in column "Take Outs and Pick Ups". If the Guard retains possession, he will be responsible for entering these particulars.

Section 10—Guards must fill in "Gross Mass" of trains leaving each station. The gross mass must not include any allowance for empty or less than half-loaded vehicles.

Section 11—Guards must fill in an accurate description of loads. Vehicles to and from the same station may be grouped together. Details of passenger cars, brakevans, loaded goods vehicles, and empty goods vehicles must be entered on separate lines. Only gross mass of passenger cars must be entered. Bogie vehicles must be counted as one unit. Station names may be abbreviated.

Brakevan of passenger train must be shown in coaching column; brakevan of mixed or goods trains must be shown in freight column.

When more than one engine is attached to the train, the particulars of loading must not be shown in section 11 for the Engineman of other than the train engine.

The daily report for the Engineman of the assistant or coupled engine must only show the total mass of the train and the train engine number in the "Remarks" column.

The method of computing mass of trains is as shown herein.

Section 12—The Guard must show on Train Enginemen's Sheet the particulars of assistant engine required over the whole journey. Engines running coupled to the train, *i.e.,* where train engine does not require assistant, must not be shown in this section.

(9) Station	Train Running			Particulars Showing How the Whole Time Occupied at Stations is Divided								(10) Gross Mass of Train Leaving Each Station
				Traffic					Loco.			
	Actual Arr. H.M.	Actual Dep. H.M.	Running Between Stations	Shunting	Take-outs and Pick-ups	Crossing Trains	Signals	Checking Tickets	Water	Other Loco. Requirements	Lost Running	
Mile End.		12 05										399
Nth. Adel.		12 10										
Islington		12 14										
Dry Creek	12 25	12 33	20	8								542
Salisbury.		12 53	20									
Smithfield	1 12	1 22	19		10							
Gawler...	1 42	2 02	20	14	4	2						
Roseworthy.	2 26	2 30	24		4							632
Wasleys .	2 46	2 56	16		10							
Hamley Bridge .	3 28	3 48	32	10	5	4	1				2	612
Stockport	4 09	4 11	21		2							
Tarlee ...	4 32	4 38	21		6							
Riverton .	5 11	5 40	33	25	4							644
Saddleworth .	6 02		22									

Number of Vehicles		Loaded "L", Empty "E", Brakevan "BV"	Stations at Which Vehicles		Mass		Allowance	(11) Office Use Only
Coaching	Freight		Attached	Detached	Contents	Gross		
	1	BV	ME	SAD	2	23		
1		HB	ME	SAD		25		
1		MAIL	ME	RIV		28		
	12	L	ME	SAD	161	335		
	3	L	DC	SAD	70	115		
	1	L	DC	RIV	10	30		
	2	L	GAW	RIV	5	34		
	1	L	GAW	HB	40	58		
	2	L	HB	SAD	20	38		
	5	L	RIV	SAD	47	105		
	1	E	RIV	SAD		20		

(9) Station	Train Running			Particulars Showing How the Whole Time Occupied at Stations is Divided								(10) Gross Mass of Train Leaving Each Station
				Traffic					Loco.			
	Actual Arr. H.M.	Actual Dep. H.M.	Running Between Stations	Shunting	Take-outs and Pick-ups	Crossing Trains	Signals	Checking Tickets	Water	Other Loco. Requirements	Lost Running	
Adelaide .		7 11										192
Penfield .	7 48		37	5	5					5		
Penfield .		4 19										192
Adelaide .	4 58		39		7							

Number of Vehicles		Loaded "L", Empty "E", Brakevan "BV"	Stations at Which Vehicles		Mass		Allowance	(11) Office Use Only	
Coaching	Freight		Attached	Detached	Contents	Gross			
6			AD	PEN		192			
6			PEN	AD		192			

PASSENGER COUNTS ON COUNTRY PASSENGER TRAINS

1. Passenger count sheets are required for ALL country passenger trains.

2. Guards, when booking on duty to subsequently work a country passenger train, must obtain country passenger count sheets for both forward and return journeys. Guards must complete the count sheets in detail, including date, train number, passenger count and signature, and hand such sheet or sheets in to their home station with their time sheets, when booking off duty.

3. When relieved *en route,* Guards of country trains must hand over count sheet to the relieving employee, who, in turn, is to complete the form to the destination of train.

4. When a Train Porter is rostered for a country train, the duties regarding the passenger counts are his responsibility.

STATIONS—CONTROL AND WORKING OF

Cleaning Station Premises—

The Ladies Waiting Rooms where provided at stations, must be thoroughly cleaned each day. Clean water and a towel must be provided in those Waiting Rooms where there is no hand basin. A towel only must be provided where a hand basin is available.

Station windows must be frequently washed and cleaned.

Seating provided for the public must be regularly cleaned and dusted.

Electric light globes and reflectors or fluorescent tubing and reflectors must be regularly cleaned and kept free from dust and soot.

The following instructions relating to the cleaning of toilets at stations must be observed:—

1. **Toilets and urinals connected with a sewerage system—**
   (*a*) Toilet floor must be washed daily and disinfected.
   (*b*) Pedestal seats must be washed daily, pans cleaned with a hard brush and thoroughly flushed and disinfected.
   (*c*) Urinals must be thoroughly washed down daily, walls scraped when necessary, and walls and floors disinfected.
   (*d*) Toilet paper must be provided.
   (*e*) Deodorant blocks must be kept in toilets and urinals in containers. When containers are not provided, deodorant blocks must be placed outside the reach of small children due to the highly toxic qualities of such blocks.

2. **Toilets and urinals connected to septics tanks—**
   (*a*) Toilet floors must be washed daily.
   (*b*) Pedestal seats must be washed daily, pans cleaned with a hard brush and thoroughly flushed.
   (*c*) Urinals must be thoroughly washed down daily and walls scraped when necessary.
   (*d*) Disinfectants and soaps which are injurious to the bacteriological action of septic tanks must NOT be used in any circumstances.
   (*e*) Toilet paper must be provided.
   (*f*) Deodorant blocks must be kept in toilets in containers but must not be used in the urinal channels. Where containers are not provided, deodorant blocks must be placed outside the reach of small children due to the highly toxic qualities of such blocks.

3. **Earth closets—**
   (*a*) Seats must be washed daily.
   (*b*) The floors of closets must be swept and washed daily at attended stations and as necessary at unattended stations.
   (*c*) Closet pans must be correctly placed in position. The area beneath the seats must be kept clean and clear of spider webs by washing or sweeping when necessary. A supply of dry earth, also a scoop must be kept in the receptacle provided.
   (*d*) Toilet paper must be provided.
   (*e*) Deodorant blocks must be kept in the closets in containers. Where containers are not provided, deodorant blocks must be placed outside the reach of small children due to the highly toxic qualities of such blocks.
   (*f*) Closet pans must be emptied at least once a week or more often if necessary. They must be thoroughly cleaned and disinfected before being replaced.

4. **Urinals**—Other than those connected with sewage and septic tank systems—
   (*a*) Urinals must be swept; the walls and floors disinfected as required.

5. **Chemical Toilets—**
   (*a*) Toilet floors must be washed daily.
   (*b*) Every time the pan is emptied, two tablespoonsful of sanitary powder are to be put in the empty pan and 4·5 litres of water stirred in.

If more than two persons use the lavatory daily, add another tablespoonful of powder when pan is about half full. The above quantities of powder are the minimum to be used; larger quantities give increased efficiency.

Stir contents of pan at least once daily to assist liquefaction.

Pan must be emptied at least once weekly, or when three parts full.

(*c*) Liquid for feeder on lid of seat is made by mixing two tablespoonsful (by measure) of concentrated sanitary fluid with 300 ml of water.

The lid must be raised or lowered slowly to avoid splashing fluid out of container, and to prevent damage to seat.

(*d*) Toilet paper must be provided.

Signal Cabins—Cleaning of—

(1) The officer or employee in charge of a Signal Cabin must ensure that Signal Cabins are kept clean and tidy. Firewood must be kept in the box provided. All cancelled and out of date notices must be thoroughly checked and removed from the appropriate files daily.

(2) Window glass must be frequently washed and cleaned. Nothing must be placed on or over the windows that will obstruct a clear view in all directions.

(3) The floor and quadrant plates of all interlocking machines must be blackleaded each week and brushed frequently to prevent floor litter from falling through the plates on to the interlocking gear beneath. The handles of all levers in the Cabin must be kept cleaned and polished regularly.

Signal Cabins, Under Portion—The under portion of any Signal Cabin must not be used as a store house for flammable liquids or fuel for stoves; the space must be kept clear to facilitate inspection and repair of the interlocking machine and connections. The area carrying rodding underneath the platform must be kept clean and clear of rubbish of all kinds.

Station Lobbies—Station lobbies must not be unnecessarily utilized for the storage of luggage, station barrows, and station equipment. All lobby doorways must be kept open, except when in use as a Barrier.

Station Entrance Gates—Unless required for station business, entrance gates at stations must be kept closed. At attended stations or where a Station Agent or Caretaker is employed, the duty of attending to station gates must be performed by these staff, and at unattended stations by the Ganger, when possible. Entrance gates in the open position must be fastened against movement. When the station staff are off duty all station entrance gates must be closed and secured by a chain and "G" lock.

Station Plant—Repairs to—When any item of station plant is unfit for use, the matter must be immediately reported to the Superintendent.

Station Garden Hoses—Care of—Garden hoses when not actually in use, must be neatly rolled up and kept under lock and key.

Subways—Operation of Pumps—At stations where pumps are installed to drain subways, the Station Master must ensure that all members of the station staff fully understand the operation of this equipment.

In the event of failure of the apparatus, immediate advise must be sent to:—

(*a*) On Adelaide Division—The Resident Engineer, Works.

(*b*) On other Divisions—The Assistant Superintendent, Maintenance.

Unattended Stations—Consignment Note Boxes at—A supply of goods and parcels consignment notes, vehicle labels (including livestock labels) and goods vehicle order forms must be kept in the drawer provided in the consignment note boxes at unattended stations.

A portion of the box which must be locked with an "S" lock is set apart for the reception of consignment notes which have been filled in by customers. This portion of the consignment note box must be examined and cleared by the Guards on trains which are scheduled or directed to shunt or perform pickups at that particular station.

The Guards of Goods or Mixed trains must ensure that there is an adequate supply of the above-mentioned consignment notes, labels and forms available, and when further stocks are required, immediately on arrival, advise the next attended station. If necessary the Station Master must arrange for the Ganger, Special Ganger or District Foreman to replenish the reported shortage.

Station Platforms—Goods, Parcels and Luggage—Loading boards must be used for the movement of heavy articles of goods between vehicle and platform or *vice-versa*. Parcels and luggage must be placed in a position that will not inconvenience passengers and clear of the line.

Where practicable, heavy consignments must be unloaded on the platform provided for that purpose.

Goods, Tarpaulins, Trollies, etc., to be left in safe positions—Items of goods which are liable to roll, or be blown from platforms, must be secured, and when possible, placed in the Goods Shed or other building provided. Galvanised iron tanks must be securely anchored. Tarpaulins, hand trucks, trollies, barrows, loading boards, etc., must not be left lying about station premises where they become potential accident hazards. Luggage trollies at stations must be secured against movement when not in use.

At unattended stations Guards must attend to the foregoing.

Lubricating Switches and Lower Quadrant Fixed Signal Connections—All switches connected with the Signal Cabin must be thoroughly cleaned and, except where roller bearings are fitted, oiled at least once each week, but more often if weather conditions, etc., render same necessary.

All hand-operated switches must be thoroughly cleaned and blackleaded at least once each week, unless otherwise instructed.

Equipment and Stores Required

For Oiling Switches—One steel scraper, one sash tool or bristle brush, one oil can, and supply of oil of approved grade.

For Blackleading Switches—One steel scraper, two sash tools (one for brushing off dust and one for applying blacklead to chairs) and supply of blacklead.

Before oil or blacklead is applied, the chairs of the switches, also that portion of the bottom flange of the stock rail upon which the blades work, must be thoroughly cleaned by scraping. The chairs must be thoroughly cleaned on both sides of the switch blades, viz., in the normal position and in the reverse position. Cranks, pins, pedestals, and compensators, and all other ground gear and connections to mechanical signals must be cleaned and oiled effectively. Any accumulation of old oil and dirt must be scraped off before fresh oil is applied.

Subsequent to the chairs, blades, and other equipment being scrupulously cleaned, a thin application of oil ensures effective working.

The running face of the switch blade, connected to the curved lead rail, must be oiled for a distance of 1 metre along the blade. This work must be carried out when the chairs, etc., are being attended to. In dusty and sandy districts blacklead must be used instead of oil.

LIGHTING OF STATIONS

Station Lighting—Station Masters must see that all office and platform lamps (and lanterns where oil lighting is used) are kept in a thoroughly clean condition, the lamps trimmed and ready for lighting at any time required between sunset and sunrise. Lamps on station approaches must be lighted during the hours of darkness when the station is open for public business.

Lamp oil receptacles must be emptied and thoroughly cleaned periodically to avoid sediment collecting and clogging the wicks.

Lamp rooms must be cleaned out daily, and Station Masters must see that dirty waste and other refuse is not allowed to accumulate in them. The drip-tins must also be emptied each day.

The electric lamps and reflectors at stations in the Metropolitan Area, except interior lighting, are cleaned by the Electrical Maintainer. At stations outside the Metropolitan Area all lamps must be attended to by the Station Staff.

Economy must be exercised in the use of lighting, and where half or quarter light switching is provided, this must be used when practicable, having due regard for safety and comfort of passengers.

Guards must report all cases of defective or insufficient lighting at unattended stations to the nearest Station Master.

At attended stations, if the lighting is observed to be functioning incorrectly, station staff must report the matter to the Train Controller or Electrical Fitter.

No attempt must be made to alter the position of light fittings in station offices.

Electric Light Automatic Time Switches—Electric lighting at most locations is controlled by an Automatic Time Switch or Light Sensitive Relay.

Maintainers when carrying out their usual maintenance duties at stations provided with electric time switches controlling the station lighting must check the settings of the switches with the current Time Tables, and, if necessary, make any adjustments to provide the proper margin of lighting and extinguishing of the lamps, relative to the arrival and departure of trains.

Lighting of Signal and Switchstand Lamps and Lubrication of Switches—The trimming, cleaning and lighting of signal and switchstand lamps and the lubricating of switches is carried out as follows:—

ADELAIDE DIVISION

Signal Lamps—

By Signal and Telegraph Staff—

Adelaide to Riverton inclusive. Wasleys excepted
Penfield Munitions Area
Gawler to North Gawler, inclusive
Adelaide to Outer Harbour, inclusive
Woodville to Finsbury
Woodville to Grange, inclusive
Port Adelaide to Dry Creek, inclusive
Virginia to Port Pirie, inclusive, mechanical signals at Bowmans and Snowtown excepted
Adelaide to Murray Bridge, inclusive
Goodwood to Port Stanvac, inclusive.

NOTE:—The Train Order signal lamps at Riverton are attended to by the Station Staff.

Switchstands—

By Signal and Telegraph Staff—

Finsbury
Hendon
Port Adelaide Yard to Dry Creek
Salisbury to Gawler
Dry Creek to Northfield
Stockport
Adelaide to Murray Bridge.

By Permanent Way Staff—

Merildin
Direk to Nurom, inclusive, except where there is a Station Master or Porter in Charge.

All unattended stations between:—

Brinkworth and Kadina
Hamley Bridge and Moonta
Balaklava and Gladstone
Roseworthy and Robertstown
Mount Barker Junction and Victor Harbour
Brighton and Port Stanvac
S.A. Portland Cement Siding near Angaston
Sandy Creek.

Switches—Lubrication of—

Interlocked Switches only by Signal and Telegraph Staff—

Adelaide Yard
North Adelaide to Gawler, inclusive, except Salisbury, Smithfield, Penfield "A"
Mile End to Goodwood Junction, inclusive
Bowden to Osborne, inclusive
Woodville to Albert Park, inclusive.

By Permanent Way Staff—

Robertstown
All unattended stations and sidings.

NOTE:—The switches at Marino are attended to by the Transportation Staff.

At all other locations, the lighting and cleaning of signal, and switchstand lamps must be carried out by Transportation Staff. The lubrication of switches not indicated in the above schedule must be carried out by the Transportation Staff.

MURRAY BRIDGE DIVISION

Signal Lamps—

By Signal and Telegraph Staff—

Murray Bridge to Wolseley, inclusive
Wolseley to Wandilo, inclusive.

Switchstand Lamps—

By Signal and Telegraph Staff—

Murray Bridge to Tailem Bend, inclusive.

By Permanent Way Staff—

At all unattended stations, Rabila and Monteith excepted.

Switches—Lubrication of—

By Permanent Way Staff—

At all unattended stations.

At all other locations, the lighting and cleaning of signal, and switchstand lamps must be carried out by the Transportation Staff. The lubrication of switches not indicated in the above schedule must be carried out by the Transportation Staff.

PETERBOROUGH AND PORT LINCOLN DIVISIONS

Switchstand Lamps—

By Signal and Telegraph Staff—

Port Pirie.

By Permanent Way Staff—

At all unattended stations.

Switches—Lubrication of—

By Signal and Telegraph Staff—

Port Pirie.

By Permanent way Staff—

At all unattended stations.

At all other locations, the lighting and cleaning of signal, and switchstand lamps must be carried out by the Transportation Staff. The lubrication of switches not indicated in the above schedule must be carried out by the Transportation Staff.

Signal, Switchstand and Switch Indicator Lighting—Lamps fitted with long-time burners must be attended to twice a week at regular intervals, and the following instructions carried out:—

1. The lamp must be thoroughly cleaned inside and out. The lenses must be left perfectly clean, and all soot and dirt removed from inside of lamp and from the ventilator openings.

2. The wick must not be trimmed with shears except as mentioned in clause 7 hereunder, but turned down so that only the charred portion is exposed above the tube, and this charred portion broken off. Should the wick fray out at the edges during this operation it can be slightly trimmed with the shears.

3. "High Test Illuminating Kerosene" must be used. Each time a lamp is attended to, the fount must be filled, but a space of from 3 mm to 6 mm at the top of the fount must be left. This will give room for expansion of the oil as it becomes heated after the lamp is lighted.

4. When lamps that are cold are again lighted, care must be taken to adjust the flame slightly lower than normally, to allow for the re-heating of the lamp.

5. Oil receptacles must be thoroughly cleansed at stated periods, as the sediment which collects clogs the wicks and affects the burning of the lamps.

6. The wick acts as a strainer, and, in time, accumulates a considerable quantity of dirt and thick, gummy oil, which prevents ready and smooth flow which is necessary to the maintenance of a steady and uniform flame. When the wick becomes dirty and stiff from this accumulation it must be replaced.

7. Every three months, 12 mm must be cut off from the top of a wick in use. When a wick is too short to reach the bottom of a fount it must be replaced.

8. A number of "Adlake" pattern lamps are provided with burners that required glass chimneys, and in these lamps the chimneys must be used, to ensure correct combustion. The chimneys must be cleaned with paper or waste and not wetted. Broken chimneys must be immediately replaced, and lamp attendants must carry spares in their kit for this purpose.

9. The chimneys must be properly placed in their holders, to prevent cracking, etc. Other signal and switchstand lamps are fitted with burners that do not require glass chimneys and the burners must be kept perfectly clean and clear from soot. The burners must be fully pushed down into their holders after trimming.

10. Employees when engaged in cleaning and trimming switchstand or switch indicator lamps must see that the lamps are replaced in their correct positions, with the colours of the lenses corresponding with the target indications.

11. Each lamp must be kept cleaned and trimmed singly, and adjacent to the stand, and replaced before removing another lamp.

Cleaning Lenses, Signal Blades and Switchstand Targets—In order to provide the clearest possible indications for Enginemen, it is most important that all lenses and roundels be kept clean and free from soot and oil film.

After filling, trimming and cleaning the lamps, all glasses in the signal spectacles and marker lights must be wiped clean by using damp waste and polished with clean dry waste.

Enamelled steel signal blades must also be regularly wiped over and kept in a clean state.

Wooden signal blades must also be regularly wiped over with clean damp waste.

Switchstand targets must be cleaned thoroughly when the lamps are being trimmed. Dirty film must not be allowed to accumulate on the enamelled surface of the targets.

If a signal, switchstand or switch indicator lamp is found to be defective the matter must be immediately reported to the Signal and Telegraph Engineer.

LIGHTING OF ROLLINGSTOCK

General—

1. Staff responsible for the operation of the lighting of rollingstock are required to make themselves conversant with the location of lighting switchgear and with its proper use.

Main switches and those controlling banks of lights are normally conveniently located, either exposed or within a cabinet, in the end vestibule or corridor of a passenger carriage or rail car, or in the case of some older stock in a centre partition or corridor. In carriages or rail cars with a baggage or Guard's compartment, the control panel is usually located in this area.

Lighting control panel cabinets are normally opened with a standard carriage key. Name plates identify the use of the various switches and control equipment.

The purpose of individual local switches situated within the interior of carriages is made obvious by their close proximity to the particular fittings they control, or by explanatory name plates.

2. Lighting and other electrical control cabinet-doors are to be kept locked at all times except when access is required for the operation of switchgear.

Staff, other than authorized electrical trade employees, are not permitted to open electrical cabinets or cubicles upon which high voltage warning notices are displayed. Tools, other than a standard carriage key, are normally required to open the doors to such enclosures.

3. On rollingstock in traffic or being prepared for traffic, sufficient lighting is to be switched on, dependent upon the degree of daylight available, to provide sufficient lighting comfort for passengers and an adequate degree of safety.

Particular attention must be paid to the provision of suitable lighting in passenger carriages when working through tunnels on the South line. Where switching for half lighting is provided in a carriage, use must be made of this facility.

4. Without contravention of paragraph 3 above, care is to be exercised at all times to prevent the unnecessary consumption of power for lighting purposes. Only lights required for use are to be switched on, or left on, and all lighting is to be switched off when there is sufficient daylight to dispense with lights or at the completion of a journey if there is no further requirement.

In sleeping carriages, before restoring the seating accommodation, the Conductor must see that all berth reading lights are switched off.

Rollingstock fitted with axle driven type generators are to be given particular consideration in respect to conservation of power. This especially applies when there is any indication of malfunction of the generator when lighting must be reduced to a minimum so that batteries are never totally discharged.

5. Emergency lighting, identified by name plates as such, is only to be used when other lighting is not available. However, staff must ensure adherance to specific operating instructions for particular types of rollingstock, such as suburban diesel rail cars, where an emergency lighting switch is required to be placed in the "ON" position at the same time as main lighting is switched on. This is to enable automatic change-over to emergency lighting in the case of failure of the main lighting.

An "Emergency On" warning light is normally located on the lighting control panel of carriages equipped for operation from head end power supply. Operation of this warning light indicates that incandescent lighting is being fed from the emergency battery supply or that switchgear is incorrectly set. In such a case, staff are required to check for proper setting of switching controls and if the condition can not be rectified, the train Elecrical Fitter is to be notified. Conservation of power and attention to battery condition is to be exercised in the meantime.

6. Non-power vehicles, which can only derive electrical power from an adjacent powered rail car, are to be given prompt attention both in respect to electrical coupling and to the operation of any change-over switching which may be necessary to provide lighting.

Care must be taken to ensure that electrical coupling between vehicles is only carried out while jumper receptacles are completely "dead". For the proper procedures to be adopted, reference should be made to the specific operating instructions for the type of vehicle concerned.

7. All staff concerned are to be attentive in observing any fault in the lighting of rollingstock.

When lights, previously switched on are not operating, any circuit breaker fitted in the circuit should be checked to ascertain whether a fault has caused it to trip. A tripped circuit breaker may be either in the "OFF" position or midway between the "OFF" and "ON" position, dependant upon type. It may be reset by moving the toggle to the "OFF" position before again switching on.

In cases where lights are not operating and any circuit breaker fitted cannot be reset after two attempts, lights are flickering, or brightness noticeably alters with speed, the employee observing the fault is to promptly advise the Train Controller, green card the vehicle and report to the Superintendent stating the number of the vehicle, the train number, and nature of the defect.

Battery Isolating Switches—

1. It is essential for the proper operation of the lighting of rollingstock and in order to avoid possible damage to battery charging equipment, that the battery isolating switch or switches when fitted to a vehicle, are always switched to the "ON" position prior to the vehicle being placed into traffic.

All operating staff concerned are to make themselves familiar with the location and operation of battery isolating switches fitted on or adjacent to the terminal box of the battery.

2. In the event of an accident, derailment or for any other reason when there is a possibility of fire or damage occurring to associated electrical equipment, any battery isolating switch or switches concerned are to be promptly switched to the "OFF" position.

Reference should be made to instructions under the heading "Prevention of Fires and Use of Fire Appliances," subheading "Train Working" of this Appendix for action to be taken in respect to battery isolating switches in the event of a fire occurring.

3. Employees responsible for the stabling of rollingstock are to ensure that battery isolating switches are always switched to the "OFF" position when released from traffic and during unattended periods, thus reducing the possibilitiy of damage or fire due to any electrical fault.

Transportation Barracks—The Station Master in charge of stations and depots where transportation barracks are provided must keep a complete record in a Station Property Book of all equipment provided at these barracks.

The officer or employee in charge of any transportation barracks must keep a detailed record showing the following information:—

(*a*) Name of employee using a bed.
(*b*) The number of the bed or the bedroom occupied.
(*c*) Date and duration of occupation.
(*d*) The total number respectively of pillow slips and sheets provided to each employee.
(*e*) The date of return of this equipment.
(*f*) Particulars of any equipment not returned.
(*g*) Particulars of any equipment returned in a condition which would indicate other than normal usage.

In addition to the foregoing record being kept, each Station Master in charge of a station where such barracks are provided must physically check the equipment weekly, preferably on Mondays, and immediately report any shortage, surplus or damage to the Superintendent.

An inventory must be forwarded to each Divisional Superintendent on 31st March, 30th June, 30th September and 31st December of each year, giving full particulars of all sleeping equipment provided at transportation barracks. Further instructions regarding the provision of laundry for barracks are contained herein under the heading "Laundry".

Barracks accommodation (permanent or temporary) at all stations where provided is primarily for the use of Enginemen, Firemen, Rail Motor Drivers and Guards whose "Home Station" is not at that particular station. When not required by train crews, the accommodation must not be used by officers or employees whose "Home Station" is at the station at which the barracks are located, except on the written authority of the General Traffic Manager who may permit the leasing of rooms.

When an employee takes up the lease, the Station Master must immediately advise the Superintendent in writing giving the necessary particulars. Unless the agreement is received by the Station Master in due course for endorsement by the employee concerned, he must again bring the matter under notice. Rental paid by employees when leasing accommodation at barracks, covers the use of room, bed, mattress and pillows, but not blankets, sheets, pillow slips and mattress covers.

Station Masters accounting for stations at which barracks are situated must pay attention to these instructions, and bear in mind that an employee must not occupy barracks accommodation at his "Home Station" free of charge, nor use Departmental blankets or bed linen at his "Home Station".

The Station Master or officer in charge of any Transportation barracks must ensure the following attention is given:—

(*a*) *Bedrooms*—

All bedrooms must be swept out and dusted daily.

All bedrooms must be washed using a detergent or disinfectant in the water at least weekly.

Clean water to be used for each room.

(*b*) *Kitchen*—

All kitchen utensils must be kept in a thoroughly clean and hygenic condition.

Utensils must be scoured and cleaned with "steel wool" after use.

Refrigerators must be inspected daily and defrosted as necessary. The interior of the cabinet must be wiped clean after defrosting. Stale food, etc., must not be left in refrigerators.

Cupboard shelves and drawers must be scrubbed weekly and covered with fresh clean paper.

Kitchen tables must be scrubbed and scoured after use.

(*c*) *Kitchen and Dining Room*—

Kitchen and dining rooms must be swept and dusted daily.

The floors must be washed and polished at least weekly depending on usage.

Blankets—Washing of—Blankets at all Departmental barracks throughout the service are required for washing at least every three (3) months. Station Masters concerned must ensure that this equipment is forwarded to the Supervisor, Laundry and Equipment, Adelaide, for necessary attention as opportunity permits without causing undue inconvenience to train crews who are required to use these barracks.

The Supervisor, Laundry and Equipment, Adelaide, must be advised of any circumstances which prevent the forwarding of blankets for laundering.

A statement must be supplied to the General Traffic Manager each month advising particulars of blankets forwarded for washing, such return must be prepared in accordance with the following:—

"Return of Blankets on Hand and Forwarded for Washing During Month of....., 19 ."

Station	No. of Blankets on Hand	No. of Blankets for Washing	Date Forwarded for Washing	Date Returned from Washing	Remarks

Mattress Covers—Washing of—Mattress covers provided at Departmental barracks throughout the service are required for washing as necessary at least every six (6) months. The Station Masters concerned must ensure that this equipment is forwarded to the Supervisor, Laundry and Equipment, Adelaide, for necessary attention as opportunity permits. Relief mattress covers can be obtained when necessary on application to the Supervisor, Laundry and Equipment, Adelaide.

HAND OPERATED CRANES

General—

1. All cranes have the lifting capacity distinctly marked thereon.

2. Crane chains are stamped with the mass they are capable of lifting as single chains, and this lifting capacity must not be exceeded.

It should be noted that the permissible load stamped on the chains is for one vertical chain only. When two or more chains are used in a sling, and at an angle to the vertical, the mass of the load must be less than the sum of the permissible loads for each chain.

Complete information is given on Chief Engineer's Drawing D. 44/75.

With the purchase-block in use, the crane chain is capable of lifting double the mass stamped on it; but the lifting capacity of the crane or purchase-block must not be exceeded. Purchase-blocks are also stamped with their lifting capacity.

3. Fixed cranes must not be used for hauling vehicles or dragging heavy articles. Care must be taken, before lifting, that the mass of any article is within the marked capacity of the crane; and when ready to lift a heavy article, those concerned must see that the package is evenly slung and that the slings are taut around the package to prevent slipping during lifting. (A slip, with the resultant jerk, is likely to break the column, chain, or sling.) Particular care must be taken when lifting blocks of marble or stone, to see that all packages are exactly under the jib, and that guy ropes are used to prevent swaying when lifted.

4. The chain of the crane must have at least one turn on the barrel when any lift is commenced, and the chain and slings must not be twisted. Care must be taken to avoid twisting of crane chains and slings when under the strain of lifting. A chain or sling must not be knotted to shorten its length.

5. When hoisting goods, care must be exercised to prevent the over-running of the crane chain or wire rope—as the case may be—of any power-driven crane.

6. The brake of the crane is intended to be used to hold the load while the pawl is raised, or while double or single purchase is thrown in or out; it must not be used for lowering.

7. No mass attached to the crane must be allowed to run down suddenly, or with the slightest jerk; neither must the man working the crab leave the handle when lowering out, and when the brake is not being used.

8. The handles of cranes must be secured on the crane by a cotter, split pin, or nut.

9. The Station Master is responsible for the care and proper use of all lifting appliances under his control. He must see that they are kept clean and oiled, and must promptly report any defects to the Superintendent. At unattended stations this responsibility devolves upon the Ganger.

10. The working of all cranes must be performed or supervised by a man qualified for that duty. The use of traffic cranes by other than the traffic staff (unless specially authorized) must not be allowed, except under the supervision of the Station Master, or a competent employee deputed by him.

11. The use of oil or grease on the brake is prohibited.

12. In no case must a heavy article be raised and remain suspended beyond the time necessary to adjust the crane for lowering.

13. On no account must any crane or lifting appliance, which is found to be defective, be used until the defects have been made good. When not in use, all chain slings, hooks, and wire or rope slings must be kept in the shed or under cover.

14. Bagging or old canvas must be used to prevent chaffing of articles by the slings used to lift them. Particular care must be observed in lifting motor cars, vehicles, harvesters, strippers, and other articles of a like nature, to avoid damage by the slings. If necessary, a spreader must be used to keep the two legs of a sling from crushing the article which is being lifted. Bagging, or old canvas, or similar material, must be used to protect rope slings against chaffing by cases, machinery, or other articles likely to cut the ropes.

15. Crane hooks of all station cranes, excepting 5 tonne revolving jib cranes, shall be secured, when not in use, to staples, loops or rings provided for the purpose.

Hooks of 5 tonne revolving jib cranes, when not in use, shall be raised to the maximum height, and the crane left free to rotate.

16. Slings must be used when lifting wet casks, such as wine, spirits, oil, etc.; and for cased machinery or other bulky packages. Can hooks or dog hooks, may be used for dry casks and other solid packages.

17. The crane chains (or wire rope) and all slings must be thoroughly examined once every three months by the Station Master.

18. Crane chains, with the exception of Alloy Chains, must be annealed at least once every 12 months unless otherwise prescribed. Alloy Chains must never be annealed or re-heat treated in any way.

19. When a new crane is erected, the Officer in Charge of the work shall provide the standard equipment as set out in clause 23. This equipment is manufactured by the Chief Mechanical Engineer, who will forward a certificate of test to the Superintendent.

20. Each wrought iron or mild steel chain or sling must be furnished with a metal label This label bears, on one side, the name of the station to which it belongs, and the number and lifting capacity of the chain slings, and on the other side "Loco. Islington". Alloy slings are provided with a metal tag showing the permissible safe working loads under various conditions. The serial number of the sling is to be branded in the space provided on the tag.

21. Each Station Master must record in his "Station Property Book" particulars of the crane chains and slings belonging to his station.

22. Crane chains, chain slings, wire ropes, wire rope slings, must not be loaned or transferred from one station to another except on the authority of the Superintendent. The Superintendent will make the necessary arrangements for the loan or transfer, and in the case of a transfer must notify the Chief Mechanical Engineer, who will issue new iron labels for the appliances, showing the name of the station to which they are transferred.

frame; the weighbridge, machine, or scales must then be carefully balanced, and the employee responsible for the duty must make an entry in the Weighbridge Book to the effect that he has done so, thus: "Adjusted", followed by his signature, date, and time. The Station Master must, on his daily inspection, see that the weighbridge and each weighing machine or scales has been adjusted, and the prescribed certificate made in the Weighbridge Book.

4. Weighbridges provided with a relieving apparatus must be kept out of gear; on non-relieving weighbridges the tumbler must be kept down, and the steelyard securely held, except at the time of weighing.

5. On twin weighbridges the tumbler for holding the steelyard must be kept down and the handles for securing the balance levers must be kept in the holding down position, except at the time of weighing.

6. Where a relief line is provided, the switches must be kept set for it, except when the bridge is in use for weighing.

7. The weighbridge pit must be kept free of water by means of the pump provided for the purpose.

8. The weighbridge house must be kept closed and locked except when in use for weighing. The house must be kept clean and tidy and not be used as a storeroom.

9. A weighbridge, weighing machine, or scales which does not weigh correctly, or is defective in any way, must be immediately reported to the Superintendent, who must promptly advise the Chief Engineer.

10. The standard form "Inspection and Verification of Weighing Appliances" (with any necessary changes in denomination of columns) must always be used by the Weighbridge Fitter for recording examinations and tests made of weighbridges, weighing machines, scales, etc.

Inspection of Weighing Appliances used by Refreshment Services—

11. The weighing appliances of the Refreshment Room Services on each Division must be inspected at least once a year by the Weighbridge Fitter in the course of his ordinary itinerary.

12. Platform or counter type scales which may be used for the sale of goods must be *inspected, adjusted,* and *verified* by the Fitter in the usual manner.

13. The following must be inspected, but not adjusted by the Weighbridge Fitter:—

Spring scales.
Counter type scales not used for the sale of goods.
Personal weighing machines.

BALANCING OF WEIGHBRIDGES, WEIGHING MACHINES AND SCALES

14. Balancing keys must be kept in the safe in the Station Master's office.

15. Station Masters must see that the employee deputed to the duty is properly instructed in the method of balancing the weighbridge, weighing machine, and scales.

70-tonne Automatic Twin Weighbridges—

16. (*a*) Both machines must be placed out of gear by jamming down the handles, and, by use of the balancing key, balance the steelyard until the chart indicates zero.

(*b*) Place Nos. 1 and 2 machines in gear by lifting up the jamming levers, and use the balancing key to balance until the respective pointers vibrate. When properly balanced the two pointers should be vibrating and the chart showing zero.

70-tonne Non-relieving Ordinary Twin Weighbridges—

17. (*a*) Place the sliding weights at zero at left hand end of steelyard.

(*b*) Release the tumbler holding the steelyard, bring the steelyard to rest on the bottom bearing, then adjust with the balancing key until the steelyard *rises very slowly from rest.*

(*c*) Release the handle holding the right-hand lower balancing lever, and, through a hole in the end of the covering plate, adjust with the balancing key until the pointer at end vibrates.

(*d*) Release the handle holding the left-hand lower balancing lever, and proceed as above. When properly balanced the pointers of right and left balancing levers should vibrate, and the steelyard rise slowly from the bottom bearing.

INWARD AND OUTWARD TRUCK RECORDS

NOTE:—"Outwards"—for traffic to be forwarded from a station.
"Inwards"—for traffic received at a station.

1. A separate Station Truck Record Book (Form 309) must be maintained for each station, including unattended stations, (For exceptions see clause 9).

2. The station name must be plainly printed on the cover of each book for easy reference.

3. The full particulars of arrival and subsequent departure, including empty movements, must be shown opposite each vehicle number and the requisite details duly completed.

4. At junction and transfer stations, local traffic only is to be recorded in the Station Truck Record Book (Form 309), however, "through" traffic at such stations is to be recorded in the Inwards and Outwards Truck Book (Form 302).

5. At all stations other than junction or transfer stations "through" traffic detached and attached must be recorded in Station Truck Record Book (Form 309).

6. At attended stations the initial recording of particulars of arrival and departure of vehicles shall be done in the Inwards and Outwards Truck Record Book (Form 302) and then transcribed to the Station Truck Record Book (Form 309) in which the requisite details are to be completed.

7. For traffic from unattended stations, the necessary particulars are to be obtained from Form 79 (A.B.C. Form). Guards must show on Form 79 (A.B.C. Form) the time as well as the train number, the vehicles are detached or attached and hand in same at the first attended station in advance.

Should such station not be the accounting station for the respective unattended stations, the Station Master must forward the Form 79 (A.B.C. Form) to the Accounting Station by the first train, and if there be no train until after the following day, the particulars must be immediately phoned or telegraphed to the Accounting Station in order to avoid delay and subsequently send on the Form 79 (A.B.C. Form) by the first train.

8. At sidings at which a Signalman or Porter in Charge is stationed the necessary particulars are to be supplied by the Signalman or Porter in Charge to the Station Master at the Accounting Station for recording in the Station Truck Record Book (Form 309).

9. At Dry Creek, Glanville, Mile End, Mount Gambier, Pooraka, Port Adelaide, Port Pirie and Wallaroo, on the Mainland and Thevenard on Eyre Peninsula, Station Truck Record Book (Form 309) is not required, but the Inwards and Outwards Truck Record Book (Form 302) is to be used in conjunction with Form 304 and/or Truck Record Book of special print.

10. Station Masters will be responsible for the compilation of Station Truck Record Book and to see that Guards hand in each trip A.B.C. Form (Form 79) including "Nil" return for every unattended station under their control.

11. Guards will be responsible for the preparation of Form 79 (A.B.C. Form) as set out herein. In addition to the train number they must endorse thereon the time the vehicles are detached and attached and hand in the A.B.C. Form at the first attended station in advance.

12. In recording the numbers of vehicles, the following procedure must be observed:—

(*a*) Numbers of vehicles received and dispatched must be directly entered into the appropriate book and not in the first instance on a truck label or in an ordinary memo book for the purpose of transcribing into the printed book.

(*b*) The numbers of all Inwards vehicles must be checked with invoices and transfer notes for local and transfer traffic and also Outwards vehicles checked with the invoices.

(*c*) The number of tarpaulins, ropes and chains on vehicle load consignments must also be entered in the column provided and checked with the entries.

(*d*) Loco. Water Tanks must be distinguished from other tanks.

(*e*) Indelible pencils must not be used for the purpose of recording particulars in these books.

13. When complete, books must be labelled, dated and filed for reference.

ORDER BOOKS

Station Masters must prepare and keep up-to-date a Daily Station Order Book in which must be inserted all General Orders and Instructions for the working of the station from day to day in accordance with the Rules.

BOOKS TO BE TAKEN BY STATION MASTERS WHEN TRANSFERRED

1. Station Masters, when transferred, must take their Goods and Livestock Rates Book, Coaching Book, Rule Book, and Appendix with them, but all other books are to be left at station.

2. Relieving Station Masters must always have in their possession copies of all necessary books issued.

3. All books of instruction, such as the "Use and Care of Weighbridges", "Accounts Instruction", etc., issue to stations (other than those for the personal use of officers, vide paragraphs 1 and 2) must be entered in the Station Property Book, and must be produced and checked when a new Station Master is taking over. Any discrepancies must be promptly reported to the Superintendent.

BOOKS TO BE EXHIBITED AT STATIONS

1. Current copies of the "Goods and Livestock Rates Book" must be exhibited in a prominent place inside the Freight Office, and a copy of the "Coaching Book" exhibited in the Booking Office, of all attended stations, and be conveniently available for the information of the public. Should the books be removed or destroyed, Station Masters must promptly report the fact to the Superintendent of the Division, who will have books supplied to replace those lost or destroyed. The books must be brought up to date by the Station Master before being exhibited.

2. They must be corrected by the Station Master immediately any alterations are made by By-law, or through the "Weekly Notice". Entries must quote the authority for the alteration, and be initialled by the Station Master.

3. Station Masters must be prepared to prove that the books are exhibited in terms of these instructions.

TRAIN NOTICES FOR TRAIN CREWS

A supply of Train Notices, Holiday Working Books, or alterations in the running of trains, will be supplied to terminal stations. Station Masters must see that they have a sufficient supply of notices, and the following instructions must be observed in connection with their delivery:—

1. Station Masters at terminal stations must see that Guards and Enginemen of trains leaving their station have copies of Train Notices concerning the line over which they are to work, and obtain their signatures, in the book provided for such purpose, that they are in possession of such notices, except as prescribed in Clauses 2 and 6. The numbers of the Train Notices to be issued must be entered by the Station Master in the book provided, and Guards and Enginemen must give receipts at the time of delivery of the Notices, entering the number received in such book. Station Masters must also obtain their signatures for Standing Notices as provided in clause 7.

2. When an alteration to the schedule of a train appears in the *Weekly Notice,* a signature need not be obtained by the Station Master at the terminal station, or a receipt given by the Engineman and Guard for such alteration on and after the Wednesday following the date of issue of the *Weekly Notice.*

3. When train crews (as on *The Overland*) work through two Divisions, the Station Master at the border station of the two Divisions must issue the necessary Train Notices to the Engineman and Guard for the Division the train is about to enter, obtaining their acknowledgment of same. For the purpose of this instruction, Tailem Bend is the border station of the Adelaide and Murray Bridge Divisions.

4. The Guard and Assistant Guard (if one provided) after receiving their notices must compare them with the notices held by the Engineman (also the Engineman of an assisting engine, if one provided) as mentioned in Clause 12. All connected with the working of the train must satisfy themselves that they have received copies of similar notices.

5. If there be no Train Notices, or current notices which have not previously been supplied, the word "Nil" must be written in the Train Notice Receipt Book by the Station Master, and Enginemen and Guards concerned when signing must also insert the word "Nil". Trains must not leave terminal stations until Enginemen and Guards have signed the Train Notice Receipt book. Station Masters must see that this is done. Should, however, the Guards and Enginemen at a terminal station be already in possession of the notices which otherwise the Station Master should deliver to them, a duplicate notice need not be issued, but the Guard and Engineman must sign the book as an acknowledgment that they possess such notices.

6. Guards and Enginemen working trains on Metropolitan lines and North Gawler are not required to sign the Train Notice Receipt Book except in special circumstances. Temporary Standing Train Notices regarding speed restrictions or temporary closures of Main Line and Standing Train Notices regarding amendments to the respective W.T.T. Books or regarding train working must be signed for as acknowledgment of receipt by both Guards, Enginemen and Rail Motor Drivers at all times.

7. Train Notices issued for the running of booked "when necessary" trains, or "extra trains until further notice" must not be destroyed, but kept by the Guards and Enginemen for further reference. A daily receipt, however, must be obtained by the Station Master at the terminal stations showing that Guards and Enginemen are in possession of such notices. Enginemen booking on duty at depots must be given advices of all Standing Train Notices, and immediately acknowledge receipt of same.

8. Should the advice of the running of a "when necessary" or "extra" train, or an alteration in the running of other trains be sent to stations at short notice, Station Masters must see that a copy of such advice is handed to Guards and Enginemen concerned who start from or run through their stations, unless they have satisfied themselves (if necessary by telegram) from stations in the rear that such Guards and Enginemen have been previously advised. Receipts must be taken as stated above.

9. When an extra train is required to work at such short notice that the usual Train Notice cannot be issued, telegraphic advice must be sent to each station and depot concerned. If this is not possible, the Train Controller on lines worked under Train Control, or the dispatching Station Master on lines not under Train Control, must advise all concerned of the running.

10. Work trains must only work under the direction of the Train Controller on territory under Train Control, and by arrangement with the Supeintendent on territory not under Train Control. The Train Notice advising the running of Work Trains must show the A.F.E., Shop Order, Account, and Requisition numbers.

11. For the purpose of issuing Train Notices, terminal station shall mean:—

(*a*) a station from which the running of any train commences;

(*b*) a junction station from which a train continues its running under the same or a different number;

(*c*) a station from which trains travel from the Main Line to a branch or *vice versa;*

(*d*) a station at which a Guard or Engineman commences his journey for the day.

12. The above instructions also apply to Enginemen of assisting engines and Assistant Guards, or any train men travelling with trains for the purpose of working the same train in shifts or relays.

13. (*a*) Train Notices will be issued to cover light engines working from Mile End Diesel Depot to stations other than Mile End Goods and Adelaide.

(*b*) Train Notices will be prepared by the Adelaide Roster Staff, addressed to the Engineman of the light engine concerned, and forwarded to the Running Foreman for delivery.

(*c*) The Adelaide Roster Office will prepare 10 spare copies of notices for the respective working either North, South, or Port Line, to cover cases of emergency light engine running, marked "Spare notices South Line", or North Line or Port Line, as the case may be, and forward them to the Running Foreman.

(*d*) The Running Foreman, or person deputed by him, must obtain the signature of the Engineman to whom the notices are handed in the book provided.

BOOK 3

SIGNALLING AND COMMUNICATION INSTRUCTIONS

Electrical Equipment—Reporting Failures of—

Failures of signalling or electrical equipment, affecting train working must be promptly reported to the Train Controller; and if train movements are in consequence being delayed, the Train Controller must advise the Signal and Telegraph Engineer.

Failures of electrical equipment in workshops, offices and yards that do not affect train working must be promptly reported to the Electrical Maintenance Fitter responsible for the maintenance of the equipment. Details of the location of Electrical Maintenance Fitters is included in this Appendix.

Signal Power—Indicating Lamps in Signal Cabins, Station Offices, or at Level Crossings—

A power-indicating lamp is provided in certain signal cabins (and or station offices and in relay boxes at level crossings). When burning it indicates that power is being supplied to the electrical equipment from the mains. When such lamp is out, the current is being supplied from a battery which has only a limited capacity.

The failure of the power supply from the mains must be handled as follows:—

1. Station Masters and Signalmen who are responsible for observing such lamps in station offices and Signal Cabins must immediately endorse the Train Register Book and advise the Train Controller.

2. Station Masters who are responsible for inspecting such lamps at level crossings adjacent to the station must endorse the Train Register Book and advise the Train Controller.

3. The District Foreman or his representative responsible for inspecting such lamps at level crossings must immediately endorse the Crossing Inspection Book and advise the Train Controller.

Electric Light or Power Earth Wires—Broken—

The finding of a disconnected or broken earth wire should be immediately reported to the Signal and Telegraph Engineer. Severe injury may result from the handling of a disconnected or broken earth wire. The attention of Plumbers and other tradesmen and their assistants is particularly directed to the foregoing instruction.

Electrical Fitters—Location of—

In the Metropolitan Area, the Electrical Fitters are available as under:—

	Between hours of—	Railway Telephone Number
Monday to Friday—		
Signal failures	Continuous	2411
Telephone failures	7.00 a.m. to 11.00 p.m.	2001
	Other times	2411
Lighting and power, except Mile End	Continuous	2411
Lighting and power, Mile End	8.00 a.m. to 4.45 p.m.	2119
	Other times	2411
Saturdays and Sundays—		
Signal failures	Continuous	2411
Telephone failures	Saturday 8.00 a.m. to 4.45 p.m.	2001
	Sunday 8.00 a.m. to 5.30 p.m.	2001
	Other times	2411
Lighting and power including Mile End	Continuous	2411

Outside the Metropolitan Area, the Electrical Maintenance Fitters are stationed as under:—

Fitter located at	Fitters District
Aldgate	From and including No. 800 Signal, Eden Hills to, but not including No. 12 Signal, Balhannah.
Nairne	From and including No. 12 Signal, Balhannah to and including No. 4476 Signal Callington. Mount Barker Junction to Victor Harbour.
Murray Bridge . . .	From and including No. 4477 Signal, Callington, to and including No. 6850 Signal, Monteith. Monarto South to Cambrai.
Tailem Bend	From and including No. 6849 Signal, Monteith up to but not including No. 1 Signal, Culburra. Tailem Bend to, but not including Wynarka. Tailem Bend to Pinnaroo.
Keith	From and including No. 1 Signal, Culburra to Serviceton (S.A.R. equipment).
Karoonda	From and including Wynarka to and including Sandalwood. Karoonda to Waikerie. Karoonda to Peebinga.
Renmark	From but not including Sandalwood to and including Barmera. Alawoona to Loxton.
Naracoorte	From but not including Wolseley to and including Penola. Naracoorte to Kingston.
Mount Gambier . .	From but not including Penola to Victorian Border (S.A.R. equipment). Mount Gambier to Millicent.
Salisbury	From the junction of No. 865 and 874 tracks at Dry Creek to No. 2379 Signal on the "Down" North Main Line and to the junction of No. 2400 and 2404 tracks on the "Up" North Main Line at Gawler. Salisbury to and including Two Wells. Salisbury to Penfield Area.
Gawler	From and including No. 2379 Signal, Gawler to, but not including No. 1 Signal, Roseworthy. From but not including No. 22 Signal, Roseworthy to Robertstown. Gawler to Truro. Nuriootpa to Angaston.
Hamley Bridge . .	From and including No. 1 Signal, Roseworthy to and including No. 5476 Signal, Tarlee. Hamley Bridge to but not including, Balaklava.
Riverton	From No. 5476 Signal Tarlee to, but not including, No. 0043 Signal at Burra. Riverton to Spalding.
Bowmans	From and including Two Wells to, but not including Bumbunga. Bowmans to, but not including, Kadina. Bowmans to, but not including Blyth.
Snowtown	From and including Bumbunga to, but not including Redhill. Bumbunga to Lochiel. Moonta to Brinkworth. From and including Blyth to and including Yacka.
Gladstone	From and including Gladstone to, but not including Yacka. Gladstone to, but not including No. 2 Signal at Jamestown. Gladstone to and including No. 2 Signal at Crystal Brook. Gladstone to Wilmington.
Port Pirie	From and including Redhill to Port Pirie. Port Pirie to, but not including No. 2 Signal at Crystal Brook.
Peterborough	From and including Peterborough to Quorn. From Peterborough to, and including No. 2 Signal at Jamestown. Peterborough to Broken Hill (S.A.R. equipment). Peterborough to and including No. 0043 Signal at Burra.

Port Lincoln Division failures must be reported to the Leading Hand Electrical Fitter, Port Lincoln, or to the nearest Electrical Mechanic stationed as under:—

Mechanic located at	Mechanics District
Port Lincoln	Port Lincoln to and including Coomunga.
Cummins	From, but not including, Coomunga to, but not including, Karkoo. Cummins to Buckleboo. Yeelanna to Kapinnie.
Wudinna	From and including Karkoo to and including Poochera.
Thevenard	From but not including, Poochera to Thevenard. Penong Junction to Penong.

Only authorized personnel are permitted to carry out work on signalling, communications and power and lighting installations. Authorized employees working on power and lighting installations must be holders of an appropriate class of Electrical Workers Licence.

Illuminated Diagrams and Control Consoles—

An illuminated diagram and a control panel is provided at certain stations where the interlocking between signals and switches is controlled electrically.

An illuminated diagram shows the geographic layout of the permanent way, switches, and signals controlled from the control panel.

The miniature switches, by which the respective signals, switches, and derails, etc., are controlled are arranged on the control panel, which is located adjacent to the illuminated diagram.

1. *General Maintenance—*

The reliable operation and general appearance of the control console and illuminated diagram is dependent on the care and attention given to the handling, maintenance and cleanliness of this equipment.

Under no circumstances should bottles, drinking utensils, lighted cigarettes or other objects, likely to accidently damage the console or equipment be placed on the console.

The engraved panels must not be cleaned with cleaning fluids, polish or other liquids as any of these substances entering the switches and other electrical equipment will have a corrosive effect and result in equipment failures.

The engraved panels should be dusted regularly with a lint free duster.

The wood grain portion of the console may be cleaned with a lint free cloth slightly moistened to collect dust and remove finger marks, etc.

In the event of any damage occurring the Electrical Fitter is to be advised.

2. *Indications provided on the Illuminated Diagram—*

(*a*) Track Indications.

Two types of indications are used as follows:—

either

(i) a white light is exhibited when the respective track circuit is occupied and is extinguished when the track is unoccupied; or

(ii) the track lights are normally extinguished until a route is set by the operation of the switch and signal rotary switches. The tracks in the route set will then be illuminated white. As the train passes over the individual track circuits in the route, the illuminated portion changes to red and remains so after the train has cleared the section and until the signal lever is restored to the normal position.

(*b*) Signal Indications.

Two types of indications are used as follows:—

either

(i) a green light is situated in or adjacent to the symbol of the signal which is illuminated only when the signal displays Caution, Clear, or Low Speed indication; or

(ii) a red/green combination light is provided in the same locations as the green light mentioned above. The red light is illuminated when the signal is at "Stop" and the green light is illuminated when the signal displays a Caution, Clear, or Low Speed indication.

(*c*) Switch Indications for switches operated by Switch Machines.

(i) On illuminated diagrams;

Red/white combination lights are provided on the illuminated diagram to represent the switches. These lights are normally illuminated white and indicate the setting of switches. As a train passes over the switches the lights are illuminated and remain red after the passage of the train until the signal lever is restored to the normal position.

(ii) On control panels;

The position of the switches is indicated by the illumination of a lamp located adjacent to the normal and reverse positions of the miniature rotary switches controlling the switches, as described in section 3 (*b*) hereunder.

(*d*) Switch Indications for switches controlled by Outlying Switch Locks.

Yellow/white combination lights are provided on the illuminated diagram to indicate the position of the switches controlled by Outlying Switch Locks. The yellow light is illuminated when the switches are set for the straight and the white light is illuminated when the switches are set for the turnout.

(*e*) Derail indications for derails separately controlled by Switch Machines.

Purple/white combination lights are provided on the illuminated diagram to indicate the position of a derail which is separately controlled by a switch machine. The purple light is illuminated when the derail is "on the track" while the white light is illuminated when the derail is "off the track".

(*f*) Block or Approach Indications.

Block Indicator lights are provided on some illuminated diagrams. These lights are identical to track indication lights and are illuminated when the Block to the adjacent station becomes occupied. A single stroke bell is used in conjunction with these lights at certain stations.

Approach Indicator lights are used on some illuminated diagrams. These lights are illuminated when a train occupies the approach tracks to the Absolute Signals at the entrance to the Station Yard.

(*g*) Level Crossing Indications.

An indication that the level crossing warning devices are operating is given on certain illuminated diagrams by a flashing red light.

3. *Control Console*—

(*a*) The miniature rotary switches for the control of signals have a red operating lever, and may have two or three positions.

The normal position of both types is designated with the letter "N". A two position switch may be rotated 90° (either left or right) to a second position which is designated with the number of the signal it controls. A three position switch may be rotated 90° to the left and right from the normal position, each position being designated with the number of the signal it controls.

A Low Speed signal is controlled either by one position of a rotary switch, or by a combination of a rotary switch and a separate push button designated "Low Speed".

Some rotary switches which control signals have a white light installed in the centre of the red lever. When illuminated, this light indicates that the route has been correctly set and the respective signal lever operated.

(*b*) Rotary switches for the control of switches and/or derails, have a black operating lever which may be rotated through 90° between two positions. These two positions correspond to the normal and reverse setting of the switches, etc., and are labelled "N" and "R" respectively on the control console.

On certain control consoles, lights are placed adjacent the "N" and "R" positions. A green light illuminated at the "N" position indicates that the switches are fully normal while a yellow light illuminated at the "R" position indicates that the switches are fully reversed. A red light is installed in the centre of the black lever. When illuminated this light indicates—

(i) The switches are electrically locked;
(ii) A signal lever, controlling a signal reading over the switches, etc., is out of the normal position;
(iii) The Approach Locking is in effect;
(iv) A train is on the fouling track of the switches, etc.;
(v) Failure of the electrical locking apparatus.

There is no mechanical locking between any of the rotary switches which are, therefore, free to be moved at any time.

4. *Incorrect operation of appartus*—

The non-illumination of the respective lights on the illuminated diagram or control console would indicate that either—

(i) The switches are not correctly set and locked;
(ii) The selector lever on the switch machine (if applicable) is not in the motor position;
(iii) Conflicting switch and signal levers have not been restored to normal; or
(iv) A failure of a lamp or part of the electrical apparatus has occurred.

Approach Locking—

Approach locking is a term used to describe the system of electrical locking that is applied between interlocked switches and signals in a station yard. This system, which becomes effective immediately the signal for a route is operated, is normally cancelled by the passage of a train past the signal.

If, however, the signal is restored to the "Stop" position while a train is approaching the signal and is occupying any one of the track circuits included in the approach "section", the approach locking will prevent the operation of any switches that would endanger the train while it is within the limits of the route entered, until a predetermined time interval has elapsed to ensure that the train has been brought to a stop or has entered the route.

The release of the approach locking on each interlocked switch will be indicated by the extinguishing of the red light in the respective black rotary switch levers controlling the switch.

Relay Interlocking—

Relay interlocking is a system of interlocking employed at certain stations where signals and switches are all electrically operated.

At such locations there is no mechanical interlocking between the rotary switches controlling the switches and signals. However, the equipment controlled by the rotary switches is electrically locked and interlocked with other equipment in accordance with the "Table of Locking" by the use of electrical relays. This type of locking is referred to as "a Relay Interlocking."

Proof that the field equipment has responded to the miniature rotary switch operation is given by the indications displayed on the illuminated diagram and control console.

Time Element Relays—

Time element relays are used where a predetermined time delay is required before the operation or release of certain signalling equipment.

Typical applications of a time element relay are—

(i) for approach locking;

(ii) at certain level crossings equipped with flashing lights where a signal governing movements over the level crossing is situated nearby. The time element relay begins its time cycle when the flashing lights are started and prevents the operation of the signal until the preset time delay has expired.

Low Speeds Signals—

Trains which are brought to a stand in front of a signal provided with a Low Speed indication must stop on the short length of track circuit which extends from the signal an approximate distance of 65 m in advance.

The Signalman must restore the lever controlling the Low Speed signal immediately a train has passed the signals.

Electric Staff Block System—

Under this system only one staff can be withdrawn to permit a train to enter a block at any time, and a train must not enter a block until the Engineman is in possession of the correct staff for that block except as prescribed in the Rule Book.

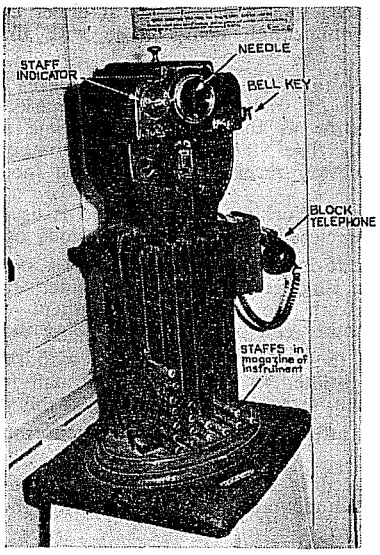
Each terminal station is provided with a staff instrument, and at each intermediate station a staff instrument is provided for the section on each side.

For the purpose of this explanation the station from which the train is due to start is called A, and the station to which it is to proceed is called B.

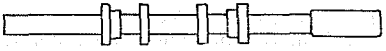
The staff instrument is illustrated on page 413. The magazine will hold either 40 or 80 staffs depending upon the type of instrument provided.

When the bell key is depressed at A, the block bell at B rings once. A Signalman cannot ring the bell of the instrument in his own cabin. The Galvanometer needle when in a slanting position indicates that the bell key at the opposite end of the section is depressed for the purpose of releasing a staff. The Staff Indicator is to show when a staff has been withdrawn. After permission has been given by the Station Master at the opposite end of the section, a staff may be obtained by passing it through the aperture in the instrument and withdrawing it from the Staff slot. A Block Telephone transmitter and receiver is attached to each instrument. The staff consists of a metal rod approximately 270 mm long, as shown. The names of the stations at each end of the section to which the staff applies are shown on the staff, and each staff is numbered.

Electric Staff Working Between Two Attended Stations—To obtain a staff for a train to enter a section the Signalman at A must ask "Is line clear?" of B. If the line be clear the Signalman at B must give "Line Clear" signal on his



Staff Instrument



bell key, and when pressing down the key for the third time must hold it down until the needle of his instrument returns to an upright position. The Signalman at A on receipt of the third beat of the "Line Clear" signal, and also seeing that his needle remains in a slanting position, must take out a staff, and at once turn the staff indicator to "Up staff out" or "Down staff out" according to the direction in which the train is about to travel, and hold the staff indicator fully over for at least three (3) seconds. This will cause the needles at both stations to assume a vertical position, and the Signalman at B must then release his bell key and turn his staff indicator to "Up staff out" or "Down staff out" as required.

The Signalman at A must give the staff to the Fireman or to the Guard or Rail Motor Driver of a rail car. Immediately the train leaves or passes his station A must give the "Train on line" signal to B, who must acknowledge the signal.

Immediately upon the arrival of the train at B the Signalman at that station must obtain the staff from the Fireman, or Guard or Rail Motor Driver of a rail car, and replace it in his instrument. He must then immediately give the "Train arrival" signal to A who must acknowledge it. Both Signalmen must then replace the indicators to the "Staff in" position.

If, when A asks "Is the line clear?" the line be not clear B must return the "Line blocked" signal, which must be at once acknowledged by A, and a train must not be allowed to proceed until "Line clear" has been returned by B.

At Block Stations where trains cannot cross or pass, or where fixed signals are not provided, the Signalman must not give the "Train arrival" signal to a station in the rear until such train has passed the station and entered the next section.

A staff may be replaced in the instrument at either end of the Block at any time without any communication being made with the opposite end of the section.

When a Signalman removes a staff from or replaces it in the instrument he must enter the number of such staff in the remarks column of the Train Register on the same line as the entry of the time at which the staff was withdrawn or replaced. The staff issued to an outgoing train must bear a different number to the staff received from the last incoming train.

Automatic Electric Staff Working—This method is used at unattended stations and at stations that are closed during certain periods of the day.

Automatic electric staff instruments at unattended stations must be operated by the Guard or by the Engineman of a light engine. In this case it is possible to withdraw the staff from the automatic instrument without the key of the staff instrument at the other end of the section being depressed.

In order to ascertain that a staff has not been withdrawn for the section, the staff indicator must be rotated to the right. If a staff for the section has been withdrawn the bell of the instrument will ring when the staff indicator is rotated.

When the station is attended the staff instrument must be operated by the Signalman.

A staff may be replaced in the instrument at either end of the Block at any time without any communication being made with the opposite end of the section.

Train Register Books—Two sets of Train Register Books (No. 329) must be used at unattended Automatic Electric Staff Stations.

The Accounting Station must arrange to collect the Train Register Books from unattended Automatic Electric Staff Stations under their control during the first week of each month. These books must be checked by the Station Master, and a certificate furnished to the Superintendent not later than the 20th day of each month to the effect that the Train Register Books at the stations under their control have been found correct, and if incorrect, particulars given of all errors. The Superintendent to subsequently advise the General Traffic Manager.

The books must be numbered "No. 1" and "No. 2" and used alternately.

Automatic Electric Staff Stations in charge of a Station Master, such as Burra, need only use one book, but the necessary certificate must be furnished to the Superintendent.

Subsidiary Electric Staff Working—This method is used between certain attended stations between which there is an unattended station equipped with electric staff instruments.

For the purpose of this explanation two attended stations named A and C will be referred to with an unattended station named B located between them. Under this arrangement the staff having been withdrawn for the section A to C may be replaced in the instrument at B or C, but another staff for the section A to B or A to C cannot be withdrawn until the staff has been deposited in either A, B or C instrument.

Method of Working—If it is desired to cross or pass a train at unattended station B the staff must be withdrawn from either A or C, and the train to be crossed or passed may proceed to B, where the staff must be placed in the instrument. The opposing or following train may then proceed from A to C or C to A, crossing or passing the aforementioned train at B. Station B may be either a passing siding or junction station. Upon arrival at B the Guard must report his arrival time to the next attended station ahead, and subsequently obtain permission to depart.

Automatic Subsidiary Electric Staff Working—This method is used between certain stations, either both unattended, or with one attended and one unattended.

Electric Staff Instruments at Unattended Stations—Locking of—Cubicles containing Electric Staff Instruments at unattended stations or elsewhere must be locked, before departure of the train, with the "S" lock provided for this purpose, by the employee changing the staff.

Staffs—Balancing of—If from any cause the number of staffs at one end of a section exceeds 30 in the case of the 40-staff magazine instruments, or 60 in the case of the 80-staff magazine instruments, the Electrical Fitter must be promptly advised. The Fitter must, as soon as possible, proceed to transfer any excess above 20 from the instrument in which they have accumulated to the instrument at the other end of the section. When advising the Electrical Fitter, the number of staffs in the instrument must be stated so that he can judge as to the urgency of the case. Before taking out the staffs the Fitter must advise the Signalman at the other end of the section by telephone that such transfer is about to be made. The staffs must then be removed by the Fitter from the instrument, and the numbers entered by him in the Staff Register Book with which he is provided. The Signalman must check and sign the entry, and insert the time at which the staffs were removed. The Electrical Fitter must retain in his possession the whole of the staffs he has withdrawn until he has replaced them in the instrument at the other end of the section, to which place he must proceed by the first available train or other means. The Signalman at the station to which the staffs are transferred must first place in his instrument the staff used by the train on which the Electrical Fitter travelled, and exchange the "train arrival" signal. He must then check the numbers recorded in the Staff Register Book with the staffs carried by the Electrical Fitter, and when satisfied that the numbers are correct, and he has personally seen the whole of the staffs placed in the instrument, he must sign the Staff Register Book and insert the time. Signalmen must watch the supply of staffs in their machines, and not allow their number to be exhausted.

Staffs—Loss of—When an electric staff is lost and Train Order Working is instituted temporarily, as prescribed in the Rules, and the staff is quickly found, it must be immediately handed to the nearest Station Master, who must lock it away in his safe and advise the Train Controller. The Electrical Fitter must then be called to replace the staff in the instrument. This adjustment must be carried out when no train occupies the section. Arrangements must be made between the Train Controller and the Electrical Fitter as to the time when the adjustment is to be made.

Should the staff be not found within a reasonable time, the Train Controller must arrange for the Electrical Fitter to adjust the instruments during the time when no train occupies the section. The staff withdrawn by the Fitter for the purpose of making the adjustment must be forwarded immediately to the Signal and Telegraph Engineer as a value. Should the lost staff be subsequently found, it must be impounded and similarly forwarded to the Signal and Telegraph Engineer.

1. The following illustration shows the method to be adopted when exchanging the Electric Staff. The hoops, with the staff securely fastened in the carrier, must be held lightly between the thumb and forefinger, in the manner indicated above, the correct position to be taken up before the engine is within 45 m of the spot where the exchange is to be made. Officers and employees must place themselves in the most suitable position to enable the exchange to be made, and in full view of the Fireman.

2. On arrival at the end of the section the Fireman, or Guard of Rail Car, must hand the staff to the Signalman.

AUTOMATIC ELECTRIC STAFF EXCHANGE APPARATUS

METHOD OF WORKING—DESCRIPTION

Ground Apparatus—This portion of the apparatus is housed in a container located adjacent to and on the right-hand (Fireman's) side of the track. The exchanger when not in actual use must be placed in a horizontal position in the container, and the lid closed. The exchanger must be raised to a vertical position as shown (in Diagram No. 1) when ready for use and is held by the strut-arm being secured to the vertical shaft by means of the locking pin.

Engine Apparatus—This portion of the apparatus is attached to the engine on the side of the cab adjacent to the Fireman's seat. The view (in Diagram No. 2) shows the position of the equipment with the staff and pouch attached, before being lowered for exchanging purposes, by the Fireman. The exchanger must be lowered to a horizontal position by moving the hand lever downwards. This action extends the catcher outwards and in position to engage the staff holder held by the ground apparatus.

Staff Holder—This consists of a metal ring attached to a leather pouch which accommodates the electric staff. The staff must be inserted in the pouch and secured in position by the locking strap and buckle. See Diagram No. 3.

Action of Exchanger—The electric staffs are exchanged by the catcher of the engine apparatus engaging with the metal ring of the staff holder containing the outgoing staff for the section ahead, and the catcher of the ground apparatus engaging with the metal ring of the staff holder containing the incoming staff for the section in rear, as shown in Diagram No. 4.

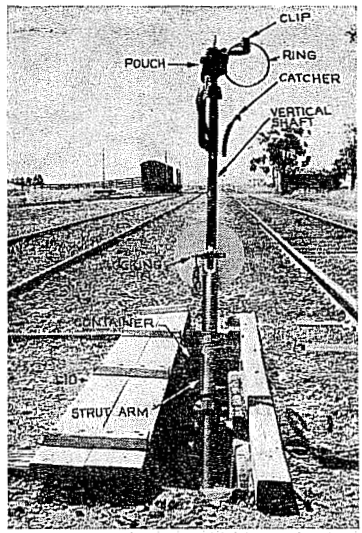


Diagram No. 1

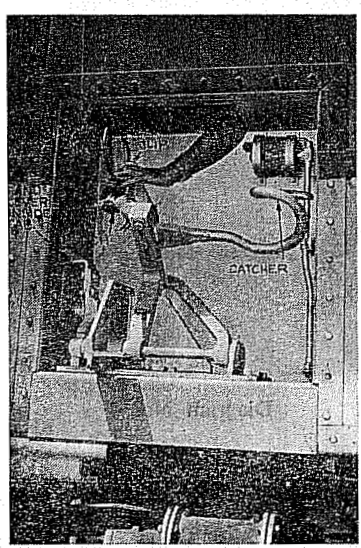


Diagram No. 2

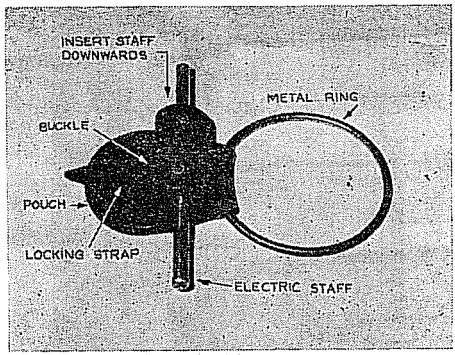


Diagram No. 3

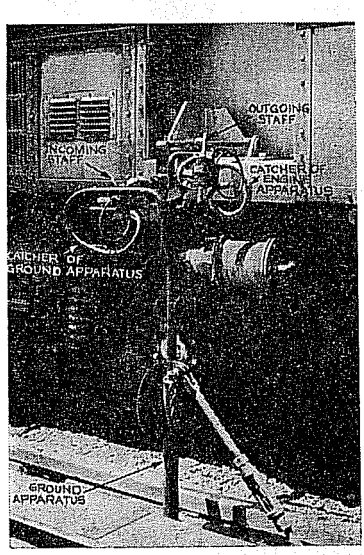


Diagram No. 4

Instructions to Signalman—

1. A staff must be obtained from the electric staff instrument in the usual manner and inserted in the pouch of the staff holder and secured tightly in this position by means of the strap and buckle. Care must be taken to ensure that the metal clip attached to the strap engages between the two centre rings of the electric staff, thus locking the staff in the pouch. In this position the station names on the staff are visible.

The staff for the section ahead must be withdrawn from the staff instrument slowly. This action controls the "clear" indication of the signal at the entrance to the yard, at certain locations, or the operation of Absolute Signals adjacent to level crossings fitted with automatic warning devices at other certain locations. *If the staff is withdrawn too quickly the equipment controlling the signals will fail to respond.* The staff must be placed in the automatic exchanger in sufficient time to avoid delays to trains.

2. The Ground Apparatus must be raised to the vertical position and the strut-arm secured to the vertical shaft by inserting the locking pin.

3. The staff holder containing the staff must then be attached to the exchanger ground apparatus, placing the leather pouch of the staff holder securely in the socket of the exchanger and placing the metal ring in the exchanger clip.

4. When the staff is in position ready for exchanging as prescribed in paragraph 3, the Signalman must attach the circular white disc (during daylight) or the lamp displaying a white light (by night) to the vertical shaft, which indicates to the Engineman that the staff is in the exchanger.

5. After the staff exchanging has taken place and the train has passed clear of the exchanger, the Signalman must immediately remove the incoming staff and disc (or lamp), replace the exchanger apparatus in the container, and close the lid. The electric staff must then be placed in the staff instrument.

NOTE:—The white disc and lamp must be retained in the station office when not in actual use.

6. Each station is provided with four (4) pouches and Station Masters must arrange with the station on either side to adjust the number held in order that spares are always on hand.

Instructions for Enginemen and Firemen—

1. The staff holder containing the electric staff must be carried on the Engineman's side of the cab as prescribed in the Rules, and the electric staff must not be withdrawn from the pouch, but must be carried ready for exchanging.

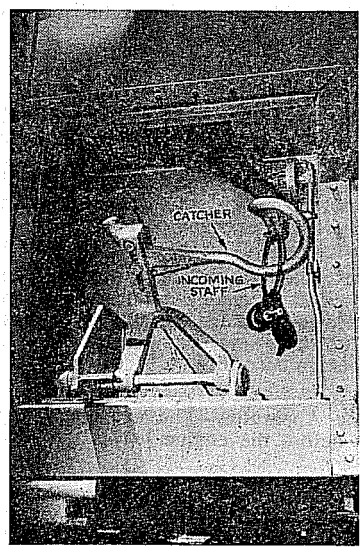


Diagram No. 5

2. The Fireman must place the pouch of the staff holder containing the electric staff in the socket of the exchanger apparatus and the ring in the clip, care being taken to see that the ring and pouch are securely in position as illustrated.

3. The exchanger must then be extended into position ready for exchanging the staff by lowering the hand lever, immediately prior to the engine entering the station.

4. Immediately the staffs have been exchanged, the exchanger apparatus must be raised to its normal position, and the staff removed from the catcher, as shown in Diagram No. 5.

5. At stations where the staff exchanger is on the same side as the passenger platform, the exchanger apparatus on the engine must not under any circumstances be in the lowered position when passing along the platform. The ground apparatus in such cases is located at least 60 m before reaching the platform to enable the engine apparatus to be raised before the platform is reached.

Indication to Enginemen when Staff is in Ground Exchanger—

A white disc is attached to the vertical shaft of the ground exchanger by day and a white light by night, indicating that the electric staff is in the ground exchanger ready for exchanging.

General—

The staff exchanging apparatus must be used by such trains as are prescribed in the Working Time Tables or Train Notices.

At crossing stations the exchanger apparatus must be used for the train which has a clear run through.

Where the ground exchanger apparatus is located between running lines, such apparatus must not be raised for the purpose of exchanging staffs until the train on the adjacent line has come to a stand, and the exchanger apparatus must again be lowered before such train is permitted to start.

NOTE:—The foregoing will not apply at Salisbury on account of double line.

Failure of Apparatus—

If a defect in the ground exchanger renders it impossible for the staff to be exchanged by means of this equipment, the Station Master must depress the cancelling button adjacent to the Staff Instrument. This will cause the signal at the entrance to the station to return to "Caution" position. In such case, the ground apparatus must not be raised, and the Engineman must be prepared to exchange the staff by hand. The exchanging apparatus on the engine must NOT be lowered when the electric staff is to be exchanged by hand.

In the event of failure of the ground apparatus, or the engine apparatus not functioning correctly, or when an engine not fitted with the exchanger apparatus is hauling a train scheduled to exchange the staff by means of the automatic staff exchanger, the Train Controller must advise all attended stations concerned, and the Guard and Engineman accordingly.

Examination of Engine Apparatus—The exchanger apparatus on the engine must be examined daily before the engine leaves the depot, and tested at least once a week.

Speed of Trains when Exchanging Staffs—The speed of trains when exchanging staffs by means of the automatic electric staff exchanger must not exceed 80 km/h.

Person to Stand Clear of Exchanger—When the electric staff is to be exchanged by the automatic staff exchangers, all persons must stand well clear of the equipment.

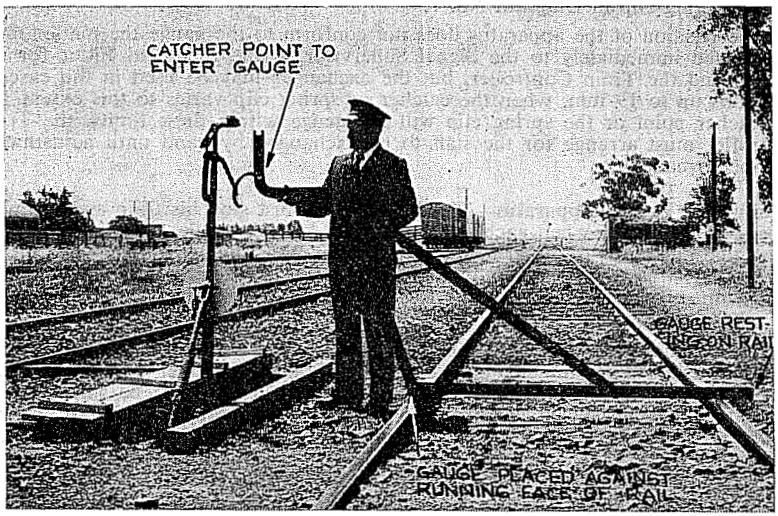


Diagram No. 6

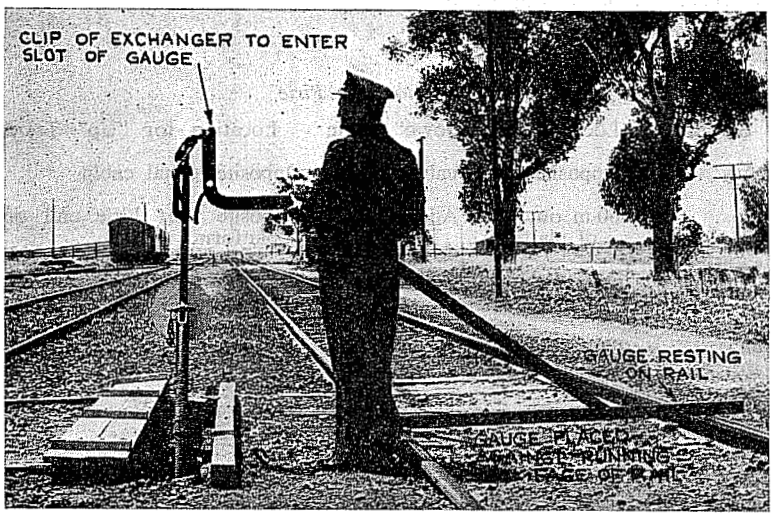


Diagram No. 7

Gauges—The ground exchange apparatus at each attended station must be tested daily by the Station Master, Signalman or other authorized employee, and a record of the test entered in the Train Register, with a note of any defect observed. The method of testing the catcher point is shown in Diagram No. 6, and the spring clip in Diagram No. 7.

If the position of the apparatus does not conform to the gauge the matter must be reported immediately to the Signal Supervisor or the Electrical Fitter for the district, and the Train Controller, but the exchanger may be used in the case of variations up to 19 mm, when the catcher or spring clip varies to this extent. If the catcher point or the spring clip will not gauge within these limits, the Train Controller must arrange for the staff to be exchanged by hand until adjustments have been made.

Failure of Engine Apparatus—The Engineman must stop his train and examine the engine apparatus when such apparatus fails to pick up the outgoing staff. If the engine apparatus is found to be out of order, the Engineman must so inform the Station Master who must immediately advise the Train Controller. The Train Controller must then arrange for the electric staff to be changed by hand, and advise all concerned.

If the ground exchanger is damaged when staffs are being exchanged, the Station Master must immediately advise the Train Controller and the Station Master at the next attended station ahead where the train must be stopped, and the Engineman instructed to examine the engine apparatus. If the ground exchanger be damaged at any two adjoining stations, the Train Controller must be advised, and instructions issued to all stations and trains concerned that electric staffs must be exchanged by hand for the completion of the journey or until the engine is changed.

"Duralumin" Staffs—These staffs must be used in staff exchanger apparatus at all times when they are available.

Other than the actual exchange of the electric staff, the rules governing electric staff working must be complied with.

Location of Ground Apparatus—

Salisbury to Port Pirie

Station	Location for "Down" Train	Location for "Up" Train
Salisbury	Opposite signal cabin	Opposite signal cabin
Virginia	60 m out from Adelaide end of platform	Opposite Port Pirie end of platform
Two Wells . . .	Opposite signal at entrance to station, Adelaide end	Opposite Port Pirie end of platform
Mallala	Opposite Adelaide end of platform	60 m out from Port Pirie end of platform
Long Plains . .	Opposite Adelaide end of platform	60 m out from Port Pirie end of platform
Kallora	60 m out from Adelaide end of platform	Opposite Port Pirie end of platform
Nantawarra . . .	Opposite Adelaide end of platform	60 m out from Port Pirie end of platform

Bumbunga . . .	60 m out from Adelaide end of platform	Opposite Port Pirie end of platform
Lake View . . .	Opposite Adelaide end of platform	70 m out from Port Pirie end of platform
Redhill	50 m out from centre of station buildings at Adelaide end of yard	At Adelade end of straight at the Port Pirie end of yard
Merriton	50 m out from centre of station buildings at Adelaide end of yard	110 m out from centre of station buildings at Port Pirie end of yard
Nurom	50 m out from centre of station buildings at Adelaide end of yard	110 m out from centre of station buildings at Port Pirie end of yard
Port Pirie	28 m from centre of Signal Cabin on Nurom side	—

MOVEMENT OF TRAINS ON PERMISSIVE BLOCK TERRITORY

1. The movement of trains is governed by Working Time Table schedule, Train Notices, and, when necessary, by Proceed or Crossing Orders issued as follows:—

(*a*) Between attended stations by the Station Master at each end of the section over which the train is to run.

(*b*) Between an attended station and an unattended station by the Station Master and Guard, respectively, but not by Guards only.

2. Trains must stop at stations where Train Record Books are provided. At an attended station the Station Master must enter the time of arrival and departure of a train in the Train Records Book, and at an unattended station the Guard must make this entry. Entries must be signed.

3. Trains must not leave a Train Record Book station in the direction in which a previous train has departed, at an interval less than the time which the current Working Time Table or Train Notice provides for the running to the Train Record Book station next in advance, unless such booked running time exceeds 30 minutes, when trains may leave a station in the same direction as a preceding train at an interval of 30 minutes.

4. In the case of a light engine the Engineman must carry out the duties prescribed for the Guard.

5. The Accounting Station must arrange to collect the Train Record Books from unattended stations during the first week of each month. The books at the Accounting Station must be checked by the Station Master, and a certificate furnished to the Superintendent not later than the 20th day of each month to the effect that the Train Record Books at the stations under his control have been checked and found correct, and if incorrect, particulars given of all errors.

6. Two sets of Train Record Books must be kept and marked "No. 1" and "No. 2" and used alternately.

Crossing Orders—

7. Crossing Orders must be on the prescribed form as authorized from time to time.

8. The Engineman must show the Crossing Orders to the Fireman, and both must examine them. The orders must be placed in the cab, where they may be readily seen at all times by the Engineman and Fireman.

Crossing Orders—At Attended Stations—

9. The Guard and Engineman are each responsible that their train does not leave or pass a crossing point (specified in the Working Time Tables Book, Holiday Working Book, Train Notice, or other advice) with another train running in the opposite direction until such train has arrived, unless the Guard and Engineman have been furnished with a "Crossing Order", complete in every respect, that the scheduled opposing train is not running (as in the case of "when necessary" trains), or has been cancelled. Station Masters and Signalmen are equally responsible with the Guard and Engineman for this Rule being complied with.

10. The crossing points shown in the Working Time Tables Book, Holiday Working Book, Train Notice, or other advice must not be altered, except in the following manner:—

(*a*) A definite understanding, must be arrived at between the Station Masters directing the movements of the trains, the crossing points of which it is desired to alter. The arrangements must be made by telegraph or telephone.

(*b*) Part Y of the Crossing Order must be prepared by the station (herein called A) from which the train is to be advanced, and telegraphed or telephoned to the station (herein called B) with which the arrangements have been made, and at which the particulars must be written on part Y of the Crossing Order. Part Z must then be filled in by the Station Master at B and telegraphed or telephoned to A and written on Part Z of the Crossing Order at the latter station. The Operators at each station must carefully check the messages before giving "O.K." and their names.

11. (*a*) The Crossing Order must be written with black lead pencil or ball point pen, using double-faced carbon paper, and be complete in every particular, including the signature of the employee transmitting or receiving the messages; the writing and figures must be distinct.

(*b*) The Y portion of the Crossing Order prepared at the transmitting station (A) must be signed by the Station Master. The Z portion prepared at station (B) must be signed by the Station Master.

12. When both messages on the Crossing Order have been transmitted and the form is complete, one of the white forms must be handed to the Guard and the other to the Engineman of the train to be advanced, the pink copy being retained in the book. If the forms are not complete in every detail, or bear erasures or alterations, the Guard and Engineman must not accept them.

13. The Guard and Engineman of the opposing train from (B) must be furnished with the Crossing Order prepared at the other station (A).

14. When there are two or more engines on a train, each Engineman must be furnished with a copy. The whole of the forms must be written at the one time. The additional forms must be endorsed "Duplicate of Form No.....," showing the number of the preceding form. The pink copy must not be detached from the book.

15. Station Masters must keep themselves advised, and make arrangements in advance for altering the crossing points or for fixing a crossing point.

16. (*a*) When an extra train is to run at short notice, and a Train Notice cannot be issued, the station on each side of the station at which the extra train is to cross another train, or trains, must confirm the crossing, which has been advised by telegraph or telephone, with the Station Master at the crossing point, and issue Crossing Orders to the Guard and Engineman of the train at the station on each side of the crossing.

(*b*) If the train is a "When necessary" train, and shown in the Working Time Tables Book, subclause (*a*) of this Instruction will not be necessary, except as shown in paragraphs 18 to 21 inclusive, for crossings at unattended stations.

17. (*a*) In transmitting Crossing Orders the names of stations and numerals must be plainly pronounced, *i.e.*, 105, one-nought-five, and the order underlined word for word and numeral for numeral as it is being repeated back.

(*b*) Figures must not be surrounded by brackets, circles or other characters.

(*c*) Crossing Orders must be without erasure, alteration, or inter-lineation.

(*d*) If the form be not correct it must be cancelled by writing the word "Cancelled" in bold letters across it, and the next form used. Cancelled forms must not be detached from the book.

Crossing Orders—At Unattended Stations—

18. For trains arranged to cross at unattended stations the Station Master at the authorized controlling station on each side must obtain Crossing Orders and hand them to the Guards and Enginemen to confirm the crossing point shown in the Working Time Tables Book, Holiday Working Book, Train Notice, or other advice.

19. If the arranged crossing points are altered the instructions in paragraph 10 apply.

20. (*a*) Crossing points may be altered by a Station Master authorized to do so, acting with a Guard whose train is at an unattended station. The Guard must carry a book of Crossing Order Forms.

(*b*) When a train is running more than 10 minutes late on a length of line where there are one or more unattended stations, the Guard must promptly advise the nearest authorized controlling station, and ascertain if the meeting points with opposing trains are to be altered, and, if so, obtain a Crossing Order. If the train to be met has not arrived the Guard must advise the nearest controlling station of his arrival and obtain instructions.

21. Where the starting point of a train is an unattended station, the Guard, before leaving, must, if practicable, ascertain from the Station Master on each side the movements of the trains to be crossed or passed, and advise them the probable time of the departure of his train. As far as practicable the Station Masters must be in attendance 15 minutes before the booked departure of the train.

22. Station Masters at starting stations on Permissive Block Territory must provide Guards and Enginemen of trains departing therefrom with the Train Notice referring to train movements over the line on which they are working.

23. The Guard must signal to the Engineman for trains not scheduled to stop by displaying a green flag by day; a green light, waved slowly horizontally above the head, by night, to be acknowledged by the Engineman with the code whistle.

24. If the Guard of a goods or livestock train has no loading to put off at a station at which the train is scheduled to stop, he must so advise that station from a station in the rear, so that the necessary signal may be given; he must also advise the Engineman.

MOVEMENT OF TRAINS ON PERMISSIVE BLOCK TERRITORY

(Specimen Order)

SOUTH AUSTRALIAN RAILWAYS

Crossing Order

To be used when (*a*) two trains cross at a station other than that named in the Working Time Tables or Train Notices (*b*) trains cross at an unattended station, and (*c*) crossings for trains are arranged by telegraphic or telephonic advice.

To the Station Master.....Station

Train No.....*today
*tomorrow

Engine No.....to cross No.....

at.....Station.

Do you agree..... Reply.....

Date.....197 .

.....
Station Master

.....Station

a.m. Transmitted by.....(Operator)

Time:...../.....p.m. Received by.....(Operator)

Crossing Order

To the Station Master.....Station, and the Guard and Engineman of No.....

I agree to No....., Engine No....., Crossing No.....

at.....Station *today
*tomorrow

and { No..... } must work accordingly
{ No..... }

.....
Station Master

Date.....197 .

.....Station

a.m. Transmitted by.....(Operator)

Time:...../.....p.m. Received by.....(Operator)

*Strike out the line not required. Crossing Orders have a red diagonal cross printed thereon.

ELECTRIC TRAIN DESCRIBERS

The following are the instructions for working these Train Describers:—

The Cabin dispatching a train is herein called A, and the Cabin at the other end of the section B.

One minute before the departure of a train the Signalman at A Cabin must depress the button on his press button board corresponding with the class of train which is about to depart, and the route over which it is to travel. When

this button is depressed a red light is exhibited on the Train Describer board both at A and B Cabins corresponding to the button which has been depressed in A Cabin, and at the same time a buzzer call at B Cabin indicates that such indication is set up.

Upon the entry of the train into the section controlled by B Cabin, the Signalman at that Cabin must press the button corresponding to the indication on his press button board. This will extinguish the lamp in both the B and A Cabins, and will give a buzzer call at A Cabin to indicate that this has been done.

TRAIN DESIGNATOR BELL DESCRIBERS

The following method of describing trains must be used:—

Adelaide and Mile End Junction—Via South Main Line—

All Train Movements:—One bell and oral description of train, stating destination station.

Wye Junction and Mile End Junction—Via South Suburban or Loop Lines—

All Train Movements:—One bell and oral description of train, stating destination station.

Light Engine Movements:—One bell and oral description, stating to or from which line, viz., South, Port, or North, the engine is working.

Shunting Movements:—One bell and oral description of shunt being made.

Mile End Junction and Tailem Bend—Goodwood Junction and Brighton—Wye Cabin, Outer Harbour and Port Dock—Wye Cabin and Hamley Bridge—

	Regular Passenger—	Regular Goods—
South Line—		
Main South	5	5 pause 2
Port Stanvac	5 pause 1	5 pause 3
Port Line—		
Outer Harbour	3	One bell and oral description
Grange	2 pause 1	
Port Dock	2 pause 2	
Semaphore	2	
Woodville North	3 pause 1	
North Line—		
Main North	1 pause 2	One bell and oral description
Islington	1 pause 2 pause 1	
Northfield	1 pause 2 pause 2	
Bowmans	1 pause 2 pause 3	

Light Engines—All Lines: One bell and oral description of train, stating departure and destination stations.

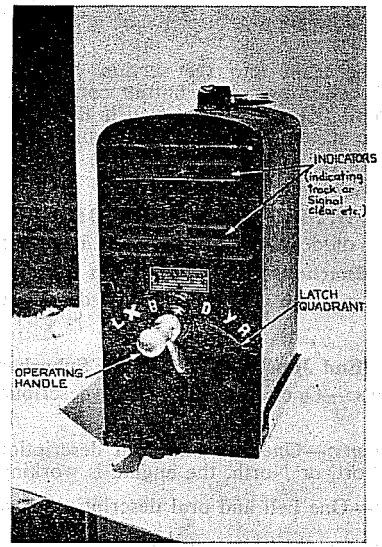
Extra Trains—All Lines: One bell and oral description of train, stating number of train and destination.

A regular passenger train running out of its normal path must be orally described to the Signalman in advance.

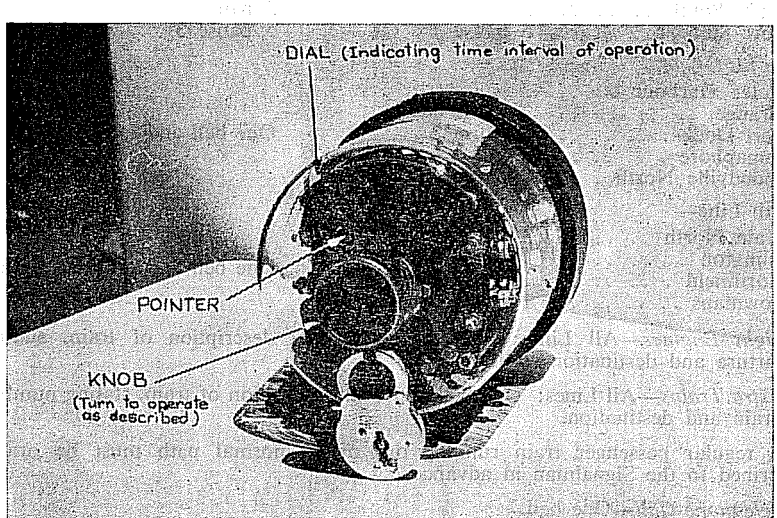
Telephone Call—One bell.

All the above signals must be answered by a similar number of beats, and if not acknowledged correctly must be again sent until the acknowledging signal is correctly received.

Table Interlocker



Time Release



The Table Interlocker as shown is a small table interlocking unit consisting of an electric lock, circuit controller, and with or without indicators enclosed in a metal case. An operating handle is provided in front of the unit, moving through a latch quadrant into five different positions.

The interlocker is used to electrically control and interlock signals or switches, and the indicators enable the operator to be informed of the state of the equipment being controlled.

Description—A Time Release as shown is a device which may be used for releasing an electric lock (on a signal or other lever) when it remains locked because of abnormal conditions. The manipulation of the release will, after a predetermined time, enable the apparatus to be operated and prevent delays to traffic.

Operation—Turn the knob slightly to the left, when the Release will commence to run down. When it has run down, the apparatus to be released is free, and may be operated. After operation of the apparatus the Time Release must be reset to its normal position by turning the knob to the right until the pointer remains stationary in its normal position. The figures on the dial indicate the number of minutes required to run down the release, one type travelling towards zero, and others away from zero. Permission must be obtained from the Train Controller before a Time Release controlling an Outlying Switch Lock is operated. Care must be exercised that Releases are always restored to their normal position immediately after the release has been given.

POWER OPERATED SWITCH MACHINES—EMERGENCY OPERATION

In the event of an electric failure of a power operated switch machine, the switches may be operated manually with the aid of the hand crank provided for the specific type of switch machine described hereunder. Before hand operating any Power Switch Machine permission must be first obtained from the Signalman or Train Controller, who must ensure that—

(*a*) all signals reading over the switches are in the "Stop" position;

(*b*) the lever or push button controlling the defective switches is in the normal position.

If the switches cannot be fully closed and locked by hand operation of the switch machines, the switches must be clamped before a train movement is made over the switches. Power operated switch machines must not be trailed.

Siemens and General Electric Railway Signal Co. Ltd's. Type HA144 Switch Machine—

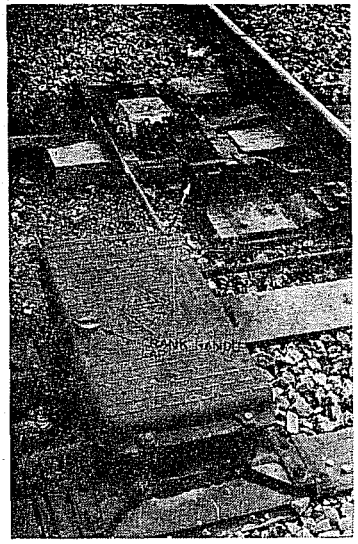
(*a*) Remove the slotted cap screwed into the top edge of the switch machine, with the aid of the special face moulded to the side of the crank handle.

(*b*) Insert the crank handle, press down on the handle to engage the mechanism, and then turn in the direction necessary to set the switches in the position required. Before the crank handle engages the mechanism it actuates a motor "cut out" contact which prevents power being applied to the machine.

(*c*) The handle must be turned until it is observed that the switchblade is fully closed and the lock plunger has passed through the lock bar and until the crank will not turn any further in the same direction.

(*d*) After the train movement has been completed and the switches set in the normal position, withdraw the crank handle and replace the slotted cap.

(*e*) The switch machine cannot be operated electrically again until the Electrical Maintenance Fitter has attended and reset the "cut out" contact referred to above.



S.G.E. Type HA144 Switch Machine

General Railway Signal Company's Type 5A Switch Machine—

(*a*) Unlock the crank handle entrance cover which is located on the top cover of the switch machine. The key for the padlock is provided with the hand crank.

(*b*) Before the crank handle can be inserted it is necessary to push aside a "cut out" contact. This action will enable the crank handle to be inserted and cut off any power if available.

(*c*) Turn the hand crank in the direction necessary to set the switches in the position required until the switchblade is fully closed (and the lock plunger has passed through the lock bar inside the mechanism) and until the crank will not turn any further in the same direction.

(*d*) After the train movement has been completed and the switches set in the normal position remove the crank handle and restore the "cut out contact" to its original position.

(*e*) Relock the crank handle entrance cover and return the crank handle to its receptacle.

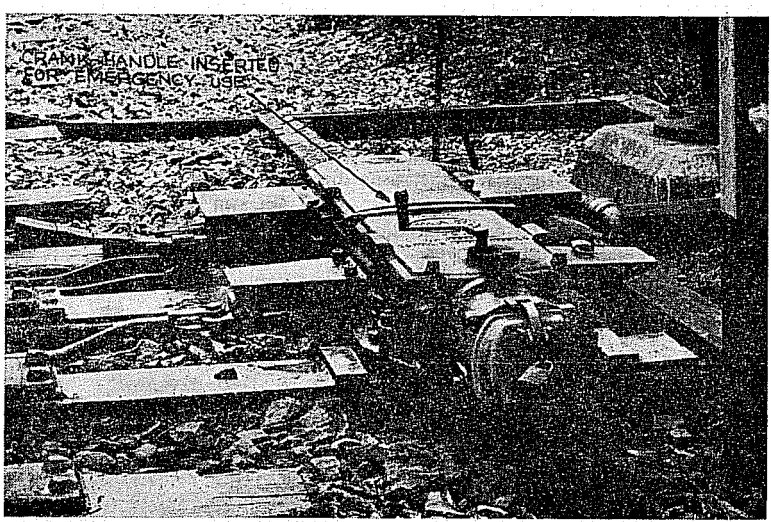
McKenzie & Holland Pty. Ltd's. Type M3 Switch Machine—

(*a*) Unlock the crank handle entrance cover which is located on the top cover of the machine. The key to suit the padlock is attached to the hand crank. The crank cover when lifted will automatically operate the motor "cut out" contact.

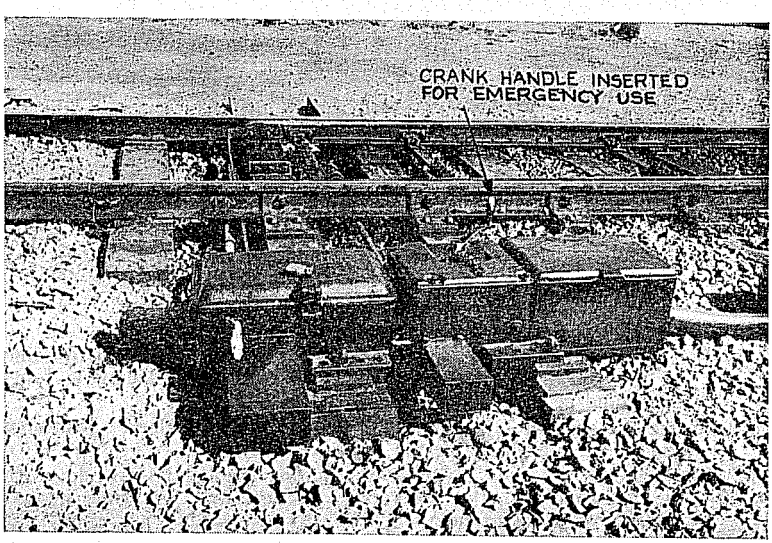
(*b*) Turn the hand crank in the direction necessary to set the switches in the position required until the switchblade is fully closed and locked and until the crank will not turn any further in the same direction.

(*c*) After the train movement has been completed and the switches set in the normal position remove the crank handle and lock the crank handle entrance cover.

(*d*) The crank handle must be returned to its receptacle.



G.R.S. Co. Type 5A Switch Machine



McKenzie & Holland Type M3 Switch Machine

The Nippon Signal Co. Ltd's. Type KA302 Switch Machine—

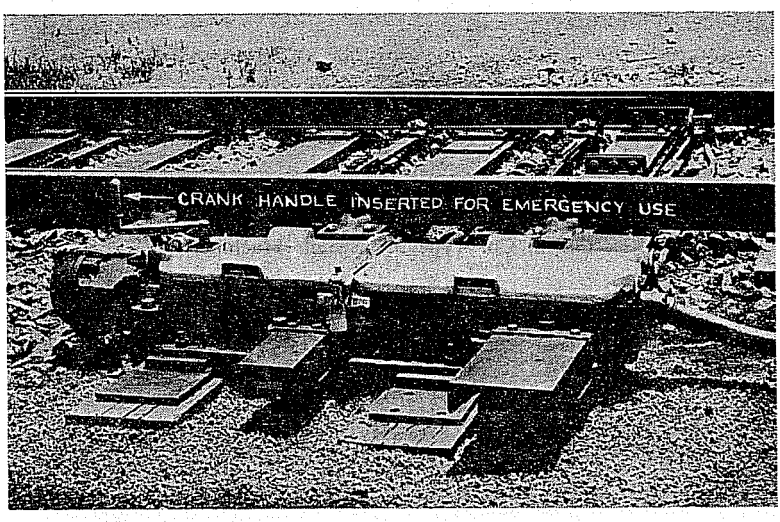
(*a*) Unlock the crank handle entrance cover which is located on the top cover of the switch machine.

(*b*) Before the crank handle can be inserted it is necessary to push aside a motor "cut out" contact. This action will enable the crank handle to be inserted and cut off any power if available.

(*c*) Turn the hand crank in the direction necessary to set the switches in the position required until the switch blade is fully closed and locked and until the crank will not turn any further in the same direction.

(*d*) After the train movement has been completed and the switches set in the normal position, remove the crank handle, close the "motor cut off" contact and lock the crank handle entrance cover.

(*e*) The crank handle must be returned to its receptacle.



Nippon Signal Co. Type KA302 Switch Machine

McKenzie & Holland Pty. Ltd's. Dual Control Switch Machine—

(*a*) To operate the switch machine from normal to reverse.

(i) Release the selector lever and hand throw lever for operation by removal of the padlocks from the two latchstands and placing a foot on latchstand pedal.

(ii) Rotate the selector lever from the "Motor" to the "Hand" position and engage in latchstand on the opposite side.

(iii) The switches are then reversed by rotating the hand throw lever from the "Normal" to the "Reverse" position and engaging it in the opposite side latchstand.

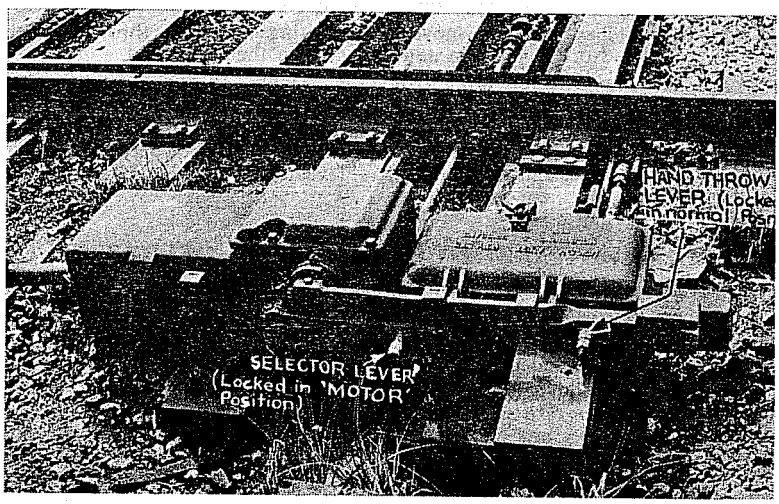
(*b*) After the train movement has been completed, to return the switch machine to the normal position.

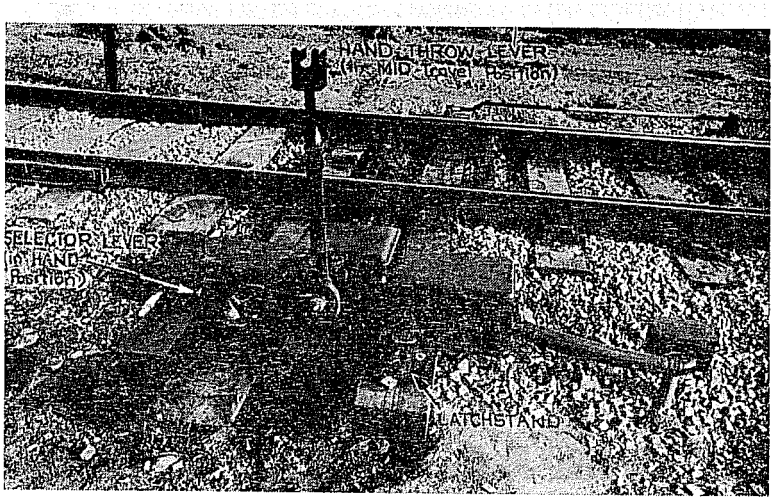
(i) Release the selector lever and hand throw lever for operation by placing foot on latchstand pedal.

(ii) Rotate the hand throw lever to the "Normal" position and engage in latchstand on the opposite side.

(iii) Rotate the selector lever from the "Hand" position to "Motor" position and engage in latchstand on the opposite side.

(iv) Replace the padlocks on the latchstands locking the selector lever and hand throw levers, ensuring that the selector lever displays the "Motor" name plate and the hand throw lever displays the "N" name plate.





McKenzie & Holland Dual Control Switch Machine

(*c*) When a failure of the switch machine occurs with the switches set in the reverse position, to operate the machine to the normal position.

(i) Release the selector and hand throw lever for operation by removal of the padlocks from the two latchstands, and placing a foot on latchstand pedal.

(ii) Rotate the selector lever from the "Motor" to the "Hand" position and engage in latchstand on the opposite side.

(iii) Rotate the hand throw lever (which will be free to move) from the "Normal" to the "Reverse" position until a sharp click is heard which indicates that the operating crank has engaged.

(iv) The switches are then moved by rotating the hand throw lever back to the Normal position and engaging in the latchstand.

(v) Rotate the selector lever from the "Hand" to the "Motor" position and engage in the latchstand on the opposite side.

(vi) Replace the padlocks on the latchstands locking the selector and hand throw levers, ensuring that the selector lever displays the "Motor" name plate, and the hand throw lever displays the "N" name plate.

HAND OPERATED SWITCH MACHINES—OPERATION OF

General Railway Signal Company's Model 9 Hand Operated Switch Machine

(This machine performs all the functions of a power switch machine, but is *hand* operated only.)

(*a*) Release the hand throw lever for operation by removal of the padlocks from the latchstand and placing foot on latchstand pedal.

(*b*) The switches are reversed by rotating the hand throw lever through 180 degrees and engaging it in the opposite latchstand.

(*c*) The switches can be restored to the normal position by following the same procedure and replacing the "S" type padlock on the latchstand.

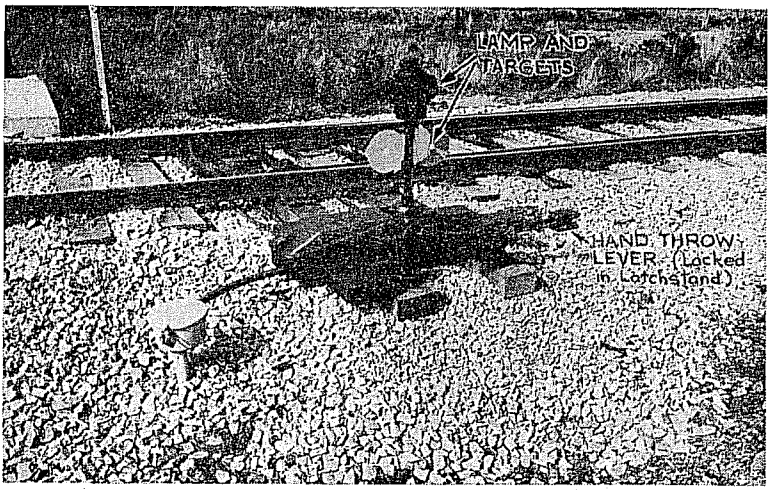


Diagram No. 1

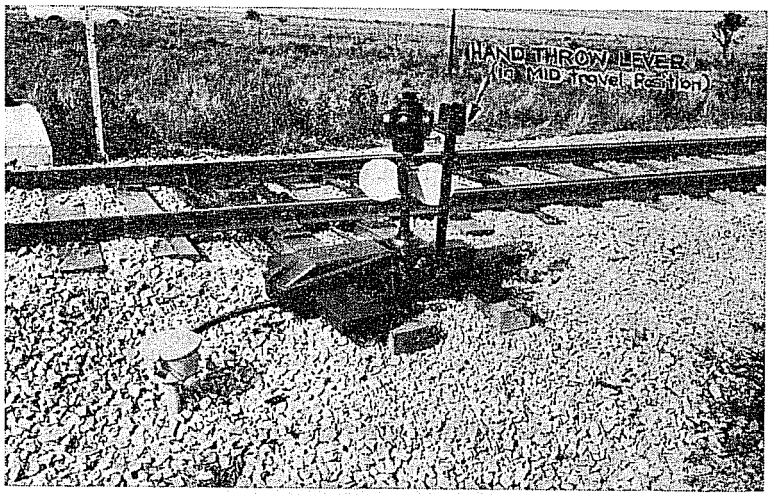
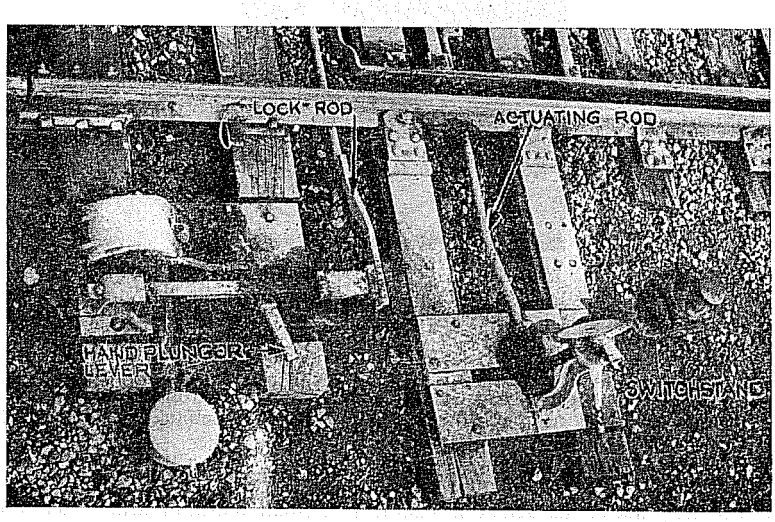


Diagram No. 2
G.R.S. Model 9 Hand Operated Switch Machine

(*d*) The normal and reverse positions of the switches is indicated by the letter plates "N" and "R" attached to the hand throw lever, and by targets fitted to the hand operated switch machine.

Hand operated switch machines must not be trailed in either direction.

SWITCHSTAND WITH HAND PLUNGER AND CIRCUIT CONTROLLER

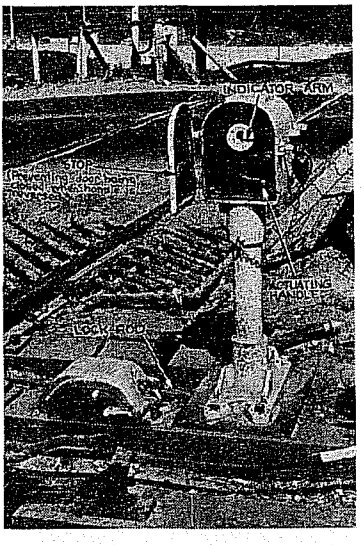


The locking of the switch is effected by means of a horizontal hand plunger which passes through a slot in the lock rod connected to the switch. Only one slot is provided in the lock rod for locking the switch in the normal position only. The hand plunger is secured in the normal or locked position with a standard "S" type padlock.

The switches may be actuated by the switchstand only after the hand plunger has been unlocked and withdrawn from the slot in the lock rod connected to the switch.

After the train movement has been made, the switches must be returned to the normal position and locked. Electric circuit controllers are connected to the hand plunger and the switchblades to detect both the locking and setting of the switches. Failure to lock the switches in the normal position with the hand plunger will hold any signals reading over the switches in the "Stop" position. The actuating handle of the switchstand connected to the switches must be placed firmly in the normal slot provided, but need not be padlocked.

OUTLYING SWITCH LOCK



The Outlying Switch Lock, as shown, is used to electrically lock switches where it is not practicable or desirable to lock them by means of rodding connected to an interlocking machine.

The locking of the switch is effected by means of a vertical bolt rod held in a slot in the lock rod connected to the switch. The bolt rod can be withdrawn only by the reversing of the actuating handle located behind the door of the lock.

The handle is released from the cabin or automatically.

Immediately above the actuating handle is a small indicator arm which when standing at 45° indicates that the actuating handle may be operated.

The handle is reversed by revolving it through a semi-circle. This action withdraws the bolt rod from the lock rod, and thus allows the switch to be operated.

The handle must be returned to the normal position after the traffic movement for which it has been operated has taken place, care being taken to ensure that the handle is fully down on the stop.

"S" Locks on Switches Provided with Electric Switch Locks—Except when in use for shunting purposes, the doors of electric switch locks must be closed and secured with an "S" lock. The actuating handle of the switchstand connected to the switches must be placed firmly in the normal or reverse slot provided, as the case may be, for the movement of trains in either direction, but need not be padlocked.

Typical Layouts of an Electric Staff Drawer Lock—The electric staff drawer lock as shown in Diagram No. 1 (on page 438) is used to mechanically lock certain Main Line switches on Electric Staff Territory.

The switches are locked in the normal position, *i.e.*, set for the Main Line, by either a hand plunger as shown in Diagram No. 2 (on page 439) or by a switchstand operated switch and lock movement.

Movement of the hand plunger or switchstand actuating rod is prevented by connection to the drawer slide which passes through the bottom of the staff drawer lock.

When it is necessary to set the switches for the siding, an electric staff for the section must be inserted in the drawer and the drawer closed. The electric staff will be retained in the drawer lock until the switches have again been set and locked for the Main Line.

The handle of the switchstand must be placed firmly in the slot during train movements over the switches, and locked in normal position with a standard "S" type padlock.

Switchstands, Cheeseknobs, etc.—Adjustment of—

Switchstands, cheeseknobs, spring levers, etc., operating switches to which no signalling, interlocking, staff drawer lock, derail, switch circuit controller or similar equipment is connected must be checked and adjusted by the Permanent Way Ganger.

Switchstands, ground frame levers, etc., operating switches to which any of the abovementioned signalling equipment is connected must be checked and adjusted by Signal and Telegraph forces.

All switchstands must be checked regularly to ensure that the travel of the switches is correctly maintained and that the switchblades fit against each stock-rail with the correct pressure. The adjusting and lock nuts must be kept fully screwed up.

All switchstands which have been damaged as a result of a run through or other cause irrespective of where located will be changed out by Signal and Telegraph forces.

Switchstand targets and lamps will be changed out by Signal and Telegraph forces.

ELECTRIC STAFF DRAWER LOCK

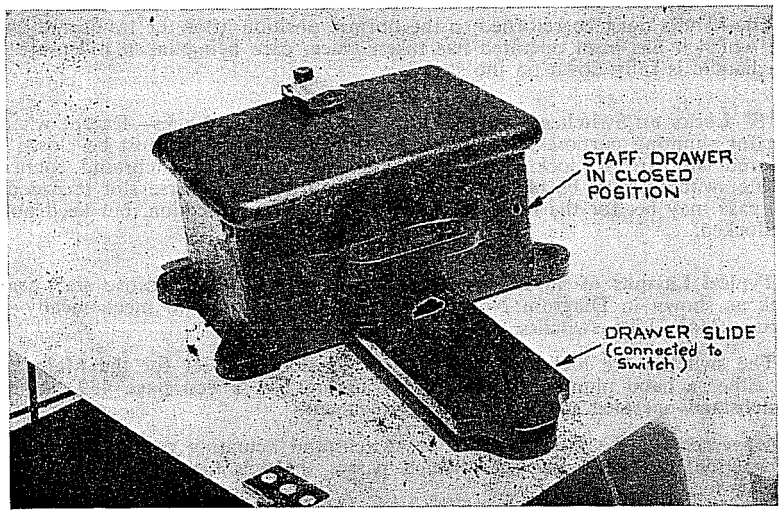


Diagram No. 1 (Drawer Closed)

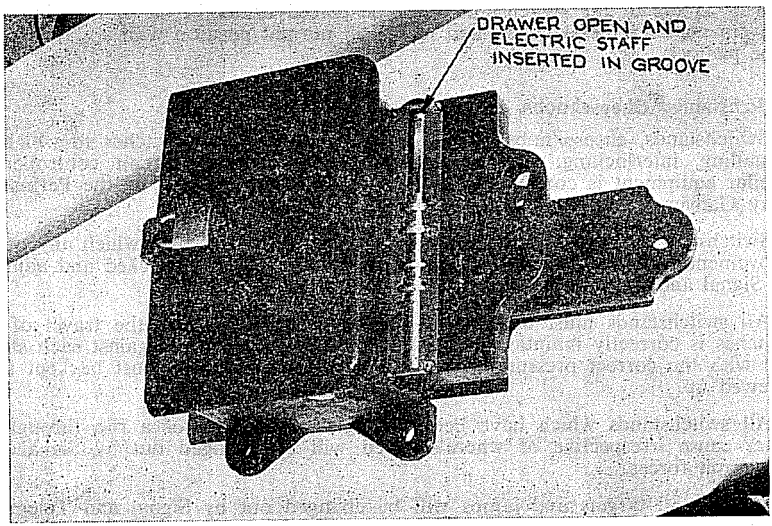


Diagram No. 1a (Drawer Open)

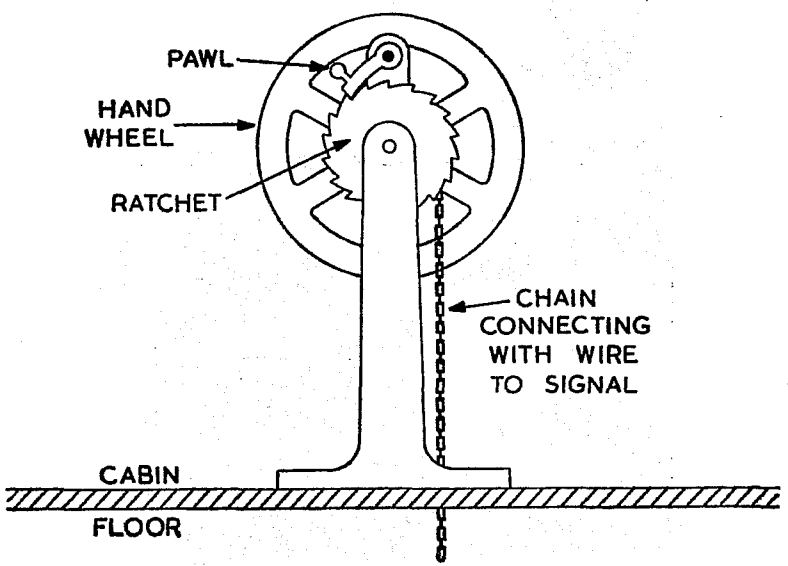
Diagram No. 2

Derails—When it is necessary for any hand or interlocked derail, or other safe working equipment to be installed, moved or altered, the work must be arranged through the Signal and Telegraph Engineer, and carried out by Signal and Telegraph forces.

Signal Wire Adjusters, Ratchet Type—These adjusters, as shown on the accompanying diagram, are provided to enable the Signalman to maintain the correct adjustment of the signal wires and are located behind the signal lever concerned. Changes of temperature affect the tension of the wire runs and these must be carefully noted and the wire adjusted accordingly.

To tighten the wire the wheel is rotated anti-clockwise, and to release the wire the pawl of the ratchet must be lifted and the tension removed by allowing the wheel to rotate in the opposite direction.

The Signalman must give special attention to the adjustment of this equipment.



Wilkins Wire Compensators—These Compensators are provided to automatically maintain the correct tension in distant signal wires operated from a lever at ground level.

When the lever is normal, the pin provided must be inserted behind it, and the chain must run clear of the clutch plate and be free to move independently of the lever to accommodate the stretching or contracting of the wire due to temperature changes.

Care must be taken to ensure that the chain is always free when the lever is in a normal position, the signal being at "Stop" to ensure that the signal arm maintains a horizontal (stop) position except when the lever is reversed.

Free Running of Signal Wires—Any case of a wire being obstructed owing to weeds or debris of any kind must be promptly reported to the Train Controller.

Switch and Signal Levers—Out of Order Clips—Out of Order Clips are provided to remind Signalmen that special precautions must be taken before a lever or miniature switch is operated.

Clips are to be used in the following instances:—

1. In accordance with the Rules.

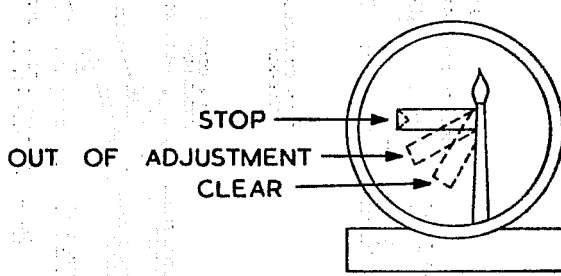
2. When a switch or signal is disconnected from the interlocking machine, or control panel.

3. When a track governed by the signal is obstructed other than by a train standing on a track circuit controlling the signal.

4. Signalmen must use them freely to assist in carrying out their duties or for any special working requirement.

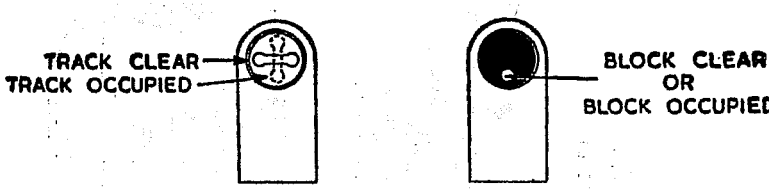
SIGNAL REPEATER

A signal repeater (or indicator) is an indicator usually located in a signal cabin which shows the position of the signal arm of a wire-operated signal.

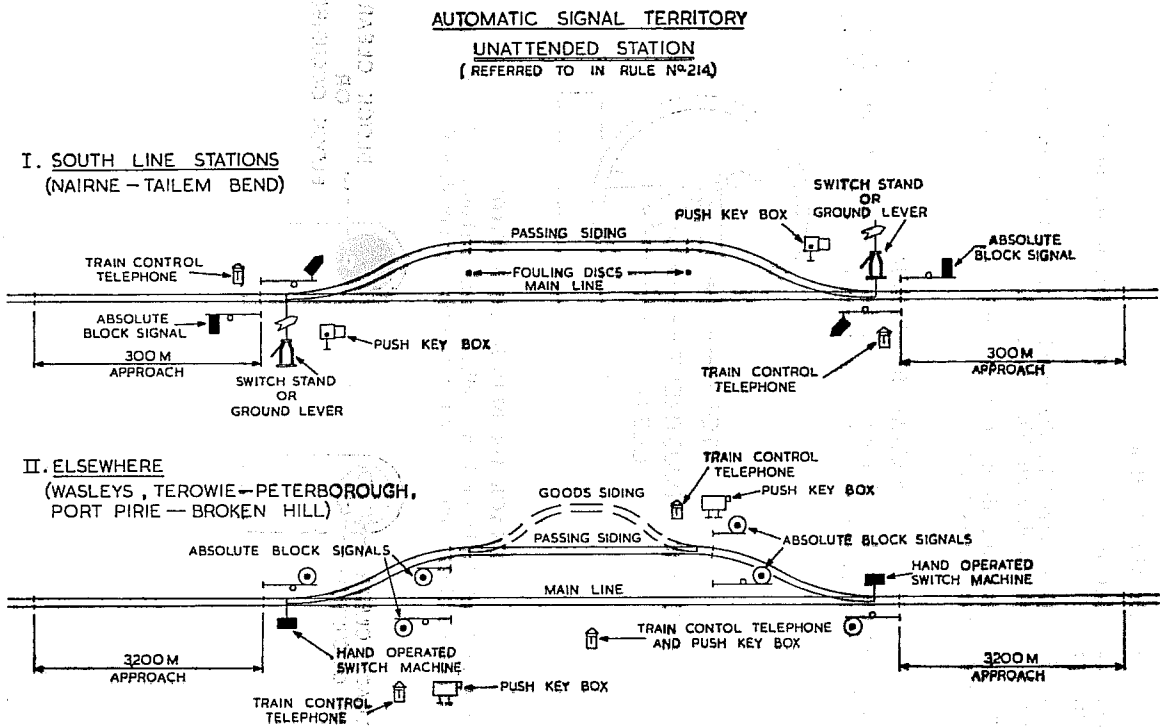


TRACK OR BLOCK INDICATOR

A track or block indicator is an indicator which shows the state of a track circuited area or block section, whether occupied or not occupied.



AUTOMATIC SIGNAL TERRITORY
UNATTENDED STATION
(REFERRED TO IN RULE No. 214)



AUTOMATIC SIGNAL TERRITORY

Absolute—Permissive Block Working on certain lines includes automatic signalling of unattended stations as referred to in Rule No. 214.

Two types of installations have been provided as shown in diagrams Nos. I and II.

A description of operation of each type is as follows:—

Type I—(See diagram No. I)

(i) Absolute Block Signals are located adjacent to the Main Line facing switches at each end of the station.

(ii) Permissive Block Signals are located at the entrance to the station at each end of the yard.

(iii) Approach track circuits for automatic operation of the signals extend 914 m in advance of the facing switches.

(iv) The Signals for the passage of a train on the Main Line are controlled automatically by the approach of a train.

(v) The Absolute Block Signals for a train to depart from the Passing Siding are normally controlled by opening the push key box and pressing the push button, after the Main Line Switches have been set for the movement.

(vi) In the event of a train arriving on the Main Line and requiring to push back into the Block Section, the respective Absolute Block Signal must be controlled manually by opening the push key box at that end of the station and pressing the push button.

Type II—(See diagram No. II)

(i) Absolute Block Signals are located on both the Main Line and Passing Siding at and opposite the fouling points of these lines at each end of the station yard.

(ii) Permissive Block Signals are located both at the entrance to the station at each end of the yard, and approximately 1.6 km in advance of the former locations.

(iii) Approach track circuits for automatic operation of the signals extend approximately 3.2 km in advance of the facing switches.

(iv) The signals for the passage of a train on the Main Line are controlled automatically by the approach of a train.

(v) The Absolute Block Signals for a train to depart from the Passing Siding are manually controlled by operating for approximately two seconds, the push button designated with the respective signal number, after the Main Line switches have been set for the movement.

(vi) In the event of a train arriving on the Main Line and requiring to push back into the Block Section, the respective Absolute Block Signal must be controlled manually by pressing the push key designated with the respective signal number.

(vii) The Absolute Block Signals may be manually "cancelled" or "held at stop" in the following manner:—

(*a*) By means of push buttons mounted on a panel in the station building or in a telephone cubicle located near the centre of the yard at stations when there is no station building. Two push buttons are provided for the Absolute Signals at each end of the yard, one coloured red designated "No. .....Signal—Press to Cancel or Hold at Stop" and one coloured green designated "No.....Signal, Press to Clear".

When it is necessary to stop or hold a train at a station, the respective red push button must be depressed. To restore the signals to normal operation, the respective green push button must be depressed for *two* seconds.

(*b*) By the Train Controller who must operate the train control selector key for the respective station, and hold it in the ringing position for a period of 12 seconds. This operation will control all Absolute Signals at that station.

If this method of control has been initiated prior to the arrival of the train, the control of the Absolute Block Signals for the section which the train has just cleared will be released automatically when the train passes over the facing switches. The control of the Absolute Signals in the direction of the train movement can *only* be restored to normal operation by pressing for two seconds, the respective green push button referred to in paragraph (vii) (*a*) above.

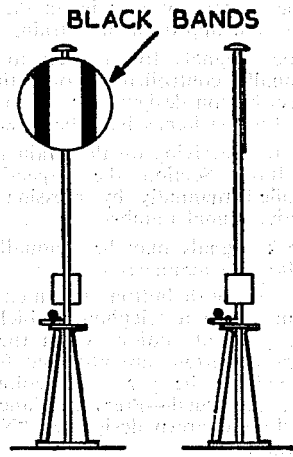
If this method of control has been initiated after the arrival of a train at the station, the control of the Absolute Signals for both directions can only be restored to normal operation by pressing for two seconds, BOTH green push buttons referred to in paragraph (vii) (*a*) above.

STOP INDICATORS AT PROVISIONAL STOPPING PLACES

Stop indicators are provided at certain conditional stopping places to enable persons desirous of joining the train to signal the Engineman.

The indicators, when turned to face the approaching train, will display a white disc, with two vertical black bands thereon. The reflectorized surface when illuminated by the train headlight will provide the night indication.

The indicators are rotated by hand, and the discs are not visible to the approaching train when in their normal position, *i.e.*, when the disc is parallel to the railway line.



Only trains scheduled to stop conditionally at the stopping place must do so when the disc is displayed to the Engineman.

The Guard must replace the indicator to its normal position before starting his train.

LEVEL CROSSING WARNING APPLIANCES

Where level crossing warning appliances are installed, they must be inspected twice each week, the inspection being spread over the week, and made when a train is passing over the level crossing. As far as possible each alternate inspection should be made with train movements in the opposite direction. The officer or employee making the inspection must see that the apparatus is functioning correctly, the gongs ringing and, in the case of flasher light signals, that all lights are flashing.

When a testing switch in a box (locked with an "S" lock) is provided adjacent to the level crossing, the warning appliances must be tested by the reversing of the switch. When it is seen that the appliances are operating correctly, the testing switch must be returned to the normal position and the box again locked.

When an electric power indicating lamp is provided it must be observed and noted in the inspection book. If the lamp is out, it must be reported immediately to the Train Controller.

Station Masters must carry out this work at crossings adjacent to an attended station, and make the necessary entries in the Train Register. District Foremen must arrange for the inspection at crossings away from stations, and arrange for any necessary entries being made in a book provided for the purpose. The date, time, and train number must be shown, and be initialled by the person making the inspection. The entries must be signed each month by the Signal Maintainer for the length when making his inspection.

Excessive Operation of Warning Signals Account Train Standing on Track Circuits for Discharging Vehicles, Etc.—When it is necessary for a work train to stand on a track circuit that controls a level crossing signal, arrangements must be made by the Resident Engineer or Superintendent for a Signal Maintainer to be in attendance at the crossing for the purpose of disconnecting and reconnecting the crossing signal to prevent unnecessary operation. The crossing signal must be reconnected and in operation before a train moves over the crossing.

Reports Regarding Operation of Warning Appliances—The Train Controller must be advised immediately any report is received regarding any irregular operation of level crossing warning appliances, and arrangements made to protect the crossing until repairs have been carried out by the Signal Maintainer. When the advice is received from a member of the public the officer or employee receiving such advice must endeavour to obtain the name and address of the person making the report.

LIST OF LEVEL CROSSING WARNING APPLIANCES

The following references are used in the column headed "Method of Control":—

Type A—Automatically by passage of train.

Type B—Automatically by passage of train after lever or push button operated, ensuring that the warning signals operate for 30 seconds before train or shunt movement arrives at the crossing.

Type C—By operating a push button or switch so that the warning signals operate for 30 seconds before the train or shunting movement arrives at the crossing, and cancels automatically after the passage of the train.

Type D—By operating a manual switch which must be reversed so that the warning signals operate for 30 seconds before the train or shunting movement arrives at the crossing, and kept in the reverse position during the passage of the movement over the crossing.

Type E—Cancelling push button provided for use in the event of the operating button being depressed in error.

Type F—See Divisional Instructions.

Type G—Manual switch or push button for testing warning devices, or for M.I.C. movements, or cases of emergency, etc.

Type Sa—An Absolute Block Signal works in conjunction with the warning devices.

Type Sp—A Permissive Block Signal works in conjunction with the warning devices.

The following designations are used in the column headed "Description of Apparatus":—

X	Gong
W	Wig Wag
F	Flashing Lights
A	Automatic Gates
T	Road Traffic Signals
IG	Interlocked Gates
VB	Vertical Bars
HG	Non-Interlocked Horizontal Gates
$	Crossing Control Circuits detected in Electric Staff Block System.

Signals working in conjunction with level crossing warning devices—When an Absolute Signal that has been installed to work in conjunction with the warning devices fails and is displaying a "Stop" indication, a Train Order must be issued to pass the signal. The train order must include the following instruction:—

"Reduce speed to eight kilometres per hour approaching the level crossing at..... kilometres and comply with the instructions contained in Rule No. 108."

Failure of Electric Staff for a section in which a level crossing fitted with a warning appliance exists, where the control circuits of that crossing are detected in the electric staff block stystem—When a failure of an electric staff block section occurs and there is a protected level crossing in the block of the type marked $ in the following list, movements of trains on this section must be authorized by Train Order in accordance with the Rules.

The Train Order must include the instruction:—

"Reduce speed to eight kilometres per hour approaching the level crossing at..... kilometres (and name of road if known) and carry out the instruction contained in Rule No. 330."

Station	Crossing		Description of Apparatus	Method of Control for Main Line		Shunting, Manual and Special Operating Procedures
	Name or Location	km		Up	Down	
North Adelaide	Station Road	2·430	A.F.X.	B.Sa	B.Sa	D.F.
Ovingham	Torrens Road	3·562	A.F.X.	A	A	G.F. (North Adelaide)
Dudley Park	Belford Avenue	4·645	W	A	A	
Dudley Park	Pym Street	5·237	F.X.	A	A	
Islington	Regency Road	6·064	F.X.	B	B	D
Dry Creek	Grand Junction Road	8·936	A.F.X.	A.Sp	A.Sp	G
Dry Creek	Magazine Road	9·945	F.X.	A	A	
Parafield	Lawrence Road	17·801	F.X.	A	A	
Salisbury	Park Terrace	20·140	A.F.X.	B.Sa	B.Sa	G
Nurlutta	Commercial Road	21·594	F.X.	A	A	
Elizabeth South (G.M.H.)	Kettering Road	22·760	F.X.	B	A	F (G.M.H. Elizabeth)
Womma	Womma Road	27·390	F.X.	A	A	
Smithfield	William Street	30·366	F.X.	A	A	
Kudla	Dalkeith Road	33·824	F.X.	A	A	
Para	Para Road	37·324	W	A	A	
Gawler	Barnett Street	39·172	F.X.	A	A	B (Racecourse Siding) C (Goods Siding)
Gawler-Roseworthy	—	42·482	F.X.	A	A	
Wasleys	Hamley Bridge end of station yard	58·868	W	B	B	
Hamley Bridge	Wasleys end of station yard	71·328	W	B	B	
Hamley Bridge	Stockport Road	72·262	W	B	B	
Tarlee	Clare Road	87·872	W	A	A (when unattended) C.E. (when attended)	

ADELAIDE-PETERBOROUGH LINE—*continued*

Station	Crossing		Description of Apparatus	Method of Control for Main Line		Shunting, Manual and Special Operating Procedures
	Name or Location	km		Up	Down	
Riverton	Tarlee end of station yard	100·730	F	B	B	D
Riverton	Marrabel Road	101·398	F.X.	B	B	
Saddleworth	Manoora end of station yard	110·108	F.X.	A	B.Sa.E	
Saddleworth (near)	—	113·089	X	A	A	
Manoora	Merildin end of yard	121·872	X	B	C.E.	D
Manoora	Burra Road	122·313	F.X.	A	B.Sa.E	G
Farrell Flat (near)	Shannons	144·254	F.X.	A	A	
Burra	Bon Accord	163·325	X	A	D	
Peterborough	Railway Terrace	247·488	F.X.	B	B	
	DRY CREEK–NORTHFIELD LINE					
Dry Creek	Churchill Road (ARC Siding)	11·453	F.X.			D.F.
Dry Creek	Churchill Road (Main Line)	11·465	F.X.	A	B	
Cavan	Port Wakefield Road	12·056	F.X.	B	B	F
Pooraka	Main North Road	13·002	A.F.X.	B.Sa	B.Sa	
	SALISBURY–PORT PIRIE LINE					
Hilra	Bagster Road (Port Pirie Line)	21·976	A.F.X. $	A	A	
	Bagster Road (Penfield Line)	21·976	A.F.X.	A.Sp	A.Sp	D
Direk	Heaslip Road	27·130	F.X. $	A	A	F
Mallala	Long Plains end of station yard	60·294	F.X.	A	B.Sa.E	F
Snowtown	Highway No. 1	143·390	F.X. $	A	A	
Merriton	Highway No. 1	186·398	F.X.	B.Sa.E	A	F

		Bowmans–Moonta Line				
Port Wakefield	Highway No. 1	132·421	F.X.	C.Sa.E	A	G.F.
Kadina.....	Wallaroo end of station yard	189·379	W	A	C	
Wallaroo	Town Hall	198·028	W	C	A	D
Wallaroo	Old Jetty Road	199·375	W	A	A	D.F.
Moonta	Cross Roads	214·431	W	A	A	
		Snowtown–Kadina Line				
Snowtown	Highway No. 1 (Snowtown by-pass)	241·623	F.X.	A	A.Sa	C.E.G.F.
		Gawler–Angaston–Truro Lines				
North Gawler.....	Victoria Terrace	41·682	F.X.	A	A	
North Gawler.....	Murray Street	42·482	F.X. $	A	C.E.	F
North Gawler-Sandy Creek	—	45·136	F.X. $	A	A	
Lyndoch	Gawler end of station yard	56·648	F.X.	B	A	F
Rowland Flat	Lyndoch end of station yard	61·785	F.X.	B	A	F
Tanunda-Dorrien	—	73·241	F.X. $	A	A	
Nuriootpa	—	76·593	F.X.	A	A	
Truro	Sturt Highway	90·535	F.X.	A	A	
		Roseworthy–Robertstown Line				
Roseworthy.....	Main North Road....	50·712	F.X.	A	A	G
Freeling	Kapunda end of station yard	59·595	X	A	C.E.	D
Fords—Kapunda	—	75·148	W	A	A	
Kapunda	Clare Road.....	77·753	W	A	A	G
Kapunda	Kapunda Street.....	78·002	W	A	A	G
Kapunda	Mildred Street	78·297	W	A	A	
Kapunda-Bagot Well....	Morning Star.....	79·991	F.X.	A	A	G
Eudunda	Kapunda end of station yard	110·256	F.X.	C	A	D

Station	Crossing		Description of Apparatus	Method of Control for Main Line		Shunting, Manual and Special Operating Procedures
	Name or Location	km		Up	Down	
Eudunda	Robertstown end of station yard	110·800	W	A	C	
Eudunda-Robertstown	—	111·972	X	A	A	
		HAMLEY BRIDGE–GLADSTONE LINE				
Balaklava	Watchman Road	106·979	F.X.	C.E.	A (Hamley Bridge Line)	F
				A	C.E. (Gladstone Line)	F
Blyth	Balaklava end of station yard	149·000	X	A	A	
Brinkworth	Gladstone end of station yard	168·174	X	A	C.E.	
		RIVERTON–SPALDING LINE				
Riverton	Main North Road	102·306	F.X.	A	A	
Auburn	Main North Road	122·431	F.X.	A	A	G
Sevenhills	Mintaro Road	138·954	W	A	A	G
		ADELAIDE–OUTER HARBOUR LINE				
Bowden	Park Terrace	2·444	A.F.X.	B.Sa	A	
Bowden	Gibson Street	2·638	F.X.	B	B	D
Bowden	East Street	2·880	F.X.	B	B	
Bowden	West Street	3·152	F.X.	A	A	

Bowden	Coglin Street	3·419	F.X.	A	A	
Croydon	South Road	3·815	A.F.X.	A	A	
Croydon	Elizabeth Street	4·115	A.F.X.	A	A	
Kilkenny	Kilkenny Road	6·049	A.F.X.T.	B.Sa	B.Sa	D
Woodville	Woodville Road	7·380	F.X.VB	F	F	
Cheltenham	Cheltenham Parade	8·588	A.F.X.	A.Sa	A.Sa	
Alberton	Fussell Place	10·060	A.F.X.	A	A	
Ethelton	—	12·887	F.X.	A	A	
Glanville	Dunniker Road	13·962	A.F.X.	B.Sa	B	
Peterhead	Harris Street	14·262	F.X.	A	A	
Peterhead	Hargrave Street	14·690	F.X.	A	A	
Largs	Wills Street	15·117	F.X.	A	A	
Largs	Sefton Street	15·552	A.F.X.	A	A	
Largs North	Fletcher Road	16·322	F.X.	A	A	
Draper	Kolopore Avenue	17·003	F.X.	A	A	
Draper	Strathfield Terrace	17·407	F.X.	A	A	
Taperoo	Gedville Road	18·278	F.X.	A	A	F
Osborne	Outer Harbour Road	19·876	A.F.X.	A	A	
Yerlo	Outer Harbour Road	20·984	F.X.	A		
Yerlo	Lady Gowrie Drive	20·992	F.X.		A	
Outer Harbour	Lady Gowrie Drive	21·607	F.X.		A	
Outer Harbour	Wharf Siding	21·808	F.X.	C.E.	C.E.	F
		WOODVILLE–GRANGE LINE				
Woodville	Holdens Crossing	7·918	W	B	B	
Woodville	Port Road	8·289	F.X.	A	A	F
Albert Park	May Terrace	8·713	F.X.	B	A	
Albert Park	Morley Road	9·422	F.X.	A	B	
Seaton Park	Tapleys Hill Road	10·496	F.X.T.	A	A	
East Grange	Devon Road	11·653	F.X.	A	A	
Grange	Sturt Street	12·827	F.X.	A	A	
Grange	Military Road	13·066	F.X.	C.E.Sa	A	
		ALBERT PARK–HENDON LINE				
Albert Park	Botting Street	9·278	F.X.	A	B	
Hendon	Gordon Street	9·494	F.X.	A	A	

Port Adelaide–Dry Creek Line

Station	Crossing		Description of Apparatus	Method of Control for Main Line		Shunting, Manual and Special Operating Procedures
	Name or Location	km		Up	Down	
Port Dock Station (near)	Between Dock Station and Port "A" Cabin	0·362	X	D	D	
Port Adelaide	Russell Street	1·350	F.X.	A	A	
Port Adelaide	Canning Street.....	1·602	W	A	A	
Port Adelaide	Newcastle Street	1·820	F.X.	A	A	
Rosewater	Grand Junction Road	2·338	F.X.	A	A	
Gillman Yard	Eastern Parade	3·405	A.F.X. $	A	A.Sa	F
Wingfield.....	North Arm Road	4·145	F.X. $	A.Sa	A	C.E.F.
Wingfield.....	Wingfield Road	5·233	F.X. $	A	A	F

Glanville–Semaphore Line

Exeter	Woolnough Road ...	14·328	F.X.	A	A	
Semaphore	Military Road	14·810	F.X.	A	A	

Port Adelaide Area

Port Adelaide (near Cabin C)	Gray Terrace	1·026	A.F.X.	B.Sa	B.Sa	
Port Adelaide (near Cabin C)	Bedford Street	1·099	A.F.X.	B.Sa	B.Sa	C.E.
Port Adelaide (Seatainers Siding)	Eastern Parade	2·252	F.X.			C.E.F.
Port Adelaide	Victoria Road	14·578	F.X.T.	A	A	

Woodville–Woodville North–Gillman Yard Line

Woodville North	Torrens Road	8·504	F.X.	D	D	

Adelaide–Serviceton Line

Mile End Junction			I.G.			
Goodwood	Leader Street	4·638	A.F.X.T.	B.Sa	A	F (Keswick)
Goodwood	Victoria Street	5·207	A.F.X.	B.Sa	B.Sa	
Unley Park	Cross Roads	6·912	A.F.X.	A.Sa	A.Sa	G
Hawthorn	Sussex Terrace	7·252	F.X.	A	A	
Mitcham	Angas Road	8·014	F.X.	A	A	
Mitcham	Grange Road	8·385	F.X.	B	B	F
Mitcham	Wattlebury Road	8·783	F.X.	B	B	D.F.
Lynton	Barretts Road	10·517	F.X.	A	A	
Coromandel	Brighton Parade	17·334	F.X.	A	A	
Blackwood	Coromandel Road	17·843	F.X.	B	A	
Glenalta	Belair Road	19·396	F.X.	A	A	
Madurta	Adelaide end of platform	33·702	F.X.	A	B	
Carripook	Pekina Road	36·306	F.X.	A	A	
Bridgewater	Carey Gully Road	37·136	F.X.	B	B	
Balhannah (near)	Woodside Road	44·438	F.X.	A	A	
Nairne	Woodside Road	55·367	F.X.	B	B	
Nairne	Callington end of station yard	55·827	F.X.	B	B	
Nairne (near)	Summit Road	56·813	F.X.	A	B	
Callington	Woodchester Road	73·198	F.X.	A	A	
Monarto South		84·673	F.X.	A	A	
Murray Bridge	Cypress Terrace	94·451	F.X.	A	A	
Murray Bridge	Mannum Road	95·642	F.X.	B	A	F
Tailem Bend-Cookes Plains	Dukes Highway	123·547	F.X.	A	A	
Bordertown	Dukes Highway	293.661	F.X.	B	B	F

Wolseley–Mount Gambier–Victorian Border Lines

Naracoorte	Showgrounds Crossing	385·351	F.X.	A	A	
Naracoorte	McDonnell Street	386·001	F.X.	B	B	
Naracoorte	Stewart Terrace	386·851	F.X.	B	B	C.E.F.
Penola	Millicent Road	434·531	F.X. $	A	A	
Kalangadoo		459·096	F.X.	A	B.Sa.E	
Mount Gambier Junction	Millicent Road	487·092	F.X. $	A	A	

Station	Crossing		Description of Apparatus	Method of Control for Main Line		Shunting, Manual and Special Operating Procedures
	Name or Location	km		Up	Down	
Mount Gambier Junction	Commercial Street ...	487·834	F.X. $	A	A	
Mount Gambier Junction	White Avenue	488·758	F.X.	B	B	D
Mount Gambier.....	Bertha Street	489·915	F.X.	A	A	C
Mount Gambier.....	Wehl Street	490·141	F.X.	B	B	
Mount Gambier.....	Bay Road	490·735	F.X.	A	B	
Mount Gambier.....	Crouch Street.....	491·134	F.X.	A	A	G
Mount Gambier.....	Pick Avenue.....	492·546	F.X.	A	A	G
Kromelite	Princes Highway	499·745	F.X.	A	A	G
	MOUNT GAMBIER JUNCTION–MILLICENT LINE					
Snuggery	Princes Highway	523·926	F.X.	A.Sa	A	C.E.G.F.
	TAILEM BEND–BARMERA LINE					
Paringa	Paringa Bridge.....	341·026	HG.F.			F
Paringa	Paringa Bridge.....	341·248	HG.F.			F
Renmark	Sturt Highway	343·502	F.X.	B.Sa	B	G.F.
Berri-Karoom.....		364·639	F.X.	A	A	G
Barmera.....	Sturt Highway	376·350	F.X.	A.Sa	A	C.E.G.F.
	GOODWOOD–HALLETT COVE LINE					
Clarence Park.....	East Avenue.....	6·195	F.X.	A	A	
Emerson	South Road–Cross Road	7·243	A.F.X.T.	A	A	F (Edwardstown)
Edwardstown	Delaine Avenue.....	8·048	F.X.	B	B	
Edwardstown	Angas Avenue.....	8·193	F.X.	A	B	
Edwardstown	Raglan Street.....	8·744	F.X.	A	A	
Woodlands Park	Dunorlan Road.....	9·613	F.X	A	A	

Ascot Park	Marion Road	10·892	F.X.	A	A.Sp	
Oaklands	Diagonal Road	13·058	F.X.	B	B	
Hove	Brighton Road	14·690	A.F.X.	A.Sp	A.Sp	
Brighton	Jetty Road	15·321	A.F.X.	B	B	
Brighton	Edward Street	15·966	F.X.	A	B	
South Brighton	Shoreham Road	16·269	F.X.	A	A	F (Brighton)
Seacliff	Wheatland Street	16·979	F.X.	A	A	
Seacliff	Maitland Terrace	17·271	F.X.	A	A	
Marino Rocks	Jervois Street	18·777	F.X.	A	B	
Marino Rocks	Emma Street	19·077	F.X.	A	A	

Ascot Park–Tonsley Line

Ascot Park	Daws Road	10·439	F.X.	A	A	
Mitchell Park	Celtic Avenue	11·281	F.X.	A	A	
Tonsley	Alawoona Avenue	12·185	F.X.	B.E.	A	

Mount Barker Junction–Victor Harbour Line

Littlehampton	Mount Barker end of station yard	53·641	F.X.	A	A	G
Mount Barker (near)		54·413	W	A	A	G
Bugle Ranges		68·716	F.X.	A	A	G
Strathalbyn	East Terrace	80·845	F.X.	B.Sa.E	A	G.F.
Strathalbyn	South Terrace	81·363	F.X.	C.E.	A	F
Strathalbyn	Milne Road	81·727	F.X.	A	C.E.	F
Currency Creek		104·903	F.X.	A	A	G
Goolwa	Punt Road	114·149	HG			F
Middleton	Victor Harbour Road	121·608	F.X.	A	A	G
Port Elliot	The Strand	125·572	F.X.	A	A	G
Victor Harbour		131·903	HG			F

Port Pirie–Port Augusta Line

Port Pirie	Warnertown Road	1·499	F.X.	B	B	
Port Pirie	Port Germein Road	3·173	F.X.	A	B	

Port Pirie–Peterborough–Broken Hill Line

Station	Crossing		Description of Apparatus	Method of Control for Main Line		Shunting, Manual and Special Operating Procedures
	Name or Location	km		Up	Down	
Port Pirie	Mary Elie Street	363·137	F.X.	C.Sa.E	S.Sa.E	F
Crystal Brook	Highway No. 1	334·384	F.X.	A	A	C.F.
Gladstone	Georgetown Road	314·205	F.X.	B	B	C.E.
Gladstone	Cross Street	313·191	F.X.	B	B	C.E.
Gladstone-Caltowie		303·130	F.X.	A	A	
Caltowie		296.677	F.X.	A	A	F
Jamestown	Apilla Road	285·827	X	A	A	
Jamestown	Vohr Street	285·284	F.X.	A	A	
Peterborough	Hurlstone Street	248·425	F.X.	B	B	
Peterborough	Mill Street	248·548	F.X.	B	B	
Ucolta	Barrier Highway	263·006	F.X.	A	A	G
Cutana	Barrier Highway	446·908	F.X.	A	A	G
		Port Lincoln Division				
Port Lincoln	LeBrun Street	0·880	F.X.	A	A	C.E.F.
Port Lincoln		2·254	F.X.	A	A	F
Ceduna	Eyre Highway	429·790	F.X.	A	A	G.F.

PUBLIC ADDRESS SYSTEMS

Public address systems are installed at a number of stations, in station or marshalling yards, and in workshops. Each system consists of a microphone, amplifier and a control box for selecting one or more groups of loudspeakers.

The equipment is to be used strictly in accordance with the following instructions—

1. Announcements must be confined to matters of Railway business only. The equipment must not be used for any other purpose.

2. Care must be exercised to avoid annoyance to the tenants of residences in the area by refraining from the use of excessive volume of sound or unnecessary use of equipment.

3. Lengthy announcements to employees shall be avoided by calling the employee to the nearest telephone.

4. Calls over the public address system shall not be addressed to engine crews. Enginemen must not act upon any announcement but must await the direction of his shunter or other employee in charge of the movement.

5. Announcements must be made in a clear voice with the mouth not more than 250 millimetres from the microphone. Speech must be slow with a slight pause between each word. Other noises in the vicinity of the microphone must be excluded as much as possible.

6. Each call must be preceded by the word ANNOUNCEMENT. If the matter is urgent the call shall be preceded by the words ANNOUNCEMENT URGENT.

7. If acknowledgment of a message is required, the call is to finish with the words WILL THE (EMPLOYEE) PLEASE ACKNOWLEDGE. The employee called must then proceed to the nearest telephone and repeat the message to the person from whom the call originated. If the call is not acknowledged by the employee called, the announcement is to be repeated, after a short time interval.

8. The use of slang expressions or terms which may be misunderstood must be avoided.

9. When public address systems are provided with facilities to select loudspeakers in various parts of the area being served, this facility shall be used as much as possible in order to confine the announcement to the desired location.

10. The public address systems at stations shall be used for the following purposes:—

(*a*) Announcing the name of the station as trains arrive and whether it is necessary for passengers to change trains, etc.

(*b*) Announcing the destination of trains to intending passengers.

(*c*) Announcing to intending passengers the approximate arrival time of trains running late.

(*d*) At refreshment stations announcing the departure of the train, three (3) minutes and one (1) minute before the train is due to depart, and requesting passengers to join.

(*e*) Calling staff to the telephone.

(*f*) Announcing arrival times of trains and other messages to Traffic staff concerned in shunting or marshalling of trains.

(*g*) The equipment shall be used only by the staff authorized to do so.

Examples of the manner in which announcements shall be made are—

1. Announcement—The Adelaide train will depart in three minutes. Seats please. Hurry on please.

2. Announcement Urgent—The Yardmaster is required to speak to the Train Controller. Will you please go to the nearest Train Control telephone.

TELEPHONES

The Railway Telephone Exchange at Adelaide is open continuously. At Murray Bridge, Peterborough, Port Pirie, Port Lincoln and Mount Gambier the Railway Telephone Exchanges are attended as arranged. When the Telephone Exchanges are not attended certain telephone lines are switched to other offices, *e.g.*, Train Control, Ticket Office or the private residences of selected officers.

Telephone calls must be made in accordance with the instructions set out in the Telephone Directory.

Messages from the public must not be transmitted over Railway Circuits. When a Postal Department telephone installed for Railway business is used by the Public the usual fee must be charged.

The mouthpiece of all telephones must be disinfected periodically by using a duster or sponge dipped in a weak solution of Formalin. The solution is prepared as follows:—

One teaspoon of 40 per cent Formalin to one half litre of water.

Telegraph messages transmitted by telephone must be written on the proper telegraph form, numbered consecutively each day and filed in the forwarding office. The date, time handed in and dispatched, and the initials of the forwarding officer must be legibly entered on each form.

All telephone messages sent from and received at stations must be recorded in a book provided for the purpose. The time and date of receipt and the names of the persons sending and receiving the message must be endorsed therein.

Telephone Receivers must not be left off the switch hooks when not in use.

To ensure the efficiency of the Railway Telephone Service, the following instructions must be observed:—

1. Telephone calls must be promptly answered.
2. Give number, name or title as the case may be, when called.
3. Ring off immediately on completion of the conversation. (Magneto telephones.)
4. On "Party" lines (Lines on which there are a number of instruments) do not ring another station before lifting the receiver and ascertaining whether the line is being used.
5. Except as set out in (4) do not listen in, as this has the effect of impairing the efficiency of the line, and further is a breach of good manners.
6. Have the number required ready before ringing.
7. Extend to the Telephone Exchange attendants the same courtesy and consideration you expect from them.
8. Arrange for telephone calls to be answered during temporary absence.

Transferring Calls—When a telephone call needs transferring to another line, the person called must ask the person to be transferred to wait for the new number to answer. He must then either advise the switchboard operator or use the automatic transfer facilities, if provided, in accordance with local instructions in the Telephone Directory.

Party Lines—A "ringing code" sheet for all stations connected to a party circuit must be exhibited in a conspicuous place adjacent to each telephone instrument. A station must not call another on a party line telephone before first ascertaining whether the line is engaged.

Station Masters must see that telephones are not used for private conversations between members of their Staffs.

When making a telephone call, the code call of the station must be given and the station called must reply by repeating its code call.

Portable telephones are supplied for use in case of emergency on the following trains:—

The Overland, "Blue Lake" passenger train, Broken Hill passenger train and *The Indian-Pacific.*

Station Masters must see that Guards working these trains have passed the necessary examination for operating these telephones.

Guards must see that this equipment is provided before departure of trains.

At Adelaide, the Supervisor, Laundry and Equipment will be responsible for the supply of this equipment, and at other stations where the equipment is provided Station Masters must see that this is done.

Telephone for Emergency Use—Telephones for use by train crews and others are situated at the following locations and must be used in case of train failures to promptly report particulars of such failures, or other emergency:—

TRAIN CONTROL TELEPHONES

(In addition to those provided adjacent to certain Absolute signals)

Adelaide-Outer Harbour:—	
Woodville-Cheltenham	Cheltenham Parade Level Crossing
Alberton	Fussell Place Level Crossing
Commercial Road	"Down" platform shelter shed
Goodwood-Marino:—	
Ascot Park	Passenger platform
Adelaide-Peterborough:—	
Burra-Mount Bryan	Approximately 163 km
Adelaide-Mount Gambier:—	
Mitcham-Eden Hills	11·175 km (Sleeps Hill) 11·610 km Adjacent No. 717 Signal 12·075 km Mitcham end No. 1 Tunnel 12·835 km Eden Hills end No. 1 Tunnel
Eden Hills-Blackwood	15·056 km Blackwood end No. 2 Tunnel 16·411 km
Belair-Long Gully	23·376 km 24·670 km Belair end No. 3 Tunnel
Long Gully-Mount Lofty	27·263 km Mount Lofty end No. 4 Tunnel 27·625 km 29·636 km Mount Lofty end No. 5 Tunnel 30·360 km
Mount Lofty-Aldgate	33·572 km Adjacent No. 4 Signal Aldgate
Aldgate-Bridgewater	34·988 km Adjacent No. 24 Signal Aldgate
Bridgewater-Balhannah	40·282 km Balhannah end No. 6 Tunnel 42·715 km 44·019 km

Adelaide-Mount Gambier—*continued*	
Nairne-Petwood	59·936 km
Monarto South-Murray Bridge	94·371 km
Tintinara-Coombe	219·012 km
Keith-Wirrega	255·557 km
Custon-Bangham	326·109 km
Bangham-Francis	337·375 km
Wandilo-Mount Gambier Junction	484·274 km
Roseworthy-Robertstown:—	
Eudunda-Robertstown	112·008 km
Peterborough-Port Pirie:—	
Mannanarie-Jamestown	276·084 km
Caltowie-Gladstone	303·570 km
Gladstone-Crystal Brook	341·341 km
Peterborough-Broken Hill:—	
Hillgrange-Paratoo	296·205 km
Yunta-Mannahill	354·790 km
Mannahill-Olary	394·672 km
Olary-Cutana	428·326 km
Thackaringa-Broken Hill	512·895 km
Peterborough-Quorn:—	
Carrieton-Mookra	325·452 km
Bruce-Quorn	365·909 km
Port Lincoln Division:—	
Kimba-Buckleboo	273·420 km

BLOCK TELEPHONES

(Connected with station to station circuits—see ringing code sheets adjacent to telephone instrument.)

Adelaide-Outer Harbour:—	
Bowden-Croydon	South Road Level Crossing
Croydon	"Down" platform shelter shed
West Croydon	"Down" platform shelter shed
Woodville Park	"Down" platform shelter shed
Ethelton	"Down" platform shelter shed
Goodwood-Marino:—	
Emerson	South Road-Cross Road Level Crossing
Seacliff	In Shelter Shed
Adelaide-Tailem Bend:—	
Micham-Eden Hills	11·893 km (Sleeps Hill)
	12·935 km Eden Hills end No. 1 Tunnel
Eden Hills-Blackwood	14·915 km Eden Hills end No. 2 Tunnel
	17·394 km Opposite No. 1107 signal near Coromandel
Blackwood-Belair	19·488 km Gangers cottage
	20·559 km Adjacent Pinera platform
Belair-Long Gully	23·412 km
	25·010 km Long Gully end No. 3 Tunnel

Adelaide-Tailem Bend—*continued*	
Mount Lofty-Aldgate	32·995 km Heathfield Shelter Shed
	33·974 km Adjacent No. 1 and 2 switches, Aldgate
Aldgate-Bridgewater	36·006 km
Bridgewater-Balhannah	38·912 km
	39·718 km Bridgewater end No. 6 Tunnel
	41·790 km
Balhannah-Mount Barker Junction	47·846 km
Mount Barker Junction-Nairne	51·065 km
	53·179 km
	54·283 km
Nairne-Callington	57·503 km
	64·342 km
	67·577 km
Callington-Monarto South	75·970 km
Monarto South-Murray Bridge	85·893 km
	91·126 km
	92·175 km
	95·657 km Level Crossing Adelaide end of Murray Bridge yard
Murray Bridge-Tailem Bend	97·045 km Adjacent No. 6044 signal Murray Bridge
	98·231 km Tailem Bend end of River Bridge
Mount Barker Junction-Victor Harbour:—	
Finniss-Currency Creek	101·923 km Black Swamp
Adelaide-Dry Creek:—	
Ovingham	"Up" platform adjacent Ticket Office
Salisbury-Port Pirie:—	
Nantawarra-Bumbunga	123·993 km
Redhill-Merriton	178·619 km
Merriton-Wandearah	189·117 km
Nurom-Port Pirie	205·268 km
Bowmans-Kadina:—	
South Hummocks-Melton	151·347 km
Snowtown-Kadina:—	
Bute-Barunga Gap	223·892 km
Barunga Gap-Snowtown	235·457 km
Gladstone-Wilmington:—	
Wirrabara-Yandiah	254·347 km

Telephone Testing Switches—The testing switches or "Patching Boards" installed at various stations are for use in testing lines and other equipment, and must not be used for any other purpose. These switches, etc., must only be used on request from the Signal and Telegraph Testing Officer.

Underground Cable Locations—In order to avoid damaging vital underground cables, officers arranging for contractors and employees to make excavations should first obtain full details of the location of all underground cable plant in the vicinity before proceeding with the work.

For Information regarding S.A.R. Cables simply phone—

Signal and Telegraph Drawing Office,
Adelaide—Extension 2038

For information regarding cables, pipes, etc., for outside authorities, obtain the information directly from each authority.

1. *General*—Underground cables, carrying vital electrical circuits, are installed on Railway property by—

1. The South Australian Railways.
2. The Postmaster-General's Department.
3. The Electricity Trust of South Australia.
4. The Engineering and Water Supply Department.

These cables are generally installed where it is not convenient or economical to install open aerial wires.

2. *Location in Ground*—The current standards governing the depth to which cables shall be buried on Railway property are as follows:—

(*a*) Cables carrying vital Railway Signalling circuits—

(i) Minimum depth 0·8 m.

(ii) Where cables are to pass beneath the Railway line—Minimum depth 1 m.

(iii) Where cables are to pass beneath roadways—Minimum depth 0·8 m and the cables are enclosed in pipe.

(*b*) Cables belonging to the South Australian Railways or Postmaster-General's Department carrying Communication circuits—

(i) Where cables run parallel to the Railway line—Minimum depth 0·5 m.

(ii) Where cables run parallel to the Railway line and are buried in rock—Minimum depth 150 mm.

(iii) Where cables run at an angle to the Railway line and are buried in rock—Minimum depth 220 mm.

(iv) Where cables are to pass beneath the Railway line—Minimum depth 0·5 m and cables are enclosed in pipe.

(*c*) Power cables belonging to the South Australian Railways and the Electricity Trust of South Australia—

(i) Where the cables are to pass beneath the Railway line—Minimum depth 1·5 m.

(ii) Where cables are to run parallel to the Railway line—Minimum depth 1 m.

NOTE:—Some cables have been installed in the past which do not conform to these standards. Therefore it cannot be assumed that a particular cable will be at the depth specified in the data above. Hence before any excavation is performed above a cable, it is necessary to ascertain the exact depth of the cable from the authority concerned.

3. *Cable Markers*—

(*a*) Defining the location of all types of South Australian Railways cables.

Two types of Cable Markers are installed—

(i) "Above Ground" markers of the type shown in diagram No. 1 are installed directly above the cables at a maximum of 60 m intervals along a straight cable run and at every "T" junction or change in cable direction.

Diagram No. 1

(ii) "Ground Level" markers of the type shown in diagram No. 2 are sometimes placed directly above the cable at a maximum of 15 m intervals between the "Above Ground" type markers. They are also used in lieu of the "Above Ground" markers where it is not practical or safe to install the "Above Ground" type, *e.g.*, in roadways, footpaths and between Railway lines, etc.

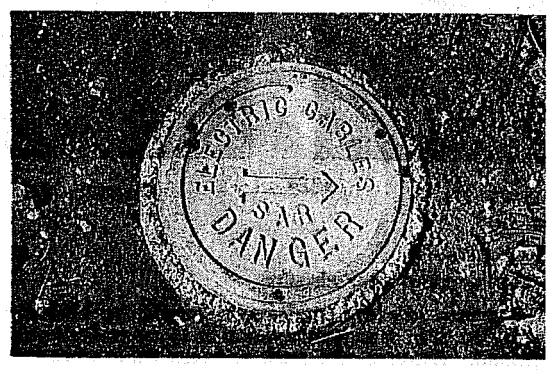


Diagram No. 2

(*b*) Defining the loction of all types of cables belonging to other Departments—

The cable markers defining the location of these cables are not the same as those used by the South Australian Railways. Accordingly, a thorough search must be made of the surrounding area for any type of cable marker before any excavation begins.

If any doubt exists as to the exact location of an underground cable, the appropriate authority should be contacted for assistance.

4. *Cable Terminal Pillars and Relay Boxes*—

Underground signal cables are terminated in Cable Terminal Pillars and Relay Boxes.

The Cable Terminal Pillars, as shown in diagram No. 3 are installed directly above the underground cables and thus serve to indicate the location of the cable.

The Relay Boxes, as shown in diagram No. 4 are in some instances erected slightly to the side of the cable run. Hence these boxes also serve to indicate the location of an underground cable.

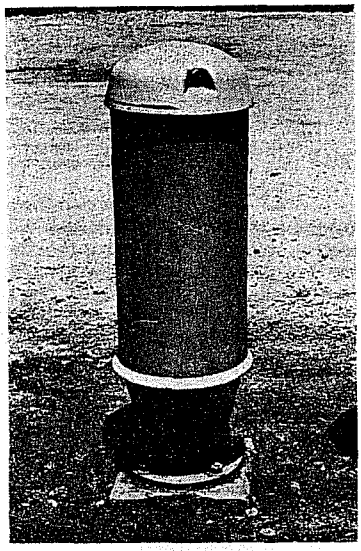


Diagram No. 3

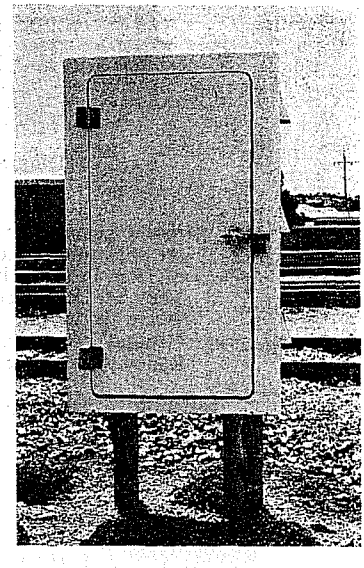


Diagram No. 4

5. *Duty of Employees*—

Underground cables carry vital circuits.

It is, therefore, the duty of every employee to familiarize himself with the location of all cables in the area where excavation is to be undertaken or any object driven into the ground. Extreme care must be taken while work is being executed to prevent damage to the cable.

BOOK 4

DIVISIONAL INSTRUCTIONS

ADELAIDE DIVISIONAL INSTRUCTIONS

ADELAIDE STATION

Fire Alarms—Fire alarms connected with the Fire Brigade Station are placed at the following locations:—

Adelaide Station Building—

Ground Floor—Motor Vehicles Department.
Second Floor—Chief Engineer's Drawing Office.
Third Floor—Telephone Exchange.

North Car Yard—

On third post from Adelaide end, No. 1 Shed.

Telephones—Telephones on a separate circuit are installed at the following locations for the use of Electrical Fitters, etc:—

Adelade Yard Cabin
Opposite No. 16 Signal (Between North and Port Mains)
Opposite No. 85 Switches (Between North and Port Mains)
Yard Signal Bridge
Wye Cabin
Adjacent No. 32 Signal
Adjacent No. 18 Switches
Adjacent No. 40 Signal
Adjacent No. 54 signal
Adjacent No. 121 Permissive Signal
Mile End—Adjacent No. PW 075 Signal
Signal and Telegraph Depot—In Maintainers Workshop
In Lunch Room.

Train Departure Information—

The destination of each train, time of departure, platform number and stopping station must be correctly displayed on the Indicator Board on the Concourse. In addition, destination boards must be displayed on the platforms adjacent to each out-going train.

When an incoming train, or portion thereof, is to fall out of traffic, a board with the wording "NOT GOING" is to be displayed on the platform at which it is to arrive and left there until the train or portion has departed for the yard.

The Platform Porter or in his absence the Barrier Porter is responsible for the display and subsequent removal of "destination" and "NOT GOING" boards.

The Barrier Porter must especially direct the attention of passengers entering the platform to trains or portions thereof that are "NOT GOING" and properly direct them concerning the train by which they are to travel.

Display of Information on Train Indicator Boards during Period of Train Dislocation—

(1) When it is necessary, due to dislocation of the services, to alter the normal platform working at Adelaide, the following instructions must be observed.

(2) The Signalman, Adelaide Yard Cabin, must immediately advise:—

(i) The Station Master, Adelaide and the Train Controller.

(ii) The Station Information Officer, indicating particulars of platforms affected by the dislocation, and subsequently particulars of trains arriving at and to be dispatched from such platforms, and finally, when normal working has been resumed.

(3) The Station Master, Adelaide, must, on receipt of advice from the Signalman, send a competent employee to assist the Station Information Officer.

(4) The Station Information Officer must, immediately on receipt of advice from the Signalman of the dislocation of service:—

(i) Alter the Train Indicator Board to display particulars of trains to be dispatched from the various platforms and make any announcements as directed by the Station Master.

(ii) Utilize the employee sent by the Station Master to convey particulars of departures from such platforms to the Platform Inspector, and also to obtain the actual departure of such trains before the Indicator Board is again cleared.

(iii) On resumption of normal service, reset the Indicator Board, and send the employee referred to, to advise the Platform Inspector and the Station Master accordingly.

(5) The Platform Inspector must personally arrange for the display of the platform train destination board for each train on the platforms.

Porters Handling Luggage—Porters, other than Licensed Luggage Porters, must not handle passengers' luggage except when authorized to do so by the Station Master, and then only in an emergency.

Advising re Number of Passengers on "Down" The Overland—The Station Master, Adelaide, upon departure of The Overland must telegraph the following information to:—

S.M., Train Control, Spencer Street	Number of through Sleeping Car, First and Economy Class Sitting Passengers. Consist and mass of train.
S.M., Train Control, Ararat	
S.M., Manager R.R.R., Ballarat	
S.M., Serviceton	

Mile End Guards—The Roster Clerk, Adelaide, must instruct Mile End Guards when they are to book on and off at Adelaide. When booking on, they must report to the Assistant Station Master for confirmation of, or allotment of their duties. Before booking off, they must ascertain from the Roster Office, Adelaide, their duties for the following day and if the Roster Office be closed, from the Time Checker, Mile End, or if that office be closed, the Metro. Train Controller.

Starting Lights—White starting lights are erected on the walls above the barrier gates on all platforms. The lights must be switched on by the Barrier Porter at the time of departure of a train, as an indication that all is clear at the barrier. The lights must be switched off immediately the train has departed.

Guards of trains working in the metropolitan area are permitted to start their trains on receipt of this light signal.

Guards of trains working beyond the metropolitan area, with the exception of The Overland from No. 11 Platform, are permitted to start their trains on receipt of the light signal and permission by Officer in Charge of the platform

No. 5 Platform—Passing Signal No. 1 at "Stop" due to long trains. Trains waiting to depart from No. 5 platform must, if the number of cars permits, stand in clear behind No. 1 Signal. If the train is too long, and Signal No. 1 cannot be cleared for the train to depart, due to the track circuit being occupied by such train, and the track ahead to No. 2 Signal is clear, a Caution Order, as prescribed in Rule 99, to pass Signal No. 1 at "Stop" will not be required.

No. 11 Platform—Train Departure Indicators for use in dispatching The Overland only are situated at a distance of 50 m and 180 m from the barrier gates, and display red, yellow, or green indications, when operated in accordance with the following method:—

(*a*) *Red Light Indication*—Two minutes before the train is to depart, the Officer in Charge of the platform must operate the push key located on the post adjacent to the departure indicator situated near the barrier gates, thereby displaying a red light in each of the departure indicators, in addition to an indication of a similar colour in the Adelaide Yard Signal Cabin.

(*b*) *Yellow Light Indication*—One minute after the red light has been displayed, or as soon after this interval as the line will permit, the Signalman must clear No. 15 Absolute Disc Signal. This will cause a yellow light to appear in each of the departure indicators in place of the red light.

(*c*) *Green Light Indicators*—The Barrier Porter on No. 11 Platform will switch on the white starting light on the wall above the barrier gate on No. 11 Platform as an indication to the Officer in Charge of the platform that all is clear at the barrier. The Officer in Charge of the platform, after ensuring that the train is ready, must instruct the Guard to signal the Engineman to start. The Guard will do this by depressing the push button key, situated on the pillar 35 m from the barrier, causing the green light to appear in each of the indicators in place of the yellow light, and immediately join his train. The Engineman, on seeing the green light, must start his train.

The Guard's starting signal prescribed in the Rules must be strictly observed.

NOTE: If the red lights do not appear when the push key is operated by the Officer in Charge, this officer must immediately advise the Signal Cabin. The train must, in such case, be dispatched by the Guard giving the "starting" signal by radio or by hand signal in accordance with Rule No. 88.

(*d*) Instructions (*a*), (*b*) and (*c*) will NOT apply when the consist of *The Overland* exceeds 13 passenger vehicles. In these instances, the Barrier Porter will operate the white starting light when the barriers are clear in the usual way. The Officer in Charge on the platform will then verbally instruct the Guard to signal the Engineman to start. The Guard will do this either by radio communication or if this is not in working order by means of hand signals in accordance with the Rules.

Movements from Platforms of other than Scheduled Trains—Permission for these movements to proceed must be obtained from the Signalman by the Platform Porter by means of the yard circuit telephone provided.

The Engineman or Rail Motor Driver must not move the unit unless authorized to do so by the Platform Porter.

Platform Routing of Incoming Trains—Signalmen must not vary the platform routing of an incoming train without first contacting the Station Master, advising him of the variation desired. If the platform road be unoccupied the Station Master will decide and instruct:—

(*a*) The Signalman his decision; and

(*b*) The Station Information Officer and the Platform Porters of the platforms involved in the altered working.

If, however, the platform to which the Signalman desires to divert an incoming train is occupied with either an engine or rail car, with or without other vehicles attached thereto, the Station Master must not authorize the variation until he has instructed—

(*a*) The Platform Inspector or Platform Porter; and

(*b*) The Station Information officer;

to advise the employee in charge of the engine or rail car of the intention to admit another train on to his platform road, and that the stationary train must not move out towards the incoming train. When the Station Master is satisfied that his instruction has been received by the employee in charge of the engine or rail car, he must advise the Signalman of the working to be followed. In the interim the Signalman must, if necessary, hold the train at a signal clear of the platform.

Speed of Trains at Platforms—Notice boards on posts bearing the words "Reduce speed to 15 km/h" are erected at the western end of the platforms and notice boards suspended from the verandah roofs on each platform are erected 30 m from the buffer stops on Platforms Nos. 1 to 12 and 110 m from the buffer stop on Platform No. 13, bearing the words "Reduce speed to 5 km/h". Enginemen must reduce speed to 15 km/h when entering platforms and gradually reduce to 5 km/h at the 5 km/h speed board, and stop their trains 3 m from the buffer stops.

Trains and Rail Cars entering Platforms, or empty Trains and Rail Cars being hauled to Platforms—Enginemen must be prepared to bring their trains to a stand 35 m short of the buffer stops when entering platforms under the Medium Speed signal.

Rail cars, with or without non-power cars, must stop with the rail car or non-power car immediately west of the white line painted on the walls of the platform.

Shunting Vehicles to and from Platforms. Pushing Vehicles from Yard to Platform Lines

1. *Pushing Movements with Passenger Cars Leading (Other than Joint Stock and Victorian Corridor Cars and Special Vehicles) to Platform Lines*

(i) The Pointsman at North or South Cabin must obtain permission from the Adelaide Yard Cabin before allowing a pushing movement from the North or South Car Shed lines to a platform line.

(ii) Before commencing to push vehicles to platform lines the Shunter must see that the air brake is connected throughout by opening the end tap of the vehicle farthest from the engine for a sufficient time and then closing it to test the continuity of the train pipe.

(iii) The Shunter must ride on the leading end of the vehicle farthest from the engine and in such a position that he can apply the air brake if necessary.

(iv) The Shunter must continuously display a hand signal to the Engineman for the movement, which must be made at Low Speed until the leading vehicle reaches the west end of the platform, when the speed must be reduced to 5 km/h and then further reduced in accordance with the continuous hand signals displayed according to requirements, as follows:—

(*a*) When there are no vehicles standing on the platform line, the vehicles must be stopped one vehicle length (approximately 20 m) from the buffer stops, except as provided in subclause (*c*).

(*b*) Should there be vehicles already standing on the platform line and it is not intended to couple the vehicles which are being pushed back to such vehicles, the vehicles being pushed back must be stopped one vehicle length (approximately 20 m) short of the vehicles standing on the platform line, except as provided in subclause (*d*).

(*c*) If it be necessary to push vehicles close to the buffer stop owing to the length of the train, the Shunter must, from his position at the leading end of the vehicle, hand signal the Engineman to reduce the speed of the movement to 2 km/h when he reaches a point two vehicle lengths (approximately 40 m) from the buffer stop, and then give the "Close Up" signal to push the vehicles to the required position.

(*d*) Should it be necessary to couple the vehicles being pushed to vehicles already standing on the platform line, the Shunter must, from his position at the leading end of the vehicle, hand signal the Engineman to further reduce the speed of the movement to 1 km/h when he reaches a point two vehicle lengths (approximately 40 m) from the stationary vehicles, and then give the "Close Up" signal to effect coupling up of the vehicles.

(v) The Shunter must, during daylight, carry a red flag to signal to the Engineman in sufficient time to enable him to stop; between sunset and sunrise the Shunter must carry a red light for this purpose.

(vi) If it be apparent that the speed of the train is too high, or the train will not stop in the required position, the Shunter must immediately apply the air brake and hand signal the Engineman to enable the vehicles to be placed in the correct position.

2. *Pushing Vehicles with Joint Stock, or Victorian Corridor Car Leading, to Platform Lines*

(i) When a joint stock or Victorian corridor car is leading, the provisions as outlined in (*a*) will apply, but an Assistant Shunter must be provided in the leading vehicle to manipulate the air valve as directed by the Shunter in case of an emergency.

(ii) The Yardmaster must see that the leading vehicle is open and in the case of sleeping cars that the Conductor's cabin is also open, to enable the Assistant Shunter to operate the air valve.

3. *Pushing Dynamometer, Vice-Regal, Murray, Joint Stock Club, or Cafeteria Car to Platform Lines or Dead End Tracks*

(i) When it is necessary to push the Dynamometer, Vice-Regal, Murray, Joint Stock Club or Cafeteria Car to a platform line or dead end line, no other vehicle must be attached to the engine, and the movement must be stopped at the western end of the platform and the Shunter must alight on to the platform, walk along with, and hand signal the movement into position at a speed not exceeding 5 km/h.

When these vehicles are marshalled between other vehicles the foregoing instruction will not apply.

4. *Pushing "D" Mail Vans and Goods Vehicles to Platform Lines*

When mail vans or goods vehicles are being pushed back to a platform line, the vehicles must be stopped at the western end of the platform, and the Shunter must alight on to the platform, walk along with, and hand signal the movement into position at a speed not exceeding 5 km/h.

5. *Pushing Other Vehicles to Platform Lines*

When the vehicle farthest from the engine is not equipped with an emergency valve or such valve is not in a position where it can be operated by the Shunter, the vehicles must be stopped at the western end of the platform, and the Shunter must alight on to the platform, walk along with, and hand signal the movement into the required position at a speed not exceeding 5 km/h.

6. *Pushing Vehicles from Platform Lines to Yard*

(i) The pushing of vehicles from platform lines to the yard is confined to daylight and must only be carried out on the instructions of the Station Master.

(ii) The Signalman, Yard Cabin, must arrange the movement with the Pointsman concerned when a movement is to be made from platform to the car yard.

(iii) Before commencing to push vehicles from platform lines to the yard, the Shunter must see that the air brake is connected throughout by opening the end tap of the vehicle farthest from the engine for a sufficient time and then closing it to test the continuity of the train pipe.

(iv) The Shunter must ride on the leading end of the vehicle farthest from the engine and in such a position that he can apply the air brake if necessary. The movement must be made at Low Speed. The Shunter must observe the signal ahead and continually display a hand signal to the Engineman, and when necessary, stop the movement by an emergency application of the air brake.

(v) The Shunter must carry a red flag to signal the Engineman in sufficient time to enable him to stop.

(vi) The Shunter must not leave his position on the leading vehicle until the movement is completed or brought to a stop by the Pointsman.

(vii) If a siding is not available to fully accommodate the vehicles being pushed from a platform, the Pointsman must signal the movement to stop before entering the storage area, and inform the Shunter accordingly. The Shunter, having stopped the movement, must then signal to the Engineman to proceed slowly and be ready to stop short of any obstruction.

(viii) When a Goods vehicle or "D" mail van is the vehicle farthest from the push engine, the vehicles must be hauled from a platform line and not pushed.

(ix) When a joint stock or Victorian corridor car is the vehicle farthest from the push engine, the vehicles must be hauled from a platform line to the yard unless such vehicle is a joint stock brakevan or Victorian brakevan.

7. *Hauling Vehicles to Platforms from Shunting Yard*

(i) The Pointsman at North or South Cabin must obtain permission from Adelaide Yard Cabin before allowing a shunting movement from the North or South Car Shed lines to a platform line.

(ii) Before commencing to haul vehicles to platform lines, the Shunter must see that the air brake is connected throughout by opening the end tap of the vehicle farthest from the engine for a sufficient time and then closing it to test the continuity of the train pipe.

8. *Red Flags*

(i) A box equipped with two red flags is provided on the western end of each platform for the use of Shunters in charge of pushing out movements, and five red flags must be kept on each of the Pointmen's Cabins (north and south side of the Adelaide Yard) for the use of Shunters in charge of pushing movements to the platforms.

(ii) It is the personal responsibility of each Shunter in charge of pushing or hauling movements to equip himself with the required red flag before signalling his Engineman to commence a push movement, and on completion of the movement, for the return of the flag to the Pointsman's Cabin.

(iii) The Platform Porter on each shift must see that the box is at all times equipped with red flags and must report to the Station Master accordingly. The Station Master must arrange for the return of the flags from the Pointsman's Cabin to the boxes.

(iv) Six spare red flags must be kept in the Station Master's Office for replacements.

9. *Shunting Rail Cars*

Rail cars may be pushed at any time, but the instructions in Book 2, under the heading "Rail Cars" must be strictly observed.

Movements of rail cars between platform roads Nos. 1 to 8 and Pointsman's Cabin at No. 88 Switches at south side of Adelaide Yard, and also between Platforms 5 to 13 and Pointsman's Cabin at Points No. 22 at north side of Adelaide Yard must be made at Low Speed with the units driven from the leading end.

A Traffic employee will not accompany such movements, but the Rail Motor Driver must be informed either by his roster or other instructions concerning movement to be made.

"Kicking off" Vehicles—"Kicking off" vehicles into platform lines is prohibited.

Lighting of Last Vehicle during Shunting from Platforms to Car Sheds—Between sunset and sunrise, when vehicles are being shunted between the platforms and the yards, the Shunter must ride on the end of the vehicle farthest from the engine, and this vehicle must be lighted up if so equipped. The Shunter must be in possession of a hand signal lamp, and display the necessary indications to protect the movement.

Vehicles to be Coupled at Passenger Platforms—All vehicles standing during the night at passenger platforms must be fully coupled up to facilitate their ready removal in case of fire. The Senior Officer on duty must see that this is done before going off duty.

Next morning the Senior Officer on duty must see that two or more trains, standing at the same platform are properly uncoupled.

Trains to be Charged with Air—Enginemen of shunting engines, when shunting trains to the Adelaide platform, must charge the trains with air.

Placing of Stop Signal on Vehicles Standing at Platform—The responsibility for placing a red lamp on vehicles at platforms rests upon the Shunter, who must place a lighted red lamp in a position in the rear marker bracket on the platform side of the western end of the vehicle farthest from the dead-end. In the event of a second lot of vehicles being placed on top of the first shunt, then the Shunter must, after his train has been brought to a stop, remove the red lamp from the original shunt and take same forward and place in the leading position on the last placed vehicle.

The Platform Inspector on duty will be held responsible for the display of the lighted red lamp on the platform side at the western end of the farthest vehicle from the dead-end.

Shunting Movements—

(*a*) All movements in the Adelaide Yard are governed by Signal Indication excepting that when a signal cannot be operated, Rule No. 99 will apply.

(*b*) An Engineman receiving a signal for a movement must not proceed until he understands the movement that it is intended to make.

(*c*) Having accepted a signal, an Engineman must proceed through the limit of the route set for him, and under no circumstances must he attempt to set back until he has received a fixed signal indication to do so.

Shunt Engines—

(*a*) 350 and 500 class engines only must be rostered for shunting purposes in the Adelaide Yard. These engines must work "A" end leading into Adelaide.

(*b*) Care must be exercised when coupling other classes of engines on to passenger cars or brakevans fitted with concertina and platform buffing gear.

Motor Inspection Cars—When a Motor Inspection Car is travelling through the yard, Signalmen must use care in manipulating the levers controlling the switches in the section occupied by such cars, as the electric locking is ineffective in the case of these cars, which are insulated.

Motor Inspection Cars leaving or arriving in Adelaide Yard must do so under Low Speed signal indication.

North Car Yards—

(*a*) *Speed of Trains Entering*—A speed of 15 km/h must NOT be exceeded over the hand-operated switches at the entrance to the North Car Yards, such speed being subject to the requirements of safe working.

(*b*) *Shunting In and Out Of*—A movement must not pass over the hand-operated switches controlling the entrance to the North Car Yard until a hand-signal is displayed by the Pointsman.

(*c*) *Vehicles to be Coupled In*—The Yard Master must see that vehicles standing in the North Car Sheds are coupled together, so that in case of fire the whole of the vehicles on each line may be promptly hauled to safety.

Shunters placing vehicles in the North Car Sheds must ensure that such vehicles are coupled to any other vehicles which may be standing on the same line in the shed.

Securing Vehicles—Vehicles left standing in the Car Shed sidings must be secured in accordance with the Rules. When it is necessary to use sprags or chocks, such sprags or chocks must be applied on the vehicle farthest from the passenger platform.

Each vehicle left standing on the dead-end siding beyond No. 43 Switches in the North Car Yard, must be secured against movement. The Shunter must release hand-brakes and remove sprags or chocks before movement is made.

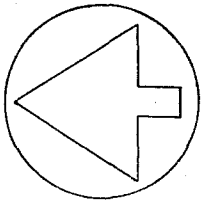
Engines Working Through Car Sheds—The movement of engines in or through car sheds must be restricted to an absolute minimum.

Notice boards to this effect have been erected at each end of the car sheds, and Yard Masters at Adelaide must see that engines only pass through the car sheds when absolutely necessary, and must not permit engines to be kept standing in the sheds.

Locking Doors of Vehicles—All doors of passenger cars standing on the car sidings must be locked.

Switch Indicators—Switch indicators, as shown on sketch below have been installed on hand-operated switches, Nos. 213, 216, 217, 241, and 242 in the above yard.

The indicators are provided with a white arrow on a black background. The direction in which the arrow points indicates the direction of the route for which the switches are set. The indicators are illuminated at night.



Switches No. 205—The following instructions apply to oil buffer spring switches No. 205:—

These switches will lie normally set for Outside No. 1 line and may be trailed through from No. 2 line when in this position. A switchstand is installed to operate the Switches when required. The key of the special lock with which the switchstand is secured must be obtained from the Signalman, Yard Cabin, whose permission must be obtained before the switches are reversed.

The switches must always be left in their normal position, *i.e.*, for the outside line, when not in use, and cannot be trailed through from that line when reversed.

Shunting Beyond Switches No. 42—No shunting operations must be conducted between the North Car sidings and the dead-end siding at the west end past disc signal No. 42 until permission to do so has been received from the Signalman Wye Cabin, and Rule 99 has been complied with.

Car Washing Plant—To avoid damage to the brushes of the car washing plant, employees in charge of movements through the plant must observe the position of the brushes of the car washing plant and see that they are clear before signalling to the Engineman to commence the pulling out movement.

Rail Cars Shunting Through Car-Washing Plant

(*a*) Motormen must have only "A" engine of 250 Class Rail Cars running when they are being driven through the plant.

(*b*) The control jumpers must be inserted between units prior to the consist entering the washing machine, when the consist is formed by four (4) or more 300 and 400 Class Rail Cars.

(*c*) A 250, 280 or 100 Class Rail Car must not form part of a consist with 300 or 400 Class Rail Cars, as the control jumpers are not compatible.

(*d*) Consists formed of 300 and 400 Class Rail Cars or 250, 280 and 100 Class Cars must be driven from the leading cab in the direction of the movement.

(*e*) Up to and including three car consists may be controlled from the ground; on four to six car consists the Shunter must ride on the leading car of the movement in a position to observe the operator of the washing plant and in a position to signal to his Rail Motor Driver.

Rollingstock Depot—A speed restriction of 8 km/h applies for all rail vehicles where speed boards are exhibited over the roadway used by Staff at the Rollingstock Depot.

Repair Road—The Switches for this line are locked with a special lock. The key is held by the Foreman, and the siding must only be used for shunting purposes, as arranged between that officer and the Yard Master.

Rail Car Depot—

Indicator Board for Rail Cars Entering Traffic from—An illuminated Indicator Board is located immediately west of No. 88 Pointsman's Cabin, for the purpose of giving indication to Rail Car Sets, and any other movements proceeding from the Rail Car Depot, south side of Adelaide Yard, into traffic.

The Indicator Board is equipped with a box containing a set of train designation signs.

When movements are proceeding from the Rail Car Depot into traffic these movements must exhibit on the front of the leading car, a train designation sign for the track upon which the unit is rostered to take up working.

The Pointsman at No. 88 Cabin, prior to displaying a hand signal to the rail car movement, to permit it to enter traffic, must place on the Indicator Board a designation sign covering the track upon which the rail car unit is rostered to work.

The rail car unit, which bears the corresponding designation sign, upon receipt of the hand signal, will then proceed into traffic.

All designation signs supplied with the Indicator Board must be kept in the box provided when not in actual use for the purpose of indicating the movement to be dispatched.

The Indicator Board must be illuminated by the electric light fitted to same during the hours of darkness, or when visibility is such as to require the use of same. This illumination must only be used for the period necessary for the safe movement of each rail car unit as dispatched.

"Wye" Signal Cabin-Closed During Certain Hours—The Adelaide "Wye" Cabin is closed during certain hours, as indicated in the Working Time Tables Book, during which time trains work between Mile End Junction and Dry Creek via the Goods Loop and crossovers between North Main and Port Main lines at Adelaide "Wye" and the signals governing these movements are automatically operated.

Before closing the Cabin the Signalman must advise the Train Controller and the Signalman at Mile End Junction and Dry Creek that the Cabin is to be closed. He must then reverse switch levers Nos. 47, 48, 49 and 51, signal levers Nos. 39 and 56; and closing lever No. 38.

The Signalman upon opening the Cabin, must communicate with the Train Controller and obtain permission to operate the interlocking. He must then place closed lever No. 38 in the normal indicating position, and operate the Time Release. While the Release is operating, the Signalman must advise the Signalman, Mile End Junction, and Dry Creek Signal Cabins, that the Cabin is operating. All levers must then be placed normal, the Time Release re-set, and the Cabin operated in the usual way.

During the time when the Cabin is closed, should an Absolute Block Signal display the "Stop" indication, with the line in advance apparently unoccupied the Engineman must communicate with the Train Controller by means of the telephone located in a box adjacent to Signal No. 39 on the Goods Loop.

Movement of Travelling Cranes between Adelaide and Mile End—When it is necessary for travelling cranes to travel between Adelaide and Mile End in either direction, the following instructions must be strictly adhered to:—

1. A qualified employee must accompany the crane to act as a Pilotman.
2. The prescribed rear marker lights must be exhibted on the crane.
3. The Signalman at each end of the Section must advise the Train Controller of the time of the crane's departure and arrival at destination.

Shunting of Vehicles between Adelaide and Mile End without a Brakevan—

(*a*) Up to equal to twelve (12) four-wheeled vehicles may be HAULED between Adelaide and Mile End without a brakevan at the rear. The rear vehicle must carry the prescribed marker lamps.

The Engineman, and Signalman Adelaide Yard, Wye Cabin and Mile End Junction Cabin must be advised the number of vehicles attached. The Signalman must check the number of vehicles as they pass and observe whether the two marker lamps are at the rear of the last vehicle. In the absence of these lamps it must be assumed that the train is not complete and action taken accordingly.

(*b*) Not more than equal to four (4) four-wheeled vehicles may be PUSHED without a brakevan from Mile End to Adelaide. Such movement must not be made at night time or during foggy or other adverse weather conditions.

During movements (*a*) or (*b*), a Shunter must accompany the train, riding on the engine or rear vehicle as convenient.

(*c*) When it is necessary to shunt more than equal to four (4) four-wheeled vehicles from Mile End to Adelaide in accordance with Clause (*b*) for attaching to passenger trains, one engine must be used to haul the vehicles, and the passenger train engine must be attached to the rear of the vehicles at Mile End. On arrival at Adelaide, the train must stop at signals Nos. 130, 133 or 136 according to the

route. The leading engine must then be detached and sent to the position where required in the yard or platform, and the trailing engine must push the vehicles on to the train standing at the platform.

A Shunter must accompany movement (*c*), riding on the leading engine until it is detached, and then at the head of the leading vehicle.

(*d*) When necessary to reverse passenger cars, such movement must be hauled to Mile End Junction via the "Down" South Suburban Main, then pushed via the "Down" Goods Loop to the "Down" North Main and hauled to the "Up" North Main and then to the Adelaide Station. This movement may be made without a brakevan, but the Shunter must ride on the vehicle farthest from the engine and be prepared to display any necessary hand signals.

(*e*) Vehicles must not be pushed via the "Up" North Main from Signal No. 56.

ADELAIDE-PORT ADELAIDE-SEMAPHORE-OUTER HARBOUR, INCLUDING PORT ADELAIDE-DRY CREEK LOOP

Bowden—

(*a*) *East Siding*—The Station Master, Mile End, must advise the Train Controller, Signalman Wye Cabin, and the Station Master, Bowden, when loading is attached to trains for this siding.

(*b*) *Crossing Gates*—When working to or from the siding at the Croydon end of the yard the gates over the level crossing must be closed against road traffic.

Kilkenny—

(*a*) Engines must not pass the switches of Crossover No. 11, leading from the private siding to the "Up" Main. Vehicles must not be shunted to or from Messrs. Shearer and Sons siding and the railway yard without the supervision of a railway employee.

The Signalman must ensure that all hand-worked switches are correctly set and locked for the goods siding before admitting a train.

(*b*) *Signal Cabin*—This cabin will be open only for train movements as directed by the Train Controller. Before closing the cabin, the Signalman must advise the Train Controller and the Signalmen at Bowden and Woodville that the cabin is being closed. He must then reverse all Main Line signal levers and the closing lever. Before opening the cabin, the Signalman must advise the Train Controller that the cabin is being opened. He must then replace the closing lever to normal, thus restoring the block telephone circuits, and advise the Signalmen at Bowden and Woodville that the cabin has been opened. He must then operate the cabin as required. When the cabin is closed and it is desired to shunt over the level crossing on the siding, the switch contained in a box adjacent to No. 15 dwarf signal on the siding must be operated. The operation of this switch will lower the level crossing gates and operate No. 15 signal. The switch must be returned to normal on the completion of the movement.

When the cabin is closed, should an Absolute Block Signal exhibit a "Stop" indication, with the block in advance apparently unoccupied, the Engineman must communicate with the Train Controller. Telephones for this purpose are located adjacent to the level crossing, and midway between Signals Nos. 1 and 5.

Woodville Park—Engineman of trains starting from Woodville Park, in both "Down" and "Up" directions, must not sound the starting whistle (0). In the absence of such code whistle all concerned must use care in seeing that no passenger is alighting from or boarding a train at the time of starting.

Woodville—

(*a*) *Woodville Road Level Crossing* (7·380 *km*)

The warning devices must be controlled manually for all train movements by the Signalman, Woodville Cabin, as follows:—

(i) The flashing lights must be started by depressing the push key adjacent No. 48 lever.

(ii) After a delay of 10 seconds, a red light is displayed indicating that lever No. 48 can be operated.

(iii) No. 48 lever must be placed in the half travel position and the vertical bars lowered to the horizontal position.

(iv) No. 48 lever must then be moved to the reverse position and respective signal lever operated for the train movement.

(v) When the train movement has cleared the crossing and the respective signal lever returned to the normal position, No. 48 lever must be again placed in the half travel position and the vertical bars raised. The flashing lights will automatically cease when all vertical bars have reached a position 60° from horizontal.

(vi) Restore No. 48 lever to the normal position.

(*b*) *Port Road Level Crossing* (8·289 *km*)

When shunting movements on the Main Line at the Albert Park end of Holden's Platform are being carried out and which do not require to pass Permissive Signal No. 509 located on the "Up" side of the Port Road Level Crossing, No. 2 lever in the Woodville Signal Cabin must be kept in the "Normal" position. This will hold No. 509 signal at "Stop" and avoid unnecessary operation of the warning devices.

No. 2 lever must be reversed for all "Down" trains requiring to pass Permissive Signal No. 509.

(*c*) *Loading Gauge for Motor Body Traffic*

A loading gauge is provided on the siding leading into Holden's Works. This loading gauge must also be used to check the loading of outward bound wagons containing motor bodies from the works and no wagon must be accepted for transit with loading fouling this gauge.

Woodville North—

(*a*) *Movement of Passenger Trains between Woodville North Station and Finsbury Stores. Instructions for Train Working*:—Before a train containing passengers is permitted to leave Woodville North station for Finsbury Stores, the line must be examined by a qualified employee who must ensure that the Main Line is clear, and all switches are correctly set for the Main Line.

Passenger trains, loaded or empty, must not enter the Woodville North-Finsbury Stores Section from Woodville North unless in possession of a Token Staff obtained from the Pilotman, Woodville North, which Token Staff must be retained by the Engineman or Rail Motor Driver while occupying the section. The Token Staff must be handed to the Pilotman, Woodville North, upon return to Woodville North. No other movement between Woodville North and Finsbury Stores must be made until the Token Staff has been returned to Woodville North. In the event of the Token Staff being lost, the Train Controller, upon the authority of the Chief Train Controller, must issue a Train Order for the train to proceed. Such Train Order must not be issued until the section ahead is known to be clear, and the Train Controller has ensured that no opposing train is likely to enter the section. Should there be an opposing train, the Train Controller must issue a Train Order to such opposing train prohibiting it from entering the section, and shall have received acknowledgment that this Train Order has been delivered before issuing the Train Order permitting the waiting train to proceed.

A qualified employee must be provided to act as Pilotman for all passenger train movements over the Woodville North-Finsbury Stores section, and will be responsible for the safe conduct of each movement.

The speed of passenger trains, both loaded and empty, must not exceed 8 km/h.

The stopping place at No. 18 shed is at the step-down platform. "Down" trains must pull ahead until the last vehicle is on the platform, and "Up" trains must stop with the engine just clear at the Woodville North end of the platform. The Pilotman of all "Up" trains must protect the level crossing south of No. 18 stop before the train proceeds.

Finsbury Stores Stop is at the step-down platform adjacent to roadway Park Avenue outside Commonwealth property.

All "Down" passenger trains working into Woodville North must be stopped at the Northern end of the platform, for the convenience of passengers.

(*b*) *Ringing of Bell*—Whenever engines or rail cars not equipped with a bell enter the Woodville North area a hand bell must be issued to the Engineman or Rail Motor Driver by the Pilotman, Woodville North, or by the Yard Master, Gillman Yard.

The bell must be rung as a warning, in addition to sounding the whistle, as a precaution for employees working in the factories. The hand bell must be returned to the depot, from where it was originally obtained, immediately an engine or rail car has passed through, or left, the Woodville North area.

(*c*) *Train Movements through Department of Supply Area*—Train movements through the Department of Supply Area, by either the northern or southern boundary gates which are situated on Grand Junction Road and Park Avenue respectively, may only be made after the Train Controller has contacted the Security Guard, Department of Supply, by telephone.

The Security Guard, who is on duty 24 hours each day, will then unlock the gates at the appointed time, and close them on completion of entry to and exit from the area.

Cheltenham Racecourse Station—This station will be opened only on days when race meetings are held at Cheltenham Racecourse.

Trains required to stop on those days, and all instructions necessary will be advised by Train Notice issued for the occasion.

Port Adelaide—

Guards Running Statements—Guards of trains working into or out of Port Adelaide Marshalling Yard, must show on their Journal which route is taken—via Cabin "C" or Cabin "D".

Port Adelaide—Cabin "A"—Port Adelaide "A" signal cabin will be closed during certain hours as prescribed in the Working Time Tables Books and, during such periods, the Main Line signals reading to and from Commercial Road will operate automatically.

Immediately prior to the closing of the cabin, the Signalman must receive permission to do so from the Train Controller and advise the Signalmen, Cabin "C", Dry Creek, Glanville, and Woodville that he is about to close the cabin. He must then reverse levers Nos. 29, 22, 21, 2, 41 and closing lever No. 39, thus setting and locking the Main Line route to and from Commercial Road and clearing the signals for such route.

To re-open the cabin, the Signalman must advise the Train Controller that he is about to cut in the cabin. He must then place closing lever No. 39 "Normal", and advise the Signalmen, Cabin "C", Dry Creek, Glanville and Woodville that the interlocking is being cut in, and then operate the cabin as required.

During the period the cabin is closed, should an Absolute colour light signal display a "Stop" indication, with the block in advance apparently unoccupied, the Engineman must communicate with the Train Controller by means of the telephone in the shelter adjacent to the signals Nos. 2 or 41.

Destination of Lines—From Cabin "A" to Marshalling Yard—the left-hand line is the "Down" line. From the Marshalling Yard to Wharf and Flat the left-hand line is the "Down" line. From the Marshalling Yard to Port Dock Yard the left-hand line is the "Up" line. Switches must be normally set for the through lines "Up" and "Down", the Shunters must ensure that they are correctly set, and the line clear for the intended movement.

Movements to and from the Marshalling Yard—All goods trains must work to and from the Marshalling Yard, unless otherwise instructed. "Down" trains must be held at Signal No. 27, Cabin "C" at the entrance to the Marshalling Yard, until the Signalman receives advice from the Yard Master or other qualified employee to admit the train to the yard.

Goods trains to and from Dry Creek and the Marshalling Yard enter and leave at Cabin "D".

Trains from Dry Creek to the Marshalling Yard, and trains pushing back past Cabin "D" must not pass the "Stop" board at Eastern Parade Level Crossing until signalled to do so by the qualified employee in charge.

Goods trains from the Marshalling Yard for Glanville or Outer Harbour must be pushed out to the loop line over switches opposite Cabin "D" and thence travel via loop line. Push buttons located in Cabin "D" must be operated in accordance with the instructions under the heading "Wingfield—North Arm Road Level Crossing (4·145 km)" in order to prevent unnecessary operation of the warning devices at this crossing. The Signalman at Cabin "A" must retain Absolute Block Signal No. 9 at "Stop" until a clear path is available for the train to proceed to Commercial Road. If "Down" Absolute Block Signal No. 9, Port Adelaide Cabin "A" cannot be cleared, trains must be advanced past such signal upon the authority of a Train Order issued by the Signalman at Port Adelaide Cabin "A" in accordance with the Rules. Train Order forms are placed in the telephone shelter near the signal for use by Enginemen or Guards.

Trains from Glanville and Outer Harbour for Marshalling Yard may be admitted on Dry Creek loop line, and then pushed back to the Marshalling Yard via Cabins "A" and "C". This movement must be made with as little delay as possible, in order to avoid blocking Russell and Canning Street Level Crossings. In each case the Guard must ride in the brakevan, keep a sharp look out, and pass any necessary signal to the Engineman.

When required to work short Goods trains from the Marshalling Yard to Glanville, Birkenhead, or Outer Harbour via west end, the train must be pushed from the Marshalling Yard past Cabins "C" and "A" to the Dry Creek loop line clear of the switches leading to "Down" Main to Commercial Road, from whence it will leave for destination. In making this movement the engine must not enter or pass over Russell Street Crossing.

Port Adelaide Marshalling Yard (Dry Creek End) Subsidiary Automatic Electric Staff Working—The switches leading from the Loop line to the Marshalling Yard and the shunting spur will be normally set for the Main Line.

Method of Working

Trains Entering Marshalling Yard from Dry Creek—

(1) The train must stop immediately in front of switches.

(2) The Fireman must place staff in Staff Drawer Lock, hang staff hoop on post, reverse switches and rejoin train.

(3) The train must draw ahead into the Marshalling Yard, and stop on receipt of hand signal from Guard, when brakevan is clear of derail.

(4) The Guard must restore switches to normal position, remove staff from Staff Drawer Lock and place in instrument; advising Dry Creek Cabin, also Port Adelaide Cabin "A" (when attended) that the move has been completed, then rejoin train after staff hoop has been obtained from the post and placed in the shelter.

(5) The train may then proceed to the "Stop" board at Eastern Parade.

Trains Departing from Marshalling Yard to Dry Creek—

(1) The train must draw ahead and stop short of derail.

(2) The Guard must then—(*a*) obtain permission to enter the Main Line from Dry Creek Cabin, and also Port Adelaide Cabin "A" (when attended); (*b*) obtain staff from instrument; (*c*) insert staff in Staff Drawer Lock and reverse the switches.

(3) The train must then move ahead and stop on receipt of hand signal from the Guard, when brakevan is clear of switches.

(4) The Guard must restore switches to the normal position, remove staff from Staff Drawer Lock and return staff to the Engineman with the assistance of the Fireman, rejoin the train and hand signal the train to proceed.

The Fireman must carry the staff to Engineman as required by the Guard.

Trains Entering Marshalling Yard from Port Adelaide Cabin "A"—

(1) The train must stop at the switches and Fireman must hang staff on post.

(2) The train must draw ahead on the Main Line and stop on receipt of hand signal from Guard, when brakevan is clear of switches.

(3) The Guard must obtain staff from post, insert in Staff Drawer Lock, reverse the switches and hand signal the train back towards the yard. The train must stop when engine is clear of derail.

(4) The Guard must then restore the switches to normal position, remove staff from Staff Drawer Lock and place it in the instrument, advising Port Adelaide "A" and Dry Creek Cabins that the move has been made.

(5) The Guard must then rejoin the train and hand signal train back to the "Stop" board at Eastern Parade.

Trains Departing From Marshalling Yard or Shunting Spur to Cabin "A" Port Adelaide—

(1) The Guard must hand signal train back towards respective switches, and stop train before reaching respective derail.

(2) The Guard must obtain permission from Port Adelaide "A" and Dry Creek Cabins to enter Main Line, obtain staff from instrument and insert it in Staff Drawer Lock, hang staff hoop on post, reverse the switches, rejoin, and hand signal train to Main Line.

(3) The train must stop when engine is clear of respective switches. The Fireman must restore switches to normal position, remove staff from Staff Drawer Lock, obtain staff hoop from post and signal the Guard that he has done so.

(4) The train must then proceed on receipt of hand signal from the Guard.

NOTE:—Train movements to and from Marshalling Yard must be recorded in the Train Register Book, located in staff instrument shelter, by the Guard.

Trains working over the through section Cabin "A"—Dry Creek or over the subsidiary sections Cabin "A"—Marshalling Yard, or Marshalling Yard-Dry Creek, in either direction must carry a staff marked for the through section Port Adelaide "A"—Dry Creek.

Eastern Parade Level Crossing (3·339 km)

Operation of Level Crossing Protection Equipment—The level crossing protection equipment will operate automatically for all Main Line movements in both directions.

For all other train movements the method of working is as follows:—

(*a*) The movement must stop at the respective "Stop" or "Stop, Proceed Under Hand Signal" board.

(*b*) After ensuring that the track is clear and any switches are correctly set and that the movement is ready to proceed, the level crossing protection equipment must be started by depressing either of the push buttons designated "206A—To Operate Crossing" or "207A—To Operate Crossing", located in small enclosures locked with an "S" type padlock and attached to the side of signalling apparatus cases.

(*c*) The movement may then proceed under the authority of a hand signal given by a qualified employee who must first ensure that the Automatic Gates are completely closed to road traffic and that the Flashing Lights are operating correctly. The movement must be made in accordance with the instructions in the preceding clauses "Trains entering Marshalling Yard from Dry Creek" and "Trains departing from Marshalling Yard to Dry Creek".

In the event of either Push Button No. 206A or 207A being operated in error the operation of the level crossing protection equipment can be cancelled by depressing either Push Button designated "206B—To Cancel Crossing" or "207B—To Cancel Crossing", which are located adjacent the abovementioned push buttons.

Eastern Parade Level Crossing on line to Freight-Bases Pty. Ltd. at Seatainers Siding.

Method of Operation—A push button labelled "To Start Crossing" is installed in a box, mounted on a stub pole, on the "Down" approach side of the level crossing. A push button labelled "To Stop Crossing" is installed adjacent the abovementioned push button.

Two push buttons, labelled the same as those above, are installed in a small enclosure attached to the side of a signalling apparatus case on the "Up" approach side of the level crossing.

After bringing the train to a stand in front of the respective "Stop, Proceed Under Hand Signal" board, the employee in charge must operate the push button labelled "To Start Crossing", wait 30 seconds and then hand signal the train over the crossing. The flashing lights will automatically cease functioning after the train has cleared the level crossing.

The push buttons labelled "To Stop Crossing" must be operated if the push button labelled "To Start Crossing" has been operated in error.

The push button enclosures will be locked with an "S" type padlock. *These enclosures must remain padlocked when not in use.*

Wingfield—

(*a*) *North Arm Road Level Crossing* (4·145 *km*)

1. "Up" Absolute Signal No. 242 is situated immediately on the Port Adelaide side of the level crossing and works in conjunction with the warning devices.

2. Warning Devices—Method of Operation:—

(*a*) *Automatic Operation*—The warning devices will operate automatically for the passage of through trains in both directions.

(*b*) *Manual Control for Shunting Movements, Etc.*—The following push buttons and switches are provided to control the operation of the warning devices when necessary for the conditions described hereunder:—

Cabin "D"—Red Push Button designated "242 Signal".
Black Push Button designated "242A".

North Arm Road Level Crossing—Red Push Button designated "242B—"Down" Shunt".

Black Push Button designated "242C—"Up" trains".

Manual switch designated "242W".

These buttons are provided in a small enclosure on the side of the apparatus case on the Dry Creek side of the crossing, and must be kept locked with an "S" type padlock, when not in use.

(i) "Down" shunt movements from Sims Metal Siding to Cabin "D"—A speed limit board displaying "speed limit 15 km/h between this board and level crossing" is located at the fouling point of the Main Line and Sims Metal Siding.

(*a*) If the movement proceeds from the Sims Metal side of the speed limit board, the warning devices will operate automatically for the "Down" shunt movement.

A speed of 15 km/h must not be exceeded between the speed board and the level crossing.

(*b*) If the shunt movement into Sims Metal Siding does not clear the track circuited portion of the Main Line switches, the warning devices must be manually started for the return "Down" shunt movement, by pressing the red push button designated "242B—"Down" Shunt", located at the level crossing.

The movement must not proceed over the level crossing until the warning devices have operated for 30 seconds.

(ii) "Up" trains to Dry Creek or Sidings *en route*—The warning devices will operate automatically, and Absolute Signal No. 242 will display a "Caution" indication, when the leading vehicle of the movement occupies the track circuit between the level crossing and the two "Down" Main facing switches fitted with Staff Drawer Locks at Cabin "D".

If an "Up" train arrives at the crossing, with Absolute Signal No. 242 in the "Stop" position, and the warning devices not operating, the push button designated "242C—"Up" trains" located at the level crossing must be depressed. The warning devices will commence to operate immediately, and Absolute Signal No. 242 will display a "Caution" indication after a delay of 20 seconds.

(iii) Goods trains departing from Marshalling Yard for Port Adelaide "A" Cabin via Staff Drawer Lock Switches at Cabin "D"—In addition to the instructions for Subsidiary Automatic Electric Staff working for this movement the following must be carried out:—

(*a*) If the length of train can be accommodated between the SDL switches and Absolute Signal No. 242, the warning devices must be prevented from operating unnecessarily and Absolute Signal No. 242 held in the "Stop" position, by pressing the red push button designated "242" located in Cabin "D", *before* operating either of the Staff Drawer Lock Switches for the movement.

(*b*) If the length of the train cannot be accommodated between the SDL switches and Absolute Signal No. 242, the above push button must *not* be operated, so that the warning devices will operate for the "Up" movement over the crossing. The warning devices will cease operating automatically when the "Down" movement for Port Adelaide clears the level crossing.

(*c*) In the event of the "242" push button being depressed in error, the black cancelling push button designated "242A" located adjacent to it must be depressed.

(iv) Goods trains arriving at Cabin "D" from Port Adelaide "A" Cabin to enter the Marshalling Yard—In addition to the instructions for Subsidiary Automatic Electric Staff working for this movement the following must be carried out:—

(*a*) If the length of the train can be accommodated between the SDL switches and Absolute Signal No. 242 the warning devices must be prevented from operating unnecessarily and Absolute Signal No. 242 held in the "Stop" position, by pressing the red push button designated "242" located in Cabin "D", before the movement occupies the track circuit between the level crossing and the battery cupboard opposite the fouling point of the Main Line and the sidings at Cabin "D".

(*b*) If the length of the train cannot be accommodated between the SDL switches and Absolute Signal No. 242, the above push button must *not* be operated so that the warning devices will operate for the movement over the crossing. The warning devices will cease operating automatically when the "Down" movement into the yard clears the level crossing.

(v) Failure of Absolute Signal No. 242—This signal must not be passed in the "Stop" position except if authorized by a Train Order issued in accordance with the Rules. Such orders must include the following instruction:—

"Reduce speed to eight kilometres per hour approaching the North Arm Road level crossing at 4·156 kilometres and carry out the instruction contained in Rule No. 108."

(vi) A manual switch at the crossing, must be used to operate the warning devices for testing or for train movements in case of emergency or failure of the control equipment.

(*b*) *Wingfield Road Level Crossing* (5·233 *km*)

The warning signals operate automatically by the passage of trains in both directions.

Shunting to Lysaght's Private Siding must be carried out by "Up" train movements. To ensure the correct operation of the crossing protection, the following shunting procedure must be carried out:—

1. Detach brakevan and any through loading on the Main Line clear of the fouling point of the Main Line and Lysaght's Siding.
2. Move ahead clear of the switchstand controlling the switches to the siding, but remain foul of the level crossing.
3. Reverse into the siding after the switches have been reversed. The level crossing protection equipment will cut out automatically when the movement clears the fouling point of the Main Line and Lysaght's Siding. The switches must remain in the reversed position while shunting is being carried out.
4. Return to the Main Line after shunting has been completed observing the 5 km/h speed limit exhibited on a board adjacent the fouling point.
5. Stop the movement foul of the level crossing while the switchstand is returned to the normal position.
6. Reverse onto the balance of the train standing on the Main Line and continue as an "Up" train movement.

Control circuits for the Flashing Light Signals have been included in the Dry Creek-Port Adelaide staff circuit, and in the event of a failure of the staff instruments, movements of trains on this section must be authorized by Train Order in accordance with Rule No. 221.

The Train Order must include the instruction:—

"Reduce speed to eight kilometres per hour approaching the Wingfield Road level crossing (5·233 kilometres) and carry out instruction contained in Rule No. 330."

The flashing light signals are equipped with side lights. Train crews must keep a close watch and report any incorrect operation.

(*c*) *Lysaght's Private Siding*—All movements to Lysaght's Private Siding, Wingfield, for the purpose of delivering loading or releasing empty vehicles must be worked with a Guard and an employee qualified to assist the Guard.

Employees in charge of the shunt movements between Lysaght's Siding and Gillman Yard must ensure that the Cormack Road Crossing (entrance to Lysaght's Private Siding), is protected in accordance with Rule 321.

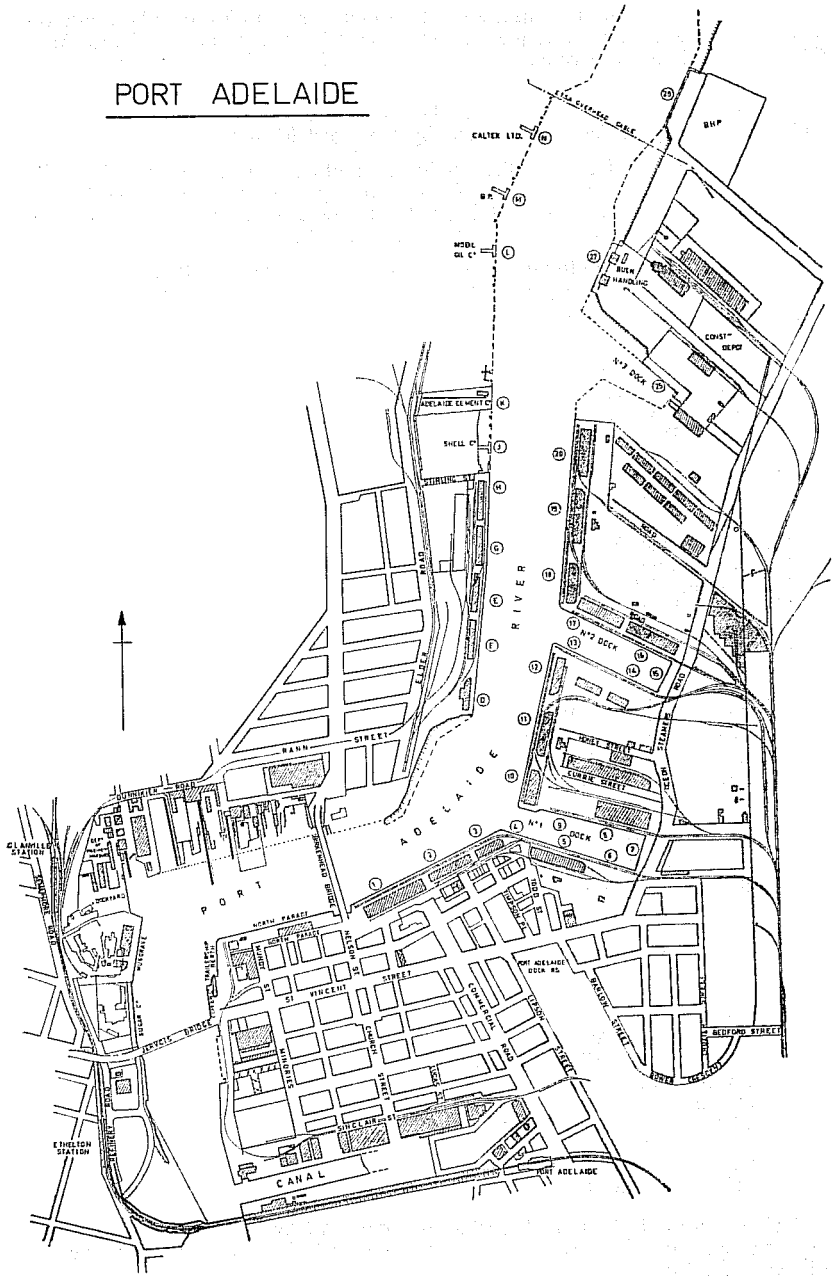
Shunting Staff must exercise caution when shunting vehicles in the proximity of Lysaght's building in order that damage to the entry doors and injury to personnel are precluded.

The shunting of Lysaght's Siding must be carried out by the Gillman Yard to Dry Creek (Loop) Goods, Mondays to Fridays as necessary.

The Guard must place the loading as required for discharge and attach empty vehicles as directed by the Yard Master, Gillman Yard.

The Guard's assistant on the Goods will take a bicycle in the brakevan to be used for transport to Gillman Yard after the shunt at Lysaght's Siding has been completed.

Lysaght's Pty. Ltd. will advise the Yard Master, Gillman Yard, each day what vehicles are to be placed at their Siding.


PORT ADELAIDE
CALTEX LTD.
BHP
MOBIL OIL Co
BULK HANDLING
CONST^N DEPOT
N° 2 DOCK
ADELAIDE CEMENT
SHELL Co
STIRLING RD
ELDER ROAD
RIVER
N° 3 DOCK
N° 1 DOCK
PORT ROAD
TIMBER STREET
STEAMER ROAD
NELSON
ADELAIDE
RANN STREET
DUNDAS ROAD
CLARIDGE STATION
PORT
NORTH PARADE
SHERBROOKE BRIDGE
NELSON ST
ST VINCENT STREET
PORT ADELAIDE DOCK RD
CONSTITUTION ROAD
OPAQUE STREET
BRAGGS STREET
BEDFORD STREET
JERVOIS BRIDGE
MINCHINS ST
CAMPBELL STREET
ST CLAIR ST
ETHELTON STATION
CANAL
PORT ADELAIDE

On occasions when it is necessary to shunt for empties or place additional loading to the Siding as requested by Lysaght's Pty. Ltd., the Yard Master, Gillman Yard, must arrange with the Metro Train Controller for a suitable train to perform the shunt.

The Guard of extra shunts must place the loading as required for discharge and attach empty vehicles as directed by the Yard Master.

During hours of darkness, the qualified employee must be provided with a suitable lamp so that the Cormack Road Crossing (entrance to Lysaght's Private Siding) is protected when complying with the requirements of Rule 321. This employee will be responsible for the return of the lamp to the Yard Master.

The Yard Master, Gillman Yard, must advise Lysaght's Pty. Ltd. on each occasion that it is necessary to perform an extra shunt at that Siding.

Schedule of Berths at Port Adelaide—

1. Queen's Wharf
2. McLaren Wharf
3. McLaren Wharf
4. No. 1 Dock (S.W.)
5. No. 1 Dock (S.)
6. No. 1 Dock (S.E.)
7. No. 1 Dock (E.)
8. No. 1 Dock (N.E.)
9. No. 1 Dock (N.W.)
10. Commercial Wharf
11. Commercial Wharf
12. Commercial Wharf
13. No. 2 Dock
14. No. 2 Dock
15. No. 2 Dock
16. No. 2 Dock
17. No. 2 Dock
18. Ocean Steamers' Wharf
19. Ocean Steamers' Wharf
20. Ocean Steamers' Wharf
25. R/O, R/O Berth
27. Bulk Handling

D. Birkenhead Wharf
E. Birkenhead Wharf
F. Birkenhead Wharf
G. Birkenhead Wharf
H. Birkenhead Wharf
J. Shell Co. Wharf
K. Adelaide Cement Co. Wharf
L. Mobil Oil Co. Wharf
M. B.P. Wharf
N. Caltex Wharf

North Parade Wharf
Princes Wharf (Trailer Ship)
Copper Co. Wharf
Corporation Wharf
Walter and Morris Wharf
Cable Co. Wharf
Sugar Co. Wharf
Musgrave Wharf

Vehicles Prohibited from Working on Port Adelaide Wharves—Six-wheeled bogie vehicles and fixed wheelbase six-wheeled vehicles must not work over the following tracks:—

(*a*) From the Wharf Access Road (the "Flat") to Port Adelaide Wharves Nos. 1-20.

(*b*) Port Dock Station to the Canal Sidings.

Engines Prohibited from Working on Port Adelaide Wharves—

(*a*) Classes 700 and 900.

(*b*) Classes 830 and 930 must not work over the following tracks:—

(i) From the Wharf Access Road (the "Flat") to Port Adelaide Wharves Nos. 1-20.

(ii) Port Dock Station to the Canal Sidings.

Shunting between Marshalling Yard and Wharf Areas—Shunting movements between the Marshalling Yard and Santo Parade, or to a point immediately east of Ocean Steamer Road must not exceed a speed of 24 km/h when the engine is hauling.

Movements to and from Wharves—Shunt engines and trains from Port Dock Yard, via Cabin "C" to any street or dock line or private siding between Cabin "C" and the "Flat" area or to the Marshalling Yard, or *vice versa,* or to or from any wharves or private sidings and the Marshalling Yard must be in charge of a qualified employee who must see that all switches are correctly set, and the line is clear for the required movement.

Admission of Movements to Port Adelaide Yard from Canal Sidings—

(*a*) A railway telephone (No. 29) connected with the Port Adelaide Railway Exchange is installed in a box locked with an "S" key on the northern end of the old Market Building west of Commercial Road to enable the Shunter to communicate with "B" Cabin.

(*b*) When "B" Cabin is open, the Shunter must obtain permission from the Signalman by means of this telephone before any movement is advanced from the Canal Siding towards the Port Adelaide Yard.

(*c*) The movement must not pass the derail indicator adjacent to "B" Cabin clear of the Main Lines until the Shunter receives a hand signal from the Signalman in that cabin.

(*d*) When "B" Cabin is closed, the Shunter is responsible for the operation of the cabin and the necessary hand signal for admission to the yard.

(*e*) In the event of any delay occurring after having received permission from "B" Cabin, the Shunter is responsible for seeing that road and pedestrian traffic is not blocked.

No. 10 Berth—A floodlight, to illuminate the tracks at the rear of No. 10 berth, is provided on the beacon structure at the rear of the shed, and must be switched on by the railway staff when required and switched off on completion of shunting operations. The switch controlling the light is accessible through a hole marked with a white circle at the bottom of the switch box.

Shunting Through Stores Yard—Enginemen must not exceed a speed of 5 km/h when working in or through the Stores Yard. The qualified employee in charge of any movement in or through the Stores Yard must see that the switches are correctly set, and that the line is clear for the intended movement. He must protect the crossing before entering Bedford Street from the Yard. Before entering the Stores Yard at the north end, the engine and vehicles must come to a stand before fouling Bedford Street. The qualified employee must then go ahead, and protect the crossing before signalling the Engineman to proceed.

Electric Lighting of Sidings Leading to Flat Area—Two switches are provided in Cabin "C" for the lighting; one switch controlling the lights for Bedford Street and Francis Street crossings, and the other shunting lights. The crossing lights

must be switched on by the Signalman half an hour before sunset and switched off half an hour after sunrise. The shunting lights must be switched on only when trains are working between Bedford Street and Flat area.

Shunting Across Lipson Street, Commercial Road, and St. Vincent Street—Vehicles must be hauled and a speed of 5 km/h must *not* be exceeded when shunting across Lipson Street and Commercial Road; except that when vehicles are to be placed at the Co-operative Dried Fruit Company's Store they must be pushed.

The Engineman and Fireman must keep a sharp lookout. A qualified employee must walk ahead of the train, engine or tractor and keep in full view of the Engineman or Fireman or Tractor Driver to give any necessary hand signal and warn road traffic. This employee must carry a hand "Stop" Warning Disc by day, red light by night, which must be displayed squarely to approaching road traffic. Care must be taken to ensure that vehicles detached from the engine are secured against movement in accordance with the Rules.

Shunting Across Ocean Road—The rail tracks leading from the "Flat" to the (rear) North side of No. 16 Cargo Shed Port Adelaide have been blocked by cantilever gates erected in the boundary fence line of Ocean Road. The two gates have been secured by both "S" locks and locks provided by the S.A. Harbors Board. Prior to any rail movement, the employee in charge must unlock the "S" lock and open the gate concerned. The gates must be kept shut and locked at all times except when shunting movements are being carried out.

Trains to Sound the Bell in Streets—A bell must be rung continuously from any engine or rail car passing through the streets, and over wharf lines and private sidings at Port Adelaide, Glanville, and Birkenhead. Hand-bells must be used on engines not fitted with bells, and Enginemen must not leave Port Adelaide Dock Station or Marshalling Yard to work in or through the streets without a bell, which must be supplied by, and subsequently returned to, the Station Master, at Port Adelaide Dock Station or Yard Master at Marshalling Yard. The Station Master and Yard Master at Port Adelaide Dock Station and Marshalling Yard respectively must arrange for the bell to be delivered to and collected from the Engineman.

Gillman Yard—Sleeper Storage and Adzing Sidings—Lines Nos. 13 to 16 inclusive, in the Marshalling Yard are provided for the use of the Chief Engineer's Branch in connection with the stacking, adzing, and boring of sleepers, but when not so required may be used for Traffic purposes.

When the Chief Engineer's Branch desires to make use of any of these lines, the Resident Engineer must advise the Superintendent, who must have such line or lines cleared of all vehicles (except the adzing machine), and the Ganger must spike the switches at each end to prevent any shunting movement to or from such line or lines. The Yard Master must see that the switches are spiked in their correct position by the Ganger.

Loads of Goods Trains from Port Adelaide to Dry Creek—The Station Master, Port Adelaide must give the loads of all Goods trains from Port Adelaide for Dry Creek to the Station Master, Dry Creek, by telephone before, or immediately after the train departs. This advice must indicate the order of vehicles from the brakevan, with mass and destination of each.

Simsmetal Private Siding at 4·222 km Port Adelaide-Dry Creek Loop Line—

Method of Working—This Siding must be shunted from Gillman Yard, and all movements to and from this Siding must be made in accordance with the Rules.

Shunts to the Siding will be push movements traversing level crossings at Eastern Parade and North Arm Road, also the roadway adjacent to Simsmetal gateway.

The Yard Master, Gillman Yard must ensure that each shunt movement is accompanied by two (2) fully qualified traffic employees in order that the level crossings can be protected in accordance with Rule 321.

Each shunt movement to the Siding must stop on the Port Adelaide side of North Arm Road level crossing, while the Staff Drawer Lock is operated and the switches leading to the Siding reversed. When the switches have been set for the Siding the movement will be hand signalled over the level crossing while it is protected *vide* Rule 321.

All shunt movements must be made in accordance with the instructions in General Working Instructions (Book 2), under the heading "shunting", sub-heading "Trains and Shunt movements through Streets, and over Wharves, Jetties, Private Sidings and Footpaths".

Particular care must be exercised when shunting within the boundary of Simsmetal, on the approach to the gateway and within the premises.

Owing to the limited standing room available in the Siding shunt movements must be limited to a maximum of six (6) bogie vehicles.

The entry gate to Simsmetal will be opened on request at any time of the day.

Port Adelaide Marshalling Yard to Woodville North—Interlocking and method of Working—

Interlocked Ground Frame—A three-lever interlocked ground frame controls the crossover and turnout switches and derail. No. 3 lever is released from "Normal" by placing the electric staff in the Staff Drawer Lock and closing the drawer. No. 3 LEVER MUST BE REVERSED BEFORE THE SWITCH LEVERS CAN BE OPERATED.

Automatic Subsidiary Electric Staff Instrument—An automatic subsidiary electric staff instrument is provided in a shelter adjacent to the ground frame. Train Control and party line telephones are also located in the staff instrument shelter.

Method of Working—

To Enter Woodville North Loop Line from Marshalling Yard—

When this movement is to be made and the train has stopped clear of the crossover, the Guard must:—

1. Obtain permission from the Train Controller to obtain an Electric Staff.
2. Place the staff in the Staff Drawer Lock, close the drawer, and reverse first No. 3 lever and then No. 2 (turnout) and No. 1 (crossover) levers.
3. Hand signal the train ahead until clear of the derail when the train must stop.
4. Restore levers Nos. 1, 2 and 3 to normal, withdraw the staff from the Staff Drawer Lock, close the drawer and place the staff in the staff instrument.
5. Advise the Train Controller that his train is in clear of the derail and that the ground frame levers have been reset in their "Normal" positions.
6. Rejoin his train and proceed.

To Enter Marshalling Yard from Woodville North Loop Line—When this move is to be made, and the train has stopped on the Woodville North side of the derail, the Guard must—

1. Obtain permission from the Train Controller.
2. Obtain an electric staff from the staff instrument, place it in the Staff Drawer Lock, close the drawer and reverse first No. 3 lever and then Nos. 2 and 1 levers.

3. Hand-signal the train into the Marshalling Yard and stop when clear of the trailing crossover switch.
4. Restore levers Nos. 1, 2 and 3 to their normal positions, withdraw the staff from the Staff Drawer Lock, close the drawer and place the staff in the staff instrument.
5. Advise the Train Controller that his train is clear in the Marshalling Yard and that the ground frame levers have been reset in their normal positions.

Shunt Movements between Marshalling Yard and Woodville North—Shunt movements from marshalling yard to Woodville North must stop at the "Stop" board located immediately north of the Grand Junction Road level crossing; and between the hours prescribed in the Working Time Tables Book for train working between Woodville and Woodville North, must not proceed towards Woodville North until permission to do so has been obtained from the Pilotman Woodville North, by means of the telephone located in the box adjacent to the "Stop" board.

Shunting over Level Crossings—When shunting over level crossings between Woodville North and Port Adelaide Marshalling Yard, vehicles must be hauled, and the Rules strictly observed. Before shunting over Grand Junction Road crossing engines with or without vehicles attached must come to a stand clear of the road. A qualified employee must then go ahead and protect the crossing before signalling the Engineman to proceed.

Ethelton—

Guards of passenger trains working through this station must treat it as unattended for the purpose of Train Working, and act accordingly. At specified times, shown in current Working Time Tables Book, the station is open for the collection of tickets, booking of passengers, parcels, etc. During the period the station is closed, tickets must be issued or collected by Guards. Guards must see that parcels, perambulators, etc., to or from Ethelton, are correctly handled.

Glanville—

Shunting—Shunting movements at the north end of this station must be made over the "Down" Main, via No. 15 crossover, except that, in emergency, a shunt may be made on the Semaphore line under Signal Indication.

Movements between Glanville and Birkenhead Area—Train and shunting movements in either direction must be made with the engine hauling. *A bell* must be ringing continuously during the movement through the street, *wharf areas and private sidings.* Before any movement is made on a single line, the employee in charge of the movement must obtain permission to dispatch his train from the Signalman, Glanville.

Telephones connected to the Signal Cabin are located at:—

(*a*) Checker's office near the north gateway of the Glanville yard.

(*b*) In the cabin on the eastern boundary of Elder Road, Birkenhead near the turnout to the Main Line in Rann Street.

(*c*) Wharf Foreman's Office.

(*d*) Phone box next to Wharf Foreman's Office.

All movements across Dunniker Road must be made at a speed not exceeding 5 km/h. Such movements must be preceded by a qualified employee displaying a "Stop" Warning Disc by day and a red light at night, which indication must show squarely to road traffic.

This qualified employee must keep in full view of the Engineman or Fireman so that any hand signal given by him can be observed.

The Engineman and Fireman must keep a sharp lookout for hand-signals from the employee preceding the movement.

Trains entering Glanville yard must do so under hand-signal, given by a qualified employee at the entrance to the yard after permission has been obtained from the Signalman.

Vehicles Prohibited from working on Birkenhead Wharves—Six-wheeled bogie vehicles and fixed wheel base six-wheeled vehicles must not work over the following tracks:—

(*a*) Elder Road Main Line to Birkenhead Wharves D to H.

Engines Prohibited from Working on Birkenhead Wharves—

(*a*) Classes 700 and 900.

(*b*) Classes 830 and 930 must not work over the Elder Road Main Line to Birkenhead Wharves D to H.

Birkenhead Area—

(*a*) *Delivery of Vehicles to Oil and other Company Premises at*—The delivery of rail vehicles at the gateway of the oil companies' works or at any other works where delivery is given by placing the vehicles outside the gateway must be effected by shunting movement with the vehicles coupled to the engine.

(*b*) *Maximum Speed*—The maximum speed of all movements in the Birkenhead area, inclusive of the wharf and extending from the corner of Rann Street and Elder Road to the Sulphuric Acid Plant, must not exceed 15 km/h.

(*c*) *Adelaide-Wallaroo Fertilizer Works*—Open goods wagons only are permitted to pass the superphosphate loading point on No. 4 Mill Siding. Empty wagons must be pushed to position for loading and pulled from the siding after being loaded. Engines and other than open goods wagons must not pass the notices erected on the left-hand side of the loading track in each direction.

Goods vehicles must not be shunted into the shed erected over the line on the dead-end spur.

(*d*) *Mobil Oil Company's Siding*—Engines may enter the Mobil Oil Company's yard from either the south or north end, but must not proceed past the "Stop" board placed at each end of the yard.

Exeter—

All train movements, including special trains, between Glanville and Semaphore (in either direction), must stop at Exeter.

"Up" trains must not leave this station until the "Up" Absolute Signal at the entrance to Glanville Yard has been cleared.

Taperoo—

Stone Siding 17·957 *km and manual control of warning devices at Gedville Road Level Crossing* (18·278 *km*).

The Main Line connection is situated at 17·957 km. and the siding connects with the "Down" Main Line in a trailing direction.

The Switches are operated by a ground lever, connecting by rodding to a derail on the siding, and are locked by an outlying Electric Switchlock.

A Train Control telephone is provided in a concrete telephone shelter adjacent to the switches.

Method of Working—

(*a*) When a train is to shunt at Stone Siding, permission for the movement must be authorized by the following Train Order issued by the Train Controller to the Signalman, Glanville, and the Engineman and the Guard of the train:—

"No..... is to shunt at Stone Siding. A following train must not be permitted to depart from Glanville until this order is fulfilled."

(*b*) The train must travel between Glanville and the siding under the signal indications, and stop with the portion of the train which is to stand on the Main Line during shunting operations immediately behind the Fouling Point of "Down" Main Line and siding.

(*c*) The Guard must *immediately* proceed to the Relay Box located adjacent the Fouling Point of the Stone Siding and the "Down" Main Line and press the Push Key mounted on the side of the Relay Box and labelled "Cancel Flashing Lights".

(*d*) The leading portion of the train must then move ahead, and stop with the rear wheels of the last vehicle immediately ahead of the insulated rail joints on the Osborne side of the Main Line Switches.

(*e*) The Guard must then operate the electric switchlock, reverse the switches, and hand-signal the Engineman to push back.

(*f*) When the siding work is completed, the leading portion of the train must move ahead until the rear wheels are clear of the Main Line Switches. The Guard must then restore the switches and electric switchlock to their normal positions, and close and lock the door of the latter.

(*g*) The Guard must then hand-signal the Engineman to push back on to the rear portion of the train for the purpose of coupling up.

(*h*) After coupling up, the Guard must advise the Train Controller that the Main Line Switches have been reset and locked for the Main Line; and that the train is ready to proceed.

(*i*) *After* having been advised by the Train Controller that the train may proceed, the Guard must move to the abovementioned Relay Box, press the Push Key labelled "Start Flashing Lights", rejoin the train and hand-signal the Engineman to proceed.

(*j*) The Train must then proceed under signal indications.

(*k*) The Train Controller must advise the Signalman, Glanville, of the fulfilment of the Train Order, and that the shunt movement has been completed.

Osborne—

(*a*) The Signalman upon opening the cabin must advise the Train Controller and the Station Master at Glanville and Outer Harbour when the interlocking apparatus is to be operated, and he must then place No. 7 closing lever "Normal."

Before closing the cabin, the Signalman must advise the Train Controller and the Station Master at Glanville and Outer Harbour that the cabin is being closed. He must then reverse signal levers Nos. 1 and 2 and then also reverse closing lever No. 7.

When Osborne signal cabin is closed, should Absolute Block Signals Nos. 1 or 12 display the "STOP" indication with the block in advance apparently unoccupied, the Engineman must immediately communicate with the Train Controller, using the telephone adjacent to signal No. 1 and obtain permission to proceed.

(*b*) *Shunting at I.C.I. Siding*—When pushing vehicles in the I.C.I. Works at Osborne, only sufficient vehicles must be attached to the engine to enable the movement to be made at a maximum speed of 5 km/h at any point within the works. The provisions herein, under the heading "Shunting Movements through Streets and over Wharves, Jetties, Private Sidings, and Footpaths" must be complied with.

(*c*) Working of movements between Osborne Junction and I.C.I. Works:—

(1) *Notice Boards*—The "Stop, Proceed Under Hand Signal" Board is installed adjacent to the "Down" Goods Main Line at the fouling of this line and the dead-end siding.

The "Stop" Board is installed between the "Up" and "Down" Goods Main Lines opposite the "Stop, Proceed Under Hand Signal" Board and "Up" train movements must not pass this point on the "Down" Goods Main Line.

(2) *Osborne Cabin* must be open and a Signalman in attendance when trains are to be worked between Osborne Junction and the Notice Boards.

(3) Trains will travel between Osborne Junction and the I.C.I. Works Platform as follows:—

"Down" Through Trains—Under signal indication from "Down" Outer Harbour Line via Junction Switches No. 4 to the above-mentioned Notice Boards then under the direction of the Guard.

"Up" Through Trains—Over the "Down" Goods Line until they arrive at the crossover situated adjacent to the E.T.S.A. Platform where they will cross over to the "Up" Goods Line (all these movements under the direction of the Guard). Thence via the "Up" Goods Line and enter the Main Line at Osborne Junction under Low Speed Signal No. 12 (*d*).

"Up" Trains from Outer Harbour—Will set back under signal indication via Nos. 5 and 8 Switches, reverse to the "Down" Goods Line, thence along the "Down" Goods Line to the Notice Boards, thence under the direction of the Guard.

"Up" Trains to Outer Harbour—Over the "Down" Goods Line until they arrive at the crossover situated adjacent to the E.T.S.A. Platform where they will cross over to the "Up" Goods Line (all these movements under the direction of the Guard). Thence via the "Up" Goods Line and enter the Main Line at Osborne Junction under the Low Speed Signal No. 12 (*d*). Stop on the "Up" Outer Harbour Main Line immediately in front of Low Speed Signal No. 2 when the Main Crossover Switches No. 3 must be reversed and No. 2 Low Speed Signal cleared for the train to proceed via the "Down" Outer Harbour Main Line.

(4) Osborne Yard Telephone—The telephone and cubicle is located 90 m south of the Mercer Street Level Crossing. This position is 30 m south of the cut-in on the "Down" Main for the Flashing Lights at Outer Harbour Road.

(5) The Guard must ride on the leading platform or step of the leading vehicle when trains are being pushed, and display continuously a hand signal to the Engineman. All level crossings *en route* must be protected as prescribed in Rules Nos. 320 and 321.

(6) When there are two passenger trains from I.C.I. Platform, such additional train must be moved ahead clear of the I.C.I. Gates and with the last vehicle or engine, as the case may be, clear of the white post located 90 m south from the I.C.I. Platform on Engineman's left hand. After the dispatch of the first train from the I.C.I. Platform, the second and any following train must move ahead to the platform from where it will be dispatched at an interval of not less than three minutes.

(7) The stopping point of passenger trains are:—

(*a*) On the "Down" Goods Main—

(i) Gas Company Platform.

(ii) Electricity Trust Platform.

(iii) I.C.I. Platform.

(*b*) On the "Up" Goods Main—

(i) Gas Company step-down platform.

(8) All movements must be made at Low Speed.

Outer Harbour—

1. *Method of Train Working to Wharf Area and Operation of Power Operated Derail and Devices at the Level Crossing at* 21·808 *km.*

(*a*) Train movements proceeding to the Wharf Area must observe the following instructions:—

(i) The train must come to a stand on the "Up" Main Line in front of the switches leading to the Wharf Area Sidings.

(ii) The employee in charge of the train must speak to the employee in charge of the Outer Harbour Station by means of the local circuit telephone located in a telephone cubicle adjacent the switches.

(iii) The Outlying Switchlock, locking the switches, must then be operated in accordance with the instructions in the Signalling and Communications section of the General Appendix and the switches set in the reverse position.

(iv) The electric switch machine controlling the derail mentioned above, will operate automatically and remove the derail from the track.

(v) No. 1408 Push Key, which is installed in a small enclosure attached to the side of a signalling apparatus case located adjacent No. 10 signal, must now be pressed. This action will set the Flashing Light Signals on the Outer Harbour Road Level Crossing in operation immediately and, after a time delay of 20 seconds, clear No. 10 signal.

(vi) The train must proceed towards the Wharf Area and come to a stand immediately on the Wharf side of No. 9 signal.

(vii) The employee in charge of the Outer Harbour Station must be advised that the train is clear of the Main Line, and the switches have been returned to the "Normal" position.

(*b*) Train movements proceeding from the Wharf Area to the Main Line must observe the following instructions:—

(i) The train must come to a stand in front of No. 9 signal.

(ii) The employee in charge of the train must speak to the employee in charge of the Outer Harbour Station by means of the local circuit telephone located adjacent No. 10 signal, and obtain a release for the Outlying Switchlock attached to the switches.

(iii) The Outlying Switchlock must then be operated by the employee in charge of the train movement in accordance with the instructions in the Signalling and Communications Section of the General Appendix and the switches set in the reverse position.

(iv) The electric switch machine controlling the derail will operate automatically and remove the derail from the track.

(v) Upon receiving confirmation from the employee in charge of the train by telephone that the switches are set in reverse position, the employee in charge of the Outer Harbour Station must place the Table Interlocker in the "R" position.

(vi) No. 1408 Push Key, which is installed in a small enclosure attached to the side of a signalling apparatus case located adjacent No. 10 signal, must now be pressed. This action will set the Flashing Light Signal on the Outer Harbour Road Level Crossing in operation, and after a time delay of 20 seconds, clear No. 9 signal.

(vii) The train must now proceed to the Main Line and stop when the rear of the train is clear of the switches leading to the Wharf Sidings.

(viii) The employee in charge of the train must return and lock the switches in the "Normal" position immediately the train has moved clear of the switches.

(ix) The employee in charge of the Outer Harbour Station must be advised that the train is standing on the Main Line and the switches have been returned to the "Normal" position.

A push key labelled "cancel" is located adjacent the above-mentioned push key No. 1408. This push key must be operated in the event of No. 1408 push key being operated in error.

(*c*) Train movements proceeding to the Outer Harbour Station from No. 10 signal must obey the following instructions:—

(i) The employee in charge of the train must advise the employee in charge of the Outer Harbour Station by means of the local circuit telephone located adjacent No. 10 signal, that the switches are set and locked in the "Normal" position and that the train is ready to proceed.

(ii) The employee in charge of the Outer Harbour Station must then operate the Table Interlocker to clear No. 10 signal. The clearing of No. 9 signal, No. 10 signal for reverse movements on the "Up" Main Line and the release of No. 1403 Electric Switchlock are controlled from the Station Office by means of a Table Interlocker.

2. *Sea-Front Wharf*—700 and 900 class engines are NOT permitted on the Sea-Front Wharf, and are restricted to Main Line working at Outer Harbour.

3. *Restriction on Movement of Rail Vehicles at rear of Wharf Sheds*—Nos. 1 and 4 Sheds—Structural clearances are restricted and train crews must exercise caution moving under the canopies.

Notices are attached to the canopies at the northern end of No. 1 Shed and the southern end of No. 4 Shed.

4. *Special Boat Passenger Trains to be Routed to Wharf Area*—

(*a*) Special boat trains working to Outer Harbour account mail boats will, on arrival at the passenger platform, be moved to the wharf area under the direction of a Pilotman assisted by the Guard, and positioned as close as possible to the ship's gangway for entraining of passengers.

(*b*) The Pilotman (qualified employee) will join the train at the Outer Harbour platform and movements to and from the wharf area will be made via outlying switches (No. 1403) north of the station.

(*c*) When the movement to the wharf area is clear of the derail attached to No. 1403 switches the Guard must reset and lock the switches for the Main Line and lock the Outlying Switchlock.

(*d*) The Station Master, Outer Harbour, may detain these "Up" trains, if necessary, for passengers. In such case he must confer with the Train Controller, who will prescribe the departure time. The Train Controller will advise intermediate stations, Outer Harbour to Adelaide, the Station Master, Adelaide, and the Rail Car Foreman, Adelaide, of the altered running.

(*e*) Five minutes prior to dispatch of the loaded train the Guard must obtain permission of the Station Master to proceed to the Main Line switches and operate same for the departure of the train from the wharf area to the Main Line.

(*f*) The movement of the train to the Main Line will be governed by indication displayed on the Absolute Signal adjacent switches No. 1403.

(*g*) On arrival of the train on the Main Line clear of the switches it must be stopped, and the Pilotman will alight. On the Guard joining, the train will proceed in accordance with schedule and signal indication.

(*h*) On departure of the train the Pilotman must reset and lock the switches for the Main Line and report time of dispatch to the Station Master.

(*i*) A speed of 15 km/h must not be exceeded between the Main Line and the wharf area.

5. *Sounding Bell*—A bell must be rung continuously during a train or shunting movement while passing through the streets and over wharf lines and private sidings at Outer Harbour. Hand bells must be used on engines and rail cars not fitted with bells. The hand bell must be supplied by and returned to the Station Master. The foregoing does not apply to tractor shunting.

6. *Shunting at Pipe Works Siding*—All shunting to and from the Pipe Works siding must be performed by "Up" trains, which, on the authority of the Station Master, must stop clear of the fouling point between the siding and the Main Line, and perform any necessary shunting movement or attaching and detaching of vehicles. The Guard must ensure that the rear portion of the train is secured before detaching the engine for shunting purposes.

Engines must NOT proceed beyond the entrance gateway at this siding.

WOODVILLE—GRANGE LINE

Albert Park-Grange—

(*a*) Engine hauled trains must NOT work between Albert Park and Grange except by special authority.

(*b*) Not more than four (4) D.P.M.'s are permitted to work into the Grange platform.

(*c*) *Token Staff Working*—Under the Token Staff working, only one train will be permitted on the section at any time. The train must not depart from Albert Park for Grange until permission to do so has been obtained from the Station Master, Albert Park, and the Rail Motor Driver is in possession of the special Token Staff. This Token Staff is branded "Albert Park-Grange" and must be kept in the Albert Park Signal Cabin when not in use.

In the event of the Token Staff being lost, the Train Controller under the authority of the Chief Train Controller, must issue a Train Order for the train to proceed. Such order must not be issued until the section is known to be clear and the Train Controller has ensured that no opposing train is likely to enter the section.

During the time the Token Staff is lost, the Signalman, Albert Park, must keep "Out of Order" clips on the "Down" Absolute Signal levers Nos. 14 and 16, except when it is necessary to admit a train to the Albert Park-Grange section under a Train Order. In this case the clips must be again placed on the levers when the train has departed for Grange.

Grange—

An additional telephone is provided at Grange for the use of train crews. This telephone is located in the room adjacent to the waiting shed. When not in use the room must be kept locked with the "S" lock provided.

DRY CREEK—POORAKA

Outlying Switchlocks—

Outlying electric switchlocks are located as follows:—

(*a*) Dry Creek—Livestock Siding, Pooraka Main Line switches;

(*b*) Pooraka—Ground frame controlling crossovers leading to freezing siding and marshalling yard sidings.

Method of working into and from sidings.

To Enter the Livestock Siding, Dry Creek—

1. (*a*) If Signal No. 28 is in the "Clear" position, the train must be brought to a stand on the Main Line immediately on the Cavan side of the switches leading to the livestock siding, request permission from the Signalman to enter the siding, open the door of electric switchlock and rotate handle of lock to the left.

Reverse switchstand controlling switches and derail. The train must then move into the siding under hand signal from the employee in charge of the movement, and stop when in the siding clear of the derail.

(*b*) If the train is held at Signal No. 28 in the "Stop" position, request permission from the Signalman to enter the siding, open door of electric switchlock and rotate lock handle to the left.

Reverse switchstand controlling switches and derail, request the Signalman to clear Signal No. 28. The train must then move into the siding under Low Speed signal indication and stop in the siding clear of the derail.

2. Restore switchstand to its "Normal" position.

3. Restore handle of electric switchlock to its "Normal" position and close and lock the door.

4. Advise the Signalman that the movement has been made.

To Depart from the Livestock Siding, Dry Creek—

1. Obtain permission from the Train Controller to enter the Pooraka Main line and advise Signalman.

2. With train stopped immediately on the Dry Creek side of the derail, open door of electric switchlock, rotate handle of lock to left.

3. Reverse Switchstand controlling switches and derail. The train must then move on to the Pooraka Main Line under a hand signal from the employee in charge of the movement and stop when the rear vehicle is clear of and immediately on the Cavan side of the switches.

4. Restore switchstand to its "Normal" position.

5. Restore handle of electric switchlock to its "Normal" position and close and lock the door.

6. Advise the Train Controller and Signalman that the movement has been made.

NOTE—Movements between the livestock siding and the A.R.C. siding cannot be made in either direction.

To Enter the Marshalling Sidings, Pooraka, from the Pooraka Main Line—

1. Obtain permission from the Train Controller to enter the sidings from the Pooraka Main Line.

2. With train stopped on the Main Line on the Cavan side of the insulated rail joints immediately on the Cavan side of the switches, open door of electric

switchlock at the adjacent ground frame and while selector bell in the shelter is ringing, rotate handle of lock to the left.

3. Place ground frame lever No. 2 controlling the facing point locks, "Normal".

4. Reverse ground frame lever No. 1 controlling the crossover leading to the Marshalling Yard sidings. The train must then move into the sidings, under a hand signal from the employee in charge of the movement and stop when clear of the trailing crossover switches.

5. Restore ground frame lever No. 1 to its "Normal" position.

6. Restore ground frame lever No. 2 to the "Reverse" position.

7. Restore handle of electric switchlock to its "Normal" position and close and lock the door.

8. Advise the Train Controller that the movement has been made.

To Enter the Marshalling Yard Sidings, Pooraka, from Freezing Siding—

1. Obtain permission from the Train Controller to enter the Marshalling Yard Siding via crossovers from Freezing Siding and to Marshalling Yard Sidings, via Main Line.

2. With train stopped on the Cavan side of "Down" crossover switches on Freezing Siding, open door of electric switchlock, and while selector bell in the adjacent shelter is ringing, rotate handle to the left.

3. Place ground frame levers Nos. 2 and 4 "Normal".

4. Reverse ground frame levers Nos. 1 and 3, controlling the crossover switches. The train must then move from the Freezing Siding over the Main Line into the Marshalling Yard Sidings, and stop when clear of the trailing crossover switches.

5. Restore ground frame levers Nos. 1 and 3 to their "Normal" positions.

6. Restore ground frame levers Nos. 2 and 4 to their "Reverse" positions.

7. Restore handle of electric switchlock to its "Normal" position and close and lock the door.

8. Advise the Train Controller that the movement has been made and that No. 2 Absolute Signal at Cavan is at "Caution".

To Depart from the Marshalling Yard Sidings to Pooraka Main Line—

1. Obtain permission from the Train Controller to enter the Pooraka Main Line.

2. With train stopped on the Pooraka side of the "Up" crossover facing switches leading from Marshalling Yard Sidings, open door of the electric switchlock, and while selector bell in the shelter is ringing, rotate handle of lock to the left.

3. Place ground frame lever No. 2 controlling the facing point locks "Normal".

4. Reverse ground frame lever No. 1 controlling the crossover from the Marshalling Yard Sidings. The train must then move on to the Pooraka Main Line under a hand signal from the employee in charge of the movement and stop when clear of the trailing crossover switches.

5. Restore ground frame lever No. 1 to its "Normal" position.

6. Restore ground frame lever No. 2 to its "Reverse" position.

7. Restore handle of electric switchlock to its "Normal" position and close and lock the door.

8. Advise the Train Controller that the movement on to the Pooraka Main Line has been made.

To Depart from the Marshalling Yard Sidings, Pooraka, to the Freezing Siding via Crossovers—

1. Obtain permission from the Train Controller to move from the Marshalling Yard Sidings over the Pooraka Main Line and into the Freezing Siding.

2. With train stopped on the Pooraka side of the "Up" crossover switches leading from the Marshalling Yard Sidings, open door of electric switchlock, and while selector bell in the shelter is ringing, rotate handle of lock to the left.

3. Place ground frame levers Nos. 2 and 4 "Normal".

4. Reverse ground frame levers Nos. 1 and 3 controlling the crossover switches. The train must then move from the Marshalling Yard Sidings over the Pooraka Main Line and into the Freezing Siding under a hand signal from the employee in charge of the movement, and stop when clear of the trailing crossover switches.

5. Restore ground frame levers Nos. 1 and 3 to their "Normal" positions.

6. Restore ground frame levers Nos. 2 and 4 to their "Reverse" positions.

7. Restore handle of electric switchlock to its "Normal" position, and close the door.

8. Advise the Train Controller that the movement has been made and that No. 2 Absolute Signal at Cavan is at "Caution".

To Enter the Freezing Siding from the Pooraka Main Line—

1. Obtain permission from the Train Controller to enter the Freezing Siding.

2. With train stopped on the Main Line on the Pooraka side of the insulated rail joints immediately on the Pooraka side of the switches, open door of electric switchlock, and while selector bell in the shelter is ringing, rotate handle of lock to the left.

3. Place ground frame levers Nos. 2 and 4 "Normal".

4. Reverse ground frame lever No. 3 controlling the crossover switches. The train must then move into the siding under a hand signal from the employee in charge of the movement and stop when in the siding clear of the trailing crossover switches.

5. Restore ground frame lever No. 3 to its "Normal" position.

6. Restore ground frame levers Nos. 2 and 4 to their "Reverse" positions.

7. Restore handle of electric switchlock to its normal position, and close and lock the door.

8. Advise the Train Controller that the movement has been made and that No. 2 Absolute Signal at Cavan is at "Caution".

To Depart from the Freezing Siding to the Pooraka Main Line—

1. Obtain permission from the Train Controller to enter the Pooraka Main Line.

2. With train stopped on the Cavan side of the "Down" crossover switches on Freezing Siding, open door of electric switchlock, and while selector bell in the adjacent shelter is ringing, rotate handle of the lock to the left.

3. Place ground frame levers Nos. 2 and 4 "Normal".

4. Reverse ground frame lever No. 3 controlling the crossover switches. The train must then move on to the Pooraka Main Line under a hand signal from the employee in charge of the movement and stop when clear of the trailing crossover switches.

5. Restore ground frame lever No. 3 to its "Normal" position.

6. Restore ground frame levers Nos. 2 and 4 to their "Reverse" positions.

7. Restore handle of electric switchlock to its "Normal" position and close and lock the door.

8. Advise the Train Controller that the movement has been made and that No. 2 Absolute Signal at Cavan is at "Caution".

Failure of Apparatus—

Should the handle of the electric switchlock fail to clear while the selector bell is ringing, the employee in charge must, under direction of the Train Controller, operate the emergency time release located in the adjacent telephone shelter. In the event of communication with the Train Controller failing, permission to operate the time release must be obtained from the Signalman, Dry Creek.

If operated, the time release must be re-set upon completion of the movement over the switches.

Interlocked Ground Frame—

No. 2 lever (facing point locks) and No. 4 (Absolute Signal No. 2 at Cavan) in the above ground frame must normally be left "Reversed". No. 2 lever is released by the outlying electric switchlock, and this lever must be placed "Normal" before operating the crossover switch levers Nos. 1 or 3. No. 4 lever must be placed "Normal" before No. 3 lever can be reversed.

Cavan—

Method of working into and from Lamb Export and Southern Yard sidings, and operation of warning devices at Port Wakefield Road Level Crossing.

Cavan Control Panel—A miniature illuminated diagram and control panel is provided in a signal cabin on the Pooraka side of the Port Wakefield Road Level Crossing, for the control of switches and signals for movements into and from the Lamb Export and Southern Yard sidings, at Cavan.

The station building is normally unattended, and must be kept locked with an "S" type padlock.

Warning Devices at Port Wakefield Road Level Crossing (12·056 *km*)—The warning devices at the Port Wakefield Road Level Crossing will operate automatically for all Main Line and shunting movements made under signal indication.

Automatic Operation of No. 1 and No. 2 Absolute Signals

When the Cavan station building is unattended, the miniature levers on the control panel must be kept in the following positions, to provide for automatic operation for through train movements on the Pooraka Main Line:—

Nos. 1, 2 and 3 signal levers	Normal
Nos. 6 and 7 switch levers	Normal
Control Lever	Automatic

Operation of Control Panel for Shunting Movements

When it is desired to carry out a shunting movement at Cavan, the Control Panel must be opened for "local" control in accordance with the following instructions:—

1. Ensure that any "Up" movement from Pooraka on the Pooraka Main Line has completed its movement over the Port Wakefield Road Level Crossing.
2. Advise the Train Controller particulars of the shunting movement required and obtain permission to operate the Control Panel and make the movement.

3. Place the "control" lever on the control panel in the "local" position, to illuminate the track switch and signal indication lamps on the diagram.
4. Ensure that Nos. 1, 2 and 3 signal levers and Nos. 6 and 7 switch levers are in the "Normal" position and that the indications displayed correspond.
5. Request the Train Controller to operate No. 741 selector key. When the Train Control selector bell rings, a white light in the centre of the "Control" lever will be illuminated, and indicates that the cabin is in "Local" control.

   NOTE:—If a fault prevents operation of the Train Control selector, the release for "Local" control will be effected automatically after a delay of two (2) minutes.
6. Operate the switch and signal levers on the control panel for the movement required, in accordance with the manipulation chart and operating instructions displayed in the station building.

When shunting has been completed, the panel must be restored for "Automatic" control of the signals restored, in accordance with the following instructions:—

1. Ensure that the shunting movement is clear of No. 1, No. 2 or No. 3A or 3B signals.
2. Advise the Train Controller that the shunting is complete and obtain permission to restore the panel for normal working.
3. Place all signal levers in the "Normal" position.
4. Place all switch levers in the "Normal" position, and check the indications on the diagram that the power operated switches are in correspondence.
5. Place "Control" lever in the "Automatic" position.
6. If no movement is standing on the Pooraka Main Line, ensure that No. 1 and No. 2 Absolute Signals are at "Caution" and advise the Train Controller.

Power Operated Switch Machines

In the event of failure of a power operated switch machine it must be manually operated in accordance with the instructions in Book 3 (Signalling and Communications) of the General Appendix.

To Enter the Lamb Export and Southern Yards Sidings, Cavan from Dry Creek

1. Before the movement departs from Dry Creek, the Signalman Dry Creek Cabin must depress the push button labelled "739A—Cavan Signal No. 1 to Stop" located on the cabin shelf adjacent to No. 29 lever. This will hold No. 1 Absolute Signal, Cavan, in the "Stop" position and prevent the Port Wakefield Road warning devices from operating, until the signal is again operated, for the movement to enter the sidings.

In the event of the push button being operated in error, a push button designated "739B—Cavan Signal No. 1 to clear" must be depressed.

2. The movement must be brought to a "Stop" at No. 1 Absolute Signal at Cavan, and the Control Panel operated in accordance with the above instructions.

3. The movement into the sidings must be made under signal indications and when complete the Control Panel restored to "Normal" working in accordance with the above instructions.

To Enter the Lamb Export and Southern Yards Sidings, Cavan from Pooraka

1. The "Up" movement from Pooraka on the Pooraka Main Line must pass over the Port Wakefield Road level crossing, be brought to a "Stop" on the Dry Creek side of No. 1 Absolute Signal at Cavan, and approval obtained to operate the Control Panel in accordance with the above instructions.

2. The movement into the sidings must be made under signal indication, and when in clear or shunting is completed the Control Panel restored to "Normal" working in accordance with the above instructions.

To Depart From the Lamb Export and Southern Yards Sidings, Cavan, for Dry Creek

1. Approval to operate the Control Panel must be obtained in accordance with the above instructions.

2. The "Up" movement must be made under signal indication and when it is clear of the "Up" side of Absolute Signal No. 1, the Control Panel must be restored for "Normal" working in accordance with the above instructions.

To Depart from the Lamb Export and Southern Yards Sidings, Cavan, for Pooraka

1. Approval to operate the Control Panel must be obtained in accordance with the above instructions.

2. The movement must be made under signal indication from the Sidings to the Pooraka Main Line, clear of the "Up" side of No. 1 signal and then from No. 1 signal to Pooraka via the Pooraka Main Line.

3. When the movement from No. 1 signal to Pooraka has cleared the Port Wakefield Road level crossing, the Control Panel may be restored for normal working.

Dry Creek-A.R.C. Siding—

(*a*) *The "Down" Facing Switches* (*No.* 15) leading from the Main Line to the A.R.C. Siding are motor operated and controlled from the Signal Cabin.

In the event of the failure of the motor operated switches, they can be operated manally under the authority of the Train Controller after it has been ascertained from the Signalman that the switches have failed.

Instructions for the manual operation of the switches are exhibited in the telephone shelter adjacent to the switches.

(*b*) *Derail*—A derail is located opposite the fouling point and is rod connected to No. 15 switches. This derail must be kept normally "on the track" and padlocked, except when required to be reversed for a train movement.

(*c*) *Churchill Road Level Crossing* (11·453 *km*)

Protection of Level Crossing—The crossing protection is controlled by a manual switch located in a box locked with an "S" padlock and mounted on the side of the relay box adjacent to the level crossing.

Train movements in both directions over the level crossing on the A.R.C. Siding must come to a stand clear of the crossing and await a hand signal which must not be given by the employee in charge of the movement until the hand operated derail has been moved from the track, the manual switch has been reversed and the flashing lights operated for at least 30 seconds. The manual switch must be restored to its "Normal" position and the derail replaced on the track and padlocked as soon as the train movement is clear of the level crossing.

Pooraka—

(*a*) *Export Siding—Gates in the boundary fence of the Metropolitan and Export Abattoirs Board's property* are erected over the export siding at Pooraka.

The gates are closed and locked across the Siding as under:—

From 5.00 p.m. Mondays to Thursdays inclusive, until 7.00 a.m. Tuesdays to Fridays inclusive.

From 5.00 p.m. Fridays until 7.00 a.m. Mondays.

A Key to the gate lock is held by the Station Master, Pooraka, who is responsible for its safe custody. The Station Master must obtain the signature from the employee to whom this key is issued and, after the shunting movement has been completed, the key must be returned to the Station Master, who will record the time and date of return.

To gain access to the works area for shunting movements during the hours in which the gates are closed the following procedure must be adopted:—

From Pooraka—The employee in charge of the shunt movement must first obtain the key of the gates from the Station Master, giving a signature therefor in the book provided. The movement must be brought to a standstill with the leading vehicle clear of the gateway on the Cavan side. The employee in charge of the movement must then unlock, open, and secure the gates, hand signal the movement through, bring it to a standstill immediately it has passed into the works area clear of the gateway, close and lock the gate.

On completion of shunting in the works area the movement out of this area must be made in similar manner.

Immediately on return to Pooraka the employee in charge of the movement must return the gate key to the Station Master and see that the time and date of return is entered in the book.

From Dry Creek—The Signalman, Dry Creek, must, at least 30 minutes prior to the time entry to the works area is required for a shunt movement from Dry Creek, contact the Watchman by telephone and advise the attendant the time which the gates are required to be opened for the movement.

The attendant will then arrange for the Watchman to be in attendance at the gates, who will open and close them for the passage of the movement into and out of the works area. The working into and from the sidings must be in accordance with the instructions herein.

(*b*) *Washout Sidings*—Vehicles may be hauled or pushed when being shunted from Pooraka to Washout Sidings.

A switchstand is installed operating the catchpoints at the western end of the Washout Sidings.

The catchpoint must be kept normally set and locked in the open (derailing) position.

Northfield—

A catch switch fitted with an oil buffer switch, operated by a switchstand without a night indication for "Down" trains, and locked by a special lock, is installed immediately on the Pooraka side of the station yard. The key of the special lock is kept by the Station Master, Pooraka, and no train must leave Pooraka or Northfield until the Guard is in possession of the key.

When not in use, the catch switch must be set and locked in its "Normal" position, *i.e.*, open. "Down" trains may be run through the catch switch in a trailing direction, *i.e.*, towards Northfield. Should a train be stopped when trailing through the catch switch, the switchstand must be reversed, *i.e.*, switches closed, before the train moves again. After the train has cleared the catch switch, the switchstand must be returned to its "Normal" position, and locked. A speed restriction sign, limiting the speed of "Down" trains to 15 km/h through the catch switch, is located 20 m on the Pooraka side of the catch switch. Before an "Up" train departs from Northfield, the Guard must set and lock the catch switch for the Main Line. When the train has passed over the catch switch the Guard must set and lock it in the open position, rejoin his train, and hand the key to the Station Master, Pooraka, upon arrival at that station.

A special Token Staff for the line between Pooraka and Northfield is kept by the Station Master at Pooraka, and no train must leave Pooraka for Northfield

until the Engineman is in possession of this Token Staff, which must be delivered to the Station Master on return of the train to that station. The Station Master at Pooraka will be equally responsible with the Guard and Engineman that he obtains the key from the Guard and the special Token Staff from the Engineman.

In the event of the special Token Staff being lost, the Train Controller, upon the authority of the Chief Train Controller, must issue a Train Order for the train to proceed. Such Train Order must not be issued until the section ahead is known to be clear, and the Train Controller has ensured that no opposing train is likely to enter the section.

ADELAIDE—PETERBOROUGH LINE

North Adelaide—

Station Road Level Crossing (2·430 *km*).

When the cabin is closed and it is desired to shunt over the level crossing at 2·430 km on the dead end siding, the switch in the box located on the Adelaide side of the level crossing, adjacent to the dead end siding, must be operated to the "R" position. The operation of this switch will lower the gates and operate No. 6 signal. The switch must be placed in the "R" position and the gates closed to road traffic before a hand signal is given for a movement past the "Stop, Proceed Under Hand Signal" board on the dead end siding. The switch must be returned to the "Normal" position marked "N" on completion of each movement.

The switch box must be kept locked with an "S" Lock except when in use for shunting movements.

Torrens Road Level Crossing (3·562 *km*)—*Shunting Limit Board.*

To prevent the warning equipment at the above level crossing at Ovingham operating during shunt movements to the "Down" Main Line at North Adelaide, the Signalman at North Adelaide must press push key marked "Shunt" immediately after reversing signal lever 12 or switch lever 10. Push key marked "Cancel" must be pressed to cancel the effect of the operation of the "Shunt" push key if this push key has been operated in error.

Islington—

Closing of Station—Islington station and Signal Cabin will be closed during the hours shown in the current Working Timetables Book. Before closing the cabin, the Signalman must advise the Train Controller and the Signalman at Wye Cabin and Dry Creek that the cabin is being closed. He must then reverse all Main Line Signal levers and closing lever. The Signalman, upon commencing duty, must advise the Train Controller and the Signalman at Wye Cabin and Dry Creek that the cabin is being opened. He must then restore the closing lever and operate the cabin levers.

When Islington Station is closed, should an Absolute Block Signal exhibit a "stop" indication, with the block in advance apparently unoccupied, the Engineman must communicate with the Train Controller. A telephone is located in the shelter shed on the "Up" Platform.

Correspondence, parcels, luggage, etc. (unless luggage is accompanied) must not be forwarded to reach Islington when the station is unattended.

Islington Works—

(*a*) *Admitting Trains*—A hand signal must be displayed by a Works employee at the entrance gate, to the Signalman indicating that the switches are correctly set before any train is admitted to the Islington Works.

(*b*) *Shunting Movements of Passenger Trains at Islington Works Platform*—The Fireman must manipulate the Switches at the north end, and the Guard at the south end of the platform lines, for the purpose of releasing the engine of "Down" trains.

The Guard of the preceding train must clear a line at one of the platforms for the reception of the Officers' train.

Engines working Workmen's "Down" trains must, on arrival at Islington Works Platform, remain attached to the trains until the passengers are clear of all lines over which the engine has to travel. As soon as the passengers have crossed over, the engine must be promptly released. The Guard must supervise the shunting of the second train to the platform, ready for the return journey in the afternoon.

(c) Warning Gong—A gong is installed near the south Car Park to give warning to employees of the approach of a train. The gong, which is controlled by a switch in the South Gate Cabin, must be operated as follows:—

(d) *"Down" Trains Entering the Works Platform*—The switch must be placed in the "ON" position 15 seconds prior to the arrival of the train at the South Gates and replaced in the "OFF" position immediately it has stopped at the platform.

(e) *"Up" Trains Departing from the Works Platform*—The switch must be placed in the "ON" position immediately prior to the departure of the train and replaced in the "OFF" position immediately it has passed the South Gates.

(f) *Shunting Movements in the Vicinity of the Adelaide End of the Works Platform*—The switch must be placed in the "ON" position immediately prior to the commencement of the movement and replaced in the "OFF" position immediately upon completion of the movement.

(g) *Engines for Repairs*—All classes of engines, when forwarded to Islington Works for repairs, must be hauled or worked with the "A" end facing south.

Tube Mills Siding—Off "Up" Main 7·980 km—

Method of Working—

To Enter Siding—

1. The train must stop with the rear vehicle clear of the insulated rail joints on the Islington side of the switches.
2. The Guard, after obtaining permission from the Train Controller to do so, must operate the electric switchlock, reverse the switches, and signal to the Engineman to push back into the Siding.
3. When train is in clear of the derail, the switches and electric switchlock must be replaced "Normal," the door of the switchlock closed and locked, and the Train Controller advised when this has been done.

To Depart from Siding—

1. The Guard must, after seeing that Permissive Signal No. 458 is at "Caution" or "Clear", advise the Train Controller accordingly, and obtain his permission to unlock the electric switchlock and reverse the switches.
2. The train must then draw ahead and stop with the rear vehicle clear of the switches.
3. The Guard must then reset the switches for the Main Line, place the handle of the switchlock "Normal", close and lock the door, and advise the Train Controller that he has done so. The train must then proceed on signal indication.

   The Train Controller, before giving permission to the Guard to unlock the switchlock, either to admit a train to the Tube Works or for a train to depart therefrom, must ascertain that no "Up" train is travelling between Dry Creek Station and the Tube Mills Siding and that Signal No. 3 ("Up" Entering Block) is at "Stop". A train must not be permitted to leave Dry Creek Station when a train is

about to leave the Tube Mills Siding. A lever clip must be placed on No. 3 lever for this purpose. Portion of a train must not be allowed to remain on the "Up" Main Line during the progress of shunting. Should the handle of the electric switchlock fail to release, the Emergency Time Release must be operated. The Time Release must be reset after the Switches have been reversed.

NOTE:—The lever controlling the Switches and derail must not be replaced "Normal" until the Guard has seen that the engine and vehicles are clear of the switches and derail.

The point of delivery for vehicles entering this Siding will be the straight line on the eastern side of the loop between the fouling discs, and the point of receipt for vehicles from this Siding will be on the loop line on the western side between the fouling discs.

Dry Creek—

(*a*) *Correspondence*—Guards of trains working through the Marshalling Yard must exchange correspondence invoices, etc., from all "Up" trains with the Porter at the South end, and from all "Down" trains with the Shunter or Assistant at the North end.

(*b*) *Operation of Desk Interlocker at Dry Creek Cabin*—The lever of this interlocker must be kept normally in "C" or central position.

Train Control Telephones—Train Control Telephones located in the yard are lettered as under:—

Dry Creek Cabin Telephone	A
Rest house—South End	B
Rest house—North End	C
Entrance to Cattle Yard—North End	D
Entrance to Goods Yard—North End	E
Switches leading to "Down" Main Line from Goods Yard	F

Employees using these telephones when speaking to the Train Controller must commence the conversation by indicating "Dry Creek 'A' or 'B' speaking", or as the case may be.

"Down" Trains on Main Line—For "Down" trains from the Dry Creek Station on the Main Line, the lever of the Interlocker must be placed in the "L" position, and when the train has passed Absolute Block Signal 865A (indication of which is shown on Interlocker), the lever must be promptly returned to the "C" position.

Powder Store—The hand-worked switches leading to the Powder Store, when not actually in use, must be set and locked for No. 4 line.

Seventy Tonne Weighbridge—The 70 tonne weighbridge at Dry Creek must be used for the weighing of all wagons of firewood from stations north of Dry Creek, consigned to Mile End or other stations in the suburban area (Port Adelaide line excepted) and for all other vehicles from stations beyond Salisbury (Angaston line excepted) for Mile End and stations south thereof.

Guards of "Up" north and western line goods trains must advise the Train Controller and Engineman of their train at Gawler and Two Wells respectively, the number of vehicles attached to their trains that require weighing at Dry Creek.

The Train Controller must then promptly advise the Yard Master at Dry Creek, or in his absence, the Shunter in Charge, the number of vehicles for weighing, and the approximate time of arrival at the Dry Creek Marshalling Yard, when appropriate arrangements must be made for the necessary staff to be in attendance at the weighbridge. The Train Controller must advise the Fireman, when he is seeking permission to enter the Dry Creek Marshalling Yard, and when vehicles are required to be weighed, to stop at the weighbridge for the purpose of weighing. The Guard must assist with the weighing.

Protection of Movements Along No. 1 Line—The Shunter in charge of the northern end of the yard must ensure that the switches are correctly set and locked on Nos. 1 and 2 lines to protect all movements along No. 1 line.

To Enter the Marshalling Yard—"Down" trains from the Main Line, and "Up" trains from Port Adelaide/Dry Creek Line, must enter on the arrival lines by signal indication, but must not pass the "stop" board at the entrance to the Marshalling Yard until signalled, or instructed to do so by the Yard Porter or Shunter in Charge. Before admitting a train from the "Down" Main or "Up" Port Adelaide/Dry Creek Line to Nos. 2 or 3 lines, the Signalman must ascertain that the hand-worked switches are set for the correct line.

Trains Departing from Marshalling Yard for Mile End—Trains departing from the Marshalling Yard for Mile End must be sent forward on the line set apart for such movement, and dispatched from south end of yard on signal indication.

Trains for Port Adelaide Departing from Marshalling Yard—Trains departing from Marshalling Yard for Port Adelaide must draw forward on the line set apart for such movement, and must be dispatched from the south end of the yard by signal indication.

Trains Working to Marshalling Yard from "Up" Main—The train must stop immediately in front of the "Up" Facing Switch leading to Marshalling Yard. The Fireman must first obtain permission from the Train Controller to enter the yard. The handle of the electric switchlock controlling the switch must then be reversed, and the switch lever also reversed. The train must then be taken forward until the rear vehicle is clear of the derail. The Guard must then replace the switch and derail and restore the switchlock handle to its "Normal" position, close and lock the door, and advise the Train Controller that the train is in clear. He must then rejoin his train.

Should the handle of the electric switchlock fail to release, the emergency time release in the adjacent shelter must be operated. If operated, the time release must be reset upon the switches being reversed.

If either arm of the signal in the Marshalling Yard protecting the crossover road is at "Caution" the train may continue along Nos. 1 and 2 lines as indicated by the signal to the "Stop" board, or as far as the line can be seen to be clear, and there await a hand signal to proceed. This hand signal must be given from the eastern side of No. 1 line. To advance a train into a line other than Nos. 1 or 2, both signal arms must be placed at "Stop", and the interlocking operated for the required movement by the Shunter, who must pilot the train to the required position, and then set the switches and clear the signal for No. 1 line.

Trains Departing from Marshalling Yard—North End—The Train Controller must dispatch the trains at the most suitable times to avoid stopping due to the block being occupied, or requiring to give way to superior trains. The Shunter in Charge must advise the Train Controller when a "Down" train is ready to depart, and the Train Controller must then state the time to the Shunter and also advise Dry Creek Cabin when the train must leave for the "Down" departure line. The Shunter in Charge must see that all hand-worked switches are correctly set for the train to depart. Enginemen must keep a sharp lookout for the signal indication displayed by Absolute Block Signal No. 865B.

"Down" Trains from Marshalling Yard—For "Down" trains from the Marshalling Yard, the lever of the Desk Interlocker must be placed in the "R" position. When the signal indicator on the Interlocker shows that the train has passed Absolute Block Signal 865B, the switches must be set for the Main Line, and the lever of the Interlocker must promptly be returned to the "C" position. The Signalman must clear the signal for trains departing from the Marshalling Yard prior to the time of departure, advised by the Train Controller, in order to ensure that trains are not unnecessarily stopped on the "Down" Departure Line.

Failure of Signals 865A or 865B or Power-operated Switches—Should the Absolute Block Signal display a "Stop" indication, the Engineman must examine the switches. He must then advise the Train Controller that the Absolute Block Signal is at "Stop", and whether the switches are set for the Main Line or goods yard. The Controller may then authorize the hand-operation of the switches and, if necessary, issue an order to pass the signal in accordance with the Rules. The method of hand-operation of switches is set out in this Appendix, Book No. 3.

Trains Working to Livestock Sidings from "Up" Main—The train must stop immediately in front of the facing switch leading to the Livestock Sidings. The Fireman must first obtain permission from the Train Controller for the train to enter the Siding, then operate the handle of the electric switchlock controlling the switch, and reverse the switch lever. The train must then be taken forward and stopped when the last vehicle is clear of the derail. The Guard must then restore the switches to the normal position, restore the electric switchlock, close and lock the door, and advise the Train Controller that the train is in clear, and the line correctly locked. He must then rejoin his train, which must be taken forward along the Livestock Siding as far as the line is clear, but must not foul the line leading to the sheep yards.

Should the handle of the electric switchlock fail to release, the emergency time release in the adjacent shelter must be operated. If operated, the time release must be reset upon the Switches being reversed.

To Depart from Livestock Sidings to "Up" Main Line—The switches from the Livestock Sidings on the Pooraka Main Line leading to the "Up" Main Line are controlled by an outlying switchlock released from the Signal Cabin. When trains are being dispatched from the Livestock Sidings, the Fireman must first obtain permission by telephone located at switches from the Signalman in the Dry Creek Cabin who, if the line be clear, must give the necessary release. The Fireman must then reverse the handle of the electric switchlock controlling the switches, and reverse the switch lever. The train must be moved forward until the rear vehicle is clear of the switches. The Guard must replace the switches, and the switchlock handle must then be restored to "Normal" position. The Guard must rejoin his train and give the signal to proceed.

Should the handle of the electric switchlock fail to release, the Signalman, Dry Creek, must be immediately advised.

In case of a shunting movement the Shunter must obtain permission from the Signalman before any shunting movement is made from the Livestock Siding across the Main Line to the yard.

Coupled Switches Near Cattle Yard—The coupled switches Nos. 89 and 90 at the northern end of the cattle unloading ramp line at Dry Creek and the coupled switches Nos. 84 and 85 leading from cattle ramp siding, must not be trailed but instead must always be set for the movement about to be made.

Penfield Area—

(*a*) *Method of Working*—

1. All movements over the Main Lines will be governed by three-indication Colour Light signalling and the Rules relating thereto under direction of the Train Controller.
2. All movements, including shunting, must be made in the direction of the current of traffic.
3. *To Enter the Marshalling Yard from "Down" Main*—The train must stop immediately in front of switches No. 4. The Shunter must then unlock switchlock No. 4, reverse No. 4 crossover and hand signal the train into the Marshalling Yard. When the rear of the train is in clear behind No. 4A switches, the crossover must be immediately reset

for the Main Line, the switchlock lever placed normal, and the door of the lock closed and locked. The Shunter must then advise the Train Controller that the movement has been made.

4. *To Enter the Marshalling Yard from "Up" Main*—The train must stop immediately in front of Signal No. 1416. The Shunter must then obtain permission from the Train Controller to enter the yard. The Shunter must then unlock switchlock No. 3 and reverse No. 3 crossover for the Marshalling Yard. He must then unlock switchlock No. 2 and reverse crossover switches No. 1, and hand-signal the train into the Marshalling Yard.

   When the rear of the train is in clear behind No. 3A switches, the switches of crossover No. 1 and then switches of crossover No. 3 must be reset for the Main Line, the switchlock levers placed in "Normal" position and the doors of the locks closed and locked. The Shunter must then advise the Train Controller that the movement has been made.

5. *To Leave the Marshalling Yard (West End)*—The Shunter must obtain permission from the Train Controller to enter the "Down" Main. Switchlock No. 3 must then be unlocked and No. 3 crossover switches set for the "Down" Main. The Shunter must then hand signal the train to proceed ahead and stop when the rear vehicle has cleared the crossover. The switches of this crossover must then be reset for the Main Line, the switchlock lever placed "Normal" and the door of lock closed and locked. The Shunter must then advise the Train Controller that the movement has been made.

6. *To Leave the Marshalling Yard (East End)*—The Shunter must obtain permission from the Train Controller to enter the "Up" Main. Switchlock No. 5 must then be unlocked and switches of crossover No. 5 reversed. Switchlock No. 4 must then be unlocked and switches of crossover No. 4 reversed. When Low Speed Signal No. 1360 indicates "Caution", the Shunter must hand signal the train ahead and stop when the rear vehicle has cleared No. 5A switches. The switches of crossover No. 4 must be reset, and then the switches of No. 5 crossover reset for the Main Line, the switchlocks replaced normal and locked. The Shunter must then advise the Train Controller that the movement has been made.

7. All other shunting movements at each end of the Marshalling Yard must be made on the shunting spurs, and not on the Main Line.

8. *Operating Crossovers and Turnouts other than at Marshalling Yard*—Permission must be obtained from the Train Controller before crossovers Nos. 1460, 1571, or 1625, also before turnouts Nos. 1462, 1550, 1569, or 1623, are reversed for a movement.

9. *To Operate a Crossover or Turnout*—Before operating any of the above crossovers or turnouts, the Shunter must first unlock the switchlock. After the shunting movement has been made, all switches must be reset immediately to "Normal" position, the switchlocks closed and locked, and the Train Controller advised.

10. *Failure of Apparatus*—Should the handle of an electric switchlock fail to release, the Emergency Time Release, located in the adjacent telephone shelter may be operated, under instructions from the Train Controller. If operated, the Time Release must be reset immediately upon switches being operated for crossover or turnout, and the Train Controller advised when this has been done.

11. *Shunting Movements over Crossovers or Turnouts*—All shunting movements over the above crossovers or turnouts must be made under hand signal given by the Shunter.

Shunting movements in the Munitions Area, on Main Lines extending from the western end of the Marshalling Yard to the Balloon Loop, may be made without a brakevan attached. The Shunter must ride on the rear vehicle which must be fitted with a hand brake in effective operation, and the air brake must be fully coupled and in effective operation throughout the consist.

Marker lamps must be attached to the rear vehicle during all shunting movements on the Main Line.

Vehicles must not be uncoupled from the engine when standing on the Main Line.

(*b*) *Trains Working from Penfield No.* 3—Guards of "Up" trains from Penfield No. 3 MUST obtain the Train Controller's permission to depart.

Elizabeth-G.M.H. Sidings—

(*a*) *There are two platforms at G.M.H.—*

No. 1 passenger platform will be used to accommodate the trains from and to Adelaide in the morning and afternoon. No. 2 passenger platform is used for trains from and to Port Adelaide. A Porter will be in attendance at G.M.H. Elizabeth, Mondays to Fridays, for the receipt and dispatch of the morning and afternoon trains at switches "A" controlling the entrance and exit to and from Nos. 1 and 2 platforms.

Trains working into the above sidings must not exceed 15 km/h from either No. 6 or No. 7 signal to the passenger platforms.

Trains working out of the above sidings must not exceed 15 km/h from the passenger platforms until signal No. 10D is reached.

Trains working to No. 2 platform must stop with the front of the leading rail car opposite the yellow line painted on Nos. 1 and 2 platforms.

(*b*) *Instructions to be carried out in the event of a failure of Signals or Switches at Elizabeth G.M.H. Siding—*

In the event of the failure of Nos. 6, 7, 10 or 10D Absolute Signals situated at the sidings leading to General Motors-Holden's factory at Elizabeth, the Fireman or Guard must communicate with the Signalman at the Penfield Junction Cabin by means of the local telephone provided in the telephone shelters adjacent to Nos. 6 and 10 signals.

If the cabin is closed or on being told by the Signalman that the setting of the levers in the cabin is such that the switches and signals should be correctly set for the passage of the train, the Fireman or Guard must communicate with the Train Controller by means of the Train Control Telephone situated adjacent to the local telephone.

The signal may then be passed on the authority of a Train Order issued in accordance with the requirements of the Rules.

If it is found that the route is not correctly set for the passage of the train due to the failure of the electrically operated switches, Nos. 8 and 8A in the case of the crossover from the "DOWN" to the "UP" main, and No. 9 in the case of the siding, and electrically operated derail No. 9A leading to the G.M.H. factory, they are to be operated by hand in accordance with the following instructions, firstly with the approval of the Train Controller:—

1. Obtain the special key located in a steel box in the telephone shelter adjacent to No. 10 Signal as follows:—
   - (i) The Fireman or Guard must telephone the Train Controller, Adelaide who must instruct the Fireman or Guard to hold the red push button, which is mounted on the side of the Train Control Telephone, depressed while the Train Controller operates a Selector Key.
   - (ii) After the selector code is completed the electric lock controlling the door of the steel box will open.

2. Unlock the selector and hand throw levers on the side of the switch machine to be operated.

3. Operate the selector lever from the motor to the hand operation position.

4. Place the hand throw lever in the position corresponding to the position of the switches. If the switches are in an intermediate position a click will be heard when the hand throw lever engages.

5. Operate the switches by means of the hand throw lever to the position required. If unable to complete the travel of the hand throw lever, a train movement must not be made in a facing direction over the switches unless they are clamped. The signal may then be passed on the authority of a Train Order issued in accordance with the requirements of the Rules.

When the train is clear of the switches and No. 9A derail, the switches and No. 9A derail must be returned to the "Normal" position (*i.e.*, set for the Main Line) and the selector lever returned and locked in the motor operating position.

The special key must then be returned to the steel box, and the door of the steel box pushed to the closed position. No special requirements are required for closing the box.

The Train Controller must be advised that train is ready to depart.

Prior to the switches being operated by hand, a check must be made to see that no trains are approaching in either direction.

(*c*) Twin 930 class engines are NOT permitted to work into Elizabeth G.M.H. Sidings when coupled.

(*d*) *Kettering Road Level Crossing* (22·760 *km*)—

In the event of a shunting movement on General Motors-Holden's Siding proceeding completely over the Kettering Road Level Crossing towards the Main Line such that the level crossing protection equipment ceases to operate, the movement may proceed back over the level crossing as follows:—

After bringing the train to a stop clear of the Kettering Road Level Crossing, the employee in charge must operate the push button labelled "To start crossing" for approximately 2 seconds, allow the crossing protection to operate 30 seconds and then hand signal the train over the level crossing.

The push key is installed in a box on the Adelaide side of the level crossing, and must be kept locked with an "S" lock, except when in use for shunting movements.

The level crossing protection equipment will automatically cease to operate after the train has cleared the level crossing.

If it is required to make a further movement towards the Main Line, it is necessary to do so under authority of a signal indication displayed by No. 10D Absolute Signal.

Smithfield—

(*a*) *Method of operation to and from the sidings over the main crossover at the Salisbury end of the Yard—to enter the siding from the "Up" Main—*

(1) Train must stop immediately ahead of the "Up" trailing switches.

(2) The Guard must then obtain permission from the Train Controller to set back into the siding.

(3) The Guard must then open the door of both electric switchlocks and rotate handles of locks to left.

(4) Reverse switchstand controlling crossover switches.

(5) Reverse switchstand controlling switches leading to sidings.

(6) The train will then move into the sidings.

(7) With train stopped with the rear vehicle clear of the derail, restore switchstands to their "Normal" position.

(8) Restore handles of both electric switchlocks to their "Normal" position, and close and lock the doors.

(9) Advise the Train Controller that the movement has been completed, and that Absolute Block Signal No. 1852 has cleared for the "Up" Main, and that Absolute Block Signal No. 1849 has cleared for the "Down" Main, provided the "Down" platform line is unoccupied.

(*b*) *To depart from sidings to "Up" Main—*

(1) Obtain permission from the Train Controller to depart.

(2) Open door of both electric switchlocks controlling crossover switches and switches leading from siding, and rotate handles of locks to left.

(3) Reverse switchstand controlling crossover switches.

(4) Reverse switchstand controlling trailing switches from sidings and derail.

(5) The train must then move to the "Up" Main under indication from Absolute Disc Signal No. 1854.

(6) With train stopped with the rear vehicle clear of the "Up" Main trailing switches restore switchstands to their "Normal" positions.

(7) Restore handles of both electric switchlocks to their "Normal" position and close and lock the doors.

(8) Advise the Train Controller that the movement has been completed and that Absolute Block Signal No. 1849 has cleared for the "Down" Main, provided the "Down" platform line is unoccupied.

(9) When the rear portion of a train is left standing on the "Up" Main, and the front portion shunted to the sidings, if the crossover switches are replaced in their "Normal" position to permit the passage of a "Down" train, the time release controlling the crossover switches must be operated before the switches can be again unlocked and set for the siding. Permission to operate the time release must first be obtained from the Train Controller.

(*c*) *To move from "Up" Main to the "Down" Main—*

(1) Obtain permission from the Train Controller.

(2) With train stopped with rear vehicle immediately on the Salisbury side of insulated rail joints, ahead of the "Up" Main trailing switch, open door of electric switchlock of the crossover switches and rotate handle to the left.

(3) Reverse switchstand controlling main crossover switches.

(4) The train must then move from the "Up" Main to the "Down" Main.

(5) When train stopped clear of the "Down" Main trailing switches, restore switchstand to its "Normal" position.

(6) Restore handle of the electric switchlock to its "Normal" position, and close and lock the door.

(7) Advise the Train Controller that the movement has been made, and that Absolute Block Signal No. 1852 has cleared for the "Up" Main.

(*d*) *To move from "Down" Main to "Up" Main—*

(1) Obtain permission from the Train Controller.

(2) With train stopped with rear vehicle on the station side clear of insulated rail joints at the fouling point of the goods siding and the "Down" Main Line, open the door of the electric switchlock controlling the crossover switches and rotate handle to left.

(3) Reverse switchstand controlling crossover switches.

(4) The train must then move from the "Down" Main to the "Up" Main.

(5) With train stopped with the rear vehicle clear of the "Up" Main trailing switches, restore switchstand to its "Normal" position.

(6) Restore handle of electric switchlock to its "Normal" position, and close and lock the door.

(7) Advise the Train Controller that the movement has been completed, and that Absolute Block Signal No. 1849 has cleared for the "Down" Main.

(*e*) *To enter sidings from the "Down" Main at the Salisbury end*—

(1) Obtain permission from the Train Controller.

(2) With train stopped immediately in front of the facing switches leading to the goods siding, open door of electric switchlock controlling "Down" facing switches and rotate handle to left.

(3) Reverse switchstand controlling switches leading to the siding.

(4) The train must then move into the sidings.

(5) With the train stopped with the rear vehicle clear of the derail restore the switchstand to its "Normal" position.

(6) Restore handle of electric switchlock to its "Normal" position and close and lock the door.

(7) Advise the Train Controller that the movement has been completed and that Absolute Block Signal No. 1849 has cleared for the "Down" Main.

(*f*) *Method of operation over switches at the Gawler end of Yard*—

(1) Obtain permission from the Train Controller.

(2) With train stopped with rear vehicle clear of the insulated joints ahead of the "Down" Main trailing switches, open door of electric switchlock controlling "Down" Main trailing switches referred to, and rotate handle to the left.

(3) Reverse ground lever controlling "Down" Main trailing and derailing switches.

(4) The train must then move into the sidings.

(5) With train stopped with the rear vehicle clear of the derailing switches, restore ground lever to its "Normal" position.

(6) Restore handle of electric switchlock to its "Normal" position, and close and lock the door.

(7) Advise the Train Controller that the movement has been completed, and that Absolute Block Signal No. 1867 has cleared for the "Down" Main.

(*g*) *To depart from sidings to the "Down" Main*—

(1) Obtain permission from the Train Controller.

(2) Open door of electric switchlock controlling "Down" Main trailing and derailing switches, and rotate handle to the left.

(3) Reverse ground lever.

(4) The train must then move on to the "Down" Main under Absolute Disc Signal No. 1867.

(5) With train stopped with the rear vehicle clear of the "Down" Main trailing switches, restore ground lever to its "Normal" position.

(6) Restore handle of electric switchlock to its "Normal" position, and close and lock the door.

(7) Advise Train Controller that the movement has been completed.

(8) If the rear portion of a train be left standing on the "Down" Main, and the front portion shunted to the sidings, the switches must be left in position for shunting movements to and from the "Down" Main until this is completed.

NOTE:—Should the handle of the electric switchlock fail to release, the emergency time release in the adjacent shelter must be operated under the authority of the Train Controller. If operated, the time release must be reset upon the switches being reversed.

Gawler—

Traffic Siding—Owing to the short "approach" circuit on the Traffic Siding approaching the Racecourse level crossing, the following speed limits must be strictly observed.

"Down" Movements—From the speed limit board on the Engineman's left on the Traffic Siding to the Racecourse level crossing—5 km/h.

From the speed limit board on the Engineman's left on the Loco. Siding to the Racecourse level crossing—5 km/h.

"Up" Movements—From the speed limit board on the Engineman's right on the Traffic Siding to the Racecourse level crossing—5 km/h.

Method of Working to and from Traffic Siding (South End)—To enter the Traffic Sidings from the "Down" Main—

1. Permission must be obtained from the Train Controller.
2. With train stopped immediately on the Smithfield side of first "Down" Main Facing Switches, open door of electric switchlock, and rotate handle to the left.
3. Reverse ground lever controlling the switches at each end of crossover from the "Down" Main Line to the Traffic Siding.
4. The train must then move in to the Traffic Siding.
5. With train stopped on the Traffic Siding with the rear vehicle clear of the trailing switches of the crossover, restore the ground lever to the "Normal" position.
6. Restore handle of electric switchlock to its "Normal" position, and close and lock door.
7. Advise the Train Controller that the movement has been completed, and that Permissive Block Signal No. 2379 has cleared for the "Down" Main.

To Depart from the Traffic Siding to the "Up' Main—

1. Obtain permission from the Train Controller.
2. Open door of electric switchlock, controlling the Main crossover switches, and rotate handle to the left.
3. Reverse ground lever controlling last-mentioned switches.
4. Open door of the electric switchlock controlling the switches at each end of crossover from Traffic Siding to the "Down" Main Line and rotate the handle to the left.
5. Reverse ground lever controlling last-mentioned switches.
6. The train must then move from the Traffic Siding to the "Up" Main.
7. With train stopped with the rear vehicle clear of the "Up" Main trailing switches, restore ground levers to their "Normal" positions.
8. Restore handles of electric switchlocks to their "Normal" positions, close and lock doors.
9. Advise Train Controller that the movement has been completed, and that Permissive Block Signal No. 2379 has cleared for the "Down" Main.

NOTE:—Should the handle of the electric switchlock fail to release, the emergency time release in the adjacent shelter must be operated under the authority of the Train Controller. If operated, the time release must be reset upon the switches being reversed.

Gawler Racecourse Siding—Race Traffic—Special Train Working—

During Gawler race traffic, one qualified employee will be provided to operate the Ground Frame (Adelaide end of yard) and one qualified officer or employee at the Racecourse Office (Adelaide end of Racecourse Platform).

Telephone Communication—

Ground Frame	Telephone (local circuit).
Racecourse Office	Telephone (local circuit).
	Telephone (Train Control circuit) and Selector.
Signal Cabin	Telephone (local circuit).
	Telephone (Train Control circuit) and Selector.

Method of Working Trains—

To Enter the Racecourse Siding—"Down" Trains—Permission for the train to enter the siding must be obtained by the Signalman at Gawler Cabin from the Train Controller when the train departs from Salisbury.

The train must stop in front of the "Down" Main facing switches leading to the siding.

The qualified employee at the Ground Frame must then ask the Signalman at Gawler Cabin to release the Ground Frame and after having received such release must set the route and hand signal the train into the siding.

When the train is in clear, the levers must be replaced "Normal" and locked, and the Signalman at Gawler Cabin advised accordingly.

The Signalman at Gawler Cabin must similarly advise the Train Controller and the Signalman at Salisbury.

To Depart from the Racecourse Siding—"Up" Trains—When the train is ready to depart the qualified officer or employee at the Racecourse Office must advise the Signalman at Gawler Cabin.

The Signalman at Gawler Cabin must then obtain permission from the Train Controller to dispatch the train. He must then give the release to the Ground Frame levers and advise the qualified employee at the Ground Frame to set the route and clear the "Up" starting signal from Racecourse Siding.

The qualified officer or employee at the Racecourse Office must then direct the Guard to start the train.

When the train is clear on the "Up" Main, the signal and switches must be reset and locked "Normal," and the Signalman at Gawler Cabin advised.

The Signalman at Gawler Cabin must then advise the Train Controller and Signalman at Salisbury accordingly.

SALISBURY-PORT PIRIE AND BUMBUNGA-LOCHIEL LINES

Clearing of Signal Masts—Care must be exercised when exchanging hand signals at all attended stations between Salisbury and Port Pirie, to avoid possible contact with the marker lights of the fixed signals, there being only a limited clearance between these signals and the minimum structure diagrams.

Passengers for Port Broughton—The Train Porter of the "Down" morning Port Pirie Passenger train must ascertain before arrival at Bowmans, the number of passengers on this train for Port Broughton, and on arrival at Bowmans

must hand this advice to the Station Master. The Station Master, Bowmans, must pass this message onto the Porter in Charge, Lake View, who will advise the representative of the Port Broughton Motor Service at that station of the number of intending passengers for his bus.

Normal provision is made for the transport of four (4) passengers on the motor car between Lake View and Port Broughton and any additional passengers necessitates an extra road car being called into service.

When an abnormal number of passengers join the train at Bowmans or Snowtown for Port Broughton, the Station Masters must promptly advise the Porter in Charge, Lake View, who will advise the Port Broughton Motor Service.

Direk—

Method of Shunting Special Livestock Trains—

1. The special livestock train from Dry Creek must be brought to a stand at the "Down" facing switches at the Salisbury end of the siding.

2. The Assistant Guard must immediately check that the sheep ramp loading buckets are correctly set in the ramp and that all hand brakes are released.

3. The Guard of the train must operate the Staff Drawer Lock and reverse the switches at both ends of the siding.

4. After ascertaining that the Assistant Guard has completed the checking of loading buckets and hand brakes, the Guard must Hand Signal the train into the siding and push the loaded vans onto the Main Line at the Virginia end of the yard. The flashing lights, at the Heaslip Road level crossing, will cease to operate when the last vehicle of the train clears the "Down" side of the level crossing.

5. The empty sheep vans must be placed in the correct position in the siding, and the brakevan placed in the siding at the Virginia end.

6. The Assistant Guard must walk to the push button enclosure referred to in paragraph 2, ready to start the flashing lights when the train is ready to depart for Salisbury.

7. The Guard must reset and lock the switches at both ends of the siding for the Main Line, withdraw the electric staff from the Staff Drawer Lock and advise the Assistant Guard that the train is ready to depart.

8. The Assistant Guard must press the push button referred to in paragraph 2 to start the flashing lights operating at least 30 seconds before the "Up" movement arrives at the level crossing.

9. The Assistant Guard must remain at Direk and—

(i) advise the Train Controller the departure time of the previous movement.

(ii) prepare next livestock train ready for departure

and

(iii) at regular intervals advise the Train Controller the position of the loading so that he can arrange the next special movement.

Mallala—

Level Crossing Long Plains end of Station Yard (60·294 *km*) *Operating Instructions—*

"Down" Trains—"Down" Absolute Signal No. 3737 cannot be cleared until a "Down" staff is held for the Mallala-Long Plains Section. For all "Down" trains or for shunting movements at the Long Plains end of the station yard, when it is necessary to pass Absolute Signal No. 3737, the method of operation is as follows:—

(i) Withdraw staff for Mallala-Long Plains section.

(ii) Depress the black operating push key, designated 3737, located adjacent to the "Down" staff instrument, or the push key designated 3737B, located in a special box, locked with an "S" padlock and mounted on the side of the relay box on the station side of the level crossing.

If the Main Line in the station yard is occupied or the "Up" Main Facing Switches are set for a movement from the Passing Siding, a time delay of 20 seconds will occur before the signal will clear.

For non-stopping trains Signal No. 3737 will clear automatically on the approach of the train, provided the foregoing instructions have been carried out.

When it is desired to exchange a staff by hand, the push key designated 3737 should not be depressed until after the hand exchange has been made.

In the event of either 3737 or 3737B push key being operated in error, a red cancelling push key, designated 3737A and located in the Station office, must be depressed.

In the event of failure of "Down" Absolute Signal No. 3737 this signal must not be passed whilst displaying a "stop" indication until the Engineman is in possession of a Train Order issued in accordance with Rule 99 (*b*). Such Train Order must include the following instructions:—

"Reduce speed to eight kilometres per hour approaching the level crossing at 60·294 kilometres and carry out the instructions contained in Rule 108."

"Up" Trains—All "Up" trains entering the station yard over the level crossing at 60·294 km may—

(i) pass "Up" Permissive Signal No. 3738 displaying either "Caution" or "Clear" indications, or

(ii) pass "Up" Permissive Signal No. 3738 displaying a "Stop" indication after—

(*a*) ensuring that the crossing protection equipment is operating, and

(*b*) receiving a hand signal displayed in accordance with Rule 107 (*b*) (1).

In the event of the crossing protection equipment not operating, the push key designated 3736, located in a special box, locked with an "S" padlock and attached to the side of the relay box mounted on Signal No. 3738, must be depressed. If the crossing protection equipment does not then commence to operate, the instructions contained in Rule 330 must be carried out.

Shunting Movements at the Long Plains End of the Station Yard—For all shunting movements requiring to proceed past "Down" Absolute Signal No. 3737, the Engineman must be in possession of an electric staff for the Mallala-Long Plains section. "Down" movements must then be made in accordance with the foregoing instructions for "Down" trains.

In the event of a "Down" shunting movement proceeding completely beyond Signal No. 3738, the crossing protection equipment will cease to operate and must be restarted by depressing push key 3736 before the shunt movement proceeds back over the level crossing into the station yard.

The "Up" shunting movement should then be carried out in accordance with the foregoing instructions for "Up" trains.

Bowmans—

An extension bell connected to Bowmans Yard local telephone circuit is provided in the Train Control telephone shelter at each end of the yard to enable the Station Master to call the Porter on duty when admitting or dispatching trains. The employee concerned must be on the alert for such bell signal and promptly answer the telephone when called.

Bumbunga—

Traffic for Lochiel—Empty vehicles for Lochiel traffic must stand on No. 1 Goods line at Bumbunga, and the local goods siding must be left for local traffic. The loading from Lochiel must be placed at the Bowmans end for "Up" trains, and at the Snowtown end for "Down" trains, of No. 1 Goods line.

Bumbunga-Lochiel—

A Train Order must be issued by the Train Controller to the Guard and Engineman of all trains working on the Lochiel line before leaving Bumbunga station. A train returning from Lochiel must be brought to a stand with the leading vehicle opposite the Yard Limit Board at Bumbunga. The Guard must then obtain permission from the Train Controller to enter the station yard.

Movement between Bumbunga and Lochiel upon authority of the Train Order as described in the preceding paragraph, may be made without a brakevan attached, providing a load of equal to 20 four-wheeled vehicles is not exceeded and the entire movement is made during the hours between sunrise and sunset. The movement must be made with the engine hauling in both directions and the Guard in Charge must ensure that a sealed Ambulance Box is carried on the train engine.

A brakevan must be attached to all movements between Bumbunga and Lochiel during the hours of darkness, that is between sunset and sunrise.

Guards from Bumbunga to Lochiel must take forward any Goods left at Bumbunga by previous trains.

Lochiel—

The gates at the north end of Lochiel yard between the station and the Salt Company's Siding are fitted with an "S" lock and chain.

Enginemen must stop their trains clear of the gates to enable Guard to open them and stop again when train has been drawn clear to enable Guard to close gates and rejoin train. These gates are fitted with an "S" lock and chain and the guard must securely lock them before departure.

Brakevans must not be shunted past the Salt Works Shed on the western siding. All movements past the shed must be made cautiously because of the limited side clearance.

Merriton—

Level Crossing Adelaide end of Station Yard (186·398 *km*) *Operating Instructions—*

"Up" Trains—"Up" Absolute Signal No. 11564 cannot be cleared until a staff is held for the Merriton to Redhill section. For all "Up" trains or for shunting movements at the Redhill end of the station yard, when it is necessary to pass Absolute Signal No. 11564, the method of operation is as follows:—

(i) Withdraw the staff for the Merriton to Redhill section.

(ii) Depress the push key, designated 11564, located in the office, or push key designated 11564B, located in a small enclosure locked with an "S" padlock, mounted on the side of the relay box adjacent Signal No. 11564.

If the Main Line in the station yard is occupied or the "Down" Main Facing Switches are set for a movement from the Passing Siding, a time delay of 20 seconds will occur before the signal clears.

For non-stopping trains Signal No. 11564 will clear automatically on the approach of the train, provided the foregoing instructions have been observed.

When it is desired to exchange a staff by hand, or issue a Train Order to the train crew, the push key designated 11564 should not be depressed until after the hand exchange has been made.

In the event of either 11564 or 11564B push keys being operated in error, a cancelling push key designated 11564A, located in the office must be depressed.

If Absolute Signal No. 11564 fails, this signal must not be passed whilst displaying a "Stop" indication until the Engineman is in possession of a Train Order issued in accordance with Rule No. 99 (*b*). Such Train Order must include the following instructions.

"Reduce speed to eight kilometres per hour approaching the Level Crossing at 186·398 kilometres and carry out the instructions contained in Rule No. 108."

"Down" Trains—All "Down" trains entering the station yard may:—

(i) Pass "Down" Permissive Signal No. 11563 displaying either a "caution" or "clear" indication, or

(ii) Pass "Down" Permissive Signal No. 11563 displaying a "Stop" indication after—

(*a*) ensuring that the crossing protection equipment is operating, and

(*b*) receiving a hand signal displayed in accordance with Rule No. 107 (*b*) (1).

In the event of the crossing protection equipment not operating, the push key designated 11562, located in a small enclosure, locked with an "S" padlock and attached to the side of a relay box adjacent Signal No. 11563 must be depressed. If the crossing protection does not then commence to operate, the instructions contained in Rule No. 108 must be carried out.

Shunting Movements at the Redhill End of the Station Yard—For all shunting movements requiring to proceed past "Up" Signal No. 11564, the Engineman must be in possession of an electric staff for the Merriton to Redhill section. "Up" movements must then be made in accordance with the foregoing instructions for "Up" trains.

In the event of an "Up" shunting movement proceeding completely beyond No. 11563 Signal, the crossing protection equipment will cease to operate and must be restarted by depressing push key No. 11562 before the shunt movement proceeds back over the level crossing into the station yard.

The "Down" shunting movement should then be carried out in accordance with the foregoing instructions for "Down" trains.

GAWLER-ANGASTON-TRURO LINES

North Gawler—

Murray Street Crossing—A qualified employee must protect this crossing with the prescribed hand signals for the passage of all train and shunting movements.

Trains shunting at North Gawler must NOT be left foul of Murray Street during shunting operations.

In order to provide greater protection for personnel and for train movements over the level crossing at Murray Street, North Gawler, two battery operated flashing lanterns contained on two steel stands will be used during the hours of darkness or failing light.

The lanterns will display a flashing red light in both directions towards road traffic.

When used to protect shunting and through rail movements over this crossing, one lantern and stand will be placed in the centre of each left-hand road lane in the approaches to the Railway Crossing.

The normal protection by use of the "Stop" disc will be continued during daylight hours.

The flashing lanterns and "Stop" disc are located in a small shed locked with an "S" lock, and situated at the level crossing.

"Up" Trains Crossing Murray Street—A notice board inscribed "TRAINS MUST NOT PROCEED OVER MURRAY STREET EXCEPT ON RECEIPT OF HAND SIGNAL FROM A QUALIFIED EMPLOYEE" is attached to the mast of "Up" Permissive Block Signal No. 2624. The board is automatically lighted by the passage of the train. The instruction on the Board must be observed by all "Up" trains.

Sandy Creek—

Guards unloading goods at the passenger platform at Sandy Creek must place same in the small lock-up galvanized iron shed situated at the Gawler end of the passenger station building locking the door after completing the delivery of goods.

Vehicle load consignments must be placed at the low level platform on the Goods Siding.

Lyndoch—Level Crossing Gawler end of Station Yard (56·648 km), and

Rowland Flat—Level Crossing Gawler end of Station Yard (61·785 km).

(*a*) *Method of Operation*—

The warning devices are operated by the passage of the train for Main Line movements, and are also controlled by an "Up" Lower Quadrant Absolute Semaphore Signal. The signal is operated from a ground lever located adjacent to the station building. The signal will normally indicate "Stop" and must be cleared only when an "Up" train or shunting movement is required to be made over the level crossing.

In order to avoid unnecessary operation of the warning devices, the signal must not be cleared when a train is required to be shunted on the track-circuited area between the "Stop" signal and the first "Down" Main Facing Switches. The ground lever must be kept in REVERSE position and locked, except when required to be operated for an "Up" movement over the crossing, in which case the lever must be placed "Normal" and then reversed and locked again. The operation will clear the signal, which will automatically go to "Stop" on the passage of the train.

Should it be impossible to clear the signal, thereby not allowing the warning devices to give the necessary warning to road traffic, the crossing must be protected in accordance with the Rules and Instructions in Book 2 under the heading "Shunting Movements over Level Crossings other than those provided with gates, bars or electrical warning signals which operate to protect such movements."

(*b*) *Speed Limit Signs*—

A speed limit sign is installed on the Engineman's left in an "Up" direction on the station side of the level crossing located as follows:—

At Lyndoch—85 m from level crossing.

At Rowland Flat—140 m from level crossing.

"Up" trains must not exceed a speed of 5 km/h from the respective speed limit sign, until the leading vehicle has passed over the level crossing.

Tanunda—

Chateau Tanunda Siding—This siding is of 100 m radius and a speed of 5 km/h must be observed when traversing the line.

Should it be impossible to clear the signal, thereby not allowing the warning devices to give the necessary warning to road traffic, the crossing must be protected in accordance with the Rules and Instructions in Book 2 under the heading, "Shunting Movements over Level Crossings, other than those provided with gates, bars, or electrical warning signals which operate to protect such movements".

A speed limit board is located on Engineman's left in an "Up" direction and 85 m on the Angaston side of the level crossing. All "Up" trains must not exceed a speed of 5 km/h from the speed limit sign until the engine has passed over the level crossing.

Nuriootpa-Penfold's Siding—

This siding has a length of 35 m between the fouling points of the run-round line, and the switches leading to it are controlled by an electric staff drawer-lock.

Shunting to and from this Siding must be performed only by engines working from the Nuriootpa Station Yard.

Before an engine leaves Nuriootpa Station Yard for the Siding, the Station Master must obtain a staff from the instrument for the section Nuriootpa-Tanunda, and hand it to the Engineman.

When the engine returns to Nuriootpa, the Station Master must obtain the staff, and replace it in the instrument, and clear the line in accordance with instructions.

Goods trains must not stop at the Siding for the purpose of attaching or detaching vehicles.

Nuriootpa—

"Up" trains must not exceed a speed of 30 km/h from the speed limit board (located 200 m on the Nuriootpa side of the level crossing) until the crossing is reached.

Nuriootpa to Truro Line—Movement of Trains to and from Penrice—

Train Orders—The movement of trains between Nuriootpa and Penrice in either direction is governed by Train Orders issued by the Train Controller.

The Train Controller must not issue a Train Order for any movement between Nuriootpa and Stockwell in either direction until he has been advised that the movement between Nuriootpa and Penrice, in either direction, has been completed, that the switches at Penrice Junction are set and locked for the Main Line, and that the train has arrived complete at Penrice or Nuriootpa as the case may be.

The Train Controller must not issue a Train Order for any movement to or from Penrice, unless the section between Nuriootpa and Stockwell is clear and there are no uncompleted orders issued for the section.

Control of Switches at Penrice Junction—The Main Line switches leading to the siding are connected by rodding to the catch siding switches.

The Main Line and catch siding switches are operated by a switchstand on the Main Line switches. This switchstand displays standard green and red indications in accordance with Rules Nos. 172 and 174 respectively.

The switch indicator working in conjunction with the catch siding switch displays the following indications:—

(1) White square by day, white light by night—when switches set for crossover.

(2) Red disc by day, red light by night—when switches set for catch siding.

The Main Line switches must be kept normally set and locked for the Main Line, except when required to be operated for a train movement.

Telephones—Telephones for communicating with the Train Controller are provided at the following locations:—

(1) In the concrete telephone shelter adjacent to the Main Line switches at Penrice Junction.

(2) In a wooden box on a pole at Penrice.

When it is necessary to speak to the Train Controller, the employee desiring to speak must code ring Nuriootpa (one long, one short), ask to be connected to the Train Control circuit, state "Penrice Junction" or "Penrice", as the case may be, and wait until the Train Controller replies.

To Enter the Siding—"Down" Trains—

(1) The Engineman and Guard must each be in possession of a Train Order for the movement to Penrice before the train departs from Nuriootpa.

(2) The train must stop with the engine immediately on the Nuriootpa side of the Main Line switches leading to the siding.

(3) The Fireman must then unlock and reverse the switches to admit the train into the siding.

(4) When the train is in the siding clear of the catch siding switches, the Guard must reset and lock the switches for the Main Line, then report to the Train Controller that he has done so and that the train is about to depart for Penrice.

Engines must not pass the southern end of the loading bin supports over Nos. 1 and 2 sidings.

Engines may pass the loading platforms serving No. 1 siding, but care must be taken to ensure that the train crew keep clear of the overhanging platform.

To Depart from Penrice—"Up" Trains—

(1) When the train is ready to depart from Penrice, the Guard must obtain a Train Order for the movement to Nuriootpa from the Train Controller, retain one copy and hand a copy of such order to the Engineman.

(2) On arrival of the train at Penrice Junction, the Guard must report train arrival to the Train Controller, then unlock and reverse the Main Line switches. He must hand signal the train to draw ahead on to the Main Line and to stop when clear of the switches.

(3) He must then reset and lock the switches for the Main Line and report to the Train Controller that he has done so, and that the train is about to proceed to Nuriootpa.

(4) He must then join the train and hand signal the Engineman to proceed.

Shunting Movements at Penrice Siding—Empty wagons must be placed by the train engine on loading sidings Nos. 1 and 2. Loaded wagons will be placed on storage sidings Nos. 1 and 2. Outward trains must be marshalled on siding No. 3.

"HS" hopper wagons will be used for this traffic, and the number placed on each road must not exceed eleven (11).

When placing eleven (11) hoppers to either loading sidings Nos. 1 or 2, the last hopper wagon MUST REMAIN on the SOUTHERN SIDE of the loading ramp, and on Siding No. 2 clear of the fouling disc.

If, however, "O" or "OC" wagons are utilized, eight (8) wagons only must be placed to either loading siding.

Hand brakes must be applied on all wagons before the engine is detached, but the air in the wagons must be completely released before the hand brakes are applied.

Shunting movements in the loading sidings Nos. 1 and 2 must be made through storage siding No. 1, which is of sufficient length to hold ten (10) loaded "HS" hopper wagons, engine, and ten (10) empty "HS" hopper wagons. Before making any movement over the crossover leading to storage siding No. 1 the Guard must see that any vehicles standing on the loading siding are secured against movement.

Wagons containing inward loading for Penrice, must be left on the loop siding after the hand brakes have been effectively applied.

Angaston—South Australian Portland Cement Company's Siding situated at 80·930 km—

1. The switches to the siding are controlled by a Staff Drawer Lock and switchstand. The switches are rodded to the catch siding switches.

2. A Subsidiary Staff Instrument and Train Control telephone are provided adjacent to the Main Line switches.

3. Movement in or out of the siding must be made under the direction of the Train Controller.

4. When shunting into the siding with either "Up" or "Down" trains, the whole of the train must be removed from the Main Line into the siding clear of the catch switch. No portion of the train is to be left on the Main Line during the progress of shunting.

5. Vehicles to be placed in siding must be marshalled behind the brakevan ex Angaston and next to the engine ex Nuriootpa, in the order required by the company.

6. *To Enter the Siding—*

(*a*) "Up" trains must pull ahead until the last vehicle is clear on the Nuriootpa side of the Main Line switches, "Down" trains must stop with the engine clear on the Nuriootpa side of the Main Line switches.

(*b*) The Guard must obtain the Staff from the Engineman, place in Staff Drawer Lock and operate switches for siding.

(*c*) Move the whole train into the siding until clear of catch switches.

(*d*) Reset switches for the Main Line.

(*e*) Place Staff in the subsidiary instrument and advise the Train Controller that the train is in clear and Staff placed in instrument.

7. *To Depart from Siding—*

(*a*) The Guard must obtain permission from the Train Controller to withdraw Staff from subsidiary instrument.

(*b*) Place Staff in Staff Drawer Lock and operate switches for siding.

(*c*) Move train onto Main Line clear of Main Line switches.

(*d*) Reset switches for Main Line and withdraw Staff from Staff Drawer Lock and advise the Train Controller when this has been done.

(*e*) Hand Staff to Engineman and proceed.

8. Prior to leaving the siding, trains working between Nuriootpa and the siding and then returning to Nuriootpa must have the brakevan shunted to be the last vehicle of the train.

9. Vehicles detached must be left in the siding in order and position desired by the company. Hand brakes must be applied on all vehicles detached and the employee handling the shunting is responsible for seeing that all vehicles are secured in No. 1 siding dead-end against uncontrolled movement.

ROSEWORTHY-ROBERTSTOWN LINE

Freeling—

As the warning gong at level crossing north end of yard is not operated when the station is unattended, all trains working through Freeling during this period must stop just before reaching this crossing. The Guard or Assistant Guard must then proceed ahead and protect the crossing.

Eudunda—

Catch Siding—The switches leading to the Catch Siding at the Robertstown end of the Yard must be set for the catch siding except when in actual use for admitting or dispatching trains.

Firewood Loading Ramp—Restricted Clearance

A firewood loading ramp is located adjacent to the overhead water tank on the lead from the PASSENGER PLATFORM towards the LOCO. DEAD-END ROAD.

The ramp is equipped with a simple hand-operated hydraulic mechanism for raising and lowering the chute.

THE LOADING CHUTE, WHEN IN THE OPERATING POSITION WILL BE FOUL OF ANY VEHICLE WITH HEIGHT IN EXCESS OF 2·7 m ABOVE RAIL LEVEL AND ALL ARE ADVISED OF THE NECESSITY TO EXERCISE CAUTION DURING SHUNTING.

With the chute in the lowered position any rail movement can be made past the ramp.

HAMLEY BRIDGE—MOONTA LINE

Balaklava—

Watchman Road Level Crossing 106·979 *km*

Operating Instructions—

(*a*) *"Down" Trains from Hamley Bridge and "Up" Trains from Brinkworth*—The level crossing warning devices will operate automatically.

NOTE:—In order to avoid unduly long operation of the warning devices, trains must not be held at the respective "Home Signals" any longer than necessary.

(*b*) *"Up" Trains to Hamley Bridge*—The level crossing warning devices must be started by operating one of the following push buttons to ensure that the warning devices operate for 30 seconds before the train arrives at the crossing:—

(i) The black push button in the station office designated "107A—"Up" trains to Hamley Bridge".

(ii) The black push button in a small enclosure on the side of the equipment cupboard adjacent to the level crossing, designated "107C—"Up" trains to Hamley Bridge".

The warning devices will cease to operate when the train has passed completely over the level crossing.

(*c*) *"Down" Trains to Brinkworth*—The level crossing warning devices must be started by operating one of the following push buttons to ensure that the warning devices operate for 30 seconds before the train arrives at the crossing.

(i) The black push button in the station office designated "108A—"Down" trains to Brinkworth".

(ii) The black push button in a small enclosure on the side of the equipment cupboard adjacent to the level crossing, designated "108E—"Down" trains to Brinkworth".

(iii) The black push button in a small box located adjacent to the "Up" Home Signal from Brinkworth, designated "108C—"Down" trains to Brinkworth".

The warning devices will cease to operate when the train has passed completely over the level crossing.

(*d*) *Cancelling Operation of Warning Devices if Started in Error*—The push button, coloured red, designated "Cancel" provided adjacent to each of the above black push buttons must be depressed to cancel the operation of the warning devices if they have been started in error.

(*e*) *Shunting*—When a shunting movement on either the line to Hamley Bridge or the line to Brinkworth will proceed on to the Watchman Road level crossing, the warning devices must be operated as described in paragraphs (*b*) and (*c*) respectively.

If the shunting movement on the Hamley Bridge line passes completely over the crossing, and the warning devices cease to operate, they must be re-started for the return shunt movement by pressing the black push button designated "107E—"Down" shunt" located in a small enclosure adjacent to the level crossing.

(*f*) *Push Button Enclosures*—These enclosures must be kept locked with an "S" type padlock at all times, except when access to the push button is required for train movements.

Port Wakefield—

Level Crossing Adelaide End of Station Yard 132·421 *km*

Operating Instructions—

"Up" Trains—For all "Up" Trains or shunting movements at the Bowmans end of the station yard, when it is necessary to pass Absolute Signal No. 1, the method of operation is as follows:—

Depress the green push button designated "No. 1B—To Clear Signal" located in the Train Control Telephone cubicle at the Station Office or the green push button designated "No. 1—To Clear Signal" located in a small enclosure locked with an "S" padlock, mounted on the side of the signalling apparatus case adjacent Absolute Signal No. 1.

After operation of either push button, the warning signals will commence operating immediately and Absolute Signal No. 1 will clear after a delay of 20 seconds.

In the event of either No. 1B or No. 1 push buttons being operated in error, the red push button, designated "No. 1C—To Cancel Signal" located adjacent No. 1B push button or the red push button designated "No. 1A—To Cancel Signal" located adjacent No. 1 push button must be pressed.

If Absolute Signal No. 1 fails, this Signal must not be passed whilst displaying a "stop" indication until the Engineman is in possession of a Train Order issued in accordance with Rule No. 99 (*b*). Such Train Order must include the following instructions:—

"Reduce speed to eight kilometres per hour approaching the Level Crossing at 132·421 kilometres and carry out the instructions contained in Rule No. 108."

"Down" Trains—The Flashing Lights will operate automatically for all "Down" train movements. A test switch labelled "8224W", located adjacent push keys Nos. 1 and 1A has been provided for manual operation of the Flashing Lights for testing purposes.

Shunting Movements at the Bowmans End of Station Yard—All shunting movements requiring to proceed past "Up" Absolute Signal No. 1 must be made in accordance with the foregoing instructions for "Up" trains.

Wallaroo—

(*a*) *Old Jetty Road Level Crossing* (199·375 *km*)

Shunting Movements Over—Shunting movements over this level crossing must be protected by a qualified employee for both hauling and pushing movements. This employee must start and stop the operation of the warning devices by means of control switches located in boxes on each side of the level crossing. These control switches are special "two way" switches which allow for control from one or both sides of the crossing. He must precede the leading vehicle and protect road traffic, and be prepared to display a hand signal to the Engineman. The speed over this crossing when hauling must not exceed 15 km/h, and when pushing, 5 km/h.

(*b*) *Speed on Jetty*—When pushing vehicles from the yard on to the jetty, the speed must be reduced to 5 km/h when reaching the commencement of the jetty.

(*c*) *Engines are prohibited from shunting past the "stop" boards erected in super shed*—These boards are placed at the following points:—

No. 1 Line—10 m inside shed
No. 2 Line—8·5 m inside shed,

and exhibit the notice "Engines must not pass this point".

(*d*) *Vehicles on Jetty*—Shunters must see that all hand brakes are securely applied on vehicles left standing on the jetty.

(*e*) *Times of trains departing and arriving at Goods Yard*—The times of departure or arrival of trains working from or to the Wallaroo Goods Yard must be entered on the Guard's or Engineman's Daily Report.

(*f*) *Wallaroo-Kadina Goods Trains*—Goods trains working between Wallaroo Goods Yard and Kadina must travel via the Local Goods Yard line, except in cases of emergency, when they may be worked via the Main Line.

(*g*) *Trains Entering Yard*—Light engines and goods or livestock trains must enter Wallaroo Yard from Kadina end at Low Speed. The engine must not pass over Emu Street Crossing until instructed by a Transportation Employee, either verbally or by hand signal. Light engines and trains working between passenger station or Local Goods Yard and lower yard must proceed at Low Speed, and a Transportation Employee must ride on the engine to direct the movements. When the train is being pushed from the Local Goods Yard towards Kadina, the Shunter must go ahead of the leading vehicle and protect May's crossing.

KADINA—SNOWTOWN LINE

Bute—

To enable "Down" Goods Trains to negotiate the grade approaching Bute, a speed of 50 km/h should be maintained, but not exceeded subject to any temporary speed restriction. A Grade Board is situated on the Engineman's side at 221·023 km and the Occupation Crossing gates adjacent to the Grade Board are painted white to assist train crews to locate the change of grade.

Barunga Gap—

Shunting—Before the engine is uncoupled, the Guard must apply sufficient hand brakes to prevent the train from moving in accordance with the Rules.

ADELAIDE AND MURRAY BRIDGE LINE

Method of Handling Trains with Defective Air Brake Equipment—Should any defect in the train pipe or other portion of the Air Brake apparatus (due to train parting or other cause), render the air brakes on the vehicles in the rear of such defect inoperative, the following procedure must be carried out:—

(*a*) If the aggregate mass of the rear vehicles upon which the air brake is inoperative, including the brakevan does not exceed 150 tonnes, the whole train may be coupled up and proceed.

(*b*) If the mass of the rear portion of the train, as described in (*a*) exceeds 150 tonnes, the train must be taken forward to the next station in advance in two parts, as described in Rule 335, the first part consisting of all vehicles from the Engine back to and including the vehicle or vehicles with the damaged brake pipe or other defect.

Before dividing his train, the Guard must comply with Rule 336 by applying the hand brake in the brakevan, and in addition apply the hand brakes on sufficient vehicles to secure the train against movement.

The Train Controller must be promptly advised from the nearest telephone (*vide* Rule 326).

Mile End-Keswick-Goodwood—

(*a*) *Block Working*—When the closing lever at Keswick is reversed, Block Working between Mile End (Passenger) and Goodwood will be by means of the block telephones provided, and between Goodwood and Mile End South Freight Cabin by means of the local party lines connected to Goodwood Cabin, Keswick Cabin, and Mile End South Yard Cabin. When closing lever at Keswick is "Normal", Block Working will be open between Goodwood-Keswick, Keswick-Mile End Junction, and Keswick-Mile End South Yard.

The Signalman, Mile End South Yard Cabin, must keep in communication with the Train Controller in order to receive instructions respecting movements of Goods trains during the hours when Keswick Junction switches are set for the South Suburban lines, and at all times for shunting movements to Keswick Siding, or movements of light engines from Mile End Diesel Depot to Mile End Goods Yard, via Keswick.

The Signalman, Mile End South Yard Cabin, must advise the Train Controller of the times of arrival at, and departure from, his cabin of all Main Line Goods trains.

(*b*) *Platform Indicators*—Platform indicators are installed at the following stations, and must be altered immediately after the departure of a train. The indicators must be switched off after the departure of the last passenger train at night, and switched on 15 minutes prior to the arrival of the first passenger train in the morning:—

Mile End . . .	Two indicators, situated near the ticket office on "Down" side, and opposite "Up" platform entrance on "Up" side. These are operated from Mile End Junction Signal Cabin.
Keswick . . .	One indicator, situated at top of stairway leading to Nos. 2-3 platforms, and operated from the Keswick Signal Cabin.
Goodwood . .	Two indicators, situated in the subway—one at the entrance to each platform. Both indicators are operated from the Station Master's office, or Signal Cabin when this office is closed.

(*c*) *Trains Working from South Line to Port Stanvac Line or Vice Versa*—When it is necessary for a movement from the South Line to travel to the Port Stanvac Line and *vice versa*, the following procedure must be taken to reverse the movement:—

Goodwood Junction—The train must be admitted to the "Up" Suburban Main.

Keswick Junction—The train must be admitted to the "Up" Suburban Main and stop with the rear vehicle opposite the Goodwood end of the passenger platform. The marker lamps must then be placed on the rear of

the last vehicle at the Adelaide end of the train. If an engine is required for the "Down" movement, this must be attached before moving the marker lamps. The light engine released can then proceed to Mile End via the "Up" Suburban Main. The train can then proceed towards Goodwood under signal indication, via the crossover provided and the "Down" Suburban Main. The starting signal for this movement is an upper quadrant dwarf disc signal located between the "Up" and "Down" Suburban Mains, 44 m towards Goodwood from the "Down" end of the platform.

Mile End—

Mile End Guards—The Roster Clerk, Adelaide, must instruct Mile End Guards when they are to book on and off at Adelaide. When booking on, they must report to the Assistant Station Master for confirmation of, or allotment of their duties. Before booking off, they must ascertain from the Roster Office, Adelaide, their duties for the following day and if the Roster Office be closed, from the Time Checker, Mile End, or if that office be closed, Metro Train Control.

Bicycles—Bicycles belonging to Enginemen or Firemen, who book off at Adelaide or Mile End respectively, may be carried on engines in either direction between Adelaide and Mile End. Guards' bicycles are carried free between Mile End and Adelaide as part of Guard's equipment.

Electric Cranes—Only employees who have been passed as competent by the Signal and Telegraph Engineer to work the electric cranes at Mile End may do so.

Trains between Mile End and Adelaide—No movement is to be dispatched from Mile End Goods Yard to Adelaide passenger station until the Yard Master has received permission from the Train Controller.

North End of Yard and Mile End Junction—

Admitting and Dispatching Trains to and from Main Yard—The Yard Master before giving the signal to the Guard for the departure of "Down" trains, must ensure that the line is clear and all switches correctly set. The Signalman at North Cabin must ascertain from the Yard Master, before admitting an "Up" train to the yard, the line to which such train is to be admitted, and set the crossover switches accordingly.

Shunting, North End—When trains are being pushed to and from the Yard to the Main Line, the Shunter must ride on the leading vehicle when trains are being pushed, and on the trailing vehicle when trains are being hauled. If an Assistant Shunter is provided, either the Shunter or the Assistant Shunter must ride on the engine. The air brake must be fully coupled and operative on the engine and all vehicles.

Departure of Trains—Each train or engine starting from the Goods Yard for Mile End Junction Cabin MUST challenge the starting signal in accordance with the following code:—

To Adelaide	– –
North Line, via Torrens Bridge Loop	o o – –
Port Line via Torrens Bridge Loop	o – –
Old Glenelg Line	o o o o o
Permanent Way and Private Sidings	– – – o
Mile End Diesel Depot	Crow
From Goods Yard to East Yard via Mile End Junction	– – o o

Shunting at North Cabin—During shunting operations no engine or vehicle must pass the bracket starting signal until a hand signal is displayed by the Signalman at North Cabin in response to the code whistle:—

For a movement over No. 12 Switches	o o –
For a movement over No. 11 Switches	– –

All shunting movements past the North Cabin must be conducted on the "Down" Line, and not on the "Up" Line.

"Stop" Signals—North Cabin—The "Stop" signals for the departure lines, arrival lines, and inwards Goods line, must be in the "Stop" position, and the lines clear of all shunting movements between the "Stop" signals and North Cabin before the home signal is cleared for an incoming train, or the starting signal cleared for an outgoing train.

A train must not depart from any of the abovementioned lines until the "Stop" signal is in the "Stop" position.

Telephones—Yard and North Cabin—Telephone communication is provided between North Cabin and Yard Master's shelter. When the telephone in the shelter is not answered immediately, the Signalman must switch on the gong to attract attention.

Gong Near Yard Master's Office—A gong which is located on a pole adjacent to the Yard Master's Office, must be operated for one minute by the Signalman at North Cabin when a train is being advanced from Mile End to give warning to the Yard Master and Staff of the approach of a train.

No. 56 Switches—Mile End Junction—Enginemen shunting over Switches No. 56 at Mile End Junction, for the purpose of setting back, must stand their train or engine clear on the Signal Cabin side of the clearance post before giving the challenge whistle to the Signalman to reverse the switches "Normal".

Mile End Junction Cabin—Light Engine and Train Designator Bell and Indicator—Engines or trains proceeding from Loco. Depot into traffic pass over a track circuit, north of Hilton Road Bridge, which operates an indicator and bell in Mile End Junction Cabin, to advise the Signalman of such movement, and Enginemen must not whistle unnecessarily at this point.

Mile End Junction Cabin—Telephone on Permanent Way Siding—A telephone is installed in a box at Mile End Junction, adjacent to the signal leading from the permanent way siding. In the event of the signal being at "stop" and a train ready to depart from the siding, the telephone must be used by Enginemen to communicate with the cabin.

Diesel Depot—

Advice from Pointsman to Mile End Junction Cabin—The Pointsman must advise the Signalman at Mile End Junction Cabin by telephone the description and destination of all movements advanced to the three-arm signal.

When no Pointsman on Duty—When there is no Pointsman at the entrance to the Diesel Depot the above instructions will apply, except that each movement must be under the direction of a qualified Transportation Employee who must carry out the duties of the Pointsman. The hours of duty of the Pointsman will be advised by Train Notice and published in the Working Timetable.

Light Engines from Diesel Depot to Goods Yard—Engines from Diesel Depot to Goods Yard must proceed via the "Up" Loco. Main and Mile End Junction Cabin.

Movements To and From the Diesel Depot, and On Tracks Adjacent therto—

Engines Working into Diesel Depot—A "Stop" board is positioned on the left-hand side of the line leading into the Diesel Depot and all movements entering the Depot must be brought to a stand at this board and proceed only under a hand signal from the Pointsman. Enginemen or Shunters after receiving a hand signal from the Pointsman must not move until they are satisfied that such hand signal is intended for them.

Engineman of multiple engines entering the Diesel Depot, must see that the leading engine is stopped adjacent to the "Stop" board so that the trailing engine is clear of No. 13A Derail.

Engines Departing from The Diesel Depot—Engines leaving the Depot must stop at the appropriate "Stop" board and await a hand signal from the Pointsman to proceed to the three-arm signal leading to Mile End Junction Cabin.

Engines and Shunt Movements from Goods Yards to "B" Yard and Diesel Depot—The above movements must proceed via North Goods Cabin under signal indication to "Stop" board "A". All subsequent movements must be under the direction of the Pointsman.

The return movements to the Goods Yard must be made via Mile End Junction.

Movement of Engines Working in Multiple and Hauling "Dead" Engines ex Diesel Depot to Mile End Goods Yard—Such movements where "dead" engines are being hauled or pushed outside the Diesel Depot are deemed to be shunt movements, and require a qualified Traffic Employee being in attendance, and in all instances must be moved from the Depot via Mile End Junction.

The Diesel Depot Running Foreman must advise the Yard Master of the intended movement and the Yard Master will in turn arrange for a qualified employee to pilot the abovementioned movements from the north end of the Diesel Depot to Mile End Junction, thence to the Marshalling Yard via Keswick Cabin or as otherwise required.

The dispatch of multiple units in excess of operative engines from the Diesel Depot to Traffic Yard (South End) whilst Keswick Cabin is unattended, must be made from Mile End Junction to the New Yard, via the Loco. Main and Loop Siding.

Trains entering or proceeding through Mile End Goods Yard when not tracked via South or North Cabins must stop at Keswick Junction and Mile End Junction signal cabins respectively, to allow a Pilotman to join the train. All subsequent movements must be under the direction of the Pilotman.

Trains departing from East Yard Siding, Mile End Junction end, must do so under signal indication from Absolute Block Signal No. 59.

Ballast Siding—The Ballast Siding at the South East end of the yard is for the purpose of loading ballast from the ballast bins.

South Line trains departing from the Ballast Siding and holding roads must do so under signal indication from "Down" Absolute Block Signal No. 20.

The Signalman, Keswick Junction Cabin must be in attendance for such movement.

Engines Working on Loop Connection—

1. Engines may be released from the Mile End Goods Yard to Loco. for any purpose via the loop which junctions with the ladder road covering the entrance to the new yard, west side of Mile End and the loop road on the east side of the outwards engine road from the Mile End Roundhouse under the following conditions:—

(*a*) The Shunter must deliver the engine at the "Stop" board on the loop connection clear of the Loco. Yard.

(*b*) A qualified Loco. employee will pilot the engine from this point to the Loco. loop road.

(*c*) Engines returning to traffic must be placed at the "Stop" board on the loop connection and opposite to the "Stop" board referred to above where they must remain until the arrival of the Shunter who will deliver the engine to traffic.

2. The Yard Master or Assistant Yard Master will be responsible for advising the Running Shift Foreman the time it is proposed to deliver engines to the "Stop" board on the loop connection.

3. The Running Shift Foreman must telephone the Yard Master or Assistant Yard Master advising when engines will be returned to the "Stop" board on the loop connection under direction of the qualified Loco. employee, in order that the Shunter may be in a position to pick up his engine.

4. No movement must be made across the connecting loop excepting under the direction of the Shunter.

Working between East Yard, or Welding Siding and Outward Goods and Departure Sidings—Engines running light or with vehicles attached from East Yard or Welding Siding to Outwards Departure Sidings, must be brought to a stand at the "Stop" signal, situated on the North side of the Hilton Road Bridge. The Shunter must then go ahead, and after personally seeing that no engine or vehicle is approaching which will foul the movement, must operate the signal for the engine to proceed.

Similarly, an engine running light or with vehicles attached, from Outwards Departure Sidings, to the East Yard, or Welding Siding, must come to a stop at the "stop" signal, situated on the South side of the Hilton Road Bridge. The Shunter must then go ahead, and after personally seeing that no engine or vehicle which will foul the movement is approaching, must operate the signal for the Engineman to proceed.

Before a hauling or pushing movement is made in either direction between the Main Yard and the East Yard, all vehicles must be fully coupled and the air brake in effective operation.

The Shunter must precede the movement in both directions and protect road vehicular crossings in accordance with the Rules and signal the Engineman, using the Assistant Shunter for the relaying of signals if necessary on curves, when the Shunter has not a clear view of the Engineman.

During pushing movements the Shunter must be prepared to apply the air brake from the leading vehicle should the necessity arise.

Permanent Way Siding and Western Private Sidings—Shunting to and From—When shunting to and from Permanent Way Siding, or Western private sidings, the Shunter (who must be provided with an Assistant) must ride on the trailing vehicle when the train is being hauled, and on the leading vehicle when the train is being pushed. The Assistant Shunter must ride on the engine between Mile End Junction and the entrance to Railway Terrace. The air brake must be fully coupled throughout. These movements must be made via Mile End Junction Cabin.

When shunting (either pushing or hauling) across Railway Terrace, the Assistant Shunter, who must have passed the examination in Crossing Keeper's Rules, must precede the movement to protect the road traffic.

Gate Leading from Yard to Railway Terrace—When not in use for railway shunting operations to and from the private sidings along Railway Terrace, this gate must be closed and locked with a "G" Lock. The Shunter in Charge must report to the Yard Master promptly any instance of the gate found unlocked or the lock missing.

Employees must not use this gate as an entrance to the yard.

The "G" Key must be obtained from the Yard Master, and returned to him immediately after use.

South End and Keswick Junction—

Arrival and Departure of Trains—Advice of the arrival and departure of South line trains via South Cabin to Keswick, must be telephoned by the Signalman, South Cabin, to the Signalman at Keswick, when attended, and to the Signalman at Goodwood when Keswick is unattended.

Advice of trains to be dispatched via Keswick Junction from the "Through Line" or from either of the four holding sidings east of the "Down" Main, must be telephoned direct by the employee dispatching the train to the Signalman, Keswick Junction Cabin, who must be in attendance to work the Cabin for such movement.

Dispatch of "Down" Trains—

1. Trains for dispatch via South Cabin from the Departure Sidings, Inwards Arrival Sidings, and Western Sidings, via South Cabin, must be ready for dispatch on scheduled time at a point immediately inside the yard "Down" Starting Signal.

2. The Assistant Yard Master, prior to instructing the Guard to give the starting signal must:—

(*a*) Ascertain from the Signalman at South Cabin that no train or shunting movements are in progress, or about to be made, that will foul the departing train.

(*b*) Ensure that all hand-worked switches are correctly set.

3. The Yard Master may authorize the dispatch of "Down" trains direct from the Outwards Goods Sheds, the South Departure Sidings, or from any of the four holding sidings immediately east of the "Down" Main, via Keswick Junction. When this working is necessary the Assistant Yard Master must—

(*a*) Obtain approval from the Yard Master.

(*b*) Advise the Signalman, South Cabin, who must immediately advise Signalman, Keswick Junction Cabin.

(*c*) Instruct the Guard of the train.

(*d*) Ensure that the line is correctly set.

Arrival of "Up" Trains—

1. Engines or trains from Keswick Goods Sidings must work over the "Up" Main and be admitted by the South Cabin Signalman on signal indication.

2. All "Up" trains and engines from Keswick Goods Sidings for the Arrival or Departure Sidings, must be admitted under Low Speed signal indication, over interlocked crossover No. 4, and must be piloted from a point opposite to the South Cabin to the required place in the yard by the Signalman, South Cabin or Pilotman (when provided), who must see that the line is clear and the switches are correctly set.

3. The employee piloting the train must not ride on the engine but must proceed ahead of the train or engine.

4. All trains and engines for the western yard must be admitted by signal indication (Normal Speed arm if line ahead to the "Stop Board" is unoccupied, or Low Speed arm if track be occupied), and must be piloted from the "Stop Board" by the Signalman or Pilotman (when provided) to the required place in the yard.

5. Shunting movements from the western yard on to the "Up" South Main are prohibited.

Shunting Past South Cabin—

1. During shunting operations no engine or other vehicle must pass Signal No. 2 or No. 6 until such signal has been cleared for the movement. The code whistles for these signals are:—

Signal No. 2 . . . . . – –

Signal No. 6 . . . . . o o –

2. All shunting operations past South Cabin must be conducted on the "Down" Main, and engines or vehicles must not, during shunting operations, pass No. 2 Signal to Keswick Junction.

3. Whenever it is necessary for the Signalman to leave South Cabin to pilot "Up" trains into the yard, Signal No. 6 may be cleared in order to avoid delay to shunting operations on the "Down" Main.

"Stop" Signals—South Cabin—"Stop" signals are provided for the protection of trains entering or leaving the Main Goods Yard against fouling movements by shunt engines. When these Signals are in the "Stop" position, shunting must not take place past them.

Before the Home Signal is cleared for an incoming train, or the starting signal cleared for an outgoing train from arrival sidings, the "Stop" signal must be placed in the "Stop" position, and no shunting movement made on arrival sidings between the signal and South Cabin. Outgoing trains from the arrival sidings must not start until the "Stop" signal is in the "Stop" position.

Livestock Sidings—Vehicles left standing on the livestock sidings must have sufficient hand brakes securely applied to prevent movement in accordance with the Rules.

Keswick Goods Siding—Loading for—Traffic for Keswick Goods Siding must be shunted from Mile End Goods Yard, via the "Down" line, with the engine pushing or hauling the train; when hauling, the air brake must be coupled and in effective operation throughout. The load must not exceed 260 tonnes. The Shunter in Charge must send his Assistant ahead to remove the derails before the train leaves Mile End. The Signalman, South Cabin, must obtain permission by telephone from the Signalman at Keswick (who must be in attendance) for the train to proceed. Before the Signalman, Keswick, gives permission, he must satisfy himself that the derails are "Off". The Assistant Shunter must advise the Signalman, Keswick, by hand signal, when the line to enter the Goods siding is clear.

Shunting to and from Inwards Shed Line—The Shunter in charge of a shunting movement to or from the Inwards shed line over the crossover (Switches Nos. 283 and 284) must either stop any conflicting shunting movement, or wait until such conflicting movement has been effected, before signalling his Engineman to proceed.

The employee in charge of a shunting, light engine, or train movement from the West sidings (new yard) in the direction of North Cabin must, before signalling the Engineman to proceed, see that Switches No. 283 are set "Normal" (for the Inwards shed line) and that they remain so until such movement has cleared No. 284 (A) switches. Before any movement is made past switches No. 284 (A), the Shunter must obtain permission from the Signalman at North Cabin to operate such switches and dispatch the movement towards Signals Nos. 10 and 11. After the movement has cleared switches No. 284 (A), the Shunter must reset the switches "Normal".

Keswick—

Correspondence—Guards must place all inwards correspondence for Keswick in the box provided on the platform. Outwards correspondence must be handed to the Guard by the Signalman.

Keswick Signal Cabin is closed during certain hours of the day, as prescribed in the Working Time Tables Books, and during such period, Main Line signals operate automatically.

When the junction switches are to be normally set for the South Suburban Lines Signal levers Nos. 3 and 20 and closing lever No. 5 must be "Reversed". At

other times when the junction switches are to be set for the Goods Yard, signal levers Nos. 2 and 20 and closing lever No. 5 must be "Reversed". During the time the junction switches are set for the Goods Yard, all traffic from Goodwood to Mile End (passenger) and *vice versa* must be worked over the South Main Lines, thence via the Main or Suburban Lines according to the diagram.

Before an alteration is made to the setting of the junction switches at Keswick, the Signalman must obtain permission from the Train Controller, and advise Signalmen at Goodwood and Mile End Junction. Should an Absolute Block Signal exhibit a "stop" indication with the block in advance apparently unoccupied, the Engineman must communicate with the Train Controller by means of the telephone located in the Signal Cabin.

Leader Street Level Crossing (4·638 *km*) *Shunting Limit Board*—A "Shunting Limit" board is provided on Engineman's left in a "Down" direction and 145 m on the Goodwood side of No. 18 "Up" Absolute Disc Signal at Keswick.

Any shunting movement to and from the "Down" Suburban Main Line must not pass this board.

Push Keys—A push key will be provided in the Keswick Signal Cabin which must be operated for any shunt movement to the "Down" Suburban Main Line from Signals 1, 2 or 3. The push key must be operated after the respective lever is reversed. This is necessary to prevent unnecessary operation of the warning devices at Leader Street, Goodwood.

If the push key is not operated for a shunt movement, it will be necessary for the Signalman in the Keswick Cabin to operate a time release to allow No. 18 signal to be cleared for the back movement.

Goodwood—

The Signalman must at once advise the Train Controller when a passenger train is delayed beyond its departure time. The reason for the delay must be given.

On Sundays, during the hours when Keswick Cabin is closed, the Signalman, Goodwood, must advise the Train Controller the times that trains pass through his station.

Mitcham—

(*a*) *Grange Road Level Crossing* (8·385 *km*)

For Shunting Movements—The warning devices are started by the clearing of the Absolute Disc Signal No. 18B, 18C or 19, and stopped by the passage of the train.

For "Up" Stopping Movements on the Main Line—Switches controlling No. 18A Signal are installed in boxes on the "Up" and "Down" platforms, and must be kept normally in the "clear" position. Either of these switches must be placed in the "Stop" position at least 5 minutes prior to an "Up" stopping train arriving at Mitcham, to avoid unduly long operation of the warning devices for an "Up" train stopping at the platform.

In this case, the switches which have been operated must be returned to the "clear" position when the train is ready to depart in order that the warning devices will operate for 30 seconds before the train arrives at the crossing.

(*b*) *Wattlebury Road Level Crossing* (8·783 *km*)

For "Down" and "Up" movements on the siding over the crossing, the warning devices must be started and stopped by a switch in the signal cabin, so that the warning devices operate for 30 seconds before the train or shunting movement arrives at the crossing and kept in the reverse position during the passage of the movement over the crossing.

For "Down" Stopping Movements on the Main Line—A switch controlling No. 4 Signal is installed in a box on the "Down" platform, and must be kept normally in the "clear" position. This switch must be placed in the "Stop" position at least 5 minutes prior to a "Down" stopping train arriving at Mitcham, to avoid unduly long operation of the warning devices for a "Down" train stopping at the platform.

In this case the switch must be returned to the "clear" position when the train is ready to depart, in order that the warning devices will operate for 30 seconds before the train arrives at the crossing.

Locking of Switch Boxes—The boxes containing the switches controlling No. 18A and No. 4 Signals, located on the "Up" and "Down" platforms, must be kept locked with an "S" padlock except when in use for stopping trains.

(*c*) *Signal Cabin*—This cabin will be opened only for train movements as directed by the Train Controller. The Signalman, upon opening the cabin, must advise the Train Controller, Signalman Goodwood, Blackwood or Belair, that the interlocking is being cut in. He must then restore closing lever and operate cabin. Before closing the cabin, the Signalman must advise the Train Controller, Signalman, Blackwood or Belair, and Goodwood that the cabin is being closed. He will then reverse all Main Line signal levers and closing lever No. 5.

(*d*) *Station Closed*—When Mitcham station is closed, should an Absolute Block Signal exhibit a "Stop" indication, with the Block in advance apparently unoccupied, the Engineman must communicate with the Train Controller. Telephones are located in shelters at each end of the yard.

(*e*) *Traffic Siding*—The Signalman must ensure that all hand-operated switches are correctly set and locked before a train is admitted to, or dispatched from, the Traffic Siding.

(*f*) *Shunting "Up" Movements*—When shunting movements are being carried out at the Adelaide end of the Mitcham Station Yard, not more than equal to 10 four-wheeled vehicles must be attached to the engine.

Enginemen must not pass No. 19 Signal and care must be taken that the shunt movement does not pull clear of the Grange Road Level Crossing. This will ensure the continuous working of the Grange Road Level Crossing warning devices during the movement and at the same time will not unnecessarily operate the warning devices at the Angas Road Level Crossing.

(*g*) *Train Headlights*—The headlights of all "Down" trains must be dimmed from Grange Road Level Crossing to the Wattlebury Road Level Crossing.

Blackwood—

End-loading passenger cars must not be shunted past the cattle ramp platform.

Kicking-off vehicles is prohibited.

Blackwood signal cabin is unattended during certain hours each day from Mondays to Saturdays, and all day on Sundays. Before closing the cabin, the Signalman must advise the Train Controller, and Signalman at Belair, and Mitcham or Goodwood, that the cabin is being closed. He must then reverse all Main Line signal levers and closing lever. On opening the cabin, the Signalman must advise the Train Controller, and Signalman, Belair, Mitcham, or Goodwood, that the cabin is being opened. He must then restore closing lever and operate cabin.

When Blackwood station is closed, should an Absolute Block Signal exhibit a "Stop" indication, with the block in advance apparently unoccupied, the Engineman must communicate with the Train Controller by means of the telephone located in the signal cabin, the door of which is secured with an "S" lock.

Belair—

Kicking-off vehicles is prohibited.

When Blackwood signal cabin is closed, the advice of trains departing from Belair must be given to Mitcham when that cabin is open. When Blackwood and Mitcham Cabins are both closed, the advice must be given to Goodwood Cabin by means of the Block bells.

Long Gully—

Sealed tins of sand for Loco. purposes are kept in the signal cabin at Long Gully for emergency use. When a tin is used, the Signalman must advise the Train Controller, who will arrange for the Foreman, Diesel Depot, Mile End, to replace it.

"Down" and "Up" passenger trains must be admitted to the "Down" platform line, except certain trains as shown in the Working Timetables. When other than scheduled crossings are to be made, the line to be taken by the "Up" and "Down" train will be prescribed by the Train Controller.

Before the engine is detached from a train for the purpose of placing the vehicles in Lay-by Siding, Rule 472 must be fully complied with. After the engine is coupled to the vehicles at the Adelaide end, care must be taken to remove all sprags and chocks before the shunting movement is commenced.

Upper Sturt—

A loudspeaker is installed on the platform at Upper Sturt, controlled by an amplifier in the signal cabin at Mount Lofty. An indicating loudspeaker is also provided in the signal cabin at Long Gully.

This equipment is to be used in the event of a breakdown in the rail service, necessitating road buses being chartered for intending passengers at Upper Sturt.

In such instances, the Signalman, Mount Lofty, must make an announcement through the loudspeaker at Upper Sturt, advising intending passengers at that station to proceed to the main road to join the chartered road buses. This announcement will be heard simultaneously by the Signalman, Long Gully, through the loudspeaker in the signal cabin there.

Mount Lofty—

When, through accident or mishap, there is an interruption of the passenger train service through Upper Sturt, the Signalman at Mount Lofty must make an announcement over the microphone at Mount Lofty advising intending passengers at Upper Sturt to proceed to the main road to join the chartered road bus leaving Mount Lofty Station at (here state time).

The walking time from the Upper Sturt station to the main road is 15 minutes and the running time for the bus from Mount Lofty to the road junction is approximately 10 minutes. It will therefore be necessary for the Signalman to commence making announcements at two minute intervals commencing 10 minutes before the due departure of the bus from Mount Lofty.

Divided Trains Approaching Mount Lofty—When it is neccesary to divide a train on the rising grade when approaching Mount Lofty in either direction, the Train Controller must be immediately advised from the nearest wayside telephone. When approaching Mount Lofty with the first portion of a divided train, the Engineman must sound the whistle - - (2 long) as an indication to the Signalman that the first portion of such divided train is approaching.

Testing Air Brakes—All "Up" Goods and Express Goods trains must stop at Mount Lofty and the air brake must be tested. The method of testing the air brake at Mount Lofty is as follows:—

(*a*) Goods Trains—The Guard must examine the consist to ensure that the brakes have applied. After the brakes are released, the Guard, when returning to the brakevan, must apply hand brakes or set grade control valves as directed by the Enginemen, observing whether the brakes have released on all other vehicles.

(*b*) Express Goods Trains—After the stop is made at Mount Lofty, the Guard must ensure that the brakes apply and release on the brakevan before giving the Guard's starting signal. The Engineman may apply brakes or set grade control valves in accordance with the Rules.

Balhannah—

Protection of Level Crossing at 45·977 *km*—When it becomes necessary to split a train at Balhannah to give access to the level crossing through the yard at 45·977 km and a train movement is to take place on the adjacent track, the Station Master, Balhannah, must see that a traffic employee is present at the level crossing with the necessary equipment to protect same before any train movement is permitted over the level crossing at 45·977 km.

Guards of trains stopping at Balhannah must be on the alert to assist the Station Master in the protection of the level crossing.

Wherever practicable, Guards of trains required to split at Balhannah for the above purpose will be given prior advice by the Train Controller.

Mount Barker Junction—

Kicking-off vehicles is prohibited.

Pyrites Siding, 57·481 km—

All train movements to and from the siding must be made from and to Nairne under signal indications and under the authority of the Train Controller. The movements in both directions must be made with the engine hauling.

To Enter the Siding—Permission to make the movement to the siding must be obtained from the Train Controller before the train departs from Nairne.

The train must stop on the Nairne side of the switches not more than 12 m clear of the insulated rail joints immediately on that side of the Switches.

The Guard must then operate the electric switchlock, in accordance with the instructions in the Signalling and Communications Section of the General Appendix, and reverse the switches.

When the train is in the siding clear of the derail, the Guard must reset and lock the switches for the Main Line; close and lock the door of the electric switchlock, and advise the Train Controller that this has been done.

To Depart from the Siding—When the train is ready to depart from the siding permission to do so must be obtained from the Train Controller, who must also advise Nairne.

The Guard must then operate the electric switchlock and reverse the switches.

The train must then travel on to the Main Line under signal indication from "Up" Absolute Disc Signal 3602, and stop when clear of the switches.

The Guard must then reset and lock the switches for the Main Line; close and lock the door of the electric switchlock, and advise the Train Controller that this has been done. The train must proceed to Nairne under signal indications.

If Vehicles on Siding are not all Fully Loaded—Empty or partly loaded vehicles pushed from loading road with the engine are to be hauled out of dead end with loaded vehicles. If there are not more than three (3) of these empty or partly loaded vehicles the hauling movement must be stopped with the first loaded vehicle clear of crossover. The empty or partly loaded vehicles

must be then placed with hand brakes applied, on that portion of the ramp siding south of the crossover. The loaded vehicles may then be hauled out and placed through crossover on to the brakevan as before. Any empty or partly loaded vehicles in excess of three (3) must be treated in the same manner as the loaded vehicles and hauled to Nairne for detaching.

Callington—

Kicking-off vehicles is prohibited.

Monarto South—

A train may be pushed or drawn ahead on to the Cambrai Line when it is necessary for the purpose of crossing or passing a Main Line train; if an "Up" train is on the section Apamurra-Monarto South, such movement must be protected by the Guard or other qualified employee preceding his train displaying a "Stop" signal at a sufficient distance to protect his train.

He must remain in this position and protect his train until it is again within the protection of Home Signal.

Murray Bridge—

(*a*) *Mannum Road Level Crossing* (95·642 *km*)

Shunting at the Monarto South end of Murray Bridge Station Yard—"Up" Shunting movements must not proceed beyond the "Shunting Limit" board installed approximately 75 m on the "Up" side of the "Down" main facing switches No. 9 and on the Engineman's left for "Up" movements.

In order to avoid unnecessary operation of the warning devices for the above shunting movements, the employee in charge of the station office, before clearing No. 2A or 2E signals for an "Up" shunt movement over No. 9 switches, must press the red push key designated "Press to Shunt".

A black push key designated "Cancel" is provided if the red push key has been operated in error.

A red indicating light adjacent to the push keys will remain illuminated during the shunting movement and will be extinguished when the movement is again clear of No. 2A or 2E Signals.

No. 2 Signal lever must not be operated for "Up" train movements to proceed to Monarto South without first ensuring that the red indicating light is extinguished.

(*b*) *Sale Yard Siding*

Movements to and from the Sale Yard Siding must only be made under the direction of the Train Controller.

To Enter the Sale Yard Siding—The engine, or the leading vehicle in the case of a pushing movement, must be stopped not more than one rail length on the Murray Bridge side of the facing switches. The Fireman, or the Shunter in the case of a pushing movement, must then:—

(1) Actuate the handle of the electric switchlock controlling the switches.

(2) Reverse the ground lever setting the switches for the triangle.

(3) Display a hand signal to the Engineman to proceed into the siding, and, when the train is clear of the derail, reset and lock the switches, place the electric switchlock handle in its "Normal" position, close and lock the door of the switchlock.

(4) Advise the Train Controller that the engine and vehicles are in clear of the Main Line and the switches are reset and locked in their "Normal" position.

To Depart from the Sale Yard Siding—The Shunter, or the Fireman in the case of a light engine, must obtain permission from the Train Controller. The door of the electric switchlock must then be opened, and, if the indicator arm is at 45 degrees, the Shunter or the Fireman must:—

(1) Actuate the handle of the electric switchlock controlling the switches.

(2) Reverse the ground lever setting the switches for the triangle.

(3) Display a hand signal to the Engineman to draw on to the Main Line, and, when clear of the switches, reset and lock same, place the electric switchlock handle in its "Normal" position, close and lock the door of the switchlock.

The Engineman, or Shunter, in case of a pushing movement, must see that the gates are open before making the movement, and that they are closed after the movement has passed through. A sharp lookout must also be kept to avoid injury to livestock grazing on land adjacent to this line.

GOODWOOD—HALLETT COVE—PORT STANVAC LINE

Edwardstown—

Signal Cabin—This cabin will be open only for train movements as directed by the Train Controller. Before closing the cabin, the Signalman must advise the Train Controller and the Signalmen at Goodwood Junction and Oaklands (or Brighton) that the cabin is being closed. He must then reverse all Main Line signal levers and the closing lever. Before opening the cabin, the Signalman must advise the Train Controller that the cabin is being opened. He must then replace the closing lever to normal, thus restoring the block telephone circuits, and advise the Signalmen at Goodwood Junction and Oaklands (or Brighton) that the cabin has been opened. He must then operate the cabin as required.

When the cabin is closed, should an Absolute Block Signal exhibit a "Stop" indication, with the block in advance apparently unoccupied, the Engineman must communicate with the Train Controller. Telephones for this purpose are located midway between Absolute Signals Nos. 1 and 3A at the Goodwood Junction end of the yard, and midway between Absolute Signals Nos. 13 and 15 at the Oaklands end of the yard.

South Road-Cross Road Level Crossing, Emerson (7·243 *km*)

Shunting at the Adelaide end of the Station Yard—"Up" shunting movements must not proceed beyond the "Shunting Limit" board installed 90 m on the Emerson side of No. 2 Signal at Edwardstown.

When a shunting movement is to be made on to the "Up" Main Line via Signals Nos. 3A, 3B or 3C, the Signalman, Edwardstown, must first press the push key marked "1-4" in the Signal cabin, in order to prevent the operation of the warning devices at the South Road-Cross Road Level Crossing at Emerson. Should this push key be operated in error, the push key marked "1-4A" in the cabin must be depressed to restore normal operation of the warning devices.

Oaklands—

Signal Cabin—This cabin will be open only for train movements as directed by the Train Controller. Before closing the cabin, the Signalman must advise the Train Controller and the Signalmen, Edwardstown and Brighton, that the cabin is being closed. He must then reverse all Main Line signal levers and the closing lever. The Signalman, upon commencing duty, must advise the Train Controller and the Signalmen, Edwardstown and Brighton, that the cabin is being opened. He must then restore the closing lever and operate the cabin.

When the cabin is closed, should an Absolute Block Signal exhibit a "Stop" indication, with the block in advance apparently unoccupied, the Engineman must communicate with the Train Controller. Telephones for this purpose are located midway between Absolute Signals Nos. 1 and 4A, at the Brighton end of the yard.

Hove—

As many blind people travel to and from Hove, the Staff must be vigilant and see that sufficient time is always afforded to passengers.

Brighton—

Shoreham Road Level Crossing, South Brighton (16·269 *km*)

In order to prevent unnecessary operation of the warning devices at the above level crossing for shunting movements to the Main Line at the Marino end of Brighton Station Yard, push key No. 1010 in the Brighton Signal Cabin must be depressed immediately after the reversing of No. 15 Signal Lever.

Another push key, No. 1010A in the cabin must be depressed if the push key No. 1010 has been operated in error.

Marino—

(*a*) *Detaching Engines from Trains*—When it is necessary to detach the engine from trains standing on the Main Line or within the station yard, the Guard must secure the train against movements before detaching the engine.

(*b*) *Side Loading Ramp*—A side loading ramp for loading quarry products is situated adjacent to the Goods Siding, and fouls the minimum structure gauge. Only open wagons are to be shunted past this ramp. The clear distance between the fouling point and the ramp at each end of the Goods Siding is:—

Adelaide end—240 m

Port Stanvac end—156 m

(*c*) *Pathways leading to platform to be left clear of vehicles standing on sidings*—Train staff shunting at Marino must ensure that the pathways leading to the platform are left clear for pedestrian traffic.

The Train Controller must record on his graph this information given with the name of the Guard and the time of advice. Each instance of failure to comply must be reported in writing to the Superintendent.

(*d*) *"Up" trains departing from—*

(i) "Up" trains must NOT leave Marino until permission to proceed has been received from Brighton.

Guards of "Up" passenger trains must ensure that their trains do not leave Marino before time, although permission may have been obtained from Brighton for the train to enter the section. Time check must be made with Station Master, Brighton, or the Train Controller, each day.

(ii) "Up" trains departing from the Main Line.

After obtaining permission from Brighton to proceed the push key controlling the "UP" Entering Block Signal No. 1116 must be operated. This push key together with a push button key cancelling No. 1116, is located in the Station Office which is locked with an "S" lock.

(iii) "Up" trains departing from Passing Siding.

After obtaining permission from Brighton to proceed, No. 3 Main Line switchstand actuated switches must be reversed, the push key controlling the "Up" Entering Block Signal No. 1116 must then be

operated. This push key, together with a push key for cancelling Signal No. 1116, is located in a small enclosure locked with an "S" type lock and attached to the side of a signalling apparatus box adjacent No. 3 "Down" Main Facing Switches. After the train has passed over No. 3 switches, they must be reset for the Main Line.

(*e*) *Gong installed on Train Control Telephone Cabinet*—A loud ringing gong is located on a pole on the Brighton side of the Train Control cabinet at Marino, and will ring each time the Train Controller, Adelaide, calls. The Guard of any train at Marino must, on hearing the gong ringing, immediately answer the telephone. Should the Station Master, Brighton, be unable to raise Marino on the Party Telephone, he must, if the matter is urgent, or affects train working, request the Train Controller to call Marino.

(*f*) *Reporting Late Trains*—Guards working passenger trains to Marino must report to the Train Controller from Marino all instances when their train arrives at that station three or more minutes late.

Port Stanvac Area—

(*a*) *Method of Working*—

(1) Guards of all "Down" trains to Port Stanvac must report to the Train Controller when standing in clear of the Main Line and switches No 1305 have been reset and locked for the Main Line.

(2) Trains will work into or out of Port Stanvac under Train Order working for an unattended station.

(3) Trains must not depart Hallett Cove or Port Stanvac until in possession of a Train Order for the appropriate section.

(4) On arrival at the facing switches at Port Stanvac, the train will enter the Main Line or Passing Siding as indicated on the Train Order.

(5) Shunts are to be performed to the Petroleum Refinery Sidings and Chrysler's Lonsdale Siding as required. The employee in charge of shunting must ensure the gates at entrance to the siding are in the open position and safely secured before the shunt movement proceeds.

(6) Before departure from Port Stanvac the Guard must ensure the switches are set, and the switchstands padlocked, in the "Normal" position (for Main Line).

(7) Stop Board—Petroleum Refinery Sidings. This board is located approximately 30 m from the switches of eastern line. No incoming Railway rollingstock is to pass this point until express approval is obtained from Petroleum Refineries Australia representative on duty at the bulk terminal.

(8) On departure of a "Down" Port Stanvac train from Brighton, and when shunting is to be performed on the Petroleum Refinery Sidings, the Station Master, Brighton, must telephone the Dispatch Officer advising the arrival time of the train at Port Stanvac to enable the gate at the entrance to the sidings to be opened. When shunts are to be made to or from Chrysler's Lonsdale Siding similar advice is to be given by phone to the Main Gate Keeper (Chrysler (Aust. Ltd.)).

(9) The Guard must contact the Dispatch Officer (Petroleum Refineries Australia) and obtain particulars of loaded vehicles to be lifted from the Petroleum Refinery Sidings. The Station Master, Brighton, will advise the journey particulars of loaded or empty vehicles to be lifted from Chrysler's Lonsdale Siding.

(10) Consignment Notes for loaded tank vehicles *ex* Port Stanvac must be handed to the Station Master, Brighton, by the Guard of the train to which the tank vehicles are attached.

(*b*) *Petroleum Refinery Sidings*—In order to observe the necessary fire precautions within the property of the Petroleum Refinery, OIL BURNING LAMPS MUST BE EXTINGUISHED whilst trains are on this property.

(*c*) *Chrysler Australia Limited, Lonsdale,* have declared the area of their private siding at Lonsdale a "Hard Hat" area and, in conformity with their policy, all employees working within the area must be equipped with safety helmets. Accordingly, a box has been erected immediately inside the entrace gates to their siding on the eastern side of the track. This box is locked with an "S" Lock and is marked "S.A.R." on the door.

The box contains the following equipment:—

2 Safety Helmets,

3 Pairs of Safety Spectacles,

A quantity of paper tissues for lining the insides of the helmets,

One helmet is branded "Engineman" and the other "Guard".

In order to comply with the policy of the company, the following is to be observed when shunting is required to be performed within Chrysler Australia Limited Private Siding at Lonsdale:—

(1) The shunt movement is to be brought to a stop immediately the leading vehicle enters Chrysler's premises.

(2) The Guard is to obtain the helmets, spectacles and two sets of tissues from the box located on the eastern side of the rail track adjacent to the entrance gate.

(3) The Guard will hand the helmet branded "Engineman" and a set of tissues to the Engineman and a pair of safety spectacles to both the Engineman and Fireman.

(4) The Guard will obtain for his own use the helmet branded "Guard" along with a pair of safety spectacles and a set of paper tissues for his personal use.

(5) Each member of the train crew will wear the items provided during the entire period of time spent within Chrysler's premises.

(6) Before a further movement is made the Engineman is to sound a long blast on the engine hooter and await the signal from the Guard who must first obtain permisison from a Chrysler Australia Limited employee in attendance before the shunt movement may proceed through the foundry shed. The Guard must precede the shunt movement and as far as possible display hand signals on the Engineman's side of the shunt movement.

(7) Speed during shunting operations within Chrysler's premises must not exceed 5 km/h.

(8) A sharp look-out must be kept by the engine crew for hand signals displayed by the Guard during the performance of shunting operations.

(9) When entering the foundry from the Hallett Cove end of the shed the same procedure as outlined above in paragraph (6) must be adopted before the foundry shed is entered.

(10) Prior to departure from Chrysler's Private Siding, the helmets and safety spectacles must be returned by the Guard to the box provided for their keeping and the box properly locked. Used tissues must be destroyed.

Train Crews shunting Chrysler Australia Limited Private Siding must wear the protection equipment provided and carry out the instructions as detailed above.

Any shortage of the equipment must be immediately reported to the Superintendent, Adelaide.

Adelaide and Strathalbyn—

Method of Handling Trains with Defective Air Brake Equipment—Should any defect in the train pipe or other portion of the Air Brake apparatus (due to train parting or other cause) render the Air Brakes on the vehicle in the rear of such defect inoperative, the following procedure must be adhered to:—

(*a*) If the aggregate mass of the rear vehicles upon which the Air Brake is inoperative, including the brakevan, does not exceed 150 tonnes, the whole train may be coupled up and proceed.

(*b*) If the mass of the rear portion of the train, as described in (*a*) exceeds 150 tonnes, the train must be taken forward to the next station in advance in two parts, as described in Rule 335, the first part consisting of all vehicles from the engine back to and including the vehicle or vehicles with the damaged brake pipe or other defect. Before dividing his train, the Guard must comply with Rule 336 by applying the hand brake in the brakevan, and in addition apply the hand brakes on sufficient vehicles to secure the train against movement. The Train Controller must be promply advised from the nearest telephone—*vide* Rule No. 326.

Bugle Ranges—

Kicking-off vehicles is prohibited.

Strathalbyn—

(*a*) *East Terrace Level Crossing* (80·845 *km*)

Operating Instructions—

(1) *"Down" Trains Entering Station Yard*—The Flashing Light Signals at East Terrace level crossing will operate automatically on the approach of a "Down" train to the level crossing. The Flashing Light Signals will cease to operate after the train has proceeded completely beyond the level crossing.

(2) *"Up" Trains Departing Station Yard*—In addition to carrying out the instructions under this heading for the control of the South Terrace level crossing (as listed hereafter), the following instructions must be carried out:—

(A) Depress the black operating push button labelled "5040—To Start East Terrace Crossing", located in the castalloy telephone cabinet under the verandah of the station office adjacent the operating push buttons for Milne Road and South Terrace level crossing.

(B) The Flashing Light Signals at East Terrace level crossing will commence to operate after the train has proceeded beyond South Terrace level crossing and "Up" Absolute Signal No. 5040 will display a "Caution" indication twenty (20) seconds after the commencement of operation of the Flashing Light Signals.

(3) *Shunting Movements at the Mount Barker end of the Station Yard*—In addition to carrying out the instructions under this heading for the control of the South Terrace level crossing (as listed hereafter), the following instructions must be carried out:—

(A) To avoid unnecessary operation of the Flashing Light Signals at East Terrace level crossing the push button labelled "5040—To Start East Terrace Crossing" MUST NOT be depressed for shunting movements over South Terrace level crossing.

(B) After the completion of the shunting movements and when the "Up" train is ready to depart the Station Yard the Flashing Light Signals at East Terrace level crossing can be operated, as described above for "Up Trains Departing Station Yard", or as follows:—

(i) The train may proceed to "Up" Absolute Signal No. 5040 which will be displaying a "Stop" indication.

(ii) Depress the black operation push button labelled "5040B—To Start East Terrace Crossing" located in a small enclosure, locked with an "S" type padlock and attached to the side of a signalling apparatus case adjacent "Up" Absolute Signal No. 5040.

(iii) The Flashing Light Signals at East Terrace level crossing will commence to operate immediately the abovementioned push button is depressed and "Up" Absolute Signal No. 5040 will display a "Caution" indication after a delay of twenty (20) seconds.

(4) *Shunting Movements at Laucke's Flour Mill Siding*—All movements into and out of the siding must be carried out by "Up" trains and the train must be in possession of a Train Order for the section.

The brakevan and any vehicle not required to enter the siding must be left on the Main Line clear of the fouling point of the Main Line and the siding.

The Train Controller must be advised when the shunting movement has been completed and that the switches are set and padlocked for the Main Line and the train is ready to depart.

(*b*) *South Terrace Level Crossing* (81·363 *km*)

Operating Instructions—

(1) *"Up" Trains Entering Station Yard*—"Up" trains MUST be brought to a STOP before the leading vehicle has passed the fouling disc located adjacent South Terrace level crossing.

(2) *"Down" Trains Entering Station Yard*—The Flashing Light Signals at South Terrace level crossing will operate automatically for "Down" train movements entering the station yard.

"Down" trains MUST be brought to a STOP before the leading vehicle has passed the fouling disc located adjacent Milne Road level crossing.

(3) *"Up" Trains Departing Station Yard*—To commence the operation of the Flashing Light Signals at South Terrace level crossing and hence enable an "Up" train to proceed over the level crossing, depress one of the following black operating push buttons:—

(i) The push button labelled "5063—To Start South Terrace Crossing", located in the castalloy telephone cabinet under the verandah of the Station Office; or

(ii) The push button labelled "5063B—To Start South Terrace Crossing", located in a small enclosure, locked with an "S" type padlock, and attached to the side of a signalling apparatus case adjacent to South Terrace level crossing.

The Flashing Light Signals at South Terrace level crossing will commence to operate immediately one of the abovementioned push buttons is pressed, and the train may proceed over South Terrace level crossing after waiting twenty (20) seconds to ensure sufficient warning time for road users. The Flashing Light Signals will cease operation when the train has passed completely over the level crossing.

(4) *Shunting Movements over South Terrace Level Crossing*—All shunting movements requiring to proceed over South Terrace level crossing in the "Up" direction must be made in accordance with the foregoing instructions for "Up" Trains Departing Station Yard.

In the event of a shunting movement proceeding completely beyond the level crossing such that the Flashing Light Signals cease to operate the movement may be brought back over the level crossing as follows:—

(i) Depress one of the following black operating push buttons:—

The push button labelled "5063B—To Start Crossing" or

The push button labelled "5063D—To Start Crossing" located in the Train Control Telephone cubicle adjacent the "Down" Facing Switches.

(ii) The train movement may then proceed back over South Terrace level crossing after ensuring that the Flashing Light Signals have been operating correctly for at least twenty (20) seconds.

(5) *Operation of Push Buttons in Error*—In the event of push buttons 5063, 5063B, or 5063D being operated in error, one of the following red cancelling push buttons must be depressed:—

(i) The push button labelled "5063A—To Cancel Crossing" located adjacent push button 5063 at the Station Building, or

(ii) The push button labelled "5063C—To Cancel Crossing" located adjacent push button 5063B at the South Terrace level crossing.

(c) *Milne Road Level Crossing* (81·727 *km*)

Operating Instructions—

(1) *"Up" Trains Entering Station Yard*—The Flashing Light Signals at Milne Road level crossing will operate automatically for "Up" train movements entering the station yard. "Up" trains MUST be brought to a STOP before the leading vehicle has passed the fouling disc located adjacent South Terrace level crossing.

(2) *"Down" trains* MUST be brought to a STOP before the leading vehicle has passed the fouling disc located adjacent Milne Road level crossing.

(3) *"Down" Trains Departing Station Yard*—To commence the operation of the Flashing Light Signals at Milne Road level crossing and hence enable a "Down" train to proceed over the level crossing, depress one of the following black operating push buttons:—

(i) The push button labelled "5102—To Start Milne Road Crossing", located in the castalloy telephone cabinet under the verandah of the Station Office, or

(ii) The push button labelled "5102E—To Start Milne Road Crossing", located in the small enclosure, locked with an "S" type padlock, and attached to the side of a signalling apparatus case adjacent the Station Building side of Milne Road level crossing.

The Flashing Light Signals at Milne Road level crossing will commence to operate immediately one of the abovementioned push buttons is pressed and the train may proceed over Milne Road level crossing after waiting twenty (20) seconds to ensure sufficient warning time for road users.

The Flashing Light Signals will cease to operate when the train has passed completely over the level crossing.

(4) *Shunting Movements Over Milne Road Level Crossing*—All shunting movements requiring to proceed over Milne Road level crossing in the "Down" direction must be made in accordance with the foregoing instructions for "Down Trains Departing Station Yard".

In the event of a shunting movement proceeding completely beyond Milne Road level crossing such that the Flashing Light Signals cease to operate, the movement may be brought back over the level crossing as follows:—

(i) Depress one of the following black operating push buttons:—

The push button labelled "5102E—To Start Crossing", located in a small box on the station side of the level crossing.

The push button labelled "5102B—To Start Crossing", located in a small enclosure, locked with an "S" type padlock, attached to the side of a signalling apparatus case adjacent the Victor Harbour side of Milne Road level crossing; or

The push button labelled "5102D—To Start Crossing", located in the Train Control telephone cubicle adjacent the "Up" facing switches.

(ii) The train movement may then proceed back over Milne Road level crossing after ensuring that the Flashing Light Signals have been operating correctly for at least twenty (20) seconds.

(5) *Operation of push buttons in error*—In the event of push buttons 5102, 5102B, 5102D, or 5102E being operated in error one of the following red cancelling push buttons must be depressed:—

(i) The push button labelled "5102A—To Cancel Crossing" located adjacent push button 5102 at the Station Building; or

(ii) The push button labelled "5102C—To Cancel Crossing" located adjacent push button 5102B at the Milne Road level crossing.

Currency Creek—

Take-Outs—Goods must not be taken out at the passenger platform, but must be placed in the Goods Shed (if entitled to the protection of a shed) or on the Goods Platform.

Goolwa—

Punt Road Level Crossing (114·149 *km*)

Before the signal is cleared to admit a "Down" train to the yard or the Station Master gives "Right Away" for an "Up" train, he must ensure that the crossing gates at the Punt road are closed and locked across the roadway for the passage of all "Up" and "Down" trains and shunting movements over the crossing to protect road traffic.

Between sunset and sunrise red lights must be displayed on the gates on both sides of the crossing.

Victor Harbour—

(*a*) *Level Crossing* (131·903 *km*)—Crossing gates are provided at the level crossing immediately north of the platform. These gates must be closed across the roadway for the passage of all "Up" and "Down" trains and shunting movements over the crossing. Red lights must be displayed on the gates.

(*b*) *Stabling of Rail Cars*—Rail cars of all classes will stable alongside the platform erected for the storage of Chromate water located opposite the barracks on the Holding road immediately on the Adelaide side of Eyre Terrace level crossing.

(*c*) *Class "GMX" wagons* must NOT be permitted to work into Victor Harbour.

MONARTO SOUTH AND CAMBRAI LINE

Guards of Goods trains, after completing their work, and immediately before leaving unattended stations, must advise their departure time to the Station Master, Monarto South.

Guards must record this message in the Train Register. This information is necessary for the guidance of the Permanent Way or other employees working on the line.

MURRAY BRIDGE DIVISIONAL INSTRUCTIONS

Labelling of Empty Vehicles—All empty vehicles for unattended stations on the Murray Bridge Division must be labelled as well as waybilled; the label to show the destination station, also the date and name of the customer by whom the vehicle is to be loaded.

The labelling must be carried out as directed by the Trucks Officer, Murray Bridge.

Inspection of Empty Victorian Passenger Cars—Victorian empty passenger cars, either on passenger trains or goods trains, must be examined as follows:—

"Down"—By staff at Tailem Bend.

"Up"—By Guard at Serviceton.

All details of damage must be promptly reported to the Superintendent, Murray Bridge.

Working of "Down" and "Up" The Overland trains at roadside Stations—

"Down" Journey—The Train Porter on arrival at Murray Bridge must advise the Station Master of any stops required between Tailem Bend and Wolseley. Immediately the train has left, the Station Master, Murray Bridge, must give these particulars to the Train Controller, together with details of any passengers joining at Murray Bridge for roadside stations. The Train Controller must advise the Station Master, Tailem Bend, of any roadside stops, immediately after departure of The Overland from Murray Bridge. On receipt of this information the Station Master, Tailem Bend, must prepare the prescribed form and hand same to the Engineman and a copy to the Guard.

The names of stops shown on the form must include those required for passengers joining at Tailem Bend.

"Up" Journey—The Train Porter, on arrival at Wolseley, must advise the Station Master, Wolseley, of the number of passengers (sleeping car, First and Economy Class) for stations en route to Tailem Bend. On receipt of this information, the Station Master, Wolseley, must advise the Train Controller, who will advise the Station Master, Bordertown, to prepare the prescribed form for handing to the Engineman and Guard. The names of the stops shown on the form must include those required for passengers joining at Wolseley and Bordertown.

"Down" and "Up" Journey—Tailem Bend to Wolseley—Where a provisional stop is required for passengers to join the "Up" or "Down" The Overland, the Station Master, when advised, must arrange with the Train Controller to stop the train.

Cleaning of Passenger Trains—Station Masters at the following stations must, in addition to the instructions appearing herein regarding the cleaning of carriages, rail cars, and brakevans, see that all vehicles of the regular passenger trains (and where time permits extra passenger trains), The Overland excepted, are thoroughly cleaned, seats, back of seats, and lavatory seats must be wiped and dusted, the floors of the carriages swept and ashtrays emptied as necessary:—

Tailem Bend	Loxton	Naracoorte
Waikerie	Renmark	Mount Gambier
	Barmera	Kingston

Loading exceeding South Australian gauge on vehicles from Victoria—The loading on vehicles from Victoria must be examined by the Guard before departure from Serviceton, and any loading which is not in accordance with the loading gauge authorized in Rule No. 61 must be brought under the notice of the Station Master, Serviceton and particulars telephoned to the Train Controller, Murray Bridge. Should there be any doubt regarding the loading not being within the prescribed gauge, the vehicle must be detached at Serviceton for further examination and the Train Controller advised of full details including measurements.

MURRAY BRIDGE TO SERVICETON LINE

Express and Fast Goods Train Loads—The Train Controller, Murray Bridge, must advise the Station Master, Serviceton, of the particulars of loading on express and fast goods trains in the same manner and at the same time as advice is sent to the Train Controller, Ararat. The particulars supplied must be in sequence, commencing from the engine leaving Tailem Bend.

Murray Bridge—

(*a*) *"Stop" Markers for Stopping of "Down" The Overland*—The Engineman must stop his train with the front of the leading engine opposite the "Stop" markers which is a steel plate 250 mm square, painted white with a black diagonal section, set in the ground on the Engineman's side, and a white post set in the embankment on the Fireman's side.

(*b*) *Passengers Alighting from Trains*—Sleeping Car Conductors and Train Porters must take steps to prevent passengers alighting before the train has come to rest. Passengers must be warned of the risk attending any attempt to alight from a moving train.

(*c*) *Shunting between Goods Yard and Wharf*—A "Stop" board is situated 30 m on the goods yard side of the first pair of facing switches leading to the wharf. When vehicles are being shunted from the goods yard to the wharf, the Shunter must ride on the leading vehicle. When the train reaches the "Stop" board the Shunter must signal the Engineman to stop. From this point the Shunter must precede the train to the wharf siding.

In all cases, vehicles must be fully coupled together and to the engine, with the air brake in effective operation throughout.

(*d*) *Switchstand on Wharf Line—Goods Yard*—A switchstand is installed on the siding leading from the goods yard to the wharf. The switchstand must be kept in the normal (derailing) position, except when a shunting movement is being carried out between the yard and the wharf.

Vehicles must not stand between the switch and notice board in the siding leading from the yard to the wharf, except when attached to an engine.

(*e*) *Switches to Goods Main*—The first pair of siding switches leading out from the Goods Main (river side) is not controlled from the Signal console but is operated by a spring lever. These switches must be normally set for the Goods Main. The second pair of switches leading out from the Goods Main (river side) is not controlled from the Signal console in the Station Master's Office. These must be regarded as Goods Main facing switches, and the Shunter must set and lock them for the Goods Main after use.

(*f*) *Portable Radio Equipment to Facilitate Shunting in the Yard—General*—Two portable radio sets numbered "Portable 1" and "Portable 2" will be held at Murray Bridge Station to be used by the employee in charge of shunting when necessary.

Each unit operates on the same frequency as the train radio system and may be used for communication between each portable set or from either portable set to a radio equipped engine or brakevan.

When shunting with an engine in which a train radio set is installed, only one portable set will be necessary. When shunting with an engine in which a train radio is not fitted, it will be necessary to issue the Engineman with the second portable set for use during shunting operations only. This unit must be obtained from the Engineman before the engine leaves Murray Bridge. The Engineman must also ensure that the unit is returned to the Station Master before leaving Murray Bridge.

The portable radio sets operate on rechargeable batteries which should provide a life of 12-16 hours of normal operation before recharging is necessary.

Portable Radio Sets—The units are contained in a leather case with a shoulder type carrying strap, and are fitted with the following controls which are accessible when the top flap is opened:—

(i) *"Off-On" Switch*—The switch knob is clearly marked with a red line which points to the "off" position when not in use. To turn on the set this switch is turned clockwise to either the position marked "on" or that marked "LS". In the "on" position the microphone also operates as an earphone which is intended for use in noisy locations. In the "LS" position any calls received will be amplified through the loud speaker in the unit.

(ii) *"Squelch"*—After switching on the set, the knob designated "squelch" should be rotated to a position where any noise being received is just quietened.

(iii) *Volume*—The earpiece or loud speaker volume is increased by rotating this knob clockwise as required.

(iv) *Aerial*—The aerial is a retractable whip type and can be raised approximately 380 mm as necessary to improve performance if range is otherwise too great. Care must be exercised when the aerial is extended to prevent damage.

(v) *Microphone*—The microphone is attached to a retractable cord and plugged into a special socket on the top of the set. A red button on the side of the microphone must be pressed when required to transmit, and release to listen.

As stated above the microphone can be placed near the ear and used as an earpiece when necessary.

A chrome clip on the side of the leather case is provided to support the microphone when not in use.

Operating Procedure—

(i) Switch on the set.

(ii) Hold the microphone approximately 70 mm from and a little to one side of the mouth and speak in a normal conversational tone across the face of the microphone. Correct use of the microphone is essential to obtain best performance from the unit.

(iii) Give the call sign "VL5JM".

(iv) To check that the radio unit is functioning, call the Engineman or the Guard or Shunter as the case may be, giving engine number, train number as follows:—

"VL5JM Shunter at Murray Bridge calling Engineman of engine 930 of train number 152, come in please, over."

"VL5JM Engineman of engine 930 of train number 152 calling Shunter, come in please, over."

to which reply must be—

"Engineman of engine 930 of train number 152 receiving, over."

or—

"Shunter at Murray Bridge receiving, over."

(v) After acknowledging the call and saying "over", the caller shall then give the message or instructions necessary.

(vi) The receiver of the message or instructions shall then repeat the instructions and conclude with "received and understood—over and out".

(vii) The caller will then conclude with "Shunter to Engineman of engine No. 930 message complete—over and out VL5JM."

(viii) When a message in not received clearly or is not understood, the Engineman or Shunter shall at once ask for the message or instruction to be repeated.

(ix) On completion of the shunting, the radio sets must be turned off, and the portable radio sets returned to the Station Office.

(x) The employee using the portable radio must enter in the log book provided the number of the sets, the date and the number of hours used, so that the telephone technician can see when to charge and recharge the special batteries used in the portable radio set concerned.

P.M.G. Department Regulations—

(i) Transmission must be as brief as possible, consistent with legitimate requirements for which the sets are licenced. Remarks not essential to the services, all superfluous conservations being prohibited, and the use of profane or obscene expressions are prohibited.

(ii) The call sign "VL5JM" must be used by the calling station regularly during the work.

Instructions to Staff—The personal instruction of staff in the use of portable radio sets will be given by an officer of the Signal and Telegraph Section.

The Station Master, Murray Bridge, must maintain a record of the staff qualified by instruction to use the portable radio sets, and also provide a log book for the maintenance of the record of the use of these sets.

No person other than the Traffic Staff authorized by the Station Master, Murray Bridge, is permitted to use the portable radio sets.

Failure of Radio Equipment—In the event of failure of the radio equipment, the telephone technician at Murray Bridge must be promptly advised.

Details of the failure, such as "Portable 2 unable to receive Engineman on engine 937 Set 18" etc., must be ascertained and entered in the log book after returning the set to the Station Office.

Custody of Radios—The portable radio units will be under the control of the Station Master, Murray Bridge, who will make suitable arrangements for their safe custody when not in use. Employees of the Traffic Staff authorized to use the radios must sign their name, and record in the log book provided, the times at which the radios are taken and returned.

Use of Portable Radio Sets during Shunting Operations—The radio units are provided for the purpose of assisting traffic staff engaged in shunting operations in areas at Murray Bridge where the exchange of hand signals is difficult.

When it is practicable, hand signals must be used.

The use of the radio units does not eliminate the need for the prescribed Rules and Regulations to be observed at all times.

TAILEM BEND-WOLSELEY—"CENTRALIZED TRAFFIC CONTROL" WORKING

1. **Dispatching of Trains into "C.T.C." Territory—**

(*a*) *"Down" trains departing Tailem Bend*—The Signalman, Tailem Bend, must advise the Train Controller, Murray Bridge—

(i) that a "Down" train is ready to depart for Cookes Plains;

(ii) the location of the train—whether on the Main Line or the Loop Siding.

Indications will be displayed on the miniature illuminated diagram at Murray Bridge to show which route has been set by the Signalman at Tailem Bend, or which line has been occupied by the train approaching either No. 20 or No. 20B Signals at Tailem Bend.

(*b*) *"Up" trains arriving at Tailem Bend*—The Train Controller must advise the Signalman at Tailem Bend the expected arrival time of each train, and ascertain from the Signalman whether he requires the trains to be admitted to the station yard via the Main Line or the Loop Siding.

The Train Controller must then operate No. 22 switches and No. 21 Signal for the route required.

(*c*) *"Up" trains departing Wolseley*—The Signalman, Wolesley, must advise the Train Controller, Murray Bridge:—

(i) That the train is ready to depart for Bordertown;

(ii) whether the train will depart via the Main Line or Passing Siding.

Indications will be displayed on the miniature illuminated diagram at Murray Bridge to show which route has been set by the Signalman at Wolseley or which track has been occupied by the train approaching either No. 20 or No. 20B Signals at Wolseley.

(*d*) *"Down" trains arriving at Wolseley*—The Train Controller must advise the Signalman at Wolseley the expected arrival time of each train, and ascertain from the Signalman whether he requires the train to be admitted to the station yard via the Main Line or the Passing Siding.

The Train Controller must then operate No. 22 switches and No. 21 Signal for the route required.

2. **Change-over to "Locally Controlled Station"—Cookes Plains—Bordertown inclusive—**

Under the authority of the Train Controller, Murray Bridge, a Block Station, if attended, can be changed from C.T.C. control to a "Locally Controlled Station" and the switches and signals operated from the local panel.

The local panel is located in the Train Control Telephone Cubicle in the station building and must be operated by a qualified employee in accordance with the following instructions:—

(*a*) The lever marked "Indicating Lights" must be turned to the "ON" position.

(*b*) The indications of all signals and switches displayed on the diagram must be observed. All signal levers and switch levers must be placed so that they correspond to the actual positions of the signals and switches.

(*c*) The black miniature lever labelled "Control Change Over" must be turned from the "C.T.C." position to the "Local" position. Under fault conditions, a delay of four minutes will be enforced by the equipment before local control is possible.

(*d*) Switches and signals controlled from the Local Panel can then be operated to the required positions.

NOTE:—Absolute Signals at the entrance to each Single Line Block are operated by C.T.C. control only. They cannot be operated from the Local Panel.

To restore the operation of switches and signals to C.T.C. control:—

(*a*) All signal levers and switch levers on the Local Panel must be placed in the "Normal" positions.

(*b*) The indications on the Local Panel must be checked to ensure that the actual position of signals and switches comply with the positions of the levers.

(*c*) The Train Controller must be advised that all equipment at the "Locally Controlled Station" has been placed "Normal". The Train Controller must then check the miniature illuminated diagram at Murray Bridge to ensure that all indications are displayed "Normal".

(*d*) If all is found correct, the "Control Change Over" switch on the Local Panel must be returned to the "C.T.C." position under the authority of the Train Controller.

(*e*) The "Indicating Lights" lever must then be returned to the "OFF" position.

(*f*) The Train Controller must then check that all signals and switches at the Block Station can be operated from the C.T.C. control panel, and advise the station accordingly.

3. **Shunting—**

(*a*) *Block Stations*—Shunting at Block Stations must be carried out where necessary under signal indications. The employee in charge of shunting must arrange for the operation of signals and motor operated switches as required, either controlled remotely by the Train Controller or locally from the Local Panel in the Station Building, with the authority of the Train Controller.

Should a Block Station be attended, the Train Controller may arrange for any shunting to be carried out under Local Control.

The change-over to "Local Control" and the return to "C.T.C." control shall be under the direction of the Train Controller in accordance with the instructions listed in paragraph 2.

The operation of the Local Panel must be carried out by a qualified employee. The switches on the Passing Siding, either of Nos. 8, 9, 10 or 11 are locked in the "Normal" position (*i.e.*, set for the Passing Siding) by outlying switchlocks. These locks must be operated in accordance with the instructions and conditions for the respective station.

(*b*) *Intermediate Sidings*—Shunting movements to the Goods Siding are possible only when the movement of the train into the Main Line of the station yard is made under signal indication and shunting must be carried out as follows:—

(i) For "Down" trains, shunting must be carried out over the "Up" Facing Switches.

(ii) For "Up" trains, shunting must be carried out over the "Down" Facing Switches. The outlying switchlocks attached to the "Up" and "Down" facing switches, Nos. 7 and 12, are normally locked but can be operated in accordance with the instructions provided.

4. **Shunting Spurs—**

Shunting spurs, where provided, are for shunting purposes only and vehicles must NOT be left standing on the spurs.

5. **Tailem Bend—**

(*a*) *Advice to Signalman and Yard Master of "Up" Train Workings*—The Train Controller, Murray Bridge, must advise the Signalman, Tailem Bend, of the anticipated arrival times of all trains from the Serviceton, Barmera and Pinnaroo lines. The Signalman must advise the Yard Master accordingly.

(*b*) *Switches Nos. 75 and 76—Goods Yard*—All engines and trains passing into the Goods Yard or Loco. Depot from the Station Yard must be hand signalled through switches Nos. 75 and 76. The Signalman must advise the Pointsman in No. 4 Cabin when such movements are to be made, and the Pointsman must then display the necessary signal for the engine or train to proceed through the

switches, after seeing that they are correctly set. The Pointsman from No. 4 Cabin must see that No. 76 switches are correctly set when admitting trains from passenger lines to Goods Yard.

(*c*) *Rail cars to and from Loco. Depot*—All rail cars to and from the Loco. Depot must be piloted between the whistle board and the station by a qualified Transportation Employee. When rail cars are not worked by Guards from the Adelaide Division (who join the rail car at the whistle board) the employee in No. 4 Cabin must pilot the rail car between the whistle board and the level crossing, and the Station Porter between the level crossing and passenger station (or *vice versa*).

(*d*) *Tailem Bend No. 2 Cabin—Admitting Trains, Light Engines, Motor Inspection Cars, or other Movements from the Main Line to Marshalling Yard or Loco. Depot*—The Signalman at No. 2 Cabin must obtain permission from the Yard Master to admit a movement from the Main Line to either the Marshalling Yard or the Loco. Depot.

When giving this permission, the Yard Master must instruct the Signalman at No. 2 Cabin as to the line over which the incoming movement is to travel, and if the engine of the incoming movement is required for immediate return working, he must also instruct the Signalman, No. 4 Cabin, by which line the engine will travel to the north end of the yard.

The Signalman must place the "Stop Shunting" signal at the Murray Bridge end of the Marshalling Yard in the "Stop" position by means of the ground lever adjacent to No. 2 Cabin, then examine the route designated by the Yard Master and see that all switches are correctly set for the movement. He must then obtain permission from the Train Controller to set the Main Line switches leading into the Yard.

The Yard Master, having given permission for a movement to be admitted from the Main Line, must not permit any shunting movement which would foul the line for the incoming movement.

Immediately the inward movement has been completed, the Signalman at No. 2 Cabin must restore the Main Line switches to "Normal" position and see that the hand operated switch No. 41 is set for the Marshalling Yard, restore the "Stop Shunting" signal to the "Caution" position and then advise the Yard Master.

All trains, before entering the Marshalling Yard, must be brought to a stand immediately in front of Absolute Signal No. 7425.

The Signalman must not unlock the door of the switchlock controlling switches No. 7426 for the purpose of admitting a train to the Marshalling Yard until such train has come to a stand immediately in front of Signal No. 7425.

Immediately the train is in clear of switches No. 7426, the Signalman must unbolt the switches by reversing the handle of the outlying switchlock, reset and again bolt the switches for the Main Line, close and lock the door of outlying switchlock, and advise the Train Controller that the movement has been completed and that Absolute signal No. 7425 has cleared for the Main Line.

(*e*) *No. 2 Cabin Dispatching Trains to the Main Line from Marshalling Yard*—When train is ready to depart, the Signalman at No. 2 Cabin must, after obtaining permission from the Train Controller, place the "Stop Shunting" signal in the "Stop" position, operate the outlying switchlock, then set and bolt the switches for the crossover, and hand signal the train to depart. The train must then move over the crossover on to the Main Line under the indication of Absolute Disc Signal No. 7430.

Immediately the train has departed, the Signalman must unbolt the switches by reversing the handle of the outlying switchlock, reset and again bolt the switches for the Main Line, lock the door of the outlying switchlock, restore the "Stop Shunting" signal to the "Caution" position, and advise the Train Controller accordingly.

(*f*) *Trains entering Tailem Bend Goods Yard via No.* 2 *Cabin*—The Signalman at Tailem Bend, on receipt of advice from the Station Master, Murray Bridge, that a train has left Murray Bridge for Tailem Bend Goods Yard via No. 2 Cabin, must telephone the Yard Master and advise him accordingly.

Immediately the train arrives at the Goods Yard, the Signalman at No. 2 Cabin must advise the Signalman at Tailem Bend station the time of arrival.

(*g*) *Trains Departing Tailem Bend via No.* 2 *Cabin*—Immediately a train departs from Tailem Bend Goods Yard via No. 2 Cabin, the Signalman at No. 2 Cabin must advise the Signalman at Tailem Bend station, who must then give the bell code and oral message to the Station Master at Murray Bridge.

The Signalman at Tailem Bend station must record in the Train Register Book the movement of trains working between Murray Bridge and Tailem Bend.

(*h*) *The movement of Trains and Light Engines between Tailem Bend Passenger Station and the Marshalling Yard or Loco. Depot.*

(i) The movements of trains or engines between the Passenger Station and the Marshalling Yard must be effected between the Pointsman at No. 4 Cabin and the Signalman at the Passenger Station under the direction of the Yard Master who must nominate the line which the movement must take.

(ii) The movements of trains or engines between the Passenger Station and the Loco. Depot must be effected between the Pointsman at No. 4 Cabin and the Signalman at the Passenger Station.

(iii) Before any movement is made to or from the Passenger Station, the Pointsman at No. 4 Cabin must place the "Stop Shunting Signal" in the "Stop" position.

(iv) When any movement is required to leave the Passenger Station for the Marshalling Yard or Loco. Depot, the following procedure must be adopted:—

(1) The Signalman must advise the Pointsman at No. 4 Cabin details of the movement to be made indicating:—

(*a*) whether it is a train, a light engine or a shunt engine;

(*b*) whether the destination is the Marshalling Yard or the Loco. Depot respectively.

(2) After the instructions listed in clauses (i), (ii) and (iii) have been complied with, the Pointsman must personally examine the line over which the movement is to be made, ensure that the switches are correctly set, then display a hand signal (a yellow flag by day; a white light by night) to the Signalman indicating that the line is correctly set and that the movement can be made.

(3) It is the responsibility of the Pointsman to protect this movement against any opposing or conflicting movements.

(4) When the movement is clear, the Pointsman must ensure that all switches equipped with switchstands are set and locked for the "Normal" positions before operating the "Stop Shunting Signal" to the "Caution" position.

(*i*) *Changing Engines on "Up" Passenger Trains*—The Pointsman at No. 4 Cabin must comply with the following:—

(i) Advise the Signalman when the "out-going" engine is ready to be brought into the Station Yard, then obtain his permission and direction concerning the line on which the engine is to be placed, pending the release of the "incoming" engine, correctly set any hand-operated switches, ensuring that the derails are "off" the line, and hand-signal the engine to proceed into traffic.

(ii) When the "incoming" engine is to be released, correctly set up the line over which the engine is to travel, and hand-signal the released engine ahead; then reset the line for the "out-going" engine to go back on to the train, taking care to see that the derails are "off"; and on receipt of the appropriate signal from the Signalman, hand-signal the engine on to the train. No movements over inter-locked switches must be made without first obtaining the appropriate signal from the Signalman in the Station Signal Cabin, in accordance with the Rules.

(iii) Join the released engine and pilot it to the Loco. Depot switches No. 58. Engines must not move from No. 75 switches to No. 63 switches without a Pilot.

(*j*) *Changing Engines on "Down" Passenger Trains*—The Pointsman at No. 4 Cabin must advise the Signalman at the Passenger Station when the engine is ready to be brought into the Station Yard, and obtain his permission and direction concerning the line over which the engine is to be placed, pending the release of the "incoming" engine. He must then correctly set any hand-operated switches, ensure the derails are "off" the line and after he has effected the change of the engine, pilot the released engine back to Loco. Depot Switches No. 63.

If, because of other duties, the Pointsman is unable to proceed to the station to effect the changing of an engine, he must, before the time the change has to be effected, advise the Station Master at the station, who will direct the Pointsman, and then carry out any instructions given him by that Officer.

(*k*) *Dispatching "Down" Goods Trains from the Marshalling Yard*—Before giving permission for the Pointsman at No. 4 Cabin for such a movement, the Signalman at the Station Cabin must ensure that the switches are correctly set for the intending movement. Before any "Down" train is dispatched from the Marshalling Yard, the Pointsman must telephone the Signalman at the Station Cabin and ascertain whether the train is to depart via the "straight road" or through the crossover and No. 12 switches. As far as practicable, Goods Trains for the Pinnaroo and Murray Lands Lines must be dispatched via the "straight road", but before the train is dispatched via this line the Signalman at the Station Cabin must personally examine, and see that the hand-operated switches Nos. 77 and 84, and interlocked switches Nos. 11 and 15, are correctly set and locked for the passage of the train. Having obtained authority from the Signalman at the Station Cabin, the Pointsman must place the "Stop Shunting" Signal in the "Stop" position and must then ensure that any hand-operated switches in the Marshalling Yard are correctly set and that the derails protecting the Main Line are "off". The Pointsman must then signal the Guard to start his train.

(*l*) *Serviceton Line Goods Trains*—Serviceton line trains may depart via the "straight" or "crossover road". If dispatched by the "crossover road", immediately the train has passed No. 4 Cabin, the Pointsman must proceed to No. 75 switches and reset the switches for the "straight road".

Before any movement is made, either by light engines or trains, the Pointsman at No. 4 Cabin must personally inspect the line to see that all necessary switches are correctly set, and when the "crossover road" is used that the derails are "off" before signalling any engine or train through this crossover.

(*m*) *"Normal" Position of No. 75 Switches*—The "Normal" position for No. 75 switches is SET AND LOCKED FOR THE "STRAIGHT".

The Pointsman at No. 4 Cabin must not alter these switches from the "Normal" setting to the crossover without the authority of the Signalman at the Station Cabin for the purpose of bringing either a train or an engine from the Passenger Yard to the Marshalling Yard or to dispatch a train or an engine from the Marshalling Yard to the Passenger Yard.

After permission to alter the setting of No. 75 switches has been obtained, the "Stop Shunting" signal must be placed in the "Stop" position before the switches are operated. Before any movement is made, the Pointsman must ensure that the derails are "off" and the switches correctly set for the line over which the movement is to be made.

(*n*) *Position of Loop Line Switches, Livestock Siding*—The switches at both ends of the Loop Line on the Livestock Siding must, except when in actual use, be kept set and locked for the "straight" line.

(*o*) *Invoices for Guards*—All invoices and transfer notes for stations Tailem Bend and beyond must be sent to the Station Master, Tailem Bend, who must see that the documents are handed to the Guard of the train by which the goods are forwarded.

6. **Yumali—**

Shunting—As this station is situated with a falling grade at each end of the Yard, employees engaged in shunting must exercise care to avoid the risk of a "run-away". Guards must see that any portion of their train left standing detached from the engine is secured against movement in accordance with the Rules.

All shunting movements must be carried out in accordance with the instructions for Intermediate Goods Sidings referred to in paragraph 3 (*b*) above.

7. **Bordertown—**

(*a*) *Dukes Highway Level Crossing* (293·661 *km*)—During shunting at the Adelaide end of the station yard, when a "Down" shunt movement is made over the crossing, and it is not possible for the whole consist to be moved clear of No. 4 or No. 5 Signal, and it is desired to then make an "Up" shunt movement towards the level crossing, the warning devices must be started by operating the push key designated "18268 PB".

The shunter must ensure that the warning devices are operating for at least 30 seconds before permitting the movement to reach the level crossing.

This push key is provided in a box, locked with an "S" padlock and attached to the side of the relay box on the station side of the level crossing.

(*b*) *Wheat Siding—East End of Yard*—Hand brakes must be fully applied on vehicles left standing on this siding to prevent movement.

(*c*) *Cattle and Sheep Siding*—250 and 280 Class Diesel Rail Cars, also AD and BD passenger cars are not permitted to work on the cattle and sheep siding.

8. **Wolseley—**

Sleeping Berths—Any sleeping berths available when the "Up" *The Overland* leaves Serviceton may be allotted to passengers from Wolseley. The Station Master must ascertain which berths are unoccupied before the train departs from Serviceton.

Train Notices—The Station Master must see that Enginemen and Guards and others concerned, on all trains from Serviceton, are supplied with the necessary train notices.

9. **Serviceton—**

Examination of Trains—In the absence of a Train Examiner, Guards must examine their trains when possible before departing from Serviceton, and call the attention of the Station Master to any defect or breakages, including windows and other lights, broken couplings, lamps, etc. Any defects must be reported at once to the Superintendent, giving full particulars and the number of the vehicle.

Guards of trains terminating at Serviceton, or handing over through trains in the absence of a Train Examiner, must, on arrival, examine the trains and report any defects or breakages to the Station Master, Serviceton, also to the Superintendent.

Speed of Trains—Approaching trains must slow down to 5 km/h to allow the Train Examiner to inspect axle boxes on the platform side of trains.

Defective Signals—When it is required to allow a train to pass a defective Home Signal at the "Stop" position, and such a signal normally governs movements over facing switches, or protects the fouling switches of a crossover of an adjoining line, a Caution Order (Victorian Railways) must be issued by the Signalman and given to the Engineman as authority to pass such signal. The Engineman must not pass such signal until he clearly understands the written instructions received from the Signalman, and then only with his engine or train under the needful control to ensure safety.

Distant Signal—The indications of the Distant Signal at Serviceton read as follows:—

CAUTION—Yellow V-ended arm in the horizontal position (By Day); Yellow Light (By Night).

PROCEED—Yellow V-ended arm in the proceed position (By Day); Green Light (By Night).

When the caution indication is displayed, a train may pass such signal without stopping but at Low Speed.

Marker Lamps—Guards working all "Down" trains must on arrival at Serviceton, remove the marker lamps and place them in the brackets in the brakevan.

Ambulance Boxes and Radio must be removed and placed in the special cupboard provided in Guard's Room at the Station.

MURRAY LANDS LINES

Consignments Liable to Damage to be Placed under Cover—Guards must place consignments of meat, bread and other articles liable to damage by the weather, under cover. Where sheds are provided the articles must, if possible, be placed therein.

TAILEM BEND—PINNAROO LINE

Pinnaroo—

Loading (exceeding S.A. Gauge) on Vehicles from Victorian Stations—All loading reaching Pinnaroo from Victorian stations must be examined and loading in excess of the S.A. loading gauge authorized in the Rules, must not be shunted through the Goods shed, or allowed to go forward until the loading is adjusted or permission given by the Divisional Superintendent.

KAROONDA TO WAIKERIE LINE

Waikerie—

Hand Brakes must be applied or chocks used on vehicles left standing on the sheep and cattle siding, on the line leading to the Producers Siding, and the Gantry Crane Siding to secure vehicles against movement.

KAROONDA TO BARMERA LINE

1. Cobera—

Shunting—This station is situated with a "down" grade at each end, and employees engaged in shunting are warned of the risk of a "run-away". Guards must see that any portion of the train left standing detached from the engine is secured against movement in accordance with the Rules.

2. Paringa Bridge—

Method of Operation—The interlocking of signals and lifting span is effected by means of:—

(*a*) Annett's locks.

(*b*) No. 3 two-way key switch.

(c) Lock provided on signal switch and plunger lever.

The following procedure must be carried out when releasing the lifting span:—

(*a*) Ensure that Renmark Absolute Signals Nos. 1 and 2 are displaying a "Stop" indication (*i.e.*, key operated two-way switches Nos. 1 and 2 are in the "Normal" position).

(*b*) Obtain Annett's key and the key for operating "key operated two-way switches", from the Station Master's Office, Renmark.

(*c*) Unlock the Annett's lock on the switch lever and reverse No. 3 "key operated two-way switch" to release and reverse the Catch Switch lever near No. 1 Signal.

(*d*) Withdraw Annett's key released by this operation.

(*e*) Place signal at Paringa side of bridge at "Stop" by releasing the signal lever with Annett's key taken from No. 3 switchlock and reverse switch lever on catch switches.

(*f*) Withdraw key released and insert and turn same in Annett's lock on Paringa side of the lifting span. This operation starts flashing light signals on approaches to the bridge.

(*g*) Close the four road gates on the bridge.

(*h*) Reverse plunger lever Paringa side of lifting span, and withdraw key released.

(*i*) Release and reverse plunger lever Renmark side of lifting span, and withdraw key released.

(*j*) Insert and turn key in Annett's lock controlling main switch in electric control cabinet on Paringa side of the lifting span.

Lifting span may now be operated.

To restore equipment for normal working, the above cycle of operations, paragraphs (*c*) to (*j*) inclusive, must be reversed and the four gates secured in the open position with "S" type padlock. The Annett's key and key for operating two-way switches must be returned to the Station Master's Office.

Steamers Passing Through Bridge—Vessels must give two hours' notice to the Station Master, Renmark, either at the station during office hours or at his private residence after office hours when the lifting span of the bridge is required to be raised.

Vessels when 1·2 km from the bridge will give three (3) blasts on the whistle as an indication to the Station Master of their proximity to the bridge.

Station Master to Open Bridge—The Station Master, as far as practicable, must handle steamers through the bridge, but when this interferes with his other duties, he must roster an officer or employee who is qualified to do this work.

3. **Renmark—**

(*a*) *Sturt Highway Level Crossing* (343·502 *km*) *Key operated Two-way Switches*—Four special "key operated two-way switches", all keyed alike and constructed such that the key can only be withdrawn when the switch is in the "Normal" position, are installed as follows:—

(i) Two switches labelled Nos. 1 and 2, mounted on a small panel in the station office, for the operation of Nos. 1 and 2 signals respectively.

(ii) One switch labelled No. 2A, mounted in a small enclosure, locked with an "S" type padlock, adjacent to the first "Down" Main Line facing switches on the station side of the crossing, for the operation of No. 2 Signal.

(iii) One switch labelled No. 3, mounted in a small enclosure, locked with an "S" type padlock, attached to the side of the signalling apparatus case adjacent the catch switches near No. 1 signal. This switch is used in conjunction with the Annett's lock to lock the Catch Switch in the "Normal" position.

These special "key operated two-way switches" can only be operated by means of the one key provided, and must be kept in the "Normal" position. The key must be kept in the custody of the Station Master, unless required for a train movement or for the operation of the Catch Switch.

Operation Instructions—

(i) *"Down" Trains*—To admit a train into Renmark Station Yard No. 1 Switch must be turned to the reverse position with the key provided. If the Main Line between No. 1 Signal and the Facing Switches is clear the signal will display a "Caution" indication and the level crossing protection equipment will operate automatically, on the approach of a train.

No. 1 Signal does not detect the switches or track conditions in the Renmark Station Yard.

(ii) *"Up" Trains*—For a train departing from the Renmark Station Yard a Train Order must be held for the movement and No. 2 or No. 2A Switch must be turned to the reverse position with the key provided. The level crossing protection equipment will operate automatically on the approach of a train, and No. 2 Signal will clear after a delay of twenty (20) seconds.

(iii) *Shunting Movements at the Paringa End of the Station Yard*—Shunting movements at the Paringa end of the Station Yard may be made up to No. 2 Signal in the "Stop" position without the operation of the level crossing protection equipment. In the event of No. 2 Signal being cleared for a shunt movement onto the crossing, and the movement passing completely over the crossing, the crossing protection equipment must be restarted for the return movement by operating a switch designated "21368" mounted in an enclosure locked with an "S" type padlock on the side of an apparatus case adjacent to the level crossing. The return movement must be controlled by the display of hand signals. After the movement has cleared the crossing the switch must be restored to the "Normal" position.

(*b*) *Wood Son Seary Ltd. and Renmark Growers Distillery Ltd. Sidings—Method of Working*—The switches leading to these sidings must be kept set and locked in their "Normal" position for the Main Line with derails "ON" and locked, except when in actual use for shunting operations.

Trains must not be stopped at the sidings for the purpose of setting down or picking up vehicles *en route*.

All Inwards Goods for the sidings must be detached in Renmark Yard and subsequently shunted to the sidings. Vehicles containing Outwards Goods must be shunted from the sidings to Renmark Station ready for marshalling.

A Train Order must be issued by the Train Controller, Murray Bridge, and a copy handed to the Engineman and Shunter before a shunting movement is made between Renmark station and these sidings in either direction. This Train Order must not be issued if a Train Order covering the movement of a train over the section Renmark-Berri in either direction, has not been completed.

When a shunting movement is being made, the level crossings *en route* must be protected in accordance with the Rules.

(*c*) 830 *Class Engines* may shunt on the Renmark Growers' Distillery Siding, but Enginemen are warned that the clearance between the side of the engine cab and the Distillery building above platform level is 300 mm and care must be exercised while the engine is alongside the building. *Other classes of engines* are NOT permitted to shunt past the Distillery building.

4. **Berri—**

Berri Co-operative Packing Union Ltd. and United Packages (S.A.) Pty. Ltd. Siding, and Riverland Fruit Products Co-operative Siding—Method of Working— The Main Line switches leading to these sidings must be kept set and locked in their NORMAL POSITION FOR THE MAIN LINE, except when in actual use for shunting operations. Rod operated derails work in conjunction with these switches.

The handling of goods to and from these sidings must be carried out by:—

(*a*) An "Up" train, in the following manner:—

(i) The train must be stopped with the rear portion behind the loading to be detached on the "Down" side of the fouling disc. Before uncoupling, the Guard must apply sufficient hand brakes to ensure against movement in accordance with the Rules.

(ii) When the vehicles have been shunted to, or picked up from the siding and the engine and vehicles have returned to the Main Line and stopped clear, the switches must be set and locked for the Main Line, and the Train Controller advised accordingly.

(iii) The train must then be re-coupled, hand brakes released, and the prescribed air brake test made before the Guard gives the starting signal for the train to proceed.

When vehicles are to be attached or detached at the siding, the Train Order must contain suitable instructions authorizing the shunt movement.

(*b*) A shunt movement from Berri in the following manner:—

(i) A Train Order must be issued by the Train Controller, Murray Bridge, and a copy handed to the Engineman and Shunter before a shunting movement is made between Berri and the siding, in either direction. This Train Order must not be issued if a Train Order covering the movement of a train over the respective Berri-Karoom or Berri-Renmark section in either direction, as the case may be, has not been completed.

(ii) When a shunting movement is being made, the level crossings *en route* must be protected in accordance with the Rules.

(*c*) Two cyclone gates are erected over the track leading into the premises of both these firms, and are secured with a chain to which is attached two locks, one the property of the Company and the other a departmental "M" type padlock.

These gates are to remain closed except when required for the purpose of shunting to or from this portion of the siding. Guards must ensure that the gates are open and *secured* against movement prior to the commencement of shunting operations and are locked across the track on completion. Guards working trains involved in shunting in this siding must ensure they are in possession of an "M" key.

(*d*) *For the Riverland Fruit Co-operative Siding only,* by a "Down" train in the following manner:—

(i) The train must be stopped on the Renmark side of the facing switches. Before uncoupling, the Guard must apply sufficient hand brakes to secure against movement in accordance with the Rules:—

If the two lines in the private siding are clear, the loading may be hauled into the siding, when the engine and any vehicles can return to the Main Line via the clear line.

If the two lines in the private siding are occupied the shunting loop off the Main Line must be used to run around.

(ii) The instructions listed in clause (*a*) subclause (ii) and (iii) above referring to an "UP" shunting movement must be carried out before departure.

5. **Barmera—**

(*a*) *Barmera Co-operative Packing Co's Siding—Method of Working*—The switches leading to the siding must be kept set and locked in their "Normal" position for the Main Line and derails "ON" and locked, except when in actual use for shunting operations.

(i) Trains must not be stopped for the purpose of setting down or picking up Goods at the siding *en route.*

(ii) All Inwards Goods for the siding must be detached at the Barmera station and subsequently shunted to the siding. Vehicles containing Outwards Goods must be shunted from the siding to Barmera station ready for marshalling.

(iii) A Train Order must be issued by the Train Controller, Murray Bridge, and a copy handed to the Engineman and Shunter before a shunting movement is made between Barmera station and the siding in either direction. This Train Order must not be issued if a Train Order covering the movement of a train over the section Glossop-Barmera, in either direction, has not been completed.

(*b*) *Sturt Highway Level Crossing* (376·350 *km*), *Operating Instructions*—

(i) *"Down" Trains*—The level crossing protection equipment will operate automatically for "Down" train movements.

(ii) *"Up" Trains*—The level crossing protection equipment will operate automatically for "Up" train movements when the leading vehicle of the train has passed the "Down" Main Facing Switches leading to the Barmera Co-op. Packing Co. siding. Absolute Signal No. 1 will clear automatically twenty (20) seconds after the commencement of operation of the level crossing warning devices.

(iii) *Shunting Movements on Barmera Co-op. Packing Co. Siding*—Shunting movements may be made UP to Absolute Signal No. 1, without unnecessary operation of the level crossing protection equipment, by depressing No. 1 push button before the movement proceeds past the switches leading from the Main Line to the Barmera Co-op. Packing Co. siding. No. 1 push button is located in a small enclosure, locked with an "S" type padlock, attached to the side of a signalling apparatus case adjacent the siding, AND MUST BE OPERATED PRIOR TO A SHUNT MOVEMENT PASSING THE SWITCHES.

When shunting is complete, if the train is standing on the Main Line ready to proceed to Glossop, the level crossing warning devices must be started by pressing No. 1A push button, which is located adjacent No. 1 push button; or No. 1B push button, which located in a small enclosure, locked with an "S" type padlock, attached to the side of a signalling apparatus case adjacent Sturt Highway level crossing. On the completion of shunting, if the train is returning to the Barmera Station Yard No. 1A or No. 1B push buttons must be pressed after the rear vehicle of the train has passed the switches leading to the Barmera Co-op. Packing Co. siding.

A switch labelled "23420W" is provided for the manual operation of the level crossing protection equipment for testing purposes. This switch is located in the same enclosure as No. 1B push button.

ALAWOONA—LOXTON LINE

Loxton—

(*a*) *British Petroleum Aust. Ltd. Siding—Method of Working—*

(i) The switches leading to the siding must be kept set and locked in their "Normal" position for the Main Line and derails "ON" and locked, except when in actual use for shunting operations.

(ii) All Inwards Goods for the siding must be detached at the Loxton Station and subsequently shunted to the siding. Vehicles containing Outwards Goods must be shunted from the siding to Loxton Station ready for marshalling.

(iii) Trains must not be stopped for the purpose of setting down or picking up Goods at the siding *en route.*

(iv) A Train Order must be issued by the Train Controller, Murray Bridge, and a copy handed to the Engineman and Shunter before a shunting movement is made between Loxton station and the siding in either direction. This Train Order must not be issued if a Train Order covering the movement of a train over the section Pata-Loxton, in either direction, has not been completed.

(*b*) *Stock Yard—Movement of vehicles to and from as follows—*

(i) Inward loaded and empty stock vans—

Must be placed by a "Down" train. The Station Master, Loxton, must advise the Train Controller the previous day regarding the shunting requirements at the Siding. The Train Controller must advise the Train Crew accordingly.

The Guard of the "Down" train must ensure the last vehicle on the train has stopped clear of the Paruna Road level crossing.

(ii) Outward loaded or empty stock vans must be cleared by a shunt movement from Loxton in sufficient time to meet the shunting requirements, push vans back to Loxton and ensure an ontime departure of the Mixed Train.

(iii) A Train Order must be issued by the Train Controller, Murray Bridge, authorizing the shunting by a "Down" train or a shunting movement in either direction between Loxton and the Stock Siding.

The Train Order must not be issued if a Train Order covering the movement of a train over the section Pata-Loxton in either direction has not been completed.

(iv) When pushing vehicles between the Stock Siding and Loxton, all level crossings must be protected in accordance with the Rules.

WOLSELEY—MOUNT GAMBIER LINE

1. **Binnum—**

As this station is situated on a grade, train crews must exercise care during shunting to avoid the risk of a "run-away". Guards must ensure that any portion of their train left standing detached from the engine is secured against movement in accordance with the Rules.

2. **Frances-Hynam—**

When unattended, Guards must deposit correspondence, parcels, collected tickets, etc., in either the "Take-out" Shed on the Passenger Platform which is locked with a "G" lock, or in the Train Control Telephone Cabinet.

3. **Naracoorte—**

Stewart Terrace Level Crossing (386·851 *km*)—

All train movements over Stewart Terrace level crossing MUST be made under Signal indication.

Shunting movements at the Mount Gambier end of the Station Yard MUST be made on either of the Shunting Spurs when possible.

(*a*) *Main Line Movements*—The Flashing Light Signals will operate automatically, on the approach of a train to the level crossing, for all Main Line train movements.

The Flashing Light Signals will cease to operate automatically after the movement has proceeded completely beyond the level crossing.

(*b*) *Shunting Movements on the Shunting Spur*—For all shunting movements on the Shunting Spur at the Mount Gambier end of the Station Yard communication must be maintained between the Shunter and Engineman by means of two of the portable radio sets provided or, if the train is equipped with a train radio set, by means of one portable radio set and the train radio.

(*c*) *"Down" Shunting Movements*—

(i) The train must be brought to a stand immediately in front of Signal No. 8.

(ii) The Shunter must commence the operation of the Flashing Light Signal at Stewart Terrace level crossing by pressing one of the black push buttons labelled "To Start Crossing" located adjacent to Nos. 2 and 8 signals. A red push button labelled "To Cancel Crossing" is also provided adjacent to each black push button. The push buttons are located in a small enclosure, locked with an "S" type padlock, attached to the side of the signalling apparatus case adjacent to both Nos. 2 and 8 signals.

(iii) Signal No. 8 will automatically display a "Caution" indication twenty (20) seconds after the Flashing Light Signals commence to operate.

(iv) The train may then proceed over Stewart Terrace level crossing and the Flashing Light Signals will cease to operate automatically after the movement has proceeded completely beyond the level crossing.

(*d*) *"Up" Shunting Movements*—

(i) The train must be brought to a stand immediately in front of Signal No. 3.

(ii) No. 3 miniature rotary switch in the Naracoorte Signal Cabin must be reversed.

(iii) The Shunter must commence the operation of the Flashing Light Signals at Stewart Terrace level crossing by depressing the black push button labelled "3A—To Start Crossing" which is located in a small enclosure, locked with an "S" type padlock, adjacent to No. 3 signal. A red push button labelled "3B—To Cancel Crossing" is provided adjacent to the black push button.

(iv) Signal No. 3 will automatically display a "Caution" indication twenty (20) seconds after the Flashing Light Signals commence to operate.

(v) The train may then proceed over Stewart Terrace level crossing and the Flashing Light Signals will cease to operate automatically after the movement has proceeded completely beyond the level crossing.

(vi) In the event of any of the black push buttons referred to above being operated in error, the respective cancelling red push button must be depressed.

Portable Radio Equipment—

(i) *General*—Three portable radio sets numbered "6", "7" and "8" will be provided at Naracoorte for use, when necessary, by the employee in charge of shunting. Portable "8" is to be normally kept as a spare.

These three units, together with the battery recharging unit and spare batteries, must be normally kept in a small cabinet, locked with an "S" type padlock, attached to an inside wall of the Station Office.

Each unit operates on the same frequency as the train radio system and may be used for communication between portable sets or from either portable set to a radio equipped engine or brakevan.

When shunting with an engine in which a train radio set is installed, only one portable set will be necessary. When shunting with an engine in which a train radio set is not installed it will be neccesary to issue the Engineman with the second portable set for use during shunting operations only. This unit must be obtained for the Engineman before the engine commences shunting and the Engineman must ensure that the unit is returned to the Station Master immediately after the completion of shunting.

(ii) *Use of Portable Radio Sets During Shunting Operations*—The radio units are provided for the purpose of assisting traffic staff engaged in shunting operations on the shunting spur at the Mount Gambier end of yard.

Hand signals must be used in all cases when it is practicable.

The use of the radio units does not eliminate the need for the prescribed Rules and Regulations to be observed at all times.

(iii) *Description of Portable Radio Sets*—The units are contained in a leather case fitted with a shoulder type carrying strap, and a loop is provided to enable the unit to be carried on a waist belt.

The following controls and attachment points fitted to the unit are readily accessible without undoing the case:—

(*a*) *Channel Selection Switch*—The chrome knob on the front of the unit, which is marked "1", "2" and "3" is the channel selection switch. The "1" on this switch is directly below a small red dot on the body of the unit and the switch MUST NEVER be moved from this position.

(*b*) *On-Off Switch and Volume Control*—The rotary knob located on the top of the unit, is the on-off switch and volume control. To turn the set on, the knob is rotated clockwise until a click is heard. Further rotation of the knob in the clockwise direction increases the loudspeaker volume. To turn the set off, the knob is rotated anti-clockwise until a click is heard. As this knob is a combination on-off switch and volume control, care should be taken when switching off to ensure that the unit is not left with the volume turned down low, but is actually turned off.

(*c*) *Aerial*—The aerial is incorporated in the shoulder type carrying strap. To connect the aerial to the unit the screw socket on the end of the wire protruding from the strap must be screwed on to the screw connector located on the top of the unit.

(*d*) *Microphone-Loudspeaker*—The dual purpose microphone-loudspeaker is attached to an extendable coiled cord and plugged into the special socket, located on the top of the unit. The chrome spring clip on the back of the microphone-loudspeaker is provided to attach the microphone-loudspeaker to a coat lapel or similar when in use and can be used to fasten the microphone-loudspeaker to the leather carrying case when not in use.

(*e*) *Transmit-Receive Buttons*—The grey button provided on the side of the microphone must be pressed when required to transmit and released to listen. An alternative transmit-receive button is provided on the top of the unit for use when it is inconvenient to use the button on the microphone.

(iv) *Operating Procedures*—

(*a*) Ensure that the channel switch has not been moved from position "1" and that the aerial and microphone-loudspeaker are correctly connected to the unit.

(*b*) Switch on the set.

(*c*) Hold the microphone-loudspeaker approximately 70 mm from, and a little to one side, of the mouth and speak in a normal conversational tone across the face of the microphone. Correct use of the microphone is essential to obtain the best performance from the unit.

(*d*) Give the call sign "VL5JM".

(*e*) To check that the radio unit is functioning call the Engineman or the Guard or Shunter as the case may be, giving engine number and train number as follows:—

"VL5JM Shunter at Naracoorte calling Driver of engine 930 of train number 152, come in please, over."

or

"VL5JM Driver of engine 930 of train number 152 calling Shunter, come in please, over."

To which the reply must be—

"Driver of engine 930 of train number 152, receiving, over."

or

"Shunter at Naracoorte, receiving, over."

(*f*) After the call has been acknowledged and concluded with the word "over", the caller shall then give the message or instructions necessary.

(*g*) The receiver of the message or instructions shall then repeat the instructions and conclude with "Received and understood—over and out".

(*h*) The caller will then conclude with "Shunter to Driver of engine 930 message complete—over and out VL5JM".

(*i*) Should a message not be heard clearly or understood, the Driver or Shunter shall at once ask for the message or instructions to be repeated.

(*j*) On completion of the shunting, the radio sets must be turned off and the portable radio sets returned to the station office.

(v) *P.M.G. Department Regulations*—

(*a*) Transmission must be as brief as possible, consistent with legitimate requirements for which the sets are licensed, remarks not essential to the services and all superfluous conversations being strictly prohibited.

(*b*) The call sign "VL5JM" must be used by the calling station regularly during the work.

(*c*) Every precaution must be taken to ensure against the transmission of profane or obscene expressions.

(vi) *Batteries*—The portable radio sets operate on special rechargeable batteries which should provide approximately 11 hours of normal operation.

To remove the battery from a portable radio set unclip the bottom flap of the leather carrying case and fold it back. The battery, located in the bottom left-hand corner of the unit, can now be removed by unscrewing the large chrome screw at the back of the unit. To replace the battery, insert it in the battery compartment and tighten the screw to finger tightness.

(vii) *Battery Charger*—The battery recharging unit operates from the 240-volt main supply and is plugged into a general purpose outlet in the Station Office. A black on-off switch is provided on the unit and the red indicating light adjacent the switch is illuminated when the unit is turned on. On the top of the unit 10 receptacles are provided for recharging purposes. Four of these receptacles are designed to charge batteries whilst still in the portable radio units and the other six are designed to charge batteries by themselves.

(viii) *Charging of Batteries*—It is the responsibility of the employee in charge of shunting to see that the batteries of the portable radio sets used during his shift are recharged at the completion of his shift.

The batteries will normally be recharged whilst still in the portable radio set by unclipping the bottom flap of the leather carrying case, folding it back and inserting the bottom of the portable radio unit into one of the large receptacles in the battery charger. Care must be taken when inserting the unit to ensure that the locating grooves on the back of the portable radio set line up with the locating pins in the battery charger receptacle.

Spare, pre-charged batteries will be kept in the cupboard with the portable radio sets for use in the event of batteries expiring part way through a shift. The new battery should be placed into the portable radio set and the expired battery should be inserted into one of the small receptacles in the battery charger to be recharged.

Batteries being recharged should be left connected to the battery charger for a period of 12-16 hours.

(ix) *Register for Portable Radio Sets*—A book will be provided in the cupboard with the portable radio sets into which the employee in charge of shunting must enter the following information:—

(*a*) The date;

(*b*) The number of each portable radio set used, *i.e.*, "Portable No. 6", etc;

(*c*) The number of hours that each set was used;

(*d*) The time when each set is placed on the battery charger;

(*e*) The time when each set is removed from the battery charger; and

(*f*) Any other pertinent information such as the date and time when a battery from any of the portable radio sets is replaced and the reason for the replacement.

(x) *Instructions to Staff*—The personal instruction of staff in the use of the portable radio sets will be given by an officer of the Signal and Telegraph Section.

The Station Master, Naracoorte, must maintain a record of the staff qualified by instruction to use the portable radio sets.

No person or employee other than the Traffic Staff authorized by the Station Master, Naracoorte, is permitted to use the portable radio sets.

(xi) *Failure of Radio Equipment*—In the event of the failure of any of the portable radio sets or the battery recharging equipment, the Electrical Fitter, Naracoorte, must be promptly advised.

Details of the failure such as "Portable No. 6 unable to receive Engineman on engine 937 Portable No. 7", etc., must be ascertained and entered into the register when returning the sets to the Station Office.

4. **Penola—**

When unattended, Guards must deposit correspondence, parcels, collected tickets, etc., in either the "Take-out" Shed on the Passenger Platform which is locked with a "G" lock, or in the Train Control Telephone Cabinet.

5. **Mount Gambier—**

(*a*) *Siding serving the E.T.S.A. Powerhouse and Woods and Forests Department Sawmill area* :—

(i) This siding is situated parallel to Main Line (Mount Gambier-Heywood). The facing switches leading from the Main Line are situated at 493·641 km in the direction of Heywood.

(ii) All shunting within the sawmill area must be performed by employees of the Woods and Forests Department. Engines are not permitted in the Sawmill area beyond a point where a notice board is exhibited approximately 10·5 m inside the gate at the Mill entrance. The entrance gate to the Mill area is normally closed and must be opened for the purpose of shunting vehicles in or out of the Mill area. To gain admission to this siding it is necessary to unlock the ground lever in a frame adjacent to the Main Line Facing Switches, by means of the staff or master key for the Mount Gambier-Dartmoor section, which must be obtained from Mount Gambier Station Signal Cabin. The derail protecting this siding is rod-operated in conjunction with these switches.

(iii) The "method of working" between Mount Gambier Station Yard and this siding is the Victorian Railways "Staff and Ticket". The Rules appertaining thereto, and the instructions, are contained in the Victorian Railways General Appendix, a copy of which is available in the Mount Gambier Signal Cabin.

(iv) When shunting between Mount Gambier and the abovementioned Sidings all level crossings must be protected in accordance with the Rules.

(*b*) *Twin Diesel Engines* working between Mount Gambier Station and Mount Gambier Depot must be driven from the leading unit in the direction of travel.

MOUNT GAMBIER—MILLICENT LINE

1. **Snuggery—**

(*a*) *Princes Highway Level Crossing* (523·926 *km*)—*Crossing Protection*

(i) "Up" Absolute Signal No. 1 is situated immediately on the Millicent side of the Level Crossing and works in conjunction with the warning devices.

(ii) Method of Operation—

"Down" Trains—The Flashing Light Signals will operate automatically for "Down" train movements.

"Up" Trains—"Up" trains will set the Flashing Light Signals in operation when the leading vehicle of the train has passed the "Down" Main Facing Switches at Snuggery. No. 1 Absolute Signal will display a "Caution" indication for the train to proceed twenty (20) seconds after the Flashing Light has commenced operation.

Should it be necessary for a train to shunt at the Mount Gambier end of Snuggery without fouling the level crossing, No. 1 push key, which is located in the telephone cubicle near the centre of the Station Yard, must be pressed.

No. 1 push key must be pressed before the leading vehicle has proceeded past the "Down" Main Facing Switches to avoid unnecessary operation of the flashing lights.

When shunting is complete, No. 1A push key, which is located in the telephone cubicle near the centre of the Station Yard or No. 1B push key, which is located in an enclosure attached to the side of a signalling apparatus case adjacent No. 1 Signal, must be pressed. The flashing lights and No. 1 Signal will then operate automatically as described above.

A switch, labelled No. 32822 is provided for the manual operation of the flashing lights for testing purposes. This switch is located in the same enclosure as No. 1B push key.

The Flashing Light Signals are equipped with side lights and train crews must keep a close watch and report any incorrect operation.

If Absolute Signal No. 1 fails, this signal must not be passed whilst displaying a "Stop" indication until the Engineman is in possession of a Train Order issued in accordance with Rule No. 99.

Such Train Order must include the following instructions:—

"Reduce speed to eight kilometres per hour approaching the Princes Highway Level Crossing at 523·926 kilometres and carry out the instructions contained in Rule No. 108."

(*b*) *Station Yard*—

Standing room on each leg of the triangle is 176 m.

The facing switches leading from the Main Line are equipped with switchstands. Hand operated derails are installed on each leg of the triangle and on the goods siding to protect the Main Line.

The facing switches leading to each leg of the triangle from the Main Line must be kept set and locked for the Main Line, and the derails kept in the "Normal" position on the line, except when in actual use for shunting purposes.

(*c*) *Train Control and Party Line Radio Telephones*—Are provided in the Telephone Cubicle near the Goods Platform.

Movement of trains to and from the siding will be under the direction of the Train Controller.

(*d*) *Method of Working*—Gates are installed beyond the apex of the triangle across the line at the entrance to Cellulose Australia Limited Mill's property.

The gates are opened by the Watchman at Cellulose at 6.30 a.m. Mondays to Fridays, and remain open until after the departure of the evening train at approximately 10.00 p.m. Outside such hours, the Train Controller must telephone the Watchman at least 30 minutes before the arrival of trains at Snuggery to arrange for the gates to be opened.

(*e*) *"Down" Trains—To Enter Sidings*—The train must stop clear of the fouling disc at the Millicent end of the Siding.

The Guard must secure against movement the portion of the train left standing on the Main Line, uncouple, hand signal the Engineman to draw ahead clear of the switches, remove the respective derail, operate the switchstand, and hand signal the Engineman to push into Snuggery or Cellulose Siding and shunt as required by the Train Controller or a representative of Cellulose Aust. Ltd.

After the last vehicle has been placed in the Siding, the Guard must apply the hand brakes on sufficient vehicles to ensure against movement and hand signal the Engineman back on to the Main Line, replace derail in the "on" position, reset the switches, and attach loading and engine to portion standing on the Main Line and advise the Train Controller that the train is ready to depart.

Surplus loading for Cellulose Company may be left on the Goods Siding at Snuggery ensuring that sufficient hand brakes are applied to secure them against movement.

(*f*) *"Up" Trains—To Enter Cellulose Siding*—The train must stop with the engine clear of the fouling disc at Mount Gambier end of the siding.

If the shunt movement can be carried out clear of No. 1 Absolute Signal, No. 1 push key, which is located in the telephone cubicle near the centre of the Station Yard, must be pressed, before the leading vehicle has proceeded past the "Down" Main Facing Switches to avoid unnecessary operation of flashing lights. The Guard must secure against movement that portion of the train left standing on the Main Line, uncouple, hand signal the Engineman to draw ahead over facing switches, remove the derail over which the movement is to take place, set the switches for the siding and hand signal the Engineman into Snuggery or Cellulose Siding where he will carry out the necessary shunting as requested by the Train Controller or a representative of Cellulose Aust. Ltd.

After the last vehicle has been placed in Cellulose Siding, the Guard must apply the hand brakes on sufficient vehicles to ensure against movement and hand signal the Engineman back on the Main Line, replace the derail in the "on" position, reset the switches, attach loading and engine to portion standing on Main Line and advise the Train Controller that the train is ready to depart.

When permission from the Train Controller to depart has been obtained, the Guard must press No. 1A push key which is located in the telephone cubicle near the centre of the yard or No. 1B push key which is located in an enclosure attached to the side of a signalling apparatus case adjacent to No. 1 Absolute Signal.

The flashing lights on the level crossing at 523·926 km will operate when the engine has passed over the switches, and Absolute Signal will display a "Caution" indication after 20 seconds.

(*g*) *Level crossing not protected by flashing lights Tantanoola end of the Snuggery Yard.* The Guard or his Assistant must walk ahead to protect the crossing and if necessary display hand signals to approaching road traffic.

3. **Snuggery, Apcel and Cellulose—**

Guards of Goods trains working in and out of Snuggery, Apcel and Cellulose sidings are not required to prepare an ABC report, Form No. 79. Guards of these trains must prepare a Train Journal in triplicate using Form No. 196a. The

duplicate copies must be handed in on arrival at Mount Gambier, one addressed to the Station Master, Mount Gambier, and the other to the Station Master, Tantanoola. The Station Master, Tantanoola, will use this form for recording information of vehicles to the Sidings referred to above in the Station Trucks Books.

4. **Apcel Siding between Tantanoola and Millicent—**

The shunting of Apcel Siding must be carried out on the "Up" movement from Snuggery as directed by the Train Controller.

The train must be brought to a stop clear of the level crossing located at 523·926 km to enable the crossing protection to "cut out".

When attaching or detaching loading at Apcel Private Siding, the Guard must prepare Guard's Journal No. 196A.

5. **Millicent—**

The level crossing at Mount Gambier end of Millicent station yard must be protected by a qualified Transportation employee displaying a "Stop" sign by day, or red light by night, for the passage of all "Down" trains or shunting movements. "Up" trains must not exceed a speed of 15 km/h over this crossing.

The level crossing at the Stock Siding end of Millicent station yard must be protected by a qualified Transportation employee displaying a "Stop" sign by day, or red light by night, for all shunting movements over this crossing.

MOUNT GAMBIER-MILLICENT—RADIO TELEPHONE LINK

A Train Control and Party Line Radio Telephone link is provided between Mount Gambier and Millicent.

The following instructions apply.

1. **Train Control Link—**

(*a*) *Access to Mount Gambier Train Control* will be provided at:—

Marte—Shelter in centre of station yard.
Burrungule—Shelter on goods platform.

Tantanoola—

Station Master's Office.
Waiting Shed, in weatherproof box.

Apcel—Shelter adjacent to "Down" main facing switches leading to Apcel Siding.

Snuggery—Shelter near goods platform.

Millicent—

Station Master's Office.
Waiting shed, in weatherproof box.

In addition the track maintenance vehicles listed below, have been equipped with radio transceivers for the purpose of communicating with Train Control.

Tantanoola gang—ST2 Type.
Mount Gambier gang—ST2 Type.
Mount Gambier District Foreman—M19 Type.
Mount Gambier Special Ganger—M19 Type.
Mount Gambier Signal and Telegraph Electrical Fitter—M19 Type.

(*b*) *Operating procedure—Train Control Link—*

(1) Mount Gambier Train Control, Mount Gambier—Calls will be received in the normal way from Station Shelters and Track Maintenance Vehicles by voice calling heard in the speaker/console provided. To answer, operate the top white key in the line key case and the "press-to-talk" footswitch.

Selective calling to Millicent and Tantanoola is retained as follows:—

To selectively call Millicent or Tantanoola:—

Operate top white key on line key case to "Up" position.

Operate the "Station Select" rotary switch on the remote control console to position "1" for Millicent or "2" for Tantanoola.

Depress "Station Call" push button.

Return "Station Select" control to normal position marked "O".

An indication that the call has been received will be made by a returned signal operating the "Call Acknowledge" lamp on the console. Also a "beep" will be heard in the headset. When the called station answers extinguish the lamp by depressing the "Reset" button.

NOTE:—

(i) The "press-to-talk" footswitch is to be operated in the normal way, the only difference being that Train Control will be unable to receive when the footswitch is depressed. It must, therefore, be used correctly as a "press-to-talk" switch.

(ii) It will not now be possible to operate Mount Gambier-Wolseley and Mount Gambier-Millicent Train Control circuits simultaneously. When operating either to Millicent or Wolseley the other line-key must rest in the monitor position where it will be heard on the appropriate speaker.

(iii) The radio transmit and receive equipment located in the Electrical Fitter's Apparatus Room, Mount Gambier, must not be turned off except in an emergency.

The power supply outlets located on the leg of the Train Control Table for the speaker/console must not be switched off, except in an emergency.

(2) Marte, Burrungule and Apcel Shelters.

To call the Train Controller, remove hand microphone from cradle, depress "press-to-talk" switch located on top of microphone and speak in normal voice into microphone held about 220 mm from mouth.

To receive the Train Controller, release "press-to-talk" switch when the Train Controller will be heard through the radio speaker.

Replace microphone in cradle when finished.

NOTE:—

(i) The equipment power supply must not be turned off except in an emergency.

(ii) When the "press-to-talk" switch is depressed, the equipment will only transmit and not receive.

(3) Tantanoola and Millicent.

The Train Controller can be called and answered in the Station Master's Office using the hand microphone supplied, as in paragraph (2) above. Additionally, a radio-telephone handset has been supplied in both the Station Master's Office and the Waiting Shed and is operated as follows:—

A received call from the Mount Gambier Train Controller to the selected station will be indicated for 30 seconds audibly by the bell ringing continuously and visually by the red lamp located on the bottom left of the handset. The Train Controller can be answered by using the telephone handset-receiver and operating the red "press-to-talk" button located near the ear-piece. This button must be released to hear the Train Controller in the handset; when depressed to answer the Train Controller it will switch off both audible and visual indications.

To call the Train Controller lift handset wait until the radio link is free and announce name of station calling.

Note:—The radio telephone is also equipped with a loud speaker located in the centre of the instrument and through which the Train Controller can be heard when the handset is not raised. A volume control for the loud speaker is located on the bottom right-hand section of the instrument, and the loud speaker can be used in conjunction with the hand-microphone detailed in paragraph (2) above if required.

(4) Snuggery Shelter.

The Train Control circuit is operated as detailed in paragraph (2) above. Care must be taken however, to ensure that the hand-microphone marked "Train Control" (left-hand equipment) is used, since the shelter also contains Party Radio Telephone equipment.

(5) Track Maintenance Vehicles.

The reflex-horn type microphone loud speakers are contained in a metal box fitted to the front shield. To call the Train Controller, stop the vehicle and preferably switch off motor. Open the hinged lid of the box and if the circuit is not in use depress the "press-to-talk" button on the loud speaker mounting to speak to the Train Controller, and announce the location. Release the button to listen. Speak into the loud speaker with normal voice with the loud speaker about 220 mm from the mouth. Due to the noise of the track vehicle itself, it will not be possible to use the radio when mobile. Close the box lid after speaking to the Train Controller.

Note:—

(i) The radio equipment is mounted below the petrol tank on the vehicle and must not be interferred with. The controls are pre-set and no attempt should be made to interfere with them by other than authorized Signal and Telegraph personnel.

(ii) The radio equipment is turned on by a switch mounted on the control panel of the vehicle. This switch is to be turned on when the vehicle is started at the beginning of the day and should be left on until cessation of duty.

(*c*) *Malfunction or damage* to any Train Control radio equipment is to be reported to the Train Controller immediately.

2. **Party Link—**

(*a*) *Access to the Party Link* is available from:—

Mount Gambier switchboard
Tantanoola Station Master's Office and Waiting Shed
Snuggery, Shelter near goods platform
Millicent, Station Master's Office and Waiting Shed
Millicent, Freight Shed

(*b*) *Operating Procedure—Party Link.*

The speaking procedure on this link is identical to a normal telephone system, and telephone-type handsets are provided at all above locations except Snuggery, where a hand-microphone and fixed speaker are provided in lieu.

(1) Mount Gambier Switchboard.

The control unit is fitted to the existing switchboard.

To Call a Party on the Link—

The link must be free, *i.e.*, the yellow "busy" light will not be illuminated. This light is illuminated when any party on the circuit is using the circuit.

Plug appropriate call cord into the normal Millicent line-jack.

Operate the "Channel Select" rotary switch to:—

1. For Millicent, Station Master
2. For Tantanoola
3. For Snuggery
4. For Millicent, Freight.

Depress the "Station Select" button and return the "Channel Select" switch to normal position marked "O".

When answered connect the call in the normal way to the required extension or trunk line.

To Answer a Call on the Party Link—

The "Millicent Line" shutter will drop in the normal way. Additionally the "Called" light illuminates, when any station calls Mount Gambier.

Answer with any answer cord and connect in normal way to the extension required.

Clearing—is indicated on the "Clear" lamp, and shutter will drop.

Monitoring—may be achieved by depressing the non-locking toggle switch "Channel Check."

Night Switching—night switching will be extended to the Train Controller and will provide a stand-by Train Control link. As a temporary measure the existing Millicent physical line is paralleled to the Wolseley T.C. to be used in event of any radio malfunction.

(2) Mount Gambier—Electrical Fitters' Apparatus Room.

The radio equipment mounted in this room is to be switched on at all times, except in an emergency. The controls are pre-set and are to be varied only by authorized Signal and Telegraph personnel.

(3) Tantanoola.

The equipment provided consists of separate transceivers for either Mount Gambier or Millicent and Snuggery, both connected through a common control unit and the table telephone.

To Call a Party on the Link—

Ensure the yellow "Line Busy" light on the bottom left of the control panel is not illuminated, *i.e.*, the link is free.

Operate "Channel Select" switch to:—

1. For Mount Gambier
2. For Millicent or Snuggery.

Lift handset and select required party by operating "Station Select" switch to:—

1. For Mount Gambier
2. For Millicent, Station Master
3. For Snuggery
4. For Millicent, Freight.

Depress "Station Call" button.

Return "Station Select" switch to "O".

On completion of call return "Channel Select" switch to "Monitor" and replace handset.

A green "Monitor" lamp on the top left of the control panel will then illuminate to indicate readiness for further use.

To Answer a Party on the Link—

Inward calls will be indicated for 30 seconds audibly on the bell provided and visually on the "Called" red lamp on the centre-left of the control panel.

Turn "Channel Select" to "1" (Mount Gambier).

Lift handset and announce the station name. Bell will then cease and red lamp extinguish.

If no reply, turn "Channel Select" to "2" (Millicent or Snuggery) and announce the station name. When conversation is completed replace handset and return "Channel Select" to "Monitor".

Green monitor lamp then illuminates, indicating readiness for next call.

NOTE:—The Waiting Shed radio-telephone is in parallel with the inside radio-telephone. It is not available to be separately called, nor can it originate calls when the inside telephone is in use. It is for use as an alternative only, and above operating procedure applies when used.

(4) Snuggery.

Ensure that the hand-microphone and control panel marked "Party Link" (right-hand equipment) is used since the shelter also contains Train Control link equipment.

To Call a Party on the Link—

Ensure the yellow "Line Busy" lamp on the bottom left of the control panel is not illuminated, *i.e.*, that link is free.

Turn the "Channel Select" switch to "Operate".

Lift handset and select required party by operating "Station Select" switch to:—

1. For Mount Gambier
2. For Millicent
3. For Tantanoola
4. For Millicent, Freight.

Depress "Station Call" button.

Return "Station Select" switch to "O".

On completion of call, return the "Channel Select" switch to "Monitor" and replace handset.

A green "Monitor" lamp will then illuminate to indicate the transceiver is available for further use.

To Answer a Party on the Link—

Inward calls will be indicated visually only on the "Called" red lamp on the centre-left of the control panel.

Lift handset and turn "Channel Select" switch to "Operate".

Answer call by announcing the name of the station.

When the conversation is completed, replace handset and return "Channel Select" switch to "Monitor" position. A green lamp will then illuminate indicating the transceiver is available for the next call.

(5) Millicent.

To Call a Party on the Link—

Ensure the yellow "Line Busy" lamp on the bottom left of the control panel is not illuminated, *i.e.*, that link is free.

Operate the "Channel Select" switch to:—

1. For Mount Gambier and Tantanoola
2. For Snuggery.

Lift handset and select required party by operating the "Station Select" switch to:—

1. For Mount Gambier
2. For Tantanoola
3. For Snuggery.

Depress "Station Call" button.

Return "Station Select" switch to "O".

On completion of call return "Channel Select" switch to "Monitor" and replace handset.

A green "Monitor" lamp on top left of the control panel will then illuminate to indicate readiness for further use.

To Answer a Party on the Link—

Inward calls will be indicated for 30 seconds audibly on the bell provided, and visually on the "Called" red lamp on the centre left of the control panel.

Turn "Channel Select" to "1" (Mount Gambier).

Lift handset and announce the station name. The bell will then cease to operate and red lamp will extinguish.

If no reply turn "Channel Select" to "2" (Snuggery or Tantanoola) and announce the station name. When the conversation is completed, replace handset and return "Channel Select" switch to "Monitor". A green monitor lamp will then illuminate indicating the transceiver is available for next call.

NOTE:—

(i) The Waiting Shed radio-telephone is in parallel with the office radio-telephone. It is not available to be used nor can it originate calls when the office telephone is in use.

It is for use as an alternative only, and above operating procedure applies.

(ii) The Millicent Station Master and Freight Office cannot converse with each other on the radio link, but can call and receive all other parties as detailed above.

(*c*) *Malfunction or damage* to any Party Radio equipment is to be reported to the Train Controller immediately.

3. **P.M.G. Regulations—**

Governing licensing of radio systems apply although special frequencies have been allocated by the Postmaster-General for this system. These include:—

(*a*) Communication on the links must be restricted to Railway business only.

(*b*) Transmissions must be as concise as possible and all superfluous conversation prohibited.

(*c*) Transmitting and receiving equipment must not be altered, transferred or replaced without the consent of the Chief Engineer.

(*d*) Profane or obscene remarks are strictly prohibited as the radio links are monitored by the P.M.G. Department who may cancel the licence for mis-use of the equipment.

4. **All radio equipment** except for track maintenance vehicles should be left switched on at all times except in an emergency, with any malfunctions reportable as detailed.

NARACOORTE—KINGSTON LINE

Telephone Communication—Telephone communication between all stations and sidings on the Kingston line is available for use on matters of urgency through the Train Control telephone system and Mount Gambier telephone exchange between the hours of 9.00 a.m. and 5.00 p.m. Monday to Fridays and 9.00 a.m. to Noon on Saturdays or Holidays. P.M.G. telephones with continuous service are located at Lucindale and Kingston stations for use in case of emergency.

PETERBOROUGH DIVISIONAL INSTRUCTIONS

GENERAL

Train Designation Signs and Lights—Standard Gauge Shunt Engines—When within yard limits of stations with more than one gauge, standard gauge shunt engines must have displayed the following designation signs and lights to the front and rear:—

(*a*) During the hours of daylight, a designation board consisting of a black "S" on a white background must be displayed in the designation board bracket on the front and rear of the engine.

(*b*) During the hours of darkness, the marker light on the same side as the designation board must show a purple indication and the opposite marker light must display indications in accordance with the Rules.

PETERBOROUGH—BROKEN HILL LINE

Peterborough—

(*a*) Movements in both directions between Peterborough Loco. Depot and Peterborough Station Yard.

1. Light Engines: Released from Traffic—

No engine is to be permitted to pass No. 7, 8 or 13 Absolute Signal until the Signalman on duty has obtained permission from the Loco. Pointsman for the movement to enter the Loco. area. The Loco. Pointsman is to sign the Engineman's Sheet at the time of release from traffic.

2. Light Engines: Entering Traffic—

(*a*) The Loco. Pointsman will advise the Signalman on duty the particulars of the engine to enter traffic and the signal number which the engine is to pass.

(*b*) The Signalman will then set the route over which the engine is to travel.

(*c*) The Loco. Pointsman will be responsible for authorizing movement within the Loco. area.

The movement must not proceed eastward beyond the Loco. Limit Board except upon signal indication displayed by either No. 2, 3 or 5 Signal.

3. Shunt Movements into Loco. Depot—

No shunting movement is to be permitted to pass No. 7, 8 or 13 signals until the Signalman on duty has obtained permission from the Loco. Pointsman for the movement to enter the Loco. area.

4. Shunt Movements from Loco. Depot—

(*a*) The Loco. Pointsman will advise the Signalman on duty particulars of the movement to enter traffic and the signal number which the movement is to pass. Additionally, the Loco. Pointsman will advise the Signalman the number of vehicles and length of the shunt movement and request the assistance of a qualified traffic employee.

(*b*) The qualified employee provided must report to the Signalman his attendance at the entrance to Loco.

(*c*) The movement may not proceed eastward beyond the Loco. Limit Board until authorized by hand signal from the qualified traffic employee. The movement will then enter traffic upon signal indication.

NOTE:—Shunting movements to and from Loco. is to be restricted to daylight hours as far as practicable.

5. Shunting Movements within the Loco. Area—

Shunting movements may be performed within the Loco. area as required upon the authority of the responsible Loco. Shunter or Loco. Pointsman. The movement may not proceed eastward beyond the Loco. Limit Board, until the Loco. Shunter in Charge or the Loco. Pointsman responsible has obtained permission from the Signalman on duty.

The Signalman's permission having been first obtained, the movement may be authorized by the Loco. Shunter in Charge or the Loco. Pointsman responsible to proceed eastward beyond the Loco. Limit Board, but not past No. 2, 3 or 5 signal. Any shunt movement past No. 2, 3 or 5 signal must be authorized by a qualified traffic employee as prescribed in Clause 4 above.

M.I.C. movements within the Loco. Depot must at all times be authorized by either the Loco. Pointsman or a qualified Loco. employee.

6. Motor Inspection Cars—

All Motor Inspection Cars must be accompanied by a Pilotman.

Motor Inspection Cars entering traffic must not proceed eastward beyond the Loco. Limit Boards until authorized by a qualified traffic employee who must be in attendance to receive the Motor Inspection Car into traffic. The movement may then enter traffic upon signal indications under the control of the Pilotman.

Standard Gauge Motor Inspection Cars being released from traffic must be in possession of a Caution Order to pass Absolute Signal No. 7.

All Motor Inspection Cars being released from traffic must be accompanied by a qualified traffic employee, who must pilot the movement to the Loco. Limit Board. The Pilotman must advise the Signalman immediately the Motor Inspection Car is clear of the derails adjacent to Nos. 2, 3 and 5 Signals.

7. Hurlstone Street Crossing—

Should it be noted that the level crossing warning devices protecting Hurlstone Street are not operating no movement must be permitted to proceed until the crossing has been protected as required by Rule No. 108.

8. Switchstands—"Normal" Setting—

The "Normal" position of the switches at the junction of the Standard Gauge Main Line leading to the Works Foreman's Depot and the Standard Gauge Line leading to the engine turn-table area is such that the "Normal" setting of the switches is leading to the engine turn-table area.

Except when in actual use for shunting operations these switches must remain set in the "Normal" position as described above.

(*b*) *Bogie Exchange Depot—Transfer Yard*—While the Bogie Exchange shed is in operation, derails on holding roads leading into the shed must be retained in the "ON" position and locked against interference.

The Leading Hand Fitter in charge of the Bogie Exchange Depot must retain the keys and is responsible for the operation of the locks on the derails.

All concerned must note standing orders for procedure of bogie exchanging vehicles containing "Explosives and Inflammables". These orders are exhibited in the Bogie Exchange shed and *inter alia* provides that no smoking is permitted whilst such vehicles are in the limits of the Bogie Exchange.

Kanandah Siding—

(*a*) *Method of Shunting—General Directions*

1. The Kanandah Siding is situated at 526·556 km between Thackaringa and Broken Hill and approximately 2·134 km from the S.A.R. Absolute Signal No. 56 at Broken Hill.

2. Shunting movements from Broken Hill to Kanandah Siding, and from Kanandah Siding to Broken Hill, must not be made unless permission is first obtained from the Train Controller at Peterborough.

3. Vehicles may be hauled from Broken Hill to Kanandah Siding or from Kanandah Siding to Broken Hill with or without a brakevan.

4. Vehicles not exceeding five (5) bogie vehicles in length, may be Pushed (propelled) with or without a brakevan, from Broken Hill to Kanandah Siding or from Kanandah Siding to Broken Hill.

5. Whilst vehicles are being Hauled or Pushed (propelled) without a brakevan, the Westinghouse air brake must be in use and working from the engine throughout all the vehicles.

6. When vehicles are being Hauled from Broken Hill to Kanandah Siding and from Kanandah Siding to Broken Hill, the Guard or Shunter must ride on the rear vehicle and display to the Engineman hand signals as may be necessary.

7. When vehicles are being Pushed (propelled) from Broken Hill to Kanandah Siding and from Kanandah Siding to Broken Hill, the Guard or Shunter must ride on the leading vehicles and display to the Engineman hand signals as may be necessary.

8. The Engineman must keep a sharp look-out and be prepared to act promptly on any hand signal displayed by the Guard or Shunter in Charge of the movement.

9. The speed of the movement when vehicles are being Pushed (propelled) must not exceed 15 km/h.

10. Prior to the departure of a shunt movement from Broken Hill to Kanandah Siding, the Guard or Shunter in Charge must obtain an "S" key from the Station Master, Broken Hill.

(*b*) *Method of Entering Kanandah Siding from Broken Hill end of the Yard*—On arrival at Kanandah Siding from Broken Hill, the Guard or Shunter must act as follows:—

1. Unlock "S" type padlock on Hand Operated Switch Machine No. 14. Reverse switches from Main Line to Passing Siding. Press button No. 4c on side of switch box which is located approximately 0·5 m from No. 4 Signal Mast. A yellow light indication will then appear in the Low Speed Signal fixed on the mast of No. 4 Signal.

2. A shunting movement can then be made from the Main Line to Passing Siding.

3. When the engine and vehicles are shunted clear of No. 7D Signal the switches from the Main Line to Passing Siding are to be returned to their "Normal" position and Hand Operated Switch Machine No. 14 is to be securely locked with "S" type padlock.

4. The Guard or Shunter must then advise the Train Controller at Peterborough that the engine and/or vehicles have been shunted clear of the Main Line and the switches are locked in position for Main Line running.

5. Hand operated derails secured with an "S" type padlock are in position at the entrance to the Oil Sidings, and at each end of the Goods Siding. Prior to a shunting movement past these points the derails must be moved to the "off" position, and the Engineman hand signalled clear of the derails after which the derails must be returned to the "on" position and the switches set for the Passing Siding. The derails and switches must then be secured with an "S" type padlock and the Train Controller advised accordingly.

(*c*) *Method of Departing from Kanandah Siding at Broken Hill end of Yard*—To depart from Kanandah Siding, the Guard or Shunter must act as follows:—

1. Contact the Train Controller at Peterborough and request permission to enter upon the Passing Siding and Main Line. When permission has been given by the Train Controller, place the hand operated derail to the "off" position, reverse switches for Passing Siding and secure with an "S" type padlock.
2. Proceed to hand operated switch No. 14, unlock the "S" type padlock, and reverse the switches for a movement from the Passing Siding to Main Line.
3. Press button No. 7D on side of switch box, which is located near No. 7 Signal mast. A green or yellow light indication will then appear on No. 7D Entering Block Signal, which is fixed on the ground between the Passing Siding and Main Line, on the Broken Hill end of yard.
4. A shunting movement may then be made from the Passing Siding to Main Line upon No. 7D signal indication.
5. After, (*a*) replacing hand operated derails to the "on" position and (*b*) restoring No. 14 switches to their "Normal" position, and (*c*) securely locking No. 14 hand operated switch machine, the Train Controller at Peterborough must be informed the switches have been restored to the "Normal" position, securely locked and are in position for Main Line running.

(*d*) *Method of Entering Kanandah Siding from Thackaringa end of the Yard*—To enter Kanandah Siding from Main Line, the Guard or Shunter must act as follows:—

1. Unlock the "S" type padlock on Hand Operated Switch Machine No. 13. Reverse points from Main Line to Passing Siding. Press button No. 3C on side of switch box which is located approximately 0·5 m from No. 3 signal mast. A yellow light indication will then appear in the Low Speed signal fixed in the mast of No. 3 Signal.
2. Shunting movement can then be made from the Main Line to Passing Siding.
3. When the engine and vehicles are shunted clear of No. 6D Signal the switches from the Main Line to Passing Siding are to be returned to their "Normal" position and hand operated switch machine No. 13 to be securely locked with an "S" type padlock.
4. The Guard or shunter must then advise the Train Controller at Peterborough that the engine and/or vehicles have been shunted clear of the Main Line and the switches are locked in position for Main Line running.
5. Hand operated derails secured with "S" type padlocks are in position at the entrance to the Oil Sidings and at each end of the Goods Siding. Prior to a shunting movement past these points, the derails must be moved to the "off" position, and the Engineman hand signalled clear

of the derail after which the derails must be returned to the "on" position, and the switches set for the Passing Siding. The derails and switches must then be secured with "S" type padlocks and the Train Controller advised accordingly.

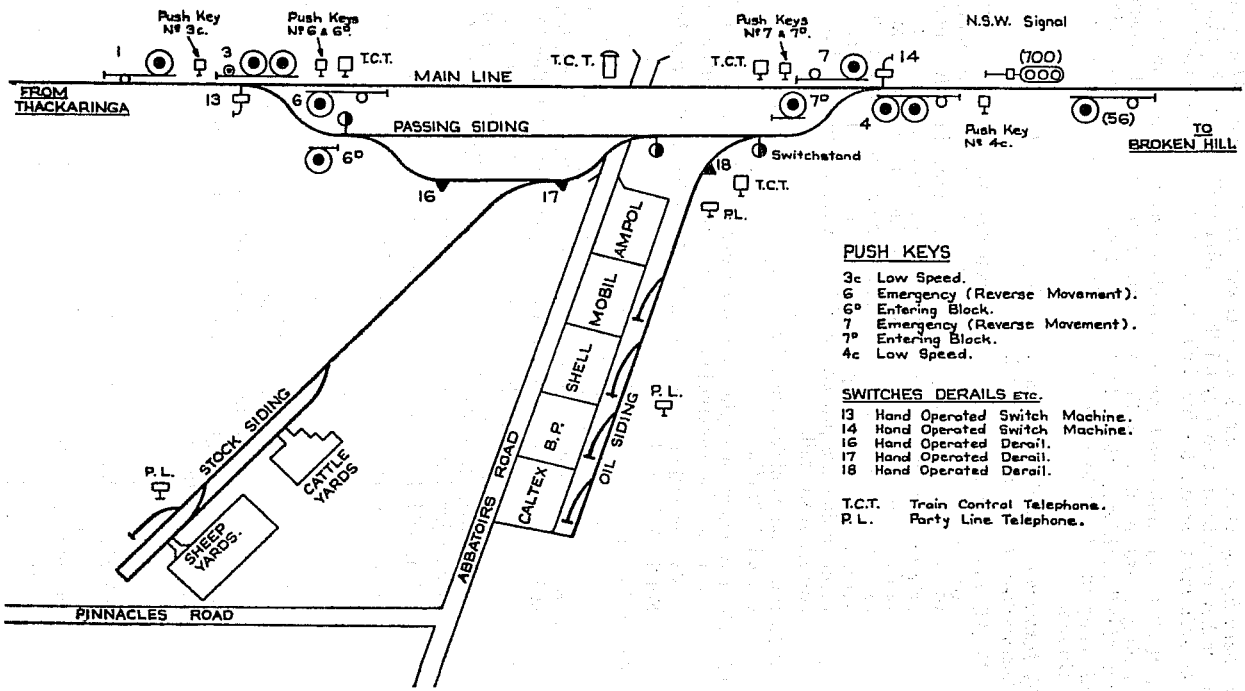
(*e*) *Method of Departing from Kanandah Siding at Thackaringa end of the Yard*—To depart from Kanandah Siding the Guard or Shunter must act as follows:—

1. Contact the Train Controller at Peterborough and request permission to enter upon the Passing Siding and Main Line. When permission has been given by the Train Controller, place the hand operated derail to the "off" position, reverse switches for the Passing Siding and secure with an "S" type padlock.
2. Proceed to hand operated switch No. 13 and unlock "S" type padlock, and reverse the switches for a movement from the Passing Siding to the Main Line.
3. Press button No. 6D on side of switch box, which is located near No. 6 Signal Mast. A green or yellow light indication will then appear on No. 6 Entering Block Signal, which is fixed on the ground between the Passing Siding and the Main Line, on the Thackaringa end of the Yard.
4. A shunting movement may then be made from the Passing Siding to the Main Line upon the authority of No. 6D signal indication.
5. After (*a*) replacing hand operated derails to the "on" position and (*b*) restoring No. 13 switches to their "Normal" position and (*c*) securely locking No. 13 hand operated switch machine, the Train Controller at Peterborough must be informed the switches have been restored to the "Normal" position, securely locked and are in position for Main Line running.

(*f*) *Train Orders required when shunt movement is to cross or pass trains at the Siding*:—

1. A Train Order is required to effect the crossing or passing of trains at Kanandah Siding, in accordance with instructions contained in Rule No. 236.
2. Should the shunt movement be occupying the Main Line or Passing Siding and for any reason cannot shunt clear of the Main Line or Passing Siding, prior to the arrival of a Main Line train movement or other shunt movement at Kanandah Siding, then a Train Order is required for both movements to effect the crossing or passing.
3. Providing the shunt movement from Broken Hill to Kanandah Siding is in clear of either No. 18 derail on the Oil Siding or Nos. 17 and 16 derails on the Livestock Siding, and the respective derails have been returned to the "on" position, and the Train Controller advised accordingly, then Train Orders are not required by either the shunt movement or Main Line train passing through Kanandah Siding whilst a shunt movement is at Kanandah Siding.

KANANDAH SIDING



Broken Hill—

(*a*) *Securing of Goods and Express Goods Trains against Movement*—When Goods trains are admitted to Crystal Street Marshalling Yard by Signal Indication, Guards must, before leaving their train, secure the train against movement.

All "Up" Goods trains and express Goods trains marshalled in Crystal Street Marshalling Yard must have the hand brake of every third vehicle applied (in the "ON" position), whilst the train is standing free of an engine without the air coupled. Prior to departure, Guards must ensure that all hand brakes are released.

(*b*) *Instructions for the Movement, Stabling and Turning of S.A.R. Engines in the Locomotive Depot at Broken Hill*:—

(1) All movements of engines and vehicles over points, crossovers and converging roads in Loco. Depot yards MUST be piloted by the Fireman or other competent employee preceding the engine on the driver's side and hand-signalling for the movement of the engine or vehicle during daylight, and by a light at night. Care must be exercised to observe that no other engine or vehicle is fouling converging roads, no opposing movements are in progress and that facing points are properly positioned with the point switch against the correct stock rail.

(2) Engines and vehicles must be moved at a low speed which must not exceed 5 km/h.

(3) The movement of engines on to or over the Turntable is to be carried out under the supervision of New South Wales Railway employees.

The operation of the Turntable is to be carried out by the New South Wales staff only.

(4) Engines are to be stabled clear of converging roads with the hand brake fully applied and two standard wooden chocks are to be placed on each side of the No. 2 wheels, "A" end left side. (All engines coupled in multiple must be chocked.) This instruction must be strictly adhered to on account of the steep grades within the depot.

(5) Enginemen before moving an engine in a Loco. Depot must assure themselves by personally looking and calling out the engine number, that no-one is underneath or in any position where he is liable to be injured by the movement of such engines.

The whistle must also be sounded before moving.

(6) Care must be exercised at all times in the movement of engines which must be under complete control to ensure that they can be stopped short of any obstruction.

(7) Whether manned or stabled, engines must not stand foul of converging roads or be stopped and reversed while standing on points until the driver is satisfied that the points under the engines are lying in the proper position for the reverse movement.

(8) Engines will be released from traffic at the following locations, and movements thereafter must be made as outlined in Item (1) of this instruction.

(i) Signal No. 19—Station end of Loco. Depot.

(ii) Signal No. 46—Release from Main Goods Line—South Marshalling Yard.

(iii) "J" Frame indicator—from the Main Line.

The above locations are "Loco. Limits" and are defined by a suitable board.

(9) All engines, unless otherwise directed by the N.S.W. Railway employee in charge of the Loco. Depot, must be stabled on No. 2 engine shed road when entering the Loco. Depot from the Peterborough end, and on the ARRIVAL road, adjacent to the carriage shed when entering from the Crystal Street Station end.

(10) New South Wales staff will fuel and marshall the engines for their next working.

The engines will be marshalled for departure on either No. 2 Engine Shed road or No. 2 Carriage Shed road.

(11) Firemen are instructed that after piloting their engine to the traffic switches, and if signals numbers 46 or 19, which ever applies, are not displaying a "Clear" indication they must immediately advise the signal cabin from the telephone in the vicinity of the Loco. Depot signals, that the engine for train No..... is ready to be admitted into traffic.

(*c*) *Speed of Trains*—

A speed of 5 km/h must not be exceeded for Goods trains entering the Broken Hill yard passing the Loco. Depot, or for passenger trains entering the passenger platform for train examination requirements.

PETERBOROUGH—PORT PIRIE LINE

Caltowie—

Level Crossing (296·677 *km*)

The warning devices operate automatically by the passage of trains in both directions, and will commence to operate for "Up" train movements on the Main Line after passing the equipment cupboard located in the middle of the station yard, unless No. 6 Absolute Signal is in the "Stop" position.

"Up" train movements required to stop for an excessive period at Caltowie must use the Passing Siding to avoid unnecessary operation of the warning equipment.

When it is necessary for "Up" stopping trains to be admitted to the Main Line and stopped with any portion between the equipment cupboard located in the centre of the yard and No. 6 Absolute Signal, the warning devices will operate whilst this signal is displaying a "Clear" indication.

If the train is not required to proceed immediately, No. 6 Signal must be placed at "Stop" by operating the red push key in the Station Office, labelled "No. 6 Signal—Press to cancel or hold at stop".

When the train is ready to depart, No. 6 Signal can be re-cleared and the warning devices restarted by pushing the green push key in the Station Office labelled "No. 6 Signal—Press to Clear".

Crystal Brook—

Highway No. 1 *Level Crossing* (334·384 *km*)

The warning devices operate automatically by the passage of trains in both directions, and will commence to operate for "Up" train movements on the Main Line after passing the equipment cupboard located in the middle of the Station Yard, provided that the "Crystal Brook-Gladstone" block is "Clear" and that the "Down" Main Line switches at Crystal Brook are set for the Main Line.

No. 6 and 6D Absolute Signals will not display a "Clear" indication until the warning devices have been operating for 15 seconds.

"Up" train movements required to shunt or stop for an excessive period must use the Passing Siding to avoid unnecessary ringing of the warning equipment.

When it is necessary for "Up" trains to be admitted to the Main Line and stop for the purpose of "take-outs" or other similar reason, with any portion between the equipment cupboard located in the centre of the yard and No. 6 Absolute Signal, the warning devices will operate whilst this signal is displaying a "Clear" indication.

If the train is not required to proceed immediately, No. 6 Signal must be placed at "Stop" by operating the red push key in the station office labelled "No. 6 Signal—Press to cancel or hold at Stop".

When the train is ready to depart, No. 6 Signal can be re-cleared and the warning devices restarted by pushing the green push key in the station office labelled "No. 6 Signal—Press to Clear".

Shunting—Gladstone end of Station Yard—

The unnecessary operation of the warning devices during shunting must be avoided by carrying out as much shunting as possible on the dead end shunting spur provided. This may require restricting shunting to 4 or 5 vehicles at a time, but obviates the need to clear No. 6D Absolute Signal for each shunting movement.

In cases where it is essential to shunt on the Main Line under signal indication, the shunting movement should proceed completely over the level crossing until the warning devices cease operating. When the movement is ready to proceed back into the yard, the warning devices must be restarted by depressing the push key in a small enclosure, locked with an "S" lock, attached to the side of an equipment cupboard on the Gladstone side of the level crossing.

Port Pirie—

(*a*) *Passenger Trains Entering Dead-end Platform*—Enginemen must reduce speed to 5 km/h when entering platforms and stop their train 3 m short of dead-end, or in a position as required by the Officer in Charge on the platform.

(*b*) *Bogie Exchange—South Goods Yards*—Whilst the Bogie Exchange shed is in operation, derails on holding roads leading into the shed must be retained in the "ON" position and locked against interference.

The Leading Hand Fitter in charge of the Bogie Exchange Depot must retain the keys and is responsible for the operation of the locks on the derails.

When standard gauge movements are made at the Bogie Exchange shed, these movements must not enter onto Ellen Street and the length of the rake must be limited accordingly.

All concerned must note standing orders for procedure of Bogie Exchanging vehicles containing "Explosives and Inflammables". These orders are exhibited in the Bogie Exchange shed, and *inter alia* provides that no smoking is permitted whilst such vehicles are in the limits of the Bogie Exchange.

(*c*) *Shunting over junctions of standard and broad gauge lines in Port Pirie South Yard*—Before proceeding over the Junction of the standard gauge and broad gauge lines in the Port Pirie South Yards, a stop must be made at the fouling disc.

The Shunter must see that both gauge lines are clear and that no conflicting movement is being made before giving a hand signal to move.

(*d*) *Baltic Wharf—*

(i) Broad gauge engines and shunt movements are permitted to work on the Baltic Wharf and approaches from Alpha Terrace.

Engines or shunt movements must not cross Solomontown Road from Alpha Terrace approaches to the Baltic Wharf, or *vice versa,* unless a qualified employee has gone ahead to stop the road traffic and display any hand signal necessary to the Engineman and Road Traffic.

Only on occasions of urgent necessity must broad gauge vehicles be stowed on the Baltic Wharf.

(ii) Gates erected over broad gauge tracks—The Marine and Harbors Department have erected boom type gates over the two broad gauge tracks leading to the Baltic Wharf.

The gates will be in the closed position and locked except when required to be opened for a shunt movement to or from the Baltic Wharf.

Prior to making a broad gauge shunt movement past the gates, the employee in charge of such movement must obtain the key to unlock the gates from the Yard Master's Office, unlock the gates, and secure them in the open position with the through bolts provided. On completion of the shunt movement, the employee in charge must place the gates in the closed position and lock them to the centre post.

In the event of the key in the Yard Master's Office being lost, a spare key may be obtained from the Watchman, Marine and Harbors Department, Port Pirie.

(*e*) *Shunting*—"Fly" shunting and "kicking-off" across or in any street is prohibited.

(*f*) *South Goods Yard—Transfer Shed*

(1) *Warning Signals*—To afford protection to employees engaged on the transfer platform between broad and standard gauge tracks in the Port Pirie South Goods Yard, a warning hooter and bell are installed, the operation of which will be as set out hereunder:—

(i) A hooter installed on pole at the Ellen Street end of the transfer platform adjacent to the crane and operated by push button located on poles at each end of the platform.

(ii) The warning signal equipment must be operated as required by the Shunter or Assistant Shunter on the broad and standard gauge tracks, before commencing shunting movements.

(2) *Method of Working*—Shunt engines of both gauges must STOP clear of vehicles at either end of transfer platform sidings, and the Shunter or Assistant Shunter must then operate the warning signal as follows:—

(i) Standard Gauge—Transfer platform—

Shunting to commence	1 long blast
Shunting finished	1 short blast

(ii) Broad Gauge—Transfer platform—

Shunting to commence	2 long blasts
Shunting finished	2 short blasts

(*g*) *Warning Signal Overhead Travelling Crane* (Transfer)—

(1) To protect employees at the overhead gantry crane and transfer ledge between the broad and standard gauges, also those employees working on the Commonwealth Railways adjoining loading road, warning hooters are installed on a pole midway between the South and North ends of the gantry crane transfer ledge. This is adjacent to the Commonwealth Railways standard gauge loading road (near Alpha Terrace) in the Transfer Yard.

The hooters are operated by a push button located on a pole with the switch box at the south end of the overhead travelling gantry crane transfer ledge.

The warning signal must be operated as required by the Shunter or Assistant Shunter on the broad and standard gauge lines before shunting movements commence.

(2) *Method of Working is as Follows*—Standard gauge, Commonwealth Railways, Loading Road.

Shunting to commence .. .. 1 long blast
Shunting finished . .. . 1 short blast

Standard Gauge, Commonwealth Railways, Travelling Gantry Crane Road.

Shunting to commence .. .. 2 long blasts
Shunting finished . .. . 2 short blasts

Broad Gauge, South Australian Railways, Travelling Gantry Crane Road.

Shunting to commence .. .. 3 long blasts
Shunting finished . .. . 3 short blasts

(*h*) *Method of Train Movements in Vicinity of Tippler*—

(1) *Loaded Standard Gauge Train*—Standard gauge train delivering loaded ore wagons to the Tippler must proceed under the following instructions:—

(i) The train must be admitted to the lines labelled "S.G. LOADED" and come to a stand in front of the "Stop, Proceed under Direction of the Tippler Operator" Boards.

(ii) If the green lights above the telephone cabinets are illuminated the train can proceed under the direction of the employee in charge of the shunt movement to sign "Shunter please leave front of leading wagon at this point".

(iii) If the green lights above the telephone cabinets are extinguished, the shunter must seek permission from the Tippler Operator, by means of the telephone provided for the train to proceed to the abovementioned sign. Under no circumstances is a train to proceed without this direction unless Clause (3) applies.

(iv) The front of the leading ore wagon must be brought to a stand adjacent the sign referred to in Clause (1) (ii).

(v) The engines must uncouple at this point and leave the area via the broad gauge—standard gauge Shunt Road.

(vi) Sufficient hand brakes must be applied to prevent movement of loaded ore vehicles. The air must be drained from each vehicle when the ore consist has been placed as per (ii) above.

(vii) Engine movements to the Tippler line must not be made.

(2) *Engines Collecting Empty Ore Wagons*—

(i) The empty standard gauge ore wagons will be automatically placed by the Tippler Operator on the line designated "Standard Gauge empties".

(ii) The engine must come to a stand adjacent the "Stop, Proceed under Direction of Tippler Operator" board.

(iii) Depending on whether the green lights above the Telephone Cabinets are illuminated or extinguished, the employee in charge must either direct the engine to proceed to the empty ore wagons or seek permission from the Tippler Operator for the engine to proceed to the ore wagons.

(iv) The standard gauge line used to stable the empty ore wagons is equipped with a special switchstand operated stop block and extreme care must be taken when coupling the engine to

the wagons to ensure that this stop block is first removed from the line. The stop block must be replaced after the empty vehicles have been drawn clear of the level crossing.

(3) If the green light above the telephone cabinets is extinguished and no reply is received on telephoning the Tippler Control Room, the train must proceed into the Tippler area under the direction of the Shunter who must take extreme care to ensure that the line is clear and no conflicting ore wagon movements are being made.

(*i*) *Mary Elie Street Level Crossing*—

Push button operation of flashing light warning signals.

Flashing light warning signals are installed at this crossing. The following signals are also installed adjacent the crossing and operate in conjunction with the flashing light signals.

(1) "Down" Absolute Colour Light Signal No. 135. A dwarf colour light signal situated on the Port Pirie Station side of the Mary Elie Street Level Crossing and displaying indications in accordance with Rules Nos. 116 and 118. This signal displays a "Caution" indication for a train to proceed over the crossing after the push button labelled 135 has been pressed and a delay of 30 seconds has expired. This push button is located in an enclosure attached to the side of an adjacent signalling apparatus case. The lid of the enclosure is coloured red and must remain closed and locked with an "S" type padlock when not in use to prevent unauthorized operation by vandals. A push button labelled "Cancel" is located adjacent the abovementioned push button labelled 135. This push button must be operated in the event of the push button labelled 135 being operated in error, if it is desired to stop the flashing light signals from operating.

(2) "Up" Absolute Colour Light Signal No. 136. A dwarf colour light signal situated on the Wharf side of the Mary Elie Street Level Crossing and displaying indications in accordance with Rules Nos. 116 and 118. This signal displays a "Caution" indication for a train to proceed over the crossing after the push button labelled 136 has been pressed and a delay of 30 seconds has expired. This push button is located in a box attached to a stub pole adjacent the signal. The door of the box must remain closed and locked with an "S" type padlock when not in use.

A push button labelled "Cancel" is located adjacent the abovementioned push button labelled 136. This push button must be operated in the event of the push button labelled 136 being operated in error if it is desired to stop the Flashing Light Signals from operating.

The operation of the Level Crossing Warning Devices is as follows:—

(i) The train must come to a stand in front of the respective Dwarf Signal.

(ii) The Shunter must operate the push button to clear the respective Dwarf Signal.

The Level Crossing Warning Devices will commence operation immediately the push button has been pressed. After a time delay of 30 seconds has elapsed, the respective Dwarf Signal will display a "Caution" indication for the train to proceed over the crossing.

(iii) The Level Crossing Warning Devices will automatically cease operation after the rear of the train has cleared the crossing.

PETERBOROUGH—QUORN LINE

Orroroo and Eurelia—

Engines must not enter the Goods shed account infringements of the Structure Gauge. Warning boards have been erected on both approaches to the shed.

WILMINGTON LINE

Car No. 31—Hand brake not to be used in shunting. The hand brake on Car No. 31, which is operated by a wheel situated on the observation end platform, is only provided for holding the car when stationary, and must not be used for shunting purposes.

Wilmington—

The switches leading from the sheep and cattle yard at the triangle must be left set for the dead end line.

PORT LINCOLN DIVISIONAL INSTRUCTIONS

PORT LINCOLN

(*a*) *Shunting Brennan's Jetty*—When vehicles are being hauled or pushed to Brennan's Jetty, a Shunter must precede the leading vehicle to protect road traffic and pedestrians.

(*b*) *Private Sidings*—

Australian Barley Board Depot,

Australian Wheat Board Depot,

Government Produce Depot.

Designation Boards are erected at 1·851 km on the Port Lincoln side, and at 3·882 km on the Cummins side of the switches leading to Government Produce Depot. A Train Control telephone is installed opposite the switches.

(*c*) *Le Brun Street—Verran Terrace Level Crossing* (0·880 *km*)—*Shunting movements to Adelaide-Wallaroo Fertilizers Ltd. siding*:—

(1) *"Down" movements*

(i) The train must be brought to a stand immediately in front of the "Stop, Proceed under Hand Signal" board located on the Engineman's left, on the Port Lincoln station side of the Le Brun Street level crossing.

(ii) The black operating push button labelled "No. 1—To Start Crossing" located in a small enclosure locked with an "S" type padlock attached to the post supporting the above "Stop, Proceed under Hand Signal" board referred to in paragraph 1 (i) must be depressed.

(iii) The train must then be hand signalled, over the level crossings after ensuring that the warning devices have been operating correctly for 20 seconds. The warning devices will cease after the train has moved completely beyond the level crossings.

(2) *"Up" movements*

(i) The train must be brought to a stand immediately in front of the "Stop, Proceed under Hand Signal" board located on the Engineman's left, on the Fertilizer Works side of Verran Terrace level crossing.

(ii) The black operating push button labelled "No. 3—To Start Crossing" located in a small enclosure locked with an "S" type padlock and attached to the post supporting the "Stop, Proceed under Hand Signal" board referred to in paragraph 2 (i), must be depressed.

(iii) The train must then be hand signalled over the level crossing after ensuring that the warning devices have been operating correctly for 20 seconds. The warning devices will cease after the train has moved completely beyond the level crossings.

(3) In the event of either No. 1 or No. 3 push buttons being operated in error, the respective red cancelling push buttons labelled "No. 2—To Cancel Crossing" or "No. 4—To Cancel Crossing" located adjacent to push buttons Nos. 1 and 3 respectively, must be depressed.

(*d*) *Level Crossing* (2·254 *km*)—

Method of Working:

(1) The warning signals will operate automatically for the passage of trains as follows—

(i) For both "Up" and "Down" train movements on the Main Line within the section of line between 1·775 km and 2·728 km.

(ii) For the movement of trains from Port Lincoln into either the Wheat Board siding or the Barley Board siding.

(iii) For movements from either the Wheat Board siding or the Barley Board siding to Port Lincoln providing the whole of the movement leaves the sidings and no vehicle has been left standing on the Main Line.

(2) Shunting to or from the Wheat Board or Barley Board sidings.

(i) All shunting movements to the Wheat Board or Barley Board sidings must be carried out by "Down" shunting movements from Port Lincoln station yard. Shunting movements to either the Wheat Board siding or the Barley Board siding with 'Up" Main Line trains *is strictly prohibited.*

(ii) When it is desired to shunt from Port Lincoln into either the Barley Board or Wheat Board sidings, a traffic employee must accompany the movement from the Port Lincoln yard and be stationed at the level crossing to ensure that the correct operation of the warning signals is carried out.

(iii) A switch and a push key are provided in a box on the Port Lincoln side of the level crossing. The box is locked with an "S" type padlock. The switch and push key must be operated to start or stop the warning signals as required and in accordance with the following method of operation:—

The shunting movement from Port Lincoln towards the sidings will automatically operate the warning signals until the rear of the movement is clear of the level crossing. If it is necessary to leave vehicles on the Main Line during shunting movements into the sidings, the warning signals will need to be manually controlled should it be necessary for the movement to proceed towards Port Lincoln such that it will foul the level crossing.

All shunting movements proceeding towards Port Lincoln must come to a stop prior to reaching the level crossing. If the length of the shunting movement is such that it will foul the level crossing, then the traffic employee stationed at the crossing must hand signal the movement over the crossing after switch No. 126 has been operated to start the warning signals working. The traffic employee must ensure that the signals have been operated for a period of approximately 30 seconds prior to giving the hand signal. When the shunt movement is again being backed clear of the level crossing towards the sidings, switch No. 126 must be placed in the "Normal" position to stop the signals from operating.

When the shunting has been completed and the movement is ready to return to Port Lincoln Station Yard, push key No. 126A must be depressed. This will cause the warning signals to commence operating and the movement

may then proceed towards Port Lincoln on the receipt of a hand signal from the traffic employee stationed at the crossing.

The traffic employee must ensure that the warning signals have been operating for 30 seconds prior to giving the hand signal for the movement to proceed towards Port Lincoln. The traffic employee must ensure that the box containing the push key and the switch is again locked with the "S" type padlock prior to return to Port Lincoln with the shunt movement. The warning signals will cease to operate when the rear of the movement has cleared the level crossing.

GENERAL

1. **Reporting Whereabouts**—Gangers and other employees must report their whereabouts as directed by the Superintendent.

2. **Use of Side Chains**—Side chains on all rollingstock on the Port Lincoln Division must be linked together across the vehicle and under the coupler.

They must not be coupled to the chains of another vehicle except during emergency operations.

3. **Penong Junction and Eyre Highway Level Crossing (429·790 km)**—The "Normal" position for the switches at Penong Junction is set and locked for the Penong Main Line.

"Down" train movements from Wandana must stop at the STOP BOARD at Penong Junction, and the Guard obtain a Train Order to reverse the Main Line switches. A Train Order to proceed from Penong Junction to Ceduna must not be issued until it has been ascertained that the line between the switches at Penong Junction and the battery cupboard located at 429·822 km Penong Line is clear. This procedure is essential to ensure the correct operation of the warning devices at the Eyre Highway level crossing 429·790 km.

On receipt of the Train Order, the switches must be set for the movement and the train HAND SIGNALLED to move ahead clear of the switches. The switches must then be returned to "Normal" and locked. The Guard must then advise the Train Controller that the switches are in the "Normal" position, and the train is ready to depart.

Train movements from Ceduna to Wandana must come to a stand at the facing switches. The Fireman must set the switches for the movement, and the train must then move ahead clear of the fouling point. The switches must be returned to "Normal" and locked. The Guard must then advise the Train Controller that the switches are in the "Normal" position and locked.

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