

SOUTH AUSTRALIAN RAILWAYS.

APPENDIX

TO THE

WORKING TIME TABLES

AND

RULE BOOK

(FIRST PART).

FOR THE USE OF RAILWAY STAFF ONLY.



SOUTH AUSTRALIAN RAILWAYS.

GENERAL APPENDIX

TO THE

WORKING TIME TABLES

AND

RULE BOOK.

(FIRST PART.)

From December 1st, 1917, until further notice.

All instructions issued prior to December, 1st, 1917, which conflict with instructions in this book are cancelled.

Each member of the staff must make himself conversant with the contents of this book, so that he may be thoroughly cognizant of the instructions herein, and note any alterations or additions since the previous issue, dated January 1st, 1910.

ALFRED N. DAY,

General Traffic Manager.

Railway Offices, Adelaide, January 1st, 1918.

R. E. E. ROGERS, Government Printer, North Terrace, Adelaide.

B000—10.7.1918

(3RD EDITION

SOUTH AUSTRALIAN RAILWAYS.

GENERAL APPENDIX

(FIRST PART).

All Instructions in this Book under the various headings are correct up to December 1st, 1917.

The following instructions in Weekly Notices issued since December 1st, 1917, have been included in this portion, viz:—

W.N. No. 49/17, paragraph 5—Speed restrictions, Nuriootpa-Truro line.

W.N. No. 49/17, paragraph 27—Advice of trains running, Great Northern line.

W.N. No. 51/17, paragraph 26—Rule book, precedence of trains—The paragraphs referring to Rule 75 and the addenda to Rule 75.

W.N. No. 52/17, paragraph 6—Points leading to Solomontown Station.

W.N. No. 1/18, paragraph 9—Run through signals.

W.N. No. 3/18, paragraph 11—Sound the whistle notice, Ambleside.

W.N. No. 3/18, paragraph 12—Speed of trains through Station yards, Quorn and Port Augusta line.

W.N. No. 6/18, paragraph 16—Broad Gauge Stations with only one passenger platform.

W.N. No. 8/18, paragraph 10—Goods trains with push engines, Murray Bridge to Mount Lofty.

W.N. No. 8/18, paragraph 13—Code of engine whistles.

W.N. No. 9/18, paragraph 10—Push engines, Murray Bridge to Mount Lofty.

W.N. No. 9/18, paragraph 11—Push engines, Aldgate to Mount Lofty.

W.N. No. 11/18, paragraph 17—Marshalling of mixed, goods, and live-stock trains.

Paragraph 5 of W.N. No. 15/18 is cancelled.

W.N. No. 16/18, paragraph 8—Code of engine whistles, Kilkenny.

W.N. No. 18/18, paragraph 8—Designating discs for engines, Glenelg lines.

W.N. No. 21/18, paragraph 13—Code of engine whistles.

Where any Divisional Instruction conflicts with a General Instruction, the former must be adhered to.

Where any instruction in this Book conflicts with an instruction in the Rule Book, the former must be adhered to.

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Divisional Instructions Applicable to the Stations
and Lines Specified.

DIVISIONAL INSTRUCTIONS.

MIDLAND SYSTEM.

ADELAIDE, MILE END, OUTER HARBOUR, and SEMAPHORE LINES.

SPECIAL TRAINS FROM MILE END—

When a special train is required to work from Mile End the Stationmaster must see that it is not dispatched at a time when it will interfere with passenger working. Stationmaster, Keswick, and the Signaller at "Y" and Mile End Junction Cabins must see that the special is not admitted to the main line until it can do so without delaying any following passenger train.

When a special train is required to work between Mile End and Port Adelaide at such short notice that the usual Special Train Notice cannot be issued, the Stationmaster, Port Adelaide, between the hours of 8 a.m. and 5 p.m. and the Yard Inspector on duty between the hours of 5 p.m. and 8 a.m., must advise all concerned of the up running, and Stationmaster, Mile End, between the hours of 8 a.m. and 5 p.m. and the Yard Inspector on duty between the hours of 5 p.m. and 8 a.m., must perform a similar duty with regard to down working. In the latter case, Mile End must first telephone Stationmaster, Adelaide, so that the regulations regarding the preceding train carrying a red disc by day and an extra red light by night may be observed.—W.N. Nos. 45/12, 44/13, 2/14.

LOADS OF TRAINS CONVEYING MAILS FOR EASTERN STATES—

When mail steamers arrive at the Outer Harbor the Stationmaster there must promptly telephone the Stationmaster, Adelaide, the number of bags of mails loaded for the Eastern States in each vehicle, viz., sorter, baggage car, and TT van. Each bag will be computed as weighing 50 lbs., and the Stationmaster, Adelaide, in notifying Loco. Department the weight of the train (express or special) by which the mails leave Adelaide for Melbourne must add to the tare of each vehicle the weight of the mails it contains IN EXCESS OF 5 TONS, thus guiding the Loco. Department in providing suitable engine power.—C.M.E., 645/09.

ADELAIDE STATION—

Assisting Engines.—The Stationmaster must order assisting engines for trains.

Train Engines.—Train engines must not be brought under the Adelaide Station roof to platforms Nos. 4 to 9 inclusive, for attaching to their respective trains at a longer interval than four (4) minutes before train departure time. If they arrive earlier they must stand on their proper road, west of and outside the building.

Shunting Engines—Westinghouse Brake.—Enginemen of shunting engines fitted with the Westinghouse air brake, when shunting passenger trains to the Adelaide platforms, must charge the trains with air.—W.N. No. 25/10.

Engines Working to No. 2 Platform.—Unless otherwise instructed by the Porter in charge, engines coming into No. 2 platform to work trains must, before coupling up, wait at the west end for their trains to be pushed from east to west end.—W.N. No. 1/16.

Rx Engines—Exhibition Siding.—Class Rx engines, or any other engine of equal or greater weight, must not run on Exhibition Siding.—W.N. No. 20/14.

Disc Signal No. 18.—No. 18 disc signal governs engines shunting to the South Carriage Shed, or to the engine road as far as the "Stop Board," and Enginemen must have their engines under such control as to be able to stop at the "Stop Board," and they must not assume that the road is set for the carriage shed.—W.N. No. 28/16.

Shunting in and out of Carriage Yards.—No engine or train must pass over the hand-worked switches controlling the entrances to the North and South Carriage Yards until a green hand signal is given by the Pointsmen of the Crow Cabins.—W.N. Nos. 12/14, 12/17.

ADELAIDE STATION—continued.

Carriage Yards—Speed Restriction.—Carriages must not travel over the Carriage Yards at a greater speed than 10 m.p.h.

Vehicles to be Coupled in Carriage Yards.—All vehicles standing in the Carriage Yards in the case of fire the whole must be removed out.—W.N. Nos. 30/11 and 45/11.

Securing Vehicles—Carriage Yards.—On any of the roads in the Carriage Yards the leading wheel of the vehicle must be secured by a brakevan or by the chain. The Shunter must secure the leading wheel and remove the chain if necessary, because of the danger of the vehicle moving.

Securing Vehicles Standing at Platforms.—Vehicles without a brakevan must be secured by a brakevan or by the chain. The Shunter must secure the leading wheel and remove the chain if necessary, because of the danger of the vehicle moving.

Vehicles to be Coupled at Passenger Platforms.—Vehicles on the one road can be coupled to vehicles on the other road only if this is done before going. See that two or more trains are not coupled together.—W.N. Nos. 30/11 and 45/11.

Kicking off Vehicles.—Vehicles must not be kicked off any of the platform roads. This restriction does not apply to vehicles on the main line.

Smoke Nuisance.—Enginemen must not smoke while running between platforms.

Lockers for Westinghouse Brake.—In the locker on No. 2 platform line engines.—W.N. Nos. 32/11 and 45/11.

Fire Alarms.—Fire alarms, connected with the south-eastern corner of the Suburban Carriage Shed, the western wall of the Western Carriage Shed, and the telegraph post on footpath, must be broken the glass, and turn the handle.

Drinking Water for Carriages.—Water must be provided in carriages and for fountain.

Starting Gongs.—Starting gongs must be used for all trains. The gong must be used for all trains by the Platform Porter. The gong must be started by the Porter at the front of their trains and must not be obstructed by the porter.

Exhibition Siding.—Before Yard engines shunting the Exhibition Siding the Shunter must be near the west end of No. 13 leading to the Carriage Shed and must not obstruct the train. The gates refer to the Exhibition Siding line.

Exhibition Siding to Main Line.—W.N. No. 44/17.

ADELAIDE STATION—continued.

Carriage Yards—Speed Restrictions.—Engines travelling light or with vehicles attached must not travel over the hand-worked points at the entrances to the North and South Carriage Yards at a greater speed than four (4) miles per hour.—W.N. Nos. 29/14, 7/17.

Vehicles to be Coupled in Carriage Sheds.—The Foreman Carriage Shunter must see that all vehicles standing in the North and South Carriage Sheds are coupled up, so that in the case of fire the whole rake of carriages on the one road can be promptly hauled out.—W.N. Nos. 30/11 and 45/16.

Securing Vehicles—Carriage Yards.—Vehicles left standing without a brakevan attached on any of the roads in the North and South Carriage Yards must be spragged in the leading wheel of the vehicle furthest from the passenger platforms, and when left standing with a brakevan attached, the brake must be screwed hard on and secured by the chain. The Shunter must, before moving any vehicles, personally examine the leading wheel and remove the sprag, if one has been used. These precautions are necessary, because of the falling grades on these roads.

Securing Vehicles Standing at Platforms.—Vehicles left standing at Nos. 10, 11, 12, or 13 platforms without a brakevan attached must be spragged in the leading wheel of the vehicle furthest from the dead end, and when with a brakevan attached, the brake must be screwed hard on and secured by the chain. The Shunter (if it be a case of the shunting of vehicles) or the Guard (if it be a main line train) must, before the vehicles are moved, personally examine the leading wheel and remove the sprag, if one has been used. These precautions are necessary, because of the falling grades at these platforms.—W.N. No. 30/14.

Vehicles to be Coupled at Passenger Platforms.—All vehicles standing over night at the passenger platforms must be coupled up so that in the case of fire the whole rake of vehicles on the one road can be promptly hauled out. The Platform Inspector must see this is done before going off duty. Next morning the Platform Inspector must see that two or more trains standing at the same platform are properly disconnected.—W.N. Nos. 30/11 and 45/16.

Kicking off Vehicles.—Vehicles must not be detached from the engine and kicked off into any of the platform roads, or on the lines leading into or out of the Carriage Sheds. This restriction does not apply to the lines in the open yards.—W.N. No. 32/17.

Smoke Nuisance.—Enginemen of main line or shunting engines must see that no firing is done while running between the station and Morphett Street Bridge.—W.N. No. 50/14.

Lockers for Westinghouse Brake Apparatus.—Lockers, containing hose pipes for Westinghouse brake, one hose pipe spanner, one footprint spanner, and one monkey wrench (about 5in. long) for use in cases of emergency, are placed on Nos. 2, 9, and 11 platforms. In the locker on No. 2 platform there is also a duplicate intermediate air hose for Glenelg line engines.—W.N. Nos. 32/14, 29/17.

Fire Alarms.—Fire alarms, connected with the Fire Brigade Station, are placed on the south-eastern corner of the North Carriage Shed, the southern wall of the South Suburban Carriage Shed, the north-eastern corner of the South Carriage Shed, the western wall of the Western Parcels Office, the south wall of the Cloak Room, and on the telegraph post on footpath on North Terrace, near Pay Office. To call the Brigade, break the glass, and turn the handle.—W.N. No. 38/17.

Drinking Water for Carriages.—Only water from the large filter must be supplied for bottles in carriages and for fountains in the Melbourne Express.

Starting Gongs.—Starting gongs are placed on Nos. 5 and 9 platforms. The ringing of the gongs indicates that the Guard has permission to start his train. The gong on No. 5 platform must be used for all trains from Nos. 5 and 6 platforms, and must be operated by the Platform Porter. The other gong applies to all trains from No. 9 platform, and must be started by the Platform Inspector. Guards must take up a position at the front of their trains so that the Enginemen's view of the "right away" signal is not obstructed by the people on the platforms.—W.N. No. 45/16.

Exhibition Siding.—Before Yard Cabin sets the road for trains to work to and from the Exhibition Siding the Shunter must notify the Signaller that the gate across the rails, near the west end of No. 13 platform, has been opened, and the hand-worked points leading to the Carriage Shed on this siding have been correctly laid for the passage of the train. The gates referred to, when not actually in use, must be closed across the line.

Whistle Code.

Exhibition Siding to Main Yard (Disc No. 19) ---
—W.N. No. 44/17.

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R, and SEMAPHORE

The Stationmaster must see that the passenger working. Station-File End Junction Cabins must not it can do so without delaying

and Port Adelaide at such short issued, the Stationmaster, Port and the Yard Inspector on duty all concerned of the up running, 8 a.m. and 5 p.m. and the Yard m., must perform a similar duty and must first telephone Station- preceding train carrying a red served.—W.N. Nos. 45/12, 44/13,

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engines for trains.

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ruoted by the Porter in charge, at, before coupling up, wait at o west end.—W.N. No. 1/10.

other engine of equal or greater , 20/14.

hunting to the South Carriage d," and Enginemen must have at the "Stop Board," and they ed.—W.N. No. 28/16.

must pass over the hand-worked South Carriage Yards until a ow Cabins.—W.N. Nos. 12/14,

Midland System.

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ADELAIDE STATION—continued.

North Carriage Yard.—No shunting operations must be conducted between this carriage yard and dead end (west end) past disc signal No. 42 until the code whistle has been given and acknowledged from Y Cabin by white hand signal. A pair of switches, worked by self-acting lever, is in use on the dead end siding, west end of the carriage yard. It is situated about 85ft. from dead end, and in normal position is set to turn moving vehicles on to a line covered with sand, which acts as a brake. When vehicles are shunted on this siding the switches must be held over for the other line of rails. A sharp lookout for these switches must be kept when shunting on this siding.—W.N. No. 46/13.

North Carriage Yard.—For traffic to the North Carriage Yard over interlocked points Nos. 70, 72, and 35, the Signalman in Yard Cabin must first telephone the Pointsman and obtain his permission; and for traffic from the North Carriage Yard to the passenger platforms, the Pointsman must notify the Signalman, Yard Cabin, so that the interlocked points may be set, and disc signals Nos. 120, 121, and 122 pulled off for the movement desired.

South Carriage Yard.—For traffic to the South Carriage Yard over interlocked points Nos. 86 or 88, the Signalman in Yard Cabin must first telephone the Pointsman and obtain his permission; and for traffic from the South Carriage Yard to the passenger platforms the Pointsman must notify the Signalman, Yard Cabin, so that the interlocked points may be set and disc signals Nos. 124 or 125 pulled off for the movement desired.—W.N. No. 12/17.

Spragging Vehicles—Dead End—South Side.—Vehicles standing on either of the dead ends north side of South Suburban Carriage Shed must be securely spragged.—W.N. No. 12/17.

Telephone Call for Carriage Shunting Foreman.—If the Carriage Shunting Foreman's telephone call (three long) be heard at any part of the circuit, whoever hears it must immediately look round the yard for the Foreman and call him to the nearest telephone, as this call must always be treated as urgent.—W.N. No. 18/14.

MILE END GOODS YARD and KESWICK GOODS SIDINGS.

DEFINITIONS—

Trains from Port Adelaide or North Line to Mile End Junction are "up" trains, and those from Mile End Junction to Port Adelaide or North Line are "down" trains.

Trains from Mile End Junction to Adelaide Passenger Station are "up" trains, and those from Adelaide Passenger Station to Mile End Junction "down" trains.—W.N. No. 11/12.

ADMITTING OR DISPATCHING TRAINS OR ENGINES—EAST YARD—

The Yard Inspector must arrange for a competent Traffic employee to be in attendance at the East Yard to meet trains or engines to be admitted to that yard via Mile End Junction. This employee must see that the road on which the train or engine is to be admitted is clear of vehicles, or other obstructions, and that all hand-worked switches are laid for the running road; facing switches to be locked.

The Signalman, Mile End Junction, must not pull off the signal to admit the train or engine into the East Yard until he has received instructions to do so from this employee, either verbally or by telephone in the East Yard. This telephone is fixed on an electric light post near points No. 84.

Shunting engines are under the control of the Shunter in charge of the engine.

For all trains or engines dispatched from East Yard, via Mile End Junction, the Guard of the train, or Shunter in charge of shunt engines, must see that all hand-worked switches are properly laid.—W.N. No. 1/17.

See also clause on page 7 with reference to the Electric Gongs.

TRAINS OR ENGINES ADMITTED TO AND DISPATCHED FROM MAIN YARD—

North End.

Winter's Block.—Winter's Block working is in force between the North Goods Cabin and the Mile End Junction Signal Cabin.

The up home signal must not be lowered until the Signalman, North Goods Cabin, is advised by the Yard Inspector of the road on which a train or engine is to be admitted. Before giving such permission the Yard Inspector must satisfy himself that all hand-worked switches are properly set, and that the road on which the train or engine is about to be admitted, is clear.

MILE END GOODS TRAINS OR ENGINES

The Yard Inspector must see that all down trains or engines have worked switches at Mile End Junction about to run is clear.

Telephone Block.—Tele

Keswick Junction the Signalman, South Goods Cabin until the last vehicle.

Telephone block working for the Main South Goods Cabin or engines must be of the starting signal via South Goods Cabin and South Goods Cabin.

Up trains or engines the Signalman, South Goods Cabin properly set. In position but go ahead of it.

For down trains or engines Goods and Arrival Check Porter must the Mile End Goods Check Porter must times given.

Engines from the Local Sidings for the Goods line.—W.N. No. 31/12.

Outgoing trains or engines Departure Line, must and give the code Junction Cabin must starting signal from

Only trains or engines from Trains or engines from Goods Cabin.

The Stationmaster, Mile End Junction, must see that the Yard Inspector is the point of departure for the train or engine.

SHUNTING—NORTH END

When, during shunting, a Shunter or his assistant is on the main line vehicle. The object is to get the train on to the main line.

DEPARTURE OF TRAINS

Every train or engine must challenge the starting signal code:—

To Adelaide Passenger Station
To North Line, via
To Port Adelaide
To Glenelg
To Bagshaw's Sidings
To Permanent Way
To Loco. Coal Yard
To Running Shed
From Goods Yard

MILE END GOODS YARD AND KESWICK GOODS SIDINGS—continued.
 TRAINS OR ENGINES ADMITTED ETC.—continued.

The Yard Inspector must give the "right away" signal to the Guard for the departure of all down trains or engines, but before doing so he must satisfy himself that all hand-worked switches are properly set and that the road on which the train or engine is about to run is clear as far as the North Goods Cabin.

South End.

Telephone Block.—Telephone block working is in force between South Goods Cabin and Keswick Junction Signal Cabin. The "train arrival" signal must not be given by the Signaller, South Goods Cabin, to the Signaller, Keswick Junction Signal Cabin, until the last vehicle of the train has passed the South Goods Cabin up home signal.

Telephone block working will not apply to trains or engines *via* the East Departure Line, or for the Main South Line *via* Engine Departure Line. The movements of these trains or engines must be controlled by the Signaller, Keswick Junction Cabin, by means of the starting signals. Engines *via* the Engine Departure Line for the Goods Yard *via* South Goods Cabin, must, however, be block signalled between Keswick Junction, Cabin and South Goods Cabin.

Up trains or engines must be piloted into the yard and brought to a standstill by the Signaller, South Goods Cabin, who must see that the road is clear and all points properly set. In piloting trains or engines in the Signaller must *not ride* on the engine, but *go ahead* of it.

For down trains or engines from the Outward Goods and Departure Sidings, and Inward Goods and Arrival Sidings, and Western Sidings, *via* South Goods Cabin, the Yard Check Porter must give the "right away" signal for their departure. Just inside the Mile End Goods Yard down starting signals is the point of departure, and the Yard Check Porter must see that trains or engines are ready at that point at the starting times given.

Engines from the Loco. Running Shed Yard, and engines and trains from Keswick Goods Sidings for the Goods Yard, *via* the South Goods Cabin, must enter on the up main line.—W.N. No. 35/14.

Outgoing trains or engines, whether *via* South Goods Cabin, East Departure Line, or Engine Departure Line, must pull up at their respective Keswick Junction down starting signal and give the code whistle, and until this whistle is given the Signaller at Keswick Junction Cabin must not ask "Line clear" from Goodwood, nor pull off the down starting signal from Goods Yard, East Departure Line, or Engine Departure Line.

Via East Departure Line.

Only trains or engines FROM the Goods Yard must be worked on the East Departure Line. Trains or engines FOR the Goods Yard must not be sent over this line, but *via* South Goods Cabin.

The Stationmaster, Mile End, must advise the Signaller at the South Goods Cabin and Keswick Junction Cabin of all trains and engines to be worked *via* East Departure Line. The Yard Check Porter must give the "right away" signal for trains or engines *via* the East Departure Line. Just inside the Keswick Junction down starting signal is the point of departure, and the Yard Check Porter must see that trains or engines are ready at that point at the starting times given (and must also receive permission for the train or engine to depart from the Signaller, South Goods Cabin).

SHUNTING—NORTH END—

When, during shunting operations, vehicles are pushed from the yard on to the Main Line a Shunter or his assistant must ride on the leading vehicle, and when vehicles are pulled from the main line into the yard, the Shunter or his assistant must ride on the last vehicle. The object of this instruction is that vehicles shall not break away and escape on to the main line.

DEPARTURE OF TRAINS—WHISTLE CODE—

Every train or engine starting from the Goods Yard for Mile End Junction Cabin must challenge the starting signal with the proper whistle, in accordance with the following code:—

To Adelaide Passenger Station	— — —
To North Line, <i>via</i> Torrens Bridge Loop	— — —
To Port Adelaide Line, <i>via</i> Torrens Bridge Loop	— — —
To Glenelg	— — —
To Bagshaw's Siding	— — —
To Permanent Way and Private Sidings	— — —
To Loco. Coal Yard	One (1) crow
To Running Shed Yard	— one (1) crow
From Goods Yard to East Yard, <i>via</i> Mile End Junction ...	— — —

between this carriage code whistle has been al. A pair of switches, west end of the carriage position is set to turn brake. When vehicles the other line of rails. g on this siding.—W.N.

interlocked points Nos. ne the Pointsman and Yard to the passenger cabin, so that the inter- 122 pulled off for the

interlocked points Nos. Pointsman and obtain Yard to the passenger bin, so that the inter- off for the movement

either of the dead ends rely spragged.—W.N.

Shunting Foreman's whoever hears it must the nearest telephone,

SIDINGS.

up " trains, and those own " trains. up " trains, and those own " trains.—W.N.

RD—

to be in attendance at yard *via* Mile End in or engine is to be and-worked switches

at the train or engine from this employee, is fixed on an electric

engine. Junction, the Guard hat all hand-worked

MAIN YARD—

Goods Cabin and the Goods Cabin, is advised is to be admitted. himself that all hand- n or engine is about

MILE END GOODS YARD AND KESWICK GOODS SIDINGS—continued.

SHUNTING PAST NORTH GOODS CABIN—

During shunting operations no engine or vehicle must foul points Nos. 104 or 105 until the proper whistle is given, in accordance with the following code, and such whistle acknowledged with the usual white hand signal by the Signaller, North Goods Cabin.

All shunting operations past the North Goods Cabin must be conducted on the DOWN line and not on the up line.

To foul points No. 104 ---

To foul points No. 105 ---

SHUNTING PAST SOUTH GOODS CABIN—

During shunting operations no engine or vehicle must foul points Nos. 234 or 235 until the proper whistle is given, in accordance with the following code, and such whistle acknowledged with the white hand signal by the Signaller, South Goods Cabin. All shunting operations past the South Goods Cabin must be conducted on the DOWN line and not on the up line, and engines or vehicles must not, during shunting operations, pass the down starting signal to Keswick Junction.

To foul points No. 234 ---

To foul points No. 235 ---

ADMITTING TRAINS OR ENGINES TO LOCO. COAL YARD—NORTH END—

All trains or engines working from the North end to Loco. Coal Yard must come to a standstill outside hand-worked switches No. 250, and then proceed cautiously as far as the line is clear.

ENGINES TO AND FROM RUNNING SHED YARD—

Engines proceeding to Running Shed Yard on the Down Main Loco. Line, or from Loco. Coal Yard, must come to a stop before fouling points Nos. 267 or 268 and wait for a signal to proceed from the Pointsman. Engines from Running Shed Yard must come to a stop before fouling points Nos. 269 or 270 and wait for a signal to proceed from the pointsman.

SHUNTING ON LOCO. COAL STAITHS—

The load of trains to be shunted to Loco. Coal Staiths at Mile End is limited to 200 tons, and when a train is being hauled on to these Staiths a brakevan must be attached at the rear, and when being pushed on to the Staiths a brakevan must be attached at the leading end in each case in charge of a Guard or Shunter. In every case the vehicles must be hauled or pushed on to the Loco. Coal Staiths from North to South. Special care must be taken that neither the engine brake nor the van brake is applied in such a violent manner as to break or strain the wagon couplings.—W.N. Nos. 11/13 and 13/13.

COUPLINGS FOR ENGINES SHUNTING TO LOCO. AND PUBLIC COAL STAITHS—

A special three-linked coupling is provided for use when shunting loading on to the Loco. and Public Coal Staiths at Mile End, such coupling to be used to attach the trucks to the engine. This coupling, when not in use, must be locked to the cheese-knob casting at facing points leading to the Staiths, by placing the pin through the coupling before passing it through the hole in the casting prior to locking.—W.N. No. 16/14.

COAL STAITHS, SAND BRAKES, CATCH SIDING—

These catch sidings are placed near the foot of the incline at each end of both Staiths. The switches lie for the sand brake catch sidings, in which position they are automatically held by lever and weight, which must be held back by the Shunter when necessary to use the roads.

COAL STAITHS—TRUCKS ON INCLINES—

Trucks must not stand on the incline at either end of the Public or Loco. Coal Staiths over night, nor at any time when unattended. If it be necessary to stand trucks on either of the inclines for unloading purposes, a competent employee must be in attendance on the trucks during such time, each brake must be pinned down tightly, and the wheels secured by sprags.—W.N. No. 16/15.

WORKING BETWEEN EAST YARD OR COAL YARD AND OUTWARD GOODS AND DEPARTURE SIDINGS—

An engine running light or with vehicles attached, from East Yard or Coal Yard to Outward Goods and Departure Sidings over connecting sidings under No. 2 Hilton Road Bridge, must come to a stand at the Stop Signal. The Shunter in charge must then go ahead, and after personally satisfying himself that no engines or vehicles which will foul his movements are approaching, may pull off the signal for his Engineman to proceed.

MILE END GOODS YARD WORKING BETWEEN

An engine running Sidings to Coal Yard Departure Sidings then go ahead, and will foul his move proceed. Engines Sidings in a north lookout for any engines Goods and Depart

SHUNTING TO AND FROM

When shunting to or from assistant must ride vehicle if they are

TRAINS TO OR FROM COAL

Trains to and from Loco. Coal Yard leading.

GOODS TRAINS BETWEEN

Except as provided for at the rear of Goods either via Torrens or brakevan and act as Not more than five (5) vehicles Yard and Adelaide provided that the vehicles properly connected the vehicles. PUSI

Before a train is dispatched Inspector must come in order to ascertain also the maximum weight The running and maximum instructions.

ENGINES FROM RUNNING

Only engines from the Running to Keswick. Engines engines for the Running

LOADING FOR KESWICK

The traffic for Keswick Goods down line with the engine loaded 8-ton capacity Mile End for Keswick ahead to unlock, open remove the scotchblock by telephone from the allowing the train to permission for the engine the gate is open and the Signalman by hand to the run round siding

LIVESTOCK SIDINGS—

All vehicles left on the Livestock Sidings

ELECTRIC GONGS—

An electric gong is placed close to No. 3 Weighbridge Junction Cabin immediately via North Goods Cabin The Signalman must call When a train has to be Signal Cabin must give and repeat this signal at from the Shunter to ad

NGS—continued.

s. 104 or 105 until the
and such whistle acknow-
orth Goods Cabin.
ducted on the DOWN

s. 234 or 235 until the
such whistle acknow-
as Cabin. All shunting
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NORTH END—

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COAL STAITHS—

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—W.N. No. 16/14.

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YARD GOODS AND

Coal Yard to Outward
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MILE END GOODS YARD AND KESWICK GOODS SIDING—continued. WORKING BETWEEN EAST YARD, ETC.—continued.

An engine running light or with vehicles attached from Outward Goods and Departure Sidings to Coal Yard or East Yards must come to a stand at the Stop Signal from Departure Sidings to East Yard or Public Coal Yard. The Shunter in charge must then go ahead, and after personally satisfying himself that no engine or vehicles which will foul his movement are approaching, may pull off the signal for his Engineman to proceed. Enginemen and Shunters moving from the Outward Goods and Departure Sidings in a northerly direction under No. 2 Hilton Road Bridge must keep a sharp lookout for any engine or vehicles travelling from East Yard or Coal Yard to Outward Goods and Departure Sidings.

SHUNTING TO AND FROM PERMANENT WAY SIDING AND PRIVATE SIDINGS—

When shunting to or from Permanent Way Siding or Private Sidings the Shunter or his assistant must ride on the last vehicle if the trucks are being hauled, and on the first vehicle if they are being pushed.

TRAINS TO OR FROM GLENELG—

Trains to and from Glenelg must push out of and into the Mile End Goods Yard with brakevan leading.

GOODS TRAINS BETWEEN ADELAIDE AND MILE END GOODS YARD—

Except as provided for in the following paragraph, a brakevan must always be attached at the rear of Goods trains between Mile End and Adelaide (Carriage Sheds and Yard), either *via* Torrens Bridge Loop or *via* South Line, and the Shunter must ride in the brakevan and act as Guard.

Not more than five (5) vehicles may be hauled (without a brakevan) between Mile End Goods Yard and Adelaide Passenger Yard, either *via* South Line or Torrens Bridge Loop, provided that the vehicles are fitted with the Westinghouse air brake, and the brake is properly connected with the engine and is effective, and that a Shunter travels with the vehicles. PUSHING VEHICLES EITHER WAY IS STRICTLY FORBIDDEN.

Before a train is dispatched for the Adelaide Passenger Station Yard, South side, the Yard Inspector must communicate by telephone with the Signalman, Adelaide Yard Cabin, in order to ascertain the most convenient time for the train to reach Adelaide, and also the maximum number of vehicles, including the brakevan, that can be attached. The running and make up of the train must be in accordance with the Signalman's instructions.

ENGINES FROM RUNNING SHED YARD, *VIA* KESWICK—

Only engines from the Running Shed Yard must be worked over the Engine Departure Line to Keswick. Engines must not be sent over this line to the Running Shed Yard. All engines for the Running Shed Yard must be sent *via* the Mile End Junction Cabin.

LOADING FOR KESWICK GOODS SIDINGS—

The traffic for Keswick Goods Sidings must be shunted from Mile End Goods Yard over the down line with the engine pushing the load, and not more than 200 tons, or 20 fully loaded 8-ton capacity trucks must be taken on one trip. Before a shunt engine leaves Mile End for Keswick Goods Sidings, the Shunter in charge must send his assistant ahead to unlock, open, and fasten back the gate at the entrance to the sidings and to remove the scotchblock. The Signalman, South Goods Cabin, must obtain permission by telephone from the Signalman at Keswick Junction for the shunt to be made before allowing the train to leave the Mile End Goods Yard. The Signalman, before giving permission for the engine to go to Keswick Goods Sidings, must satisfy himself that the gate is open and the scotchblock off. The assistant to the Shunter must notify the Signalman by hand signal that everything is right, including the switches leading to the run round sidings, for the engine to enter the yard.—W.N. No. 29/14.

LIVESTOCK SIDINGS—

All vehicles left on the Livestock Sidings must have the brakes securely pinned down.

ELECTRIC GONGS—

An electric gong is placed on the Inwards Goods Shed, and also on electric arc light pole close to No. 3 weighbridge. These are started ringing by the Signalman at Mile End Junction Cabin immediately a train leaves his Cabin for the Mile End Goods Yard, *via* North Goods Cabin, thus warning the staff of the fact that a train is approaching. The Signalman must cut out the gongs after they have been ringing at least one minute. When a train has to be admitted into East Yard, the Signalman at Mile End Junction Signal Cabin must give one (1) long, two (2) short, and one (1) long ring on these gongs, and repeat this signal at frequent intervals if there be any delay in receiving instructions from the Shunter to admit the train.

Midland System.

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MILE END GOODS YARD AND KESWICK GOODS SIDINGS—continued. ELECTRIC CRANES—

Only such employees as have been passed as efficient by the Railways Electrician must work the electric cranes in the Outwards Goods Shed.

LOCO. COAL STAGES—

Care must be exercised by Enginemen, Shunters, and other employees when running past the coal stages in the Mile End Goods Yard, the stages being close to the running lines. Shunters and other employees must not ride on outside of vehicles on the same side as the stages when passing the latter.—W.N. No. 52/13.

LIGHT ENGINES—RUNNING COUPLED—ADELAIDE AND MILE END GOODS YARD—

Light engines may run coupled together from Adelaide to Mile End Goods Yard and vice versa, but not more than two engines must be attached to a train between the same places.—W.N. No. 47/10.

PINTSCH'S GAS-LIGHTED VEHICLES DESPATCHED FROM MILE END—

The Yard Inspector and Guard of the train must see that all carriages and brakevans despatched from the Mile End Goods Yard have sufficient gas for the outward and return journey.—G.T.M., 4445/05.

PARCELS AND CORRESPONDENCE, ETC. FOR VARIOUS DEPARTMENTS AT MILE END—

- (a) Parcels traffic and correspondence for Mile End Goods must be sent to Mile End Goods Platform on the South Line (near Hilton Road Bridge) only by trains booked to stop there.
- (b) Parcels, repairs, engine details, correspondence, &c., for the District Loco. Superintendent, Mile End, must be forwarded to Hilton.
- (c) Parcels traffic and correspondence for the Resident Engineer, Mile End, must be forwarded to Thebarton.—W.N. No. 43/14.

CROYDON SIDING—

Method of Working—

1. This siding, situated at 2 miles 26 chains 12 links off the down Port line, is for traffic to and from Adelaide Rope, Nail, and Barbed Wire Manufacturing Coy., Ltd., Bowden being the accounting station.
2. The points and signals are locked with an Annett's lock, and the key is kept in the lock on the interlocking frame in the East Street Signal Cabin, Bowden.
3. The Guard must obtain the key from this Signaller on the down trip, and on arrival at the siding unlock the lever frame, place the indicator signal at danger, and proceed with the shunting. On completing this work he must replace the indicator signal at caution and relock the frame. The engine and Guard must then return to Bowden on the down main line, the Guard handing the key to the Signaller, East Street Cabin.
4. The Signaller, East Street Cabin, must enter in his signal book the name of the Guard to whom he gives the key, the time handed over, and when returned.
5. Trucks to and from this siding must be worked by a shunt engine from Mile End as a special, not by a through goods train.
6. The length of the spur at the Adelaide end of the siding is 272ft., and at the Port Adelaide end 80ft.
7. *Signals.*—An indicator signal, standing 25ft. high on the up side of the road at 2 miles 26 chains 12 links, shows the position in which the switches of the cross-over road between the siding and the down main line stand. This signal stands normally at caution when the switches are open for the main line, and must be placed at danger when the cross-over road is being worked.
The lamp of this signal will not be lighted except when required for use, and Enginemen and others must observe and obey this signal.—R.C., 366/06.
8. *Notice to Enginemen.*—Enginemen must not disturb the fire unnecessarily when passing this siding so as to prevent fire falling from the engine and the emission of sparks.

KILKENNY—

Reinforced Concrete Company's Siding.—Engines must not pass the trailing points near the entrance to these works.

PORT ADELAIDE DOCK

Fisher Bridge.—Only 1 are allowed to pass

Canal Siding.—Engine 5459/01.

Up Platform—Fouling.—“clear,” is fixed a
When an up train lines, the indicator vehicle of the up “clear.”

The indicating trains must not stop to “clear.”—G.T.M.

Shunting Speeds—

1. Enginemen must and through the
2. The following speed Port Adelaide an hour. Engine vehicles are being and a Shunter signals to the En

Ringin' Bells on Train.—passing over wharf head, and the main Vincent Street), and Hand bells must men must not leave without a bell, which master at Port Adelaide

The Stationmaster collected from the 1 at Port Adelaide, but when necessary, oblige arrange for the bells

Engines Whistling.—The whistle must not be ringing of the bell is

Shunting to and from Ocean is properly laid for shunting, but must see is about to travel.

main shunting line : Reserve, on the north No. 102, at the south line ; No. 104, leading crossover from Produce from Ocean Steamers (one at each end) on to No. 2 Swamp Road sidings of Messrs. Bax Chemical and Fertilisers actual use for shunting be left close to the se Depot line to Ocean Steamers looked for Produce Dock

Shunting Through Stores Ocean Steamers Wharves outside the Stores gate G.T.M., 5459/01.

When shunting through must go ahead and see to proceed, and that his train is about to travel

When shunting from come to a stand 50 y must then go ahead and proceed.

PORT ADELAIDE DOCK STATION—

Fisher Bridge.—Only E, G, Gp, Ge, P class engines, motors 97 and 98, and engine 161 are allowed to pass over Fisher Bridge.—C.M.E., 1327/17.

Canal Siding.—Engines must not go across Lipson Street on the Canal Siding.—G.T.M., 5459/01.

Up Platform—Fouling-point Indicator.—A fouling-point indicator, which normally shows "clear," is fixed at the Adelaide end of the up platform.

When an up train approaches the fouling point at the junction of the up and down lines, the indicator changes to "foul," and continues this indication until the last vehicle of the up train is past the fouling point, when the indicator again shows "clear."

The indicating screen is transparent and is illuminated at night. Enginemen of up trains must not stop at the through platform until the indicator changes from "foul" to "clear."—G.T.M., 6256/13 and W.N. Nos. 12/12 and 15/12.

Shunting Speeds.—

1. Enginemen must not exceed a speed of four (4) miles an hour when shunting into and through the Stores Yard.
2. The following speeds must not be exceeded in the streets:—Engines running between Port Adelaide and Glanville with vehicles attached and having a brakevan, 10 miles an hour. Engines shunting in the streets of Port Adelaide, 6 miles an hour. When vehicles are being pushed by an engine the speed must not exceed 3 miles an hour, and a Shunter must ride on the leading vehicle in a position to give the necessary signals to the Enginemen.

Ringing Bells on Trains in Streets.—A bell must be rung continuously from any engine passing over wharf lines and private sidings at Port Adelaide, Glanville, and Birkenhead, and the main line between Port Adelaide Dock Station and Glanville (*via* St. Vincent Street), and between Glanville and Semaphore.

Hand bells must be used on tender or other engines not fitted with bells, and enginemen must not leave Port Adelaide Dock Station for working in or through the streets without a bell, which must be supplied by and subsequently returned to the Stationmaster at Port Adelaide Dock Station.

The Stationmaster, Port Adelaide, must arrange for the bells to be delivered to and collected from the Enginemen. For Enginemen who do not commence the journey at Port Adelaide, hand bells are supplied at Glanville Station, and Enginemen must, when necessary, obtain a bell at this station. The Stationmaster, Glanville, must arrange for the bells to be returned to his station after use.—W.N. No. 41/17.

Engines Whistling.—When down trains start from the passenger platform lines the engine whistle must not be sounded when rounding the curve into St. Vincent Street. The ringing of the bell is sufficient.—W.N. No. 43/11.

Shunting to and from Ocean Steamers Wharf.—The Shunter must not assume that the road is properly laid for shunting between Port Adelaide Dock Station and Ocean Steamers Wharf, but must see that all points are correctly set for the line on which the engine is about to travel. The following cheese-knob switches must be kept locked for the main shunting line:—No. 157 in Stores Yard: Nos. 158, 159, 160, and 161 in Stores Reserve, on the north side of the store of Messrs. Bagot, Shakes, & Lewis, Limited; No. 162, at the southern crossover from Produce Depot line to Ocean Steamers Wharf line; No. 164, leading to Adelaide Chemical Works Siding; No. 166, at the northern crossover from Produce Depot line to Ocean Steamers Wharf line; and No. 167, leading from Ocean Steamers Wharf line to Wheat-stacking Grounds. The scotchblocks (one at each end) on the siding to the store of Messrs. Bagot, Shakes, & Lewis, Limited; on No. 2 Swamp Road Stores Reserve; and the high and low level sidings near the sidings of Messrs. Bagot, Shakes, & Lewis, Limited; and on the siding of the Adelaide Chemical and Fertiliser Company, Limited, must be locked when the lines are not in actual use for shunting purposes. Vehicles shunted into the high level siding must be left close to the scotchblock. Points 163 and 145, at the crossovers from Produce Depot line to Ocean Steamers Wharf line, must, when not actually in use, be laid and locked for Produce Depot line, and not Ocean Steamers Wharf line.

Shunting Through Stores Yard.—When pushing vehicles through the Stores Yard towards Ocean Steamers Wharf, the Shunter must go ahead and see that the road crossing outside the Stores gates is clear before allowing train to be pushed over crossing.—G.T.M., 5459/01.

When shunting-through Stores Yard gate towards Port Adelaide Yard, the Shunter must go ahead and see that everything outside the gate is clear before allowing train to proceed, and that there is no shunting going on that will foul the road on which his train is about to travel.

When shunting from Ocean Steamers Wharf through Stores Yard the engine must come to a stand 50 yards from the north gate of the Stores Yard, and the Shunter must then go ahead and see that everything is clear before allowing the engine to proceed.

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Adelaide Chemical and Fertiliser Company's Siding.—This siding leads off the line via the Stores Yard to Ocean Steamers Wharf, and passes through a shed which infringes the minimum structure gauge. Vans and class X trucks must not, therefore, be loaded for, nor shunted into this siding, nor must any load exceed a height, in the centre, of 10ft. 6in. from the rails.—W.N. No. 39/17.

Robinson Bridge.—Only E, G, GD, GE, P class engines, motors 97 and 98, and engine 161 are allowed to pass over Robinson Bridge.—C.M.E., 1327/17.
Before opening this bridge, the bridge-

Shunting to Queen's Wharf.—Screw couplings must not be used when bogie vehicles are shunted around the curve leading from St. Vincent Street to the Queen's Wharf.—W.N. No. 22/13.

Stump Points.—Classes F and K and tender engines must not work over the street and wharf lines, with the exception of the old main line through St. Vincent Street between Port Adelaide Dock Station and Glanville.—W.N. No. 52/16.

Rx Engines.—Rx engines must not, on account of sharp curves, proceed further north than points Nos. 105, 106, 107, and 108 when shunting from Goods Yard towards St. Vincent Street.—W.N. No. 5/16.

—W.N. Nos. 13/13 and 26/13.

Opening of Jervois Bridge—Conditions of and times for opening—

1. When the removal of any ship or vessel from one part of the harbor to another necessitates passing through the Jervois Bridge, such ship or vessel shall employ the assistance of an efficient steamtug, unless she is under steam or motor power, and also under command.
2. In the case of small vessels of less than 100 tons register, providing the power is adequate, one steamtug may be allowed to take not more than three vessels through at one time. Such steamtug must, however, when the vessels being towed are clear of the bridge, return within five (5) minutes, otherwise she will be kept inside until the next regular or special opening.
3. If a special opening is required for a steamtug returning, or for bringing out a vessel, a fee of Five Shillings (5s.) will be charged. Such special opening will not be made unless previously arranged.
4. The harbor-master, or the officer in charge, may refuse to open the bridge until both vessel and steamtug are in a position to pass through without delay.

The harbormaster, or the officer in charge, may refuse to open the bridge until both vessel and steamtug are in a position to pass through without delay.

4. The harbor-master, or the officer in charge, may refuse to open the bridge until both vessel and steam tug are in a position to pass through without delay.

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5. All vessels must have an officer in charge, properly equipped.
6. If the vessel is not properly equipped, the charge may close for an opening.
7. In the case of any vessel unnecessarily obstructing the bridge and if the master or other men on board at the time.
8. The railway authorities may close the bridge.
9. The master or agent of the vessel, before 4 p.m. to be opened at 6 a.m. and 2-4 p.m.
10. Notice having been given to the railway authorities on Friday, inclusive, at 6-24 a.m. and 2-4 p.m. and arrangement only.

N.B.—This bridge will not be open on Monday, the bridge will be closed by the Stationmaster, Port Adelaide, from 12 noon on December 24th and 25th (Sundays excepted) and on the day of the Port Adelaide, before the bridge is opened.

1. When it is necessary to close the Port Adelaide, by the department, notice to "The Government Workmaster, Glanville," also advise the Stationmaster that the bridge is to be closed. Particular care being given to receiving operators.
2. The Stationmaster, Jervois Bridge, until the bridge is closed, the Stationmaster there recorded telephone calls that the bridge has been closed. At the time the Pilotman is notified.
3. When this bridge is closed, each end of the operation in the direction of the bridge.
4. The Driver at Jervois Bridge, before the bridge is closed, must give the "danger" signal.
5. The Stationmaster, Glanville, must give the mental street lamps signals.
6. The up home signal is to be given, the down home signal is to be given. These must be observed.

Warning Gong.—The warning Signalman in the Street immediately "train on" for up trains when "line clear." The ringing of the gong is G.T.M., 845/04; W.N.

PORT ADELAIDE DOCK STATION—continued.

5. All vessels must be provided with good and sufficient lines. The harbormaster, or officer in charge, may refuse to open the bridge if, in their opinion, the vessel is not properly equipped.
 6. If the vessel is not ready, or does not start as soon as the bridge is opened, the officer in charge may close the bridge and the agent of the vessel must make fresh application for an opening.
 7. In the case of any vessel causing, or likely to cause, delay to trains or trams, or unnecessarily obstructing the traffic, the harbormaster may (if he considers it necessary, and if the master or officer in charge of the ship declines to do so) send additional men on board at the ship's expense to remove her.
 8. The railway authorities will give the harbormaster notice of their intention to open the bridge.
 9. The master or agent of the vessel must apply to the Railway Stationmaster, Port Adelaide, before 4.0 p.m. on the day previous to that on which the bridge is required to be opened at 6.24 a.m., or two hours previous to any opening between 10.4 a.m. and 2.44 p.m.
 10. Notice having been given as above, the bridge will be opened as follows:—On Mondays to Fridays, inclusive, at 6.24 a.m., 10.4 a.m., 11.4 a.m., and 2.44 p.m.; on Saturdays, at 6.24 a.m. and 10.4 a.m. Other openings will be provided, if possible, by special arrangement only, at the expense of the owners of vessels.
 11. If an order be given to open the bridge and not used, a charge of 7s. 6d. will be made.
- N.B.—This bridge will not be opened on Sundays. On gazetted holidays which fall on a Monday, the bridge will be opened at 6.24 a.m., on notice being given to the Railway Stationmaster, Port Adelaide, before 4.0 p.m. on the previous Saturday. Between December 24th and January 1st, inclusive, the bridge will only be opened once each day (Sundays excepted), at 6.24 a.m., upon notice being given to the Stationmaster, Port Adelaide, before 4.0 p.m. the previous day.—W.N. No. 38/17.

Instructions for Opening—

1. When it is necessary to open Jervois Bridge, notice must be given to the Stationmaster, Port Adelaide, by the agent or master of the vessel on the printed form supplied by the department. The Stationmaster must then issue the departmental printed notice to "The Harbormaster," "The Staff, Port Adelaide," "The Manager, Government Workshops, Glanville," "The Driver, Jervois Bridge," "The Stationmaster, Glanville," and "Superintendent Waterworks, Port Adelaide." He must also advise the Stationmaster, Glanville, by telephone, giving the time at which the bridge is to be opened, and such message must be carefully repeated and recorded, particular care being taken to obtain and record the names of the sending and receiving operators of each message.
2. The Stationmaster, Port Adelaide, must send a Pilotman, wearing Pilotman's badge to Jervois Bridge with instructions to remain on the Port Adelaide side of the bridge until the bridge is closed, and then immediately proceed to Glanville and advise the Stationmaster there, who will in turn advise the Stationmaster, Port Adelaide, by recorded telephone message. The arrival of the Pilotman at Glanville will be proof that the bridge has been properly closed again. The line must be blocked from the time the Pilotman leaves Port Adelaide Dock Station until he arrives at Glanville.
3. When this bridge is opened before daylight a red light must be placed on the road at each end of the opening before the chain is passed across, the light to be kept facing in the direction of the traffic so long as the bridge is open.
4. The Driver at Jervois Bridge is responsible for putting the bridge signals at "danger" before the bridge is opened, and for putting them at "caution" after the bridge is closed.
5. The Stationmaster, Glanville, is responsible for cleaning and lighting the two departmental street lamps at each end of the bridge (4 in all), and the lamps of the bridge signals.
6. The up home signal is a one-armed signal on Driver's left hand, by the bridge; and the down home signal is a one-armed signal on Driver's right hand, by the bridge. These must be observed as "home" signals.

Warning Gong.—The warning gong fixed at each end of Jervois Bridge must be rung by the Signalman in the Street Cabin, Port Adelaide (Dock Station), by pressing the button immediately "train on line" signal for a down train is given by him to Glanville, and for up trains when "line clear" is asked of Port Adelaide (Dock Station) by Glanville. The ringing of the gong is stopped automatically as each train passes it.—R.C., 2433/91; G.T.M., 845/04; W.N. No. 11/13.

Midland System.

12

PORT ADELAIDE DOCK STATION—continued.

Winter's Block System between Yard Cabin, Port Adelaide Dock Station, and Glanville, via St. Vincent Street—

1. This line is worked on the Winter's block system, and the block sections are—
 - (a) Yard Cabin—St. Vincent Street Signal Box.
 - (b) St. Vincent Street Signal Box—Glanville.

St. Vincent Street Signal Box is worked by the Street Porter, who must signal all trains on the Winter's block instruments between St. Vincent Street Signal Box and Yard Cabin, and between St. Vincent Street Signal Box and Glanville.
2. The Street Porter must work the home signal for all "up" trains via St. Vincent Street, hand signal "down" trains for Glanville and the wharves over the one-way facing switches at the station entrance, and must admit all goods trains or shunting engines from Glanville or the wharves to the "up main" line at Port Adelaide Dock Station, unless special instructions to the contrary are given by the Stationmaster.
3. The Signalman, Yard Cabin, works the up starting signal for all trains from Port Adelaide Dock Station platform, although the Street Porter, in charge of St. Vincent Street Signal Box, works the Winter's block between his box and Yard Cabin.
4. "Down" trains to Glanville, or to the wharves, through the passenger station, via St. Vincent Street, must use the old up platform line, and trail through the one-way switches at the entrance from St. Vincent Street, unless special instructions to the contrary are given by the Stationmaster.
5. When down passenger trains terminate their journey at the Port Adelaide Dock Station platform, the Fireman of the train engine must uncouple the engine, which must TRAIL THROUGH the one-way switches, and, before returning via the run-round, the Engineman must see that the switch blade is hard up against the stock rail.
6. Should a "down" train overshoot these one-way switches before coming to a stand, it must not be moved again until the Street Porter has set the switches (holding the lever firmly), and given the Engineman the signal to come back.—W.N. No. 6/17.

Working Goods Trains between Port Adelaide Dock Station and Glanville, via St. Vincent Street—

As block working between Port Adelaide Dock Station and Glanville, via St. Vincent Street, cannot control shunt engines working between Port Adelaide Dock Station and the wharves, the permissive system is sanctioned, subject to the control of the Street Porter in St. Vincent Street, and the observance of the following instructions:—

1. The Street Porter in St. Vincent Street must control main line trains, and shunt engines using the main line, both in and out, at the west end of Port Adelaide Dock Station; also shunt engines to and from Corporation Wharf, Queen's Wharf, McLaren Wharf, and the New Dock, via the main line. He must not allow the main line to be blocked to or from these places within 6 minutes of a main line train being due in or out of the west end of Port Adelaide Dock Station, nor must any engine foul the main line in the street until the man in charge gets permission to do so from the Street Porter.
2. When a shunt engine leaves Port Adelaide Dock Station for the Corporation Wharf, it is under the control of the Shunter in charge immediately it crosses Commercial Road, and he must have the engine back into Port Adelaide Dock Station 6 minutes before a train is due to leave that station for Glanville, or Glanville for Port Adelaide Dock Station. He must also see that the main line switches leading to the Corporation Wharf, and the scotchblock on the siding, are properly laid and locked before leaving for return to Port Adelaide Dock Station.
3. The Street Porter in St. Vincent Street must see that the switches between Commercial Road and Port Adelaide Dock Station are correctly laid and secured for main line trains, and he must examine them not more than six (6) minutes before a main line train passes over them.
4. When the line between Port Adelaide Dock Station and Glanville is occupied, as set out in clauses 1, 2, and 3, the line must be "blocked" between St. Vincent Street Signal Cabin and Glanville, in accordance with Rules.—W.N. No. 6/17.

ETHELTON—

Up Trains Stopping At.—When working trains of six or more coaches on the up journey, Enginemen must pull up so that the engine is clear of the Port Adelaide end of platform.—W.N. No. 1/17.

GLANVILLE—

Shunting Between Glanville and Port Adelaide Dock Station.—Engines is permitted to shunt the sidings belonging to and Mount Lyell Cement Co.'s works. Classes "E," "C," "D," "F," "G," "H," "I," "J," "K," "L," "M," "N," "O," "P," "Q," "R," "S," "T," "U," "V," "W," "X," "Y," "Z," "AA," "AB," "AC," "AD," "AE," "AF," "AG," "AH," "AI," "AJ," "AK," "AL," "AM," "AN," "AO," "AP," "AQ," "AR," "AS," "AT," "AU," "AV," "AW," "AX," "AY," "AZ," "BA," "BB," "BC," "BD," "BE," "BF," "BG," "BH," "BI," "BJ," "BK," "BL," "BM," "BN," "BO," "BP," "BQ," "BR," "BS," "BT," "BU," "BV," "BW," "BX," "BY," "BZ," "CA," "CB," "CC," "CD," "CE," "CF," "CG," "CH," "CI," "CJ," "CK," "CL," "CM," "CN," "CO," "CP," "CQ," "CR," "CS," "CT," "CU," "CV," "CW," "CX," "CY," "CZ," "DA," "DB," "DC," "DD," "DE," "DF," "DG," "DH," "DI," "DJ," "DK," "DL," "DM," "DN," "DO," "DP," "DQ," "DR," "DS," "DT," "DU," "DV," "DW," "DX," "DY," "DZ," "EA," "EB," "EC," "ED," "EE," "EF," "EG," "EH," "EI," "EJ," "EK," "EL," "EM," "EN," "EO," "EP," "EQ," "ER," "ES," "ET," "EU," "EV," "EW," "EX," "EY," "EZ," "FA," "FB," "FC," "FD," "FE," "FF," "FG," "FH," "FI," "FJ," "FK," "FL," "FM," "FN," "FO," "FP," "FQ," "FR," "FS," "FT," "FU," "FV," "FW," "FX," "FY," "FZ," "GA," "GB," "GC," "GD," "GE," "GF," "GG," "GH," "GI," "GJ," "GK," "GL," "GM," "GN," "GO," "GP," "GQ," "GR," "GS," "GT," "GU," "GV," "GW," "GX," "GY," "GZ," "HA," "HB," "HC," "HD," "HE," "HF," "HG," "HH," "HI," "HJ," "HK," "HL," "HM," "HN," "HO," "HP," "HQ," "HR," "HS," "HT," "HU," "HV," "HW," "HX," "HY," "HZ," "IA," "IB," "IC," "ID," "IE," "IF," "IG," "IH," "II," "IJ," "IK," "IL," "IM," "IN," "IO," "IP," "IQ," "IR," "IS," "IT," "IU," "IV," "IW," "IX," "IY," "IZ," "JA," "JB," "JC," "JD," "JE," "JF," "JG," "JH," "JI," "JJ," "JK," "JL," "JM," "JN," "JO," "JP," "JQ," "JR," "JS," "JT," "JU," "JV," "JW," "JX," "JY," "JZ," "KA," "KB," "KC," "KD," "KE," "KF," "KG," "KH," "KI," "KJ," "KK," "KL," "KM," "KN," "KO," "KP," "KQ," "KR," "KS," "KT," "KU," "KV," "KW," "KX," "KY," "KZ," "LA," "LB," "LC," "LD," "LE," "LF," "LG," "LH," "LI," "LJ," "LK," "LL," "LM," "LN," "LO," "LP," "LQ," "LR," "LS," "LT," "LU," "LV," "LW," "LX," "LY," "LZ," "MA," "MB," "MC," "MD," "ME," "MF," "MG," "MH," "MI," "MJ," "MK," "ML," "MM," "MN," "MO," "MP," "MQ," "MR," "MS," "MT," "MU," "MV," "MW," "MX," "MY," "MZ," "NA," "NB," "NC," "ND," "NE," "NF," "NG," "NH," "NI," "NJ," "NK," "NL," "NM," "NN," "NO," "NP," "NQ," "NR," "NS," "NT," "NU," "NV," "NW," "NX," "NY," "NZ," "OA," "OB," "OC," "OD," "OE," "OF," "OG," "OH," "OI," "OJ," "OK," "OL," "OM," "ON," "OO," "OP," "OQ," "OR," "OS," "OT," "OU," "OV," "OW," "OX," "OY," "OZ," "PA," "PB," "PC," "PD," "PE," "PF," "PG," "PH," "PI," "PJ," "PK," "PL," "PM," "PN," "PO," "PP," "PQ," "PR," "PS," "PT," "PU," "PV," "PW," "PX," "PY," "PZ," "QA," "QB," "QC," "QD," "QE," "QF," "QG," "QH," "QI," "QJ," "QK," "QL," "QM," "QN," "QO," "QP," "QQ," "QR," "QS," "QT," "QU," "QV," "QW," "QX," "QY," "QZ," "RA," "RB," "RC," "RD," "RE," "RF," "RG," "RH," "RI," "RJ," "RK," "RL," "RM," "RN," "RO," "RP," "RQ," "RR," "RS," "RT," "RU," "RV," "RW," "RX," "RY," "RZ," "SA," "SB," "SC," "SD," "SE," "SF," "SG," "SH," "SI," "SJ," "SK," "SL," "SM," "SN," "SO," "SP," "SQ," "SR," "SS," "ST," "SU," "SV," "SW," "SX," "SY," "SZ," "TA," "TB," "TC," "TD," "TE," "TF," "TG," "TH," "TI," "TJ," "TK," "TL," "TM," "TN," "TO," "TP," "TQ," "TR," "TS," "TT," "TU," "TV," "TW," "TX," "TY," "TZ," "UA," "UB," "UC," "UD," "UE," "UF," "UG," "UH," "UI," "UJ," "UK," "UL," "UM," "UN," "UO," "UP," "UQ," "UR," "US," "UT," "UU," "UV," "UW," "UX," "UY," "UZ," "VA," "VB," "VC," "VD," "VE," "VF," "VG," "VH," "VI," "VJ," "VK," "VL," "VM," "VN," "VO," "VP," "VQ," "VR," "VS," "VT," "VU," "VV," "VW," "VX," "VY," "VZ," "WA," "WB," "WC," "WD," "WE," "WF," "WG," "WH," "WI," "WJ," "WK," "WL," "WM," "WN," "WO," "WP," "WQ," "WR," "WS," "WT," "WU," "WV," "WW," "WX," "WY," "WZ," "XA," "XB," "XC," "XD," "XE," "XF," "XG," "XH," "XI," "XJ," "XK," "XL," "XM," "XN," "XO," "XP," "XQ," "XR," "XS," "XT," "XU," "XV," "XW," "XX," "XY," "XZ," "YA," "YB," "YC," "YD," "YE," "YF," "YG," "YH," "YI," "YJ," "YK," "YL," "YM," "YN," "YO," "YP," "YQ," "YR," "YS," "YT," "YU," "YV," "YW," "YX," "YY," "YZ," "ZA," "ZB," "ZC," "ZD," "ZE," "ZF," "ZG," "ZH," "ZI," "ZJ," "ZK," "ZL," "ZM," "ZN," "ZO," "ZP," "ZQ," "ZR," "ZS," "ZT," "ZU," "ZV," "ZW," "ZX," "ZY," "ZZ."

Trains must be H in Rann Street. E and a bell must be The speed must not exceed three m Elder Road.—W.N.

Electric Light in Carriage Harbour the light must re-lit one minute be

Glanville Curve.—Station between Jervois Bridge Street, to guard the and Port Adelaide right" signal, bring proceed to the curve, —W.N. No. 26/16.

Engines Working to Glanville engines, and goods must to work to and from

Six-wheeled Brakevans, G must not be run into

Sugar Refinery Siding.—R board is erected to in W.N. No. 29/16.

Ringin' Bells on Trains in passing over wharf line head, and the main line Vincent Street), and b

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SMOKE NUISANCE—

Enginemen must endeavor to Glanville and Semaphore.—

EXETER—

Up Trains.—Up trains must be lowered at Glanville. promptly lowered so that Guards must advise the so that he can dispatch

Tramway Crossing Signal C at the corner of Semaphore is established between C Semaphore.

No. 3 lever, when at n lines into operation, also When reversed, No. 3 electric current on the tr

GLANVILLE—

Shunting Between Glanville Station and Birkenhead Wharves.—When the use of shunting engines is permitted only the engines shown below are allowed to work between Glanville Station and the Birkenhead Wharves, on the sidings west of the wharf sheds, on the sidings belonging to the Wheat Harvest Board, on the siding leading to the Wallaroo and Mount Lyell Fertiliser Co.'s works, and on the siding leading to the Adelaide Cement Co.'s works, viz.—

Classes "E," "G," "GA," "Gn," "Gz," "M," "P," goods motors Nos. 97 and 98, and engines Nos. 161 and 204.

Trains must be HAULED, not PUSHED, between Glanville Station and the switches in Rann Street. Enginemmen and the Shunter in Charge must keep a sharp lookout, and a bell must be rung when an engine or train is passing through or over streets. The speed must not exceed six miles per hour through or over any street, and must not exceed three miles per hour when passing over the curves in Dunniker Street or Elder Road.—W.N. No. 11/17.

Electric Light in Carriages.—On trains working between Glanville and Largs and Outer Harbour the light must be promptly turned out on arrival at Glanville, and the carriages re-lit one minute before the arrival of the down train.—W.N. No. 1/17.

Glanville Curve.—Stationmaster, Glanville, must send a uniformed Porter to the curve between Jervois Bridge and Glanville Station, on the line running through St. Vincent Street, to guard the crossing, and give signals to all trains working between Glanville and Port Adelaide Dock Station. An Enginemman must, in the absence of an "all right" signal, bring his train to a stand, and the Guard of such train must at once proceed to the curve, see that the line is clear, and then pilot the train over the crossing.—W.N. No. 26/16.

Engines Working to Glanville Workshops Sidings.—Only E, F, G, GA, Gz, Gd, M, and P class engines, and goods motors 97 and 98, and engines Nos. 161, 163, and 204 are permitted to work to and from the Glanville Workshops Sidings.—W.N. No. 47/12.

Six-wheeled Brakevans, Glanville Workshops Sidings.—Six-wheeled fixed base brakevans must not be run into the Glanville Workshops Sidings.—W.N. No. 49/11.

Sugar Refinery Siding.—Rx engines must not proceed more than 60ft. on this siding. A board is erected to indicate the spot beyond which these engines must not travel.—W.N. No. 29/16.

Ringling Bells on Trains in Streets.—A bell must be rung continuously from any engine passing over wharf lines and private sidings at Port Adelaide, Glanville, and Birkenhead, and the main line between Port Adelaide Dock Station and Glanville (via St. Vincent Street), and between Glanville and Semaphore.

Hand bells must be used on tender or other engines not fitted with bells, and Enginemmen must not leave Port Adelaide Dock Station for working in or through the streets without a bell, which must be supplied by and subsequently returned to the Stationmaster at Port Adelaide Dock Station.

The Stationmaster, Port Adelaide, must arrange for the bells to be delivered to and collected from the Enginemmen. For Enginemmen who do not commence the journey at Port Adelaide, hand bells are supplied at Glanville Station, and Enginemmen must, when necessary, obtain a bell at this station. The Stationmaster, Glanville, must arrange for the bells to be returned to his station after use.—W.N. No. 41/17.

SMOKE NUISANCE—

Enginemmen must endeavor to prevent the emission of smoke when running between Glanville and Semaphore.—W.N. No. 10/16.

EXETER—

Up Trains.—Up trains must not leave this station until the "up home" signal arm is lowered at Glanville. The Signaller, Glanville, must see that this signal is always promptly lowered so that there may be no unnecessary delay to trains at Exeter. The Guards must advise the Stationmaster at Exeter when the Glanville signal is lowered so that he can dispatch the trains without needless detention.—W.N. No. 33/16.

Tramway Crossing Signal Cabin.—This cabin is situated nearly opposite Exeter Station, at the corner of Semaphore Road and Ring Street. Winter's absolute block working is established between Glanville and Exeter Cabin, and between Exeter Cabin and Semaphore.

No. 3 lever, when at normal, brings the catchpoints on both up and down tramway lines into operation, also cuts off the electric current from both tramway trolley wires. When reversed, No. 3 lever puts the catchpoints out of operation and restores the electric current on the tramway trolley wires.

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ort Adelaide end of platform.

DRAPER—

The Guard of the first stopping passenger train about sunset must light daily the lamps on the platforms, and the Guard of the last up stopping passenger train must extinguish them. The Stationmaster, Largs, must arrange to have these lamps cleaned and filled. During winter months the Guard of the first down stopping passenger train must light these lamps, and the Guard of the first up or down stopping passenger train after sunrise must extinguish them.—W.N. No. 26/16.

SHILCATE BRICK SIDING (11 MILES 37 CHAINS)—

This dead end siding is on the down line, with a trailing connection, and is used for traffic account Simon & Couche only. Down traffic must be detached from down trains, and the up traffic taken to the Outer Harbor by down train, and thence forwarded to destination. The siding is protected by catch points, which work in conjunction with the switches. The switches are worked by a lever locked with an "S" lock, and this lever also controls the catch points. Trucks must not on any account be kicked off or fly shunted on to this siding. They must be placed inside the catch points or stop block, with the engine attached. Trucks taken from the siding must be placed on the train with the engine attached. The length of the siding inside the catch points is 450ft.—W.N. Nos. 24/10, 15/11, 22/13.

OSBORNE—

Stopping Trains.—A cross-bar signal is fixed on the passenger platform at a point 25ft. from the Outer Harbor end, on the Engineman's right hand (down journey), so that passengers wishing to stop a train may do so by exhibiting to the Engineman this cross-bar by day and the red light by night.

When trains are not required to stop a round disc is shown by day and a green light by night to the Engineman. After picking up a passenger the Guard must put this signal to caution.

The lamp for this signal is an "Adlake" lamp, burning continuously, and the Guard of last up train on each Monday and Thursday must take it to Largs, where it must be cleaned and refilled. It must be returned by Guard of first down train on each Tuesday and Friday. This Guard will relight it and replace it in the signal.—W.N. No. 9/10.

OUTER HARBOR—

Siding to Mophan Ferguson's Proprietary, Limited, Works.—The points leading from the up main line to Mophan Ferguson's Proprietary, Limited, Works at Outer Harbor, are secured by an Annett's lock, the key of which must be held by the Stationmaster, Outer Harbor. When it is necessary for the siding to be used the key of the Annett's lock must be handed to the Shunter or Guard of the train about to work at the siding, and no up train must be permitted to leave Outer Harbor until the key of the Annett's lock is returned to the Stationmaster.—W.N. No. 29/15.

Coal Stage and Rogers' Sidings.—These sidings situated off the down main line are secured by Annett's locks, the keys of which must be held by the Stationmaster. The home and distant signals must not be lowered to admit a train into the station until the employes admitting the train has satisfied himself that these three (3) keys, marked B and D and 21, are in the Stationmaster's Office.

WOODVILLE and HENLEY BEACH LINE.

TRAIN WORKING—

Enginemen working trains between Woodville and Henley Beach must, before leaving Woodville, ascertain from the Stationmaster whether the up train, which should cross the down train at Woodville, has arrived. Enginemen must also ascertain if there are any other trains on the line, and if so, receive instructions regarding the crossing of same.

On the arrival of down trains at Woodville, the Stationmaster must be on the platform in readiness to give the required information to the Enginemen without the latter leaving the engine.—W.N. No. 28/11.

ENGINEMEN RINGING BELL—

Enginemen must ring the bell when approaching or passing over level crossings between Grange and Henley Beach.—W.N. No. 50/16.

E No. 3 LEVER AT NORMAL
ON OF THE TRAMWAY LINES

"clear" of Exeter, the Signalman must place No. 3 lever at normal, which will enable Glanville to 4 lever is pulled it will be back- between Exeter and Semaphore, can be returned to normal, and

"clear" of Exeter, the Signalman must place No. 3 lever at normal, which will enable Semaphore to 4 lever is pulled it will be back- locked until station platform. Immediately ed to normal, and No. 3 again

ask "Line clear" for a train ent undue delay to tramway

st unlock and lock the down an round and attach to their t the water column and signal en trains are working without rains. The Guard and Train moking mats, and the local this work. Empty coaches ter, who must also search the

see that the railway lamp cleaned, trimmed, lit, and lights preceding and the two noon. The lamp must be t.—G.T.M., 5574/02.

apply at Semaphore except it be stationed at the first approaching train, indicating s must be normally set and ssary for an employee to lieve the Stationmaster of ndix, under the heading ions."—W.N. Nos. 15/17,

lanville-Largs trains must W.N. No. 1/17.

of Swansea, on Engine- stop a train may do so red light by night.

y day and a green light al to "caution." The usly, and the Station- 7/16.

bout sunset must light booked passenger train

ALBERT PARK—

Signalling Apparatus for Stopping Trains.—A crossbar signal is fixed at a point 6ft. on Adelaide side of occupation crossing at 5m. 55chs., and at a distance of 8ft. from the nearest rail on Engineman's right hand (down journey) so that passengers wishing to stop a train may do so by exhibiting to the Engineman the crossbar by day and the red light by night. When trains are not required to stop a round disc is shown to Engineman by day and a green light by night. After picking up a passenger the Guard must replace this signal to caution. The lamp for this signal is an "Adlake" lamp, burning continuously, and the Stationmaster, Henley Beach, must have it lit and attended to.—W.N. No. 30/13.

SEATON PARK—

Ticket Agency.—Tickets are obtainable from the agency at this station between 6.45 a.m. and 8.45 p.m. on all week days (Saturdays and holidays included), and between 2 p.m. and 8.30 p.m. on Sundays. Passengers joining trains without tickets during these hours must therefore be charged the usual booking fee in addition to the proper fare.—W.N. No. 8/17.

Stopping Trains.—Enginemen must be careful to see that the last vehicle on their trains is pulled up clear of the cattle pit.—W.N. No. 42/14.

Lamps.—There are two lamps at the Woodville end of the station yard. The Stationmaster, Henley Beach, must see that these lamps are regularly cleaned and trimmed, lit and extinguished. During the winter months, when it is dark for early morning trains, the lamps must be left alight all night, but the Stationmaster, Henley Beach, must arrange to have them extinguished at daylight.

GOLF LINKS—

Signalling Apparatus for Stopping Trains.—A crossbar signal is fixed at the Grange end of the temporary platform, so that passengers wishing to stop a train may do so by exhibiting to the Engineman the crossbar by day and the red light by night.

When trains are not required to stop a round disc is shown to Engineman by day and a green light by night.

After picking up a passenger the Guard must replace this signal to caution. The lamp for this signal is an "Adlake" lamp, burning continuously, and the Stationmaster, Henley Beach, must have it lit and attended to.—W.N. No. 50/16.

Footpath, Golf Links to Devon Street.—The footpath on railway land between Golf Club house, and Devon Street, is for the use of railway passengers only. It is not necessary for passengers to hold a written permit to use this path.—W.N. No. 31/11.

Crossing Trains.—The following is the method of working when trains are booked to cross at this siding:—

Guards of down trains must open points Adelaide end of yard as soon as their trains have come to rest, and after up train has passed out they will set and lock points for main line.

Guards of up trains must open points at Grange end of yard, and after trains have passed through set and lock them for main line.—W.N. No. 20/16.

GRANGE—

Booking Fee and Lights.—A passenger and parcels agent is in charge of Grange from the first down train until 7.30 p.m. daily, SUNDAYS EXCEPTED. Any passenger, therefore, who joins a train at Grange without a ticket during these hours must be charged the booking fee of 3d. in addition to the fare. The agent will attend to the lights at the station during the times given above, and thereafter the Guards of the trains are responsible. The lights must all be switched "on" at the arrival of a train, and all with the exception of one at the station entrance, must be switched "off" immediately prior to the train's departure until the last train, when they must all be switched "off."—W.N. No. 40/13.

Siding at Grange.—The goods siding being a dead end must only be worked by down goods trains.

KIRKCALDY—

Tickets and Parcels Agency.—A passenger and parcels agent is in charge of Kirkcaldy for up trains only from the first up train until 7.30 p.m. on week days, and first up train until 1 p.m. on Saturdays. Any person who joins an up train at Kirkcaldy without a ticket during these hours must be charged a booking fee of 3d. in addition to the fare. On nights when the band is playing at Henley Beach the agent will be in attendance and issue tickets for down trains arriving at Henley Beach between 7 p.m. and 9 p.m. Any passenger joining a down train without a ticket during these hours must also be charged a booking fee of 3d. in addition to the fare. The agent will not be in attendance on Sundays.—W.N. Nos. 45/14, 12/15, 10/16.

KIRKCALDY—continued.

Station Lights.—The switch waiting-shed and is loc. switching on of lights through the station at morning, must switch

Correspondence.—A small box and Guards must place The Railway Agent with the platform.—W.N. No.

MARLBOROUGH STREET—

Electric Lighting.—The electric middle pole, and the "on" by pressing the up. The Guard of the Marlborough Street at last up Henley Beach months the Guard of the Guard of the first W.N. No. 40/16.

HENLEY BEACH—

Goods Siding.—A scotchbl Henley Beach, and in use, such duty dev

ADEL

ISLINGTON—

Engines Fouling Road Cross

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Islington Level Crossing

gongs are worked by yard, a disc signal crossing close to the and a green light by level crossing is closed by day, and a red light of pulling the call starts the gong of the gongs. The up or down home signal given, for an

Audible Up Distant Signal.—The audible signal, signal is lowered to the audible signal v

KIRKCALDY—continued.

Station Lights.—The switch of electric light is situated at Henley Beach end of Kirkcaldy waiting-shed and is locked by "S" lock. The staff at Henley Beach must attend to switching on of lights daily, and the Guard of last up train at night, and first train through the station after daylight, when it is necessary to switch on the lights in the morning, must switch them off.—W.N. No. 51/14.

Correspondence.—A small box for official correspondence is in the shelter-shed on the platform, and Guards must place all waybills and other papers for the Railway Agent therein. The Railway Agent will clear the box on each occasion of his being in attendance at the platform.—W.N. No. 34/15.

MARLBOROUGH STREET—

Electric Lighting.—The electric light is operated by a switch which is placed in a box on the middle pole, and the box is provided with an "S" padlock. The lights are switched "on" by pressing the switch handle down and switched "off" by pressing the handle up. The Guard of the Henley Beach passenger train (up or down) passing through Marlborough Street about sunset must switch the light "on," and the Guard of the last up Henley Beach passenger train must switch it "off" each night. During winter months the Guard of the first down passenger train must switch the light "on," and the Guard of the first up or down passenger train after sunrise must switch it "off." W.N. No. 40/16.

HENLEY BEACH—

Goods Siding.—A scotchblock is placed on this siding 80ft. from the end of the road at Henley Beach, and must always be kept locked across the line except when actually in use, such duty devolving upon the Guard.—G.T.M., 367/98.

ADELAIDE and TEROWIE LINE.**ISLINGTON—****Engines Fouling Road Crossing—**

1. Engines from Islington Running Shed must not foul the level (road) crossing until permission is obtained by the Enginemen from the Signaller. Engines must come to a stand on the single line behind the Signal Cabin, clear of the points at the rear, and the level crossing in front. Enginemen must then give the code whistle, and wait for the necessary signal from the cabin.
2. Engines from the Works must not foul the level (road) crossing until permission is given by the Signaller in the cabin.
3. The speed of engines shunting over the crossing must not exceed 2 miles per hour.—G.T.M., 7636/07 and 77/05.

Islington Level Crossing Disc Signals and Warning Gongs.—The following disc signals and gongs are worked by lever from the signal cabin :—At level crossing, north end of station yard, a disc signal and gong is placed on each side of line and on south side of level crossing close to the picket fence. Each disc signal shows a round white disc by day, and a green light by night in normal position, facing down the public road when the level crossing is clear for vehicular traffic, and a red arm at right angles to the road by day, and a red light by night, when the crossing is closed for vehicular traffic. The action of pulling the lever in the signal cabin to show the danger signal automatically starts the gongs ringing. Reversing the lever automatically stops the ringing of the gongs. The lever must be pulled by the Signaller immediately before the up or down home signal or starting signal from Islington Works is lowered, or a hand signal given, for an engine to foul the road crossing.—W.N. No. 35/13.

Audible Up Distant Signal.—An audible signal is fixed 100yds. in advance of the up distant signal. When the distant signal is at danger any up trains, passing the the audible signal, will cause the explosion of a cartridge in the apparatus. If the signal is lowered to "caution" no explosion will take place. Down trains passing the audible signal will not cause the cartridge to explode.—W.N. No. 9/11.

ISLINGTON—continued.

Working Trains between Islington Station and Loco. Works—

1. The Gatekeeper and Shunter at the Loco. Works Yard must see that all hand-points on the line leading to the platform and inside the gates are correctly set and pinned for trains. He must also see that the gates are opened and hooked back, and that the scotchblocks on sidings leading into the platform road are across the rails and locked for the passage of trains.
2. He must carry red and green flags and lights, and on arrival or departure of trains he must stand at gates and signal them. If the road be all clear he must display a green hand signal, or if the road be wrong or foul he must display a red hand signal to the approaching train.
3. No train to or from the Works platform must pass the gates between the Locomotive Works and Islington Station Yard until the Engineman has first received a green hand signal from the Gatekeeper.
4. The Gatekeeper must see that the two pairs of hand-points, Nos. 38 and 39, outside the gates on the Works Road are laid properly and pinned for the passage of trains.
5. Enginemen working the morning passenger trains into the Islington Works must not detach engine from train until all the workmen have passed through the Time Office.—W.N. No. 4/13.
6. When a second train is run to the Works before the first departs, the Guard of the first must go to the facing points and signal the second train into the opposite platform siding. He must carry a green hand signal to give the necessary signals to the second train.
7. During the time the signals are lowered for a train to run to or from the Works Platform the Signalman in the cabin must display a red hand signal from the east side of the cabin, and while such is displayed no engine or vehicle must go to the north of the cabin from the Running Shed.—G.T.M., 7813/06.
8. When the down Islington Workmen's trains arrive at the workshops, all windows in the carriages must be opened so that the vehicles will be cooled and ventilated as much as possible before the men join the trains.—W.N. No. 11/10.
9. A lamp is fixed on the gate leading from the Islington Station to the Loco. Works. When the gate is closed at night time a red light will be showing over the road, and must be accepted by the staff as a danger signal.—W.N. No. 21/13.

Shunting on Running Shed Roads—

1. Traffic employees must not, except with Loco coal, shunt into or out of the Running Shed roads. Only the road at the back of the up platform is a Traffic siding.

Light Engines.—Down light engines must be worked into the yard over facing points No. 8 north end of platform. Only in cases of emergency must engines be sent on main line towards Dry Creek, and then worked in over points No. 12.

DRY CREEK—

Advising Loads of Trains.—Guards of all down trains (except passenger) must hand to Stationmaster, Dry Creek, a list showing the number and destination of all goods trucks, livestock vans (loaded and empty), and carriages attached to their trains. Any special vehicles, such as Loco. crocodile, carriage bogie, hoppers, and bolsters, must be particularised. The Stationmaster, Dry Creek, must see this information is obtained from the Guard and immediately sent to Goods Superintendent on Form 128A.

Gate Across Main Siding to Slag Dump.—The gate across the main siding to the slag dump at south end of stone wall on the railway boundary must be opened for shunting purposes and closed when the siding is not being used.—W.N. No. 41/12.

Livestock Trains.—Livestock trains may be pushed to the Abattoirs, in which case a brakevan must be the leading vehicle, and the Shunter must ride in it. A four-wheeled brakevan must be kept at Dry Creek for this purpose.—W.N. No. 26/13.

Definition of Certain Up Signals—

Definition of the Up Main Inner Home Signal.—The up main inner home is for the purpose of bringing up trains to the up platform, either from the Abattoirs line or the main line. Up main trains must not pass the outer home signal at danger, but when lowered may proceed to the up inner home signal, and when the latter is lowered thence to the up platform.

Definition of the Up Branch Home Signal.—The up branch home is for the purpose of bringing trains from the Abattoirs line to the up platform via the up main inner home signal.

Trains from the Abattoirs line must have their up branch home and the up main inner home signals off before advancing.—W.N. No. 4/13.

DRY CREEK—continued.

Vehicles Fouling Up
cattle unloading

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DRY CREEK—continued.

Vehicles Fouling Untrucking Yards.—Vehicles with footboards must not be shunted past cattle unloading platforms.

Engines not to Pass Warning-board South of Old Smelting Coy's Siding.—Engines are not allowed to pass warning-board situated 50ft. south of catch-points on old Smelting Coy's East Siding.

ABATTOIRS—

Closing Gates.—When trains are pushed from Dry Creek to Abattoirs at night, the gates across the public road at the latter station must be closed three or four minutes after the train's departure from Dry Creek, and kept closed until the train is pushed into the stockyard, and the rear is clear of the level crossing.—W.N. No. 52/15.

Passenger Siding.—The points leading from main line to passenger siding (both ends) must be set and locked for the siding instead of the main line.—W.N. No. 37/12.

Electric Staff Block Working.—When coal trains from Dry Creek enter the Abattoirs Board Works direct from main line at west end of yard the Porter who signals the train in or out must exchange the staffs.—W.N. No. 4/16.

Wash-out Platforms.—Vehicles with footboards must not be shunted alongside the wash-out platform.—W.N. No. 19/17.

CAVAN—

Electric Lighting.—The electric light is operated by a switch which is placed in a box on the post, and the box is provided with an "S" padlock. The light is switched "on" by pressing the switch handle down, and switched "off" by pushing the handle up. The Guard of the first stopping passenger train about sunset must switch the light on each evening, and the Guard of the last up stopping passenger train must switch it off each night. During winter months the Guard of the first down stopping passenger train must switch the light on, and the Guard of the first up or down stopping passenger train after sunrise must switch it off.—W.N. No. 26/15.

STOCKADE—

Trucks for.—X, Y, Yx, and bogie trucks must not be sent to the Stockade, but they may be dispatched to the Adelaide Cement Company's Siding, near the Stockade.

Catch-points.—The catch-points Dry Creek Stockade Line, being the first points leaving Northfield Station for the quarries, lie always of their own accord set for the catch-sidings. These points must therefore be held in position for the main line for trains to or from the Stockade and Dry Creek Station.—G.T.M., 153/97.

GAWLER—

Adelaide Milling Coy's Siding.—Vehicles with footboards or steps must not be shunted into this siding on the eastern side of Gawler Station Yard at the north end of the platform.—G.T.M., 2575/07.

Gilbert & Company's Siding.—Fly shunting or kicking off is forbidden.

Shunting on Tramway.—No engine must work over the tramway except on the authority of the General Traffic Manager or Goods Superintendent.—W.N. No. 41/17.

HAMLEY BRIDGE—

Shunting through Running Shed.—Narrow-gauge carriage bodies loaded upon broad-gauge wagons must not be shunted into or through the Loco. Running Shed.

Water Column, North End of Yard.—Narrow-gauge engines must not be watered at this water-column while broad-gauge trains are due to pass.—G.T.M., 2121/04.

RIVERTON—

Engines on Turntables.—As engines, when being reversed on the turntable, foul the pit road, this work must only be performed under the direct supervision of a Traffic Porter, who must see that no vehicles pass the table on the pit road while the engine is being turned. The pit road is the one leading from the main line, over No. 25 points, south of the cabin, to south coal stage.—C.M.E., 223/06.

Sheep-Race Siding.—Vehicles must not be stored on the sheep-race siding, and the points leading to this spur must, when not actually in use, be set and locked for the North Pit Road.

BURRA—

Engines Coaling.—Enginemmen of down trains requiring to take coal must, on approaching the Down Distant Signal, give a short whistle followed by a *crow*.

BURRA—continued.

Working to Quarry.—All engines must run into this quarry so that they can return funnel-end first. The engines of traffic trains must not be delayed for turning to enable them to go to the quarry. When empty trucks are being pushed to the quarry from Burra Station a brakevan need not be attached, but the Shunter or Guard in charge of the movement must put down sufficient wagon brakes, without pinning them, to control the train. The Shunter or Guard must ride in the leading wagon for the purpose of seeing the road is clear. When hauling wagons from the quarry the Shunter or Guard must ride in the rear wagon to be ready to apply brakes if necessary.—G.T.M., 1528/89, 5408/89, 9058/06.

TEROWIE—

1. *Admitting Trains.*—The Shunter in charge of the broad-gauge shunting engine must admit broad-gauge trains, and the Shunter in charge of the narrow-gauge shunting engine must admit narrow-gauge trains into the yard.
2. *Departure of Broad-gauge Passenger Trains.*—Before the Stationmaster gives the "right-away" signal for broad-gauge passenger trains to depart he must first receive a green hand-signal from the Porter at the Yarcowie end of the platform, indicating that the switches which lead into the carriage shed are correctly set and locked for the main line.
3. *Departure of Narrow-gauge Passenger Trains.*—Before the Stationmaster gives the "right-away" signal for narrow-gauge passenger trains to depart he must first receive a green hand-signal from the Shunter in charge of the narrow-gauge shunting engine, stationed at switches No. 12, indicating that all switches—namely, No. 8 (facing), No. 9 (trailing), and Nos. 12 and 19 (facing)—are correctly set and locked for the main line. The Shunter must, before giving the green hand-signal, also see that the three Annett's keys are in their proper places in the locks, and stop all shunting conflicting with the departure of the narrow-gauge train.
4. *Broad-gauge Shunting across Narrow-gauge Main Line.*—When broad-gauge shunting is being performed across the narrow-gauge line north of the station, the man in charge of the broad-gauge shunting engine must, before signalling his vehicles over, first walk on the crossing and see that the signals into the station are at danger to protect the shunt, and that no shunting is being done which will foul the crossing. He must remain on the crossing until all the vehicles are over. Before the signals are pulled off to admit an up train the man in charge of the signals must first see that no shunting is being performed over this crossing.—W.N. No. 16/17.

GAWLER and ANGASTON LINE.

NORTH GAWLER—

Shunting.—Mixed and goods trains must not shunt at this station; such work must, instead be performed by the Gawler shunt engine as required.—W.N. No. 35/11.

Point Indicators.—Point indicators are fixed at North Gawler Sand Siding.—W.N. No. 10/13.

TANUNDA—

Chateau Tanunda Siding.—The private siding into Chateau Tanunda from the south end of Tanunda Station Yard is on a five-chain radius curve, and is intended for horse traction only. The curve starts at the switch on main line, and no engine must run on the turn-out of this siding.—W.N. No. 23/11.

Point indicators are fixed at this siding.—W.N. No. 10/13.

NURIOTPA—

Penfold's Siding.—The run-round siding has a clearance of 120ft. between the fouling pegs, and will hold six "Y" wagons. The points are operated by an electric staff drawer lock.

Shunting to or from this siding must be performed only by engines working from the Nuriotpa Station Yard. The Stationmaster must deliver the electric staff to the Engineman, thus blocking the line to all other traffic. When the engine returns to the Nuriotpa, the staff must be handed to the Stationmaster, who must replace the staff in the instrument and clear the line in accordance with instructions. Goods trains must not stop at the siding to attach or detach trucks.—W.N. No. 12/13, 50/17.

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ROSEWORTHY and MORGAN LINE.

Time Book, Permanent Way Staff.—The Guard of the first up passenger or mixed train from Morgan, on the Saturday which closes the pay period, must inspect the permissive block boxes at Bower and Bagot's Well, and the consignment note box at Hansborough, for the time books of the men who work on the permanent way. These books must be taken to Gawler and there handed over to the Stationmaster, who must immediately deliver them to the District Foreman.—W.N. No. 12/10.

Trains Crossing.—Guards of up trains due to cross down trains at Bagot's Well or Kapunda must, before leaving Hansborough, communicate with Kapunda, and, if necessary, re-arrange crossing so as to avoid or minimise delays to trains.—W.N. No. 44/15.

FREELING—

Shunting.—Kicking-off or fly-shunting on the line leading to and from Messrs. Anders and Sons' Chaff Mill is strictly prohibited.—G.T.M., 5946/06.

BAGOT'S WELL—

Shunting.—When necessary to move carriages past the office on the goods siding, Guards must see all carriage doors properly closed and fastened on the side next the office.—G.T.M., 1570/07.

EUDUNDA—

Catch Siding.—The points (which in the normal position lie for the siding) of the catch siding at the Morgan end of Eudunda Yard are operated by a spring lever, and shunting must be conducted on the catch siding instead of on the main line. Enginemen must exercise the greatest care when shunting on this siding in order to avoid running over the dead end.

At night a lamp showing a red light must be exhibited as an indication to the Enginemen that they are approaching the dead end.

For down main line trains the points must be held by a competent Porter, who must show a green hand signal, indicating that the points are being held for the main line, before authority is given by the Stationmaster to start the trains. For up trains the points must be held over by the Porter, who pulls off the semaphore signals.—W.N. No. 28/15.

BOWER—

Whistles to Challenge Crossing on the Morgan side of Yard.—Enginemen, when approaching the first level crossing on the Morgan side of Bower Station, must sound the challenge whistle longer than usual, and also keep a sharp lookout for vehicles, &c., so as to avoid, as much as possible, the risk of an accident taking place.—W.N. No. 2/12.

MOUNT MARY—

Platform Lamp.—The lamp on the platform must be left alight for the last goods train daily, and must be extinguished by the Guard of that train every night without fail. The Porter must examine the lamp each morning to see that it has been extinguished.—W.N. No. 21/13.

MORGAN—

Catch Siding.—The points leading to this siding are 390yds. from the passenger station. When the Engineman finds that, from any cause, his train has gained too great an impetus to enable him to pull up at the usual stopping-place, he must give three long whistles as the signal for the Pointsman to turn his train into the catch siding. If the train be approaching under proper control, the Engineman must give one short and one long whistle as the signal for the Pointsman to send his train on the main line to the station. This catch siding must always be kept clear, and vehicles must not be stored on it.

SOUTHERN SYSTEM.

ADELAIDE and GLENELG LINES.

PASSENGERS ALIGHTING AT WAYSIDE STATIONS—

When trains are discharging passengers at stations between South Terrace and Miller's Corner, Enginemen of the running through or stopping trains must pass the stationary train at a slow rate of speed and be prepared to stop if necessary. Every care must be taken that passengers alighting from trains are not injured by other trains proceeding in the opposite direction. When trains cross the Guard and Porter of the stationary train must stand between the up and down main lines and see that passengers do not get in the way of an approaching train.—W.N. Nos. 24/10, 42/17.

STOPPING TRAINS—

The Enginemen of trains working between North Terrace and Glenelg, and *vice versa*, must endeavor to stop their trains as indicated below:—

Down Trains—

At Thebarton and Hilton, with the rear vehicle at the Adelaide end of the platform.
At Richmond, Plympton, Camden, and McDonalds, with the engine at the Glenelg end of the platform.

Up Trains—

At McDonalds, Camden, Plympton, and Richmond, with the rear vehicle at the Glenelg end of the platform.
At Hilton and Thebarton, with the engine at the Adelaide end of the platform.—W.N. No. 49/15.

PLATFORMS OF CARRIAGES—

The flaps (or platforms) of Glenelg line carriages on up trains must not be laid down until after trains have left St. Leonards, and on the down journey they must be lifted as soon as the train has departed from McDonalds.

WIDE CARRIAGES—

When Glenelg line carriages Nos. 230, 231, and 232 are sent to Islington for repairs, they must be lifted off their wheels and loaded into a truck, and before being dispatched it must be ascertained if they infringe the minimum structure gauge. These carriages must not be attached to trains running in and out of North Terrace Station.—C.M.E., 3501/99.

CORRESPONDENCE—

Letters, correspondence, &c., from Glenelg for Adelaide offices, Traffic Auditor, &c., must be sent *via* North Terrace, and left in charge of Ticket Clerk, who must forward same without delay to the Bell Cabin. The Stationmaster, Adelaide, must arrange for correspondence addressed to stations on the North Terrace line and left in the Bell Cabin being sent to the Glenelg line Ticket Office for Guards to pick up.—W.N. No. 22/14.

CARRIAGES, CHAINS FOR—

For Glenelg line carriages not fitted with side chains spare chains are provided in the baggage compartment for use in coupling coaches in the event of anything happening to the centre couplings. Guards must see that such chains are always carried in the baggage compartment.—G.T.M., 19520/08.

DUPLICATE INTERMEDIATE AIR HOSE—

Enginemen working trains on the Glenelg and North Terrace lines must, when obtaining the designation disc, before leaving the St. Leonards Shed, also get a duplicate intermediate air hose.

This hose is for lengthening the present hoses, when horse boxes or other vehicles fitted with the swanneck pipes are attached to the train. The hose, together with the disc, must be returned to the shed when stabling the engine.

One of these duplicate intermediate air hoses is placed in the Westinghouse air brake locker at the Brighton platform (No. 2, Adelaide Station), to be used in case of necessity for attaching a class "F" engine to Glenelg rolling stock.—W.N. No. 29/17.

ENGINES WHISTLING—

In the streets of Glenelg and St. Leonards the engine whistle must only be used when starting or in cases of emergency.

SOUTH TERRACE—

Indicator Signals.—In and if the switch disc by day and the Enginemen by

Signals.—The up dist building at South

Spring Points.—Spring these points when spring automatic

MORPHETTVILLE—

The signals at Morphett by special instruct

MILLER'S CORNER—

Loop Line Trains—

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2. Enginemen of train Crossing, and the

Light Engines.—Engines still before passing 33/13.

Trains Crossing.—When the up main line, an

GLENELG—

Shunting.—When engines the road clear. The they are unfastened and leave them secur

Speed.—Enginemen, whet keep a sharp lookout

Relief Engines.—Engines from train on arrival coaches on up journey there be uncoupled a Rear engines must in cases of emergency The handle of Eng travelling along the st

Train Signalling in Streets

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2. The Guards and Port through the streets.

3. In Jetty Road the Gu north side of the tru

Ringin Bell in Streets.—Be

bell continually rung

1. Miller's Corner and G

2. Glenelg and St. Leona

3. Loop line between St.

When engines are r

Fireman, but when engi

vehicle and ring the be

Light Engines.—When a lig

light engine must keep a

Smoke Nuisance.—Engineme

Road.—W.N. No. 10/16

SOUTH TERRACE LINE.

SOUTH TERRACE—

Indicator Signals.—Indicator discs working with up and down facing points are in operation, and if the switches are wrongly set will show to the Enginemen approaching them a red disc by day and a red light by night, otherwise the side of the disc is turned towards the Enginemen by day and a green light displayed at night.—W.N. No. 10/14.

Signals.—The up distant and up home signals only apply to the line next to the station building at South Terrace.—W.N. No. 22/14.

Spring Points.—Spring points are placed at the dead end. Engines may trail through these points when shunting, and a Traffic employé is not required in attendance, as a spring automatically sets the points for the other road.

MORPHETTVILLE—

The signals at Morphettville are only used on race days or other special occasions, as notified by special instruction.—G.T.M., 13367/00.

MILLER'S CORNER—

Loop Line Trains—

1. No engine or train from loop line must come foul of the Miller's Corner Siding without receiving permission from the Stationmaster, and until all signals are placed at danger.
2. Enginemen of trains on loop line must bring their engine to a stand clear of the Junction Crossing, and there remain till signalled on by the Stationmaster.

Light Engines.—Engines running light from Miller's Corner to Glenelg must come to a standstill before passing over the crossing at Partridge Street, Miller's Corner.—W.N. No. 33/13.

Trains Crossing.—When trains cross at Miller's Corner the up trains must pull in clear of the up main line, and no portion of the down main line must be fouled.

GLENELG—

Shunting.—When engines run round, a Porter must walk ahead to warn passengers and keep the road clear. The Guard must attend to the points at Percival's Corner, and see they are unfastened before the engine leaves the siding. He must pin these points and leave them secure for the main line after the engine has backed on to the train.

Speed.—Enginemen, when shunting, must not travel more than 4 miles an hour, and must keep a sharp lookout.

Relief Engines.—Engines of down trains on South Terrace line must not be uncoupled from train on arrival at Glenelg when another engine is provided to work the same coaches on up journey. They must run attached to rear of up trains to Miller's Corner, there be uncoupled and run into siding.

Rear engines must assist by pushing trains, but the brake must not be used except in cases of emergency.

The handle of Engineman's brake valve must be placed in neutral position while travelling along the street.—C.M.E., 4902/07.

Train Signalling in Streets—

1. When trains are traversing the streets of Glenelg, all concerned must keep a lookout and be prepared to give and receive any signals.
2. The Guards and Porters must not converse with passengers whilst trains are travelling through the streets.
3. In Jetty Road the Guard must communicate with the Porter or Engineman from the north side of the train.

Ringin' Bell in Streets.—Between the following points a sharp lookout must be kept and a bell continually rung (C.M.E., 395/00):—

1. Miller's Corner and Glenelg.
2. Glenelg and St. Leonards.
3. Loop line between St. Leonards Sheds and Miller's Corner.

When engines are running light or pulling trains, the bell must be rung by the Fireman, but when engines are pushing, the Guard or Porter must stand on the leading vehicle and ring the bell.

Light Engines.—When a light engine follows a train in Jetty Road, the Engineman of the light engine must keep a distance of not less than 50yds. from the train.—R.C., 1463/03.

Smoke Nuisance.—Enginemen must endeavor to prevent the emission of smoke in Jetty Road.—W.N. No. 10/16.

NORTH TERRACE LINE.

ST. LEONARDS—

Method of Working—

1. When the semaphore signal controlling the points at the west end of the yard is at danger, trains must pull up as follows :—
 (a) Up train from Victoria Place (Glenelg) must stop at Pasquin Street.
 (b) Trains from Miller's Corner, by loop line, must stop at the south side of the Adelaide Road.
2. Down trains must not pass the points at the east end of St. Leonards yard when the semaphore signal controlling these points is at danger.
3. No train must pass over the facing points at either end of the St. Leonards yard at a speed exceeding 6 miles an hour.

Duties of Porter in Charge.—The Porter in charge at St. Leonards must manipulate the fixed signals, junction points, and Winter's block instruments, and he has complete control of the single-line working between St. Leonards and Victoria Place, and also of the loop line between Miller's Corner and St. Leonards.—W.N. No. 2/14 and W.N. No. 22/14.

Engines or Trains Leaving and Entering Sheds.—When engines or trains have to leave or enter St. Leonards sheds through the compound switches at west end of the yard, the Shunter must first obtain permission to do so from the Porter in charge of the cabin. This, however, does not apply on Sunday mornings, when the cabin is closed.—W.N. No. 28/14.

Rx Engines.—These engines may work in this yard, but must not exceed a speed of five (5) miles per hour.—W.N. No. 44/15.

THEBARTON—

Lighting and Extinguishing Electric Lamp.—The Porter-in-Charge must light and extinguish the light on No. 1 post, north end of the Mile End Yard.—W.N. No. 44/17.

RICHMOND—

Owing to the absence of signals the "Train Arrival" signal must not be given until the train has left for the station in advance.—W.N. No. 22/14.

BAGSHAW'S SIDING—

This siding is situated between Thebarton and Hilton stations, with trailing connection off the up main line.

Method of Working—

All traffic between Mile End Junction Cabin and this siding must be worked on the up line.

The switches, which are trailing on the up line, and between the Thebarton up distant and home signals; are fitted with Annett's lock and interlocked with these signals, which are operated from Mile End cabin.

When it is required to shunt into or out of this siding the Shunter must notify the Signaller, Mile End, and the up line between Richmond and Mile End Cabin must be blocked in accordance with rule. The Shunter must then obtain from the Signaller the Annett's key, with which he must unlock and set the switches leading into Bagshaw's works, see that the gates across the siding are opened and fastened back, and proceed to admit train.

When shunting operations are completed, the Shunter must close and lock the gates across the siding, lock the points on the main line with the key of the Annett's lock proceed with his engine or train to Mile End, and hand the key back to the Signaller when the line to Richmond must again be cleared.

The siding is provided with the usual catch switch to protect the main line.

A loading gauge, with bell attached, is placed over the siding near the gates of Messrs. Bagshaw's works, and should the loading of any truck foul the loading gauge, such truck must not be passed into Messrs. Bagshaw's works, but, instead, left in the siding until the loading is reduced.—W.N. No. 18/15.

BAGSHAW'S CROSSING (1 MILE 44½ CHAINS)—

Engine whistles must be sounded in all cases for trains approaching this crossing, and a lookout must be kept by the Trainmen. The view of Enginemen of an up train approaching this level crossing is obstructed by the high galvanized iron fence surrounding Messrs. Bagshaw's premises.—W.N. No. 20/11.

GLENELG—

Down trains must stop at the last vehicle is a passenger are in the train.—W.N. No. 22/14.

Starting Trains.—Trains must receive the usual signal from the Signaller.

Light Engines.—Light engines must stop at the booked time at Victoria Place.

McDONALDS—

Ticket Agency.—Only passengers joining or leaving the train.—W.N. No. 22/14.

CLARENCE PARK—

Electric Lighting.—The shelter shed, and by pressing the button. The Guard of the train must switch the light off each evening. The train must switch the light off after sunset.

MIDDLE BRIGHTON—

Electric Lighting.—The shelter shed, and by pressing the button. The Guard of the train must switch the light off each evening. The train must switch the light off after sunset.

Whistle to Challenge.—The whistle blowing on the train.

SEACLIFF—

Electric Lighting.—The shelter shed, and by pressing the button. The Guard of the train must switch the light off each evening. The train must switch the light off after sunset.

PUSHING TRAINS BET

Trains may be pushed in every case of such emergency continuously ring the bell for this purpose journey, and return.

GLENELG—

Down trains must pull up as near to the fouling peg as possible at Victoria Place. Up trains, after engine has shunted, must (if time permits), be pushed back so that the last vehicle is at the extreme length of rails near Post Office, care being taken that no passengers are joining or alighting from trains, and that the last vehicle is not derailed.

—W.N. No. 22/14.

Starting Trains.—Trains from Victoria Place must be started by the Guard, who will not receive the usual "Right away" signal from the Stationmaster.

Light Engines.—Light engines from Victoria Place must be started by the Engineman at the booked time, but no light engine must follow a train between St. Leonards and Victoria Place at a shorter interval than five (5) minutes.

McDONALDS—

Ticket Agency.—Owing to the distance of the ticket agency from the stopping-place passengers joining trains must not be charged the booking fee of 3d. when being excessed.

—W.N. No. 22/17.

ADELAIDE and WILLUNGA LINE.

CLARENCE PARK—

Electric Lighting.—The electric light is operated by a switch which is placed in a box in the shelter shed, and the box is provided with an "S" lock. The light is switched "on" by pressing the switch handle down, and switched "off" by pressing the handle up. The Guard of the first stopping passenger train about sunset must switch the lights on each evening, and the Guard of the last up stopping passenger train must switch them off each night. During winter months the Guard of first down stopping passenger train must switch the lights on, and the Guard of the first up or down stopping passenger train after sunrise must switch them off.—W.N. No. 24/15.

MIDDLE BRIGHTON—

Electric Lighting.—The electric light is operated by a switch which is placed in a box in the shelter shed, and the box is provided with an "S" lock. The light is switched "on" by pressing the switch handle down, and switched "off" by pressing the handle up. The Guard of the first stopping passenger train about sunset must switch the lights on each evening, and the Guard of the last up stopping passenger train must switch them off each night. During winter months the Guard of the first down stopping passenger train must switch the lights on, and the Guard of the first up or down stopping passenger train after sunrise must switch them off.—W.N. No. 48/14.

Whistle to Challenge Crossing.—Enginemen of down goods trains must keep the engine whistle blowing until the crossing at 9m. 12chs. is reached.—W.N. No. 10/16.

SEACLIFF—

Electric Lighting.—The electric light is operated by a switch which is placed in a box provided with an "S" padlock in the waiting shed. The lights are switched "on" by pressing the switch handle down, and switched "off" by pressing the handle up. The agent will switch the light "on", and the Guard of the last up stopping passenger train must switch it "off" each night. During the winter months, in the morning the Guard of the first down stopping passenger train must switch the light "on," and the Guard of the first up or down stopping passenger train after sunrise must switch it "off."—W.N. No. 39/16.

PUSHING TRAINS BETWEEN BRIGHTON AND MARINO ROCKS—

Trains may be pushed either way between Brighton, Seaclyff, and Marino Rocks, and in every case of such working the Guard must ride at the front of the leading vehicle, and continuously ring a bell when approaching and passing over the level crossings. The bell for this purpose must be obtained from Stationmaster, Brighton, on the down journey, and returned to him on the up trip.—W.N. No. 5/15.

TELEPHONE BLOCK SIGNALLING GOODS TRAINS, MARINO—

When down goods trains arrive at Marino the Guard must promptly telephone "Train arrival" to Brighton, so that suburban passenger trains may be advanced to Seaclyff, instead of waiting till the down goods train reaches Reynella. Before leaving Marino the Guard must also telephone Reynella and put the goods train "On line" to that station.

On the up journey the Guard of each goods train timed to stop at Marino must AT ONCE telephone Brighton that he has arrived, and NOT LEAVE Marino until he has again telephoned Brighton he is ready, and Brighton has given him permission to proceed after having made sure there is no passenger train at Seaclyff.—W.N. No. 50/15.

MARINO LOOP SIDING—

Up engines detaching or picking up trucks must do so from the shunting spur. The switches on the shunting spur must always, when not actually in use, be set and locked for the dead end, and those on the main line, for the main line.—W.N. No. 43/16.

ADELAIDE and MURRAY BRIDGE LINE.

CATCH POINT ON DOWN MAIN LINE BETWEEN MITCHAM AND SLEEP'S HILL—

This catch point is near the 6½ mile post, and 1,000ft. in the direction of Mitcham from the Sleep's Hill down distant signal, and is for the purpose of stopping runaways from Sleep's Hill to Mitcham on the down main.—W.N. No. 44/14.

TELEGRAPHING LOADS OF MELBOURNE EXPRESS—

1. Passenger Superintendent, Adelaide, must wire "Cars," Melbourne, before noon each day the probable load of Adelaide express that afternoon from Adelaide. "Cars" must similarly notify Passenger Superintendent, Adelaide,
2. Passenger Superintendent, Adelaide, must telegraph "Cars," Melbourne, and "Cars," Melbourne, must advise Passenger Superintendent, Adelaide, daily the number of sleeping cars on express trains leaving their respective stations. Stationmaster, Adelaide, must wire Serviceton immediately the train leaves Adelaide the probable load of the down express when it reaches Serviceton. The load of the down express must be telegraphed by the Stationmaster, Murray Bridge, to the Stationmasters, Serviceton and Stawell the class of vehicles being specified. When the load exceeds the normal composition of two sleeping cars, one AE and two BE coaches, and one CE brake, he must also telegraph to the Stationmasters, Dimboola and Ballarat, and the Superintendent of Passenger Train Service, Melbourne. Stationmaster, Adelaide, must telegraph to the Stationmaster, Serviceton, and the Superintendent of Passenger Train Service, Melbourne, the load of passenger and mail specials, and interstate excursions on leaving Adelaide.—G.T.M., 8171/06.
3. For the express from Melbourne to Adelaide, Stationmaster, Spencer Street, must wire load to Stationmaster, Murray Bridge. The Stationmaster, Ballarat, must telegraph the load to Stationmasters, Serviceton and Murray Bridge, and also advise Stationmaster Adelaide, when the normal load for South Australia, mentioned in clause 2 is exceeded. Stationmaster, Stawell, must advise Stationmaster, Murray Bridge and Stationmaster, Adelaide.
4. In each case when the Stationmaster, Murray Bridge, receives the telegraphic advice, he must immediately advise the District Loco. Superintendent.
5. Should any intermediate station find it necessary to alter the composition of the express, the Stationmaster concerned must wire the other State as above.
6. The Stationmaster, Adelaide, must wire Stationmasters, Serviceton, Stawell, and Ballarat, the number of passengers leaving Adelaide for stations beyond Serviceton.—G.T.M., 2065/95 and 2695/96.

RECORD OF VICTORIAN ROLLING STOCK—

Guards of all trains (express excepted) working to Serviceton or Pinnaroo must furnish the Stationmaster at the stations named with a list showing the No. and class of each Victorian vehicle on their train (Form T.R. 44). If there be no Victorian vehicles on the train, a "Nil" return must be furnished.

The Stationmasters, Serviceton and Pinnaroo, must see that the forms are supplied by the Guards for each train working into or out of the station.—W.N. No. 27/15.

ADVICE TO MILE END

The Guards of all up S and empty vehicles to the Stationmaster, Mile End, or if late, the number of the train (Adelaide Railway) (Adelaide Railway) The list must be prepared for each train, and must be

MILE END PASSENGER

Electric Lighting.—The electric lights at the Junction. The light for the stopping train is due when the train departs.

KESWICK—

Correspondence Boxes.—One for each train, and one on the down main line. Guards of all trains must be kept up and down, and removed.

Bridge Lights.—The Bay Lights must be lit after sunrise, daily.

GOODWOOD—

Fouling Indicator.—An electric light which indicates to the Stationmaster at the end of the platform that the Engine is illuminated at night.

Exchanging Staffs.—For the exchange of staffs, the Stationmaster must advise the Engine-men.—W.N. No. 44/14.

UNLEY PARK—

The Porters in charge at Unley Park must keep foot traffic well clear of the platform.

HAWTHORN—

Electric Lighting.—The electric lights at the waiting shed on the up main line must be switched "on" by pressing the handle passing through Hawthorn. The last up stopping passenger train must be in the morning. The light "on" and "off" must be switched at sunrise must switch it

MITCHAM—

Box for Correspondence.—One for each train, up platform, and Guard's box, waybills, invoices, or other documents.

CLAPHAM—

Trains Stopping at.—Down passenger trains standing at the platform.

Electric Lighting.—The electric lights at the waiting shed on the up main line must be switched "on" by pressing the handle passing through Clapham. The last up stopping passenger train must be in the morning. The light "on" and "off" must be switched at sunrise must switch it

ADVICE TO MILE END OF UP GOODS TRAIN LOADS—

The Guards of all up South goods trains must prepare a list showing the number of loaded and empty vehicles and destination of same on their train, and hand or throw it out to the Stationmaster, Belair, who must immediately telephone the information to the Stationmaster, Mile End, and also state whether the train in question is running on time; or if late, the number of minutes late from Belair.

Between the hours of 6 a.m. and 10 p.m. the information must be given to telephone No. 56 (Adelaide Railway Exchange), and between 10 p.m. and 6 a.m. to telephone No. 19 (Adelaide Railway Exchange).

The list must be prepared on a small memo. form, and must show date and number of train, and must be signed.—W.N. No. 6/14.

MILE END PASSENGER STATION—

Electric Lighting.—The electric light is operated by a switch in the signal cabin at Mile End Junction. The lights must be switched on by the Signaller five (5) minutes before a stopping train is due to arrive after sunset, or before sunrise, and switched off directly the train departs.

KESWICK—

Correspondence Boxes.—Correspondence boxes are placed at Keswick, one on the up platform and one on the down, and all correspondence for the Stationmaster must be placed in them. Guards of all stopping trains must examine these boxes on each trip, both up and down, and remove all outward correspondence.—W.N. No. 21/13.

Bridge Lights.—The Bay Road bridge lights must be switched on at dusk and extinguished after sunrise, daily, throughout the year.—W.N. No. 18/13.

GOODWOOD—

Fouling Indicator.—An electric fouling indicator is attached to the up starting signal post which indicates to the Engineman of an up train when the tail of his train has arrived at the end of the platform. The indicator normally shows clear; if it show "foul," the Engineman must at once advance his train until it shows "clear." The indicator is illuminated at night.—W.N. No. 36/10.

Exchanging Staffs.—For the exchange of staffs at Goodwood for the Brighton Line the Stationmaster must depute a Porter to convey the staffs between the cabin and the Enginemen.—W.N. No. 45/16.

UNLEY PARK—

The Porters in charge at Unley Park must attend to the crossing and see all vehicular and foot traffic well clear of the line when trains are about to pass.—W.N. No. 47/10.

HAWTHORN—

Electric Lighting.—The electric light is operated by a switch which is placed in a box in the waiting shed on the up platform, and the box is provided with an "S" padlock. The lights are switched "on" by pressing the switch handle down, and switched "off" by pressing the handle up. The Guard of the stopping passenger train (up or down) passing through Hawthorn about sunset must switch the light "on," and the Guard of the last upstopping passenger train must switch it "off" each night. During the winter months in the morning the Guard of the first down stopping passenger train must switch the light "on," and the Guard of the first up or down stopping passenger train after sunrise must switch it "off."—W.N. No. 9/12

MITCHAM—

Box for Correspondence, Etc., Received at Night.—A box is fixed in the shelter shed on the up platform, and Guards passing through after 11 p.m. must put all correspondence, waybills, invoices, or other papers for Mitcham therein.—W.N. No. 4/15.

CLAPHAM—

Trains Stopping at.—Down trains stopping at this station must pull up with the rear coach standing at the platform.—W.N. No. 28/16.

Electric Lighting.—The electric light at Clapham is operated by a switch which is placed in a box on a post at the Adelaide end of the up platform, and the box is provided with an "S" padlock. The lights are switched on by turning the switch button to "on," and switched off by turning the switch button to "off." The Guard of the stopping passenger train (up or down) passing through Clapham about sunset must switch the light "on," and the Guard of the last upstopping passenger train must switch it "off" each night. During the winter months the Guard of the first down stopping passenger train must, if necessary, switch the light "on," and the Guard of the first up or down stopping passenger train after sunrise must switch it "off."—W.N. No. 35/16.

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LINE.

AND SLEEP'S HILL—
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SLEEP'S HILL—

Method of Working—

The two pairs of down facing points on siding next the Main South Line must, when not actually in use, be set and locked for this siding.

When engines run round their train on the middle road, the screw brake in the brakevan must be hard on and chained.

The two sidings mentioned above must be kept clear of trucks, &c., for the passage of trains.—W.N. No. 18/16.

SCHWERKOLT'S AND SLEEP'S HILL QUARRIES—

Method of Working—

1. All trains to and from Sleep's Hill Quarry must be worked by bogie or twin brakevans.
2. No shunting must be done on the MAIN LINE at Sleep's Hill Station.
3. Before shunting operations are commenced in the Sleep's Hill Station Yard the hand brake of the brakevan must be hard on and secured by the chain, and as many truck brakes dropped as are necessary to hold the train.
4. Kicking off vehicles at either yard is forbidden.
5. Schwerkolt's Siding is an independent branch line out of Sleep's Hill Station Yard.
6. Trains for Schwerkolt's Quarry must first go to Sleep's Hill, and enter the Sleep's Hill Quarry yard, the engine pushing the trucks and brakevan thence to Schwerkolt's on the branch line, up to the dead end. The engine must then uncouple, pick up the loaded trucks inside Schwerkolt's gate, attach them to empties in dead end, pull out, then back the empties inside the gate, leave them there, and haul loaded trucks to Sleep's Hill, afterwards working to Mitcham in the usual way.
7. In pushing trucks from Sleep's Hill to Schwerkolt's Quarry, the Guard and Engineman must see that sufficient brake levers are dropped to properly control the train.
8. Trucks of the "X," "Y," "YY," and "Z" class for or from Sleep's Hill may be loaded to the full carrying capacity.
9. The catch points at the Mitcham end of the siding at Sleep's Hill Quarry must always be set and locked for the catch sidings when not actually in use.
10. No train is allowed to proceed to or from Schwerkolt's Quarry without a brakevan.
11. Sprags are available at Schwerkolt's Quarry, and the Guards must make such use of them as may be necessary in the interests of safety, and promptly request the Stationmaster, Mile End, to send out a further supply when that on hand is exhausted.
12. The switches leading into the siding at Schwerkolt's Quarry must always be set and locked for the dead end, except when in use during shunting operations.
13. At Schwerkolt's Quarry engines must not run past the scotchblock.—W.N. No. 37/14.

EDEN—

"Run-away" Siding—

There is a "run-away" siding at the Adelaide end of Eden, the points being normally laid for such siding, and the up starting signal cannot be pulled off until the switches are set for main line. Under no circumstances must the switches controlling the "run-away" siding be set for the main line for an up train timed to stop at Eden until after such train has come to a standstill at the station platform.

Should drivers of up trains not timed to stop at Eden lose control of their train they must give three (3) long whistles, repeated at intervals, before reaching the up home signal as an indication to the Signalman that the points must be set for the run-away siding. The Signalman on hearing such whistles, if he should have previously set the switches for the main line, must promptly alter them so that the run-away train will take the run-away siding.—W.N. No. 19/12.

Crossing of Trains.—When trains are due to cross at Eden, and it is found that they are approaching the station about the same time, the signals must be kept against the down train until the up train has come to a stand at the platform, after which the down train may be admitted to the station.—W.N. No. 41/12.

Up Home Signals.—In connection with the up home signals the top arm acts as an "up fast home," and the bottom arm as an "up slow home." "Up fast home" means "up home for non-stopping trains," and when this signal is lowered it is an indication that the up train may run through the station without stopping (provided the up starter is also "off"), the points being set for main line. "Up slow home" means "up home for stopping trains," and when this signal is lowered it is an indication that the up train must stop at the station, as the road is then set for the run-away siding.—W.N. No. 15/12.

BRICK SIDING—

1. This siding, 93 trains running.
 2. An electric stop lever is also for the gate across the siding.
 3. Only qualified Guards accompanied.
 4. The siding must be used in accordance with the Gate across the siding.
 5. Trains requiring when placed in the gate across the siding.
 6. When the goods Signalman, Ed. accordance with the Gate across the siding.
 7. When the engine put hard on and the Gate across the siding.
 8. Guards must examine during shunting grade or become have the brake the gate is closed.
 9. Not more than 10. In sending coal to engine.
 11. Kicking off vehicles.
 12. Examining Points.
- When asked to Fitter. When 1.—G.T.M., 5125/

OCCUPATION CROSSING—

Whistling.—Drivers opposite Schwerkolt's Quarry.

BLACKWOOD—

Shunting.—Kicking off vehicles.

BELAIR ROAD CROSSING—

A telephone is fixed at Belair Stations, and Crossing-keeper watches of watching the crossing.

BELAIR—

Shunting.—Kicking off vehicles.

Up Trains Stopping at length, when stop Adelaide end of the W.N. No. 40/16.

LONG GULLY—

"Run-away" Siding.

There is a "run-away" siding laid for such siding are set for main "run-away" siding until after such train. Should Enginemen of their train, they reaching the up home be set for the "run" should have previous so that the run-away

BRICK SIDING—

1. This siding, 9½ miles from Adelaide, between Eden and Blackwood, is worked by goods trains running from Mile End to Brick Siding only.
2. An electric staff drawer lock and operating lever are provided at this siding, and the lever is also fixed by an "S" lock. The Signaller at Eden has charge of the key of the gate across the siding.
3. Only qualified Guards must work to and from this siding, and in every case they must be accompanied by an assistant.
4. The siding must only be worked between sunrise and sunset.
5. Trains requiring to enter this siding must carry the "Eden-Blackwood" staff, which, when placed in the drawer, will admit of the switches being turned. The key of the gate across the siding must be obtained by the Guard from the Signaller, Eden. Guards must also provide themselves with an "S" key.
6. When the goods train returns to Eden, the gate key and staff must be handed to the Signaller, Eden, who must replace the latter in the instrument and clear the line in accordance with instructions.
7. When the engine is detached from the train at the siding, the brake in the van must be put hard on and secured with the chain.
8. Guards must exercise the greatest care in setting and locking the points at the siding during shunting, and must be particularly careful that no vehicles get away on the grade or become derailed. All wagons, before being detached from the engine, must have the brakes pinned down. Before leaving the siding the Guard must see that the gate is closed and locked.
9. Not more than nine four-wheel trucks must be taken to Brick Siding at a time.
10. In sending coal to Brick Siding, trucks loaded with fine coal must be placed next to the engine.
11. Kicking off vehicles is forbidden.—W.N. Nos. 36/12, 40/14, 42/17.
12. *Examining Points by Signal Fitter.*—The ordinary inspection of and minor repairs must be done when trains are there, and the Traffic Staff running trains to this siding must, when asked to do so, work the levers in the apparatus for inspection by the Signal Fitter. When longer time is required for repairs special arrangements must be made.—G.T.M., 5125/99.

OCCUPATION CROSSING—

Whistling.—Drivers of up trains must sound the whistle on approaching this crossing opposite Schwerkolt's quarry, close to the side of the stone breakers.—C.M.E., 1164/02.

BLACKWOOD—

Shunting.—Kicking off vehicles is forbidden.

BELAIR ROAD CROSSING—

A telephone is fixed at the house of the Crossing-keeper, connecting with Blackwood and Belair Stations, and the Stationmasters of these two stations must telephone the Crossing-keeper when down or up trains are late or cancelled, so as to avoid the necessity of watching the crossing when trains are not about.—W.N. No. 8/10.

BELAIR—

Shunting.—Kicking off vehicles is forbidden.

Up Trains Stopping at.—Up trains, not exceeding eight bogie carriages and brakevan in length, when stopping at Belair must not obstruct the footway crossing the line at the Adelaide end of the station. For longer trains this instruction may be disregarded.—W.N. No. 40/16.

LONG GULLY—

"Run-away" Siding.—

There is a "run-away" siding at the Adelaide end of Long Gully, the points being normally laid for such siding, and the up starting signal cannot be pulled off until the switches are set for main line. Under no circumstances must the switches controlling the "run-away" siding be set for the main line for an up train time to stop at Long Gully until after such train has come to a standstill at the station platform.

Should Enginemen of up trains not timed to stop at Long Gully find they have lost control of their train, they must give three (3) long whistles, repeated at intervals, before reaching the up home signal, as an indication to the Signaller that the points must be set for the "run-away" siding. The Signaller on hearing such whistles, if he should have previously set the switches for the main line, must promptly alter them so that the run-away train will take the "run-away" siding.—W.N. No. 19/12.

LONG GULLY—continued.

Crossing of Trains at.—When trains are due to cross at Long Gully, and it is found that they are approaching the station about the same time, the signals must be kept against the down train until the up train has come to a stand at the platform, after which the down train may be admitted.—W.N. No. 41/12.

Up Home Signals.—In connection with the up home signals the top arm acts as an "up fast home," and the bottom arm as an "up slow home." "Up fast home" means "up home for non-stopping trains," and when this signal is lowered it is an indication that the up train may run through the station without stopping (provided the up starter is also "off"), the points being set for main line. "Up slow home" means "up home for stopping trains," and when this signal is lowered it is an indication that the up train must stop at the station, as the road is then set for the run-away siding.—W.N. No. 15/12.

UPPER STURT—

Collecting Tickets and Extinguishing Platform Lamps.—The Guard of the last down passenger train to Aldgate on Saturdays must collect the tickets of all passengers alighting from that train. He must also extinguish the platform lamps immediately before the train's departure. Under this arrangement it is not necessary for the Porter to be in attendance at the platform for the above-mentioned train.—W.N. No. 46/17.

MOUNT LOFTY—

Shunting—

Kicking off vehicles is forbidden.

Shunting spurs are provided at each end of the yard, and the Signaller, before any shunting is commenced, must set the switches for such dead-end shunting spurs at each end of the yard. On completing the work the switches must be again set for the main line, which is their normal position. Except in cases of extreme emergency vehicles must not be stabled on these shunting spurs.—W.N. No. 43/12.

AMBLESIDE—

Down Trains Whistling.—A notice board is fixed on the down starting signal indicating that the whistle must be sounded by engines of down trains. Enginemen working non-stopping trains must sound the whistle when approaching the down starting signal, and Enginemen working stopping trains must sound the whistle loudly before starting. The object of this arrangement is to warn teamsters and others passing over the line to and from the goods shed of approaching trains. Enginemen, when shunting, must also sound the warning whistle before passing over this crossing.—W.N. 3/18.

BALYARTA—

Advice of Train Running.—The Signaller must telephone the Stationmaster and District Loco. Superintendent, Murray Bridge, the time of departure from Nairne of all down trains, so that any necessary adjustment of the Trainmen's hours may be made.—W.N. No. 29/12.

CALLINGTON—

Shunting.—Kicking off vehicles is forbidden.

MURRAY BRIDGE—

Bridge Signals.—When an up train is approaching the bridge, the up distant signal must not be lowered until the electrical indicator in the cabin indicates "bridge clear," or, if the electrical indicator be out of order, not until the Signaller be satisfied that the bridge signals governing the bridge traffic are off. The down starting signal must not be lowered for any down train to start until the electrical indicator in the cabin indicates "bridge clear," or, if the electrical indicator be out of order, not until the Signaller be satisfied that the bridge signals are off.

Bridge Gates.—These gates controlling the road traffic must not be closed against such traffic more than 10 minutes before an engine or train will pass over the bridge.—R.C. 929/07

Shunting.—No shunting must be done at the river end of the station yard if any train be at or approaching from the bridge.—E.in-C., 2535/00.

Shunting between Station and Wharf.—When vehicles are being shunted between the station and wharf the Shunter must ride on the vehicle furthest from the engine. In all cases the vehicles must be fully coupled together and to the engine

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MURRAY BRIDGE—continued.

Switches to Goods Main.—The first pair of siding switches leading out of the Goods Main (river side) is not connected with the Signal Cabin, but has been equipped with Williams' patent spring lever, which takes the place of the cheese-knob. These switches lie normally for the Goods Main line. The second pair of siding switches leading out of the Goods Main (river side) is also not connected with the Signal Cabin. It must therefore be treated as main line facing switches, and the Shunter must after use always have these switches set and locked for the Goods Main line.—W.N. Nos. 35/16, 28/17.

Working Passenger Trains.—All down passenger trains run to and start from the up platform. When trains have to cross here it must be under the personal supervision of the Stationmaster.

Excessive Engine Whistling.—Enginemmen and firemen must minimise the whistling as much as possible consistent with the proper carrying out of code of whistles.—W.N. No. 9/12.

Water for Carriages.—Appliances for clarifying River Murray water are provided at Murray Bridge Station, the manipulation of the plant being under the control of the Resident Engineer. Only clarified water must be used in water bottles on passenger trains.—W.N. No. 28/11.

Speed of Trains.—Trains approaching this station must slow down to four miles per hour to allow train examiners to inspect the axle boxes on the platform side of trains.—C.M.E., 4799/07.

Loco. Yard.—No engine must pass over No. 18 interlocked switches leading from east end of Loco. Yard to main line until permission is obtained from the Signal Cabin by sounding one crow and one long whistle, and acknowledged by hand signal from the cabin. When shunting is finished three short whistles must be given to denote the engine is clear of the points.—W.N. No. 32/16.

ASSISTING ENGINES—

1. Engines assisting trains between Murray Bridge and Adelaide, and *vice versa*, have often to return light between these points, and as it is not always possible to advise the time when these engines will run, all concerned must be most careful to comply with the instructions contained in the Rule Book on the subject.
2. When an assisting engine is attached to a train from Murray Bridge to Mount Lofty, and has to return light, the District Loco. Superintendent must advise Stationmaster, Murray Bridge, who must then advise all concerned of the running.—G.T.M., 2040/97.

MURRAY BRIDGE and SERVICETON.

RECORD OF VICTORIAN ROLLING STOCK—

Guards of all trains (express excepted) working to Serviceton or Pinnaroo must furnish the Stationmaster at the stations named with a list showing the No. and class of each Victorian vehicle on their train (Form T.R. 44). If there be no Victorian vehicles on the train a "Nil" return must be furnished.

The Stationmasters, Serviceton and Pinnaroo, must see that the forms are supplied by the Guards for each train working into or out of the station.—W.N. No. 27/15.

ROLLING STOCK TO AND FROM VICTORIA—

The Guard of each train to or from Serviceton, which is not booked to stop at Wolseley, must prepare a list showing the Nos., class, and description of all vehicles on his train, and forward (enclosed) from the nearest stopping station to the Stationmaster, Wolseley, by first train.

The information must be accurate in every particular, as it is required in connection with the record of rolling stock forwarded to and from Victoria.

The Stationmaster, Wolseley, must keep a record of non-stopping trains, and see that the information is furnished by the Guards, promptly advising the Goods Superintendent of each instance of the Guards failing to furnish it.—W.N. No. 2/15.

MONTEITH—

Up Trains Starting From.—To obtain a start in the direction of Murray Bridge, up trains may be shunted towards Taillem Bend in the Monteith yard, but the tail of the train must not be pushed outside the home signal when the line has been cleared to the station in the rear.—W.N. No. 14/13.

TAILEM BEND—

Advice of Train Running.—The Stationmaster, Tailem Bend, must wire the Stationmaster and District Loco. Superintendent, Murray Bridge, the time of departure of all up trains from the Murray Lands and Pinnaroo lines, so that any necessary adjustment of the Trainmen's hours may be made.—W.N. No. 29/12.

Passengers by Down Ordinary Train for South-East Stations.—The Stationmaster, Tailem Bend, must advise the Stationmaster, Wolseley, by telegraph the number of passengers for down South-East passenger train.

South-East Passengers by Melbourne Express.—The Train Porter of the down Melbourne Express on Tuesdays, Thursdays, and Saturdays must ascertain between Murray Bridge and Tailem Bend the correct number of passengers on express for down South-East mixed train. This information must be given to the Stationmaster, Tailem Bend, who must advise the Stationmaster, Wolseley, by telegram.—W.N. No. 43/13.

COOKE'S PLAINS—

Method of Working.—

- (a) At Cooke's Plains home and distant signals are provided at both ends of the station yard, and apply to trains running on the main line only.—G.T.M., 5897/03.
- (b) The signals stand normally off and are actuated by levers fixed in the centre of the yard. These levers are locked up with a bar and "S" padlock, and fitted with Annett's locks and keys.
- (c) The cross-over points leading to the sidings are worked by ground levers, and fitted with Annett's locks. They are normally set and locked for the main line, and cannot be opened until the signals in both directions are put to danger.
- (d) The keys are kept in the locks attached to the signal levers, and are marked with letters corresponding with those on the locks fixed to the point levers.
- (e) A and B are the locks at the Serviceton end of the yard, and C and D are those at the Adelaide end, there being two cross-overs at each end.—W.N. No. 45/10.

Shunting.—

- (a) When it is required to open the siding points for shunting, the train must draw into the yard and come to a standstill within the rear home signal.
- (b) The Guard or other authorised person in charge of the train must then put all four signals to danger, and turn the keys which will lock them in that position. The keys can then be taken out and used to unlock the points required.
- (c) As soon as the shunting operations are completed the points must be reset and locked for the main line. The keys must then be replaced in the respective locks attached to the signal levers and turned, and the signals in both directions pulled "off" as before. The levers must then be secured by means of the bar and "S" padlock.

YUMALI—

Shunting at.—As this siding is situated with a down grade leading from the points at either end, Trainmen engaged in shunting must exercise great care in order to avoid the risk of a run-away. Guards must see that any portions of their trains which may be left standing detached from the engine during shunting operations are so secured level between the points. All traffic to and from Yumali must be dealt with by daylight trains. It must not be forwarded by trains booked to call at this siding after sunset.—W.N. Nos. 37/15, 15/17.

COONALPYN—

Advice of Train Running.—The Stationmaster, Coonalpyn, must wire the Stationmaster and the District Loco. Superintendent, Murray Bridge, the time of departure of all up trains, so that any necessary adjustment of the Trainmen's hours may be made.—W.N. No. 19/12.

TINTINARA—

Speed of Trains.—

The speed of all trains (both down and up) running into this station must be reduced to five (5) miles per hour to enable the Examiner to feel axle boxes on platform side of train.—W.N. No. 52/15.

BORDERTOWN—

Up Trains Starting from.—To obtain a start in the direction of Cannawigra up trains may be shunted back towards Wolseley, but the tail of the train must not be pushed outside the home signal when the line has been cleared between Bordertown and Wolseley.

Down Trains Starting from.—To obtain a start in the direction of Wolseley down trains may be shunted back towards Cannawigra, but the tail of the train must not be pushed outside the home signal when the line has been cleared to Wirrega.

WOLSELEY—

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WOLSELEY—

Transfer Shed.—Before shunting through the transfer shed, or on to any trucks standing in it, the transfer men must be warned.—G.T.M., 2611/02.

Shunting, West End.—When shunting from Nos. 1, 2, and 3 roads, N.G. platform and run-round siding north side of passenger platform, at the west end of the yard, to the main line, the brake of the last vehicle must be pinned down. Great care must be exercised in shunting against vehicles from the east, so that no vehicle detached from the engine or train can escape on to the main line and down the grade towards Bordertown.—G.T.M., 3100/08.

Shunting, East and South Side.—As the sidings at the east end and south side of Wolseley station yard are on a falling grade from east to west, employes engaged in shunting must secure all vehicles standing on the grades by means of the brake levers, or, in case of vehicles without brakes, by springs.—G.T.M., 270/00.

Sleeping Berths.—Any berths in the sleeping car vacant when the up express leaves Serviceton may be allotted passengers from Wolseley at 5s. each. The Stationmaster, Wolseley, must ascertain from Serviceton what berths are unoccupied before the train leaves the latter station, and at once notify applicants if berths can be provided for them.—G.T.M., 4370/06.

Darling & Son's Siding.—Broad and narrow gauge engines must not go round the curve leading into Darling & Son's mill.—G.T.M., 5005/00.

Speed to North Platform Line.—Trains working to north side of passenger platform must not exceed a speed of five miles per hour.—W.N. No. 20/13.

Loading (exceeding S.A. gauge), on Vehicles from Victorian and South Australian Stations.—All loading on vehicles reaching Wolseley from Victorian or South Australian stations must be examined, and nothing in excess of the S.A. loading gauge must be shunted through the transfer shed. Loading, in excess of the S.A. loading gauge, on vehicles from Victoria for Bordertown or stations beyond must not go forward. Guards of up trains from Wolseley must not take forward loading in excess of the S.A. gauge, unless they are furnished with written authority to do so.

Lights to be Kept Burning, Narrow-Gauge Carriages.—For the convenience of passengers waiting to join the up Melbourne express, the lights in the carriages of up night mixed (South-Eastern train) must be kept burning until the departure of the express from Wolseley, and passengers may be allowed to retain their seats in these carriages until the arrival of the broad-gauge train.—W.N. No. 2/14.

Cleaning Broad-Gauge Carriages.—Only one carriage must work between Wolseley and Serviceton on the ordinary mixed train. All other carriages must be detached at Wolseley on the down journey and cleaned and re-equipped in readiness for the return running.—W.N. No. 41/16.

SERVICETON—

Examination of Trains.—

1. Guards must thoroughly overhaul their trains before leaving Serviceton, and at once call the attention of the Stationmaster to any defects or breakages, such as broken windows or other lights, broken couplings, broken lamp shades, &c. The examination must be thorough, and, should any defects be found, a report made at once to the Passenger Superintendent, giving full particulars and the number of the vehicle concerned.

2. Guards leaving terminal trains at Serviceton, or handing over through trains, must examine the trains there, immediately reporting any defects or breakages to the Stationmaster, Serviceton, and also to the Stationmaster at his home station.—G.T.M., 1043/04.

Speed of Trains.—Trains approaching this station must slow down to four miles per hour, to allow Train Examiners to inspect the axleboxes on the platform side of trains.—C.M.E., 4799/07.

Oiling Plant.—An oiling plant is placed at this station for the use of Guards whose brake-vans have not been supplied with the necessary equipment.—W.N. No. 29/16.

Signals.—The following Instruction is reprinted from Victorian Weekly Notice for the guidance of S.A.R. Enginemen and Guards working to and from Serviceton:—

Engineer's Diagram No. 37/14, showing lines-of-way and all interlocked points and signals at Serviceton is effective, and Engineer's Diagram dated 12th June, 1894, and No. 30/12 is cancelled.

A copy of the new diagram, together with a copy of these particulars and instructions, must be kept available for perusal in every signal box, engine shed, office and room used by employes concerned, and in addition a copy of each must be furnished to every Enginedriver and Guard concerned. Attention is drawn to Regulation 8, clause (c), in this latter connection.

Employes concerned must make themselves familiar with the new diagram and these particulars and instructions. See the new diagram for the alterations to lines-of-way and fixed signals.

SERVICETON—continued.

PARTICULARS OF SIGNALS.

Semaphore Post No.	Particulars.
1	One arm, down distant signal from Melbourne.
2	Bracket Semaphore. Two arms on the bracket and two discs underneath the bracket. Left-hand arm, down home signal from the main line to No. 1 road, as far as post No. 7. Right-hand arm, down home signal from the main line to the loop road, as far as post No. 6 or post No. 7. Left-hand disc underneath bracket, from siding "A" to No. 1 road towards post No. 7. Right-hand disc, underneath bracket, from siding "A" to the loop road, towards post No. 6 or post No. 7, or to No. 4 siding. NOTE.—There is a point indicator attached to the facing points at the junction of the loop road and No. 4 siding.
3	One arm and a disc underneath the arm :— The arm, up home signal from No. 1 road to the main line. The disc, underneath the arm, from No. 1 road to siding "A."
4	One arm and a disc underneath the arm :— The arm, up home signal, from the loop road to the main line. The disc, underneath the arm, from the loop road to siding "A."
5	Disc on post, from No. 4 siding (shed road) to the main line, or to siding "A." NOTE.—There are catch points for outward traffic in No. 4 siding, ahead of post No. 5, and there is a point indicator attached to the facing points at entrance to siding "A."
6	One arm and two discs underneath the arm :— The arm, siding signal, from the loop road to the engine roads. Left-hand disc, underneath the arm, from the loop road to No. 2 siding. Right-hand disc, underneath the arm, from the loop road to No. 3 siding.
7	Bracket semaphore. Two arms on the bracket and an arm underneath the bracket :— Left-hand arm, home signal from No. 1 road to the main South Australian line. Right-hand arm, home signal, from the loop road to the main South Australian line. The arm, underneath the bracket, siding signal, from No. 1 road to the engine roads.
8	Two arms, siding signals :— Top arm, from No. 3 siding to the loop road, towards post No. 4. Bottom arm, from No. 2 siding to the loop road towards post No. 4. NOTE.—There are catch points in Nos. 2 and 3 sidings for outward traffic, ahead of post No. 8.
9	Two discs on post, up signals :— Left-hand disc, from the engine roads to the loop road, towards post No. 4. Right-hand disc, from the engine roads to No. 1 road, towards post No. 3. NOTE.—These are catch points for outwards traffic in the engine roads siding, ahead of post No. 9.
10	Bracket semaphore. Two arms. Home signals. Left-hand arm, from the main South Australian line to the loop road, as far as No. 4. Right-hand arm, from the main South Australian line to No. 1 road, as far as post No. 3.
11	One arm. Distant signal from the main South Australian line.

SERVICETON—continued.

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SERVICETON—continued.

WHISTLING SIGNALS.

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To or from Melbourne or Adelaide and No. 2 road	2	—	—
To or from No. 1 road and siding "A"	—	1	1
To or from No. 2 siding and siding "A"	—	2	1
To or from No. 3 siding and siding "A"	—	3	1
To or from No. 4 siding and siding "A"	—	4	1
To or from the engine roads and siding "A"	—	5	1
To or from No. 2 siding and the main line	—	2	—
To or from No. 3 siding and the main line	—	3	—
To or from No. 4 siding and the main line	—	4	—
To or from the engine roads and No. 1 road	1	1	—
To or from the engine roads and the loop road	2	1	—

—W.N. No. 2/15.

Turntable Signal.—A disc signal working in conjunction with the pawl lever on turntable is provided at Serviceton. It will show in the all-right position when the turntable is properly set, and when the turntable is not properly set to receive an engine it will show in the danger position.—W.N. 43/13.

MOUNT BARKER JUNCTION, MILANG, and VICTOR HARBOUR LINES.

MOUNT BARKER JUNCTION—

Loading Gauge.—When the loading in a vehicle on an up train is not definitely known to be within the limit, the vehicle must be run under the loading gauge for testing.—G.T.M., 5837/97.

Shunting.—Kicking off vehicles is forbidden.

MOUNT BARKER—

Engines on Triangle.—When an engine goes to the triangle to turn, the Stationmaster must deliver the electric staff to the Engineman. When the engine returns the staff must be handed to the Stationmaster.

PHILCOX HILL—

Shunting.—Kicking off vehicles is forbidden.

BUGLE RANGES—

Shunting.—Kicking off vehicles is forbidden.

GEMMELLS—

Shunting.—Kicking off vehicles is forbidden.

ELECTRIC STAFF WORKING—STRATHALBYN, FINNISS, AND MILANG—

When trains run direct between Strathalbyn and Finnis, or Finnis and Strathalbyn, the staff instruments at Sandergrange must not be used.

When a train is dispatched from Strathalbyn or Finnis to Sandergrange, to travel on the branch line to Milang, the Stationmaster at Strathalbyn or Finnis must first obtain an electric staff from his instrument in the usual manner. The electric staff taken out at Strathalbyn must be marked "Strathalbyn-Sandergrange," but the one taken out at Finnis will be marked "Strathalbyn-Finniss." This electric staff must be handed to the Engineman of the Milang train before he leaves Strathalbyn or Finnis Station.

On arrival of the Milang train at Sandergrange the engine must run round its train if necessary, and the Engineman must then stop outside the facing points leading to the Milang branch line. The Guard must then obtain the electric staff from the Engineman and place it in the staff drawer lock controlling these points. The train can then be admitted to the branch line. When this is done the points must be reset for the main line, and the electric staff withdrawn from the staff drawer lock and placed in the special staff instrument in the cabin at the facing points by the Guard, who must advise both Strathalbyn and Finnis by telephone that the electric staff has been placed in the instrument. The train must then be drawn up to the platform.

ELECTRIC STAFF WORKING—continued.

For an up train from Milang to Strathalbyn, or Finniss, the Guard on arrival at Sandergrove must advise the Stationmaster at Strathalbyn and Finniss on the telephone that his train is ready to enter the main line, and apply for permission for this to be done. If the condition of the traffic permit of this, the Stationmaster at both ends of the section must simultaneously hold down the staff bell keys to enable the Guard at Sandergrove to obtain an electric staff from the instrument at that station. When this electric staff has been obtained, the Guard must place it in the staff drawer lock, admit his train to the main line, and, when this has been done, remove the electric staff from the drawer lock and hand it to the Engineman of the train, who must proceed with it to Strathalbyn or Finniss, where it must be placed in the instrument in the usual way.—W.N. No. 20/14.

SANDERGROVE—

Correspondence for Permanent Way Gang.—All correspondence for Permanent Way Gang at Sandergrove, unless delivered to the Ganger *en route*, must be placed in the box provided on the platform.—W.N. No. 3/17.

CURRENCY CREEK—

Take-outs.—Goods must not be taken out at the passenger platform at Currency Creek. Instead, they must be placed in the goods shed (if entitled to the protection of a shed), or on the goods platform.—W.N. No. 39/12.

GOOLWA—

Engine Working.—Engines are not allowed to work on the wharf sidings at Goolwa.

VICTOR HARBOUR—

Jetty Trucks.—The jetty trucks belonging to the South Australian Harbors Board must not be used in the Railway Station Yard without the authority of the Goods Superintendent.

Trains Stopping at Platform.—Enginemen of all down passenger trains must keep a sharp lookout for a stop signal from the station staff so that the brakevan may be brought into position.—W.N. No. 50/13.

TAILEM BEND and PINNAROO and MURRAY LANDS LINES.

UNEVEN GRADES—

When passing over uneven grades, Enginemen working long trains must exercise every care in order to avoid damage to rolling stock.—W.N. No. 8/17.

RECORD OF VICTORIAN ROLLING STOCK—

Guards of all trains (express excepted) working to Serviceton or Pinnaroo must furnish the Stationmaster at the stations named with a list showing the No. and class of each Victorian vehicle on their train (Form T.R. 44). If there be no Victorian vehicles on the train a "Nil" return must be furnished.

The Stationmasters, Serviceton and Pinnaroo, must see that the forms are supplied by the Guards for each train working into or out of the station.—W.N. No. 27/15.

PINNAROO—

Loading (exceeding S.A. Gauge), on Vehicles from Victorian Stations.—All loading on vehicles reaching Pinnaroo from Victorian stations must be examined, and nothing in excess of the S.A. loading gauge must be shunted through the goods shed. Loading in excess of the S.A. loading gauge on vehicles from Victoria for Chandos or stations beyond must not go forward. Guards of up trains from Pinnaroo must not take forward loading in excess of the S.A. gauge unless they are furnished with written authority to do so.

KULDE—

Letter-box—

Guards of the up and down mixed trains must clear the letter-box and hand the letters over to the nearest Stationmaster in whose locality there is a post office, and that officer must post such letters or hand them to a postal official for immediate posting.

Any letters handed to the Guards for the residents near Kulde Station must be placed in this box by the Guards. All Guards must be particular to see that only such letters as are properly stamped are accepted.—W.N. No. 17/14.

KAROONDA—

Speed of Trains.—
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entering and leaving

ALAWOONA—

Triangle.—Owing to
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LOXTON—

Throw-off points are
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PARINGA—

Sitting of Roads.—All
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COPEVILLE—

Water Column.—The
Guards must take
and lock it again

KAROONDA—

Speed of Trains.—The speed of trains passing the refreshment rooms must not exceed 4 miles per hour, as, owing to the proximity of the line, there is great risk to passengers entering and leaving the rooms.—W.N. No. 42/17.

ALAWOONA—

Triangle.—Owing to the sharp curve on the triangle at Alawoona, the couplings on vehicles must be slackened before being shunted there, care being taken that in every case the couplings are again screwed up after the vehicles leave the triangle.—W.N. No. 39/14.

LOXTON—

Throw-off points are fixed on the Loco. Siding. They take the place of derailling blocks, and must be kept normally open for the protection of the main line.—W.N. No. 22/17.

PARINGA—

Setting of Roads.—At Paringa the switches on main line must, when not in use, be set and locked for the wharf line—not for the dead end.—G.T.M., 9623/13; W.N. No. 42/13.

COPEVILLE—

Water Column.—This column is secured by an "S" lock to prevent water being stolen. Guards must therefore promptly unlock the column so that Enginemen can take water, and lock it again after water has been taken.—W.N. No. 42/15.

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MINIMUM STRUCTURE DIAGRAM INFRINGEMENTS—

SHEEP RAMP—

- ## TRAVELLING CRANE—

- PORTABLE VEHICLE STEEL RAMPS—

BINNUM—

NARACOORTE—

Thomson & Co.'s Shed.—Vehicles with steps or footboards must not be shunted past Thomson and Co.'s shed on the "special" siding at Naracoorte.—G.T.M. 7355/08.

STRUAN—

COONAWARRA—

WANDILO—

1. Except when in use for shunting, the switches at both ends leading from No. 1 road to the goods siding must be kept set and locked for the Glencoe line.
2. All local traffic must be placed on the goods siding.
3. Guards attaching or detaching vehicles at the north end of the yard must be careful to unlock the Glencoe line switches before setting back.
4. As the grade on the three lines at this station falls towards Mount Gambier, care must be exercised during shunting operations to prevent vehicles running away.—G.T.M., 8820/106

Telephoning Train Arrival—

1. The Guards of all trains between Mount Gambier and the Glencoe line, or Mount Gambier and Wandilo only, or between Kalangadoo and the Glencoe line, or Kalangadoo and Wandilo only, must telephone their arrival at Wandilo to Mount Gambier and Kalangadoo.
2. The number, description, and time of arrival of train must be given, and particulars must be entered in the Train Record Books at Mount Gambier and Kalangadoo. An officer must be in attendance at both stations to receive the advices from the Guard at Wandilo.
3. The door of the telephone office is secured by an "S" lock

3. The door of the telephone office is secured by an "S" lock.

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Trucks for Jetty.—Eighteen trucks, working overtime, trucked the material back and placed it on the beach during the day. The trucks also have the brakes

MITCHELLS—

Shunting.—As there is a down grade at both ends of the yard at Mitchells, care must be exercised when shunting to prevent vehicles running away.—W.N. No. 47/10.

MOUNT GAMBIER—

Wehl and Bertha Street Crossings.—Trolleys or tricycles must not travel over these crossings at a speed exceeding 4 miles per hour, and Enginemmen must be careful to sound their whistles when approaching them.—G.T.M., 5478/99.

Telephoning Arrival and Departure of Trains.—The departure of all trains from Mount Gambier must be telephoned to the Signalman at Mount Gambier Junction, and the latter must obtain permission from the Stationmaster at Mount Gambier before pulling off the signals to admit any train. The Stationmaster, Mount Gambier, must be advised by Mount Gambier Junction of each train passing towards Mount Gambier, stating the description of the train.—G.T.M., 2848/05.

Infringements of Minimum Structure Gauge.—The wall of platform of Messrs. Webster and Company's shed infringes the minimum structure gauge, and, therefore, vehicles with steps and footboards must not be shunted past it.—W.N. No. 41/16.

COMPTON—

Letter Box.—A letter box is placed at this station, and must be cleared by the Guard of the up and down train daily.

SNUGGERY—

Letter Box.—A letter box is placed at this station and must be cleared by the Guard of the up and down train daily.—W.N. No. 19/11.

BEACHPORT—

Shunting—

1. Engines, carriages, bogie brakevans, sheep vans, and six-wheeled vehicles must not run on any part of French & Son's private siding at jetty end of goods shed.
2. Steel louvered vans (class V) and cattle vans (class K) must not enter Messrs. French and Son's store on the siding leading off the goods shed road.—G.T.M., 772/03 and 7895/03.

Jetty Working.—Except in connection with the loading and discharging of vessels working overtime, trucks must not remain on the jetty at night, but be brought to station and placed inside locked stopblocks by 6-0 p.m. Trucks not further required during the day must be returned at once to station. All trucks standing on the jetty must have the brakes pinned down.

LUCINDALE—

French's Siding.—Engines, carriages, bogie brakevans, sheep vans, and six-wheeled vehicles must not run on any part of French's private siding.

KINGSTON—

Working between Station and Loco. Yard.—The up and down signals for Kingston Loco. Yard are thrown out of use, leaving only the down home and down distant for the station yard. The small ground apparatus at the Loco. yard must be used only for working the main line switches, catch-point, and indicator, but the latter is not provided with a light. Light engines working between the station yard and Loco. yard must be in charge of a Traffic employé, who, before taking the engine on to the main line between the two yards (except for shunting purposes), must obtain permission to do so from the Stationmaster, the latter, before giving permission, to inform the person in charge of the engine if any trains be expected from Reedy Creek, so that proper precautions may be taken for safe working. The person in charge of the engine must work the switches leading to Loco. yard and leave them set and locked for the main line, and before any train is started from the station yard for any point beyond the Loco. yard toward Reedy Creek, the Stationmaster must ascertain from the person who last worked the Loco. yard switches whether they are set and locked for the main line.—G.T.M., 4457/02.

Trucks for Jetty.—Except in connection with the loading and discharging of vessels working overtime, trucks must not be allowed to remain on the jetty at night, but be brought back and placed inside locked stopblocks by 6-0 p.m. Trucks not further required during the day must be shunted back at once. All trucks standing on the jetty must have the brakes pinned down.

NORTHERN SYSTEM.

LATE RUNNING OF GOODS AND LIVESTOCK TRAINS—

When Goods or Livestock trains run late between Quorn and Terowie, telegraphic advice of time of departure must be sent as follows:—

From Quorn.—Stationmaster must advise District Loco. Superintendent Peterborough, Loco. Foreman Terowie, and Stationmasters Peterborough and Terowie.

From Terowie.—Stationmaster must advise the District Loco. Superintendents Peterborough and Quorn.

From Peterborough.—Stationmaster must advise the District Traffic and Loco. Superintendents Quorn.

These advices must be sent in addition to those required by the instructions under the heading "Trains Running Late."

HOOKS FOR BRAKEVANS—

A large hook is supplied each brakevan running on the Port Pirie and Cockburn lines to enable Guards to quickly drop truck brakes in the event of a train parting, or other emergency arising. Guards must see that this hook is in the brakevan before starting from Port Pirie, Peterborough or Cockburn, and must draw the attention of the Stationmaster to any instance of the hook not being provided.—C.M.E., 1987/08.

GREAT NORTHERN GOODS BRAKEVANS—

Goods brakevans with the letters G.N. (Great Northern) painted on the side are fitted with details for storing portable telephones, and should these vans work south of Quorn, they must be immediately returned to that station.

BICYCLES FOR USE OF SIGNALMEN ON COCKBURN AND PORT PIRIE LINES—

1. Bicycles are provided for the undermentioned stations on the Cockburn and Port Pirie lines for the convenience of the Staff when going from the station to admit trains, and for lighting and extinguishing signal lamps. These bicycles must not be used for any other purpose, except in case of emergency or accident.
2. The bicycles are fitted with Bushman tyres, i.e., tyres of extra thickness, and marked "Bushman," and such tyres must be kept fully blown up. It is essential this should be done for the purpose of preserving the tyre, which otherwise is likely to crack.
3. The stations supplied are Ucolta, Oodlawirra, Nantabibbie, Nackara, Paratoo, Yunta, Oulnina, Mannahill, Outalpa, Olary, McDonald's Hill, Mingary, Peterborough, Yongala, Belalie North, Jamestown, Caltowie, Huddlestone, Crystal Brook, and Warnertown.—G.T.M., 10089/08 and 11419/10.

Locking Facing Points.—At stations on Port Pirie-Cockburn lines all facing switches must be pinned and locked for approaching trains in accordance with the instructions in the Rule Book, irrespective of whether or not such switches are provided with stabbing apparatus controlling the home signal.—W.N. No. 4/16.

PETERBOROUGH—

Admitting Trains—

1. No train must be admitted into Peterborough Yard until a "permit signal" is given from the indicator signals by the Foreman Porter to the Porter in charge of the signals. These indicators are situated near the lamp room, and are composed of two ordinary 30ft. signals side by side.—G.T.M., 4280/09 and C.M.E., 1437/09.
2. These permit signals indicate to the Porter in charge of signals at each end of the yard that a train from Port Pirie, Quorn, Terowie, or Cockburn may be admitted to the station.
3. The Foreman Porter must see that the road is clear before the "permit signal" is given.
4. The Porter in charge of signals at each end of the yard must see that all the points are properly set and locked before lowering any signal to admit a train or engine.

PETERBOROUGH—

Admitting Trains—

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PETERBOROUGH—continued.

Admitting Trains—continued.

5. The indicating arms read as follows:—

When No. 1 Arm is "off," a train may be admitted from Quorn.

" 2	"	"	Port Pirie.	1 []	3
" 3	"	"	Terowie.		
" 4	"	"	Cockburn.	2 []	4

At night these indicators are provided with White and Green lights, the White to keep trains outside, the Green to admit them.

These indicators are for the use of the Station Staff only, and must not be observed by Enginemen or Guards.

Sheep and Cattle Yards Siding—

The signal protecting new crossover leading from Cockburn main line to the sheep and cattle yards siding, reads as follows, and must be observed accordingly:—

1. Down Stop Signal.—A one-armed signal, 15ft. high, on Enginemen's left hand, 10ft. in front of the main line points of the crossover, and 111yds. inside the up distant signal.
2. This signal will stand normally off, when the crossover points are set for the main line, and at danger when opened for the siding.—C.E., 3293/13.
3. An electric staff must not be taken out of the Ucolta electric staff holder at Peterborough unless the Signaller is in possession of the Annett's lock key.
4. "Line Clear" must not be given to Ucolta unless the Signaller at Peterborough is in possession of the Annett's lock key, and this key must not be out of the possession of the Signaller at Peterborough during the period an "up" staff is out of electric staff holder at Ucolta until replaced in the electric staff holder at Peterborough.
5. No shunting must be done on the main line between Peterborough Yard and the livestock siding unless the shunter is in possession of the Annett's lock key.
6. Before fouling the main line outside the up home signal, the Assistant Shunter must be stationed at the up distant signal with the regulation hand signals to protect the main line until the shunting operations have been completed, and the shunting engine brought within the protection of the up home signal.—W.N. Nos. 41 and 42/13.

Warning Boards—Mill Street Crossing.—Warning boards with the words "STOP—TRAIN COMING" are erected at each side of the Mill Street Crossing, and are operated by a ground lever placed near the cabin at the east end of the traffic yard. Before lowering any signal to permit a train to pass over this crossing the warning boards must be exhibited so as to notify the approach of a train. See also instructions in this Appendix under the heading "Warning Gongs."—W.N. No. 15/13.

Engines to and from Loco. Yard—

1. Engines from the east end of Traffic Yard to Loco. Yard must come to a stand opposite the passenger station, and only be advanced on the Engineman receiving instructions from the Foreman Porter, who must first obtain an "all right" signal from the Porter in charge of the west end of the yard that he is ready to receive the engine.—G.T.M., 806/07 and 4168/08.
2. The Porter in charge of the west end of yard must not send engines to the Loco. Yard if the signals are off for an approaching train from either the Port Pirie or Quorn line, or if the starting indicator be off for a train leaving for the Quorn line, or if the starting indicator be off for a train leaving for the Port Pirie line, from a siding that may cross or foul the road on which the light engine is going to Loco.
3. Engines from Loco. to Traffic yard must come to a stand west of the level crossing, and await instructions from the Porter in charge of the west end of the yard. If an engine proceed to the east end of the yard, it must stop opposite the passenger station, and only be advanced on the Engineman receiving instructions from the Foreman Porter, who must first obtain a signal from the Porter in charge of the east end of the yard that he is ready to receive the engine.
4. The "starting signal from the Loco. yard" must not be lowered for an engine or any vehicle to leave the Loco. for Traffic yard if the signals are off for a train coming from either Quorn or Port Pirie line; neither are the signals to be lowered for an approaching train from either the Quorn or Port Pirie line if the "starting signal from the Loco. yard" be off. Under no conditions must the signals for an approaching train and the "starting signal from the Loco. yard" be off at the same time.
5. The Porter in charge of west end of yard must see that the switches are properly laid and locked, and that the line is clear for the passage of an engine from Loco. to Traffic yard before lowering the "starting signal from Loco. yard."
6. The rules relating to home signals apply to the same extent to the "starting signal from Loco. yard."

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PETERBOROUGH—continued.

Engines to and from Loco. Yard—continued.

7. When an engine is brought out of Loco. yard to work from the west to the east end of the Traffic yard and comes to a stand behind a train, it must be placed buffer to buffer against such train, but not coupled up, so that in the event of the train having to set back there is no risk of a rear collision with the light engine.—G.T.M., 1266/08.
8. Enginemmen are equally responsible with the Porter for carrying out these instructions.

Starting Trains—

1. Indicator signals are erected at each end of the yard for the purpose of indicating to the Stationmaster, before starting trains, that the switches are properly set, and the road clear for outgoing trains, and are not to be regarded as starting signals.
2. At the west end of the yard one signal controls the Port Pirie line and is placed on the right-hand side of the Port Pirie main line. Another signal controls the Quorn line, and is placed on the right-hand side of the Quorn main line.
3. At the east end of the yard one signal placed on the right-hand side of the Terowie main line controls the Terowie line, and another signal placed on the right-hand side of Terowie main line, 8ft. north of starting indicator for Terowie line trains, controls the Cockburn line.—W.N. No. 44/12.
4. These signals are fitted with a red disc and a white board for day working, and red and green lights at night; and no train must be started in either direction until the red disc by day or red light by night is reversed, and the white board by day or green light by night is exhibited by the Porter in charge of either end of the yard, and the Stationmaster, before starting trains, must see that this signal is clearly shown by the Porter before he gives the Guard instructions to start. The signals must remain reversed, except in cases of emergency, until the whole of the train has passed. Guards must refuse to start trains if the signal is not clearly exhibited. The normal position of these signals is "danger."
5. The Porter who gives these signals must not do so until he is satisfied by personal observation that the facing points over which the train has to pass are properly laid and locked. The Porter at the east end of the yard must further satisfy himself by personal examination that the points leading from the Terowie main line to the Mill siding are properly locked before giving a signal that the road is correctly set for trains leaving Peterborough for Terowie.—G.T.M., 5653/01.

Releasing Engines.—Shunting engines and incoming train engines must be promptly released and sent to Loco. shed. Engines of mixed and goods trains from the Cockburn line must be released and sent to Loco. shed within 15 minutes after arrival of train, by the Porter in charge of the west end. If there be any delay beyond 15 minutes, an explanation must be given by the Porter to the Stationmaster.

Trains not to Run Through.—No train must pass through this station without stopping, unless special permission to do so be given by the Stationmaster.

Fly Shunting.—Fly shunting or kicking off to or from the Mill siding and Peterborough Station yard is strictly forbidden.

Carriages Fouling Platforms.—The 60ft. lavatory bogie carriages must not be shunted past the goods platforms.—W.N. No. 8/12.

Wash-out Sidings.—The points leading to these sidings are worked with an electric staff drawer lock. Before leaving Peterborough Station for these sidings the Engineman must obtain the Peterborough-Yongala staff, and must not start his train or engine from the sidings until he has received the staff back from the Guard.—W.N. No. 33/17.

PORT PIRIE—

Engines coming from Loco. Yards.—To go into Traffic yard engines must move to the scotch-block and whistle for the Porter—giving one whistle and a crow. Switches 10 and 27, connecting Traffic and Loco. yards, are fitted with point indicators.—C.M.E., 103/07.

Engines Working from the Baltic Wharf, Port Pirie, to the Railway Yard.—Engines or trains must not cross over Ellen Street from the Baltic Wharf to the Railway yard, or vice versa, until a Porter has gone ahead to see that the road is clear and given an "all right" signal to the Engineman.—G.T.M., 1207/01.

Engines Working on Wharves at Port Pirie—

Engines must not pass the first facing points on the Baltic wharf.

Engines must not pass the first facing points leading to the Federal and Queen's wharves, and must not work on the wharf frontages at the Railway wharf, nor inside the wharf on the Broken Hill Proprietary Co.'s wharf frontage.—W.N. No. 48/14.

PORT PIRIE—

Engines Working from the Railway Yard to the Port Pirie Wharf.—Engines must not pass the first facing points on the Baltic wharf.

Fly-shunting.—Fly shunting or kicking off to or from the Mill siding and Peterborough Station yard is strictly forbidden.

Releasing Engines.—Shunting engines and incoming train engines must be promptly released and sent to Loco. shed.

Trains not to Run Through.—No train must pass through this station without stopping, unless special permission to do so be given by the Stationmaster.

Wash-out Sidings.—The points leading to these sidings are worked with an electric staff drawer lock.

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PORT PIRIE—continued.

Engines Working from Ellen Street to Railway Yard.—Engines or trains must not enter the Railway yard from Ellen Street until the Shunter in charge has satisfied himself that the road is clear and the points properly set.—G.T.M., 1207/01.

Fly-shunting.—Fly-shunting between Ellen Street and sidings leading therefrom, and between Ellen Street and Port Pirie Station yard, and between Ellen Street and Baltic wharf is forbidden. The kicking-off of vehicles in Ellen Street between Port Pirie Station yard and Ellen Street Railway Station is forbidden.—W.N. No. 19/11.

Ringin Bell.—When an engine is pushing vehicles in the streets of Port Pirie the Shunter must ride on the leading vehicle and continually ring a bell, and in addition conspicuously display a white light at night time.—G.T.M., 1802/00.

Shunting at Refinery Siding.—At the B.H.P. Co.'s Refinery Siding, Port Pirie, a piece of sheet iron, 15in. x 15in., painted red, is secured on to the side of the shed about 8ft. from the ground. This mark must be used by Enginemen when pushing trucks into the siding, and with 20 ordinary trucks the funnel of the engine must not be past the signboard. The sign also acts as a guide that Enginemen can go safely up to it until the funnel be level with the sign when working engine first. The maximum load for a shunting engine into this siding is equal to 20 "C" wagons loaded with ore.—G.T.M., 13052/07.

Shunting Outside Yard.—Engine-shunting of wagons must not be done at Port Pirie outside the Railway yard, in the direction of Ellen Street, without the attendance of two Traffic men with the engine and trucks.—G.T.M., 500/07.

Shunting Engines at Loco. Shed—

1. When an engine is shunted from the north to the south end of the Loco. yard, or from the south to the north end, and it is not possible to do so through the Loco. Shed, the shunt must be made through the Traffic yard, under the guidance of a Porter.
2. The call for a Porter to make the shunt is one whistle and a crow. When this signal is given a Porter must be provided as quickly as possible.—C.M.E., 457/07.

Speed through Ellen Street.—The speed of trains through Ellen Street must not exceed six miles per hour.—W.N. No. 16/13.

Points in Ellen Street.—A Porter must attend in Ellen Street at the points leading from the main line to No. 2 road, opposite the Port Pirie Hotel, and no up or down train must proceed over these points without first receiving from this Porter a green flag by day and a green light by night. In addition to this signal a green flag by day and a green light by night must be signalled to down passenger and mixed trains approaching Ellen Street Station, if the line be clear, by a Porter stationed at the points opposite the Courthouse. In the absence of these signals the Engineman must stop his train.—W.N. No. 16/13.

Port Pirie Goods Yard.—All movements of engines in traffic in the Port Pirie goods yard must be conducted under the direction of a Traffic Shunter or Porter.—W.N. No. 16/13.

Shunters and others using sidings leading off the up loop line to Solomontown Station must, when shunting is completed, leave the road directly set for "Up Loop." This instruction does not relieve the man working as No. 2 in the yard from the responsibility of seeing that the points are correctly set when taking trains from Goods Yard to Solomontown, but is issued specially for the purpose of prohibiting the practice of leaving the points in position set for Cattle Yards and Wheat Sidings.—W.N. Nos. 38/17, 52/17.

Working between Solomontown, Ellen Street, and Port Pirie Goods Yard—

Down mixed trains must detach loading and up mixed trains attach loading at Solomontown. Unless otherwise directed a shunting engine must be used for the haulage of carriages and brakevans of passenger and mixed trains between Solomontown and Ellen Street.

The Solomontown Station yard extends to the down stop signal on the down loop line, and the up Port Pirie goods yard to the up stop signal on the up loop line.

Down trains to Port Pirie goods yard must not pass the down stop signal when at danger, except as provided for in the Rule Book. The down stop signal must be worked by the Staff at the Port Pirie goods yard, and must not be lowered unless the line is clear for the approaching train to enter the goods yard. Engines or vehicles being moved in the Port Pirie goods yard must not pass the up stop signal.

Up trains from Port Pirie goods yard must not pass the up stop signal when at danger, except as provided for in the Rule Book. The up stop signal must be worked by the Staff at Solomontown, and must not be lowered unless the line is clear to advance the train.

Before lowering the down home and distant signals at Solomontown for trains to Port Pirie goods yard, the Signaller must satisfy himself that the line is clear to the down stop signal.—C.E.R., 2260/13; W.N. No. 14/14, and 16/13.

Northern System.

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BELALIE NORTH—

Self-acting Switch Lever.—The special self-acting lever of the switches of the catch siding must be held back for the passage of trains on the main line, and the points automatically set themselves for the siding when released.—W.N. No. 29/15.

CALTOWIE—

Shunting.—Enginemen must not take their engines farther than one truck length beyond the stopblock on Messrs. Batten Bros.' and Mr. Both's sidings.—W.N. No. 4/12.

GLADSTONE—

Rail Siding.—The rail siding is connected with the Gladstone and Wilmington main line, and the points are secured by an "Annett's lock," the key of which is kept in the Stationmaster's office.

Train staffs must not be taken from the electric staff instruments at Gladstone or Laura unless the "Annett's key" is in its appointed place in the office; and the staff having been taken out to admit a train to the section, the key must not be removed from the office until the section is again clear, and the staff replaced in the instrument either at Gladstone or Laura.—W.N. No. 7/15.

CRYSTAL BROOK—

Fly-shunting.—Fly-shunting or kicking-off to or from the Mill Siding and Crystal Brook Station yard is strictly forbidden.

PARATOO—

Advising Peterborough of Up Loads.—Guards of up trains (express from Broken Hill excepted) must enter, in a book provided for the purpose, the number and destination of trucks attached to trains. The Signaller, Paratoo, must, immediately the train leaves, telephone this information to the Stationmaster, Yunta, who must at once wire it to the District Traffic Superintendent, Peterborough.—G.T.M., 477/89.

COCKBURN—

Starting Trains.—A signal must be given from the first facing points on the passenger siding that the road is properly set before any train is allowed to leave this station in the direction of Mingary, and the Stationmaster must see that this signal is given before authorising the Guard to start his train.—G.T.M., 602/01.

Instructions for Working Catch Siding.—The crossover road from the main line to the cattle siding must be used to conduct all shunting operations at the west end of Cockburn yard. Except when required for admitting and dispatching trains, the main line points on crossover road must be kept set and locked for the cattle siding. A point indicator is connected with these points, and is fixed 10ft. to the east of the main line points of the crossover road, and on the right of the Engineman of an up train, and when these points are set for the main line, the arm is at an angle of 45 degrees, and shows to the Engineman of an up train a green light when set for the main line, and a red light when set for the crossover. To the Engineman of a down train the indicator shows a red light when set for the main line, and a white light when set for the crossover.—W.N. No. 42/11.

Load between Cockburn and Burns.—As the working of trains between Cockburn and Burns is practically a shunt, Enginemen must take any load the Traffic Staff attach to engines, care being taken by the Traffic officials not to so overload a train as to cause any delay.—G.T.M., 2090/02.

Working between Cockburn and Burns.—The line between Cockburn and Burns Stations is worked on the absolute block, and no shunting of vehicles or engines from Burns Station or from Cockburn Station must be commenced on the main line, between the two stations, until the proper block signals have been exchanged and the line blocked as required by block rules, and both instruments must be kept at "train on line" until all shunting has ceased and the line is clear again.

Gantry Siding.—The points must always be kept locked for this siding, except when it is necessary to open the switches to allow engines to get to or from the Traffic Yard.—W.N. No. 22/17.

BLACK ROCK—

Platform Lamp.—The platform lamp (white light) erected at this siding must be lighted by the Caretaker at sunset on any date on which a train is advised or expected to pass between sunset and sunrise. The Guard of the last train passing the siding must put out the light. The Caretaker must oil, trim, and light the lamp in the evening. The light is intended as a guidance to trainmen in locating the proper position to stop their trains in the station yard, and care must be taken that the light is showing on every occasion when a train passes through at night.

ORROROO—

Triangle Working.—When an engine goes to the triangle to turn, the Stationmaster must deliver the electric staff to the Engineman. When the engine returns the staff must be handed to the Stationmaster.

WALLOWAY—

Platform Lamp.—The platform lamp (white light) erected at this siding must be lighted by the Caretaker at sunset on any date on which a train is advised or expected to pass between sunset and sunrise. The Guard of the last train passing the siding must put out the light. The Caretaker must oil, trim, and light the lamp in the evening. The light is intended as a guidance to trainmen in locating the proper position to stop their trains in the station yard, and care must be taken that the light is showing on every occasion when a train passes through at night.

MOOCKRA—

Platform Lamp.—The platform lamp (white light) erected at this siding must be lighted by the Caretaker at sunset on any date on which a train is advised or expected to pass between sunset and sunrise. The Guard of the last train passing the siding must put out the light. The Caretaker must oil, trim, and light the lamp in the evening. The light is intended as a guidance to trainmen in locating the proper position to stop their trains in the station yard, and care must be taken that the light is showing on every occasion when a train passes through at night.

KINGSWOOD—

Platform Lamp.—The platform lamp (white light) erected at this siding must be lighted by the Caretaker at sunset on any date on which a train is advised or expected to pass between sunset and sunrise. The Guard of the last train passing the siding must put out the light. The Caretaker must oil, trim, and light the lamp in the evening. The light is intended as a guidance to trainmen in locating the proper position to stop their trains in the station yard, and care must be taken that the light is showing on every occasion when a train passes through at night.

GREAT NORTHERN SYSTEM.

TRICYCLES FOR POST AND TELEGRAPH DEPARTMENT—

Tricycles are placed at Marree, William Creek, and Oodnadatta by the Postmaster-General for the use of his officers when repairing or inspecting the telegraph lines, and must not be used by them on any other occasion. For the purpose of working these tricycles, the Operators at the stations named are appointed Railway Officers.

If such Operator does not travel with the tricycle, a Porter or Permanent Way Man must be sent in charge of same, and the Post and Telegraph Department debited with his wages while absent in connection with telegraph work.

Before leaving a station the Operator or Railway Employé must obtain permission from the Stationmaster, and ascertain what, if any, trains are running on the section of the line which he intends to inspect or repair, and while absent on the line must telephone as often as possible to ascertain what other special trains have been arranged to run. The Stationmaster, Marree, William Creek, or Oodnadatta must advise the General Traffic Manager, through the Traffic Superintendent, Quorn, on each occasion when the tricycles are used, giving the mileage run, and stating whether the tricycle was sent out in charge of the Operator, Porter, or Permanent Way Man.—G.T.M., 4933/14.

COMPO. BOGIE BRAKE, WITH EMPLOYEES' SLEEPING VAN AND SECOND-CLASS PASSENGER ACCOMMODATION COMBINED—

1. When these vans are used as compo. brakes the mattresses and pillows must be removed and placed in a room at the Quorn Station.
2. When used for long distance livestock trains, or on short journeys, where the train is stabled over night at a station at which barracks are not provided, they must be supplied with mattresses and pillows for the use of the Loco. and Traffic Trainmen. Four bunks run longitudinally in each of these cars for the accommodation of the Loco. Trainmen, and one bunk runs transversely at the end for the accommodation of the Guards or Traffic Staff. The rights of employees of each department to the first call on the accommodation specified above must be rigidly adhered to, and passengers must not be carried in that portion of the vans. There is accommodation in second class compartment for eight drovers or other passengers, drovers to have preference.
3. The Travelling Staff must assist in maintaining the vehicles in a clean and sanitary condition. The compartments must be cleaned and swept out at the termination of each trip, and when necessary during the journey. Refuse, &c., must not be thrown out of windows, as such action causes damage to the varnish and otherwise disfigures the vehicle.
4. The equipment must (except as stated above) be kept in the vehicles, and employes using them must call the attention of the Stationmaster, Quorn, to anything wanting before leaving that station.—W.N. No. 44/10.
5. Under no circumstances must a stove be left burning in a van without some responsible person being in attendance.
6. In the event of fire, remove the extinguisher from its position (in the dining portion of the car), strike the injector from the bottom, or large end, on the floor of the van (that action will break a bottle within the receptacle, liberating the acid), take the extinguisher to the fire, and direct the stream coming from the small end at apex (or top) to the fire. The stream will play continuously for two minutes.
7. The Guard must see that the employes concerned carry out these instructions, and report any neglect of them on his Guard's Journal.
8. These vans must not be worked south of Quorn without the sanction of the Traffic Superintendent, Quorn.
9. The Stationmaster, Quorn, must see that the inside and the outside of these vans are washed and cleaned as often as necessary, and that they are fully equipped when leaving and on return to his station.—W.N. No. 41/13.

GREAT NORTHERN GOODS BRAKEVANS—

Goods brakevans with the letters G.N. painted on the side are fitted with details for storing portable telephones, and should these vans work south of Quorn, they must be immediately returned to that station.

SHUNTING SIDING

Unless by special arrangement between the parties concerned.

RATION SHEET

One K van for Way Goods to Marree times a week to replace

SALTIA—

Shunting—

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WOOLSHED FIVE

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Speeds.—Engines the siding

SHUNTING SIX-WHEELED BOGIE VEHICLES—

Unless by special instructions, six-wheeled bogie vehicles must not run north of Quorn, or between Quorn and Port Augusta.

RATION SHEEP FOR PERMANENT WAY GANGS—MARREE AND OODNADATTA—

One K van must be stationed at Marree for the carriage of ration sheep for Permanent Way Gangs between Marree and Oodnadatta. This van must be promptly returned to Marree after use, and the Stationmaster at this station must see that it is at all times available, or advise the Traffic Superintendent, Quorn, when it is necessary to replace it.

SALTIA—

Shunting—

1. Trucks from this station for up trains must be taken to Stirling, and there attached to up trains; and trucks on up trains for this siding must be taken to Woolshed Flat and there attached to down trains. Up trains must not do any shunting at Saltia.
2. Engines of up trains must not be detached at Saltia, and before being detached from down trains all brake levers must be dropped and the van brakes put hard on and secured by the chains.—G.T.M., 1630/02.

WOOLSHED FLAT—

Crossing Trains—

1. Up trains must go into the siding, and down trains continue on main line; after the down trains have left, the up trains must back out and then continue their journey on the main line.
2. The Guard of the up train, when stopping outside the points (Port Augusta end of yard), must see that his brake is hard on and secured by the chain and sufficient truck brakes dropped to hold the train on the down grade, before he goes ahead to set the points for the siding, again lifting the truck brakes as he returns to the brakevan.
3. When up trains are backed out on to the main line, after crossing a down train, the Guard must ride in the brakevan, and when the train is clear of the facing points put the brake hard on, secure it by the chains, and drop sufficient truck brakes to control the train; then lock the points for the main line and release the truck brakes as he returns to the brakevan.—C.M.E., 616/06.
4. When an engine is unable to start a down train from Woolshed Flat with a sufficient number of brake levers down to control it to Saltia, some of the levers must be lifted to allow the engine to draw ahead, after which the train must again be brought to a standstill just outside the switches, at a point from which the engine can again start the train with all necessary brake levers down to keep it under proper control.—C.M.E., 464/09.
5. When trains have to cross, the down trains must enter the yard at a speed not exceeding four (4) miles per hour.

QUORN—

Siding to Locomotive Sheds and Livestock Vehicles Washing-out Pit.—When vehicles are being pushed to any of these sidings the Shunter must ride on the leading vehicle so that he can see that the road is clear, and give the necessary stop signals. No engine or vehicle must be allowed to pass over catch points Nos. 28, 30 and 46, unless a responsible Traffic man be in attendance at them.

Vehicles on Main Line and Sidings.—These must have sufficient brake levers pinned down to prevent their running away. The balance weights must not be relied upon, and vehicles not provided with brakes must have the wheels spragged.—C.M.E., 839/03.

Shunting.—Four-wheeled vehicles must not be attached to bogie vehicles when shunting around curves leading into Water's and Milling Company's Sidings.—W.N. No. 2/12.

Speed.—Engines must not exceed a speed of eight (8) miles an hour when passing over the four crossovers between passenger station and goods shed, and one crossover from passenger station to main line. At these points there are curves of 6½ chs. radius.

WILLOCHRA—

Speeds.—Engines must not exceed a speed of eight (8) miles per hour when working between the siding and goods platform. At this point there is a curve of 6½ chs. radius.

Great Northern System.

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GORDON—

Speeds.—Engines must not exceed a speed of eight (8) miles per hour when working between the siding and the goods platform. Between these points there is a curve of $6\frac{1}{2}$ chs. radius.

WILSON—

Speeds.—Engines must not exceed a speed of eight (8) miles per hour when working between the siding and goods platform. Between these points there is a curve of $6\frac{1}{2}$ chs. radius.

HAWKER—

Cattle Siding Points off Main Line.—The points between the down distant and home signal leading from the main line to the cattle siding are provided with a special lock, the key being in the possession of the Stationmaster.

Speeds.—Engines must not exceed a speed of eight (8) miles per hour when working between the sidings to engine shed and turntable coal stage. At these points there is a curve of $6\frac{1}{2}$ chs. radius.

281½-MILES SIDING—

This siding is to be used when an engine is unable to haul its load over the Hookina Bank and the train has, therefore, to be divided. When the train is brought to a standstill the Guard must apply his hand brake, and also pin down the brakes of all vehicles standing on the main line; go back and protect his train in accordance with Rules. The Engineman and his Fireman must take the front portion of the train forward, place it in the siding at 281½ miles and return. The Engineman must then recall the Guard, take the rear portion of the train forward and attach it to the front portion. The Guard must hand an "S" key to the Engineman when the latter is taking forward the front portion of the train, and must also see that the points are properly locked for the main line before the train leaves the siding for Hawker.—W.N. No. 19/17.

MERN MERNA—

Speeds.—Engines must not exceed a speed of eight (8) miles per hour when working between the siding and goods platform. At this point there is a curve of $6\frac{1}{2}$ chs. radius.

Advice of Train Running.—Guards of up trains must advise Stationmasters, Quorn and Hawker, from Mern Merna by telephone, how their trains are running. The Loco. Superintendent must also be advised when the up trains are stock trains for any point south of Quorn.

Should either of these stations fail to answer the telephone call from Mern Merna, the Guard must request the other station to convey the message to the defaulting station, and report the irregularity on his Guard's sheet.—W.N. No. 49/17.

EDEOWIE—

Up trains must not, without permission from the Traffic Superintendent, be stopped to put out water at Edeowie cottages.

FARINA—

Speeds.—Engines must not exceed a speed of eight (8) miles per hour when working over the two crossovers between the goods shed and engine shed, on account of the curve of $6\frac{1}{2}$ chs. radius.

ALBERRIE CREEK—

Engines Watering.—When engines of down trains require water, the train must be stopped south of the bridge at 473½ miles, and remain there while the engine goes ahead for water.

WILLIAM CREEK—

Shunting.—The scotchblocks at the entrance to the triangle work in conjunction with the main line switches, and care must be taken when shunting from the main line to the triangle to see that the last vehicle is clear of the scotchblock before the main line switches are put back into their normal position.

TELEPHONE BLOCK SIGNALLING AT COWARD SPRINGS AND MOUNT DUTTON—

Guards, when signing the Permissive Block Books at Coward Springs and Mount Dutton, must endeavor to advise the Stationmasters, William Creek and Oodnadatta, respectively, by telephone the time their trains will leave Coward Springs and Mount Dutton.—W.N. No. 29/17.

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WESTERN SYSTEM.

TRANSIT OF LIVESTOCK—

In connection with the transit of livestock from stations without Resident Accounting Staff, a Weekly Notice (when necessary) is issued by the District Traffic Superintendent, Wallaroo, for livestock loading on Tuesdays, showing the trains to which it must be attached. In the absence of such advice, the first train passing the siding in the direction which the livestock is being consigned must attach the vehicles, and each Guard must satisfy himself that before leaving a siding any livestock for transit is attached to his train.—G.T.M., 759/03.

DUNN'S BRIDGE INFRINGING MINIMUM STRUCTURE GAUGE—

The ends of girders on Dunn's Bridge, between Balaklava and Blyth, infringe the minimum structure gauge. Guards must not open the doors of compartments of bogie brake-vans when their trains are near this bridge.—W.N. No. 2/13.

BALAKLAVA—

Shunting Brakevans.—When shunting a brakevan at Balaklava it must not be moved unless the Guard or a passed adult Porter is in it, and ready to apply the brake if necessary.—W.N. No. 18/15.

Passenger Trains Crossing.—When two passenger trains cross at Balaklava, the engine of the train last entering the yard must not pass the coaches of the standing train at a greater speed than five miles an hour.—W.N. No. 39/17.

HOYLETON—

Carriages Fouling Platforms.—The 60ft. lavatory bogie carriages must not be shunted past the goods platform.—W.N. No. 8/12.

BRINKWORTH—

Carriages Fouling Platforms.—The 60ft. lavatory bogie carriages must not be shunted past the goods platforms.—W.N. No. 8/12.

Passenger Trains Crossing.—When two passenger trains cross at Brinkworth, the engine of the train last entering the yard must not pass the coaches of the standing train at a greater speed than five miles an hour.—W.N. No. 39/17.

YACKA—

Ballast Siding, Method of Working.—

1. A facing point connection about 250yds. from the up main facing points on the Gulnare side of Yacka Station leading to the ballast siding is in use, and is worked as follows:—

2. The ground lever working the points is locked with an Annett's lock; the key is kept in possession of the Stationmaster at Yacka, who, when the key is out of his possession, must not accept a train from Gulnare or send one forward till it has been returned to him.—W.N. No. 24/11.

3. A point indicator is fixed on the Engineman's left hand, 10ft. from the facing points leading into the ballast siding and 8ft. 11in. from centre of line. It stands normally in the "off" position, reading as follows:—

When approaching from Yacka, and the points are set for the main line, the arm is at an angle of 45°, with a green light showing at night. When the points are set for the ballast siding, the arm is horizontal, with a red light showing at night.

When approaching in the opposite direction trailing, the arm when at an angle of 45° shows a red light, and when horizontal a white light.—W.N. No. 28/13.

4. Class "Y" and "Yx" engines may work into Yacka ballast pit either engine or tender first, as convenient, provided the boiler be kept fairly full of water.—W.N. No. 50/11.

5. Class "Y" engines must not haul more than 100 tons out of the ballast pit siding at one time, and class "Yx" 125 tons when running engine first, and 110 tons when running tender first, and in the event of an engine not being able to haul its full load out, the engine and trucks attached to it must return to the bottom of the siding, where as many loaded trucks must be detached as may be found necessary.—W.N. No. 3/12; C.E., 765/17.

GEORGETOWN—

Carriages Fouling Platforms.—The 60ft. lavatory bogie carriages must not be shunted past the goods platform.—W.N. No. 8/12.

SAINTS—

Carriages Fouling Platforms.—The 60ft. lavatory bogie carriages must not be shunted past the goods platform.—W.N. No. 8/12.

BOWMANS—

Carriages Fouling Platforms.—The 60ft. lavatory bogie carriages must not be shunted past the goods platform.—W.N., No. 8/12.

WALLAROO—

Town Hall Crossing.—The Porter working the down signals at the Wallaroo passenger station must see that the crossing is kept clear for trains approaching Wallaroo. For up trains leaving Wallaroo after sunset the passenger Porter must signal the Engineman with a green hand-signal that the crossing is clear.—G.T.M., 1955/02.

Institute Crossing.—The Porter working the up signals at Wallaroo passenger yard must see that the Institute Crossing is clear for trains approaching Wallaroo. For down trains leaving Wallaroo after sunset, the passenger Porter must signal the Engineman with a green hand-signal that the crossing is clear.

Detaching Vehicles on Old Main Line.—No vehicle or vehicles must be detached from any engine or train on the old main line, between the down distant signal and the up distant signal, until after the brakes on such vehicle or vehicles have been applied, and have been found to be effective.

Shunting on Private Sidings.—S.A.R. engines may work over, say, 30yds. to 25yds. of the Wallaroo and Moonta and the Paramatta Copper Co.'s private sidings when shunting, the manager of each Company having undertaken to keep the lines in good order to the satisfaction of the Chief Engineer.—G.T.M., 5618/07.

Speed of Shunt Engines.—A speed of four miles per hour must not be exceeded by shunting engines between the Wallaroo Railway Yard and the lines leading to the goods shed. After dark the speed must be reduced to a walking pace, and a sharp lookout kept by the Enginemen and Shunter to see that the Smelting Works engines are not approaching, and that vehicles are not fouling the road over which shunting is being performed.—G.T.M., 7860/06.

Speed Over Weighbridges.—The Traffic Staff must see that drivers of Smelting Works engines do not exceed the regulation speed over weighbridges.

Electric Lamps in Goods Yard.—In the goods yard the lamps must be kept alight at night during the progress of shunting operations.

Duties of the Porter at the Passenger Station—

1. Attend to signals for shunt engines and all main line trains.
2. See that all stopblocks are kept on and locked, and that all points are properly set and locked for the main line.

Goods Trains.—Engines hauling goods trains from Wallaroo to Wallaroo Mines must not work tender first.—C.M.E., 5293/12.

Shunting in Passenger Yard.—At the Moonta end of the Wallaroo passenger yard no shunt of more than 60 tons must be made from the yard sidings to the Moonta main line for a period of 15 minutes previous to the arrival of an up train.—W.N. No. 46/17.

Goods Yards.—All goods trains arriving at Wallaroo must come to a stop in the upper part of the goods yards, and not move towards the lower yard until a Shunter or Porter is on the engine. The Engineman must have his train under control ready to stop at any moment.—W.N. 26/17.

WALLAROO JETTY—

Acid.—Acids must not be removed from a ship's side unless loaded in a separate truck, or in a truck consigned to the Wallaroo Smelting Works. The shunting Porter must see that goods are safely loaded before removing them from the ship's side, and for obtaining receipts for goods delivered to the ship.—G.T.M., 1955/02.

Trucks on Jetty.—All trucks standing on the jetty over night must have the brakes pinned down. The Porter in charge of the shunting engine must secure trucks before leaving work.—G.T.M., 1955/02.

Working Ships.—No loaded or empty trucks must be shunted to or from any ship at the Wallaroo Jetty, nor must any overtime be worked, unless under instructions from the Traffic Superintendent, and after the usual shipping order has been given to the Stationmaster.—G.T.M., 1955/02.

MOONTA—

Tramcar Passing State School.—Drivers of Tramcars between East Moonta and Moonta, at times when the children of the East Moonta State School are about, especially at dinner-time, must travel at a walking pace when passing the school gate and also rounding the school corner.

Method of Working

1. Enginemen detach engines must assign
- 2 The Train also sets line lead
- 3 General—the Guard and unc takeouts

Grades and Curves except between and on the

Sleeping Car and passenger shunted vehicles, or

Speed.—When hour must

"S" Locks on by "S" locomotive, and

Coorn Cummo Moody

Dog-proof Gate Thevenard boards for distances

Warn Port I

Trains must stop after passing and secure Spare gates are gates run Staff. W.

MURAT BAY—

Goods must be taken to Murat Bay and dealt

EYRE PENINSULA SYSTEM.

Method of Working—

1. Enginemen must do all necessary shunting in the Loco. yard, Port Lincoln, attach and detach carriages and brakevan as required. The Traffic Staff, whenever available, must assist with this work.
2. The Traffic Staff takes charge and releases engines on stopblock on Loco. siding, and also sets all points in Port Lincoln yard and on jetty, including points on the main line leading to the Loco. yard.
3. General—Fireman Assisting Guard.—The Fireman must render all possible assistance to the Guard of the train when shunting at sidings outside Port Lincoln, in coupling and uncoupling trucks, picking up sheets and ropes, and also in dealing with takeouts and pickups.—C.M.E., 808/08.

Grades and Curves.—The ruling grade is 1 in 80, compensated. The ruling curve is 16chs., except between Port Lincoln Station and jetty, where there are curves of 8chs. radius, and on the jetty itself there is a curve of 5chs. radius.

Sleeping Car "Wandana."—Sleeping car "Wandana" must only work on the main line and passenger sidings throughout the Eyre Peninsula System. It must not be shunted when attached to four-wheeled vehicles, but only when attached to bogie vehicles, or to a locomotive alone.—C.M.E., 2003/17.

Speed.—When running over movable rail switches and crossings a speed of 5 miles per hour must not be exceeded.

"S" Locks on Water Columns.—The water columns at the following places are secured by "S" locks, and when engines require to take water the Fireman must unlock the column, and lock it again after water is taken:—

Coomunga	Wharminda	Warrambo	Chillundie
Cummins	Rudall	Yantanaby	Thevenard
Moody	Darke's Peak	Nunjikompita	

Dog-proof Gates.—Dog-proof gates, in line with the vermin-proof fences on the Cape Thevenard and Darke's Peak lines, are placed at the following mileages, and warning boards for the guidance of the Enginemen are placed on each side of the gates at the distances shown below:—

Cummins to Darke's Peak Line.

Warning board on Port Lincoln Side.	Gate at.	Warning board on Darke's Peak Side.
300yds. ..	84 miles 69 chains	350yds. ..
200yds. ..	67 miles 27 chains	400yds. ..
200yds. ..	121 miles 3 chains	300yds. ..

Minnipa to Cape Thevenard.

		Cape Thevenard Side.
200yds. ..	171 miles 8 chains	200yds. ..
200yds. ..	196 miles 60 chains	200yds. ..
200yds. ..	210 miles 23 chains	200yds. ..
200yds. ..	229 miles 13 chains	200yds. ..

Trains must stop at the gates, and the Fireman must open and secure them. Immediately after passing through the gates the train must be stopped, and the Guard must close and secure the gates.

Spare gates are stacked at each of the crossings, and should there be any mishap, and the gates run through, the damaged gate must be replaced immediately by the train Staff. W.N. Nos. 25/14, 30/14, 50/14.

MURAT BAY—

Goods must be detached from down trains at Ceduna, and shunted by the train engine to Murat Bay. Loading landed at Murat Bay, and also empty trucks, must be similarly dealt with by the engine of up trains on arrival at Ceduna.—W.N. No. 6/16.

General Instructions Regarding Maximum Speeds
Allowed on All Lines.

MAXIMUM SPEEDS ALLOWED.

1. In publishing the following schedule, showing the maximum speeds allowable for making up time, it is hereby provided that no alteration of the existing time table speeds is to be made without the consent of the Engineering Branch.

2. The schedule referred to is not in any way to be taken as the basis for average or ordinary running, but only for extraordinary or unusual occasions.

3. The speeds at which it may be quite safe to run under these extraordinary circumstances will, of necessity, be modified from those shown in the schedule by the class of rolling-stock in use, the known condition of the road due to temporary local imperfections, and the state of the weather. They are also modified by the instructions which have been or may be issued from time to time regarding certain parts of the line, as, for instance, in running through facing points and station yards.

4. The schedule, therefore, means—That the speeds therein named must not, under any circumstances, be exceeded, and that where they exceed the time table running they are to be approached only under stress of traffic requirements in making up lost time.—C.M.E., 1402/05

List of Maximum Speeds Allowable on Main Lines, 5ft. 3in. Gauge, for Light Engines or Passenger Trains with Screw Couplings, in Making Up Time, with Exceptions to Same, due to Gradients, Curves, and Character of Road.

NOTE.—For trains, containing ANY VEHICLE with LOOSE COUPLINGS, the maximum speeds given below, which exceed 20 miles per hour, must be REDUCED ONE-FOURTH.

Miles per Hour.	Locality.	Exceptions to Speeds given in first column.	Miles per Hour.
60	Adelaide	10 chain curve, crossover road from Port Line to North Line near Torrens Bridge	15
	Old Main Line	6 chain curve between Port Adelaide Station and St. Vincent Street	10
		St. Vincent Street	10
		7 chain curve between St. Vincent Street & Glanville From Grand Junction turnout to Port Adelaide (Commercial Road) Station	10
	New Main Line	Between new Railway Bridge over Port River and end of 10 chain curve at 8m. 5c.	25
		Between 8m. 5c. and Glanville	20
		Between Glanville and Semaphore	35
		Between Glanville and Semaphore	10
	Semaphore	Curve at Semaphore Road	30
	Glanville	All other curves	45
60	Outer Harbour	Port Road Crossing	15
	Woodville	On curve between 7m. 77c. and 8m. 16c.	5
	Grange	On curves between—	
30	Grange	8m. 17c. and 8m. 22c.	15
		8m. 74c. and 9m. 20c.	15
40	Henley Beach	10 chain curve from 0m. 49c. to 0m. 63c.	30
	Port Adelaide	On curve in Dry Creek Station Yard	20
40	Dry Creek	NOTE.—Facing points not interlocked; or when leaving or entering the Main line upon a crossover road whether interlocked or non-interlocked ..	15
	Dry Creek		
40	Abattoirs		

Miles per Hour.	Locality.
25	Abattoirs Northfield
10	Northfield Stookade
60	South Terowie
40	Glenelg Mile End
	Glenelg Adelaide
60	Terowie Salisbury
60	Long Plains

LIST of MAXIMUM SPEEDS, &c., 5ft. 3in. Gauge—*continued*.

Miles per Hour.	Locality.	Exceptions to Speeds given in first column.	Miles per Hour.
25	Abattoirs Northfield		
10	Northfield Stockade		
60	South Terrace	South Line Railway Crossing	20
	Glenelg	Through the streets of Glenelg, and St. Leonards....	10
40	Mile End	Through Mile End Junction	15
	Glenelg	Through the streets of Glenelg and St. Leonards....	10
	Adelaide	Crossover between Up and Down North and Up and Down Port Lines, near Torrens Bridge	15
		Over 39 points at Islington Works (for trains entering yard)	4
		Roseworthy Bank—Up goods or ballast trains	22
		Roseworthy—Up trains through facing points	15
		On curves between—	
		30m. 64c. and 31m. 0c.	45
		32m. 59c. and 33m. 7c.	
		44m. 62c. and 45m. 7c.	
		45m. 35c. and 45m. 74c.	
		45m. 78c. and 47m. 4c.	
		48m. 38c. and 48m. 57c.	
		48m. 62c. and 48m. 74c.	
		50m. 78c. and 51m. 8c.	
		53m. 16c. and 53m. 34c.	
		56m. 42c. and 56m. 55c.	
		60m. 29c. and 62m. 6c.	
		66m. 51c. and 70m. 33c.	
		72m. 48c. and 72m. 58c.	
		73m. 25c. and 73m. 55c.	
		94m. 70c. and 95m. 12c.	
		101m. 39c. and 101m. 76c.	
		104m. 79c. and 105m. 10c.	
		108m. 46c. and 109m. 1c.	
		112m. 1c. and 112m. 14c.	
		116m. 13c. and 116m. 30c.	
		119m. 74c. and 120m. 14c.	
		121m. 5c. and 121m. 23c.	
		126m. 9c. and 126m. 28c.	15
		127m. 65c. and 128m. 25c.	
	Terowie	Through Yarcowie Station	15
	Salisbury	On curves between—	
		12m. 47c. and 13m. 40c.	25
		37m. 36c. and 37m. 52c.	25
		46m. 39c. and 46m. 67c.	25
	Long Plains	NOTE.—Facing points not interlocked, or when leaving or entering the main line upon a crossover road, whether interlocked or non-interlocked....	15

allowable for making
speeds is to be made

average or ordinary

ordinary circumstances
of rolling-stock in
and the state of the
may be issued from
through facing points

must not, under any
ning they are to be
—C.M.E., 1402/05

Engines or Passenger
trains to Same, due to

imum speeds given
FOURTH.

column.	Miles per Hour.
at Line to	15
tion and St.	10
.....	10
Glanville	10
Adelaide	25
River and	20
.....	35
.....	10
.....	30
.....	45
.....	15
.....	5
.....	15
.....	15
.....	30
.....	20
or when crossover	15
locked ..	15

General Instructions.

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LIST of MAXIMUM SPEEDS, &c., 5ft. 3in. Gauge—continued.

Miles per Hour.	Locality.	Exceptions to Speeds given in first column.	Miles per Hour.		
50	Gawler	On curves between—			
		25m. 20c. and 26m. 58c.	25		
		26m. 68c. and 30m. 25c.	30		
		30m. 30c. and 30m. 77c.	25		
		31m. 29c. and 35m. 5c.	30		
		35m. 61c. and 36m. 76c.	25		
		38m. 64c. and 38m. 71c.	30		
		40m. 22c. and 40m. 38c.	25		
		43m. 7c. and 44m. 6c.	30		
		60	44m. 6c. } 44m. 6c. } Angaston Line	47m. 41c. and 48m. 13c.	25
49m. 66c. and 50 m. 59c.	25				
50m. 62c. and 51m. 34c.	15				
40	Nuriootpa	On curves between—			
		48m. 15c. and 48m. 32c.	20		
		52m. 45c. and 52m. 51c.	30		
		52m. 72c. and 53m. 3c.	20		
		53m. 31c. and 53m. 69c.	30		
		55m. 67c. and 56m. 1c.	30		
		57m. 15c. and 57m. 62c.	30		
		On curves between—			
		41m. 65c. and 42m. 59c.	30		
		42m. 70c. and 44m. 28c.	40		
50	Turoo Roseworthy	44m. 74c. and 46m. 46c.	30		
		48m. 0c. and 48m. 61c. (Kapunda) ..	10		
		49m. 35c. and 51m. 4c.	20		
		59m. 35c. and 59m. 42c.	40		
		65m. 78c. and 66m. 18c.	30		
		69m. 1c. and 70m. 5c.			
		104m. 26c. and 104m. 39c.			
		20	Morgan		
60	Robertstown Junction Robertstown Adelaide Mitcham Mitcham	South Line Junction	20		
		Glenelg Railway Crossing, Goodwood	20		
		On curves between 8m. 20c. and 8m. 50c.	20		
		Down trains through Belair	15		
		Through Stations or Junctions where there is a curve	15		
45	Balhannah 31 Miles 31 Miles 48½ Miles	Through Mount Barker Junction	20		
30		NOTE.—Facing points not interlocked; or when leaving or entering the main line upon a crossover road, whether interlocked or non-interlocked ...	15		

LIST

Miles. per Hour.	Local
50 {	48½ Miles 55 Miles
30 {	55 Miles 57½ Miles
50 {	57½ Miles Murray Bridge
	Murray Bridge
60 {	
	Serviceton
	Goodwood
0 {	
	Marino
{	Marino Willunga
	Mount Barker Jun
	Strathalbyn

continued.

LIST of MAXIMUM SPEEDS, &c., 5ft. 3in. Gauge—continued.

st column.	Miles per Hour.	Miles. per Hour.	Locality.	Exceptions to Speeds given in first column.	Miles per Hour.
.....	25	50	48½ Miles		
.....	30		55 Miles		
.....	25				
.....	30				
.....	25	30	55 Miles		
.....	30		57½ Miles		
.....	25				
.....	30				
.....	25	50	57½ Miles		
.....	30		Murray Bridge		
.....	25				
.....	15		Murray Bridge		
.....	20			Over Murray Bridge between the white boards ...	10
.....	30			On curves between—	
.....	20			60m. 73c. and 61m. 32c.	30
.....	30			61m. 35c. and 62m. 36c.	40
.....	30	60		183m. 13c. and 183m. 30c.	45
.....	30			Through Stations or Junctions where there are	
.....	30			reverse curves	15
.....	30			Wolsley—Through station	20
.....	10			Wolsley—Working to north side passenger platform	5
.....	30			Goods, mixed, or livestock trains between Murray	
.....	40			Bridge and Serviceton	35
.....	30		Serviceton		
.....	30		Goodwood	On curves between—	
.....	20			3m. 22-07c. and 3m. 43-53c.	30
.....	20	40		4m. 45-42c. and 4m. 60-88c.	
.....	20			5m. 02-58c. and 5m. 14-90c.	
.....	20			5m. 71-96c. and 6m. 04-51c.	
.....	20			6m. 55-05c. and 6m. 60-43c.	
.....	20			7m. 38-59c. and 7m. 46-35c.	
.....	20			8m. 07-29c. and 8m. 25-56c.	
.....	20			8m. 58-12c. and 8m. 67-05c.	
.....	20			9m. 05-15c. and 9m. 31-82c.	
.....	20			9m. 31-82c. and 9m. 77-66c.	
.....	20		Marino		
.....	15	30	Marino	On curves between 13m. 38c. and 14m. 7c.	20
.....	15		Willunga		
.....	15		Mount Barker Junction	On curves between—	
.....	15			31m. 27c. and 32m. 2c.	25
.....	15			33m. 5c. and 34m. 63c.	
.....	15			37m. 3c. and 47m. 64c.	
.....	15	40		Littlehampton—Passenger loop	10
.....	15			Mount Barker triangle—	
.....	15			34m. 10c., facing Littlehampton	15
.....	15			34m. 24c., facing Mount Barker	
.....	15		Strathalbyn		
.....	15			NOTE.—Facing points not interlocked, or when	
.....	15			leaving or entering the main line upon a crossover	
.....	15			road, whether interlocked or non-interlocked	15

General Instructions.

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LIST of MAXIMUM SPEEDS, &c., 5ft. 3in. Gauge—continued.

Miles per Hour.	Locality.	Exceptions to Speeds given in first column.	Miles per Hour.
60	Strathalbyn	On curves between—	
		51m. 3c. and 51m. 7c.	35
		63m. 7c. and 64m. 10c.	40
		67m. 49c. and 67m. 69c.	45
	Victor Harbour	On curves between—	
		70m. 28c. and 72m. 11c.	30
		77m. 75c. and 78m. 48c.	30
40	Sandergrove Milang	80m. 48c. and 81m. 64c.	35
		Facing points leading to sheep yard, 2c. east of down home signal	15
33	Tailom Bend		
		Through reverse curves at Moorlands and Lameroo. Between—	
		103m. 70ch. and 109m. 15ch.	15
		109m. 55ch. and 109m. 76ch.	
35	Pinnaroo Pinnaroo	115m. 13ch. and 115m. 30ch.	
20	Victorian Border Tailom Bend		
	Paringa	For mixed trains with class "D" and "H" engines	25
20	Karoonda		
	Waikerie Karoonda		
20	Peebinga Alawoona		
	Loxton	For mixed trains with class "D" and "H" engines	25
		NOTE—Facing points not interlocked, or when leaving or entering the main line upon a crossover road, whether interlocked or non-interlocked	15

List of Maximum
Time, withNOTE.—For LIGHT
Speeds
but not
under
35 miles

Miles per Hour.	Locality.
35	Wolsley
	Naracoorte
35	Naracoorte
	Mount Gambier
25	Naracoorte
	Kingston
20	Wandilo
	Glencoe
35	Mount Gambier
	Beachport
35	Hamley Bridge
	Moonta
35	Balaklava
	Gladstone

List of Maximum Speeds Allowable on Main Lines, 3ft. 6in. Gauge, for Trains in Making Up Time, with Exceptions to Same, due to Gradients, Curves, and Character of Road.

NOTE.—For LIGHT ENGINES; and Trains consisting solely of BOGIE VEHICLES, the Maximum Speeds given below, which exceed 15 miles per hour, may be increased by ONE-THIRD; but nothing herein authorises ENGINES of CLASSES W, Wx, Y, Yx, and T to exceed under any circumstances a speed of 30 miles per hour, or CLASS Z ENGINES a speed of 35 miles per hour, or such less speed as is prescribed in the following table.

Miles per Hour.	Locality.	Exceptions to Speeds given in first column.	Miles per Hour.
35	Wolsley	Wolsley—Working to North Side Passenger Platform	5
35	Naracoorte		
35	Naracoorte		
35	Mount Gambier	Wehl Street Crossing, Mount Gambier } 10	
35	Naracoorte	Bertha Street Crossing, Mount Gambier }	
25	Kingston	Agnes Street Crossing, Kingston } 10	
25	Kingston	James Street Crossing, Kingston }	
25	Kingston	Kingston Loco. Siding (292m. 23c.), facing Kingston	15
20	Wandilo		
20	Glenosce	Through points and crossings	10
35	Mount Gambier Junction		
35	Beachport		
35	Hamley Bridge	Short straights in Hummocks, at 92m. 31c. and 96m. 53c.	15
35		Curves in Hummocks between—	
35		93m. 65c. and 94m. 33c.	15
35		94m. 68c. and 95m. 43c.	15
35		96m. 11c. and 96m. 20c.	15
35	Moonta	Between reverse curves at 96m. 76c.	15
35	Moonta	On reverse curves between 123m. 62c. and 123m. 72c.	15
35	Balaklava		
35	Gladstone	Facing points, Yacka ballast pit	15
		NOTE.—Facing points not interlocked, or when leaving or entering the main line upon a crossover road, whether interlocked or non-interlocked ...	15
		W.N. 20/13.	

General Instructions.

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LIST of MAXIMUM SPEEDS, &c., 3ft. 6in. Gauge—continued.

Miles per Hour.	Locality.	Exceptions to Speeds given in first column.	Miles per Hour.
35	Kadina		
		On curves between Bute and 147½m.	20
30	Brinkworth		
	Terowie		
	Peterborough	Gumbowie station	15
30	Peterborough		
		When entering or passing through station yards (C.E.R., 3062/17).	15
	Quorn	On curves between— 183m. 55c. and 184m. 44c. 186m. 32c. and 186m. 43c. 187m. 57c. and 188m. 1c.	20
35	Peterborough		
	Yongala		
25	Yongala	On curves between 174m. 37c. and 174m. 51c.	20
	Jamestown		
35	Jamestown	On curves between— 187m. 39c. and 187m. 61c. 189m. 52c. and 189m. 78c. 191m. 40c. and 191m. 58c. 205m. 38c. and 205m. 58c. 205m. 74c. and 206m. 10c. 206m. 66c. and 207m. 03c. 207m. 06c. and 207m. 22c.	20
	Fort Pirie South		
30	Gladstone		
	Laura		
25	Laura	On curves between— 153m. 16c. and 153m. 48c. 154m. 77c. and 155m. 10c.	20
	Wilmington		
		NOTE.—Facing points not interlocked, or when leaving or entering the main line upon a crossover road, whether interlocked or non-interlocked.....	15

Guards, Signals
coming to their knowledge
is fixed in the above

During shunting
Traffic employed in
working, but a maximum
limit as may be prescribed
or local instruction for

LIST OF MAXIMUM SPEEDS, &c., 3ft. 6in. Gauge—continued.

Miles per Hour.	Locality.	Exceptions to Speeds given in first column.	Miles per Hour.
35	Peterborough		
35	Cockburn	Through all stations	15
30	Quorn	On curves between 238m. and 250m.	20
30	Port Augusta	Woolshed Flat—Curve at Quorn end of Station Yard	15
30	Quorn	When entering or passing through station yards (C.E.R., 3962/17).	15
30		Hawker—Crossover from Main Line to Passenger Siding at North end	15
30		On curves between—	
		282m. 20c. and 286m. 60c.	20
		300m. 20c. and 301m. 40c.	
		350m. 40c. and 358m. 0c.	
		359m. 0c. and 359m. 20c.	
		360m. 60c. and 361m. 40c.	
		364m. 20c. and 364m. 60c.	
		367m. 20c. and 368m. 40c.	
		Class Y engines must not make up time on this portion of the line	
35	397½ miles		
35	397½ Miles		
35	Oodnadatta	On all curves	30
20	Port Lincoln		
20	Cummins	Through movable rail points and crossings	5
20	Cummins		
20	Kimba		
20	Cummins		
20	Thevenard		
20	Yeelanna		
20	Mount Hope		
		NOTE.—Facing points not interlocked; or when leaving or entering the main line upon a crossover road, whether interlocked or non-interlocked.....	15

EXCEEDING AUTHORISED SPEED.

Guards, Signalmen, Gangers, and others concerned are specially instructed to report all cases coming to their knowledge of Enginemen exceeding the authorised speed at any place where it is fixed in the above instructions.

SPEED OF SHUNT ENGINES.

During shunting operations engines must travel at such speed as may be instructed by the Traffic employé in charge of the engine, who shall be guided by the requirements of safe working, but a maximum speed of 20 miles per hour must not be exceeded, nor such other speed limit as may be prescribed by the current Appendix to the Working Book, the Weekly Notice or local instruction for the time and place.—W.N., 44/15.

MAKING UP LOST TIME.

Lost time must not be made up in running between stations by the "Limited Mixed" trains on the Taillem Bend and Pinnaroo line and by the "mixed trains" on Taillem Bend and Paringa, Loxton, Waikerie and Peabinga lines.—W.N., 23/10.

The running schedules for passenger and goods trains shown in the Working Time Book are based on full sectional loads. Subject to the published speed limits and to restriction of speed over specified sections as advised from time to time, the Engineman must work his engine to the best advantage, and, under normal conditions, increase the speed of his train in proportion roughly as the load is reduced. That is to say, a train with one-tenth less than the sectional load over a section should occupy that section for less time than that specified in the schedule, according to the percentage reduction of the load and contour of the line. No train, must, however, leave or pass through any station before the time set forth for it to do so in the Working Time Table or Special Train Notice under which it is running, except as provided for under the heading "Trains running before booked time." The Guard must inform the Engineman as to the number of vehicles or the tonnage of his train, according to the authorised method of computing the load at the starting, and at each station *en route* where an alteration of the load is made.—W.N. 47/14.

General In
Pas

s by the "Limited Mixed",
"trains" on Tailern Bend

n the Working Time Book
uts and to restriction of speed
must work his engine to the
of his train in proportion
nth less than the sectional
t specified in the schedule,
the line. No train, must,
for it to do so in the Working
cept as provided for under
ust inform the Engineman
the authorised method of
where an alteration of the

General Instructions relating to Working of Passenger and Goods Vehicles.

DESIGNATION ON VEHICLES FITTED WITH WESTINGHOUSE BRAKE.

All vehicles fitted with the Westinghouse brake complete carry a designation mark, thus \oplus .—C.M.E., 1656/17.

All vehicles fitted with air brake pipes only carry a designation mark thus \square .—C.M.E., 1656/17.

WORKING VEHICLES ON SOUTH LINE.

PASSENGER TRAINS.

1. Between *Adelaide, Murray Bridge, and Strathalbyn*, vehicles (South Australian or Victorian) with six wheels, rigid wheel base, and four-wheeled vehicles with a longer rigid wheel base than 11ft. 6in. must not run. (See also clause 5.)

2. Goods and livestock vehicles and horse boxes must not be attached to the express trains between Adelaide and Serviceton unless specially authorised by the Passenger Superintendent. When this authority is given the position of the vehicle on the train must be specified.

3. *South Australian Vehicles*.—Passenger vehicles marked X under the number must not run beyond Mitcham. (See also instructions under the heading "Carriages marked X".) Only goods and livestock vehicles marked N on each side are allowed to work on the Southern system beyond Mitcham. (See also instructions under the heading "Trucks for the Southern System and Willunga Line" and "Hopper Trucks Broad Gauge".)

4. Only goods and livestock vehicles fitted with screw couplings and either equipped with the Westinghouse air brake complete, or piped for the same, are allowed to run on passenger trains (express excepted, see clause 2) between Adelaide, Serviceton, and Strathalbyn, but not more than two (2) vehicles fitted only with the Westinghouse air brake pipes must be attached to any one train. (See also instructions under the heading "Marshalling of Mixed, Goods, and Livestock Trains".)

5. *Victorian Vehicles*.—Victorian vehicles must not be allowed to run into South Australia beyond Wolsley and Pinnaroo unless fitted with the Westinghouse air brake complete. (See also clause 1.)

GOODS TRAINS.

6. Between *Adelaide, Murray Bridge, and Strathalbyn*, vehicles (South Australian or Victorian) with six wheels, rigid wheel base, and four-wheeled vehicles with a longer rigid wheel base than 11ft. 6in. must not run. (See also clause 8.)

7. *South Australian Vehicles*.—Only goods and livestock vehicles marked N on each side are allowed to work on the Southern System beyond Mitcham. (See also instruction under the heading "Trucks for Southern System and Willunga Line" and "Hopper Trucks Broad Gauge".) Passenger vehicles marked X under the number must not run beyond Mitcham. (See also instruction under the heading "Carriages Marked X".)

8. *Victorian Vehicles*.—Victorian vehicles must not be allowed to run beyond Wolsley and Pinnaroo unless fitted with the Westinghouse air brake complete. If Victorian vehicles not so fitted reach Wolsley or Pinnaroo loaded with goods, the Stationmasters at those places must see that the contents are promptly transferred and the trucks returned to Victoria. (See also clause 6.)—C.M.E., 1656/17.

LINES ON WHICH VEHICLES FITTED WITH THE WESTINGHOUSE BRAKE MUST WORK.

Only vehicles fitted with the Westinghouse air brake complete must be forwarded to—(See also instruction in this book under the heading "Working Vehicles on South Line".)

- (a) Mount Lofty.
- (b) Stations on the Murray Lands and Pinnaroo lines.
- (c) Yumali.
- (d) Stations in Victoria.

NOTE.—Between Brighton and Willunga inclusive, only vehicles fitted with the Westinghouse air brake complete must work on passenger and mixed trains.—W.N. Nos. 4/15, 36/15, 41/17.

TRUCKS FOR TRAFFIC CONSIGNED TO VICTORIA.

As far as practicable, trucks of the "X," "Y," and "Yr" classes on the broad-gauge lines must be used for traffic consigned to any station in Victoria, but particularly for stations beyond Dimboola on the Serviceton-Melbourne line, and beyond Ouyen, for traffic consigned via Pinnaroo.

Trucks of the "J" and "G" classes must not be used for this traffic if trucks of the "X" "Y," and "Yr" classes be available.

VEHICLES.

MUST NOT RUN ON THE WILLUNGA

S. from one station to another to the other, such waybill must give definite orders enable them to act on this

tion "sleeping cars must not be shunted through goods sheds.—

platform into the vestibuled with the chains provided other vestibuled vehicles, or before the train is shunted after

must not be used to form a train these sleeping cars are fastened to the hand rails in the two vehicles.—C.M.E.,

TRUCK VEHICLES.

g on the Melbourne express

Carrying Capacity.

1	....	20	passengers
2	....	20	"
2	....	20	"
1	....	19	"
3	....	48	"
0	....	48	"
0	....	48	"
0	....	72	"
0	....	72	"
0	....	72	"
0	....	15	tons
2	....	20	"
0	....	15	"
2	....	15	"
2	....	20	passengers
2	....	20	"
2	....	20	"
2	....	19	"
3	....	48	"
0	....	48	"
2	....	48	"
0	....	72	"
0	....	72	"
0	....	72	"
0	....	15	tons
1	....	20	"
1	....	15	"
3	....	15	"

on the Melbourne express

General Instructions.

66

Class "Yx" trucks should be used for agricultural machinery, set up, and for any large or heavy machines, and also for large or heavy vehicles, particularly for stations not provided with cranes, that is, if the machine or vehicle can be loaded into and removed through the doors. If this be not practicable, class "J" trucks must be used.

For stations provided with cranes, classes "Y" or "Yx" trucks must be used, but class "X" trucks must not be used for articles requiring the use of cranes.

"Yx" trucks must not be used for traffic consigned to Ballarat or Ballarat East, Victoria.—W.N. No. 36/17.

LOCKING BRAKEVANS OF MELBOURNE EXPRESS.

On the C.E. vans on the Melbourne express the trailing end door and the two rearmost side doors on each side (platform and pit) must be locked by means of the Yale padlocks, hasps and staples. Each lock is numbered as under, and five (5) locks are supplied for each van—

Adelaide express C.E. No. 1	— Locks Nos. 11, 12, 13, 14, and 15
" " C.E. No. 3	" " 21, 22, 23, 24, and 25
Melbourne spare C.E. No. 4	" " 26, 27, 28, 29, and 30
Adelaide " C.E. No. 2	" " 16, 17, 18, 19, and 20

The locks must be secured at starting point of train in each instance, after which only the Guard (who will hold keys) will be able to open these doors. Spare keys must, however, be held at Adelaide, Serviceton, and Melbourne for use in emergency.

The keys are common to all the above locks.—W.N. 20/10.

DESIGNATION OF VICTORIAN PASSENGER ROLLING-STOCK.

The signification in detail of the designation of Victorian bogie and fixed wheel base passenger rolling-stock is as shown hereunder, viz. :—

A	Large letter	To denote first class bogie car of all lengths
B	Large letter	To denote second class bogie car of all lengths
C	Large letter	To denote bogie van of all lengths
D	Large letter	To denote bulk mail van
D S	Large letters	To denote mail sorting van
E	Small letter placed after class letter	To denote express and other 71ft. cars (and 60ft. vans) with vestibules and corridor
F	Large letter	To denote fixed wheel-base horsebox (6-stall)
F F	Large letters	To denote bogie horsebox (12-stall)
H	Small letter	To denote holiday car or van
J	Large letter	To denote fixed wheel-base hearse truck
L	Small letter placed after class letter	To denote corridor with lavatories, but without vestibule
N	Large letter placed before class letter	To denote narrow gauge
P	Small letter placed after class letter	To denote central passage way, but without vestibule and lavatories
V	Small letter placed after class letter	To denote vestibules and corridor on other than 51ft. and 71ft. cars
W	Large letter	To denote fixed wheel base workmen's sleeping car
W	Small letter placed after class letter	To denote vestibule (or corridor) lavatory car, 58ft. long, and vestibule vans 50ft. long
W W	Large letters	To denote bogie workmen's sleeping car
X	Large letter	To denote first class fixed wheel-base car
Y	Large letter	To denote second class fixed wheel-base car
Z	Large letter	To denote fixed wheel-base van—W.N., 45/10.

RETURNING VICTORIAN ROLLING-STOCK.

All Victorian Rolling Stock must be returned as quickly as possible, either via Pinnaroo or via Serviceton, in order to save demurrage charges.

BROAD-GAUGE SLEEPING CARS AND SIX-WHEELED BOGIE PASSENGER CARRIAGES.

Sleeping cars and six-wheeled bogie passenger carriages must only be worked to and from Islington Works by special engine or a passenger train, and not attached to a goods train.

These cars must not be run on goods trains between Adelaide and Murray Bridge without the authority of the Passenger Superintendent.—C.M.E., 1241/04.

Joint stock brake
No. 34/17.

NARROW-GAUGE.

Sleeping cars "B"
departmental car "B"
the Northern, Great N

Sleeping car "M"
throughout the South.

The above-mentioned
attached to four-wheeled
8/12, 43/13, 18/15.

Victorian bogie h
roof lamps are in position

The weeding machine
are not allowed to pass

When a mortuary
brakevan, provided the
must be placed immediately

The engine bogie train
or empty, to be regarded
livestock and perishable
depot or transfer station
to attach or detach h this

The engine bogie train
25/13.

1. When a vehicle is
Examiner. If it be a car
the nearest Traffic Office

2. When a vehicle is
lettered "For Repairs,"
the label by the Examiner

3. No unauthorised

4. After a vehicle has
traffic until a Train Examiner
certified that it is fit to run

5. When repairs require
allow such vehicle to go
Repairs to be sent or

empty to a depot, the word
loaded, the word "empty"
depot the vehicle is to be

6. When a vehicle is
such card to the Station
forwarded, loaded or empty

In the event of the vehicle
Card for Repairs." In a
Stationmaster, who must

Train Examiner must stamp

7. In every case in
waybill (Form 24A), on w
Card for Repairs," must

JOINT STOCK BRAKEVANS.

Joint stock brakevans must not be shunted through the doorways of goods sheds.—W.N. No. 34/17.

NARROW-GAUGE SLEEPING CARS AND SECOND CLASS CARRIAGES.

Sleeping cars "Alberga," "Coonatta," "Nilpena," "Yanyarrie," and "Vanilla," and departmental car "Baroota" must only work on the main line and passenger sidings throughout the Northern, Great Northern, and Western Divisions.

Sleeping car "Morambro" must only work on the main line and passenger sidings throughout the South-Eastern Division.

The above-mentioned cars, and also second class carriages Nos. 113 and 114 must not be attached to four-wheeled vehicles, but only to bogie vehicles or a locomotive alone.—W.N. Nos. 8/12, 43/13, 18/15.

VICTORIAN BOGIE HORSE BOXES.

Victorian bogie horse boxes, class FF must not be shunted through any goods shed whilst roof lamps are in position.—G.T.M., 533/09.

WEEDING MACHINE—BROAD GAUGE.

The weeding machine will not clear any permanent structure which vehicles with footboards are not allowed to pass.—G.T.M., 3587/03.

MORTUARY CARS.

When a mortuary car is attached to a passenger train it must be placed at the rear of the brakevan, provided the Westinghouse air brake is in operation on the car, otherwise this car must be placed immediately in front of the brakevan.—W.N. 32/11.

ENGINE BOGIE TRUCK.

The engine bogie truck (used for the conveyance of narrow-gauge engines) is, whether loaded or empty, to be regarded as "Urgent" traffic and to have preference over all other loading—livestock and perishables excepted. It must be forwarded by the first train from the dispatching depot or transfer station. If necessary, a train not booked to stop may be stopped at Islington to attach or detach this truck.

The engine bogie truck must always be placed next to and in front of the brakevan.—W.N. 25/13.

FLAGGING VEHICLES FOR REPAIRS.

1. When a vehicle is not fit for traffic, it must be flagged with a red metal flag by the Train Examiner. If it be a carriage or brakevan, the Examiner must, in addition to flagging it, advise the nearest Traffic Officer in writing that it is unfit for traffic.—G.T.M., 4087/08.

2. When a vehicle requires repairs, but is fit to run, it must be labelled with a green card lettered "For Repairs," and sent to the nearest Loco. repairing depot, which must be indicated on the label by the Examiner.

3. No unauthorised employee must remove flag or label.

4. After a vehicle has been derailed, or has sustained damage, it must not be again put into traffic until a Train Examiner, or other representative of the Locomotive Department, has certified that it is fit to run.

5. When 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 card "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 Examiner to indicate on the label which depot the vehicle is to be sent or returned for repairs.

6. When a vehicle is labelled with a green card, the Train Examiner must hand a copy of such card to the Stationmaster, 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 indorsed with the words "Green Card for Repairs." In all cases a duplicate card must be handed by the Train Examiner to the Stationmaster, who must forward it to the station to which the loaded vehicle is going. The Train Examiner must state on the card the repairs required, and sign his name.

7. In every case in which a vehicle with a green card is sent empty, an O.S. consignment waybill (Form 24A), on which must appear the number of such vehicle and the entry "Green Card for Repairs," must accompany it.

General Instructions.

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8. When flagging electrically lit vehicles for repairs the Loco. Examiner must promptly send a duplicate copy of the form of advice as under:—

Broad Gauge—Foreman, Car Lighting Department, Adelaide.

Northern Narrow Gauge—Leading Electrical Fitter, Peterborough.

South-Eastern Narrow Gauge—Electrical Fitter, Car Lighting Department, Mount Gambier.

Port Lincoln Lines—Locomotive Foreman, Port Lincoln.

9. When repairs are being effected the Examiner must protect himself and other members of the Staff by placing a red bunting flag in the most conspicuous place on the vehicle. This flag must not be removed by any other person than the employee who placed it in position.—C.M.E., 4904/16.

Samples of Cards.

FOR REPAIRS.

To
No. of Vehicle
Repairs required
Marked off by

Train Examiner.

Date

Station

These cards are supplied by Loco. Department.

FOR REPAIRS.

To be sent or returned { Loaded
Empty

To
No. of Vehicle
Repairs required
Marked off by

Train Examiner.

Date

Station

LOUVRED VANS.

These are run for the carriage of fruit, vegetables, and other perishable produce only, and under no circumstances must hides, skins, tallow, fat, or other objectionable matter be placed in them, even on the return journey.—G.T.M., 1721/06.

On broad-gauge lines these vans must be returned by first goods train to Stationmaster, Mile End, loaded or empty. The loading must be limited to sundries and perishables. The vans must have preference over all other loading, livestock excepted, unless instructions to the contrary are given by the Goods Superintendent. The load in louvre vans attached to the down passenger trains between Murray Bridge and Serviceton and Adelaide and Terowie must not exceed 4 tons.—W.N., 46/11, 38/15.

The Overseer, Carriage Cleaners, Adelaide, must see that louvered vans working on passenger trains are cleaned, washed, and disinfected. The Stationmaster, Mile End, must similarly attend to louvered vans working on goods and livestock trains.—W.N., 41/10.

TWIN GOODS BRAKEVANS, BROAD GAUGE.

When two broad-gauge four-wheeled goods brakevans are coupled together, with the screws next each other, so that the brakes in the two vans can be manipulated by one Guard, they must be always so worked on trains and under no circumstances separated.—G.T.M., 10234/07.

DAMAGING ROLLING-STOCK.

The fixed side lights on the end of brakevans, fitted with electric light, must not be used as steps by Porters and Shunters in connection with shunting operations.—W.N., 21/11.

The staff must not climb up the sides of carriages nor jump from the hood of one carriage to another.

SIX-WHEELED BRAKEVANS—BROAD GAUGE.

Six-wheeled brakevans must not work on any broad gauge express passenger trains (suburban lines excepted), either as train brakes or as spares.—W.N., 6/12.

These vans must not be worked as train brakes on North line goods trains (except the down produce train and the corresponding up train).—W.N., 28/12.

BOGIE HORSE-BOXES.

Bogie horse-boxes must not be used as brakevans except in cases of extreme emergency, or when on a special horse train they may save the running of a brakevan if the train be loaded to limit.—W.N., 32/15.

The screw brakes in bogie horse-boxes are secured by a chain locked with an S lock, and Guards who work these horse-boxes as brakes to their trains must unlock the S lock; and after completion of the journey, release the brake and make it secure again with the S lock. These horse-boxes must not be "kicked off" or "fly shunted" without a vehicle with a brake attached.—W.N., 35/13.

The folding discs on Rule Book, and when not G.T.M., 134/1900.

GOODS

Hides, skins, fat, and brakevans.—W.N., 25/11.

TRUCKS FOR

Only wagons MARKED BEYOND Mitcham and on Hopper Trucks, Broad G

1. Hoppers not marked QUARRIES if limited to 10
2. When class L hoppers low buffers must be placed

CLAS

These trucks must not

MAXIM

The gross weight of trucks 11lbs. to the yard must not The rails mentioned are Murray Lands line, Tailem Bend and Sandergrove and Port Broughton and Port Augusta and Between Laura and W 6 tons per axle, but between —W.N. No. 40/17.

The special attention must be called to this regulation.

AU

The ratio of maximum rails 1 to 5, and for iron ra

LOADING OF

Loading must not pro 30/11.

Hot boxes on vehicles is discovered at a station attended to by the Examiner

To cool a hot box the cap pad removed with the hook from the inside of the box cleaned. The box must be too suddenly with cold water axle box and run warm water. When sufficiently cooled down oil through the filling plug with the spanner.

Sometimes the box can pad and more oil, or by an

If the vehicle with the l ditions permit, i.e., if there

If it be necessary to obt to the nearest station in adv can arrange for the Examiner

FOLDING DISCS ON BRAKEVANS.

The folding discs on brakevans must be used in accordance with the instructions in the Rule Book, and when not required must be folded up and fastened in the manner provided.—G.T.M., 134/1909.

GOODS OF AN OFFENSIVE NATURE IN BRAKEVAN.

Hides, skins, fat, and tallow, and any goods of an offensive nature must not be loaded in brakevans.—W.N., 25/11.

TRUCKS FOR SOUTHERN SYSTEM AND WILLUNGA LINE.

Only wagons MARKED "N" ON EACH SIDE are allowed to work on the Southern System BEYOND Mitcham and on the Willunga line BEYOND Brighton. See also instruction headed "Hopper Trucks, Broad Gauge."—C.M.E., 3825/1909; W.N., 4/15.

HOPPER TRUCKS, BROAD GAUGE.

1. Hoppers not marked N may work as far as SCHWEBERLT'S AND SLEEP'S HILL QUARRIES if limited to 10 per train and empty on the down journey.
2. When class L hopper trucks are worked on a train an intermediate vehicle with fairly low buffers must be placed next the engine and next the brakevan.

CLASSES X, Y, AND Yy TRUCKS (BROAD GAUGE).

These trucks must not work on any jetty at Victor Harbor.

MAXIMUM WEIGHT IN VEHICLES, LIGHT LINES.

The gross weight of trucks when running over lines laid with rails which weigh not more than 11lbs. to the yard must not exceed 8 tons per axle.

The rails mentioned are laid for the following lines, viz. :—

Murray Lands lines	All Eyre Peninsula lines
Tallem Bend and Pinnaroo	Wolseley and Naracoorte
Sundergrove and Milang	Naracoorte and Kingston
Port Broughton and Mundooro Tramway	Mount Gambier and Beachport
Port Augusta and Marree	Wandilo and Glencoe line

Between Laura and Wilmington the load for vehicles must not exceed a gross tonnage of 6 tons per axle, but between Laura and Gladstone the gross tonnage allowed is 10 tons per axle.—W.N. No. 40/17.

The special attention of consignors loading wheat at stations without Resident Staff should be called to this regulation.

AUTHORISED MAXIMUM AXLE LOAD.

The ratio of maximum load per axle in tons to the weight of rail in pounds must be for steel rails 1 to 5, and for iron rails 1 to 6.—R.C., 2161/91.

LOADING OF X, Y, AND Yy CLASS WAGONS (BROAD GAUGE).

Loading must not project over the sides of wagons of the X, Y and Yy class.—W. N., 30/11.

HOT BOXES.

Hot boxes on vehicles on trains must be attended to by Guards, unless the hot box is discovered at a station at which there is a Loco. Examiner, in which case the box must be attended to by the Examiner.

To cool a hot box the cap in front of the box must be taken off with a spanner, and the old pad removed with the hook provided in the Guard's equipment. All dirt must then be removed from the inside of the box with the hook or by other means; and the inside of the box thoroughly cleaned. The box must then be cooled down with water, but care must be taken not to chill too suddenly with cold water. A good method is to remove the filling plug from the top of the axle box and run warm water through on to the journal and brasses, and follow with cold water. When sufficiently cooled down a new pad must be placed in the box, and the box supplied with oil through the filling plug on top of the box. The cover of this filling plug can also be removed with the spanner.

Sometimes the box can be made fit for running purposes by simply supplying it with a fresh pad and more oil, or by an additional supply of oil only.

If the vehicle with the hot box must be sent on by the train it is beneficial, if the road conditions permit, i.e., if there be no sand and dirt to contend with, to run with the filling plug off.

If it be necessary to obtain assistance in dealing with a hot box the Guard must send advice to the nearest station in advance at which there is a Loco. Examiner, so that the Stationmaster can arrange for the Examiner to be in attendance on arrival of the train.

The axle box of X trucks (broad gauge) are not, however, supplied with pads, but instead packing or cotton waste is placed in the box under the journal, and must be renewed if burnt. When attention is being given to a hot box on one of these trucks the lid of the box must be lifted and oil poured on each side of the journal.—G.T.M., 9970/05; W.N. No. 36/12.

On interstate rolling stock 5½ in. boxes take 7 in. x 1½ in., and No. 2 boxes take 5 in. x 1½ in. pads.—W.N. No. 47/17.

OILING PLANT IN JOINT STOCK BRAKEVANS.

When joint stock brakevans (C.E.) are attached to trains in South Australia the oil can, oil, pads, &c., must be placed in a zinc-lined box. The boxes must be kept by the Stationmaster, Adelaide, when not in use, and Guards of down Melbourne express and interstate special trains must remove the box and contents on reaching Wolsley, and the Stationmaster there must place them in the brakevan of the up express or interstate special, as the case may be.—W.N., 10/11.

LIMIT OF LOADING FOR TRUCKS WHEN FIRST ISSUED TO TRAFFIC.

On each truck issued to traffic a special card must be placed by the Rolling Stock Inspector, Adelaide, for broad gauge, and Rolling Stock, Inspector, Peterborough, or District Loco. Superintendents for narrow gauge.

This card instructs that the load of the truck must not exceed half its carrying capacity for the first 50 miles of running, after which it may be loaded to limit.

This restriction of load is necessary to avoid hot boxes.—W.N., 20/11.

LOADING BRAKEVANS.

The loading of brakevans must be equally distributed over the van, not all packed at one end.—G.T.M., 5669/09.

TEMPORARY BOLSTER TRUCKS, NARROW GAUGE.

On the narrow-gauge lines, when temporary bolsters are required, Class C trucks with channel iron underframes must be used.—C.M.E., 4462/07; W.N., 23/13.

NARROW-GAUGE BOGIE TRAVELLING WATER TANKS.

Narrow-gauge bogie travelling water tanks are prohibited from working on the Western System.—W.N. No. 32/17.

HEAVY TRUCKS, NARROW GAUGE.

The following is a list of the heavier type of truck in use on the narrow gauge:—

Class.	Carrying Capacity.
Q bogie (S.A.R.)	22 tons
S " "	18 "
T " "	22 "
W " "	25 "
X truck "	12 "
Y " "	12 "
N " "	13 "
D bogie (S. Tram. Coy.)	25 "
E " "	25 "
Gg " "	15 "
FS " "	10 "

On Weighbridges.—The above trucks must not pass over 12-ton weighbridges, nor those of a less capacity, when in gear.—E.-in-C., 893/03.

Restriction of Running.—Classes N, Q, T, W, X, Y (S.A.R.), and Classes D, E, Gg, and FS (S. Tram. Coy.) must not be loaded for any station off the direct line between Broken Hill, Terowie, and Port Pirie without the permission of the District Traffic Superintendent, Peterborough, nor delayed at any station en route. Classes Q, T, W (S.A.R.), and Classes D and E (S. Tram. Coy.) must not be loaded for the Adelaide Milling Coy.'s siding at Port Pirie.—G.T.M., 4587/05.

VEHICLES WITH BROKEN AXLES.

If an axle break and vehicles become damaged in consequence, as much of the train as is safe to haul must be taken to the nearest station, or siding, where all the vehicles unfit to continue the journey must be left. Before any vehicle is allowed to continue its journey the Engineman must carefully examine the wheels and undergear to ascertain if the vehicle be safe to run. (See also instructions in the Rule Book with reference to obstructions on the line).

The nearest Examiner must be at once advised of the station or mileage where the damaged vehicles are, and he must proceed there without delay and make a thorough inspection.

When movable axle boxes are used at an out station, the axle boxes must be thus taking the weight of the axle, and the hammer.—W.N. No.

TRUCKS WITH HOT AXLES.

When a truck (locomotive) is found to have a consequence of axle box hot, the Traffic Superintendent telegraph the Traffic Superintendent, nearest Wagon Examiner, to attend the station from and to.

If the truck cannot be moved, the vehicle and promptly inform the Traffic Superintendent (or Goods Superintendent) that transfer is necessary.

A record must be kept of all trucks which arrive, the date and time.

In order to facilitate the removal of trucks detached from down trains, the Traffic Superintendent must act in conjunction with the Goods Superintendent.

If a livestock van is found to have a broken drawbar, it must be sent to "Stock," Adelaide, for repair.

gauge lines.—W.N., 11/12.

DA

When it is necessary to remove a damaged draw gear to a siding, the removal must be made either with the aid of a crane, gauge and the Traffic Superintendent, or behind the train brakevan.

CARRIAGES WITH BROKEN AXLES.

When carriages are found to have axle boxes running hot, the Traffic Superintendent (or Wagon Examiner, and the Traffic Superintendent) must be notified.

If carriages are detached from a train, the Traffic Superintendent, who must act in conjunction with the Traffic Superintendent, must be notified.

When a drawbar breaks, the side chains close, and the drawbar must be detached from the vehicle, and sent to the siding for repairs.—G.T.M., 4587/05.

MILITARY

Vehicles suitable for military use, painted on the sides with "MIL. CAP. means military."

W means wheels.

D means draught horse.

R means riding horse.

For instance—

On a passenger coach "MIL. CAP. means military."

On a cattle van "MIL. CAP. means military."

On a Y.Y. wagon "MIL. CAP. means military."

accommodation for horses, such as

—W.N., 14/14.

MOVABLE STANCHIONS ON TRUCKS.

When movable stanchions in the sides of trucks become jammed and difficult to remove at an out station, the engine screw jack must be used by placing the jack under the stanchion, thus taking the weight of the truck, and at the same time the stanchion must be tapped with a hammer.—W.N. No. 20/17.

TRUCKS WITH HOT BOXES, BROKEN DRAWBARS, ETC., DETACHED AT STATIONS.

When a truck (loaded or empty) is detached at a station or siding short of destination in consequence of axle boxes running hot, or from other causes, the Stationmaster must immediately telegraph the Traffic Superintendent (Goods Superintendent on broad-gauge lines), Loco. Depot, nearest Wagon Examiner, and destination station, the number and class of truck, contents, and station from and to. If transfer be involved the transfer station must also be advised.

If the truck cannot be speedily repaired the contents must be transferred into another vehicle and promptly forwarded to destination, advice of which must be sent to Traffic Superintendent (or Goods Superintendent) as well as to destination station, and transfer station if transfer is necessary. The date of arrival of a truck detached at a station must be entered on the label, so that stations ahead may know how long trucks are on the road.

A record must be kept in a special book at each station showing the trains by which the trucks arrive, the date when repaired, and date and train by which forwarded.

In order to facilitate the transit of ore between Burns and Port Pirie, empty trucks may be detached from down trains for transfer purposes.

If trucks are detached at sidings without Staff the Guard must advise the nearest Stationmaster, who must act in accordance with the above instructions. The Traffic Superintendent or Goods Superintendent must be advised when trucks are again restored to traffic.

If a livestock van or horse box, loaded or empty, is detached before reaching destination, through broken drawbar, hot box, or any other cause, telegraphic advice must in addition be sent to "Stock," Adelaide, for broad-gauge lines, and District Traffic Superintendent for narrow-gauge lines.—W.N., 11/12, 45/15.

DAMAGED VEHICLES—POSITION ON TRAINS.

When it is necessary to attach a vehicle with a broken buffer, broken headstock, or badly damaged draw gear to a train, it must not be placed between other vehicles, but arrangements must be made either with the Passenger Superintendent or Goods Superintendent for the broad gauge and the Traffic Superintendent for the narrow gauge for such vehicle to be attached behind the train brakevan.—W.N. No. 11/17.

CARRIAGES WITH HOT BOXES, BROKEN DRAWBARS, ETC., DETACHED AT STATIONS.

When carriages are detached at stations or sidings short of destination in consequence of axle boxes running hot, or from other causes, Stationmasters must immediately telegraph the Traffic Superintendent (Passenger Superintendent on broad-gauge lines), Loco. Depot, nearest Wagon Examiner, and destination station.

If carriages are detached at sidings without Staff, the Guard must advise the nearest Stationmaster, who must act in accordance with the above instruction, and the Traffic, or Passenger, Superintendent must be advised when the carriages are again restored to traffic.

BROKEN DRAWBARS.

When a drawbar breaks the train must be at once stopped for the purpose of hitching up the side chains close, and the volute spring and washer (if missing), which invariably fall on the ballast from the vehicle, must be picked up and brought into the station where the truck is detached for repairs.—G.T.M., 1970/05.

MILITARY CAPACITY OF RAILWAY VEHICLES.

Vehicles suitable for military transport have their carrying capacity in men, horses, and wagons, &c., painted on them, and the interpretation of the lettering and figures is as under:—

Mil. Cap. means military capacity.

W means wheels.

D means draught horses.

R means riding horses.

For instance—

On a passenger coach "MIL. CAP. 48" indicates it will carry 48 soldiers.

On a cattle van "MIL. CAP. 7 D. 8 R." means it will hold 7 draught horses or 8 riding horses.

On a Yx wagon "MIL. CAP. 45—8 W." means it will carry 45 men, if portable seating accommodation be provided, or will hold a number of wagons equivalent to 8 wheels, such as two four-wheeled transport wagons.

—W.N., 14/14.

SECURING TRUCK DOORS.

No vehicle must be allowed to leave a station unless the doors are properly secured. Stationmasters and Guards are equally responsible for the proper observance of this instruction. Loading must not be placed against the doors of trucks so as to cause them to bulge out and become strained. Trucks must be properly swept out and any accumulation of debris between the floors and doors removed, in order to prevent damage to doorpins of trucks; allow the doors to close properly; and avoid the use of extra force in getting the pins into position.—G.T.M., 7142/07.

When class G, X, Y, and Yr trucks (broad gauge) are attached to trains Guards must specially examine them to see that the doors on each side are properly closed and fastened, and thus avoid the risk of injury to passengers and others or damage to passing vehicles. The catches and the floor pins must both be firmly in position.—W.N. No. 46/11.

HORSE BOXES.

The divisions in horse boxes must always be securely fastened before the outside doors are closed, thus preventing any possibility of damage.—W.N., 43/14.

Horse-boxes must, when possible, be turned so that when attached to a train the horses' heads will be towards the engine.—G.T.M., 6247/05.

TARING AND RE-TARING OF VEHICLES.

(a) The stations enumerated in clause (j) must be constantly on the watch for trucks to be re-tared. It is expected that not less than 10 vehicles shall be re-tared each week, or a satisfactory reason given why this is not being done.

(b) Vehicles to be re-tared must be empty and thoroughly clean and dry. Each vehicle must be carefully examined as to whether it is complete. If couplings, brake gear, or other portion of a vehicle are missing, the vehicle must not be tared.

(c) The vehicle must be detached, and away from other vehicles, and at rest at the time of taring. It must be in the centre of the weighbridge so that the bridge and the weight on it may be evenly balanced. After the vehicle is tared or re-tared, it must be hauled or hand pushed off the weighbridge. Another vehicle must not be used to bump the tared or re-tared vehicle off the weighbridge.

(d) Before vehicles are tared the weighbridge must be carefully balanced, and a scraper or piece of hoop iron passed round the platform to ensure a clear space between the platform and frame.

(e) The taring must be carefully performed in the presence of another employee, the weighbridge steelyard properly read, and the correct entries made in the Weighbridge Re-tare Book, in which particulars of the old tare must also be recorded.

(f) A Weighbridge Re-tare Book must be kept specially for recording the taring of trucks, and the following particulars entered therein:—

No. and class of truck, and whether iron or steel.

Date of taring.

Time of taring.

Old tare.

Date of old tare.

Station at which old tare recorded.

New tare.

Initials or signature of other employee witnessing the taring and date.

Initials or signature of Traffic employee by whom the truck is tared, and date.

(g) The Examiners must be advised by the Stationmaster, on Form No. 19N, of the Nos., classes, and old and new tares of the vehicles re-tared, and a carbon copy of such advice must be retained. The Examiners must point out the old tare, and paint on the new tare (as shown on the Stationmaster's advice) on each side of the vehicle, with the date of re-taring, and initials of the station at which the taring is done. He must return the advice to the Stationmaster as soon as the work is completed, with the advice certified to that effect. The Stationmaster must either arrange for a Traffic employee, or himself, to check the new tares as painted on the trucks with the entries on the advice. If wrong, he must arrange for the correct tares to be painted on.

(h) From the Weighbridge Re-tare Book must be compiled a statement (on Form No. 19K) showing all the particulars required by the printed headings, of the vehicles tared or re-tared, as the case may be (including those referred to in clauses (k) and (n) during the week ended on the previous Saturday. If no vehicles be tared or re-tared a "Nil" statement must be furnished showing why no taring was done.

(i) From stations on the broad-gauge lines the statement (on Form 19K) must be sent direct to the Goods Superintendent. From stations on the narrow-gauge lines the statement must be sent to the Traffic Superintendent concerned, who will subsequently forward it to the Goods Superintendent.

(j) The fol

Islington
Mile End
Port A
Murray
Wolsel

Western

Northern

South-E

Eyre Fe

Bogie vehicle

Islington
Mile End
Port Ade

Port Pirie

(k) Vehicles r
following condition

(1) After

(2) Under

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(3) When

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(l) Steel trucks
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(m) In the case
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(2) If there b

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Unless absolutely
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(j) The following are the taring stations :—

<i>Broad-Gauge Lines.</i>	<i>Initials.</i>
Islington Works	I.O.
Mile End	M.E.
Port Adelaide	P.A.
Murray Bridge	M.U.
Wolsley	W.L.

Narrow-Gauge Lines.

Western System—Port Wakefield	P.W.
Walleroo	W. (on the 20-ton weighbridge)
Northern System—Peterborough	P.B.
Port Pirie	P.P. (on the 30-ton weighbridge)
Quorn	Q.
South-East System—Wolsley	W.L.
Naracoorte	N.C.
Mount Gambier	M.G. (on the 12-ton weighbridge)
Eyre Peninsula System—Port Lincoln	P.L.N.

Bogie vehicles are to be tarred at the following stations :—

Broad-Gauge Lines.

Islington Works.
Mile End (on the 50-ton weighbridge).
Port Adelaide (on the 50-ton weighbridge).

Narrow-Gauge Lines.

Port Pirie (on the 40-ton weighbridge).

(k) Vehicles must not be re-tared more than once in six months, except under the following conditions :—

- (1) After repairs.
- (2) Under the conditions for re-taring prescribed in the Goods Rates Book current for the time being.
- (3) When otherwise specially arranged for by instructions from the Goods Superintendent or District Traffic Superintendent.

(l) Steel trucks when first placed in traffic must be carefully tared, and not subsequently re-tared except as prescribed in subclause (1), (2), and (3) of clause (k).

(m) In the case of vehicles with wooden bodies, when the difference between the old and new tares does not exceed 2qrs., the old tare must not be altered, except after repairs, in which case the exact tare must be shown. In the case of steel vehicles, after re-taring as provided for in clause (l) the correct tare must be painted on the vehicle.

(n) When the entered weight of goods in trucks is tested on a truck weighbridge, this truck must be weighed when at rest, and detached from other vehicles. The weighbridge must be balanced before the truck is placed on it. The gross weight indicated on the steelyard, and the tare, including the regulation weight of the sheets and ropes, must be carefully noted and recorded, and the correct net weight ascertained. The truck must be examined after unloading to ascertain the quantity of rubbish and dirt in it, and whether the truck contained wet to appreciably affect the tare of the truck. If the truck is re-tared at the request of the consignor or consignee, the weight of the truck after unloading must be ascertained. The truck must then be cleaned out, and the weight again ascertained. The difference between the two weights will represent the weight of the rubbish. All particulars must be entered in the Weighbridge Re-tare Book.

(o) The freight charges as entered by the forwarding station must not be amended except on the authority of the Goods Superintendent, who must be advised of all the particulars of the case, as set out in clause (n).

(p) The foregoing instructions apply at any station provided with a weighbridge when—

- (1) Vehicles are re-tared at the request of the consignor or consignee, under the conditions for re-taring prescribed in the Goods Rates Book current for the time being.
- (2) If there be reason to doubt the accuracy of the tare of any vehicle, and it is re-tared. Particulars of discrepancies discovered as the result of such re-taring must be furnished to the Goods Superintendent.—W.N. No. 36/17.

VEHICLES ON CURVES.

Unless absolutely necessary, vehicles must not be left standing on curves, as in this position the oil drips from the axle boxes.

BRAKEVANS.

Chains.—In all passenger and goods brakevans chains are fixed for the purpose of securing the brake wheel while the brake is on. When an engine is detached from a train the hand brake in the Guard's van must be applied to secure the vehicles, and the chain must be fixed in position to prevent the brake releasing itself.—G.T.M., 5653/98.

Hand-brakes.—Before starting with a train the Guard must examine hand-brakes of his van and satisfy himself that they are in proper working order. When Guards use the hand-brakes on brakevans whilst the air-brake is in operation the hand-brakes must be released again with the air-brake, as if the former be left on, the wheels are liable to be skidded.—C.M.E., 1913/06.

Skidding.—Great care must be exercised to prevent skidding, i.e., the wheels sliding or moving along the rails without revolving. Guards must report at once every case of skidding, especially when supposed to be due to defective mechanism, stating how the blocks act on the wheels, and whether they press on all the wheels to the same extent, or greater on one or more, than on others. Guards must always release the brakes on their vans before starting the train.—G.T.M., 820/01 and 4121/03.

Hooks on Doors.—Guards and others concerned must see that, when necessary to keep the doors of vans open, the hooks are placed in the eyes provided, thus preventing damage to the panels.—C.M.E., 1330/08.

Brake Screws.—Brake screws must not be run right down. In the event of such being done, the person responsible must immediately take up the brake screw again by giving the wheel or handle two or three turns.—W.N., 43/14.

CLEANING AND EQUIPPING BRAKEVANS.

1. At depot stations, Stationmasters must have brakevans regularly washed and cleaned (inside and outside), and soap and disinfectant must be used with the water during scrubbing operations. In addition brakevans must be disinfected as soon as possible after use for the carriage of fish or other goods giving off offensive smells.
2. The same processes must be undertaken with respect to brakevans as are carried out upon carriages in preparing them for traffic. (See instructions in this book under heading "Cleaning and Examining Carriages.")
3. The vans must be swept out after completing each journey, except where several short journeys are made daily with the same van, when once daily will suffice. The lockers must be kept free of rubbish and articles of a combustible nature.
4. Stationmasters must see that brakevans are properly equipped with all articles and plant required by the regulations (see list below). Guards must also see that the equipment is complete when taking up duty.
5. A record must be kept of all brakevans washed and a monthly return furnished to the Passenger Superintendent, Adelaide, for broad-gauge lines, and the District Traffic Superintendent of the division concerned for the narrow gauge, and these officers must satisfy themselves that these instructions are regularly and efficiently carried out. Guards must report to their District Traffic Superintendent all instances of dirty brakevans, and they must assist in keeping their vans clean and tidy.
6. Guards must keep their lamps, oiling plant, discs, flags, &c., in the places allotted for them.

Plant.

Watch
Set of flags—1 red, 1 green
Whistle—Pea
Green hand flag
Discs (except for vans fitted with discs)
Side and tail lamps (four)
Hand signal lamp
Can of oil
Spare pads—Not less than four (two of each size)
Spanner and hook for axle boxes
Spare couplings—2 sets
Detonators—12
Rope—For goods, livestock, and ballast trains only
Despatch box
Sprags—2 (4 between Adelaide, Murray Bridge, and Strathalbyn inclusive, and Brighton and Willunga inclusive), about 3ft. 6in. in length, 4in. in diameter.
Carriage key
Ticket nippers
Bale Hook

Ambulance kit
Portable telephone (where ordered to be carried)
Safe (where ordered to be carried)
Pintsch's gas key (on broad-gauge trains with vehicles attached lighted with gas)
Spare pipes for Westinghouse brake as under:—
Adelaide, Semaphore, Outer Harbour, Honley Beach, Glenelg, Brighton, Northfield, and Sleep's Hill suburban trains 1 pipe
All others 2 pipes
Hooks for dropping and lifting truck brakes (Pirie and Cockburn lines only)
Chains for coupling coaches (Glenelg lines only). See District Instructions for Glenelg Lines.
"Gold Medal" Fire Extinguisher (see instruction under the heading "Gold Medal" Fire Extinguisher)—Blue brakes excepted.

Guards Train
Train Report
Time and
Goods Rate
without
Distance Ta
Excess Fare
Book Ticket

1. The door must be kept closed unless otherwise directed.
2. To secure the carriage must be kept locked before passenger or passenger to alight must not be allowed to get on or off must be at once taken to see that the carriage is properly locked.
3. In shutting the carriage door but must grasp the handle to see that the door is properly closed.
4. Between a sleeping car to a train. This is to prevent passenger without class, when adjacent to that communication so that communication before starting from a serious accident lines, as owing to head out of a carriage perhaps seriously injured train when travelling.
5. Any signal "stop train last sign" G.T.M., 3917-01 ;

1. Carriages must be disinfected with a disinfecting solution thoroughly cleaned. before the train is de ment is thoroughly cleaned and basins. The Pin carriage.
2. Articles requiring scrubber, carriage wash Monkey soap, emery
3. The first open cushions, and carpets, wash the panels on the done with great care, a must be used very lightly. If any pressure be brought and damaged. Immedi with a chamois, which necessary to remove gr three months after a ca chamois leather must be

Books and Forms.

Guards Train Book
Train Report Forms
Time and Fare Book
Goods Rate Book (for trains working stations without Resident Staff)
Distance Tables
Excess Fare Receipt Book
Book Tickets

Tables of Fares
Form 19 J (Truck report for sidings).
Road Bill Forms—For trains working stations without Resident Staff
O.R. Consignment Notes—For trains working stations without Resident Staff
Risk Notes, passengers travelling in goods brakevans
Crossing and Proceed Orders where required

CARRIAGE DOORS.

1. The doors on both sides of all passenger carriages must be unlocked during the journey unless otherwise instructed under special circumstances, and except when prisoners or lunatics are being carried, in which case their compartments must be locked on both sides.

2. To secure a proper system of checking tickets, District Traffic Superintendents may occasionally arrange to have carriage doors locked at certain stations.

3. Carriage doors must be securely closed before a train starts. Trains must not be started before passengers have entered the carriages. A carriage door must not be opened to allow a passenger to alight from a train before it comes to a stand, or enter after it starts. Passengers must not be allowed to open doors to leave or join trains in motion, but if they do so the case must be at once reported, and the names and addresses of the offender and witnesses given.

4. In composite end-loading carriages the door between the first and second class compartments must be kept locked.

5. In shutting a door the employee must not push or cast it towards the body of the carriage, but must grasp the handle and retain his hold until the door is securely closed. Care must be taken to see that passengers' fingers or hands are not between the door and the doorstile.

6. Between Adelaide and Serviceton the doors at the ends of the vehicles leading from a sleeping car to a first class carriage, and from a first class carriage to a second class carriage, must be kept locked, and only opened in cases of emergency by the Guard or Conductor of the train. This is to prevent a second class passenger entering a first class carriage, and a first class passenger without a berth ticket entering the sleeping car. Carriages, however, of the same class, when adjacent, may have the end doors opened and the concertina ends properly fastened so that communication from one vehicle to the other is possible if passengers so desire.

7. Guards are responsible for doors being securely closed on the platform side of the train before starting from each station, and on the off side before starting from terminal stations. A serious accident might result from carelessness in this direction, more particularly on double lines, as owing to the margin of clearance being small, there is a grave danger of anyone with head out of a carriage window of a train approaching in the opposite direction, being struck, and, perhaps seriously, if not fatally, injured. Guards must frequently look along each side of the train when travelling between stations to see that none of the doors are open.

8. Any signaller seeing an open side door in a carriage of a passing train must send the "stop train last signalled" signal to the station or cabin next in advance, and report the case.—G.T.M., 3017-01; W.N., 9/10 and 23/13.

CLEANING AND EXAMINING CARRIAGES.

1. Carriages must be swept and dusted daily; the floors washed at least once a week (a disinfecting solution being used); the brasswork kept clean and bright; and the windows thoroughly cleaned. They must be inspected by the Stationmaster at the terminal station before the train is despatched, and he must see that the interior and exterior of each compartment is thoroughly clean on leaving the station, special attention being given to lavatory pans and basins. The Pintsch's gas gauge glasses must be cleaned by the Lampman who gases the carriage.

2. Articles required.—Hair broom (long handle), bannister brush, scrubbing brush, deck scrubber, carriage washing brush, chamois leather, sponge, floorcloth, waste, brilliant-shine, Monkey soap, emery paper.

3. The first operation when entering a carriage to clean same is to remove all mats, portable cushions, and carpets, then sweep the floors and seats under the cushions. When this is done, wash the panels on the outside of coaches. This work, to be satisfactorily carried out, must be done with great care, a plentiful supply of clean water and a sponge being required. The sponge must be used very lightly at first, together with plenty of water, in order to remove all grit. If any pressure be brought to bear on the sponge while removing grit the varnish will be scratched and damaged. Immediately the grit is washed off the panels, the drying must be done thoroughly with a chamois, which must be clean, free from grit, and well wrung of all moisture. If it be necessary to remove grease and priming, soft soap must be used in the water, but for the first three months after a carriage has been varnished and in traffic, only clean water, sponges, and chamois leather must be used on the outside of carriages.

4. Next, clean the carriage lights, outside and inside, with clean water and chamois leather, and afterwards dry with a supply of waste, well teased out and freed from any dirt or particles of foreign matter. The necessary attention must be given to the louvres.
5. Washing the floors must next be proceeded with (deckscrubber to be used). When this is done the cleaner must attend to the interior woodwork by using a well-wrung chamois leather, following up with the duster cloth.
6. The cushions must then be cleaned. In performing this work it will be often found necessary to use sponge, water, and chamois.
7. All metalwork must be cleaned and brightened daily. The white ceilings must be frequently washed with soap and water. The globes and reflectors must be well cleaned before a carriage is attached to a train.
8. All pans in lavatories must be thoroughly cleansed and all metalwork polished with Monkey soap and brilliant-shine. When cleaning carriage pans, &c., soap and disinfectant must be used with the water during scrubbing operations.
9. The carpets must be well shaken and brushed; then rolled up; and when floors have dried sufficiently, replaced.
10. The outside platforms, headstocks, and steps must then be attended to. Stationmasters must see that the Staff appointed for this work understand and properly carry out their duties.—W.N., 12/11.
11. When a passenger train remains at any station for five minutes or more the Stationmaster must see that the carriages are overhauled, and dust and litter of all kinds removed from the seats and floor of each compartment.
12. Guards must, at every opportunity during the journey, examine the carriages, and if they be dirty, windows, upholstery, &c., be damaged, or water bottles, tumblers, towels, &c., be missing, promptly report the matter. The staff at ticket examining stations must also give attention to this matter.—W.N. No. 18/15.
13. Guards and the staff at roadside and terminal stations must constantly examine the water bottles and water bags provided in the trains, especially during the hot weather, and, when necessary, have them replenished.
14. Stationmasters must see that carriages which have ceased running for the day are wiped down, or washed if necessary; cushions turned over; lavatory pans and basins in good order; soap, towels, water bottles and tumblers are not missing; water taps not running; and mats and other effects in good order. Any irregularity must be immediately reported to the Passenger Superintendent for Broad-Gauge lines, and Traffic Superintendent for Narrow-Gauge lines.
15. The lavatories and urinals in carriages must be flushed and cleaned after each trip, disinfecting solution being used.
16. Carriages standing at stations must be daily inspected by the Stationmaster. They must also be ventilated, have the cushions turned, the louvres put up, and where provided the blinds drawn.
17. Guards and collectors of suburban trains must wipe the handrails of end-loading carriages when they are standing at terminal stations each trip.—W.N., 14/16.
18. Where trains commence running or carriages are attached, Stationmasters must see that the tanks of lavatory carriages are filled with water. At stations where appliances are not provided for the purpose the tanks must be filled by means of water buckets. Lavatory tanks must be cleaned out once a week, and where the carriages remain over Sunday, this work must be done on Saturday or Monday.
19. All sleeping cars must be disinfected at Adelaide once a month, and special cars, such as the "Vice-Regal," "Broughton," "Willochra," "Murray," &c., once in three months. The Overseer, Carriage Cleaners, must keep a record of the name of car and date disinfected.—W.N. No. 52/10.

MATS FOR SMOKING CARRIAGES.

1. Immediately carriages have ceased running for the day the mats must be removed from the smoking compartments and placed where, should they catch fire, the station buildings, &c., cannot be damaged.
2. To avoid risk of fire the Station Staff and Guards must examine the mats at every possible opportunity during train journeys.
3. These mats must be immersed once a fortnight in a solution of alum water and disinfectant, and a record must be kept of the numbers of the mats and the date they were dipped. The solution must be made by dissolving 1lb. of alum in 10galls. of water.
4. Stationmasters and Guards at terminal stations must see that the smoking compartments in their trains are properly supplied with mats.—G.T.M., 6411/06, 3391/89.

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GENERAL INSTRUCTIONS—LIGHTING.

LIGHTING.

PLATFORM AND STATION LAMPS.

Stationmasters must see that platform lamps are attended to and lit for all passenger and mixed trains arriving at, and departing from, a station after dark. The lights must not be turned on fully, except at times when these trains are about due or are actually at stations. The doors of station platform lamps must always be closed and fastened, and the name plates on platform lamps must face the lines, i.e., face passing trains.—W.N., 30/10, 5/13, 19/15.

Stationmasters must see that station lamps are kept alight during the time the station is open, after dark, for public business, and that they are kept clean whether in regular use or not.—W.N., 50/10.

Guards working trains on suburban lines must report, through their Stationmaster, to the Superintendent of Station Services all cases of defective or insufficient lighting at stations; and the location of any lights which are out, or defective, must be clearly stated in their reports.—W.N., 3/14.

EXTINGUISHING CARRIAGE ROOF LAMPS.

Jerking lamps to put them out is strictly forbidden.—G.T.M., 3595/98.

OIL TO BE USED IN LAMPS.

All fixed signal, hand-signal, and oil roof lamps must be trimmed with high-test oil, and in no case must low-test oil be used. (See also instructions under the heading "Adelaide Long Time Burner Signal Lamp.")

Low-test kerosine must only be used for office and platform lamps. Separate drums for holding the kerosine must be kept at stations, one to be marked "High-test for signal and roof lamps," and the other "Low-test for office and platform lamps."

HIGH TEST OIL TINS.

High test oil tins must be promptly returned to the Chief Storekeeper, Port Adelaide.

CLEANING LAMP ROOMS.

Lamp rooms must be cleaned out daily, and Stationmasters must see that dirty waste and other refuse are not allowed to accumulate in them. The drip-tins must also be emptied each day.

CLEANING OIL TANKS AND RECEPTACLES.

Oil tanks and receptacles must be thoroughly cleansed at stated periods, as the sediment which collects clogs wicks and affects the burning of lamps.

LIGHTING LAVATORY COMPARTMENTS.

When carriages are being lighted the lamps in the lavatory compartments must also always be lit.—W.N., 38/10.

LIGHTING CARRIAGES WITH PINTSCH'S GAS.

1. When lighting carriages the gas must be turned on with the key at the main cock, and the lamps must be lit without delay, in order to prevent the accumulation of gas in the globes—or damage to the mantles may result. On carriages with two supply pipes on end of carriage the pilot light cock must be opened, the pilots lit, the main cock turned on and lever pulled over to light mantles. In the majority of carriages each lamp is fitted with a valve to regulate the supply of gas. This fitting must be turned to the by-pass position by means of the knob on the side of the lamp, or on ceiling, the gas then turned on at the main cock, the pilots lighted, and the knob turned on full to light the mantles. When it is required to put out the lights, if each lamp be turned to the by-pass position before turning off the gas at the main cock, the preceding work will not require to be done. In order that the gas in the mantles in carriages should light properly, the pilot flame should project to within $\frac{1}{4}$ in. of the mantle, the adjustment being made with a small screw placed on the bottom of the pilot pipe for that purpose. The Loco. Fitter in Adelaide must see that this is done. The handle of the lamp must not be turned on with a jerk, or the pilot light will be extinguished before the gas has time to reach the mantle. About two seconds should be taken to turn the handle. Carriages can only be charged with gas at Adelaide, or from the Travelling Storeholder, as arranged. Carriages used for local service on outlying lines must be brought to Adelaide when they require re-charging.

2. Gas must be extinguished to prevent gas the torch must be h care must be taken to towels do not take fire

3. If a carriage be light by means of the k The gas must be turned are in use.

4. The globes must cannot interfere with t When closing globes th be broken, the gas mus

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9. If at any time an and the lamps, the main and the cylinders under 2, 3, or 4, depending up advised by wire, the nu arrange to take the carri

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Fig 3.

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The fitting shown in F a screw wrench, and a fillin

The fitting shown in Fi of frame and the valve wi

10. At out-stations, in cut off the gas at the cylind except under exceptional ci

1, 2, and 3.

2. Gas must be ignited with torch, taper, or lucifer, and the latter must be carefully extinguished to prevent the danger of mats, rugs, or towels catching fire. When lighting the gas the torch must be held under the chimney to avoid smoking the reflectors or ceilings. Special care must be taken to see that when the lavatory compartments of carriages are being lit the towels do not take fire.

3. If a carriage be not occupied by passengers the gas must be turned down to the pilot light by means of the knobs on side of lamps, or lever on end of carriages with two supply pipes. The gas must be turned on full when actually necessary, i.e., when trains are running or carriages are in use.

4. The globes must be properly fastened and locked after the gas is lit, so that passengers cannot interfere with the light. These globes are opened and shut with an ordinary gas key. When closing globes they must be manipulated gently, not banged violently. Should a globe be broken, the gas must be at once turned off at the stopcock in the lamp.

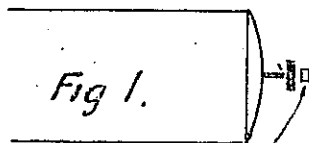
5. In empty compartments of sleeping cars the Conductor must see that the lights of these compartments are put on their individual by-passes.

6. In cases where there are only a few passengers in the train they should be placed in one or two or more carriages, as required, and not allowed to scatter themselves about a big train, necessitating the gas being fully turned on throughout.

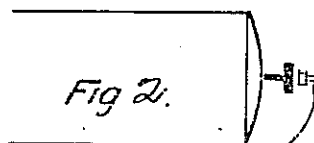
7. Any defective lights or fittings must be at once reported to the Passenger Superintendent and the local Loco. Officer, the carriage number being given in each case.

8. On the underframe at both sides of the carriage there is a gauge, marked with figures 1 to 12, to indicate the quantity of gas in the cylinders, and each figure of the dial denotes one (1) atmosphere, and each atmosphere is equal to six hours' burning. When charging the cylinders a pressure of seven atmospheres (or equal to 42 hours' burning) must not be exceeded. It is not desirable to allow the pressure of gas to fall below one atmosphere. Stationmasters must see that, when a carriage is attached to a train, it carries sufficient gas to last at least three hours over the time it will probably be required in traffic.

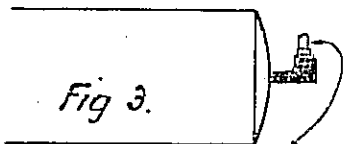
9. If at any time an escape of gas be noticed between the main cock at the end of the carriage and the lamps, the main cock must be shut. If, however, the escape be between the main cock and the cylinders under the carriage, the gas must be cut off as shown in the diagrams Nos. 1, 2, 3, or 4, depending upon the gas fitting used. The Passenger Superintendent must also be advised by wire, the number of the carriage being given, and the Superintendent must then arrange to take the carriage out of traffic.



Hexagon nut.



*Spindle to fit Filling
cock key*



Cap with hexagon nut.

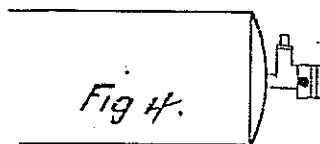


Fig 4.

The fitting shown in Figure 1 has a hexagon nut, which must be taken off with a screw wrench, which can be obtained from the Engineman, and an ordinary gas key inserted and turned to the right until screwed hard home.

The fitting shown in Figure 2 has a spindle to fit a filling cock key. The spindle must be removed, and an ordinary gas key inserted and turned to the right until screwed hard home.

The fitting shown in Figure 3 has a cap with a hexagon nut, which must be taken off with a screw wrench, and a filling cock key inserted and turned to the right until screwed hard home.

The fitting shown in Figure 4 is not to be interfered with, simply open the filling cock on side of frame and the valve will automatically shut off the gas at the cylinders.

10. At out-stations, in the absence of an Examiner, the Engineman must, when necessary, shut off the gas at the cylinders as described in clause 9. No other unauthorised employee must, except under exceptional circumstances, interfere with the nuts and spindles shown in diagrams 1, 2, and 3.

11. The whole of the carriages which are fitted with incandescent mantles have pilot lights, and the majority of them have a by-pass handle at the globe for turning these lights out—that is to say, if the stopcock at the end of the coach is turned off it extinguishes both the incandescent light and the pilot light, but the incandescent light may be extinguished by turning the by-pass cock at the lamp. The pilot light still remains on, and all that is required to light up the carriage again is to turn on the by-pass at the lamp. There are, however, a number of shallow lamps—mostly in passenger brakevans—which have not the by-pass handle at the lamp, in which the gas can only be regulated by the stopcock at the end of the carriage, but a few carriages with these lamps have a handle (which controls the by-pass) close to the roof inside the carriage.

12. A light must not under any circumstances be brought near a carriage in which there is an escape of gas, nor must leaks be searched for with a light. Any carriage in which gas is escaping must be locked up and at once returned to Adelaide, all ventilators being left open. Passengers must not be allowed to enter such carriage.

13. If there be any difficulty in lighting the gas through air being in the pipes, open the tap of lamp farthest from the main tap at the end of the carriage. Then light the lamps, starting from the one nearest to the main tap.—C.M.E., 795/18.

Instructions to Locomotive Employees.

14. The Loco. Fitter (under the Rolling Stock Inspector) at Adelaide Carriage Shed must examine daily the pots, valves, hoses, and pipes above ground, and see that they are maintained in a safe and efficient working condition.—W.N., 10/12.

15. If the filling or main valve will not close properly, and allows gas to escape, screw the cap supplied firmly on the screw end of valve. The valve cover must not be allowed to swing about. A report must be sent to Rolling Stock Inspector in these cases.

16. Valves must not be screwed down too hard. This would destroy the valve ends, which are of soft metal.

17. If the small pipe leading to the gauge be damaged or leaking, shut the gas in the cylinders and then remove the flange on small pipe from the iron pipe and screw on the temporary flange supplied in its place. See that washer is on flange.

18. Do not search for leaks with a naked light. A little thick soapy water put on a suspected place will always show where the leak is by the bubble made.

19. Do not attempt to stop a leak on the high pressure side of the regulator with bandages or white lead, &c.; it is useless. A leak on the low pressure side of regulator may possibly be stopped in a temporary manner in this way.

20. Examine fittings under carriages occasionally to see that all screws at joints are tight.

21. When screwing up any fittings see that the screwdriver is fitted properly into the slot in screw head. If it does not the head of screw is liable to get damaged.

22. If any of the screws holding fittings seem to be slack and likely to work out put a thread or two of engine packing on the point of screw (winding it on right-handed) before screwing up.

23. Do not attempt to unscrew any of the fittings under the carriages without shutting the gas into the cylinders. When finished see that the cylinder cocks are open again. These cylinder cocks require to be screwed down hard to keep gas in cylinders.

24. Examine gauges occasionally to see whether they each show the same pressure.

25. If there be a leak at a lamp tap see whether the gas supply can be stopped by the screw that is used for setting the size of light. If it cannot be stopped take out the plug of burner tap and stop hole in lamp tube with soap or white lead. If a leak be suspected inside of lamp, turn the gas on at the end of carriage and turn off at the lamp. The leak can then be found by the smell of gas coming through the lamp top outside. No lamp with leak inside must be lighted.

26. If there at any time appear to be an excessive quantity of gas used, the fittings must be examined for leaks, and the cause ascertained, if possible.

27. When fitting in new globes see that the globe is kept in the centre of the lamp ring, and then tighten screws up evenly all round just sufficiently to press the putty firmly.

28. The fittings and lamps must not be interfered with any more than is absolutely necessary.—C.M.E., 194/06.

Instructions to Traffic Employees.

29. When connecting hose see that both the grip and the nipple are properly fixed on main and carriage valves. If these connections be not properly adjusted the nipple is liable to slip off. See that both hose cocks are closed before connecting to, or disconnecting from, the main valve.

30. In order to avoid damage to cock, and subsequent loss of gas, the brass connections of hose must not be dropped on the ground.

31. Naked lights must not be taken near hoses and valves when gassing trains.

32. Hoses must not be left attached to mains without shutting gas off at main valve, nor allowed to lie in the sun any longer than is absolutely necessary.

33. If there appear to be any obstruction in the hose, reverse the hose.

34. Hose coverings must not be allowed to get into bad repair, and ashes and dirt must be kept out of main valve and hose connections.

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35. When gassing carriages gas must not be allowed to escape. As the pressure on the mains and carriage cylinders is heavy a very small leak means a large loss of gas.

36. Do not search for leaks with a naked light. A little thick soapy water put on a suspected place will always show where the leak is by the bubble made.

37. If any accident happen when gassing, shut off the gas at once at main and carriage valves.—C.M.E., 194/06.

38. Any leakage or defect found either in pots, valves, hose, or pipe connections must be promptly reported to the Loco. Fitter in the carriage shed, who must at once effect any repairs needed.—W.N., 10/12.

39. Torches for lighting Pintsch's gas in carriages have been supplied to several stations. Methylated spirit is used in these torches, and in preparing them for use the reservoirs must be filled, and a couple of minutes allowed to elapse for the wadding, with which they are lined, to absorb the spirit. The residue must be poured off, and the lamp cotton wick inserted, when the torch is ready for use.—W.N. 37/16.

40. Lampmen and others when lighting, extinguishing, or cleaning lamp globes must observe whether any of the screws by which the globes are affixed to the carriages are loose, and if they are, the fact must be at once reported to the Guard of the train and to the Rolling Stock Inspector, Adelaide.—C.M.E., 377/08.

41. All those engaged in the gassing of carriages which have been fitted with the automatic shut-off valve must see that the filling valves on the carriages are closed before they attempt to disconnect the gas hose from the carriage. If the hose should be taken off before the filling valve is closed, gas will begin to escape from the cylinders, and this escaping gas will close the shut off valves. This will prevent any more gas from escaping, but will also cut off the supply from the lamps. Should this occur, or should the shut-off valve become closed in any way, the gas hose must be again connected to the filling valve on the carriage in the usual manner, and the gas must be then turned on to the cylinders for a few seconds. This will open the shut-off valves and allow gas to reach the lamps. The filling valves must then be closed, and the hose disconnected. These automatic shut-off valves must not be interfered with in any way.

PINTSCH'S GAS TRAVELLING STOREHOLDER.

1. A travelling storeholder and compressing engine (bogie vehicle No. 2329) is provided to convey gas from Adelaide to charge carriages where required.

2. When charging the gasholder a pressure of 10 atmospheres must not be exceeded, and when this is reduced to seven atmospheres the pump must be used to force the gas into the carriages. This pump, which is provided on the holder, must not be manipulated by a Traffic employé; but a competent man from the Loco. Department must be obtained to work it.

3. A naked light must not be used when charging carriages with gas.—C.M.E., 1083/05.

4. The running for this storeholder is shown in the Working Book.

ADLAKE LONG TIME BURNER SIGNAL LAMP.

Lamps fitted with Adlake long time burners must be attended to twice a week at regular intervals, and the following instructions carried out:—

1. *Cleaning.*—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. It is not necessary to take the lamp to the lamp room to refill and clean it.

2. *Trimming Wick.*—The wick must not be trimmed with shears, but turned down so that only the charred portion is exposed above the tube, and this charred portion broken off with the fingers or with a stick. Should the wick fray out at the edges during this operation, it can be slightly trimmed with the shears.

3. *Filling.*—"Long Time Burning Oil" must be used, and not "High-test Oil." Each time a lamp is attended to the font must be filled, but a space of from $\frac{1}{4}$ in. to $\frac{1}{2}$ in. at the top of the font must be left unfilled. This will give room for expansion of the oil as it becomes heated after the lamp is lighted, and will prevent the flooding of the flame with the oil, which would otherwise be forced up through the wick tube if the font were filled to the top, and would either cause the lamp to burn with a high and smoky flame, or possibly cause an explosion and the burning out of the lamp.

4. *Lighting.*—For 10 or 15 minutes after the lamp is first lighted the flame must only be turned up to about one-half the height required to give the full light, so that all the parts can become thoroughly warmed, after which the flame must be adjusted to the height which gives the best light, and the lamp then placed in position.

5. *Oil Tanks and Receptacles.*—These must be thoroughly cleansed at stated periods, as the sediment which collects clogs the wicks and affects the burning of the lamps.

6. *New Wicks.*—The wick conveys the oil from the font to the flame, acts as a strainer, and, in time, accumulates a considerable quantity of dirt and thick, gummy oil, which prevents that 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 thrown away and replaced.

Every three months half an inch must be cut off from the top of a wick in use. When a wick is too short to reach the bottom of a font it must be replaced.

7. *Chimneys.*—Reflectors and chimneys must always be used, as a steadier light is then obtained and prevents wick from smoking so readily. The chimneys must be cleaned with waste or paper only, and must not be washed. A broken chimney must be replaced immediately. The chimney must sit properly in its hook, otherwise lamp will smoke and take fire.—W.N., 17/13.

8. *Electric Repeaters.*—Where there are electric repeaters chimneys must never be omitted, or the thermostat will fail to register.—W.N., 36/17.

GENERAL INSTRUCTIONS FOR WORKING OF ACETYLENE GAS LIGHTING PLANTS.

1. All appliances for the generation and supply of acetylene gas are to be erected and operated by the Resident Engineer of the Division, who is responsible for maintaining them in a thoroughly efficient manner, and for keeping them and their surroundings clean and tidy.

2. Each plant must be fitted with a meter, through which all the gas must pass before entering the main supply pipe. The meter readings must be recorded by the Resident Engineer.

3. Lamps must be cleaned by the Staff of the branch requiring the light.

4. Gas must be turned off every night at each lamp, and, lastly, at main cock nearest generator.

5. All working and main stopcocks, with their by-passes, must be kept lubricated, and the plugs must never be allowed to get free enough to be turned by hand. Their levers must be kept where they can be readily found when required.

6. Only the appliances supplied for the purpose must be used to prick the burner when the flame is unsatisfactory.

7. A pair of light gas pliers must be used to remove a burner, and a little thick paint, just enough to ensure gas tightness, must be applied on the thread of burner when replacing it. When cleaning lamps the cloth or waste must not come in contact with the burners. Damage to the burners will thus be avoided.

8. The generators must be charged and attended to in the daylight, and on no account must a naked light be brought near them.

9. In "water to carbide" machines, the pots or colls must be thoroughly cleaned after use, and stored in a dry place ready for refilling when required. In "carbide to water" machines the tank must be cleaned each day by running off water, simultaneously stirring up the spent carbide with the appliance provided for that purpose.

10. Vessels containing calcium carbide must be protected from moisture and stored in a dry place. When opening the drums containing carbide the inside metal casing must not be pierced. On the covers is usually found a "free tongue" of metal, which must be torn off to open the drums. Every time a drum is opened the cover must be replaced as quickly as possible and firmly fixed by using a piece of cloth as a packing. The place of storage must be thoroughly ventilated, and a naked light must never be taken into a building where carbide is stored.

11. In the event of a fire occurring, sand, ashes, or dirt must be thrown on the fire to extinguish it, and ON NO ACCOUNT MUST WATER BE USED. For this purpose a box containing a quantity of one of these substances must be kept close to the generator.

12. Should an escape of gas be suspected, do not look for same with a naked light, but mix a thick lather of soap and water and with a small brush or piece of waste apply at the joints of pipes or other suspected places. Leaks will then be indicated by the bubbles made.

13. All burner taps must receive regular attention in order to keep them gastight and in good turning order. The tap plug must be pushed inward when being turned on or off, and if leaky must be removed and cleaned, a little vaseline applied and replaced just tight enough to be turned by hand. The gas passage in burner tap must be kept clear.—W.N., 13/10.

STONE'S ELECTRIC TRAIN LIGHTING.

1. On all broad-gauge bogie brakevans and on all narrow-gauge vehicles (except horse-boxes) fitted with Stone's Electric Light, the light is switched on by inserting a carriage key in the hole in the centre of the switchbox and turning one-quarter circle, from left to right. To switch the light off the key must be turned back from right to left as far as it will go.

2. On broad-gauge fitted with electric light under the vehicle. The position letters (E.L.) just at

3. Economy must not required for passenger

4. When the light off when there is sufficient

5. On suburban from the main switch

First Position

Second Position

in the switch

key is it

When it is necessary

--"Half lights," and

minutes or more at intervals

"Full" three minutes.

6. Guards, Conductors

such as lamps not burning

brighter when standing

gauge lines, and Passenger

and the train. In addition

For Broad-gauge

For Northern

For South-East

For Eyre Peninsula

7. Stationmasters

except for cleaning purposes

may be unlocked by a

8. The switchbox

any other unauthorised

9. Electrical Examiners

stationed at the following

Broad Gauge—

Northern

Eyre Peninsula

10. Train Examiners

etc., to see that they are

position, and not showing

signs of dampness

11. All dynamo belt

depots mentioned in paragraph

attached to each belt.—

1. When trimming globe and outside of the globe removed from the burner and the screw on the top of the globe must be rubbed

2. When a lamp has been until it has been refilled

3. The wick must be each corner.

4. Immediately the light a little above the cone of light up to its proper and full height must be put properly down the light to smoke and flame immediately before the lamp

5. Stationmasters at supply of kerosene, wicks, washers in use must be re

2. On broad-gauge side-loading carriages, and broad and narrow-gauge bogie horse boxes fitted with electric light, the main current is switched on or off by means of the bar situated under the vehicle. This bar is operated by pulling or pushing the handle placed near the underframe. The position of this handle is indicated on the channel iron of the underframe by the letters (E.L.) just above the footboard.

3. Economy must be exercised in the use of the light, which must be switched off when not required for passengers.

4. When the light is required for passengers it must be switched on, and immediately switched off when there is sufficient daylight to dispense with it, or at the completion of the journey.

5. On suburban end-loading carriages fitted with "Half" and "Full" lights controlled from the main switch, the positions are as follows:—

First Position—Half Lights.

Second Position—Full Lights.—Full lights are obtained by turning the carriage key in the switchbox, in the centre passage of the carriage above the door, until the key is in the vertical position, or by means of a switch placed near the lights.

When it is necessary to light up the carriages the switch must be brought into first position—"Half lights," and left thus until necessary to use full lights. When trains have a stay of 10 minutes or more at stations, and light is required, the switch must be turned to "Half," and to "Full" three minutes before departure of train.

6. Guards, Conductors, and others concerned must carefully note any fault in the lighting, such as lamps not burning, light flickering, light becoming brighter when vehicle is running, or brighter when standing, and promptly report it to District Traffic Superintendent for narrow-gauge lines, and Passenger Superintendent for broad-gauge lines, stating the number of vehicle and the train. In addition the following depots must be advised by wire:—

For Broad-gauge Lines—Adelaide (The Foreman for Electric Carriage Lighting).

For Northern Narrow-gauge Lines—Peterborough (The Leading Electrical Fitter).

For South-Eastern Narrow-gauge Lines—Mount Gambier (The L.H. Electrical Fitter).

For Eyre Peninsula Lines—Port Lincoln (The Loco. Foreman).

7. Stationmasters must see that the glass globes are clean. The globes must not be unlocked except for cleaning purposes, and then only on the authority of the Stationmaster. The globes may be unlocked by a Pintsch's gas key.

8. The switchboxes must not under any circumstances be unlocked by the Traffic Staff, or any other unauthorised person.

9. Electrical Examiners who must clean, oil, and examine the electrical gear of vehicles are stationed at the following depots:—

Broad Gauge—Adelaide, Mile End, and Glenelg.

Northern Narrow Gauge—Terowie, Hanley Bridge, Peterborough, and Quorn.

Eyre Peninsula Lines—Port Lincoln (Loco. Fitter).

10. Train Examiners must carefully examine all the suspension gear, including the nuts, pins, etc., to see that they are in the proper position and safe; that the driving belt of dynamo is in position, and not showing undue signs of wear; and that cellboxes are not damaged or showing signs of dampness through leakage of acid from defective cells, or any other cause.

11. All dynamo belts found on the permanent way must be immediately forwarded to the depots mentioned in paragraph 9. A label showing the mileage at which it was found must be attached to each belt.—G.T.M., 273/08; W.N., 15/12, 44/11, 22/16, 34/15, 26/17.

ROOF LAMPS BURNING KEROSENE.

1. When trimming kerosene roof lamps all oil and dirt must be removed from the inside and outside of the globe and lamp; all airholes thoroughly cleaned, and the crust and burnt wick removed from the burner and chimney rest. The oil reservoir must always be filled to the brim, and the screw on the top of the reservoir must be well tightened to exclude air. Tallow or castor oil must be rubbed on the leather washer under the screw to render it soft and pliable.

2. When a lamp has been once used and the light extinguished it must not be again used until it has been refilled with kerosene and retrimmed.

3. The wick must be cut, or nipped by the fingers, straight across the burner and low at each corner.

4. Immediately the lamp is lighted the chimney must be put on and the flame turned only a little above the cone of the burner. At the expiration of five minutes the flame may be turned up to its proper and full height—about three-quarters of an inch above the cone. The chimney must be put properly down on its seat, as if left a little up air will enter at the bottom and cause the light to smoke and flare. The lid of the lamp must be left unfastened and a little up until immediately before the lamp is placed in the carriage.

5. Stationmasters at stations where kerosene roof lamps are trimmed must always keep a supply of kerosene, wicks and plugs, and leather washers for the screw in the reservoir. The washers in use must be renewed immediately they become hard.

General Instructions.

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6. Should a chimney-glass be found broken, or any leak appear in a lamp while in a running train, the lamp must be with all possible dispatch removed from the carriage and put out, and a fresh lamp obtained at the first lamping station. Any lamp smoking or burning too high must be at once adjusted.
7. Lamps in a leaky or imperfect condition must not be used, but must be sent to the repairing shop.
8. Stationmasters and Guards must personally examine the lamps to see that they are burning properly, and remove or retrim defective lamps.
9. A lighted roof lamp having oil in the bottom of the glass globe must not remain in any carriage.
10. If a train stand at a station longer than half an hour, the lights must be turned down low directly the train arrives, and turned up before its departure.
11. Kerosine roof lamps must be handled carefully. They must not be thrown from hand to hand when being put into or removed from carriages, but carefully passed from hand to hand.
12. Stationmasters must make themselves personally acquainted with the method of trimming and handling kerosine roof lamps, and must see that their staff is properly instructed in the work.
13. Spare roof lamps are kept at Peterborough and Mount Gambier.

List of Rolling
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List of Rolling Stock (Coaching, Goods and Live-
stock), showing Carrying Capacity and Tare.

LIST OF ROLLING STOCK (COACHING, GOODS, AND LIVESTOCK), SHOWING CARRYING CAPACITY AND TARE.

The following tables give class, number, carrying capacity, dimensions, and average tare of rolling stock (G.T.M., 529/06):—

No. of Vehicles.	Passengers		Average Tare, with Passengers, &c.		
	First	Second	Tons.	cwts.	
BOGIE PASSENGER STOCK—5FT. 3IN. GAUGE.					
SPECIAL VEHICLES.					
1	Vice-regal saloon, lavatory, with sleeping berths for	6	—	29	10
2*	Observation cars, lavatory " " " "	10	—	34	0
1†	Observation car, lavatory " " " "	33	—	32	0
1	Ambulance car, lavatory " " " "	7	—	20	15
1	Hospital car " " " "	—	—	18	0
1	Officers' Inspection Carriage ("Murray") " " " "	7	—	18	0
FIRST CLASS.					
1	Saloon lavatory (No. 185) " " " "	17	—	20	15
13	Six compartment lavatory " " " "	42	—	27	15
27	" " " " ordinary " " " "	48	—	22	15
23	End and centre loading " " " "	76	—	29	10
5	End-loading " " " "	76	—	27	15
3	" " " " " " " "	56	—	21	0
2	" " " " with baggage compartments at one end	44	—	22	10
COMPOSITE.					
2	Two compartments, end-loading " " " "	38	38	26	10
2	" " " " " " " " with baggage compt.	28	28	25	10
1	" " " " " " " " " " " "	28	28	26	15
4	" " " " " " " " " " " "	24	24	20	0
1	" " " " " " " " " " " "	16	32	21	10
1	" " " " " " " " " " " "	40	20	23	0
2	" " " " " " " " " " " "	20	40	22	10
1	" " " " " " " " " " " "	28	32	22	15
7	Six " " " " ordinary " " " "	32	20	20	10
6	" " " " " " " " " " " "	24	30	20	15
5	" " " " " " " " " " " "	16	40	20	10
8	Seven " " " " " " " " " " " "	16	50	26	0
37	Six " " " " lavatory " " " "	14	36	26	5
1	Short bogie one end (Loco. Officers' Car) " " " "	24	—	11	0
SECOND CLASS.					
32	Six compartments, lavatory " " " "	—	54	25	5
12	Two " " " " end-loading " " " "	—	76	26	10
1	One " " " " " " " " " " " "	—	60	23	0
24	Six " " " " ordinary " " " "	—	60	19	15
10	" " " " " " " " " " " "	—	60	18	10
2	Seven " " " " " " " " " " " "	—	64	19	15
7	" " " " " " " " " " " "	—	70	25	10
3	Four " " " " and post office " " " "	—	40	18	0
3	Mail vans, with compartment each end " " " "	—	20	18	0
3	" " " " " " " " " " " "	—	20	21	10
4	Two compartments, end and centre loading " " " "	—	76	29	5
2	" " " " end-loading " " " "	—	48	20	5
8	" " " " " " bag compt. in centre " " " "	—	56	28	0

* Named respectively "Broughton" and "Willochra."

† Named "Wakefield."

No. of Vehicles.

2 Brakevan
1 " "
2 " "
3 " "
4 " "
8 " "
11 " "
1 Post office

2 Three comp
2 Brakevans,

2 Four comp

6 Brakevans
8 " "
2 " "
1 " "
1 Ambulance
1 Mortuary
1 First-aid van

1 Ambulance ca
1 Pay coach, lav
2* Observation ca

2† Five compart
3† Eleven " "
1 Two " "
1 Sleeping and
1 berths
2 Two compart

11 Two compart
15 " "
19 " "
2 " "
2 " "
5 Motor coaches
4 Two compart
9 " "
1 " "

* Named respectively
† Named respectively
† Named respectively
† Named "Wandana."

AND LIVESTOCK),
AND TARE.

ers	Average Tare, with Passengers, &c.	
cond	Tons.	cwts.

29	10
34	0
32	0
20	15
18	0
18	0

20	15
27	15
22	15
20	10
27	15
21	0
22	10

8	26	10
28	25	10
28	26	15
4	20	0
2	21	10
0	23	0
0	22	10
2	22	15
)	20	10
)	20	15
)	20	10
0	26	0
5	26	5
.	11	0

25	5
26	10
23	0
19	15
18	10
19	15
25	10
18	0
18	0
21	10
20	5
20	5
23	0

BOGIE PASSENGER STOCK—5 FT. 3 IN. GAUGE—continued.

FIXED WHEEL BASE PASSENGER STOCK.

SECOND CLASS.

2	Four compartments	—	40	9	10
---	-------------------------	---	----	---	----

BOGIE PASSENGER STOCK—3FT. 6IN. GAGE.

SPECIAL VEHICLES.		Passengers.			
		First	Second		
1	Ambulance carriage, lavatory	4	—	14	5
1	Pay coach, lavatory	—	—	13	15
2	Observation car, lavatory	18	—	23	5

	FIRST CLASS.				
-2†	Five compartments, sleeping and lavatory	18	—	25	10
3‡	" " " " "	16	—	28	0
1	Two " lavatory	30	—	24	10
1§	Sleeping and lavatory car (No. 174), with twelve berths and one compartment	18	—	15	ε
2	Two compartments, lavatory	24	—	23	1ε
8	" " " " "	29	—	24	0

COMPOSITE.					
11	Two compartments	14	24	13	10
15	“ “ lavatory	17	18	16	10
19	“ “ “	11	20	15	5
2	“ “ “	15	17	17	0
2	Motor coaches	9	13	21	15
5	Two compartments, lavatory	14	16	16	0
4	“ “ “	16	18	16	5
9	“ “ “	14	25	14	15
1	“ “ “	24	30	24	0

* Named respectively "Morumbro" and "Baroota."
† Named respectively "Yanyarrie" and "Wanilla."
‡ Named respectively "Alberga," "Coonatta," and "Nilpena."
§ Named "Wandana."

General Instructions.

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LIST OF ROLLING STOCK, ETC.—continued.

No. of Vehicles.		Passengers.		Average Tare, with Passengers, &c.	
		First	Second	Tons.	cwts.

BOGIE PASSENGER STOCK—3 FT. 6 IN. GAUGE—continued.

SECOND CLASS.

7	Two compartments, ordinary	—	44	14	15
4	One " "	—	44	14	15
3	Two " lavatory	—	34	16	15
22	" " "	—	60	24	0
10	" " "	—	36	16	0
2	" " "	—	50	24	0

BRAKE AND POST OFFICE VANS.

		Load.				
		Tns.	cwt.	qrs.		
16	Brakevans	2	0	0	10	7
10	"	12	0	0	19	5
7	Post office vans, lavatory	—	—	—	10	15

FIXED WHEEL BASE STOCK.

SECOND CLASS.

		Passengers.			
		First	Second		
1	One compartment	—	32	8	0

BRAKEVANS, ETC.

		Load.				
		Tns.	cwt.	qrs.		
12	Brakevans	1	10	0	8	15
1	Post office van	—	—	—	4	10
2	Ambulance carriages	—	—	—	6	0
2	First-aid vans	—	—	—	6	15

V. & S. A. JOINT STOCK—5 FT. 3 IN. GAUGE.

BOGIE STOCK.—FIRST CLASS.

Class.	No. of Vehicles.		Passengers.			
			First	Second		
—	6*	Ten compartments, vestibule, lavatory, sleeping berths for	20	—	37	5
—	2†	Boudoir, lavatory, sleeping berths for	20	—	32	15
AE		Eight compartments, vestibule, lavatory	48	—	24	15

SECOND CLASS.

SECOND CLASS.							
BE	6	Nine compartments, vestibule, lavatory.....	—	72	34	4	
				Load.			
				Tns.	cwt.	qrs.	
D	1	Mail baggage van	20	0	0	27	
DS	2	Sorting vans with lavatory	15	0	0	31	
CE	4	Brakevans	15	0	0	31	

* Named respectively, "Loddon," "Torrens," "Glenelg," "Finniss," "Barwon," and "Onkaparinga."

† Named respectively, "Hindmarsh," and "Latrobe."

Class.	No. of Vehicles.	
--------	------------------	--

GOC

—	44	Bogie, w each
—	3	Bogie, v
—	2	" "
—	47	Short
—	1	Brake w.

COV

—	4	Gunpowd
—	53	Steel lou
—	47	General
—	3	Wood lot
—	28	Refriger
—	10	Frozen r
—	2	General g
—	6	Cheese v

OPEN

F	6	Wooden
G	582	" "
G	45	Steel
G	503	" "
Y	543	" "
Y	343	Wooden
H	105	Wooden (
H		" "
H		" "
H		" "
J	470	Wooden
S	154	Stone and
W	1	Goods bogi
W	95	" "
X	67	Steel
P	1	Goods bogi
P	20	Hoppers (ir
L	40	Steel hopper
N	53	" "

FIL

M	6	Long, ordina
O	24	Small
P	1	Long (Clemi
T	14	Short, ordina
P	42	Bolster

HOL

—	19	Horse-boxes
—	4	Bogies

LIST OF ROLLING STOCK, ETC.—continued.

Class.	No. of Vehicles.	Type.	Carrying Capacity.	Length.	Width.	Average Depth.	Average Tare with Passengers, &c.
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GOODS AND LIVESTOCK VEHICLES—5 FT. 3 IN. GAUGE.

BRAKEVANS.

				ft. in.	ft. in.	ft. in.	Tns.	cwts.
—	44	Bogie, with 2nd class compartment each end	20 Pass. 6½ Tns.	36 5½	8 6	—	18	0
—	3	Bogie, with one 2nd class comp.	10 Pass. 8 Tons.	36 5½	8 6	—	18	6
—	2	“ ordinary	8	36 5½	8 6	—	17	2
—	47	Short “	3½	16 0	8 0½	—	10	3
—	1	Brake wagon	7	13 2	7 7	1 8	5	0

COVERED WAGONS.

								Average Tare.
—	4	Gunpowder and explosives vans ..	7	—	—	—	4	18
—	53	Steel louvered vans	7½	19 9	7 6	—	8	16
—	47	General goods vans	7, 8	14 7	7 3½	—	4	14
—	3	Wood louvered vans	4½	16 6	7 7	—	6	3
—	28	Refrigerator vans	7½	15 2½	7 7½	—	8	15
—	10	Frozen meat vans	8	15 7½	7 4	—	5	14
—	2	General goods vans	7	15 5	7 8	—	5	18
—	6	Cheese vans	7	15 5	7 8	—	5	9

OPEN GOODS WAGONS.

F	6	Wooden	7	—	—	4 0	4	17
G	582	“	7, 8, 10	15 9½	7 7½	2 3 3	5	1
Y	45	Steel	10	17 11½	7 8½	3 0	5	10
Y	503	“	16	19 11½	9 5½	3 6	6	15
H	543	“	16	19 11½	9 5½	3 6	7	9
	343	{ Wooden	8	13 7½	7 5	1 6	4	0
		{ Wooden (rounded ends)	8	13 7½	7 6	1 6	4	0
P	105	{ “	7, 8	13 9	7 7	1 9	4	12
		{ “	7, 8	15 3	7 9	1 10		
		{ “	7, 8	15 3	7 9	1 9		
J	470	Wooden	8	14 3	7 9	1 11		
S	154	Stone and goods wagons (wooden) ..	8	15 9	7 7½	1 6	6	5
W	1	Goods bogie (wooden)	7, 8	13 5	7 7	1 6	4	8
W	95	“	30	31 7½	8 1½	4 0	14	15
X	67	Steel	30	39 7½	8 3½	2 9	16	10
P	1	Goods bogie (wooden)	16	17 11½	8 6	4 6	6	14
P	20	Hoppers (iron)	21	31 7	7 7	2 6	12	13
L	40	Steel hoppers	6	—	—	—	4	7
N	53	“	15	—	—	—	8	3

FLAT WAGONS.

M	6	Long, ordinary	7	20 1	8 4	—	4	11
O	24	Small	5	—	—	—	1	14
P	1	Long (Cleminson)	—	28 0	7 11	—	8	2
T	14	Short, ordinary	7	17 7½	8 0	—	3	10
P	42	Bolster	7	17 6½	7 11	—	4	2

HORSE BOXES.

			Horses.					
—	19	Horse-boxes with grooms' compt.	3	14 6	8 1	—	6	9
—	4	Bogies	12	48 3	7 9½	—	25	10

nued.

ngers.	Average Tare, with Passengers, &c.	
	Tons.	cwts.

ntinued.

44	14	15
44	14	15
14	16	15
10	24	0
16	16	0
50	24	0

qrs.		
0	10	7
0	19	5
—	10	15

qrs.		
0	8	0
—	10	15
—	6	0
—	6	15

qrs.		
0	8	15
—	4	10
—	6	0
—	6	15

d		
37		5
33		15
34		15

34		4
----	--	---

27		3
31		2
31		15

"Barwon," and

General Instructions.

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LIST OF ROLLING STOCK, ETC.—continued.

Class.	No. of Vehicles.	Type.	Carrying Capacity.	Length.	Width.	Average Depth.	Average Tare.
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GOODS AND LIVESTOCK VEHICLES—5FT. 3IN. GAUGE—continued.

CATTLE VANS.

Cattle.

V R O O	80	Ordinary (new type)	8	16	1	8	5	—	7	5
	63	" (old type)	8	15	5	7	8	—	5	15
	26	Bogie	16	31	4	7	5	—	12	15
	34	"	16	35	4	8	0	—	13	5

SHEEP VANS.

Sheep.

				ft.	in.	ft.	in.	ft.	in.	Tons.	cwts.
B B C C O	21	Medium	100	18	0	8	3	—	—	7	0
	192	Ordinary	100	18	0	8	3	—	—	8	4
	54	Long	120	21	9	8	3	—	—	8	0
	24	Bogie	200	36	0	8	0	—	—	13	10
	2	Portable sheep ramps	—	—	—	—	—	—	—	5	7

GOODS AND LIVESTOCK VEHICLES—3FT. 6IN. GAUGE.

BRAKEVANS.

Average Tare,
with
Passengers, &c.

	28	Bogie, with 2nd class compartment each end	16 Pass. 6 Tns.	33	9	7	6	—	13	15
	5	Compo. bogie and sleepers	8 Pass. 6 Rly. empty.	44	0	7	9	—	19	15
	84	Short, ordinary	Tons. 14	15	0	7	6	—	8	6

COVERED WAGONS.

Tons.

Average Tare

A A P V	9	Gunpowder and explosives vans ..	—	13	5 1/2	7	1	—	4	10
	65	Goods	6	13	5 1/2	7	1	—	3	11
	6	Cheese vans	6	13	5 1/2	7	1	—	3	12
	3	Refrigerator vans	5 1/2	15	2 1/2	6	7 1/2	—	5	19
	45	Steel louvered "	6	16	6	6	9	—	6	13

OPEN WAGONS.

B B C C X C C D E N S T T W X Y Z	71	Goods	6 1/2	13	7 1/2	6	7 1/2	(2 4) (2 6)	3	10
	426	"	8	13	7 1/2	6	7 1/2	2 6	3	10
	1341	"	6, 6 1/2	13	7 1/2	6	8 1/2	1 6	3	3
	310	"	8	13	7 1/2	6	8 1/2	2 3	3	4
	803	"	8	13	7 1/2	6	8 1/2	1 6	3	4
	12	" Cleminson	10	27	2	6	8	1 6	6	13
	224	"	6, 6 1/2	13	8 1/2	6	8 1/2	1 6	4	0
	6	Ore	12	13	7 1/2	6	7 1/2	2 6	4	14
	2	Bogie goods	22	31	7 1/2	6	7 1/2	2 6	10	3
	1	"	18	31	7	6	7 1/2	2 6	14	3
	6	"	22	35	7 1/2	7	12	2 9	10	17
	51	"	25	29	11 1/2	7	5 1/2	2 6	8	14
	725	Goods	12	14	7 1/2	7	1 1/2	2 9	5	7
	291	"	12	11	7 1/2	7	1 1/2	2 9	5	5
	25	Steel hoppers	11	—	—	—	—	—	5	3

FLAT WAGONS.

F G F	34	Small	6	14	0	7	0	—	3	0
	2	" with screwbrake	6	—	—	—	—	—	2	6
	2	Long	10 1/2	—	—	—	—	—	4	7

GOODS

BOI

H | 42 | Permane

HO.

J | 26 | Ordinary

O | 4 | "

CAT

K | 93 | Ordinary

R | 41 | Bogie

L | 45 | "

SHE

M | 60 | Ordinary

C | 44 | Bogie

U | 108 | Ordinary

I | 4 | Portable s

LIST OF ROLLING STOCK, ETC.—continued.

—continued.

Width.	Average Depth.	Average Tare.
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3 IN. GAUGE—continued.

8 5	—	7 5
7 8	—	5 15
7 5	—	12 15
8 0	—	13 5

ft. in.	ft. in.	Tons.	cwt.
8 3	—	7	0
8 3	—	8	4
8 3	—	8	0
8 0	—	13	10
—	—	5	7

IN. GAUGE.

Average Tare, with Passengers, &c.	
6	13 15
7 9	19 15
6	8 6

Average Tare	
1	4 10
1	3 11
1	3 12
7 4	5 19
9	6 13

7 4	(2 4)	3	10
7 4	(2 6)	3	10
8 4	2 6	3	3
8 4	1 6	3	4
8 4	2 3	3	4
8 4	1 6	3	13
9	1 6	6	0
8 4	1 6	4	14
7 4	2 6	10	3
7 4	2 6	14	3
7 4	2 6	10	17
7 4	2 0	8	14
7 4	2 9	5	7
7 4	2 0	5	8
7 4	2 0	5	3

—	3	0
—	2	6
—	4	7

Class.	No. of Vehicles.	Type.	Carrying Capacity.	Length.	Width.	Average Depth.	Average Tare.
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GOODS AND LIVESTOCK VEHICLES—3 FT. 6 IN. GAUGE—continued.

BOLSTER WAGONS.

Tons.

H	42	Permanent	6 { 14 0 } 13 11	7 0	—	3	5
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HORSE BOXES.

Horses.

J	26	Ordinary	2	13 11	6 7 1/2	—	4	3
OJ	4	" " with grooms' compt	3	14 0	8 0	—	5	3

CATTLE VANS.

Cattle.

K	93	Ordinary	8	14 5	6 11	—	3	15
R	41	Bogie	16	31 4	7 5	—	9	19
L	45	"	18	35 4	7 8	—	10	0

SHEEP VANS.

Sheep.

M	60	Ordinary	100	19 6	7 6	—	5	7
U	44	Bogie	200	36 0	8 0	—	10	15
MM	108	Ordinary	100	19 6	7 6	—	6	12
—	4	Portable sheep ramps	—	—	—	—	3	18

General Instructions in connection with the
Crossing of Trains.

CROSSING TRAINS ON SINGLE LINES NOT WORKED UNDER THE ELECTRIC STAFF SYSTEM.

A—AT STATIONS OTHER THAN THOSE NAMED IN THE TIME TABLES OR SPECIAL ADVICES AND HAVING RESIDENT STAFF.

1. Stationmasters must always have a supply of crossing orders on hand.
2. The crossing places must never be changed unless a thorough and clear understanding exists between the officers directing the movements of the trains after ascertaining position of the trains the crossing places of which it is desired to alter. Immediately a crossing is altered, the officers so altering must advise all concerned of the change made.
3. The arrangements must be made by telegraph, and all messages sent in connection with the crossing of trains must be prefixed "T.X." danger message, which message must be repeated and entered in a book (ordinary foolscap) kept for that purpose only. The telephone must only be used when the Morse telegraph instrument is not available.
4. After a thorough understanding is arrived at, a message in the following form must be sent between the two stations affected:—

"T.X." Number of words.
 From to The train from will cross the
 from at Repeat.
5. This message must always be written in ink on the proper form (black) before being sent, and word by word on the proper form (red) as received (*vide Rules*), and must be recorded on the tape when Morse telegraph instruments are used.
6. After the message has been repeated, the train must not start until the instructions in the Rule Book are fully complied with on lines worked by block rules.
7. EACH Engineman and the Guard of the train to be advanced beyond the booked crossing station must be furnished with a crossing order as per form at foot, stating the station at which the trains are to cross, which will authorise them to proceed to that station in advance, where they will either cross the other train, or receive a further crossing order to proceed to the next station. Each Engineman and the Guard of the train running late to be advised in writing of the altered crossing by the Stationmaster of the specially arranged crossing station after the train has been brought to a stand by signal. At stations where a Starting Signal is provided, the Home and Distant Signals may be lowered, and train advanced to the Starting Signal.
8. These instructions do not authorise any breach of the block working rules where they are in force.
9. Stationmasters must always keep themselves advised by telegraph or telephone of the running of trains, so as to be able to make early arrangements in advance for altering the crossing places or fixing the crossing station where none is advised.
10. Stationmasters, Guards, and Signalmen are held equally responsible with the Enginemen for seeing that no train or engine leaves or passes a station at which it is due to cross another train before such other train or engine has arrived, unless each Engineman and the Guard have received a crossing order on the proper form to advance to the next station to cross such other train or engine, or are advised, by proceed order (as per form at foot), that such other train or engine is not running.
11. In all cases where a special train is put on to run at such short notice that a special train notice cannot be issued by the General Traffic Manager or District Traffic Superintendent, the stations on each side of the station at which such train is to cross other trains must confirm the crossings which have been advised by telephone or telegraph with the Stationmaster at the crossing station, crossing orders being handed to the Enginemen and Guards of each train at the station on either side of the crossing station. If such crossings are altered, the instructions above must be adhered to. For crossing such trains at a station without Resident Staff, the instructions as regards these stations (see section B) must be obeyed. If the special is a "when necessary" train, and shown in the Working Book, these instructions will not be necessary, except in the case of crossing at a station without a Resident Staff, when instructions as regards these stations must be carried out.
12. When trains cross at stations with Resident Staff, but where fixed signals are not provided, the same working must be observed as that applicable to the crossing of trains at stations without Resident Staff (see section B), but the Stationmaster must assume control of the station working instead of the Guard.—G.T.M., 3374/04, W.N. Nos. 47/10, 9/11, 33/10, 17/11, and 12/10.

1. When to following instr
2. The trai must come to a the yard. The
3. When th The Guard of the and this signal r
4. When tw facing points. I of the station wo graph 3.
5. In no cas hour.
6. The Guar leaving that the p headed "Main L position.
7. When trai at the nearest stat after the crossing repeated hand to (foot) to confirm t running, a properl (See also instructic
8. No alterati Staff must be made (see section A), the side authorised to operation, crossings so, acting with a G the Guard will becc alter this crossing f must fill in and han forms, in order to in "crossing trains" is
9. Stations, wh not a Resident Staff.
10. When trains first must, if the oth telephone provided, masters concerned.
11. Guards must both sides before con they may ascertain.
12. When trains vided, the same wor stations without Res working instead of t 42/10, 33/11.
1. In order to avc the Stationmaster at 1 such station, it is foun such station, it is foun originally intended to thence to destination.
2. Crossing orders be prepared and signed or porter in charge.
3. Each Guard an receiving crossing orders

B—AT STATIONS WHERE THERE IS NO RESIDENT STAFF.

1. When trains are arranged to cross at any station where there is no Resident Staff, the following instructions must be strictly obeyed:—

2. The train ARRIVING FIRST must be the first to enter the station, but before doing so it must come to a stand outside the first facing points, and then proceed slowly to its position in the yard. The Guard then takes charge of the station working.

3. When the second train arrives it must come to a stand outside the first facing points. The Guard of the first train must then signal the second train into position when the line is clear, and this signal must be given from the first facing points to the approaching train.

4. When two trains approach at the same time, both must stop before reaching the first facing points. The Guard of the train due first must then go ahead, admit his train, take charge of the station working until his train departs, and admit the second train as instructed in paragraph 3.

5. In no case must either train enter the station at a greater speed than eight (8) miles an hour.

6. The Guard of the train leaving THE STATION OR SIDING LAST must satisfy himself before leaving that the points are left locked for the main line, or as provided for in the instructions headed "Main Line Switches," and that the signals (where provided) are in the regulation position.

7. When trains are timed to cross at stations without a Resident Staff, the Stationmaster at the nearest station on either side authorised to do so (see Working Time Tables Book) must, after the crossing message (as per form shown in clauses 3 and 4, section A) has been sent and repeated hand to each Engineman and Guard properly filled-in crossing orders (as per form at foot) to confirm the booked crossing. When a train which is booked to be crossed is not running, a properly filled-in proceed order must be handed to each Engineman and Guard. (See also instructions in paragraph 1, under the heading "Proceed Orders.")

8. No alteration of the crossing of trains booked to cross at stations without a Resident Staff must be made, except as directed by the instructions under the heading "Crossing trains" (see section A), the alteration being made by the Stationmaster at the nearest station on each side authorised to alter crossings. Except on sections where absolute block working is in operation, crossings may, in cases of emergency, be altered by a Stationmaster authorised to do so, acting with a Guard whose train is at a station without Resident Staff, when in such case the Guard will become the authorised officer to accept from the Stationmaster instructions to alter this crossing place. The Guard must carry the necessary crossing order forms, which he must fill in and hand to the Engineman, and must also be in possession of a supply of telegraph forms, in order to insure that section A, clause 4 of the instructions in this Appendix regarding "crossing trains" is carried out.

9. Stations, where there are caretakers only, are to be treated as "Stations where there is not a Resident Staff."

10. When trains cross at a station without Resident Staff, the Guard of the train arriving first must, if the other train cannot be seen or heard approaching, use the portable or other telephone provided, to ascertain its movements, or to ask for instructions from the Stationmasters concerned.

11. Guards must, when practicable, speak on the telephone to the first Stationmaster on both sides before commencing their journey from any station without a Resident Staff, so that they may ascertain, and the Stationmasters may know, how the trains are running.

12. When trains cross at stations with Resident Staff, but where fixed signals are not provided, the same working must be observed as that applicable to the crossing of trains at stations without Resident Staff, but the Stationmaster must assume control of the station working instead of the Guard.—G.T.M., 6316/06, 6638/06, 2060/02, W.N. Nos. 21/10, 33/10, 42/10, 33/11.

C—GENERAL.

1. In order to avoid delays in issuing crossing orders when two (2) engines are run on a train the Stationmaster at the starting station where the two engines are attached must telegraph such information to all stations ahead as far as the second engine is running. If, on reaching such station, it is found necessary to send the second engine beyond the point at which it was originally intended to detach it, the Stationmaster at the latter station must notify stations thence to destination.

2. Crossing orders must not bear erasures or alterations, must be filled in with ink, and must be prepared and signed by the Stationmaster himself when on duty, and at other times by the officer or porter in charge.

3. Each Guard and Engineman is equally with the Stationmaster held responsible for receiving crossing orders before leaving the controlling station.

S NOT WORKED UNDER SYSTEM.

TIME TABLES OR SPECIAL ADVICES AND STAFF.

crossing orders on hand.

as a thorough and clear understanding of the trains after ascertaining position of the train. Immediately a crossing is altered, the change made.

and all messages sent in connection with the crossing, which message must be repeated for purpose only. The telephone must only be used when available.

message in the following form must be

Words:
Train from will cross the
Repeat.

on the proper form (black) before being issued (vide Rules), and must be recorded

must not start until the instructions in the block rules.

be advanced beyond the booked crossing. The Guard at foot, stating the station at which the train is to cross in advance, where the crossing order to proceed to the next crossing is to be advised in writing of the crossing order after the train has arrived at the Starting Signal. The Guard must advance to the Starting Signal.

of the block working rules where they

vised by telegraph or telephone of the Stationmaster in advance for altering the crossing order.

equally responsible with the Enginemen and Guards of each train at the station at which it is due to cross another train. Each Engineman and the Guard have to be advised in writing of the crossing order to the next station to cross such other train (as per form at foot), that such other train or

at such short notice that a special train or District Traffic Superintendent, the Stationmaster must confirm the crossing order with the Stationmaster at the station where the crossing is to be altered, the instructions above must be followed. If the special is a "when necessary" crossing, no special instructions will not be necessary, except in the case of stations where the instructions as regards these stations

aff, but where fixed signals are not provided, the Stationmaster must assume control of the crossing of trains at stations where the Stationmaster must assume control of the crossing of trains at stations, W.N. Nos. 47/10, 9/11, 33/10, 17/11,

4. When trains run to a station at which there is no Stationmaster, the trainmen must be supplied with the necessary crossing orders for the return journey at the last station passed on the outward journey where there is a Stationmaster. For instance, the Stationmaster, Hawker, must supply the trains running down between his station and Parachilna, and the Stationmaster, William Creek, the trains running down between his station and Oodnadatta.

5. Crossing orders issued in connection with a booked train continued beyond a certain point to a special timing must refer to such train beyond such station, not as "No." but as the "..... a.m. or p.m. special from to"

6. In connection with trains booked to run on certain days only it is not necessary to issue crossing orders for the days on which the train is not booked to run.

7. When a train leaves on a Saturday and runs into Sunday working, or leaves on a Sunday and runs into Monday's working (or works on a Sunday throughout to the timing of a booked week day train), the trainmen must be provided with crossing or proceed orders in accordance with the instructions in this book for all trains where a crossing bar is shown in the Working Time Tables.

8. Crossing orders must not be issued, either under section A or B, until the crossing message as shown in clause 4 of section A is sent and repeated.

9. On lines worked on the electric staff block system, the possession of the staff is subject to the Rules and Instructions in this Book, the authority for an Engineman to proceed from one station to another.

10. Preference for the use of telephone circuits must always be conceded to messages in connection with the crossing of trains, even though this may entail interruption of any conversation which may be in progress.—W.N., 31/17.

SOUTH AUSTRALIAN RAILWAYS.

[30.]

CROSSING ORDER.

To be used when two trains have to cross at a Station other than those named in the Timetables, or special advices, or where trains cross at a Station without Resident Staff.

.....Station.....day, the.....day of.....19.....

Guard } of No..... Train, go to.....
Driver }

and there cross the.....Train.

.....Stationmaster.

N.B.—In no case must this crossing order be issued—either under Section A or Section B—until the crossing message as per form shown in Clause 4 of Section A has been sent and repeated.

C.M.E., 4084/07.

Crossing orders are printed in black ink on white paper, with a large red cross on the face of the form.—W.N. Nov. 33/10, 3/11.

PROCEED ORDERS.

1. Except on lines worked on the Electric Staff Block System, when a train booked to cross another at a certain station is not running, as is frequently the case with "when necessary" trains, the Stationmaster at the crossing station; or at the up or down controlling stations, as the case may be, of intermediate stations without Resident Staff, must hand to each Engineman and Guard of the running train a proceed order (see form at foot), and this will authorise them to proceed to destination without obtaining further proceed orders for the train not running.

2. In order to avoid delays in issuing proceed orders when two engines are run on a train, the Stationmaster at the starting station where the two engines are attached must telegraph such information to all stations ahead as far as the second engine is running. If, on reaching such station, it is found necessary to send the second engine beyond the point at which it was originally intended to detach it, the Stationmaster at the latter station must notify stations thence to destination.

3. Proceed orders be prepared and signed by the Stationmaster, or by an officer or porter in charge.

4. Each Guard at receiving proceed orders must be supplied with the necessary crossing orders for the return journey where necessary.

5. When trains run on a Sunday or Monday, the Stationmaster at William Creek, the trainmen must be supplied with the necessary crossing orders for the return journey where necessary.

6. Proceed orders issued to a special timing must be as the "..... a.m. or p.m. special from to"

7. In connection with proceed orders for the day from Parachilna to Paringa, proceed orders are required for the day from Paringa to Parachilna, and on Fridays, owing to the instructions in the clause directed to the clause in the instructions.

8. Under this instruction, only, cannot be advised to work it on these off days, that it would be technical, not "No."

9. When a train leaves on a Sunday and runs into Monday's working (or works on a Sunday throughout to the timing of a booked week day train), the Trainmen must be provided with instructions in this book for all trains where a crossing bar is shown in the Working Time Tables.

10. On lines worked on the electric staff block system, the possession of the staff is subject to the Rules and the Instructions in this Book, the authority for an Engineman to proceed from one station to another.—W.N., 31/17.

To { Driver } of No.....
Guard }
No.....
Train can proceed.

Proceed orders are printed on white paper.

HOOPS FOR HANDING CANS.

Cane hoops are provided for the use of a train running through a station, and must be manipulated as follows:—The orders must be tied to the cane hoops, and the Enginemen, Firemen, or Guards must be supplied with the necessary crossing orders for the return journey where necessary. Cane hoops only must be used.—C.M.E., 2704/89.

Stationmaster, the trainmen must be
at the last station passed
instance, the Stationmaster,
n and Parachilna, and the
station and Oodnadatta.

continued beyond a certain point
not as "No." but
.... to

if it is not necessary to issue

working, or leaves on a Sunday
out to the timing of a booked
proceed orders in accordance
as is shown in the Working

or B, until the crossing message

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Engineer to proceed from one

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all interruption of any con-

[30.

use named in the Timetables,
at Resident Staff.

...day of.....19....

.....Stationmaster.

under Section A or Section B
in A has been sent and repeated.

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running. If, on reaching such
point at which it was originally
must notify stations thence to

3. Proceed orders must not bear erasures or alterations; must be filled in with ink, and must be prepared and signed by the Stationmaster himself when on duty, and at other times by the officer or porter in charge.

4. Each Guard and Engineman is equally with the Stationmaster held responsible for receiving proceed orders before leaving the controlling station.

5. When trains run to a station at which there is no Stationmaster, the trainmen must be supplied with the necessary proceed orders for return journey at the last station passed on the outward journey where there is a Stationmaster. For instance, the Stationmaster, Hawker, must supply the trains running down between his station and Parachilna, and the Stationmaster, William Creek, the trains running down between his station and Oodnadatta.

6. Proceed orders issued in connection with a booked train continued beyond a certain point to a special timing must refer to such train beyond such station, not as "No." but as the "..... a.m. or p.m. special from to"

7. In connection with trains booked to run on certain days only, it is not necessary to issue proceed orders for the days on which the train is not booked to run. For instance, a down train, Tailem Bend to Paringa, is headed "Monday, Wednesday, and Friday only." Accordingly, no proceed orders are required for this train on Tuesdays, Thursdays, and Saturdays. A down train, Tailem Bend to Paringa, is, however, headed "Tuesday, Thursday, and Saturday, other days when necessary." Proceed orders are in this case necessary on Mondays, Wednesdays, and Fridays, owing to the inclusion of the words "other days when necessary." Attention is directed to the clause in the Working Book under the heading "Explanatory Signs."

8. Under this instruction a train booked to run on, say, Mondays, Wednesdays, and Fridays only, cannot be advised as running on Tuesdays, Thursdays, or Saturdays, and if it be necessary to work it on these off days, the full running would have to be advised by special train notice, so that it would be technically known as the "..... a.m. or p.m. down or up special," not "No. down or No. up."

9. When a train leaves on a Saturday and runs into Sunday's working, or leaves on a Sunday and runs into Monday's working (or works on a Sunday throughout to the timing of a booked week day train), the Trainmen must be provided with proceed or crossing orders in accordance with instructions in this Book, for all trains where a crossing bar is shown in the Working Time Tables.

10. On lines worked on the Electric Staff Block System, the possession of the staff is subject to the Rules and the Instructions in this Book, the authority for an Engineman to proceed from one station to another.—W.N. Nos. 12/10, 33/10, 3/11, 9/11.

SOUTH AUSTRALIAN RAILWAYS.

[64.

Proceed Order.

To { Driver } of No. Train.
Guard }

No.* Train is not running to-day, and therefore No.*
Train can proceed.

..... S M.

..... Station,

..... 190

* Insert No. and "Up" or "Down."

Proceed orders are printed in black on white paper.

HOOPS FOR HANDING CROSSING, PROCEED, AND OTHER ORDERS TO TRAINMEN WHEN RUNNING THROUGH STATIONS.

Cane hoops are provided at each station for the purpose of handing to Enginemen and Guard of a train running through a station proceed, crossing, and other orders, and the hoops must be manipulated as follows:—

The orders must be tied to the hoops, and the latter held in such a position that the Enginemen, Firemen, or Guard can, without difficulty take them. After the orders are detached the Enginemen and Guard must throw the hoops on the ground, to be picked up by the Station Staff. Cane hoops only must be used, and on no account must hoops made of any other material be utilised.—C.M.E., 2704/99, W.N. No. 19/10.

BROAD-GAUGE STATIONS WITH ONLY ONE PASSENGER PLATFORM.

At unattended non-interlocked stations where there is only one passenger platform, trains when crossing must, as a general rule, and unless otherwise specified, adopt the following method in running to the platform line:—

Two Passenger Trains.—Down passenger train to take the passenger platform road.

Two Mixed Trains.—Down mixed train to take the passenger platform road.

Two Goods Trains.—Up goods train to take the passenger platform road, to enable the down goods train to take the goods siding, if necessary, to deal with "take-outs."

Mixed and Goods.—Mixed train to take the passenger platform road.

Passenger and Mixed.—Passenger train to take the passenger platform road.

Passenger and Goods.—Passenger train to take the passenger platform road.

If, however, there be sufficient time, between the arrival of the train shown above as taking the passenger platform road, and the arrival of the other train, to allow the latter to draw to the passenger platform road (if necessary) complete its work, and subsequently take up its proper position in the yard before the arrival of the former train, this must be arranged.

Unless otherwise provided for, when passenger and mixed trains on broad-gauge lines cross at stations having only one platform, and the train first at the platform has resumed its journey, the other must be backed in the direction taken by the departed train, and when clear of the switches be drawn to the platform siding.—W.N., 6/18.

TRAINS CROSSING.

When two trains have to cross, the home and distant signals must not be lowered to admit a second train until the first train comes to rest, and the *Signalman before lowering the signals for the second train must satisfy himself that the first train is standing inside the fouling disc at each end of the line on which it has been admitted.* (See also instructions in Rule Book.)—G.T.M., 7110/07.

TRAINS CROSSING AT JUNCTION STATIONS.

Except when a train is running under the protection of the electric staff, when two trains running on different lines are booked to cross at junction stations, and one has proceeded on its journey without making the crossing in consequence of the other train running late, the fact must be communicated in writing by the Stationmaster to the Engineman and Guard of the train running late.—G.T.M., 4454/01.

SUPPLYING ENGINEMEN WITH INFORMATION REGARDING TRAINS.

Stationmasters must, when requested, supply, *in writing*, any information required by Enginemen as to the running of trains.

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PASSENGER PLATFORM

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adopt the following method

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with "take-outs."
n road.
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train shown above as taking
allow the latter to draw to the
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trains on broad-gauge lines
the platform has resumed its
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must not be lowered to admit
an before lowering the signals
inside the fouling disc at each
ons in Rule Book.)—G.T.M.,

NOTES

lectric staff, when two trains
und one has proceeded on its
train running late, the fact
Engineman and Guard of the

REGARDING TRAINS.

any information required by

General Instructions regarding Shunting.

SHUNTING.

DEFINITIONS OF SHUNTING.

The following are definitions of the different methods of shunting:—

1. A "shunt" is the movement of any engine, or engine and vehicles it coupled together, from one place to another in a station yard.
2. A "kick-off" means the propelling of one lot of vehicles coupled together, but which have been uncoupled from the engine propelling them either along one line of rails or from one line of rails to another.
3. A "fly-shunt" means that, while an engine is drawing vehicles attached to it towards a set of facing points the vehicles are uncoupled from the engine, and the engine is run on to one line of rails and the vehicles are run past the engine, but on to another line of rails.

ENGINES OVER SWITCHES.

An Engineman, when properly signalled by a shunter to make a shunt over a pair of switches is supposed to do so on the assumption that the switches are correctly set, but this does not relieve the Engineman of the responsibility of keeping a sharp lookout to see, as far as practicable, that the switches are properly set and that the road is clear.—O.B.M., 218.

ENGINEMEN SHUNTING IN TRAFFIC YARDS.

Enginemen or Firemen must not manipulate switches in a Traffic Yard, but if an engine be running light, the Engineman or Fireman, at sidings without Resident Staff, or at stations without Resident Staff on duty, may manipulate switches to take water or for other necessary purposes. In such cases the Engineman must see that he is supplied with an "S" key. See also instructions in this book under the heading "Main Line Switches," and instructions in Rule Book with reference to "Scotch Blocks."

TRAILING THROUGH SWITCHES.

Interlocked and cheeseknob switches must not be trailed through, but they must be previously set for the road on which the engine or vehicles will run. At Port Adelaide Dock Station this instruction will not apply to points outside the station yard.—W.N. No. 44/11.

Spring switches may be trailed through.

ENGINE SHUNTING THROUGH INTERLOCKED POINTS.

Enginemen must see that all signals and indicators show correctly.—C.M.E., 3249/08.

Enginemen shunting, unaccompanied by a Traffic employé, must see they are clear of the switches before giving the code whistle for their alteration, and must then see that the road is properly laid.

PERMANENT WAY TROLRIES IN STATION YARDS.

When a Permanent Way trolley works in a station yard it must not be put on the rails and moved from line to line until the Permanent Way man in charge of the trolley, and the Traffic employee in charge of shunting, have come to a clear understanding as to the shunts the trolley has to make. These instructions do not refer to trolleys coming from, or going to, lengths on the main line, as this working is controlled by the instructions in the Rule Book.—G.T.M., 4518/93.

VEHICLES FITTED WITH WESTINGHOUSE BRAKE PIPES ONLY.

Loco. Officers' Car, No. 12 (broad gauge), not being fitted with brake blocks must not be kicked off when shunting, nor must it be detached from trains until secured by either a sprag or block to prevent it getting away.—G.T.M., 4963/99.

Every care must be exercised in shunting with vehicles marked ☐ as they are fitted with pipes only, and not with the Westinghouse air brake complete. See also instructions headed "Designation on vehicles fitted with Westinghouse brake."

USING WESTINGHOUSE AUTOMATIC AIR BRAKE.

Except in cases of emergency or impending accident the Westinghouse air brake must not be used in connection with the shunting of goods vehicles, unless they are all fitted with the Westinghouse air brake, and all the hose pipes coupled so that the brake can be operated from the engine.—W.N. No. 15/13.

USE OF

Enginemen must insure as if the brake be suddenly applying the brake, damage.

SH

Shunting on to trains starting trains with a je livestock must not be sh Vehicles loaded with and forwards in marshalling See also instructions in this Trains."—W.N. No. 32/1.

SHUNTI

Carriages containing other vehicles detached from

SHUN

When W, Q, S, T (S) during shunting operations: vehicles. As these vehicles off on to standing vehicles

SHUN

Shunting with two en

At interlocked station switches being used must C.M.E., 2227/99.

Employés under 18 years during shunting operations. employé under the age of 21 and the District Traffic Superintendent, undertake the

Those engaged in yard side boots.—R.C., 756/05.

In all Loco. Yards and C.M.E., 1153/05.

SHU

A speed of two (2) miles

SHU:

Before shunting over engines properly in their places. A speed of two (2) miles

When shunting with horse used for hooking the tail guards, and axle-guards of wagons

Standing on brake lever must, instead, be pinned down

USE OF ENGINE HAND BRAKE WHEN KICKING OFF.

Enginemen must instruct their Firemen in the use of the hand brake when "kicking off," as if the brake be suddenly jammed on tightly, and the draw gear not allowed to stretch before applying the brake, damage to vehicles is caused.—W.N. No. 30/14.

SHUNTING AND INJURY TO LIVESTOCK.

Shunting on to trains containing livestock must be carefully performed, and violent shunting, starting trains with a jerk, and stopping suddenly must be avoided. Vehicles loaded with livestock must not be shunted detached from the engine.

Vehicles loaded with livestock must not be attached to the engine and shunted backwards and forwards in marshalling trains, but placed in proper order with the least possible shunting. See also instructions in this book under the heading "Marshalling of Mixed, Goods, and Livestock Trains."—W.N. No. 32/11.

SHUNTING CARRIAGES CONTAINING PASSENGERS.

Carriages containing passengers must not be shunted detached from the engine, nor must other vehicles detached from the engine be shunted on to carriages containing passengers.

SHUNTING BOGLE TRUCKS (NARROW GAUGE).

When W, Q, S, T (S.A.R.), D and E (S. Tram Co.) trucks are detached from the engine during shunting operations, the brakes must be applied in time to prevent collision with other vehicles. As these vehicles, when loaded, weigh between 34 and 35 tons, they must not be kicked off on to standing vehicles unless a competent person be in charge of the brake.—C.M.E., 3640/07.

SHUNTING WITH TWO ENGINES ATTACHED.

Shunting with two engines attached is strictly forbidden unless absolutely necessary.

INTERLOCKED STATIONS.

At interlocked stations, before shunting operations are commenced, the bolt-lock of the switches being used must be withdrawn and kept so until the operations are completed.—C.M.E., 2227/99.

YOUTH PORTERS.

Employés under 18 years of age must not shunt, assist in shunting, or manipulate switches during shunting operations. This regulation does not, however, apply to horse-shunting. No employé under the age of 21, and no employé not passed as competent by the Railway Electrician and the District Traffic Superintendent of the line on which he is to work, must, under any circumstances, undertake the work of train signalling or block working.

FOOTWEAR.

Those engaged in yard or shunting work are advised, in their own interests, to wear elastic-side boots.—R.C., 756/05.

FLY-SHUNTING, LOCO. YARDS.

In all Loco. Yards and Running Sheds fly-shunting of any vehicle is absolutely forbidden.—C.M.E., 1153/05.

SHUNTING OVER TRUCK TURNABLES.

A speed of two (2) miles per hour must not be exceeded when passing over truck turntables.

SHUNTING OVER ENGINE TURNABLES.

Before shunting over engine turntables Shunters must examine the catches to see that they are properly in their places.—W.N. No. 43/11.

A speed of two (2) miles per hour must not be exceeded when passing over engine turntables.

HORSE-SHUNTING.

When shunting with horses, only the proper irons provided on trucks for the purpose must be used for hooking the tackle on, and Stationmasters must see that tarpaulin irons, brake-guards, and axle-guards of wagons are not utilised for shunting purposes.—C.M.E., 1201/07.

STANDING ON BRAKE LEVERS.

Standing on brake levers is strictly forbidden, except in cases of emergency. The lever must, instead, be pinned down.

SHUNTERS RIDING ON SIDES OF X AND Y TRUCKS.

Shunters must not, under any circumstances, ride on the sides of the broad-gauge trucks of the X and Y and Yr class, as they are broader than the other goods wagons, and the men riding on the sides run a risk of injury through fouling permanent structures.—W.N. No. 42/10.

SHUNTING IN STATION YARDS.

1. No shunting or movement of any vehicle must be allowed in a station yard which could in any way foul a line on which a train is arriving or departing.
2. Before an engine is uncoupled for shunting purposes the Guard or Shunter must apply the hand brake in the van (if one attached) and secure it by the chain, *vide* instruction in this book headed "Brakevans." Sufficient truck brakes must be dropped to effectively prevent the movement of any portion of the train causing the fouling of the line for an incoming or departing train.—G.T.M., 6755/09.

SPEED OVER WEIGHBRIDGES.

A speed of three (3) miles per hour must not be exceeded when passing over weighbridges.—W.N., No. 20/17.

WORKING OVER WEIGHBRIDGES.

An engine must not stand on a weighbridge so that water from the injectors can fall into the pit, and as far as practicable, Enginemen must not use the injectors when passing over a weighbridge.

Employés in charge of weighbridges must report, in writing, to the Stationmaster, each instance of these instructions being disregarded.—W.N. No. 44/14.

General Instru
Vehicle

TRUCKS.

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General Instructions for Train Working, Coupling Vehicles, Switches and Signalling.

TRAIN WORKING, COUPLING VEHICLES, SWITCHES AND SIGNALLING.

ENGINES PASSING CARRIAGES CONTAINING PASSENGERS.

At narrow-gauge stations when an engine, with or without a train, passes alongside a train containing passengers, the Stationmaster must place a sufficient number of men in attendance to keep the line clear whilst the engine is passing the carriages. The Guard of the stationary train must also assist in keeping the line clear. See also instructions under the heading "Engine Whistles."

PRECEDENCE OF TRAINS.

In arranging crossings, or should "line clear" be asked by two stations of each other about the same time on a single line, passenger trains, as a general rule, must be given precedence over all other trains, their relative value being in the following order:—

- Express passenger trains.
- Passenger trains.
- Mixed trains.
- Livestock trains.
- Express goods trains.
- Goods trains.
- Ballast trains.

Stationmasters and Signalmen must, however, inquire how the ordinary and special trains are running, and look ahead to ascertain the effect of the proposed working upon other trains and their connections, before rigidly adhering to this general rule. The object is to give preference to that train which will result in the least possible dislocation of the general service and inconvenience to the public, due regard being paid to the importance of the trains affected. For example it is not good working to make, say, a goods train miss a crossing thereby involving a serious delay in order to avoid a detention of a few minutes to a passenger train, the latter having a better chance than the former, generally speaking, to make up lost time.

Ballast Trains.—In working forward ballast trains consideration must also be given to the fact that delays to them often mean considerable expense when large gangs of men are concerned.

Break-down Specials.—Break-down specials, when proceeding to an accident, must be given as expeditious despatch as possible, and if the hospital car be attached, such train must have preference over all others.

Mail Specials.—Mail specials must be given preference over all trains except those express passenger trains, passenger trains, and mixed trains which are shown in the Working Time Table Book.

Light Engines.—Light engines going into traffic must be given as expeditious despatch as possible, as it is most important that they should be at the starting station so as not to delay their trains.

Light engines going out of traffic to their stabling depot must not be given preference over any other train, due regard, however, being given to the Enginemen's time.—W.N., No. 51/17.

TRAINS STOPPING SHORT OF PLATFORMS.

When a train is stopped at a station with any of the carriages away from the platform the Guard as well as the Station Staff must see that the passengers are not allowed to alight from or join such vehicles until they are drawn to the platform, or other arrangements are made for the passengers to leave or enter the carriages without injuring themselves.—(Cir. 1301.)

TRAINS STOPPING AT STATIONS.

(a) An Engineman must approach carefully all stations at which his train is timed to call, and must not stop short of, or over-run, the platform; he must also exercise care in passing stations where he is not required to stop.

(b) Should a passenger or mixed train, in stopping at a station, stop short of, or over-run, the platform, or should the train require to be moved after coming to a stand, the Engineman must not draw the train forward or move it back until he receives a hand signal from the Guard only, on the authority of the Stationmaster, the Staff first taking steps to prevent passengers leaving or entering the carriages by closing all carriage doors. The signal can then be given to move, the Engineman sounding the whistle before moving the train. This instruction does not apply to the movements of trains at terminal stations after the passengers have alighted.

(c) In the event of signal the Engineman

(d) When a train is stopped for the convenience of the hand signal the Engineman must keep

(e) Should a train be stopped between the engine and

(f) The foregoing instructions must not be so interpreted as to allow a train to stop or to foul an adjacent

Trains or engines must be stopped in great emergency. When a train is stopped on the main line the train with a danger signal must make frequent use of the whistle.—G.T.M., 604/18.

Except as provided otherwise, a train must not be stopped for the purpose of passing a train where they are not time

TRAINS 1

The following instructions apply to all stations—C.M.E., 107/1.

The word "platform" is used to mean the platform is provided, and not the passenger traffic."

(a) At Stations

1. At a station where a train is stopped, the engine must be lowered to caution.

2. At a station where a train is stopped, and Distant signals, as well as the engine, must be lowered to "caution," from side to side, must be given.

3. If the section ahead is closed, Distant signals must be lowered to "caution," in the Rule Book.

4. Except at the stations where the Engineman must be given the instructions contained in the Rule Book.

5. The green hand signal must not be given for stations where the engine is stopped.

Adelaide or

Adelaide or

Glanville and

Woodville and

Dry Creek and

Adelaide or

Adelaide (N)

Adelaide (S)

Adelaide or

Adelaide or

6. Where goods or livestock are being run through, the Guard must inform the Engineman of this. This will be done upon clauses 2 and 4 being given.

7. When a train is stopped, the Home and Distant signals must be reduced to danger. The signal must be kept at danger. If a train is stopped, it must also be exhibited from the

(c) In the event of the whole of the train running past the platform, the Guard must not signal the Engineman to set the train back without the authority of the Signaller.

(d) When a train is running into a station and the station staff wish it to pull up at a certain spot for the convenience of brakevan loading or other station work, the Stationmaster must hand signal the Engineman, before the train comes to a stand, to the desired stopping place. Engineman must keep a sharp lookout in expectation of such a signal.

(e) Should a train be too long to bring the whole of it alongside the platform, any vehicles between the engine and front passenger carriage may be drawn past the platform.

(f) The foregoing do not, however, authorise Enginemen to pass a starting signal at "danger," nor to foul an adjacent road, except under amended rule No. 151.—W.N. No. 7/16.

TRAINS MOVING IN A WRONG DIRECTION.

Trains or engines which have left a station yard must not be put back, except in cases of great emergency. When a train or engine has to put back to a station, or move in a wrong direction on the main line, the Guard (or Fireman, in the case of a light engine) must precede the train with a danger signal at a distance of 800 yds., and while moving the Engineman must make frequent use of his whistle, and must not travel at a speed exceeding four (4) miles per hour.—G.T.M., 694/18.

TRAINS STOPPING WHERE NOT TIMED.

Except as provided for in the Working Book or special instruction, trains must not be stopped for the purpose of picking up or putting down passengers or loading at any station where they are not timed to stop.—W.N. Nos. 17/11 and 19/11.

TRAINS ENTERING AND RUNNING THROUGH STATIONS.

The following instructions must be observed regarding trains entering and running through stations—C.M.E., 107/18, and G.T.M., 7787/09:—

The word "platform," for the purpose of these instructions, shall, where no passenger platform is provided, mean, "the recognised regular stopping place in the station yard for passenger traffic."

(a) AT STATIONS WHERE INTERLOCKED APPARATUS IS INSTALLED.

1. At a station where the approaching train is timed to stop, the Home and Distant signals must be lowered to caution, when required to admit a train to the platform or other line.

2. At a station where a train is not timed to stop, if the section ahead be clear, the Home and Distant signals, as well as the Starting and Advance Starting signals, where provided, must be lowered to "caution," or, in the absence of Starting signals, a green hand signal, waved gently from side to side, must also be displayed to the approaching train from the signal cabin.

3. If the section ahead be not clear for the non-stopping train to proceed, the Home and Distant signals must be kept at "danger," and the train pulled up at them, except as provided in the Rule Book.

4. Except at the stations mentioned in clause 5, a train must not run through any station unless the Engineman receive a green hand signal, held steadily, from the Guard, in addition to the instructions contained in clause 2, being complied with.

5. The green hand signal from the Guard for non-stopping trains to run through must not be given for stations on the undermentioned suburban lines:—

Adelaide or Mile End and Outer Harbour.
Adelaide or Mile End and Port Adelaide Dock.
Glanville and Semaphore.
Woodville and Henley Beach.
Dry Creek and Port Adelaide Dock.
Adelaide or Mile End and Northfield.
Adelaide (North Terrace) or Mile End and Glenelg.
Adelaide (South Terrace) and Glenelg.
Adelaide or Mile End and Hallett's Cove.
Adelaide or Mile End and Blackwood.

6. Where goods or livestock trains, whether timed to stop or not, are not required to stop, the Guard must inform the Engineman at the previous stopping station that the train may run through. This will authorise the Engineman to proceed without stopping, conditionally upon clauses 2 and 4 being also complied with.

7. When a train is required to stop at a station, where it is not timed to stop, it must be checked by the Home and Distant signals being kept at "danger." When the speed in sufficiently reduced these signals must be lowered to admit the train, the Starting signal, if provided, being kept at danger. If no Starting signal provided, a red hand signal, held steadily, must also be exhibited from the signal cabin to the approaching train.

(b) AT STATIONS WITH RESIDENT STAFF AND PROVIDED WITH SEMAPHORE SIGNALS, NOT INTERLOCKED.

1. At a station where the approaching train is timed to stop, the Home and Distant signals must be lowered to "caution" when required to admit a train to the platform or other line.

2. At a station where a train is not timed to stop, the Home and Distant signals, as well as the Starting and Advance Starting signals (where provided), must be lowered to "caution" if the section ahead be clear. If there be no Starting signal, a green hand signal, waved gently from side to side, must be shown from the first facing switches to the approaching train. In the absence of such hand signal the Engineman must stop the train at the Home signal.

3. If the section ahead be not clear for the non-stopping train to proceed, the Home and Distant signals must be kept at "danger," and the train pulled up at them, except as provided for in the Rule Book.

4. Except at the stations mentioned in clause 5 a train must not run through any station, unless the Engineman receive a green hand signal, held steadily, from the Guard, in addition to clause 2 being complied with.

5. The green hand signal from the Guard for non-stopping trains to run through must not be given for stations on the undermentioned suburban lines —

Adelaide or Mile End and Outer Harbour.
Adelaide or Mile End and Port Adelaide Dock.
Glanville and Semaphore.
Woodville and Henley Beach.
Dry Creek and Port Adelaide Dock.
Adelaide or Mile End and Northfield.
Adelaide (North Terrace) or Mile End and Glenelg.
Adelaide (South Terrace) and Glenelg.
Adelaide or Mile End and Hallett's Cove.
Adelaide or Mile End and Blackwood.

6. Where goods or livestock trains, whether timed to stop or not, are not required to stop, the Guard must inform the Engineman at the previous stopping station that the train may run through. This will authorise the Engineman to proceed without stopping, conditionally upon clauses 2 and 4 being complied with.

7. When a train is required to stop at a station, where it is not timed to stop, it must be checked by the Home and Distant signals being kept at "danger." When the speed is sufficiently reduced these signals must be lowered to admit the train, the Starting signal (if provided) being kept at "danger." If there be no Starting signal, a red hand signal must also be exhibited towards the approaching train from the station platform.

(c) AT STATIONS WITH RESIDENT STAFF, BUT NOT PROVIDED WITH SEMAPHORE SIGNALS.

1. At a station where the approaching train is timed to stop, a green hand signal, held steadily, must be shown from the first facing switches when required to admit the train to the platform or other line. In the absence of such green hand signal the Engineman must stop the train before reaching the first facing switches.

2. At a station where a train is not timed to stop, a green hand signal, waved gently from side to side, must, if the section ahead be clear, be shown from the first facing switches, to the approaching train. If a train be required to stop at a station where it is not timed to stop, or the section ahead be not clear, a red hand signal, held steadily, must be shown from the first facing switches to the approaching train. In the absence of any signal the Engineman must stop the train before reaching the first facing switches.

3. Except at stations mentioned in clause No. 4, a train must not run through any station unless the Engineman receive a green hand signal from the Guard, in addition to the waved green hand signal from the facing switches mentioned in clause No. 2.

4. The green hand signal from the Guard for non-stopping trains to run through must not be given for stations on the undermentioned suburban lines:—

Adelaide or Mile End and Outer Harbour.
Adelaide or Mile End and Port Adelaide Dock.
Glanville and Semaphore.
Woodville and Henley Beach.
Dry Creek and Port Adelaide Dock.
Adelaide or Mile End and Northfield.
Adelaide (North Terrace) or Mile End and Glenelg.
Adelaide (South Terrace) and Glenelg.
Adelaide or Mile End and Hallett's Cove.
Adelaide or Mile End and Blackwood.

5. When goods or livestock trains, which are timed to stop at a station, are not required to stop, the Guard must inform the Engineman at the previous stopping station that the train may run through. This will authorise the Engineman to proceed without stopping, conditionally upon clauses 2 and 3 being complied with.

TURNING TRAIN

When necessary to run (it regularly takes under normal facing points, and then signals. This instruction does not

GUARD SIGNAL

When a Guard enters the Fireman that he has done so must be acknowledged by the white light by night. In the for it, and if there be no res 13144/03.

Enginemen are instructed assist Guards in loading or un Staff, or where the Staff is not so.—G.T.M.'s C. L., 54/03.

The Guard must advise assistance of the Fireman at

1. In the case of a train its running from any cause to Stationmaster, dealing with officers in charge of Loco. Day

No. up or Advise next station.

2. All Enginemen and Gu the alteration or late running

3. If the delay be likely the Stationmaster must also

4. When a train (say No (say No. 8 up), because of it takes the timing of No. 8 up, all stations in advance to admit crossing orders prepared.

5. When broad-gauge go or more late the earliest pos and Stationmaster, Mile End such trains north of Adelaide

6. When trains, having l over the booked time, the St "Stook," Adelaide, advising t

M

When a train is running Working Book. The station in less time than allowed, so room stations is the full allowance ment Rooms").—W.N. No. 4

REPORTING

When a broad-gauge train above the period allotted in the must promptly advise the Pe or telephone), followed by full ment of the fact that so man of the cause, reports attached possible, suggestions offered to interest themselves in this m their station Staff does like particular, and not such as to

Guards must also report as at present.—W.N. No. 31/

TURNING TRAINS ON TO A DIFFERENT LINE THAN IS USUAL.

When necessary to run (unknown to the Engineman) a train on a line different to that which it regularly takes under normal working, such train must first be brought to a stand outside the facing points, and then signalled slowly through.

This instruction does not apply where the "All-Electric" signalling is in operation.

GUARD SIGNALLING ENGINEMAN ON JOINING TRAIN

When a Guard enters the brakevan after starting a train he must signal to the Engineman or Fireman that he has done so by a green flag by day or a green light by night. The Guard's signal must be acknowledged by the Engineman or Fireman by an all right arm signal by day, or by a white light by night. In the absence of such signal from the Guard the Engineman must whistle for it, and if there be no response, the train must be stopped.—G.T.M., 3501/00, and G.T.M., 13144/08.

FIREMEN TO ASSIST GUARDS.

Enginemen are instructed, when requested by Guards, to arrange for their Firemen to assist Guards in loading or unloading goods, produce, &c., at stations where there is no Resident Staff, or where the Staff is not on duty, when the Firemen's other duties will permit him to do so.—G.T.M.'s C. L., 54/03.

The Guard must advise the Engineman at the earliest opportunity that he will require the assistance of the Fireman at certain stations to be named.—C.M.E., 3439/04.

TRAINS RUNNING LATE.

1. In the case of a train running more than 30 minutes late, or being thrown out of its running from any cause to the same extent, the Stationmaster, or Guard where there is no Stationmaster, dealing with the matter must immediately telegraph all concerned, including officers in charge of Loco. Depots. Such advice must be in the following form:—

No.....up or down is running.....minutes late from.....
Advise next station.

2. All Enginemen and Guards passing through the station must also be advised *in writing* of the alteration or late running.

3. If the delay be likely to affect train arrangements at junction, terminal, or other stations, the Stationmaster must also advise by telegraph those stations in advance.

4. When a train (say No. 10 up) is run from a station, ahead of a preceding booked train (say No. 8 up), because of the latter being considerably behind time, and the former actually takes the timing of No. 8 up, prompt advice must be sent by the station dispatching the train, to all stations in advance to admit of proper record being kept in train books and correct proceed and crossing orders prepared.—W.N. No. 15/10.

5. When broad-gauge goods trains working to Mile End, and livestock trains, run 30 minutes or more late the earliest possible advice must be given to the District Loco. Superintendent and Stationmaster, Mile End; and also to the District Loco. Superintendent, Islington, for such trains north of Adelaide.—W.N. No. 52/14.

6. When trains, having livestock attached, are delayed at a station for 10 minutes or more over the booked time, the Stationmaster, or Guard where there is no Stationmaster, must wire "Stock," Adelaide, advising the reason and duration of the delay.—W.N. No. 30/12.

MAKING UP TIME AT STATIONS.

When a train is running late it need not remain at a station the full time allowed in the Working Book. The station work must, if possible, under such circumstances be performed in less time than allowed, so that some of the lost time can be made up. Only at refreshment room stations is the full allowance to be given (*see also instructions under the heading "Refreshment Rooms"*).—W.N. No. 40/10.

REPORTING DELAYS TO TRAINS.—BROAD-GAUGE LINES.

When a broad-gauge train (passenger, mixed, livestock, or goods) is detained at a station above the period allotted in the time table, or is late leaving a starting station, the Stationmaster must promptly advise the Passenger Superintendent, Adelaide (where necessary by telegraph or telephone), followed by full particulars on Form 132A. The report must not be a bald statement of the fact that so many minutes' delay occurred shunting, &c.; details must be given of the cause, reports attached from others on the station concerned in the delay, and, where possible, suggestions offered to effect the necessary improvement. Stationmasters must specially interest themselves in this matter, use every effort to ensure punctual working, and see that their station Staff does likewise. The report, when forwarded, must be complete in every particular, and not such as to necessitate its being returned for further inquiry on any point.

Guards must also report detentions and state the reason thereof on their train journals as at present.—W.N. No. 31/15.

General Instructions.

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ADVISING TICKET AND PARCELS OFFICES BEFORE STARTING PASSENGER TRAINS.

Before giving the starting signal for a train (especially those for long distances) Stationmasters must call at the Parcels Office and inquire if all loading is on the train, and at the Ticket Office and warn the Ticket Clerks that as the train is about to start the issue of tickets must stop.—G.T.M., 1042/00.

TRAINS RUNNING BEFORE BOOKED TIME.

The running of trains before scheduled time is prohibited except under the following circumstances:—Goods, livestock, and ballast trains may run before scheduled time on absolute block sections before 6 a.m. on all week days and after 5.30 p.m. on Mondays to Fridays inclusive, also after 1.0 p.m. on Saturdays. This permission does not, however, apply to the departure from stations at which such trains commence their journey, but only to intermediate stations *en route*. The hour of 6.0 a.m. applies not to the time at which a train leaves a station, but to the time at which it arrives at the next station ahead.—W.N. Nos. 18/16 and 31/16.

SMARTNESS IN WORKING TRAINS.

The time occupied by trains is very important. The late running of passenger and mixed trains is annoying to passengers and frequently leads to the disorganisation of the train service. Late running of goods trains involves, in many instances, late deliveries of consignments, and in all cases results in increased cost of working which must, if possible, be avoided.

Every effort must be made by the Enginemen and Guards to work the trains to time table, and the Stationmaster at each station must assist the Guards in giving despatch to trains. Stationmasters must keep themselves advised by telegraphic or telephonic message of the running of trains. Everyone must bear in mind that in railway working punctuality constitutes one of the first elements of safety.

The station staff must always be on the platform awaiting the arrival of the train to attend to passengers, and assist in brakevan loading.

The Guard and the station staff must always distinctly and audibly announce the name of the station and the changing of trains at junctions. The "all right" advice from the Stationmaster to the Guard, and the signal to start from the Guard to the Engineman must be given promptly.

Ticket Clerks must be in attendance sufficiently early to supply passengers with tickets, and the checking and collecting of tickets must be effected with smartness and accuracy.

Trucks to be picked up at roadside stations must be ready, sheeted, and roped, and the invoice complete on the arrival of train by which the trucks are to be despatched. "Pick-ups" must be on platform trollies which can be wheeled to the truck, instead of the train being moved to bring the truck opposite the "pick-ups."

At intermediate stations Stationmasters must have in readiness to be handed to the Guard a list showing the numbers and the gross weights of goods vehicles, and the computed weights of livestock vans, brakevans, and coaching stock to be attached to the train. The numbers must always be taken from the engine end.

The staff must also note the instructions in this Appendix under the heading "Making up lost time."

Stationmasters must assist one another by using the telegraph or telephone instrument where it exists, to give or obtain advice beforehand of work to be performed.

SPRAGS.

Two sprags must always be carried in each passenger and goods brakevan on all lines except those between Adelaide, Murray Bridge, and Strathalbyn inclusive, and Brighton and Willunga, where four must be carried. The Guard must see that his brakevan is furnished with these sprags before leaving the starting station.—G.T.M., 7103/01.

When sprags are used to secure vehicles the sprag must be placed through the wheel over the top of the spring.—W.N. No. 41/13.

Shunters must see that sprags are removed from the wheels before any shunting is conducted with the vehicles, and before the latter are placed at the platform. Before vehicles which might have been spragged are moved, Shunters must examine both sides of the vehicles and remove any sprags that may have been applied.

Sprags, which should be about 3ft. 6in. in length and 4in. in diameter, can be obtained, on application, from the Stationmaster, Mile End.

Guards must examine their trains before starting from a station, and see that any sprags which may have been left in the wheels are removed.—W.N. Nos. 7 and 9/14, 28/13.

Except as shown in the diagram, the slide-rail must be securely locked for the train. Where the slide-rail is interlocked stations with yards must, in their normal position, may be either the main

All switches on dead ends must not be worked in connection with other siding so as to interfere with the instruction has been observed.—13550/08.

SLIDE RAIL SWITCHES.

1. The lever which operates the slide-rail must be in the frame before shunting.
2. When set for the siding, the lever must be secured with an S lock.
3. The pins (fastened to the sole plate behind the lever) must be fixed for any curved road, and for any fixed.—G.T.M., 2106/09.

LOCKING SWITCHES.

At stations where there are stop blocks must see that all stop blocks are locked for the main line (Switches "A"), and that the lever is in the correct position. See also instructions in this Appendix.

DETACHING TRUCKS.

When loaded trucks are detached, they must be moved without delay to the track for unloading, thus rendering the line clear.

EXAMINING SWITCHES.

A Stationmaster at a station must see that all switches on the line over which the train is to travel are in the correct position before the signals are pulled out. When a train departs from a station, the Stationmaster must see that the train is to travel in the correct direction. —G.T.M., 3137/01.

Every joint and working interlocking frames must be covered with weather the chairs of switches must be painted blacklead must always be kept in the correct position. —189/03, and 419/05.

Stationmasters must see that all switches are in the correct position before the train is started. —G.T.M., 5434/08.

Vehicles must not stand on the main line or in sidings. These must be kept white, and lie flush with the main line.

Cheese knobs must not be used on account of its heavy weight.

ARTING PASSENGER

distances) Stationmasters, and at the Ticket Office, the use of tickets must stop.—

ME.

Under the following circumstances, time on absolute block is to Fridays inclusive, also only to the departure from intermediate stations *en route*. Station, but to the time at 16.

of passenger and mixed trains, and the time of the train service, and of consignments, and in avoided.

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ly announce the name of the train, and the Stationmaster must be given

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be handed to the Guard of the train. The numbers

the heading "Making up

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van on all lines except Brighton and Willunga, and furnished with these

through the wheel over

shunting is conducted on vehicles which might be damaged, and remove

water, can be obtained,

and see that any springs are in good order. 14, 28/13.

MAIN LINE SWITCHES.

Except as shown in the next paragraph, main line switches must, when not actually in use, be securely locked for the main line.

Where the slide-rail switches and pivot-rail crossings are in use, or at broad-gauge non-interlocked stations without Resident Staff, the switches and crossings at both ends of all station yards must, in their normal position, be laid and locked for the passenger platform line, which may be either the main line or the siding.—G.T.M., 2106/09.

SIDING SWITCHES.

All switches on dead end or other sidings communicating with the main line must, when not being worked in connection with shunting operations, be set and locked for the dead end or other siding so as to prevent the passage of vehicles to the main line.

Before lowering a signal to admit a train the Signaller must satisfy himself that this instruction has been obeyed, and that no vehicles in the siding foul the main line.—G.T.M., 13550/08.

SLIDE RAIL SWITCHES AND PIVOT RAIL CROSSINGS ON LIGHT LINES.

1. The lever which actuates these slide rail switches and pivot rail crossings must be pinned in the frame before shunting takes place, and the lever must not be held by hand only.

2. When set for the passage of trains into or out of station yards the pin must in addition be secured with an S lock.

3. The pins (fastened to the sleepers by chains) must be inserted well down into the hole in the sole plate behind the slide rail switch and pivot rail crossing, when the switches are set for any curved road, and no movement of vehicles must be made until the pins are properly fixed.—G.T.M., 2100/09.

LOCKING SWITCHES WHEN TRUCKS ARE LEFT AT STATIONS WITHOUT STAFF.

At stations where there is no Resident Staff each Guard who attaches or detaches vehicles must see that all stop blocks are over the rails and locked, that all main line switches are laid and locked for the main line or passenger siding (*see instructions under the heading "Main Line Switches"*), and that the brake of each vehicle at the station or siding is securely pinned down. *See also instructions in this Appendix under the heading "Siding Switches."*

DETACHING TRUCKS AT SIDINGS WITHOUT STAFF.

When loaded trucks are detached at sidings without staff they must, as far as practicable, and without delay to the train, be placed by the Guard at the platform or loading approach, for unloading, thus rendering it unnecessary for the person unloading to have to move the trucks.

EXAMINING SWITCHES BEFORE TRAINS LEAVE OR ARRIVE AT STATIONS.

A Stationmaster at a station where interlocking is not in use must ascertain that all the switches on the line over which a train is to run are properly laid and secured for such train before the signals are pulled off to admit it into, or run through, the station. Also when a train departs from a station, the Stationmaster must similarly satisfy himself that all switches over which the train is to travel are properly laid and secured before giving the Guard permission to start his train.—G.T.M., 3137/98.

LUBRICATING SWITCHES, &c.

Every joint and working part of all signals, point-rod connections, chairs of switches, and interlocking frames must be cleaned at least once a week, and lubricated with oil, but in dry weather the chairs of switches must be lubricated with blacklead. On the Great Northern System blacklead must always be used instead of oil for lubricating switches.—G.T.M., 5062/01, 189/03, and 419/05.

Stationmasters must see that the work of cleaning points, interlocking gear, &c., is properly carried out.—G.T.M., 5434/08.

FOULING DISCS

Vehicles must not stand outside the fouling discs placed for the guidance of shunters working vehicles into sidings. These fouling discs are made of cast-iron, circular in shape, and painted white, and lie flush with the ballast.—G.T.M., 472/02, and E.-in-C., 2615/04.

CHEESE KNOBS.

Cheese knobs must not be thrown, but lifted over, as the knob, when violently thrown over, is, on account of its heavy weight, liable to cause damage.

COLORS ON CHEESE KNOBS.

All switch cheese knobs are painted half red and half white, the colors being arranged so that when a switch upon the main line is set for the main line the knob will show white to an Engineman approaching it as a facing switch. When a switch on the main line is set for a siding it will show red to an Engineman approaching it as a facing switch. When the switch connects two sidings the same practice will be followed, the siding nearer to the main line being treated as the main line, and that further from it as the siding.—E.O., 494/02.

SWITCH CRAMPS.

At interlocked cabins which have been supplied with cramps for cramping the switches in the event of accident, the Signaller is responsible for the safe custody of the cramps.

When a cramp is removed from a cabin the Signaller must enter in the "Remarks" column of the Signal Book the time and date it was taken away, and this entry must be signed by the Signaller and the person removing the cramp. The Signaller issuing the cramp must see that it is promptly returned, and enter in the Signal Book the date and time of return, and this entry must be signed by the Signaller and the person returning the cramp.—G.T.M., 2862/99.

COUPLING ENGINES TO TRAINS AND VEHICLES.

1. *Coupling Engines to Trains.*—Engines must be coupled to and uncoupled from trains by the Fireman. The coupling of the engine must always be used, except as provided for in paragraph 4. At intermediate stations, where engines are cut off for locomotive purposes; at stations in charge of caretakers; and at sidings without staff the coupling and uncoupling must be done by the Fireman. In every case the Engineman must see that the engine is properly coupled to the train before starting. The screw couplings provided on broad-gauge engines must be used when coupling to carriage and livestock vehicles, and the ordinary hook and link on the engine when attaching to trucks.—C.M.E., 589/18.
2. *Coupling Engines during Shunting Operations.*—During shunting operations the coupling and uncoupling must be performed by the Traffic Staff, except when time or money can be saved by the Fireman coupling and uncoupling.
3. *Coupling Vehicles to Front of Engine.*—When a vehicle is attached to the front of an engine all loose couplings next to the engine must be hooked up so as to prevent their fouling the cowcatcher.
4. *Coupling V. and S.A. Joint Stock to Engines (Broad Gauge).*—When a V. and S.A. joint-stock vehicle (12-wheeled) is attached to engine tender, the couplings of the carriage must always be used.
5. *Coupling Vehicles to Engine Tenders (Broad Gauge).*—When coupling vehicles to tenders of engines, no link or coupling must be left hanging from the tender hook, and the shackle which is attached to the engine drawbar must be on top of the coupling, not below it.—G.T.M., 3631/08.
6. *Coupling Engines to Main Line Trains.*—When attaching engines to main line trains, the side chains not in use must be secured to prevent them from swinging by placing hook of right-hand side chain in bottom link of left-hand chain after passing under drawbar.

COUPLING PASSENGER VEHICLES.

1. *Coupling and Attaching Vice-Regal, Departmental Cars.*—The couplings of these vehicles must be used when attaching them to any vehicles other than vestibule cars. When any two of these cars are attached to the same train an ordinary carriage must be placed between them. They must not be attached to an engine or tender.—C.M.E., 5049/08.
2. *Attaching South Australian Vehicles to Melbourne Express.*—When the South Australian Vice-Regal or a departmental car, or a South Australian 8-wheeled vehicle, or another carriage not having the corridor connections is attached to the Adelaide-Melbourne express it must be placed next to the brakevan.
3. *Coupling 12-wheeled Vehicles to Other Vehicles.*—Four and six wheeled stock must not be attached to 12-wheeled vehicles, either in train working or shunting, except that D, Ds, or Cc interstate joint stock may be coupled to goods trains working between Port Adelaide, Largs, and Outer Harbor. When 12-wheeled vehicles are coupled to a 4-wheeled brakevan, or the travelling gasometer, the brakevan or gasometer must not be coupled at the end where the brake screw is, as the latter would foul the concertina end of the long vehicle.—W.N. No. 20/14, G.T.M., 5756/08.
4. *Coupling Carriages.*—When coupling carriages to run between Adelaide and Murray Bridge or Strathalbyn, the couplings must be left slack to the extent of lin. between the faces of the buffers. This does not apply to the 12-wheeled V. & S.A. joint-stock vehicles, which must always run coupled tightly together.—C.M.E., 5049/08.

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white, the colors being arranged so the knob will show white to an eye on the main line is set for a siding switch. When the switch connects the siding to the main line being treated as a siding. —C.M.E., 494/02.

cramps for cramping the switches in a safe custody of the cramps. The entry must enter in the "Remarks" column, and this entry must be signed by the Signaller issuing the cramp must show the date and time of return, and on returning the cramp.—G.T.M., 5049/08.

LAND VEHICLES.

to and uncoupled from trains by the use of the cramp, except as provided for in the instructions. Engines are cut off for locomotive work at sidings without staff the coupling must be made every case the Engineman must see to the coupling before starting. The screw couplings must be used for coupling to carriage and livestock vans when attaching to trucks.—

When shunting operations the coupling must be made, except when time or money can be saved.

When attached to the front of an engine the coupling must be made up so as to prevent their fouling the track.

When a V. and S.A. joint-stock carriage must be coupled to the carriage must be made.

When coupling vehicles to tenders from the tender hook, and the shackle must be made at the top of the coupling, not below it.—

When coupling engines to main line trains, the coupling must be made from swinging by placing hook at the chain after passing under drawbar.

VEHICLES.

The couplings of these vehicles must be made other than vestibule cars. When an ordinary carriage must be placed to the engine or tender.—C.M.E., 5049/08.

When the South Australian 8-wheeled vehicle, or another attached to the Adelaide-Melbourne line.

and six wheeled stock must not be coupled to the engine or tender, except that D. goods trains working between Port and Adelaide are coupled to a 4-wheeled vehicle or gasometer must not be coupled to the engine or tender, as it would foul the concertina end of the carriage.

When coupling between Adelaide and Murray Bridge the coupling must be made at the extent of line between the faces of the V. & S.A. joint-stock vehicles.—C.M.E., 5049/08.

5. *Buffers Screwed together.*—Up passenger trains arriving from Victoria have the buffers closely screwed together, and in every case they must be loosened at Murray Bridge, as provided for in clause 4 of these instructions. Down passenger trains for Victoria will arrive at Murray Bridge slack in the usual way, and they must be tightened before leaving Murray Bridge for Serviceton. (See clause 4).

6. *Coupling Victorian Corridor Cars.*—When coupling Victorian corridor cars to any vehicle the hosepipe of the Westinghouse air brake must be coupled under the screw coupling, and not over it.—C.M.E., 3109/00.

7. *Side Chain Hooks.*—The side chain hooks of South Australian passenger vehicles are larger than those on Victorian carriages, and consequently are liable to be jammed when linked together. The side chain hooks of Victorian carriages must therefore be dropped into a link on those of South Australian carriages.

8. *Closing Concertina end of Joint-stock Carriages.*—When joint-stock carriages are attached to engines of the Adelaide-Melbourne express, the canvas screen at the end next the engine must be drawn across the door opening, and secured, thus preventing the rays of light from the carriage obscuring the view of the Engineman. During shunting, or if necessary to detach any of these coaches at stations, the concertina ends must first be unfastened in order to avoid damage to the straps, buckles, &c.—C.M.E., 2434/09.

VESTIBULE CURTAINS.—MELBOURNE EXPRESS BRAKEVANS.

The vestibule curtains at the trailing end of brakevans working between Adelaide and Melbourne must always be left unbuckled so that stowaways may have less chance of hiding behind them.—W.N. No. 36/13.

COUPLING VEHICLES.

Hooks to be Clear.—When coupling vehicles together, Shunters must see that the hook is clear, and not obstructed by any other link or shackle before the coupling is placed over the hook of the drawbar.

Screw Couplings (Broad Gauge).—Where screw couplings are provided they must always be used to couple vehicles together, and in coupling vehicles with screw couplings the weighted end of the handle must always be left hanging down.—C.M.E., 1499/03 and 70/18.

Side Chains of Last Vehicle.—Each side chain of the last vehicle on a train must be hooked into the top link of its own chain.—W.N. No. 45/11.

Coupling Vehicles with Centre Buffers to Ordinary Broad-Gauge Vehicles.—When it is necessary to couple a vehicle with centre buffer to ordinary S.A.R. broad-gauge stock, a link and pin must be used instead of a screw coupling, as the screw of the latter is liable to damage the centre buffer casting through jamming.—W.N. No. 52/12.

Coupling Trucks (Broad Gauge).—All concerned must exercise great care when coupling broad-gauge vehicles so as not to be caught by the drawhooks or lamp irons.

COUPLING VEHICLES IN MOTION.

THE COUPLING UP OR UNCOUPLING OF WAGONS OR CARRIAGES WHILE IN MOTION IS STRICTLY FORBIDDEN, except as provided for in instructions headed "Definitions of Shunting."

COUPLING LIVESTOCK VANS IN MOTION.

Livestock vans with two (2) Westinghouse air pipes fitted to the end of each van must not under any circumstances be coupled or uncoupled when the vans are in motion.

The Staff must not stand between the air pipes when in between these wagons, as a compression of the buffers will bring the pipes close enough together to injure a man.

MOVING VEHICLES BY MEANS OF PROPS, ROPES, OR CHAINS.

Propping—that is, moving vehicles by the use of a prop or pole—is prohibited, except when absolutely necessary in the case of accident or other emergency.

Tow-roping—that is, moving vehicles by means of towing with a rope or chain from an adjacent line—is prohibited, unless the traffic cannot be otherwise dealt with.—O.B.M., 227 and E.-in-C., 3266/01.

MARSHALLING OF MIXED GOODS AND LIVESTOCK TRAINS.

1. Livestock and goods vehicles on mixed and goods trains need not necessarily be marshalled in station order, as directed in the Rule Book. Subject to the provisions contained in clauses 2, 3, 6, and 8, trucks for one station can be placed together without reference to their positions on the train, that is, if placing the trucks in station order from the engine will cause delay to the train.—W.N. No. 12/12 and 11/18.

2. Between Cockburn and Peterborough, and between Peterborough and Port Pirie, "up" and "down" goods and mixed trains must be marshalled as follows:—Engine; trucks fitted with the Westinghouse air brake; bogie trucks loaded or empty; other loaded trucks; other empty trucks; one bogie truck with screw brake; train carriages (if any); brakevan. If available one bogie truck with screw brake must always be marshalled next to the brakevan, or next to train carriages (if any).—C.M.E., 4331/17.

3. The number of vehicles (livestock or goods) fitted with the Westinghouse air brake or with the Westinghouse air brake pipe, which must be marshalled next to the engine, is as follows:—

- (a) Between Adelaide, or Mile End, and Murray Bridge, and Strathalbyn, and between Brighton and Willunga, all such vehicles. (See also clause 8.)
- (b) On other lines (except as set out in clause 2, sub-section (c) of clause 3, and clause No. 8) as many such vehicles as are available, if in doing so delays to trains will not be caused.
- (c) On the lines between Mile End and Port Adelaide, Port Adelaide and Outer Harbor, Port Adelaide and Dry Creek, and Mile End and Dry Creek, six such vehicles if available. (See also clause 8.)

The hose pipes must be coupled so that the continuous brake may be operated by the Engineman, and not more than four (4) vehicles fitted with air pipe only (including those that may have the air brakes cut out) must be placed in consecutive order on any train. (See also instruction under the heading "Working Vehicles on South Line.")

4. Mixed, goods, and livestock trains consisting wholly of air-braked vehicles (whether the brakevan be connected or not) must be coupled up throughout, so that the continuous brake can be operated by the Engineman or Guard.

5. When livestock and goods vehicles fitted with the Westinghouse air brake are attached to any train the air pipe connections must always be coupled.

6. Bogie trucks must be marshalled on goods trains as follows:—

One (1) bogie truck with screw brake must be placed next to the brakevan to enable the Guard to operate the brakes should the necessity arise.

All other bogie trucks must be placed next to the engine or next to vehicles (if any), fitted with the Westinghouse air-brake provided the brake is in operation.

This instruction does not apply to mixed or goods trains between Cockburn and Port Pirie (see clause 2).

7. Louvred and covered vans must not be placed between the brakevan and carriages on narrow-gauge lines.—C.M.E., 4331/17.

8. Vans of livestock consigned from stations south of Adelaide to stations north of Adelaide, or vice versa, must be placed next the engine so as to be convenient for transfer from one train to another at Mile End.—W.N. 15/17.

NARROW GAUGE AMBULANCE CARRIAGES—POSITION ON TRAINS.

On the narrow-gauge lines the ambulance carriage must be placed in front of the first carriage.—G. T. M., 2067/98.

EMPLOYEES' VANS—POSITION ON TRAINS.

Employees' vans must be attached immediately in front of the carriages of mixed trains, and next to the brake of goods trains, unless necessary to attach a bogie truck in accordance with instructions in this book headed "Marshalling of Mixed, Goods, and Livestock Trains," in which case the employees' van must be marshalled next to and in front of the bogie truck.—W.N. No. 13/17 and 11/18.

USE OF BRAKEPOWER BY ENGINEMEN AND GUARDS.

Enginemen must start and stop trains carefully, particularly long trains, or when two engines are attached. Risk of injury to passengers and damage to rolling stock will thus be avoided.

Guards must prevent unnecessary jerking of trains by carefully handling the brakepower in their vans, especially when starting and stopping. At changes of grade Guards must, by manipulating their handbrakes, prevent, as far as possible, vehicles crowding on the engine, and long trains being "jerked" when the Engineman applies steam.

When entering station yards, the Guards must have their brakes applied to prevent a sudden stoppage if the engine brake be suddenly applied. Guards must have their handbrakes applied when their trains are standing at stations or on the main line, and the brakes must be secured by the chains which are supplied in the brakevans. Guards must carefully note the speed at which trains are travelling, and apply their handbrakes if the speed become excessive or exceed the regulation limit.

In descending steep grades the Guards must render every assistance to the Engineman by applying their handbrakes so that the train may be kept under proper control.

Enginemen in bringing the trains to a stop must, in cases of emergency, stop short of the station and subsequently report the same to the Stationmasters for their notice of—

- (a) Enginemen starting the head of the train.
- (b) Enginemen stopping the train with main or emergency brakes.
- (c) Guards not stopping the train or stop the vehicles to

Stationmasters for an adjustment is not regarding the examination rigidly observed.—G.T.M.

Where Wilkin's lever when in its normal clutch plate and free

At stations where the indicator apply:—

1. The indicator for the signal arm.

2. When the signal disc will show

3. When the signal lowered to caution the indicator to bring the

turn the switch to "Danger," the switch

4. Where semaphore signal the electrical register

semaphore signal has been on or off, as the case is

is obtained on the repeater the position of the signal

the Railways Electrician by an Adlake Long Tri

fail to register.—W.N.

5. Murray Bridge arms, is provided in the signals. See also para

Instructions.

Where a repeating signal must not be treated as a duplicate, and may then have his train under control (passed) should it not be

All cases of defects in the Resident Engineer Services for broad-gauge subsequently report the

erborough and Port Pirie, "up" follows:—Engine; trucks fitted empty; other loaded trucks; other (if any); brakevan. If available next to the brakevan, or next to

a the Westinghouse air brake or shall be next to the engine, is as

and Strathalbyn, and between clause 8.)

(c) of clause 3, and clause No. 3) so delays to trains will not be

Port Adelaide and Outer Harbor, Dry Creek, six such vehicles if

may be operated by the Engine-only (including those that may on any train. (See also instruc-

of air-braked vehicles (whether out, so that the continuous brake

Westinghouse air brake are attached

follows:—

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trains between Cockburn and Port

the brakevan and carriages on

side to stations north of Adelaide, nient for transfer from one train

POSITION ON TRAINS.

to be placed in front of the first

TRAINS.

of the carriages of mixed trains, ach a bogie truck in accordance Goods, and Livestock Trains," and in front of the bogie truck.—

AND GUARDS.

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akes applied to prevent a sudden ave their handbrakes applied and the brakes must be secured ust carefully note the speed at eed become excessive or exceed

assistance to the Engineman by proper control.

Enginemen in charge of long and (or) heavy goods trains when entering station yards must bring the trains to a stand with the aid of the handbrake only, and not use the air brake **UNLESS IN CASES OF EMERGENCY**. When engines of such trains require to take water at stations, the train must, **UNLESS OTHERWISE INSTRUCTED BY A TRAFFIC EMPLOYEE**, be stopped short of the water column, and the engine uncoupled from the train for taking water and subsequently re-coupled.—W.N. Nos. 16/14, 17/11.

Stationmasters and all others concerned must promptly report all instances coming under their notice of—

- (a) Enginemen of main line or shunting engines failing to carefully handle their trains when starting or stopping, or using the air brake when shunting, except as shown under the heading "Using Westinghouse Automatic Air Brake."
- (b) Enginemen failing to handle trains with due care in either starting or stopping, whether with main line trains or in shunting, or of using the air brake when shunting, except in cases of emergency or impending accident.
- (c) Guards not using the hand brake in such a manner as to assist the enginemen to hold or stop the train, and reduce the bumping or "plucking" of goods and livestock vehicles to the lowest possible minimum.—W.N. No. 21/14.

ADJUSTING SIGNAL WIRES.

Stationmasters must instruct their Staff in the use of the adjusting screws on signal wires. An adjustment is necessary almost daily, according to variations of temperature. The rules regarding the examination of interlocking gear, testing the working of signals, &c., must be rigidly observed.—G.T.M., 6421/07.

WILKIN'S WIRE COMPENSATORS.

Where Wilkin's ground compensating levers are fixed, the pin must be inserted behind the lever when in its normal position (the signal being at danger), and the chain must be clear of the clutch plate and free to act.

ELECTRICAL REPEATERS.

At stations where electrical repeaters are fitted to semaphore signals the following instructions apply:—

1. The indicator consists of two discs, the upper one for the signal lamp, the lower one for the signal arm.
2. When the signal lamp is burning the upper disc will show "IN," when it is extinguished the disc will show "OUT."
3. When the signal arm is at danger the lower disc will show "ON." When the arm is lowered to caution the disc will show "OFF." A small switch is provided at the foot of the indicator to bring this disc into operation, and before lowering the signal the signaller must turn the switch to the position marked "Bell Off." After the signal is again placed at "Danger," the switch must be turned to the position marked "Signal Battery Off."
4. Where semaphore signals are fitted with electrical repeaters, after each operation of the signal the electrical repeater must be switched on and examined to see if the operating of the semaphore signal has been properly carried out. If the repeater does not show the signal is fully on or off, as the case may be, the semaphore signal must be operated until a correct indication is obtained on the repeater. If after several tests the electrical repeater fails to correctly indicate the position of the signal arm, the fact must be promptly reported by telegraph or telephone to the Railways Electrician, Adelaide, and to the local Electrical Fitter. Where the signal is lit by an Adlake Long Time Burner lamp, chimneys must always be used or the thermostat will fail to register.—W.N. Nos. 36/17, 3/17.
5. *Murray Bridge*.—An electrical repeater, which is worked by the movement of the signal arms, is provided in the signal cabin at Murray Bridge to indicate the position of the bridge signals. See also paragraph headed "*Bridge Signals*," under *MURRAY BRIDGE* in Divisional Instructions.

REPEATING OR DUPLICATE SIGNALS.

Where a repeating or duplicate signal is placed in advance of starting, home, or distant signal, it must not be treated as a signal, but simply as an indication of the signal which it repeats or duplicates, and may therefore be passed when showing "Danger" provided that the Engineman has his train under control, so as to stop, if necessary, at the signal (the duplicate of which he has passed) should it not be lowered before he reaches it.—W.N. No. 8/16.

SEMAPHORE SIGNALS OUT OF ORDER.

All cases of defects in, or irregular working of, semaphore signals must be promptly reported to the Resident Engineer and the District Traffic Superintendent (Superintendent of Station Services for broad-gauge lines) of the line affected, and the Traffic Superintendent must subsequently report the irregularity to the General Traffic Manager.

ELECTRICAL APPLIANCES OUT OF ORDER.

1. Stationmasters must, in the most expeditious manner possible, send notice of any failure or fault in train signalling or other electrical appliances to the General Traffic Manager; the District Traffic Superintendent (Superintendent of Station Services for broad-gauge lines); the Resident Engineer; the Railway Electrician, Railway Station, Adelaide; and the Local Electrical Fitter (if any).

2. Local Electrical Fitters are located at Adelaide, Gawler, Aldgate, and Peterborough, and their districts are as follows:—

Adelaide.—All stations between Sleep's Hill, Willunga, Glenelg, Henley Beach, Semaphore, Outer Harbour, and Abattoirs inclusive, and all stations beyond Monteith, including Murray Lands, Pinnaroo, and South-Eastern lines.

Aldgate.—All stations between Eden, Milang, Victor Harbour, Mount Pleasant, and Murray Bridge inclusive.

Peterborough.—All stations between Port Pirie, Wilmington, Quorn, Cookburn, and Terowie (narrow-gauge instruments) inclusive.

Gawler.—All stations between Salisbury, Long Plains, Angaston, Truro, Morgan, Robertstown, Spalding, and Terowie (broad-gauge instruments) inclusive, and stations on the Western System.

3. Any failure of, or irregularity in, the working of the railway electrical appliances at stations between Adelaide, Abattoirs, Outer Harbour, Semaphore, Henley Beach, Glenelg, Brighton, and Sleep's Hill occurring between 7.0 a.m. and 5.0 p.m. on week days, and 7.0 a.m. and noon on Saturdays, must be promptly reported by telephone to No. 20, Railway Electrician's Office (Railway Telephone Exchange). All telegrams or telephone messages arriving for the Railway Electrician after office hours must be telephoned by the operator, Adelaide Telegraph Office, to the Local Electrical Fitter, Adelaide, up to midnight.

4. Messages for the Local Electrical Fitter, Adelaide, must be promptly reported between the hours of 7.0 a.m. and midnight each day (Sundays excepted) by telephone to No. 11 from stations connected with the Adelaide Railway Telephone Exchange (see paragraph No. 2), and from other stations in the Adelaide Local Fitter's district during such hours the messages must be telegraphed or telephoned to the Fitter via the Adelaide Telegraph Office, and the operator on duty must repeat the message by telephone to No. 11, or to any other address given to him by the Fitter. Between the hours of midnight and 7.0 a.m. on week days and midnight on Saturdays until 7.0 a.m. on Mondays, the operator on duty, Adelaide, must, when absolutely necessary, arrange to deliver by cab or taxi important messages to one of the Fitters whose address must be lodged in the telegraph office.

5. A book must be kept in the Railway Telegraph Office in which the Fitter on night duty must enter his whereabouts each time he leaves the Adelaide Station, and when he is so absent any messages or reports (including the messages referred to in paragraph No. 3) for him must be telephoned to such locality by the Telegraph or Telephone operator on duty.

6. Messages for the Local Fitters arriving after working hours must be delivered at their private addresses by the Staff at Gawler, Peterborough, and Aldgate respectively.

LIST OF INTERLOCKED STATIONS, ETC. (E.O., 4738/94).

ADELAIDE, SEMAPHORE, AND OUTER HARBOUR LINE.

Adelaide	Commercial Road Station (home and starting signals worked by apparatus)
Bowden (Gibson Street, East Street)	Jervois Bridge (signals Annett's looks)
Croydon Rope Works Siding (Annett's looks)	Glanville
Kilkenny	Largs
Woodville	Outer Harbor (Annett's looks)
Cheltenham	Tramways Crossing, near Exeter
Alberton	Semaphore (signal worked by ground lever electrically interlocked with Tramways Crossing)
Grand Junction	
Port Adelaide Station Yard (Dock Station)	
Port Adelaide Dock Station (ground lever at St. Vincent Street)	

ADELAIDE AND WILLUNGA LINE.

Edwardstown, Brighton

ADELAIDE AND GLENELG LINE (NORTH TERRACE).

Plympton.

ADELAIDE AND GLENELG LINE (SOUTH TERRACE).

Miller's Corner (interlocked and Annett's key).

Adelaide
North Adelaide
Islington
Dry Creek
Salisbury
Smithfield
Gawler

R

Nuriootpa

South Line Junction
Mile End Junction
Show Ground Junction
Keswick
Goodwood Junction
Mitcham
Sleep's Hill
Brick Co.'s Siding (look)
Eden
Blackwood
Belair
Long Gully
Mount Lofty
Aldgate
Bridgewater
Ambleside
Balhannah
Mount Barker Junction
Nairne
Belyarta
Callington

Phileox Hill (electric)
Sandergrove (electric)
Gilberts (electric station)

Peterborough Cattle looks)
Stabbing apparatus fixed at the following:
Solomontown (down)
Warnertown
Crystal Brook
Huddleston
Caltowie
Belalie North
Yongala
Ucolta
Oodla Wirra
Nantabibbis
Nackara
Methuen
Paratoo

ORDER.

able, send notice of any failure
General Traffic Manager; the
for broad-gauge lines); the
on, Adelaide; and the Local

Aldgate, and Peterborough,

g, Henley Beach, Semaphore,
beyond Monteith, including

Mount Pleasant, and Murray

Quorn, Cockburn, and Terowie

ton, Truro, Morgan, Roberts-
s inclusive, and stations on

railway electrical appliances at
Shore, Henley Beach, Glenelg,
1. on week days, and 7-0 a.m.
No. 20, Railway Electrician's
one messages arriving for the
operator, Adelaide Telegraph

be promptly reported between
by telephone to No. 11 from
age (see paragraph No. 2), and
much hours the messages must be
Office, and the operator on
other address given to him by
days and midnight on Satur-
day, when absolutely necessary,
the Fitters whose address must

which the Fitter on night duty
tion, and when he is so absent
paragraph No. 3) for him must
operator on duty.
ers must be delivered at their
ate respectively.

E.O., 4738/94).

OUR LINE.

Station (home and starting
by apparatus)
signals Annett's locks)

nett's locks)
g, near Exeter
l worked by ground lever
interlocked with Tramways

BRACE).

REACH).

key).

ADELAIDE AND TEROWIE LINE.

Adelaide
North Adelaide
Islington
Dry Creek
Salisbury
Smithfield
Gawler

Roseworthy
Wasleys
Hamley Bridge
Tarlee (Annett's lock at north end only)
Riverton
Brennan (electric staff drawer lock)
Terowie (rodlocking and Annett's locks)

ROSEWORTHY AND MORGAN LINES.
Robertstown Junction (electric staff drawer lock).

GAWLER AND ANGASTON LINE.

Nuriootpa

Penfold's Siding

ABATTOIRS AND STOCKADE LINE.

Abattoirs (partly interlocked).

ADELAIDE AND WOLSELEY LINE.

South Line Junction
Mile End Junction
Show Ground Junction
Keswick
Goodwood Junction
Mitcham
Sleep's Hill
Brick Co.'s Siding (electric staff drawer
lock)
Eden
Blackwood
Belair
Long Gully
Mount Lofty
Aldgate
Bridgewater
Ambleside
Balthannah
Mount Barker Junction
Nairne
Balyarta
Callington

Monarto South
Kinchina
Murray Bridge
Monteith
Taillem Bend
Cooke's Plains (ground frame and Annett's
locks)
Coomandook
Yumali (electric staff drawer lock)
Ki Ki
Coonalpyn
Culburra (electric staff drawer lock)
Tintinara
Coombe (electric staff drawer lock)
Banealla (electric staff drawer lock)
Keith
Keith Ballast Siding (electric staff drawer lock)
Brimbago (electric staff drawer lock)
Wirrega
Cannawigra (electric staff drawer lock)
Bordertown
Wolseley

ADELAIDE AND VICTOR HARBOUR LINE.

Phileox Hill (electric staff drawer lock)
Sandergrrove (electric staff drawer lock)
Gilberts (electric staff drawer lock)

Gemmell's (electric staff drawer lock)
Currency Creek (electric staff drawer lock)
Middleton (electric staff drawer lock)

TEROWIE AND PETERBOROUGH LINE.

Gumbowie

PORT PIRIE AND COCKBURN LINE.

Peterborough Cattle Siding (Annett's Peterborough Wash-out Sidings (electric staff
locks) drawer lock)

Stabbing apparatus working the home signal in conjunction with the first facing points is
fixed at the following stations:—

Solomontown (down trains only)
Warnertown
Crystal Brook
Huddleston
Caltowie
Belalie North
Yongala
Ucolta
Oodla Wirra
Nantabibbie
Nackara
Methuen
Paratoo

Yunta
Winnininaie
Oulnina
Mannahill
Outalpa
O'Lary
McDonald's Hill
Cutana
Mingery
Mutooroo
Cockburn
Peterborough (up trains from Quorn main line)

QUORN AND OODNADATTA LINE.

Parachilna (partly interlocked and Annett's locks)
Marree (partly interlocked and Annett's locks)
William Creek (partly interlocked and Annett's locks)

NARACOORTE AND KINGSTON LINE.

Kingston Loco. Yard (ground frame and Annett's locks)

NARACOORTE AND MOUNT GAMBIER LINE.

Mount Gambier Mount Gambier Junction
Penola, north end (ground frame and Annett's locks)

MOUNT GAMBIER AND BEACHPORT LINE.

Beachport, triangle (ground frame and Annett's locks)

INTERLOCKED SIGNAL CABINS.

A copy of the following notice must be conspicuously exhibited in all broad and narrow gauge stations with interlocked apparatus, where the locking is operated by the hand-clip on the lever:—

Caution.—Signalmen are warned that before pulling over a lever in this cabin they must ascertain by slight pressure of the hand-clip that the lever is free. Should the hand-clip not come over no force must be used.

The attention of relief men is particularly called to the above notice.

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ver in this cabin they must
should the hand-clip not come

notice.

General Instructions relating to Engines, Two-
engine Trains, Code of Engine Whistles,
Engine Head Lights.

ENGINES, TWO-ENGINE TRAINS, CODE OF ENGINE WHISTLES, ENGINE HEAD LIGHTS, AND ENGINE DESIGNATING DISCS.

ASSISTING ENGINES.

As it is not always definitely known to what station an assisting engine on broad-gauge line trains may work, Stationmasters and the Guards of the trains must see that when the load is reduced to that for one engine the assisting engine is detached and returned to its depot without unnecessary delay, either light or attached to a convenient train. Care must be exercised to distinguish between an assisting engine and one attached to, say, a down train to work an up train.—G.T.M., 9429/07 and C.M.E., 3779/07.

The Stationmaster at the station at which the engine is detached must advise the line of any light running, and must also wire the District Loco. Superintendent concerned that the engine is being returned, giving the exact time of its departure.—W.N. No. 4/14.

GOODS ENGINES RELIEVING DISABLED PASSENGER ENGINES.

When an engine working a passenger train fails, and the engine of a goods train is available the disabled engine should be detached and the train taken on by the goods engine and men, providing the change will not make the hours of the men on the latter engine excessive. If, however, the passenger train be fitted with the air brake, the Engineman of the goods train must not work the passenger train unless he has passed the Westinghouse Brake Examination.—C.M.E., 1996/08.

ENGINES DISABLED.

When a Stationmaster reports an engine failure to the District Locomotive Superintendent, he must state as clearly as possible the nature of the failure, and the number of the engine.—W.N. No. 17/11.

ENGINES ON PASSENGER AND MIXED TRAINS TAKING WATER.

At watering stations Enginemen working passenger and mixed trains must not draw the carriages next to the engine past the platform to take water, but instead the carriages must be stopped opposite the platform, and the engine detached and run forward to the water column.—(See instructions in this Appendix, under the heading "Trains stopping at stations").—G.T.M., 1912/03.

"S" KEYS FOR LIGHT ENGINES.

When a light engine is booked to cross, coal, or water at a station without resident staff the Stationmaster at the starting station must hand an "S" key to the Engineman who must deliver it to the Stationmaster at destination. The key must then be waybilled to the station to which it belongs.

WATER CRANES.

Where water cranes are provided, and the valve wheel is operated from the tender, Enginemen must exercise every care when taking water, and see that the swivel part is put in position carefully, so as to prevent damage to the drop bolt.—W.N. No. 9/14.

MELBOURNE EXPRESS ENGINES TAKING WATER.

When two engines are attached to the Melbourne express, they must, on arrival at a watering station, be detached and run thus to the column in order to minimise damage to the couplings.—C.M.E., 3365/07.

VEHICLES STANDING ON TURNTABLES.

If a vehicle is standing on a turntable when an engine is approaching, it must be pushed off before the engine is run on to the table, as a vehicle standing on the opposite end raises the rails and causes them to foul the life guards.—W.N. No. 38/11.

Injectors, where the or manipulated so that injur No. 22/13.

Enginemen must not from the funnel. They train, and see that firing is short intervals, and the and only small quantities

In order to avoid every care to prevent eng main line. An Enginema station yards, and must se is shut off. All cases of W.N. Nos. 20/17, 29/17.

DAMAGE TO

Enginemen when rak timbers, to prevent dama

If necessary to rake-c levelled down clear of the No. 31/15.

COAL

Enginemen must not way, either on the main l

When running down is properly closed, in orde

The fire under the a when the damper is again tubes.—W.N. No. 27/15.

Where engines are f moving the handle of the through the steam pipe to vacuum, which causes a

This current of air li comes in contact with th

The amount of sand valve.

If the sand trap get of same, and clear the ol

Before sand is put in Sanding gear must n

Re-railers must be c brought into use in all c

MANIPULATING INJECTORS.

Injectors, where the overflow pipe is fixed under the footstep of the engine, must be carefully manipulated so that injury will not be caused to any person by waste steam or water.—W.N. No. 22/13.

SMOKE NUISANCE.

Enginemen must not cause a nuisance by allowing dense volumes of smoke to be emitted from the funnel. They must see that the fire is clear before backing the engines on to their train, and see that firing is not done at, or approaching a station. The firing must be done at short intervals, and the air should have proper access to the fire. The coal must not be too large, and only small quantities used at one time.—W.N. No. 45/11.

ENGINES PRIMING AND BLOWING-OFF.

In order to avoid damage to departmental and public property, Enginemen must exercise every care to prevent engines from priming during shunting operations or when working on the main line. An Engineman must not blow-off his engine against or over carriages standing in station yards, and must see that the jet is applied well outside of stations and before the regulator is shut off. All cases of priming or blowing-off resulting in damage must be at once reported. W.N. Nos. 20/17, 29/17.

DAMAGE TO TIMBER WALLPLATES OF ASHPITS BY FIRE.

Enginemen when raking out over pits must see that ashes are kept clear of the wallplate timbers, to prevent damage by fire.—W.N. No. 34/10.

RAKING OUT ASHPAN ON MAIN LINE.

If necessary to rake-out ash pans on the main line Enginemen must see that the ashes are levelled down clear of the rails and thoroughly wetted to prevent damage to sleepers.—W.N. No. 31/15.

COAL THROWN FROM ENGINES AND TENDERS.

Enginemen must not allow firemen to shovel small coal off the footplate on to the permanent way, either on the main line or in station yards.—W.N. No. 39/14.

PREVENTION OF LEAKY TUBES.

When running down grades with steam shut off, Enginemen must see that the front damper is properly closed, in order to prevent an influx of cold air.

The fire under the arch must not be allowed to become dead, as in such circumstances, when the damper is again opened, cold air rushes in, resulting in severe contraction and leaky tubes.—W.N. No. 27/15.

STEAM SANDING GEAR.

Where engines are fitted with steam sanding gear the following instructions apply:—By moving the handle of the steam valve to the position marked "on" steam is allowed to flow through the steam pipe to the ejectors, and in passing the end of the sand pipe it creates a partial vacuum, which causes a current of air to enter at the air inlet of the sand trap.

This current of air lifts the sand over the bridge and carries it down the sand pipe, until it comes in contact with the steam, which then forces it under the tread of the wheel.

The amount of sand used may be varied to suit circumstances by regulating the steam valve.

If the sand trap gets blocked up, Enginemen must remove the small plug at the bottom of same, and clear the obstruction.—W.N. No. 24/15.

SANDING GEAR.

Before sand is put into the sand boxes it must be well sifted.—W.N. No. 24/15.

Sanding gear must not be used when engines are standing over switches.—W.N. No. 20/15.

RE-RAILERS.

Re-railers must be carried on each engine as part of its equipment and must be promptly brought into use in all cases of derailment.—W.N. No. 45/16.

General Instructions.

120

BROAD-GAUGE ENGINES.

The following gives the classes of engine allowed to work on the different lines on the broad-gauge system (C.M.E., 509/07; W.N. Nos. 50/12, 48/13):—

Section.	Class of Engine.
Adelaide and Serviceton	All classes
Adelaide and Strathalbyn	All classes
Balhannah and Mount Pleasant	All classes
Tallem Bend, Pinnaroo, and Murray Lands*	Classes D, H, K, and L
Strathalbyn and Victor Harbour†	All classes
Strathalbyn and Milang	Classes A, D, G, H, K, and M
Adelaide and Terowie	All classes
Salisbury and Long Plains	All classes
Riverton and Spalding	All classes
Roseworthy and Morgan	All classes
Eudunda and Robertstown	All classes
Gawler, Angaston, and Truro	All classes
Port Adelaide and Dry Creek Loop-line	All classes
Dry Creek and Stockade Line‡	All classes excepting J
	All classes as far as the fourth crossing
Adelaide, Port Adelaide Dock, and Commercial Road Stations	All classes
Port Adelaide, Semaphore, and Outer Harbour	All classes excepting J
Woodville and Henley Beach	All classes excepting J
South Terrace and Glenelg	Classes G, Gd, Ge, K, M, and P
North Terrace and St. Leonards Yard	All classes
St. Leonards Yard and Glenelg	Classes G, Gd, Ge, K, M, and P
Adelaide, Brighton, and Willunga	All classes

* During the rush of traffic only, goods trains may be worked with "L" class engines. The speed of such trains must not exceed 15 miles per hour. The load for these engines is 50 tons more than that for a "H" class engine.—W.N. No. 15/15.

† Engines must not work on the wharf sidings at Goolwa.

‡ See special instructions below.

DRY CREEK AND STOCKADE LINE (G.T.M., 7055/08 and 10705/09).

1. Any class of locomotive engine may work between Dry Creek station yard and the catch points at the fourth level crossing.

2. Only D, E, G, H, J, K, L, P, and Q class engines are allowed to work between the catch points at the fourth level crossing and the red post situated about 60 yards east of the boundary fence of the Stockade reserve.

3. Engines must not pass the red post mentioned in paragraph (2) in the direction of the prison quarries.

NARROW-GAUGE ENGINES.

The following gives the classes of engines authorised to run over the various sections of the 3ft. 6in. gauge lines (C.M.E., 509/07):—

Section.	Class of Engine.
Terowie and Cockburn	Classes T, U, V, W, Wx, Y, Yx, and Z
Peterborough and Port Pirie	
Gladstone and Wilmington	
Peterborough and Quorn	Classes U, V, W, Wx, Y, and Yx
Port Augusta and Godnadatta	Classes U, V, W, Wx, and Y
Hamley Bridge and Moonta	Classes U, V, W, Wx, Y, and Yx
Wallaroo Jetty	Class V, and Saddleback, No. 260
Bulaklava and Gladstone	Classes U, V, W, Wx, Y, and Yx
Kadina and Brinkworth	
Wolsely and Mount Gambier	
Mount Gambier and Beachport	Classes U, V, W, Wx, and Y
Naracoorte and Kingston	Classes U, V, W, and Wx
Wandilo and Glencoe	
Byre Peninsula Lines	Classes U, V, W, and Wx and Y

Two-Eng

1. Engines must at the front or rear, c

2. When two en must not exceed 75 p 75 per cent. of the lo (See clause 5.)

3. When it is n attach a class Y engi and an additional sm of the train, in charge

4. Clause 2 appl Semaphore; Adelaid Angaston, and Truro and Willunga; Tailer Lands lines; on whic trains.

5. The working i also on the Murray l thus coupled togethe for a special purpose, para. 2).—C.M.E., 12

6. Between Rose trains must only be v panying each van.

7. When a class second engine.

8. When necessa other purpose, all suc but no increase in loa working engines shall are to be attached at 2/14.

9. Engines must sections. In all cases engine journey, and t

Murray
Aldgate
Murray
Gawler
Gladsto
Quorn
Naraco
Mount

Where a "push satisfy himself that to occupy the section

10. The Stationn to the 63m. bunk, wi "Bank keys" ar (see clause 9), and tl needed to the electric

The "bank key" to 63 miles, and the direction of Georget leaves Murray Bridge an ordinary electric loading engine. The handed to the Engin "bank key" to the cleared. The withdr and a staff cannot be engine returns to the switchbox. Enginen for 132m. Sch. with

Two-Engine Working, Push Engines, and Load Limit.

TWO ENGINE WORKING.

1. Engines must not, under any circumstances, be placed in the body of a train, but always at the front or rear, except as shown in para. 11 of these instructions.

2. When two engines of equal power are attached in front of a train, the additional load must not exceed 75 per cent. of that for one such engine. If the engines be of different power, 75 per cent. of the load for the lighter engine must be added to the load for the heavier type. (See clause 5.)

3. When it is necessary on narrow-gauge lines, in consequence of increased loading, to attach a class Y engine to a class T or Yx, or to put two Yx engines together, a bogie brakevan and an additional small brakevan, or three small brakevans, must be attached at the rear end of the train, in charge of two Guards.

4. Clause 2 applies to all lines except the Adelaide, Henley Beach, Outer Harbour, and Semaphore; Adelaide and Glenelg; between Kapunda, Morgan, and Robertstown; Gawler, Angaston, and Truro; Adelaide, Murray Bridge, Strathalbyn, and Mount Pleasant; Adelaide, and Willunga; Taillem Bend and Pinnaroo; 63-Miles (South Line) and Serviceton; and Murray Lands lines; on which sections only one engine loads are allowed for mixed, goods, and livestock trains.

5. The working of two engines attached to trains between Taillem Bend and Pinnaroo and also on the Murray Lands lines is only permitted, provided that two class K engines are not thus coupled together, but this working is only for attaching an engine to an ordinary train for a special purpose, and does not permit of any increased load over that for one engine. (See para. 2).—C.M.E., 1218/13.

6. Between Roseworthy and Kapunda two engine loads on mixed, goods, and livestock trains must only be worked with two bogie brakevans in the rear of the train, a Guard accompanying each van.

7. When a class T engine (narrow-gauge) is attached to a double train it must work as the second engine.

8. When necessary to attach more than two engines to a train for working to a depot, or other purpose, all such engines must be placed in front of the train but behind the train engine; but no increase in load is to be made over that allowed for a two-engine train. This method of working engines shall apply only to goods or livestock trains, and not more than two engines are to be attached at any time to a passenger train.—W.N. Nos. 32/11, 49/11, 13/13, 27/13, 34/13, 2/14.

PUSH ENGINES.

9. Engines must only assist mixed, goods, or livestock trains in the rear over the following sections. In all cases they must be coupled to the train, which must stop at completion of push engine journey, and the engine uncoupled and returned promptly (C.M.E., 399/98):—

Murray Bridge to Mount Lofty (see clause 11).

Aldgate to Mount Lofty (see clause 12).

Murray Bridge to 63m. South Line (see clause 10).

Gawler to Roseworthy (goods and livestock only).

Gladstone to Georgetown (132m. Schs., see clause 10).

Quorn to Summit.

Naracoorte to Binnam.

Mount Gambier to Wandilo.

Where a "push" engine is not properly protected by a "bank key" a Stationmaster must satisfy himself that the push engine has returned to the station before allowing another train to occupy the section.

10. The Stationmaster, Murray Bridge, must arrange for a push engine from Murray Bridge to the 63m. bank, when a train is fully loaded.

"Bank keys" are installed at Murray Bridge and Gladstone for the use of "push" engines (see clause 9), and these keys consist of a staff contained in a special electric switchbox, connected to the electric staff instruments at Murray Bridge and Gladstone.

The "bank key" at Murray Bridge is for the use of "push" engines from Murray Bridge to 63 miles, and the one at Gladstone for "push" engines from Gladstone to 132m. Schs. in the direction of Georgetown. Before a train to which a "push" engine is attached at the rear leaves Murray Bridge for 63m., or Gladstone for 132m. Schs. in the direction of Georgetown, an ordinary electric staff must first be taken out of the instrument for the Engineman of the leading engine. The "bank key" must then be withdrawn from the special switchbox and handed to the Engineman of the "push" engine, who, on returning, must promptly hand the "bank key" to the Stationmaster for replacing in the switchbox to enable the section to be cleared. The withdrawal of this "bank key" breaks the electric circuit of the staff instruments, and a staff cannot be obtained from the instrument at either end of the section until the "push" engine returns to the station from which it started, and the "bank key" replaced in the special switchbox. Enginemen of "push" engines must not leave Murray Bridge for 63m., or Gladstone for 132m. Sch. without the "bank key."

11. A gross load of 380 tons may be worked on goods and livestock trains from Murray Bridge to Mount Lofly with a class Rx engine hauling and a class Rx engine pushing, and from Mount Lofly to Mitcham with one class Rx engine under the following conditions:—

- (a) Not more than equal to 25 loaded four-wheeled vehicles, and one bogie brakevan must be attached to a train. Empty vehicles must not be attached.
- (b) Equal to not less than five (5) fully loaded X, Y, or Yr vehicles, having a gross weight of not less than 110 tons, and each vehicle fitted with the Westinghouse air brake complete, must be placed next to the leading engine from Murray Bridge to Mitcham. The airpipes of these five (5) vehicles must be properly coupled and connected with the leading engine, so that the air brake can be operated by the Engineman.
- (c) On reaching Mount Lofly one (1) class Rx engine may haul the whole of the 380 tons to Mitcham. All brake levers must be dropped at Mount Lofly and lifted at Mitcham.
- (d) The bogie brakevan must be placed behind the rear engine between Murray Bridge and Mount Lofly, so as not to obstruct the view ahead of the Engineman.
- (e) The push engine must be returned at once from Mount Lofly light, or as otherwise may be arranged.
- (f) The working of the push engine load, Murray Bridge to Mount Lofly, is restricted to daylight, but there is no such restriction in the continuation of the journey from Mount Lofly to Mitcham.—W.N. No. 9/18.

12. A gross load of 380 tons may be worked on goods and livestock trains from Aldgate to Mount Lofly with a class Rx engine hauling and a class Rx engine pushing, and from Mount Lofly to Mitcham with one class Rx engine under the following conditions:—

- (a) Not more than equal to 25 loaded four-wheeled vehicles, and one bogie brakevan must be attached to a train. Empty vehicles must not be attached.
- (b) The push engine must be placed behind the brakevan.
- (c) Equal to not less than five (5) fully loaded X, Y, or Yr vehicles having a gross weight of not less than 110 tons, and each vehicle fitted with the Westinghouse air brake complete, must be placed next to the leading engine from Aldgate to Mitcham. The airpipes of these five (5) vehicles must be properly coupled and connected with the leading engine, so that the air brake can be operated by the Engineman.
- (d) On reaching Mount Lofly one (1) class Rx engine may haul the whole of the 380 tons to Mitcham. All brake levers must be dropped at Mount Lofly and lifted at Mitcham.
- (e) The push engine must be returned at once from Mount Lofly light, or as may otherwise be arranged.
- (f) The working of the push engine load from Aldgate to Mount Lofly is restricted to daylight, but there is no such restriction in the continuation of the journey from Mount Lofly to Mitcham.
- (g) Before leaving Mount Lofly the Engineman must closely examine and test the Westinghouse brake gear on all vehicles on which the air brake is in operation, and see that it is in thorough working order.—W.N. No. 9/18.

LOAD LIMIT.

The maximum number of vehicles on any train is limited to equal to 70 four-wheeled vehicles. A four-axle bogie vehicle must be considered as equal to two four-wheeled vehicles, and a six-axle bogie vehicle as equal to four four-wheeled vehicles. Otherwise the load limits as tabulated in the Working Book, and any amendments thereof, apply.

Engine Head Lights.

The following is a list of the Engine Head Lights in use between sunset and sunrise on the various lines—G.T.M., 4311/00:—

BROAD GAUGE.

Adelaide, Terowie, Moryan, Robertstown, Angaston, Truro, Long Plains, and Northfield Lines—One white light on top of smoke-box in front of the chimney.

Adelaide, Serviceton, Victor Harbour, Milang, and Willunga Lines—One white light at each end of the buffer-beam.

Tallem Bend, Pinnaroo, and Murray Lands Lines—One white light on top of smoke-box in front of chimney.—C.M.E., 3322/06.

Adelaide, Port Adelaide (Dock Station), Semaphore, and Outer Harbour Lines—One white light on top of smoke-box in front of chimney, and one white light on top of buffer-beam at right-hand side of engine.

Adelaide and Henley Beach Line—One white light on top of smoke-box in front of chimney, and one white light on top of buffer-beam at left-hand side of engine.

Port Adelaide (Dock side of engine)

Glenelg Lines—

South Terrace

North Terrace

one on to

All 3ft. 6in. Gauge

N.B.—The terms "right" the Engineman's "right" running.

Engine

Disks must be used to indicate what line they are letter in white, and the int

S.—Semaphore

O.—Outer Har

P.—Port Adel

H.—Henley B

B.—Brighton

C.—Sleep's H

W.—Willunga

G.—Glenelg L

SP.—Special.

N.—North Su

Each Engineman taking lines over which the engine correct one is always exhibited at the end of the engine, and the l

Disks for

Engines going into traffic of a square with a cross in

THE FOLLOWING INSTR IN CONNECTIC

The sound of the whistle to the distance the used.

1. Starting of a train, or either forward or "Important" on n
2. Approaching within 600
 - (a) A distant signal
 - (b) A home signal
 - (c) A station where

Down trains -

Up trains -

3. Approaching within 600 there are private tunnels; in the fol other cuttings between 281½ and 2 300 and 362 miles Enginemen must frequent Jamestown and Crystal Bro

Engineers must frequently sound their whistles when going round the curves between Jamestown and Crystal Brook.

4. To apply brakes—Two short and distinct whistles ; to be repeated if further brake power is required.
5. To remove brakes—One short whistle.
6. Danger whistle—Quick and repeated (tremulous) whistles ; never to be used except when absolutely necessary.
7. For assistance—A long whistle ; to be repeated while necessary.
8. Hazy or foggy weather—On approaching stations, crossings, &c., or in moving back on same line—Repeated whistles.
9. To recall the Guard sent out to protect the train—Three short whistles.
10. Engines whistling—At narrow-gauge stations, when engines are running on a line of rails adjacent to one on which carriages containing passengers are standing, the whistle must be sounded 50 yards before the carriages are reached, as a warning to passengers, and kept gently sounding until the carriages have been passed.

NOTE.—When there are two engines, the first must give the whistle, and the other Engine-man immediately obey it.

11. Whistle when two engines on a train.—When two engines are working one train, either both in front or one in front and the other pushing, the Engineman of the front engine, after receiving the Guard's signal to start, and satisfying himself that the necessary fixed signal has been lowered, must, before making any movement with the train, call the attention of the Engineman of the second engine by giving *one short whistle*, which must be acknowledged by repetition by the rear engine. Until such whistles have been given and acknowledged neither engine must move. (For exceptions see instruction headed "Important" on this page.).
12. Ballast trains whistling.—Enginemen of ballast trains, whilst men are travelling in the trucks, must sound the whistle before increasing or reducing speed, as a warning to the men to be ready, and thus minimise the risk of injury.—G.T.M., 8927/07.

EXCESSIVE WHISTLING.

The sound signals on engines must be used judiciously, especially between sunset and sunrise, so that excessive whistling in station yards will not cause inconvenience to local residents. —W.N. No. 9/14.

IMPORTANT.

1. Enginenen working trains on the undermentioned suburban lines must not use the challenge whistle unless the signals are against them or a wrong signal has been given :—

Adelaide or Mile End and Outer Harbour.
Adelaide or Mile End and Port Adelaide Dock.
Glanville and Semaphore.
Woodville and Henley Beach.
Dry Creek and Port Adelaide Dock.
Adelaide or Mile End and Northfield.
Adelaide (North Terrace) or Mile End and Glenelg.
Adelaide (South Terrace) and Glenelg.
Adelaide or Mile End and Hallett's Cove.
Adelaide or Mile End and Mitcham.

2. All engines must give the single starting whistle before moving, whether for shunting purposes or for starting a train, *except for passenger trains from Adelaide Station platforms, when no whistle is to be sounded.*

3. In connection with shunting operations the Signaller in charge of an interlocked cabin must exhibit a white flag by day, and a white light by night, moved from side to side, when he has properly set a road in response to the code whistle. An Engineman, after the proper code whistle for the road required has been given, must not move his engine until the white hand signal is given from the cabin that the road is properly set. In the event of the Engineman not being able to see the signal from the cabin, he must obey the Shunter's signal, who must see that the proper signal is exhibited from the cabin.—E.-in-C., 811/09, and W.N. No. 13/11.

4. Where possible the whistle code, for shunting movements only, should be given to the Signaller by the Shunter with a pen whistle.

NOTE.—A crow is one (1) long, one (1) short, one (1) long, one (1) short, one (1) long, the last whistle being prolonged.

In the followin

From Main Yard to
for Crow Cabin
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for Crow Cabin
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From Main Yard to
Crow Cabin ...
From Main Yard to
Crow Cabin ...
From Main Yard to
Crow Cabin ...

Up trains from Mile
Down trains from 2
challenging ...
Up trains from North
Up trains from Port
From North Carria
No. 42)
Between North Carria
disc signal No. ...
From South Carria
No. 35)

Code of Whistles.

In the following codes a dot means a short whistle and a dash a long whistle:—

ADELAIDE.

CROW CABIN—NORTH SIDE.

From Main Yard to No. 1 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 2 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 3 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 4 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 5 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 1 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 2 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 3 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 4 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 5 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 6 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow

CROW CABIN—SOUTH SIDE.

From Main Yard to No. 1 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 2 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 3 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 4 Carriage Road (outside), challenge for Crow Cabin	---
From Main Yard to No. 1 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 2 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 3 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 4 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 5 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow
From Main Yard to No. 6 Carriage Shed Road, challenge for Crow Cabin	--- 1 crow

"Y" CABIN.

Up trains from Mile End Junction challenging	---
Down trains from Mile End Junction (Torrens Bridge loop) challenging	---
Up trains from North line challenging	---
Up trains from Port Adelaide line challenging	---
From North Carriage Yard (west end) to Main line (Disc No. 42)	---
Between North Carriage Yard (west end) and dead end past disc signal No. 42	---
From South Carriage Yard to Up Main South line (Disc No. 35)	1 crow -

MILE END JUNCTION.

Challenge Whistles.

Down South line trains (including Sleep's Hill, Brighton, and Willunga) challenging	---
Down trains from Adelaide for Mile End Goods Yard, <i>via</i> North Goods Cabin, challenging	---
Down trains from Adelaide for Mile End Loco. Coal Yard challenging ..	---
Down Glenelg line trains challenging	---
Up South line trains (including Sleep's Hill, Brighton, and Willunga) challenging	---
Up trains from Mile End Running Shed Yard for Adelaide challenging ..	---
Up Glenelg line trains challenging	---
Down trains from Mile End Goods Yard, <i>via</i> North Goods Cabin, for Adelaide challenging	---
Up trains <i>via</i> Torrens Bridge Loop for Down Main South line challenging	---
Up trains <i>via</i> Torrens Bridge Loop for Mile End East Yard challenging ..	---
Up trains <i>via</i> Torrens Bridge Loop for Mile End Goods Yard, <i>via</i> North Goods Cabin, challenging	---
Up trains <i>via</i> Torrens Bridge Loop for Mile End Loco. Coal Yard challenging	---
Up trains from Main South line, <i>via</i> Torrens Bridge Loop, challenging ..	---
Down trains from Mile End East Yard, <i>via</i> Torrens Bridge Loop, challenging	---
Down trains from Mile End Goods Yard, <i>via</i> North Goods Cabin, and <i>via</i> Torrens Bridge Loop, challenging	---
Down trains from Mile End Running Shed Yard for Port line, <i>via</i> Torrens Bridge Loop, challenging	---
Down trains from Mile End Running Shed Yard for North line, <i>via</i> Torrens Bridge Loop, challenging	---
Down trains from Mile End Loco. Coal Yard for Port line, <i>via</i> Torrens Bridge Loop, challenging	---
Down trains from Mile End Loco. Coal Yard for North line, <i>via</i> Torrens Bridge Loop, challenging	---
Trains from Permanent Way Sidings to Adelaide challenging	---

Shunting Whistles.

Between Up Main South line and Mile End East Yard <i>via</i> points 43	---
Between Mile End East Yard and Dead End (near Signal Cabin)	---
Between Mile End East Yard and Up line Goods Loop <i>via</i> points 53	---
Between Coal Yard and Up line Goods Loop	---
Between Up line Goods Loop and Down Main, Goods Yard, <i>via</i> North Goods Cabin	---
Between Up line Goods Loop and Up Main, Goods Yard, <i>via</i> North Goods Cabin	---
Between Mile End Loco. Coal Yard and Up line, Goods Loop, over points 29	One (1) crow
Between Mile End Loco. Coal Yard and Down line Goods Loop over points 50	One (1) crow
Between Mile End Permanent Way Sidings and Up line, Goods Loop ..	---
Between Mile End Permanent Way Sidings and Down line, Goods Loop ..	---
Between Coal Yard and Dead End (near Signal Cabin)	One (1) crow
Between Running Shed Yard and Down Main South line	---
Between Down line, Goods Loop, and Down Main, Goods Yard, <i>via</i> North Goods Cabin	---
Between Down line Goods Loop and Mile End East Yard	---
Between Down line, Goods Loop, and Coal Yard	---
Between Up line Goods Loop and Down Glenelg line	One (1) crow
Between Running Shed Yard and Up line Goods Loop over points 23 ..	One (1) crow
Between Running Shed Yard and Down line Goods Loop	---
Between Down line Goods Loop and Up Main Glenelg line	---
Between Up Main South line and Mile End Loco. Coal Yard	One (1) crow

Trains Hand Signalled.

Down trains from Adelaide for Mile End East Yard challenging Cabin ..	---
Up trains <i>via</i> Torrens Bridge Loop for Glenelg line challenging Cabin ..	---
Up trains from Glenelg line <i>via</i> Torrens Bridge Loop line challenging Cabin	---
Up trains from Mile End East Yard for Adelaide <i>via</i> points 43 challenging Cabin	---
Up trains from Mile End East Yard over points 43 <i>via</i> Down line, Goods Loop, challenging Cabin	---

Down Trains (Main Line)
Up Trains (Main Line)
From St. Leonards (via)
From Main Line (via)

Between Up Passenger
Between Goods Siding

Between Down Passenger
Between Goods Siding

MORPH

Down Trains (Main Line)
Down Trains (Branch)
Up Trains (Main Line)
Up Trains (Branch Line)

Down South Line Trains
(including Willunga) challenging ..
Up Main South Line Trains
(including Willunga) challenging ..
Up South Line Trains
(including Willunga) for Mile End
From Mile End East Yard
challenging ..
From Mile End East Yard
challenging ..
From Mile End Main Line
challenging ..
From Mile End Main Line
challenging ..
From Keswick Goods Yard
challenging ..
Engines from Mile End
Line challenging ..
Engines from Mile End
Yard challenging ..

G

Down Trains (Main Line)
Down Trains (Branch)
Down Trains (Branch)
Up Trains (Main Line)
Up Trains (Branch Line)
Up Trains (Branch Line)

Between Passenger Line
Between Middle Road
Between Goods Siding

Between Passenger Line
Between Middle Road
Between Goods Siding

GLENELG LINES.

MILLER'S CORNER (SOUTH TERRACE LINE).

Down Trains (Main Line) challenging	---
Up Trains (Main Line) challenging	---
From St. Leonards (via loop) engines challenging	---
From Main Line (via loop) to St. Leonards engines challenging ..	---

PLYMPTON (NORTH TERRACE LINE).

Shunting Whistles.

RICHMOND END.

Between Up Passenger Line and Up Main Line	---
Between Goods Siding and Up Main Line	---

CAMDEN END.

Between Down Passenger Line and Down Main Line	---
Between Goods Siding and Down Main Line	---

MORPHETTVILLE JUNCTION (NORTH TERRACE LINE).

Down Trains (Main Line) challenging	---
Down Trains (Branch Line to Morphettville) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Morphettville) challenging	---

KESWICK JUNCTION.

Down South Line Trains (including Sleep's Hill, Brighton, and Willunga) challenging	---
Up Main South Line Trains (including Sleep's Hill, Brighton and Willunga) challenging	---
Up South Line Trains (including Sleep's Hill, Brighton, and Willunga) for Mile End Main Goods Yard challenging	---
From Mile End East Departure Line to Down Main South Line challenging	---
From Mile End East Departure Line to Keswick Goods Sidings challenging	---
From Mile End Main Goods Yard to Down Main South Line challenging	---
From Mile End Main Goods Yard to Keswick Goods Sidings challenging	---
From Keswick Goods Sidings to Mile End Main Goods Yard challenging Keswick Junction Signal Cabin	---
Engines from Mile End Loco. Single Line to Down Main South Line challenging	---
Engines from Mile End Loco. Single Line to Mile End Main Goods Yard challenging	One (1) crow

GOODWOOD INTERSECTION SIGNAL CABIN.

Down Trains (Main South Line) challenging	---
Down Trains (Brighton and Willunga Line) challenging	---
Down Trains (Glenelg Line) challenging	---
Up Trains (Main South Line) challenging	---
Up Trains (Brighton and Willunga Line) challenging	---
Up Trains (Glenelg Line) challenging	---

WILLUNGA LINE.

BRIGHTON.

Shunting Whistles.

EDWARDSTOWN END.

Between Passenger Line and Main Line	---
Between Middle Road and Main Line	---
Between Goods Siding and Main Line	---

MARINO END.

Between Passenger Line and Main Line	---
Between Middle Road and Main Line	---
Between Goods Siding and Main Line	---

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MITCHAM.

Shunting Whistles.

GOODWOOD END.

Between Down Passenger Line and Down Main Line	----
Between Down Passenger Line and Up Main Line	----
Between Up Passenger Line and Up Main Line	----
Between Goods Siding and Up Main Line	----
Between Goods Siding and Dead End	----

SLEEP'S HILL END.

Between Down Passenger Line and Down Main Line	----
Between Up Passenger Line and Up Main Line	----
Between Up Passenger Line and Down Main Line	----
Between Weighbridge Siding and Down Main Line	----
Between Weighbridge Siding and Up Main Line	----
Between Weighbridge Siding and Dead End	----
Between Goods Siding and Down Main Line	----
Between Goods Siding and Up Main Line	----
Between Goods Siding and Dead End	----
Between Down Main Line and Branch Main over points No. 11 ..	----
Between Up Main Line and Branch Main over points No. 9	----

SLEEP'S HILL.

Shunting Whistles.

MITCHAM END.

Between Down Main Line and Sleep's Hill Quarry	----
Between Up Main Line and Sleep's Hill Quarry	----
Between Dead End and Sleep's Hill Quarry	----
Between Schwerkolt's Quarry and Sleep's Hill Quarry	----
Between Schwerkolt's Quarry and Burt and Timms's Quarry	----

EDEN.

Shunting Whistles.

MITCHAM END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----

BLACKWOOD END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----

See instructions on page 28 of this Appendix under the heading "Eden—Run-away Siding.

BLACKWOOD.

Shunting Whistles.

EDEN END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----
Between Goods Siding and Dead End	----

BELAIR END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----
Between Down Passenger Line and Private Siding	----

BELAIR.

Shunting Whistles.

BLACKWOOD END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Middle Road and Main Line	----
Between Main Line and Goods Siding	----

Between Down Passenger
Between Up Passenger L
Between Middle Road an
Between Down Passenger
Between Main Line and
Between Goods Siding an
Between Goods Siding an

Between Down Passenger
Between Up Passenger Li

Between Down Passenger
Between Up Passenger Li
See instructions on pa
Siding."

NOTE.—Up trains whe
after coming out of the tu

Between Down Passenger
Between Up Passenger Lin
Between Middle Road and
Between Up Passenger Lin
Between Up Passenger Lin
Between Middle Road and
Between Down Passenger I
Between Down Passenger I

Between Down Passenger I
Between Up Passenger Lin
Between Middle Road and
Between Down Passenger I
Between Up Passenger Lin
Between Middle Road and

Between Down Passenger Li
Between Up Passenger Line
Between Main Line and Goc
Between Main Line and Liv
Between Goods Siding and I
Between Livestock Siding at

Between Down Passenger Li
Between Up Passenger Line
Between Main Line and Goo
Between Up Passenger Line
Between Main Line and Dea

LONG GULLY END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Middle Road and Main Line	-----
Between Down Passenger Line and Turntable Road	One (1) crow
Between Main Line and Goods Siding	-----
Between Goods Siding and Turntable Road	One (1) crow,-
Between Goods Siding and Dead End	-----

LONG GULLY.

Shunting Whistles.

BELAIR END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----

UPPER STURT END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
See instructions on page 29 of this Appendix under the heading "Long Gully—Run-away Siding."	

UPPER STURT.

NOTE.—Up trains when approaching Upper Sturt must whistle for the station immediately after coming out of the tunnel.

MOUNT LOFTY.

Shunting Whistles.

UPPER STURT END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Middle Road and Main Line	-----
Between Up Passenger Line and Goods Shed Lines	-----
Between Up Passenger Line and Catch Siding	-----
Between Middle Road and Catch Siding	-----
Between Down Passenger Line and Catch Siding	-----
Between Down Passenger Line and Dead End	-----

ALDGATE END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Middle Road and Main Line	-----
Between Down Passenger Line and Catch Siding	-----
Between Up Passenger Line and Catch Siding	-----
Between Middle Road and Catch Siding	-----

ALDGATE.

Shunting Whistles.

MOUNT LOFTY END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Main Line and Goods Siding	-----
Between Main Line and Livestock Siding	-----
Between Goods Siding and Dead End	-----
Between Livestock Siding and Dead End	-----

BRIDGEWATER END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Main Line and Goods Siding	-----
Between Up Passenger Line and Running Shed	One (1) crow.
Between Main Line and Dead End	-----

BRIDGEWATER.

Shunting Whistles.

ALDGATE END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----

AMBLESIDE END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----

AMBLESIDE.

Shunting Whistles.

BRIDGEWATER END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----

BALHANNAH END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----
Between Goods Siding and Dead End	----

BALHANNAH.

Down Trains (Main South Line) challenging	---
Down Trains (Branch Line to Mount Pleasant) challenging	---
Up Trains (Main South Line) challenging	---
Up Trains (Branch Line from Mount Pleasant) challenging	---

Shunting Whistles.

AMBLESIDE END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Shed Line and Main Line	----

MOUNT BARKER JUNCTION END.

Between Down Passenger Line and Main Line	----
Between Down Passenger Line and Branch Line to Mount Pleasant	----
Between Up Passenger Line and Main Line	----
Between Up Passenger Line and Branch Line to Mount Pleasant ..	----
Between Goods Shed Line and Main Line	----
Between Goods Shed Line and Branch Line to Mount Pleasant ..	----
Between Goods Shed Line and Livestock Siding	----

MOUNT BARKER JUNCTION.

Down Trains (Main South Line) challenging	---
Down Trains (Branch Line to Mount Barker) challenging	---
Up Trains (Main South Line) challenging	---
Up Trains (Branch Line from Mount Barker) challenging	---

Shunting Whistles.

BALHANNAH END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Up Passenger Line and Turntable Road	One (1) crow.
Between Local Line and Main Line	----
Between Local Line and Dead End	----

Between Down Passenger I
Between Down Passenger I
Between Up Passenger Line
Between Up Passenger Line
Between Local Line and M
Between Local Line and D
Between Local Line and B

Between Down Passenger I
Between Up Passenger Line
Between Goods Shed Line
Between Dead End and Ma

Between Down Passenger I
Between Up Passenger Line
Between Goods Shed Line
Between Goods Shed Line

Between Down Passenger I
Between Up Passenger Line

Between Down Passenger I
Between Up Passenger Line

Between Down Passenger I
Between Up Passenger Line
Between Goods Siding and
Between Goods Siding and

Between Down Passenger I
Between Up Passenger Line
Between Goods Siding and
Between Goods Siding and

Down Trains (Main South I
Down Train (Branch Line to
Up Trains (Main South Line
Up Train (Branch Line from

Between Down Passenger I
Between Up Passenger Line
Between Goods Siding and

Between Down Passenger I
Between Up Passenger Line
Between Goods Siding and

NAIRNE END.

Between Down Passenger Line and Main South Line	----
Between Down Passenger Line and Branch Line to Mount Barker	----
Between Up Passenger Line and Main South Line	----
Between Up Passenger Line and Branch Line to Mount Barker	----
Between Local Line and Main Line	----
Between Local Line and Dead End	----
Between Local Line and Branch Line to Mount Barker	----

NAIRNE.

Shunting Whistles.

MOUNT BARKER JUNCTION END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Shed Line and Main Line	----
Between Dead End and Main Line	----

BALYARTA END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Shed Line and Main Line	----
Between Goods Shed Line and Livestock Siding	----

BALYARTA.

Shunting Whistles.

NAIRNE END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----

CALLINGTON END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----

CALLINGTON.

Shunting Whistles.

BALYARTA END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----
Between Goods Siding and Dead End	----

MONARTO SOUTH END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----
Between Goods Siding and Livestock Siding	----

MONARTO SOUTH.

Down Trains (Main South Line) challenging	----
Down Train (Branch Line to Sedan) challenging	----
Up Trains (Main South Line) challenging	----
Up Train (Branch Line from Sedan) challenging	----

Shunting Whistles.

CALLINGTON END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----

MURRAY BRIDGE END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----

MURRAY BRIDGE.

Shunting Whistles.

MONARTO SOUTH END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Goods Line and Main Line	-----
Between Down Passenger Line and Running Shed	One (1) crow.
Between Up Passenger Line and Running Shed	One (1) crow, -
Between Goods Line and Running Shed	One (1) crow, --
Between Goods Line and Goods Sidings over compound 11 and 14	-----
Between Goods Line and Goods Siding over points No. 13	-----
Between Down Passenger Line and Goods Sidings over compound 11 and 14	-----

See also instructions on page 31 of this Appendix, under heading "Murray Bridge," with reference to points No. 18.

MONTEITH END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Goods Line and Main Line	-----
Between Goods Line and Dead End	-----

MONTEITH.

Shunting Whistles.

MURRAY BRIDGE END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Goods Siding and Main Line	-----

TAILEM BEND END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Goods Siding and Main Line	-----

TAILEM BEND.

Down Trains (Main South Line) challenging	----
Down Trains (Pinnaroo Line) challenging	----
Down Trains (Murray Lands Lines) challenging	----
Up Trains (Main South Line) challenging	----
Up Trains (Pinnaroo Line) challenging	----
Up Trains (Murray Lands Lines) challenging	----

Shunting Whistles.

MONTEITH END.

Between Branch Passenger Line and Main Line	-----
Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Through Passenger Line and Main Line	-----
Between Goods Sidings and Main Line	-----

COOKE'S PLAINS END.

Between Branch Platform Line and Branch Main to Murray Lands Lines	-----
Between Branch Platform Line and Pinnaroo Main via Branch Main	-----
Between Branch Platform Line and Main South Line	-----
Between Goods Sidings and Branch Main to Murray Lands Lines	-----
Between Goods Sidings and Pinnaroo Main over Branch Main	-----
Between Goods Sidings and Main South Line	-----
Between Down Passenger Line and Main Line	-----
Between Down Passenger Line and Main Line to Pinnaroo	-----
Between Down Passenger Line and Main Line to Murray Lands Lines	-----
Between Through Passenger Line and Main Line	-----
Between Through Passenger Line and Pinnaroo Branch Main	-----
Between Through Passenger Line and Murray Lands Lines Branch Main	-----
Between Through Passenger Line and Cattle Yards	-----
Between Up Passenger Line and Main South Line	-----
Between Up Passenger Line and Pinnaroo Branch Main	-----
Between Up Passenger Line and Murray Lands Lines Branch Main	-----
Between Up Passenger Line and Cattle Yards over points No. 14	-----

Between Down Passenger
Between Up Passenger L
Between Goods Siding an

Between Down Passenger
Between Up Passenger L
Between Goods Siding an
Between Goods Siding an

Between Down Passenger
Between Up Passenger L
Between Up Passenger L

Between Down Passenger
Between Up Passenger L
Between Up Passenger L
Between Goods Siding an

Between Down Passenger
Between Up Passenger L
Between Goods Siding an

Between Down Passenger
Between Up Passenger L
Between Goods Siding an

Between Down Passenger
Between Up Passenger L
Between Up Passenger L
Between Goods Siding an

Between Down Passenger
Between Up Passenger L
Between Goods Siding an
Between Goods Siding an

Between Passenger Line
Between Goods Siding an
Between Goods Siding an
Between Crossing Loop a

Between Passenger Line
Between Goods Siding an
Between Goods Siding an
Between Crossing Loop a

COOMANDOOK.

Shunting Whistles.

COOKE'S PLAINS END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Goods Siding and Main Line	---

KI KI END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Goods Siding and Main Line	---
Between Goods Siding and Dead End	---

KI KI.

Shunting Whistles.

COOMANDOOK END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Up Passenger Line and Goods Siding	---

COONALPYN END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Up Passenger Line and Goods Siding	---
Between Goods Siding and Dead End	---

COONALPYN.

Shunting Whistles.

KI KI END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Goods Siding and Main Line	---

CULBURRA END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Goods Siding and Main Line	---

TINTINARA.

Shunting Whistles.

CULBURRA END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Up Passenger Line and Goods Siding	---
Between Goods Siding and Dead End	---

KUMORNA END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Goods Siding and Main Line	---
Between Goods Siding and Dead End	---

KEITH.

Shunting Whistles.

BANEALLA END.

Between Passenger Line and Main Line	---
Between Goods Siding and Main Line	---
Between Crossing Loop and Main Line	---

BRIMBAGO END.

Between Passenger Line and Main Line	---
Between Goods Siding and Main Line	---
Between Goods Siding and Livestock Siding	---
Between Crossing Loop and Main Line	---

One (1) crow.
One (1) crow, -
One (1) crow, --

ng "Murray Bridge," with

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WIRREGA.

Shunting Whistles.

BRIMBAGO END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----

CANNAWIGARA END.

Between Down Passenger Line and Main Line	----
Between Up Passenger Line and Main Line	----
Between Goods Siding and Main Line	----

BORDERTOWN.

Shunting Whistles.

CANNAWIGARA END.

Between Passenger Line and Main Line	----
Between Goods Sidings and Main Line	----

WOLSELEY END.

Between Passenger Line and Main Line	----
Between Goods Sidings and Main Line	----
Between Passenger Line and Loco. Sidings	One (1) crew.

WOLSELEY.

Down Trains challenging	---
Up Trains (Main South Line) challenging	---
Up Trains (Narrow Gauge) challenging	---

Shunting Whistles.

BORDERTOWN END.

Between Main Passenger Line and Main Line	----
Between Passenger Loop Line and Main Line	----
Between No. 1 Goods Siding and Main Line	----
Between No. 2 or No. 3 Goods Siding and Main Line	----
Between Dunn's Siding and Main Line	----
Between Dunn's Siding and Dead End	----

SERVICETON END.

Between Main Passenger Line and Main Broad-gauge Line	----
Between Main Passenger Line and Main Narrow-gauge Line	----
Between No. 1 Goods Road and Main Broad-gauge Line	----
Between No. 1 Goods Road and Main Narrow-gauge Line	----
Between No. 2 Goods Road and Main Broad-gauge Line	----
Between Passenger Loop Line and Main Broad-gauge Line	----
Between Passenger Loop Line and Main Narrow-gauge Line	----
Between Dunn's Siding and Main Broad-gauge Line	----
Between Dunn's Siding and Main Narrow-gauge Line	----
Between Dunn's Siding and Local Goods Sidings	----

MISCELLANEOUS.

Between Main Line (Serviceton End) and Main Line (Bordertown End) via Dunn's Siding	----
Between Main Line (Serviceton End) and Main Line (Bordertown End) via Narrow-gauge Loop Line	----
Between Main Line (Serviceton End) and Main Line (Bordertown End) via Passenger Siding	----
Between Main Line (Serviceton End) and Main Line (Bordertown End) via No. 1 Goods Siding	----
Between Main Line (Serviceton End) and Main Line (Bordertown End) via No. 2 Goods Siding	----

KAROONDA.

Down Trains (Main Paringa Line) challenging	---
Down Trains (Branch Line to Waikerie) challenging	---
Down Trains (Branch Line to Peebinga) challenging	---
Up Trains (Main Paringa Line) challenging	---
Up Trains (Branch Line from Waikerie) challenging	---
Up Trains (Branch Line from Peebinga) challenging	---

Down Trains (Main Paringa Line)
Down Trains (Branch Line to Waikerie)
Up Trains (Main Paringa Line)
Up Trains (Branch Line from Waikerie)

Down Trains (Main Line) challenging
Up Trains (Main Line) challenging
Up Trains (Branch Line from Waikerie)

Down Trains (Main Line) challenging
Down Trains (Branch Line to Waikerie)
Up Trains (Main Line) challenging
Up Trains (Branch Line from Waikerie)

Down Trains (Main Line) challenging
Down Trains (Branch Line to Waikerie)
Up Trains (Main Line) challenging
Up Trains (Branch Line from Waikerie)

Between Down Passenger Line and Main Line
Between Up Passenger Line and Main Line
Between Down Passenger Line and Main Line

Between Down Passenger Line and Main Line
Between Up Passenger Line and Main Line
Between Up Passenger Line and Main Line
Between Gas Works Siding and Main Line
Between Down Main Line and Main Line

Between Down Passenger Line and Main Line
Between Up Passenger Line and Main Line
Between Down Passenger Line and Main Line
Between Up Main Line and Main Line
On Goods Siding over points

Down Trains (Main Line) challenging
Down Trains (Branch Line to Waikerie)
Up Trains (Main Line) challenging
Up Trains (Branch Line from Waikerie)

Between Down Passenger Line and Main Line
Between Down Passenger Line and Main Line
Between Up Passenger Line and Main Line

ALAWOONA.

Down Trains (Main Paringa Line) challenging	---
Down Trains (Branch Line to Loxton) challenging	---
Up Trains (Main Paringa Line) challenging	---
Up Trains (Branch Line from Loxton) challenging	---

SOUTH-EASTERN SYSTEM.

NARACOOORTE.

Down Trains (Main Line) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Kingston) challenging	---

WANDILO.

Down Trains (Main Line) challenging	---
Down Trains (Branch Line to Glencoe) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Glencoe) challenging	---

MOUNT GAMBIER JUNCTION.

Down Trains (Main Line) challenging	---
Down Trains (Branch Line to Beachport) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Beachport) challenging	---

BOWDEN.

Shunting Whistles.

ADELAIDE END.

Between Down Passenger Line and Down Main Line	---
Between Up Passenger Line and Up Main Line	---
Between Down Passenger Line and Up Main Line	---

CROYDON END.

Between Down Passenger Line and Down Main Line	---
Between Up Passenger Line and Up Main Line	---
Between Up Passenger Line and Down Main Line	---
Between Up Passenger Line and Gas Works Siding (North side)	---
Between Gas Works Siding (North side) and Dead End	---
Between Down Main Line and Goods Sidings (South side)	---

KILKENNY.

Shunting Whistles.

WEST CROYDON END.

Between Down Passenger Line and Down Main Line	---
Between Up Passenger Line and Up Main Line	---
Between Down Passenger Line and Goods Sidings	---
Between Up Main Line and Forwood, Downs' Siding	---
On Goods Siding over points No. 5	---

WOODVILLE.

Down Trains (Main Line) challenging	---
Down Trains (Branch Line to Henley Beach) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Henley Beach) challenging	---

Shunting Whistles.

KILKENNY END.

Between Down Passenger Line and Down Main Line	---
Between Down Passenger Line and Up Main Line	---
Between Up Passenger Line and Up Main Line	---

One (1) crow.

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CHELTEMHAM END.

Between Down Passenger Line and Down Main Line	-----
Between Down Passenger Line and Branch Line to Henley Beach	-----
Between Down Passenger Line and Goods Sidings	-----
Between Up Passenger Line and Up Main Line	-----
Between Up Passenger Line and Branch Line from Henley Beach	-----
Between Up Passenger Line and Goods Sidings	-----
On Goods Siding over points No. 12	-----

HENLEY BEACH LINE (W.N. No. 23/15).

In addition to the level crossings between Woodville and Grange the whistle must be sounded at the following places:—

1. Approaching the curve leading into Grange Station.
2. Also at curves and private and level crossings between Grange and Henley Beach.

ALBERTON.

Shunting Whistles.

CHELTEMHAM END.

Between Down Passenger Line and Down Main Line	-----
Between Down Passenger Line and Up Main Line	-----
Between Down Passenger Line and Goods Siding	-----
Between Up Passenger Line and Up Main Line	-----

W.N. No. 39/17.

PORT ADELAIDE.

DOCK STATION—YARD CABIN.

Down Trains (Main Line) challenging	---
Down Trains (Dry Creek Branch Line) challenging	---

Shunting Whistles.

Between Engine run round and Down Main	-----
Between Engine run round and Up Main	-----
Between Platform Road and Down Main	-----
Between Platform Road and Up Main	-----
Between No. 1 South Goods Siding and Down Main	-----
Between No. 1 South Goods Siding and Up Main	-----
Between No. 1 South Goods Siding and Wheat Sidings	-----
Between No. 1 South Goods Siding and Loco. Running Sheds ..	One (1) crow
Between No. 2 South Goods Siding and Up Main	-----
Between No. 2 South Goods Siding and Wheat Sidings	-----
Between No. 2 South Goods Siding and Loco. Running Sheds ..	one (1) crow
Between Engine run round and Wheat Sidings	-----
Between Engine run round and Loco. Running Sheds	one (1) crow
Between Platform Road and Wheat Sidings	-----
Between Platform Road and Loco. Running Sheds	one (1) crow
Between No. 1 North Goods Siding and Down Main	-----
Between No. 1 North Goods Siding and Up Main	-----
Between No. 1 North Goods Siding and Wheat Sidings	-----
Between No. 1 North Goods Siding and Loco. Running Sheds ..	One (1) crow
Between No. 2 North Goods Siding and Up Main	-----
Between No. 2 North Goods Siding and Wheat Sidings	-----
Between No. 2 North Goods Siding and Loco. Running Sheds ..	One (1) crow

Miscellaneous.

Engines approaching and running through Stores Yard	-----
-----------------------------------------------------------	-------

COMMERCIAL ROAD STATION.

Down Trains (Main Line) challenging	---
Down Trains (Dry Creek Branch Line) challenging	---
Up Trains challenging	---

Down Trains from Adelaide
Down Trains from Adelaide
challenging

Down Trains from Adelaide
32, challenging ..

Down Trains from Adelaide
Up Trains from Dry Creek
Up Trains from Dry Creek
challenging

Up Trains from Dry Creek
and 15, challenging

Up Trains from Commercial Road
Up Trains from Commercial Road
Down Trains from Port Adelaide
challenging

Down Trains from Commercial Road
challenging

Up Trains from North Adelaide
Down Trains from North Adelaide
14 and 15, challenging

Up Trains from Coal Station
Up Trains from Coal Station
challenging

Down Trains from Coal Station

Between North Sidings
Between North Sidings

Down Trains challenging
Up Trains challenging

*Between Goods Yard
*Between Goods Yard
(See Note)

Between Port Adelaide
Line

Between Port Adelaide
or Sidings), via Main Line

* NOTE.—These whistles

Down Trains (Main Line)
Down Trains (Branch Line)
Down Trains (Goods Siding)
Down Trains (from Station)
Up Trains (Main Line)
Up Trains (Branch Line)
Up Trains (Main Line)
Up Trains (Main Line)

Between Down Platform
Between Up Platform
Between Middle Road
Between Engine run round
Between Engine run round
Between Engine run round
Between Engine run round
Between Goods Siding
Between Goods Siding
Between Goods Siding
Between Goods Siding

GRAND JUNCTION CABIN.

Down Trains from Adelaide to Commercial Road challenging ...	---
Down Trains from Adelaide to Port Adelaide Dock Station challenging	---
Down Trains from Adelaide to Coal Stage Road, over points No. 32, challenging	---
Down Trains from Adelaide to North Sidings challenging	---
Up Trains from Dry Creek to Commercial Road Station challenging	---
Up Trains from Dry Creek to Port Adelaide Dock Station challenging	---
Up Trains from Dry Creek to North Sidings, over points Nos. 14 and 15, challenging	---
Up Trains from Commercial Road Station to Adelaide challenging	---
Up Trains from Port Adelaide Dock Station to Adelaide challenging	---
Down Trains from Port Adelaide Dock Station to Dry Creek challenging	---
Down Trains from Commercial Road Station to Dry Creek challenging	---
Up Trains from North Sidings to Adelaide challenging	---
Down Trains from North Sidings to Dry Creek, over points Nos. 14 and 15, challenging	---
Up Trains from Coal Stage Road to Up Main to Adelaide challenging	One (1) crow
Up Trains from Coal Stage Road to Down Main from Adelaide challenging	- one (1) crow
Down Trains from Coal Stage Road to Dry Creek challenging ...	- one (1) crow

Shunting Whistles.

Between North Sidings and Dead End	---
Between North Sidings and Coal Stage Road, over points No. 33.	---

SIGNAL BOX (LIPSON STREET).

Down Trains challenging	---
Up Trains challenging	---

Shunting Whistles.

*Between Goods Yard and Queen's Wharf (See Note)	One (1) crow —
*Between Goods Yard and Port Adelaide Dock (Wharf or Sidings) (See Note)	Two (2) crows
Between Port Adelaide Yard Cabin and Queen's Wharf, via Main Line	---
Between Port Adelaide Yard Cabin and Port Adelaide Dock (Wharf or Sidings), via Main Line	---
* NOTE.—These whistles must only be given when trains require to foul the main line, and the attendance of the Street Porter is necessary.	

GLANVILLE.

Down Trains (Main Line) challenging	---
Down Trains (Branch Line) challenging	---
Down Trains (Goods Siding) challenging	---
Down Trains (from St. Vincent Street) challenging	---
Up Trains (Main Line to Up Main) challenging	---
Up Trains (Branch Line to Up Main) challenging	---
Up Trains (Main Line to Middle Road) challenging	---
Up Trains (Main Line to Goods Siding) challenging	---

Shunting Whistles.

PORT ADELAIDE END.

Between Down Platform Line and Down Main	---
Between Up Platform Line and Up Main	---
Between Middle Road and Up Main	---
Between Engine run round and Down Main	One (1) crow --
Between Engine run round and Up Main	One (1) crow --
Between Engine run round and St. Vincent Street Main	One (1) crow ----
Between Engine run round and Sugar Refinery Siding	---
Between Goods Siding and Down Main	---
Between Goods Siding and Up Main	---
Between Goods Siding and St. Vincent Street Main	---
Between Goods Siding and Sugar Refinery Siding	---
Between Goods Siding and Glanville Works	---

General Instructions.

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SEMAPHORE END.

Between Down Platform Line and Down Main	----
Between Down Platform Line and Branch Main	----
Between Up Platform Line and Up Main	----
Between Up Platform Line and Down Main	----
Between Up Platform Line and Branch Main	----
Between Middle Road and Down Main	----
Between Middle Road and Up Main	----
Between Middle Road and Coal Stage Siding	----
Between Engine run round and Down Main	One (1) crow
Between Engine run round and Up Main	- one (1) crow
Between Engine run round and Coal Stage Siding	- one (1) crow
Between Goods Siding and Down Main	----
Between Goods Siding and Up Main	----
Between Goods Siding and Coal Stage Siding	One (1) crow -

LARGE.

Shunting Whistles.

PETERHEAD END.

Between Down Passenger Line and Down Main Line	----
Between Down Passenger Line and Up Main Line	----
Between Middle Road and Up Main Line	----
Between Up Passenger Line and Up Main Line	----

OUTER HARBOUR END.

Between Down Passenger Line and Down Main Line	----
Between Middle Road and Down Main Line	----
Between Up Passenger Line and Up Main Line	----
Between Up Passenger Line and Down Main Line	----

NORTH ADELAIDE.

Shunting Whistles.

ADELAIDE END.

Between Down Passenger Line and Down Main Line	----
Between Up Passenger Line and Up Main Line	----
Between Down Passenger Line and Up Main Line	----
Between Up Main Line and Goods Siding	----

OVINGHAM END.

Between Down Passenger Line and Down Main Line	----
Between Up Passenger Line and Up Main Line	----
Between Up Passenger Line and Down Main Line	----

ISLINGTON.

Down Trains (Main Line) challenging	----
Down Trains (Branch to Loco. Works) challenging	----
Up Trains (Main Line) challenging	----
Up Trains (Branch from Loco. Works) challenging	----

Shunting Whistles.

OVINGHAM END.

Between Down Passenger Line and Down Main Line	----
Between Down Passenger Line and Up Main Line	----
Between Up Passenger Line and Up Main Line	----
Between Up Main Line and Traffic Siding (East side of Cabin) ..	----

Between Down Passenger
Between Up Passenger
Between Up Passenger
Between Down Main
Between Up Main Line
Between Islington Works
Between Goods Siding
of Cabin)
Between Running She
Between Running She
Between Running She
Between Running She
NOTE.—See also i

Down Trains (Main Line)
Down Trains (Main Line)
Down Trains (Branch
Up Trains (Main Line)
Up Trains (Branch Line)
Up Trains (Main Line)

Between Down Passenger
Between Down Passenger
Between Down Main Line
Between Down Main Line
Between Up Passenger
Between Up Passenger
Between Up Passenger
Between Up Main Line
Between Loop Line at
Between Loop Line at

Between Down Passenger
Between Down Passenger
Between Down Main Line
Between Up Passenger
Between Up Main Line
Between West Goods Siding
For Ground Frame Re

Down Trains (Main Line)
Down Trains (Branch
Up Trains (Main Line)
Up Trains (Branch Line)

Between Down Passenger
Between Up Passenger
Between Down Passenger

Between Down Passenger
Between Down Main Line
Between Down Main Line
Between Down Passenger
Between Up Passenger
Between Up Passenger
Between Branch Line
Between Branch Line
Between Goods Siding

DRY CREEK END.

Between Down Passenger Line and Down Main Line	-----
Between Up Passenger Line and Up Main Line	-----
Between Up Passenger Line and Islington Works	-----
Between Up Passenger Line and Goods Sidings (West side)	-----
Between Down Main Line and Traffic Siding (East side of Cabin)	-----
Between Up Main Line and Traffic Siding (East side of Cabin)	-----
Between Islington Works and Traffic Siding (East side of Cabin)	-----
Between Goods Sidings (West side) and Traffic Siding (East side of Cabin)	-----
Between Running Shed Road and Islington Works	One (1) crow.
Between Running Shed Road and Up Main Line	- one (1) crow.
Between Running Shed Road and Goods Sidings	One (1) crow -
Between Running Shed Road and Down Main Line	-- one (1) crow.

NOTE.—See also instructions on page 17 under the heading "Islington."

DRY CREEK.

Down Trains (Main Line) challenging	---
Down Trains (Main Line to Northfield) challenging	---
Down Trains (Branch Line from Port Adelaide) challenging	-----
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Northfield) challenging	---
Up Trains (Main Line for Port Adelaide Branch Line) challenging	-----

Shunting Whistles.

ISLINGTON END.

Between Down Passenger Line and Down Main Line	-----
Between Down Passenger Line and Loop Line	-----
Between Down Main Line and East Goods Siding	-----
Between Down Main Line and West Goods Siding	-----
Between Up Passenger Line and Up Main Line	-----
Between Up Passenger Line and Down Main Line	-----
Between Up Passenger Line and Loop Line	-----
Between Up Main Line and East Goods Siding	-----
Between Loop Line and West Goods Siding	-----
Between Loop Line and East Goods Siding	-----

SALISBURY END.

Between Down Passenger Line and Down Main Line	-----
Between Down Passenger Line and Up Main Line	-----
Between Down Main Line and West Goods Siding	-----
Between Up Passenger Line and Up Main Line	-----
Between Up Main Line and West Goods Siding	-----
Between West Goods Sidings and North-west Goods Sidings	-----
For Ground Frame Release	-----

SALISBURY.

Down Trains (Main Line) challenging	---
Down Trains (Branch Line to Long Plains) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Long Plains) challenging	---

Shunting Whistles.

DRY CREEK END.

Between Down Passenger Line and Down Main Line	-----
Between Up Passenger Line and Up Main Line	-----
Between Down Passenger Line and Up Main Line	-----

SMITHFIELD END.

Between Down Passenger Line and Down Main Line	-----
Between Down Main Line and Up Main Line	-----
Between Down Main Line and Goods Siding	-----
Between Down Passenger Line and Branch Line	-----
Between Up Passenger Line and Up Main Line	-----
Between Up Passenger Line and Goods Siding	-----
Between Branch Line and Up Main Line	-----
Between Branch Line and Goods Siding	-----
Between Goods Siding and Flour Mill	-----

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SMITHFIELD.

Shunting Whistles.

SALISBURY END.

Between Down Passenger Line and Down Main Line	----
Between Up Passenger Line and Up Main Line	----
Between Down Passenger Line and Up Main Line	----
Between Goods Siding and Up Main Line	----
Between Goods Siding and Dead End	----

GAWLER END.

Between Down Passenger Line and Down Main Line	----
Between Goods Siding and Down Main Line	----

GAWLER.

Down Trains (Main Line) challenging	---
Down Trains (Branch Line to Angaston) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Angaston) challenging	---

Shunting Whistles.

SMITHFIELD END.

Between Down Passenger Line and Down Main Line	----
Between Down Passenger Line and Up Main Line over points No 21	----
Between Up Passenger Line and Up Main Line	----
Between Up Passenger Line and Down Main Line over points Nos. 16 and 19	----
Between Down Passenger Line and Racecourse Siding	----
Between Up Passenger Line and Racecourse Siding	----
Between Up Passenger Line and Traffic Siding over points Nos. 15, 18, and 21	----
Between Down Passenger Line and Traffic Siding over points No. 15	----
Between Down Passenger Line and Traffic Siding over points No. 27	----
Between Middle Road and Down Main Line	----
Between Middle Road and Up Main Line	----
Between Middle Road and Racecourse Siding	----
Between Middle Road and Traffic Siding over points Nos. 15 and 18	----
Between Branch Passenger Line and Down Main Line	----
Between Branch Passenger Line and Up Main Line	----
Between Branch Passenger Line and Racecourse Siding	----
Between Branch Passenger Line and Traffic Siding	----
Between Branch Passenger Line and Goods Siding over points No. 28	----
Between Racecourse Siding and Goods Shed Siding over points No. 9	----
South End Ground Frame from East to West	----

ROSEWORTHY END.

Between Down Passenger Line and Main Line	----
Between Down Passenger Line and Branch (Angaston) Main Line	----
Between Up Passenger Line and Main Line	----
Between Up Passenger Line and Branch (Angaston) Main Line	----
Between Middle Road and Main Line	----
Between Middle Road and Branch (Angaston) Main Line	----
Between Down Passenger Line and Shunting Spur (West side)	----
Between Up Passenger Line and Mill Siding (East side)	----
Between Branch Passenger Line or Goods Sidings and Main Line	----
Between Branch Passenger Line or Goods Sidings and Branch (Angaston) Main Line	----
Between Branch Passenger Line or Goods Sidings and Shunting Spur (West side)	----

Between Down Passenger Line
Between Up Passenger Line
Between Down Passenger Line
Between Up Passenger Line
Between Racecourse Siding and
On Racecourse Siding over points
On Traffic Siding over points

Down Trains (Main line to Angaston)
Down Trains (Branch Line to Angaston)
Up Trains (Main Line from Angaston)
Up Trains (Branch Line from Angaston)

Down Trains (Main North Line)
Down Trains (Morgan Line) challenging
Up Trains (Main North Line)
Up Trains (Morgan Line) challenging

Between Down Passenger Line
Between Up Passenger Line and
Between Main Line and Goods

Between Down Passenger Line
Between Down Passenger Line
Between Down Passenger Line
Between Up Passenger Line and
Between Up Passenger Line and
Between Goods Siding (West side)
Between Goods Sidings (West side)
On Goods Siding (East side) or

Down Trains for Passenger Platform
Down Trains for Catch Siding

NOTE.—See also instructions

Between Down Passenger Line and
Between Up Passenger Line and
Between Main Line and Traffic
Between Main Line and Goods
Between Wheat Siding or East

Between Down Passenger Line and
Between Up Passenger Line and
Between Main Line and Traffic
Between Main Line and Goods
Between Goods Shed Line or East

RACECOURSE CABIN.

Shunting Whistles.

Between Down Passenger Line and Down Main Line	---
Between Up Passenger Line and Up Main Line	---
Between Down Passenger Line and Traffic Siding	---
Between Up Passenger Line and Traffic Siding	---
Between Racecourse Siding and Traffic Siding	---
On Racecourse Siding over points No. 6	---
On Traffic Siding over points Nos. 6 and 9	---

NURIOOTPA.

Down Trains (Main line to Angaston) challenging	---
Down Trains (Branch Line to Truro) challenging	---
Up Trains (Main Line from Angaston) challenging	---
Up Trains (Branch Line from Truro) challenging	---

ROSEWORTHY.

Down Trains (Main North Line) challenging	---
Down Trains (Morgan Line) challenging	---
Up Trains (Main North Line) challenging	---
Up Trains (Morgan Line) challenging	---

Shunting Whistles.

GAWLER END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Main Line and Goods Siding (West side)	---

WASLEYS END.

Between Down Passenger Line and Main North Line	---
Between Down Passenger Line and Morgan Branch Line	---
Between Down Passenger Line and Goods Shed Line (East side)	---
Between Up Passenger Line and Main North Line	---
Between Up Passenger Line and Morgan Branch Line	---
Between Up Passenger Line and Goods Shed Line (East side)	---
Between Goods Siding (West side) and Main North Line	---
Between Goods Sidings (West side) and Turntable Road	---
On Goods Siding (East side) over points No. 22	One (1) crow.

MORGAN.

Down Trains for Passenger Platform challenging	---
Down Trains for Catch Siding challenging	---

NOTE.—See also instructions on page 21 under the heading "Morgan Catch Siding."

WASLEYS.

Shunting Whistles.

ROSEWORTHY END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Main Line and Traffic Siding	---
Between Main Line and Goods Shed Line or Wheat Siding	---
Between Wheat Siding or East Siding and Livestock Siding	---

HAMLEY BRIDGE END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Main Line and Traffic Siding	---
Between Main Line and Goods Shed Line or East Siding	---
Between Goods Shed Line or East Siding and Mill Siding	---

HAMLEY BRIDGE.

Down Trains challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Western System) challenging	---

Shunting Whistles.

WASLEYS END.

Between Down Passenger Line and Main Line	-----
Between Up Passenger Line and Main Line	-----
Between Main Line and Narrow-gauge Arrival Line	-----
Between Narrow-gauge Departure Line and Livestock Siding...	-----
Between Western Narrow-gauge Siding and Livestock Siding...	-----
Broad-gauge Engines between Turntable Road and Down Platform Line	One (1) crow.
Narrow-gauge Engines between Turntable Road and Narrow-gauge Departure Line	One (1) crow -
Narrow-gauge Engines between Turntable Road and Western Siding (Narrow Gauge)	One (1) crow --
On Narrow-gauge Arrival Road over points No. 21	-----

STOCKPORT END.

Between Narrow-gauge Departure Line and Main Line	-----
Between Narrow-gauge Western Siding and Main Line	-----
Between Broad-gauge Down Platform Line and Main Line	-----
Between Broad-gauge Up Platform Line and Main Line	-----
Between Broad-gauge Main Line and Narrow-gauge Arrival Road	-----
Between Broad-gauge Main Line and Transfer Road	-----
Between Broad-gauge Main Line and Goods Shed Road	-----
Between Goods Shed Road and Mill Siding	-----
Between Narrow-gauge Arrival Road and Shunting Spur	-----
Between Transfer Road and Shunting Spur	-----
Between Goods Shed Road and Shunting Spur	-----
To Close Catch Points No. 10 on Shunting Spur North of Crossing	-----
Challenging Narrow-gauge Shunt Ahead Signal	-----

RIVERTON.

Down Trains (Main Line) challenging	---
Down Trains (Branch Line to Spalding) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Spalding) challenging	---

Shunting Whistles.

TARLEE END.

Between Passenger Line and Main Line over points No. 17	-----
Between Passenger Line and Fisher's Siding over points Nos. 17 and 25	-----
Between Passenger Line and No. 1 Goods Shed Siding over points No. 20	-----
Between Passenger Line and No. 2 Goods Shed Siding over points No. 20	-----
Between Through Road and Main Line	-----
Between Through Road and Loco. Siding over No. 15 points	One (1) crow.
Between Through Road and Turntable Road over points Nos. 15 and 23	- one (1) crow.
Between Main Line and Fisher's Siding over points No. 25	-----
Between Main Line and Loco. Siding over points No. 22	-- one (1) crow.
Between Main Line and Loco. Siding over points Nos. 22 and 25 ..	One (1) crow -
Between Loco. Siding and Turntable Road over points No. 23 ...	One (1) crow --
Between Loco. Siding and South Coal Stage over points Nos. 15 and 23	-----
Between South End of Fisher's Siding (points No. 25) and Coal Stage Siding (North)	One (1) crow ---

SADDLEWORTH END.

Between Passenger Line and Main Line	-----
Between Through Road and Main Line	-----
Between North Coal Stage Siding and Main Line	--- one (1) crow.

Engines to Loco. Yard
Broad-gauge Engines from L
Narrow-gauge Engines from

NOTE.—When engines at Loco. Yard, give the necessary

Down Trains challenging
Up Trains from Port Wakefield
Up Trains from Brinkworth c

Down Trains (Main Line) cha
Down Trains (Branch Line fr
Up Trains (Main Line) challer
Up Trains (Branch Line to B

From Upper Goods Yard to I
From Lower Goods Yard to U
Between Lower Goods Yard a

NOTE.—Jetty Crossing—
whistle must be sounded at
is passed over. In addition, i

Down Trains (Main Line) chal
Up Trains (Main Line) challen
Up Trains (Branch Line from
Up Trains (Main Line for Kad

Between Down Passenger Line
Between Up Passenger Line an
Between Goods Siding and Ma

Between Down Passenger Line
Between Up Passenger Line an
Between Goods Siding and Ma

Down Trains from Gambowla
Up Trains from Port Pirie Line
Up Trains from Quorn Line ch
Up Trains from Cockburn Line
Engines approaching or passin
form is passed, or until an

Engines from Loco. to Traffic
Engines from Traffic Yard to I
NOTE.—Enginemmen of up t
the signals

Down Trains from Brinkworth
Down Trains from Peterborough
Up Trains from Port Pirie chal
Up Trains from Wilmington ch

NOTE.—Enginemmen of up t
the signals.

TEROWIE.

Engines to Loco. Yard	- one (1) crow.
Broad-gauge Engines from Loco. Yard	One (1) crow -
Narrow-gauge Engines from Loco. Yard	One (1) crow --

NOTE.—When engines are sent into Loco. by Traffic they must come to a stand just inside Loco. Yard, give the necessary code whistle, and wait for the Chargemen.

WESTERN SYSTEM.

BALAKLAVA.

Down Trains challenging	---
Up Trains from Port Wakefield challenging	---
Up Trains from Brinkworth challenging	---

KADINA.

Down Trains (Main Line) challenging	---
Down Trains (Branch Line from Brinkworth) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line to Brinkworth) challenging	---

WALLAROO (W.N. No. 10/17).

Shunting Whistles.

From Upper Goods Yard to Lower Goods Yard	---
From Lower Goods Yard to Upper Goods Yard	---
Between Lower Goods Yard and Wheat Yard	---

NOTE.—Jetty Crossing—When main line engines are approaching the Jetty Crossing the whistle must be sounded at a distance of about 100 yards, and continued until the crossing is passed over. In addition, a sharp lookout must be kept by the Enginemen.

BRINKWORTH.

Down Trains (Main Line) challenging	---
Up Trains (Main Line) challenging	---
Up Trains (Branch Line from Kadina) challenging	---
Up Trains (Main Line for Kadina Branch) challenging	---

NORTHERN SYSTEM.

GUMBOWIE.

Shunting Whistles.

TEROWIE END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Goods Siding and Main Line	---

PETERBOROUGH END.

Between Down Passenger Line and Main Line	---
Between Up Passenger Line and Main Line	---
Between Goods Siding and Main Line	---

PETERBOROUGH.

Down Trains from Gumbowie challenging	---
Up Trains from Port Pirie Line challenging	---
Up Trains from Quorn Line challenging	---
Up Trains from Cockburn Line challenging	---
Engines approaching or passing Passenger Platform, until platform is passed, or until engines have come to a stand	Continuous low whistle

Shunting Whistles.

Engines from Loco. to Traffic Yard	— One (1) crow.
Engines from Traffic Yard to Loco.	One (1) crow -

NOTE.—Enginemen of up trains from Port Pirie must use the large whistle when challenging the signals

GLADSTONE.

Down Trains from Brinkworth challenging	---
Down Trains from Peterborough challenging	---
Up Trains from Port Pirie challenging	---
Up Trains from Wilmington challenging	---

NOTE.—Enginemen of up trains from Port Pirie must use the large whistle for challenging the signals.

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PORT PIRIE.

Shunting Whistles.

Engines entering Ellen Street from Goods Yard and <i>vice versa</i> ..	----
Up trains from Goods Yard challenging Solomontown Stop Signal	----
Down Trains from Solomontown challenging Port Pirie Goods	----
Yard Stop Signal	----

GREAT NORTHERN SYSTEM.

QUORN.

Down Trains from Peterborough challenging	---
Up Trains from Port Augusta challenging	---
Up Trains from Marree challenging	---

Shunting Whistles.

Between Main Yard and Loco. Siding	One (1) crow
------------------------------------------	--------------

EYRE PENINSULA SYSTEM.

YEELANNA.

Down Trains challenging	---
Up Trains (Main Line from Thevenard) challenging	---
Up Trains (Branch Line from Mt. Hope) challenging	---

CUMMINS.

Down Trains challenging	---
Up Trains (Main Line from Thevenard) challenging	---
Up Trains (Branch Line from Kiraba) challenging	---

General Inst

One (1) crow

General Instructions relating to Warning Gongs.

FREELING (37m. 1cb.)—

This gong is operated by a switch in the Stationmaster's office. For down trains the gong must be started ringing immediately before a train leaves or passes the platform. For up trains the gong must be started ringing immediately the up home signal is lowered. For both down and up trains the gong must be cut out as soon as the train passes over the crossing.—W.N. No. 30/14.

CLARE ROAD CROSSING (48m. 37chs.)—

This gong is automatically started and stopped by the passage of the train.—W.N. No. 43/17.

MILDRED STREET CROSSING (48m. 60chs.)—

This gong is automatically started and stopped by the passage of the train.

KAPUNDA, MORNING STAR CROSSING (49m. 55chs.)—

This gong is automatically started and stopped by the passage of trains by means of line treadles.

A repeater is in the station office to indicate when the bell is ringing, and careful attention must be paid to it by the station staff in order to check the working of the apparatus. In the event of failure of the line treadles the gong can be started and stopped by a special key (fixed near the block instrument) which must be worked in the following manner, viz. :—To start the gong press the buttons marked "In" and "Out" alternately until the gong starts ringing, and at the same time press the button in front of the box. To stop the gong press the button marked "Out," at the same time pressing the button in front of the box. The button must be pressed firmly to make good contact, and when starting the gong a pause of three (3) seconds must be allowed between each pressure of the "In" and "Out" button.

EUDUNDA—**Crossing (68m. 40chs.)—**

For down trains the gong must be started ringing by the switch near the home signal, immediately before the home and distant signals are lowered. For up trains the gongs must be started ringing by the switch in the Stationmaster's office, immediately prior to the departure of the train. In both cases the gong must be stopped immediately the train passes the crossing.

Crossing (68m. 60chs.)—

For down trains the gong must be started ringing by the switch in the Stationmaster's office prior to the departure of the train. For up trains the gong must be started ringing by the switch near the signal lever immediately before the home and distant signals are lowered. In both cases the gong must be stopped immediately the train passes the crossing.—W.N. No. 37/14.

Crossing (69m. 45chs.)—

This gong is automatically started and stopped by the passing of the train.

Crossing (70m. 50chs.)—

This gong is automatically started and stopped by the passing of the train.

WASLEYS (36m. 40chs.)—

This gong is operated by a switch in the signal cabin. For down and up trains it must be started ringing two (2) minutes before the train passes over the crossing and stopped immediately the train passes the crossing.—W.N. No. 44/13.

HAMLEY BRIDGE (44m. 25chs.)—

This gong is operated by a switch in the signal cabin. For down trains it must be started ringing immediately a train comes into sight from the signal cabin, and for up trains immediately the starting signal is lowered. For both up and down trains it must be stopped immediately the train passes the crossing.—W.N. No. 44/13.

STOCKPORT ROAD CROSSING (44m. 72chs.)—

This gong is operated by a switch in the signal cabin. For down trains it must be started ringing immediately before lowering the starting signal, and for up trains immediately before lowering the distant signal. For both down and up trains it must be stopped immediately the trains pass the crossings.

General Instructions.

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TARLEE (54m. 47½chs.)—

This gong is operated by a switch in the Stationmaster's office. For down trains it must be started ringing one (1) minute before the train leaves the Tarlee station, and for up trains directly the train challenges the station signals. In each case the gong must be cut out when the train passes the crossing.

RIVERTON (63m. 0chs.)—

This gong is operated by a switch in the signal cabin. For down trains it must be started ringing immediately before the train leaves the station. For up trains it must be started ringing as soon as the up signal is lowered. In each case the gong must be cut out directly the train passes the crossing. *This gong must be rung when shunting is being done over the crossing.*

SADDLEWORTH (70m. 20chs.)—

This gong is automatically started and stopped by the passage of the train.

SHANNON'S CROSSING (89m. 49chs.)—

This gong is operated by a button in the Stationmaster's office, Farrell's Flat. For down trains it must be started ringing by pressing the button as soon as the train leaves the station. The gong is automatically stopped by the passage of the train. For up trains the gong will not be rung.

A repeater in the office at Farrell's Flat enables the Stationmaster to check the working of the gong.

BURRA, BON ACCORD CROSSING (101m. 36chs.)—

This gong is operated by a switch in the Stationmaster's office. For down trains it must be started ringing immediately before a train leaves or passes the platform. For up trains it must be started ringing immediately the home signal is lowered. In each case the gong must be cut out as soon as the train passes the crossing.—W.N. No. 45/13.

SOUTHERN SYSTEM.

HILTON (1m. 60chs.)—

This gong is operated by a switch in the office. For down trains it must be started ringing just before the train reaches Bagshaw's Crossing. For up trains it must be started ringing just as the train approaches the platform. In each case the gong must be cut out directly the train passes the crossing. The Porter on duty must also stand on the crossing and protect the traffic while trains are passing over.

MILLER'S CORNER, BRIGHTON ROAD CROSSING (6m. 6½chs.)—

For down trains the gong is automatically started and stopped by the passage of the train. For up trains the gong is started by means of a press button at the station one (1) minute before the departure of the train. The gong is automatically stopped by the passage of the train.

GLENELG—WIGLEY'S RESERVE (6m. 71½chs.)—

For down trains the gong is automatically started and stopped by the passage of the train. For up trains one (1) minute before the departure of the train the Guard must start the gong ringing by inserting an "S" key in the keyhole of the gong starting box on the electric light post in Althorpe Place, and giving the key one complete turn. The gong is automatically stopped by the passage of the train.—W.N. No. 26/17.

CLARENCE PARK—

Forest Avenue Crossing (3m. 69chs.)—

This gong is automatically started and stopped by the passing of the train.—R.C., 326/15.

EDWARDSTOWN—

Cross Roads (4m. 41½chs.)—

This gong is automatically started and stopped by the passing of the train.—R.C., 1049/15.

BRIGHTON, JETTY

This gong is operated by a switch in the Stationmaster's office. For down trains it must be started ringing one (1) minute before the train leaves the station, and for up trains directly the train challenges the station signals. In each case the gong must be cut out when the train passes the crossing.

LEADER STREET (

This gong is operated by a switch in the signal cabin. For down trains it must be started ringing immediately before the train leaves the station. For up trains it must be started ringing as soon as the up signal is lowered. In each case the gong must be cut out directly the train passes the crossing. *This gong must be rung when shunting is being done over the crossing.*

VICTORIA STREET

This gong is operated by a button in the Stationmaster's office, Farrell's Flat. For down trains it must be started ringing by pressing the button as soon as the train leaves the station. The gong is automatically stopped by the passage of the train. For up trains the gong will not be rung.

HAWTHORN CROSS

This gong is operated by a switch in the Stationmaster's office. For down trains it must be started ringing immediately before a train leaves or passes the platform. For up trains it must be started ringing immediately the home signal is lowered. In each case the gong must be cut out as soon as the train passes the crossing.—W.N. No. 45/13.

ANGAS ROAD CROSSING

This gong is operated by a switch in the office. For down trains it must be started ringing just before the train reaches Bagshaw's Crossing. For up trains it must be started ringing just as the train approaches the platform. In each case the gong must be cut out directly the train passes the crossing. The Porter on duty must also stand on the crossing and protect the traffic while trains are passing over.

MITCHAM—

GRANGE ROAD CROSSING

This gong is operated by a switch in the office. For down trains it must be started ringing just before the train reaches Bagshaw's Crossing. For up trains it must be started ringing just as the train approaches the platform. In each case the gong must be cut out directly the train passes the crossing. The Porter on duty must also stand on the crossing and protect the traffic while trains are passing over.

LOWER BELAIR ROAD

This gong is operated by a switch in the office. For down trains it must be started ringing just before the train reaches Bagshaw's Crossing. For up trains it must be started ringing just as the train approaches the platform. In each case the gong must be cut out directly the train passes the crossing. The Porter on duty must also stand on the crossing and protect the traffic while trains are passing over.

UPPER BELAIR ROAD

This gong is operated by a switch in the office. For down trains it must be started ringing just before the train reaches Bagshaw's Crossing. For up trains it must be started ringing just as the train approaches the platform. In each case the gong must be cut out directly the train passes the crossing. The Porter on duty must also stand on the crossing and protect the traffic while trains are passing over.

ALDGATE, TOOLE'S

This gong is operated by a switch in the office. For down trains it must be started ringing just before the train reaches Bagshaw's Crossing. For up trains it must be started ringing just as the train approaches the platform. In each case the gong must be cut out directly the train passes the crossing. The Porter on duty must also stand on the crossing and protect the traffic while trains are passing over.

BRIGHTON, JETTY ROAD CROSSING (9m. 43chs.)—

This gong is operated by a switch in the Stationmaster's office. For down trains the gong must be started ringing immediately the distant signal is lowered. For up trains the gong must be started ringing immediately before the train leaves the platform. In each case the gong must be cut out immediately the train passes the crossing.—W.N. No. 19/15.

LEADER STREET CROSSING (2m. 72chs.)—

This gong is operated by a switch in the Goodwood signal cabin. For down trains it must be started ringing when the "Train on line" signal is received from Keswick. For up trains it must be started ringing directly the Millswood crossing gong repeater ceases to work in the cabin. In each case the gong must be cut out when the train passes the crossing.—G.T.M., 976S/13.

VICTORIA STREET CROSSING (3m. 20chs.)—

This gong is operated by a switch in the Goodwood signal cabin. For down trains the gong must be started ringing immediately a train leaves Goodwood station. For up trains the gong must be started ringing immediately the "Train on line" signal is received from Unley Park. In each case the gong must be cut out when the train passes the crossing.—G.T.M., 976S/13.

HAWTHORN CROSSING (4m. 53chs.)—

This gong is operated by a switch in the Unley Park signal cabin. For down trains the gong must be started ringing immediately a train passes or leaves Unley Park. For up trains the gong must be started ringing immediately the "Train on line" signal is received from Mitcham. In each case the gong must be cut out immediately the train passes the crossing.—W.N. No. 42/10.

ANGAS ROAD CROSSING (4m. 79chs.)—

This gong is operated by a switch in the Mitcham signal cabin. For down trains it must be started ringing immediately the "Train on line" signal is received from Unley Park, and stopped immediately the train passes the crossing. For up trains the gong must be started ringing immediately a train passes or leaves Mitcham station, and stopped immediately the up advance starting signal returns to "Danger."—W.N. No. 43/10.

MITCHAM—**GRANGE ROAD CROSSING (5m. 18chs.)—**

This gong is operated by a switch in the Mitcham signal cabin. For down trains the gong must be started ringing immediately the train departure signal is received from Unley Park. For up trains one (1) minute before the train leaves the Mitcham station. In each case the gong must be stopped immediately the train passes the crossing.—W.N. No. 46/14.

LOWER BELAIR ROAD CROSSING (5m. 33chs.)—

This gong is operated by a switch in the Mitcham signal cabin. For down trains the gong must be started ringing before the down starting signal is lowered. For up trains the gong must be started ringing immediately the up distant signal is lowered. In each case the gong must be stopped immediately the train passes the crossing. *This gong must always be rung when shunting is being done over the crossing.*—G.T.M., 976S/13.

UPPER BELAIR ROAD CROSSING (6m. 44chs.)—

This gong is started to ring from the Mitcham Cabin and stopped by the passing of the train over a treadle at the crossing. For up trains it must be started to ring before any signals are lowered, and for down trains immediately the starting signal has been lowered.

ALDGATE, TOOLE'S CROSSING (21m. 20chs.)—

This gong is automatically started and stopped by the passage of the train.

General Instructions.

150

PEKINA ROAD CROSSING (22m. 6Schs.)—

This gong is started ringing by a press button in the Bridgewater signal cabin. For down trains the gong must be started ringing immediately the "Train on line" signal is received from Aldgate. For up trains the gong must be started ringing immediately the train leaves Bridgewater. In each case the gong is stopped by the passage of the train over a treadle at the crossing.—G.T.M., 9768/13 and 2410/98.

WOODSIDE ROAD CROSSING (27m. 72chs.)—

This gong is operated by a press button in the Ambleside signal cabin. For down trains the gong must be started ringing immediately a train leaves or passes Ambleside. For up trains the gong must be started ringing immediately the "Train on line" signal is received from Balhannah. In each case the gong is stopped by the passage of the train over a treadle at the crossing.—G.T.M., 2410/98 and 9768/13.

MURRAY BRIDGE (50m. 55chs.)—

This gong is automatically started and stopped by the passage of the train.—W.N., No. 2/16

SOUTH-EASTERN SYSTEM.

NARACOOETE—

230m. 37chs.—

This gong is automatically started and stopped by the passage of the train.

240m. 18chs.—

For down trains this gong is automatically started and stopped by the passage of the train.

For up trains the gong must be started ringing by a press button in the station office one (1) minute before a train leaves the station. It is stopped automatically by the passage of the train.—W.N. No. 22/15.

MOUNT GAMBIER—

Bertha Street (304m. 60chs.)—

This gong is operated from the Mount Gambier Junction cabin and the Stationmaster's office. For down trains the gong must be started ringing by the Signaller in the cabin, when the train passes the junction cabin. For up trains the gong must be started ringing by the Stationmaster half a minute before a train leaves the station. The gong must be stopped immediately a train passes the crossing.—W.N. No. 3/14.

Wehl Street Crossing (304m. 71chs.)—

This gong is operated from the Mount Gambier Junction cabin and the Stationmaster's office. For down trains the gong must be started ringing by the Signaller in the cabin, when the train passes the junction cabin. For up trains the gong must be started ringing by the Stationmaster half a minute before a train leaves the station. The gong must be stopped immediately a train passes the crossing.—W.N. No. 3/14.

NORTHERN SYSTEM.

JAMESTOWN (176m. 56½chs.)—

This gong is automatically started and stopped by the passage of the train.

PETERBOROUGH, MILL STREET CROSSING (154m. 33½chs.)—

This gong must be operated by the Porter in charge of the cabin at the east end of the Peterborough yard. It must be started ringing immediately a train leaves Peterborough for Terowie and Cockburn respectively, and also when the signals are pulled off to admit a train from the Terowie or Cockburn line. The gong must be cut out immediately a train passes the crossing.

WARNING ARM, MILL STREET CROSSING—

The warning boards, with the words "STOP—TRAIN COMING," are operated by means of a ground lever near the cabin at the east end of the traffic yard. Before lowering any signal to permit of a train passing over this crossing the warning boards must be exhibited so as to notify the approach of a train. These boards are to be operated in conjunction with the warning gong.—W.N. No. 15/13.

GLADSTONE, CROSSING—

This gong is operated immediately a train leaves Peterborough or passes the crossing.

BALAKLAVA (66m. 18chs.)—

For trains from the Semaphore the gong must be started ringing by the Semaphore. In each case the gong is stopped by the passage of the train.

BLYTH (92m. 46chs.)—

This gong is automatically started and stopped by the passage of the train.

BRINKWORTH (104m. 37chs.)—

This gong is automatically started and stopped by the passage of the train.

KADINA (117m. 56½chs.)—

For up trains this gong is started ringing by the Stationmaster. For down trains the gong is started ringing by the Signaller in the cabin. The gong is stopped by the passage of the train.

WALLAROO—

Town Hall Crossing

For down trains the gong is started ringing by the Signaller in the cabin, when the train passes the junction cabin. For up trains the gong must be started ringing by the Stationmaster half a minute before a train leaves the station. The gong must be stopped immediately a train passes the crossing.—W.N. No. 3/14.

Jetty Road Crossing
This gong is automatically started and stopped by the passage of the train.

MOONTA, CROSSING—

This gong is automatically started and stopped by the passage of the train.

GLADSTONE, CROSS STREET (194m. 60chs., via Peterborough)—

This gong is operated by a switch at the home signal. The gong must be started ringing immediately before the home signal is lowered for an approaching train from Peterborough or Wilmington line, and two (2) minutes before a train leaves for the Peterborough or Wilmington line. The gong must be cut out immediately a train passes the crossing.—G.T.M., 9219/06.

WESTERN SYSTEM.**BALAKLAVA (66m. 37chs.)—**

For trains from Gladstone and Hamley Bridge to Balaklava this gong must be started ringing by means of a switch at the signal levers simultaneously with the lowering of the semaphore signals. For trains from Balaklava for Gladstone and Hamley Bridge the gong must be started ringing immediately before the train leaves the former station. In each case the gong must be stopped when the train passes over the crossing.

BLYTH (92m. 46chs.)—

This gong is automatically started and stopped by the passage of the train.

BRINKWORTH (104m. 37½chs.)—

This gong is automatically started and stopped by the passage of the train.

KADINA (117m. 56½chs.)—

For up trains this gong is automatically started and stopped by the passage of the train. For down trains the gong is started by a switch in the Stationmaster's office, as the train leaves, and is automatically stopped by the passage of the train over the crossing.

WALLAROO—**Town Hall Crossing (123m. 6½chs.)—**

For down trains the gong is automatically started and stopped by the passage of the train. For up trains from the station yard the gong must be started by means of a small press button in the station office, one minute before the train starts, and is automatically stopped by the passage of the train. When a train has to pass over the crossing to or from the Goods siding, the gong must be started by placing the small switch, at the lock-up box at the main line facing points on Kadina side of the crossing, in the position marked "ON," and stopped as soon as the train has cleared the crossing by placing the switch in the position marked "OFF."—W.N. No. 25/18.

Jetty Road Crossing (123m. 73chs.)—

This gong is automatically started and stopped by the passage of the train.

MOONTA, CROSS ROADS (133m. 15chs.)—

This gong is automatically started and stopped by the passage of the train.

LIST OF CROSSING KEEPERS.

LIST OF CROSSINGS.

The following is a List of Crossings at which Crossing Keepers are stationed :—

Name of Crossing.	Line.	Mileage.	Hours of Duty of Crossing-keepers.	
			Week days.	Sundays.

PORT ADELAIDE, SEMAPHORE, AND OUTER HARBOR LINES.

North Road	Port line	1 42½	5.25 a.m. to 12.20 a.m.	1.0 p.m. to 11.17 p.m.
West Street	" "	1 78	" " "	" " "
Coglin Street ..	" "	2 11	" " "	" " "
Croydon	" "	2 32	" " "	" " "
Dunniker Road..	Outer Harbor line	8 55	5.25 a.m. to 12.15 a.m.	1.0 p.m. to 11.15 p.m.
Harris Street ..	" " "	8 70	" " "	" " "
Willis Street....	" " "	9 32½	" " "	" " "

PORT ADELAIDE AND DRY CREEK LOOP LINE.

Canning Street..	Loop Line....	0 75	6.45 a.m. to 11.15 p.m.	Nil
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NORTH LINE.

Ninth Street....	North line	1 59	5.0 a.m. to 12 mid.	Nil
Old Mill, Bowden	" "	1 71	" " "	Nil
Islington	" "	3 21	" " "	Nil
Port Gawler....	" "	7 69½	5.30 a.m. to 11.0 p.m.	Nil
Kneezes.....	" "	26 0	On duty for all trains	Nil

ANGASTON LINE.

Rowland's Flat..	Angaston line..	38 0	7.5 a.m. to 7.5 p.m. Mon- days to Friday inclusive; 7.5 a.m. to 9.15 p.m., Saturdays	Nil
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MORGAN LINE.

Light's Bridge..	Morgan line ..	46 35	On duty for all trains	Nil
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SOUTH LINE.

Leader Street ..	South line	3 2	5.30 a.m. to 12.30 a.m.	{ 9.30 a.m. to 10.30 a.m. 1.45 p.m. to 10.15 p.m.
Victoria Street ..	" "	3 20	" " "	{ 9.30 a.m. to 10.30 a.m. 1.45 p.m. to 10.15 p.m.
Hawthorn	" "	4 42	" " "	{ 9.30 a.m. to 10.30 a.m. 1.45 p.m. to 2.45 p.m.
Blythwood	" "	5 64	" " "	{ 4.45 p.m. to 9.30 p.m. 9.30 a.m. to 10.30 a.m.
Blackwood	" "	11 29	6.0 a.m. to 12 mid.	{ 1.45 p.m. to 2.45 p.m. 4.45 p.m. to 9.30 p.m.
Belair Road	" "	12 26	" " "	{ 6.0 a.m. to 12 mid. "
Mount Barker ..	Victor Harbour line	31 20	During running all trains	During running all trains

NOTE.—During the hours crossing keepers are not on duty, Enginemen must keep a sharp lookout in approaching crossings.

Instructions
Rope Sli
and othe

pers are stationed:—

Duty of Crossing-keepers.

Sundays.

HARBOR LINES.

a.m.	1.0 p.m. to 11.17 p.m.
	" " "
	" " "
	" " "
a.m.	1.0 p.m. to 11.15 p.m.
	" " "
	" " "

POP LINE.

p.m. | Nil

ad.	Nil
	Nil
	Nil
m.	Nil
ins	Nil

fon-
sive;
p.m.,

Nil

uns | Nil

a.m.	9.30 a.m. to 10.30 a.m.
	1.45 p.m. to 10.15 p.m.
	9.30 a.m. to 10.30 a.m.
	1.45 p.m. to 10.15 p.m.
	9.30 a.m. to 10.30 a.m.
	1.45 p.m. to 2.45 p.m.
	4.45 p.m. to 9.30 p.m.
	9.30 a.m. to 10.30 a.m.
	1.45 p.m. to 2.45 p.m.
	4.45 p.m. to 9.30 p.m.
d.	6.0 a.m. to 12 mid.

ains During running all trains

men must keep a sharp lookout

Instructions for use of Cranes, Crane Chains,
Rope Slings, etc., and Testing Crane Chains
and other Lifting Appliances.

CRANES.

1. Cranes chains and other lifting appliances are stamped on the end link, or elsewhere, with the weight that they are capable of lifting *as single chains*, and this lifting capacity must not be exceeded. With the purchase-block in use the crane chain is capable of lifting double the weight 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.

2. Cranes must not be used for hauling trucks or dragging heavy articles which the chains cannot plumb. Care must be taken that heavy articles are within the marked capacity of the crane before lifting, 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 so that it will not slip during lifting (a slip, with the resultant jerk, is likely to break the column, or chain, or sling). Particular care must be observed when lifting blocks of marble or of stone, and in all cases, that all packages are exactly under the jib, and that guys are used to prevent swaying when lifted. **UNDER NO CIRCUMSTANCES MUST AN ARTICLE BE LIFTED THE WEIGHT OF WHICH EXCEEDS THE MARKED LIFTING CAPACITY OF THE CRANE.**

3. The chain of the crane must have at least one turn on the barrel when any lift is commenced, and the chain must not be twisted. Care must be taken to avoid twists in crane chains and slings of all kinds when under the strain of lifting. Twists tend to rapid deterioration. A chain or sling must not be knotted to shorten its length.

4. When hoisting goods care must be exercised to prevent the overrunning of the crane chain, or wire rope, as the case may be, of an electric or hydraulic, or steam crane.

5. The brake of the crane is not intended for lowering by, but to hold on while the pawl is raised, or double or single purchase thrown in or out. If, however, it may prove necessary to use the brake, the weight must be lowered with the greatest caution, and in every instance the pinion must be thrown out of gear with the spur wheel, thus causing the handle to remain stationary.

6. No weight attached to the crane must be allowed to run down suddenly, nor 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.

7. The handles of cranes must be secured on the crane by a cotter, or split pin, or nut.

8. The Station Master must place a competent man in charge of the crane or cranes, at his station, who must clean and oil the machinery. He must also promptly report to the Station Master all defects in the cranes or slings, and other lifting appliances, and be responsible for the latter being kept under cover when not in use. The foregoing, however, does not relieve the Station Master of his personal responsibility for the cranes and their appliances being attended to and dealt with in accordance with these instructions.

9. **THE USE OF OIL OR GREASE ON THE BRAKE IS ABSOLUTELY PROHIBITED.**

10. In no case must a heavy article be raised, and remain suspended beyond the time necessary to adjust the crane for lowering, and the working of all cranes must be performed, or supervised, by a man properly qualified for the duty.

11. A daily supervision must be exercised over the cranes, and chains and wire ropes, and rope slings, by the Station Master or person in charge, and should there be anything to indicate that they are defective, the steps necessary for the repair of the appliances must at once be taken. The Resident Engineer, or District Loco. Superintendent, as the case may be, must be promptly advised, also the Goods Superintendent, and the Traffic Superintendent of the district. A special examination must be made when exceptionally heavy weights are to be lifted. On no account must any crane or lifting appliance, which is found to be defective, be again used until the defects have been made good. When not in use all chains, chain slings, dog hooks, and wire or rope slings must be kept in the shed or under cover.

12. The use of Traffic cranes by other than the Traffic Staff (unless specially authorised) must not be allowed, except under the supervision of the Station Master, or a competent employee deputed by him.

13. Bagging or old canvas must be used to prevent chafing of articles by the slings (any kind) used to lift them. Particular care must be observed in lifting motor cars, vehicles, harvesters, strippers, and other articles of a like nature, not to cause 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 chafing by cases, machinery, or other articles likely to cut the ropes.

14. *The chains of all* for the purpose.

15. Slings must be also for boxed carriages dry casks and other solid

16. The crane chair

17. Whenever a crane any line in use for the unloading of timber, any it is incumbent on the both the Station Master proper signals are exhibited

18. If the crane has employee must, when in 390.

19. All cranes must per cent. greater than the crane, and particularly responsible. The gear chains used in connection or defective link. They also be frequently and must be carried out by

20. All cranes must

21. Portable cranes run forward if the crane

22. Portable cranes the rails when in use.

23. Crane chains, all factured by the Works

24. When a crane is must see that the standing appliances, as may be ap the Weekly Notice. If tested at Islington, and the Resident Engineer and the Station Master

25. Crane chains, must not be loaned or transferred Superintendent or Traffic authorised the appliances and description of the appliances be forwarded to the office must advise the Resident Manager will issue new instructions are transferred.

26. The following is

10 Tons, Fixed.—
1 crane chain, 15/16in
1 purchase-block ...
1 shackle for purchase
2 sling chains, 15/16in

14. The chains of all cranes must be hooked back when not in use to the staples or loops provided for the purpose.

15. Slings must be used when lifting by crane wet casks, such as wine, spirits, oil, &c., and also for boxed carriages and other bulky packages. Can hooks or dog hooks may be used for dry casks and other solid packages.

16. The crane chains or wire ropes of steam, hydraulic, or electric cranes must be kept greased.

17. Whenever a crane is in use whereby the jib or any other portion of it obstructs or fouls any line in use for Traffic purposes, or whenever, by any possibility, during the loading or unloading of timber, angle iron, or other articles of great length, any running line may be fouled, it is incumbent on the person in charge of the loading or unloading to obtain the sanction of both the Station Master and Signaller in charge of the safety of the line, and to see that the proper signals are exhibited until the operation is completed.

18. If the crane has to be used at a siding not protected by fixed signals, a competent Traffic employee must, when necessary, be provided to protect the operation in accordance with Rule 390.

19. All cranes must be tested at least once in every two years by means of a test load 25 per cent. greater than the maximum working load, and at the same time the structure of the crane, and particularly the jib, must be carefully examined, and a report made to the officer responsible. The gear column must be carefully examined once every three months, and the chains used in connection therewith must be frequently examined, link by link, for any worn or defective link. The chains must be annealed at least once in each year. Wire ropes must also be frequently and carefully examined for defective strands. This examination and testing must be carried out by the officer responsible for the upkeep of the cranes.

20. All cranes must have the lifting capacity distinctly marked thereon in large block letters.

21. Portable cranes with balance weights must have the weights so fastened that they cannot run forward if the crane tips up.

22. Portable cranes travelling on rails must be provided with clips for attaching them to the rails when in use.

23. Crane chains, sling chains, purchase-blocks, wire rope slings, and tow ropes are manufactured by the Works Manager, Islington, when approval has been given for their supply.

24. When a crane is erected at a station the Resident Engineer responsible for the erection must see that the standard equipment is supplied, with such additional slings, or other lifting appliances, as may be approved. The provision of the crane will be notified to the Staff through the Weekly Notice. Before the crane chains and slings are brought into use they must be tested at Islington, and the lifting capacity stamped thereon. The Works Manager must advise the Resident Engineer concerned, and the Station Master, of the numbers and lifting capacity, and the Station Master must enter the particulars in the Station Property Book.

25. Crane chains, chain slings, wire ropes, wire rope slings, and other lifting appliances must not be loaned or transferred from one station to another except on the authority of the Goods Superintendent or Traffic Superintendent as the case may be. When the loan or transfer is authorised the appliances must be accompanied by Form 24A, on which must be shown the number and description of the appliances. The articles must be addressed. A copy of Form 24A must be forwarded to the officer authorising the loan or transfer, who, in the case of transfer, in turn must advise the Resident Engineer concerned, also the Works Manager. In such cases the Works Manager will issue new labels for the appliances, showing the name of the station to which they are transferred.

EQUIPMENT OF CRANES.

26. The following is the standard equipment for the hand cranes :—

	Permissible Load, subject to the Capacity of the Crane as Painted on the Jib, or Stamped on the Sling Chain (Single).		
	Tons cwt. qrs.		
10 Tons, Fixed.—			
1 crane chain, 15/16in. dia.	5	5	0
1 purchase-block	10	11	0
1 shackle for purchase-block			
2 sling chains, 15/16in. dia.	5	5	0

EQUIPMENT OF CRANES—continued.

	Permissible Load, subject to the Capacity of the Crane as Painted on the Jib, or Stamped on the Sling Chain (Single).		
	Tons	cwts.	qrs.
10 Tons, Travelling.—			
1 crane chain, 15/16in. dia.	5	5	0
1 purchase-block	10	11	0
1 shackle for purchase-block	5	5	0
2 sling chains, 15/16in. dia.			
5 Tons, Fixed or Travelling.—			
1 crane chain, 3/4in. dia.	3	7	0
1 purchase-block	5	5	0
1 shackle for purchase-block	3	7	0
2 sling chains with hook and ring, 16ft. in length, 3/4in. in dia.	1	10	0
1 pair dog hooks, 10ft. 3/4in. dia.			
3 Tons.—			
1 crane chain, 3/4in. dia.	3	7	0
1 sling chain with hook and ring, 16ft. in length, 3/4in. in dia.	3	7	0
1 pair dog hooks, 10ft. 3/4in. dia.	1	10	0
2 Tons.—			
1 crane chain, 3/4in. dia.	2	7	0
1 sling chain, 3/4in. dia.	2	7	0
1 sling chain, 3/4in. dia.	1	10	0
1 pair dog hooks, 10ft. 3/4in. dia.	1	10	0
1 1/2 Tons.—			
1 crane chain, 3/4in. dia.	1	10	0
1 sling chain, 3/4in. dia.	1	10	0
1 sling chain, 3/4in. dia.	0	17	0
1 pair dog hooks, 10ft. 3/4in. dia.	1	10	0
1 Ton.—			
1 crane chain, 7/16in. dia.	1	3	0
1 sling chain, 7/16in. dia.	1	3	0
1 sling chain, 3/4in. dia.	0	17	0
1 pair dog hooks, 10ft. 3/4in. dia.	1	10	0
15 cwt.—			
1 crane chain, 3/4in. dia.	0	17	0
1 sling chain, 3/4in. dia.	0	17	0
1 pair dog hooks, 10ft. 3/4in. dia.	1	10	0

27. AT APPROVED STATIONS ADDITIONAL EQUIPMENT, SELECTED FROM THE FOLLOWING, IS SUPPLIED:—

- * 4-chain slings, for cool chambers.
- * 3-chain slings, for harvesters and strippers.
- 2-chain slings.
- Seizor sling, for timber.
- Can hook slings, for casks.
- Endless chain slings.
- Timber dogs.
- Stone dogs.
- Wire-rope slings.
- 3-wire-rope slings, for harvesters and strippers.
- Rope slings for slinging motor cars.

* The lifting capacity of each single chain is stamped on the chain itself, but to obtain the full lifting capacity of the sling all the chains must be used in the lifting operation;

28. When shunting run in close to the crane purpose and wound up cross girders are also and rail clips are to be

29. When it is int observed, and, in addi truck. This truck is 15cwt., of ballast mu

30. Before lifting into the balance-box, t the proper screws, and If the weight be 3 ton girders are to be run o to be laid on top of tl

31. If it be necess shall be lowered and f greater part of the strai plumb lifts.

32. When the cran for that purpose.

33. No weight exc crane.

34. The crane is at

35. The foregoing Storekeeper.

36. The Locomoti to the working of the a

37. The permissible

Di

1/4in.
5/16ths in.
3/8ths in.
7/16ths in.
1/2in.
9/16ths in.
5/8ths in.
11/16ths in.
3/4in.
13/16ths in.
7/8ths in.
15/16ths in.
1in.
1in. 1/16th
1in. 1/8th
1in. 3/16th
1in. 1/4th
1in. 5/16th
1in. 3/8th
1in. 7/16th
1in. 1/2

TRAVELLING CRANES.

Permissible Load,
subject to the
Capacity of the Crane
as Painted on the
Jib, or Stamped on
the Sling Chain
(Single).

Tons cwt. qrs.

5 5 0
10 11 0

5 5 0

3 7 0
5 5 0

3 7 0
1 10 0

3 7 0
3 7 0
1 10 0

2 7 0
2 7 0
1 10 0
1 10 0

1 10 0
1 10 0
0 17 0
1 10 0

1 3 0
1 3 0
0 17 0
1 10 0

0 17 0
0 17 0
1 10 0

IENT, SELECTED FROM

chain itself, but to obtain the
lifting operation;

28. When shunting the crane the jib must be lowered as far as possible and the balance-box run in close to the crane standard. The chain is to be fastened into the ring provided for that purpose and wound up tight. The crane is to be locked so that the jib cannot turn round; the cross girders are also to be run in under the frame and pinned to prevent them getting loose; and rail clips are to be taken off and placed in the balance-box.

29. When it is intended to run the crane from one station to another the above rule is to be observed, and, in addition, the weights are to be taken out of the balance-box and placed in a truck. This truck is to be sent with the crane. Not less than 10cwt., but not more than 15cwt., of ballast must also be removed from the boxes.

30. Before lifting any load with the crane the weights provided for that purpose are to be put into the balance-box, the box is to be run out to the end of its carriage and fastened there with the proper screws, and the relieving blocks are to be placed between the springs and the frames. If the weight be 3 tons or upwards the jib is to be placed at its highest position. The cross-girders are to be run out and properly blocked up from the ground. In no case is any weight to be laid on top of the girders.

31. If it be necessary to use the crane for dragging a weight from a distance the shearlegs shall be lowered and firmly placed on the ground in such a position that they shall take the greater part of the strain; and without this precaution the crane is not to be used for any except plumb lifts.

32. When the crane is used on an incline it is to be secured to the rails with the clips provided for that purpose.

33. No weight exceeding the marked lifting capacity of the crane shall be lifted with the crane.

34. The crane is at all times to be kept clean and properly oiled.

35. The foregoing instructions also apply to the travelling crane belonging to the Chief Storekeeper.

36. The Locomotive Department shall issue instructions to the Locomotive Staff in respect to the working of the accident, coaling, and other travelling cranes belonging to that department.

CRANE AND SLING CHAINS.

37. The permissible loads for crane and sling chains are as follows:—

Diameter of Chain.	Permissible Load on Lifting Chains of Cranes (single), subject to the Capacity of the Crane, as Painted on the Jib, or Stamped on the Sling Chains (single).	
	Tons.	Cwts.
1/4in.	—	7
5/16ths in.	—	12
3/8ths in.	—	17
7/16ths in.	1	3
1/2in.	1	10
9/16ths in.	1	18
5/8ths in.	2	7
11/16ths in.	2	17
3/4in.	3	7
13/16ths in.	3	19
7/8ths in.	4	12
15/16ths in.	5	5
lin.	6	—
lin. 1/16th	6	15
lin. 1/8th	7	12
lin. 3/16ths	8	9
lin. 1/4th	9	7
lin. 5/16ths	10	7
lin. 3/8ths	11	7
lin. 7/16ths	12	8
lin. 1/2	13	10

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WIRE ROPES.

38. Where lifting wire ropes are used on cranes, the permissible loads are as follows:—

Circumference of Wire Rope in Inches.	Diameter of Wire Rope to the nearest $\frac{1}{8}$ in.	Permissible Load on single Lifting Wire Ropes, subject to the Capacity of the Crane, as Painted on the Jib.	
		Tons.	Cwts.
1 $\frac{1}{4}$	3/8ths in.	—	16
1 $\frac{1}{2}$	1/2 in.	1	2
1 $\frac{3}{4}$	9/16ths in.	1	9
2.....	5/8ths in.	1	19
2 $\frac{1}{4}$	11/16ths in.	2	5
2 $\frac{1}{2}$	13/16ths in.	3	—
2 $\frac{3}{4}$	7/8ths in.	3	15
3.....	15/16ths in.	4	8
3 $\frac{1}{4}$	1 in.	5	5
3 $\frac{1}{2}$	1 in. 1/8th	6	3
3 $\frac{3}{4}$	1 in. 3/16ths	7	—
4.....	1 in. 1/4th	8	2
4 $\frac{1}{4}$	1 in. 3/8ths	9	7

39. All lifting wire ropes should be coated with special rope oil at least once in every three months. The District Foreman shall be responsible for seeing that this is done.

WORKING LOADS ON ROPE SLINGS.

40. The following are the working loads for rope slings with new ropes:—

Girth of Rope in Inches.	Working Loads.							
	Single Rope.		Two Parts.		Three Parts.		Four Parts.	
	Tons.	Cwts.	Tons.	Cwts.	Tons.	Cwts.	Tons.	Cwts.
8.....	1	17	3	10	5	—	6	6
7.....	1	8	2	14	3	16	4	16
6.....	1	1	2	—	2	16	3	11
5 $\frac{1}{2}$	—	17	1	13	2	7	2	19
5.....	—	14	1	7	1	19	2	9
4 $\frac{1}{2}$	—	12	1	2	1	12	2	—
4.....	—	9	—	18	1	5	1	11
3 $\frac{1}{2}$	—	7	—	13	—	19	1	4
3.....	—	5	—	10	—	14	—	18.

41. *Old Rope Slings.*—The working loads for old rope slings cannot be scheduled, owing to the various stages of wear, and the discretion of the Station Master, Foreman, or person in charge must be exercised in the matter. It should be known, however, that a few months of exposed work may weaken ropes to the extent of from 20 per cent. to 50 per cent.

42. Ropes must be taken care of, and kept in a dry place when not in use. When thoroughly wet a rope will suffer reduction in strength to the extent of about 50 per cent.

43. All crane ropes, rope slings, and tail ropes must be carefully examined before being used, and must also be specially examined every Monday morning by the Station Master, or person in charge, or an employee appointed by him. The weekly examination by the person appointed will not relieve the men using the ropes, &c., from the responsibility of satisfying themselves, each time the articles are used, that they are in proper order.

TESTING CRANE CHAINS AND OTHER LIFTING APPLIANCES.

44. The Resident Engineer of each system is responsible for the maintenance, upkeep, and testing of all fixed, hand, portable, electric, hydraulic, and steam cranes, and for the maintenance, upkeep, and testing of the chains, slings, wire ropes, and rope slings used by the Traffic Department on his system, including sheep ramp chains.

45. The Locomotive, and test traffic (5-ton) and locomotive By "travelling crane" a train and hauled from

46. Crane chains, and appliances of any kind, the Resident Engineer in Locomotive Department prescribed standard of will issue the necessary

47. The periodical shall be performed at the must be addressed and

48. A Crane Register and contain the following

Station at which

Type of crane

Rated lifting capacity

No. of the appliance

Name of the person

Any other information

49. Each Resident and other lifting appliances. A list must be prepared and checked. The Works Manager and other appliances to be forwarded.

50. Each lifting appliance and on one side bears and lifting capacity, and in use in connection with Master's office.

51. Each Station Master crane chains and other

52. On receipt of the necessary arrangements When the testing is over

53. When the lifting Manager, full particulars quadruple by means of one to accompany the forwarding station, and be shown on the form, the appliances the same forwarding station where contain all the particulars transfer station and are go to the owning station

54. After the work Manager must furnish giving particulars and details

55. Each chain, sl lifting appliance, whether

56. The Station Master travelling cranes) must purchase blocks (included with these instructions as the case may be, must the Locomotive Department instructions.

57. Each Resident on his system, also a sl. sling. A Station Master must apply to the Resident finished with. The articles being given.

Permissible loads are as follows:—

Permissible Load on single Lifting Wire Ropes, subject to the Capacity of the Crane, as Painted on the Jib.

Tons.	Cwts.
—	16
1	2
1	9
1	19
2	5
3	—
3	15
4	8
5	3
6	—
7	2
8	7
9	—

oil at least once in every three that this is done.

NGS.

new ropes:—

Two Parts.	Four Parts.
Cwts.	Tons. Cwts.
—	6 6
16	4 16
16	3 11
7	2 19
19	2 9
12	2 —
5	1 11
19	1 4
14	— 18

not be scheduled, owing to the Foreman, or person in charge that a few months of exposed per cent.

not in use. When thoroughly t 50 per cent.

y examined before being used, the Station Master, or person in tion by the person appointed bility of satisfying themselves,

NG APPLIANCES.

the maintenance, upkeep, and cranes, and for the maintenance, gs used by the Traffic Depart-

45. The Locomotive Department—by its Officer-in-Charge—is responsible for the maintenance, upkeep, and testing of all lifting appliances in use in the locomotive shops, and of all traffic (5-ton) and locomotive travelling cranes and their chain slings and other lifting appliances. By "travelling crane" is meant any crane mounted on wheels and which may be attached to a train and hauled from one station to another.

46. Crane chains, chain slings of all kinds, wire ropes, and wire rope slings, and all lifting appliances of any kind belonging to any crane, in use by the Traffic Department, and for which the Resident Engineer is responsible, or in use by the Locomotive Department, or for which the Locomotive Department is responsible, must be examined and tested in accordance with the prescribed standard of tests, not less than once in each 12 months. The Resident Engineer will issue the necessary instructions when Traffic chains, etc., are to be forwarded for testing.

47. The periodical examination and testing of the lifting appliances prescribed in clause (c) shall be performed at the Points and Crossings Shop, Islington, and for that purpose the appliances must be addressed and consigned and forwarded to the Works Manager, Islington.

48. A Crane Register must be kept by each Resident Engineer and by the Works Manager, and contain the following particulars in respect to each lifting appliance:—

Station at which located	For what purpose used.
Type of crane on which used.	Date of last test.
Rated lifting capacity of the crane.	Date of annealing.
No. of the appliances.	Lifting capacity.
Name of the appliance.	

Any other information to be shown under "Remarks."

49. Each Resident Engineer must, every six months, take stock of the traffic crane chains and other lifting appliances on his system, and enter particulars thereof in the "Crane Register." A list must be prepared from the "Crane Register" and forwarded to the Works Manager for check. The Works Manager will then advise the Resident Engineer the number of chains, slings, and other appliances to be forwarded for testing from each station and the date on which to be forwarded.

50. Each lifting appliance must be furnished with an iron label. This label is reversible, and on one side bears the name of the station to which it belongs, together with its number and lifting capacity, and on the other side "Works Manager, Islington." These labels, when not in use in connection with the transit of the chains, must be removed and kept in the Station Master's office.

51. Each Station Master must record in his "Station Property Book" particulars of the crane chains and other lifting appliances, and of the iron labels belonging to his station.

52. On receipt of the advice from the Works Manager the Resident Engineer must make the necessary arrangements for forwarding the appliances to the Works Manager for testing. When the testing is over the Works Manager must arrange for the prompt return of the appliances.

53. When the lifting appliances are forwarded by the Resident Engineer's staff to the Works Manager, full particulars must be entered on Form No. 24A. This form must be prepared in quadruple by means of the carbon process, one copy to be enclosed direct to the Works Manager, one to accompany the articles to Islington, one to be retained by the Station Master at the forwarding station, and the fourth retained by the Resident Engineer. Full particulars must be shown on the form, including the names of the appliances and the numbers. On return of the appliances the same procedure must be followed. Transfer notes must be prepared by the forwarding station when transfer at a break-of-gauge station is involved, and the notes must contain all the particulars shown on Form No. 24A. These particulars must be checked at the transfer station and any discrepancy noted. It is most important that the right articles shall go to the owning station.

54. After the whole of the appliances belonging to a station have been tested the Works Manager must furnish the Resident Engineer concerned with a certificate (on Form No. A216A), giving particulars and date of testing. These particulars must be entered in the "Crane Register."

55. Each chain, sling, purchase-block (including the shackle), hook, grip, seizer, or other lifting appliance, whether used during the year or not, must be tested.

56. The Station Master at any station at which there are cranes of any kind (including travelling cranes) must advise the Goods Superintendent if the crane, crane chains, and slings, purchase-blocks (including the shackle) of all kinds, are not examined and tested in accordance with these instructions. The District Loco. Superintendent, or Officer-in-Charge of the shops, as the case may be, must report to the Works Manager if the cranes or lifting appliances for which the Locomotive Department is responsible, are not examined and tested as required by these instructions.

57. Each Resident Engineer must have a spare crane chain for each kind of crane chain on his system, also a spare chain sling, purchase-block (including the shackle), or other kind of sling. A Station Master requiring the use of the crane at his station during the time of testing must apply to the Resident Engineer for the spare appliances needed, and return as soon as finished with. The articles must be entered on Form No. 24A in each direction, full particulars being given.

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58. On return of the appliances from testing, Station Masters must check the particulars of those received with the entries on Form No. 24A, and with the entries in the "Station Property Book," and promptly advise the Goods Superintendent and the Traffic Superintendent of the district of any discrepancy.

59. On return from Islington of a crane chain the Resident Engineer concerned must arrange for it to be at once properly placed on the crane to which it belongs. The lifting capacity of the single chain, as stamped thereon, must be checked with the lifting capacity of the crane, allowance being made for the use of the purchase-blocks in the case of 10-ton and 5-ton cranes.

60. The foregoing instructions also apply to the examination and testing of the cranes belonging to the Chief Storekeeper, the cost of which shall be borne by the Chief Storekeeper.

Rules for

Masters must check the particulars
the entries in the "Station Property
the Traffic Superintendent of the

Engineer concerned must arrange
it belongs. The lifting capacity of
the lifting capacity of the crane.
case of 10-ton and 5-ton cranes.
ation and testing of the cranes
borne by the Chief Storekeeper.

Rules for Guidance in Working the Westinghouse Automatic Brake.

RULES FOR GUIDANCE IN WORKING THE WESTINGHOUSE AUTOMATIC BRAKE.

C.M.E., 492/00.

1. The brake is operated by compressed air stored in the main reservoir. The air is compressed by a small engine and pump placed on the locomotive. The Engineman can apply the brake, and it can be applied by opening the coupling cock at the end of a vehicle, or the valve in the brakevan. It is also applied by the separation of the train, or the failure of the train pipes or couplings.

2. Engines and vehicles are fitted with the following parts:—Train pipe, coupling cock at each end of vehicle near hose coupling, cut-out cock, a triple valve, an auxiliary reservoir, and a brake cylinder with piston rod working in connection with the brake lever and blocks.

3. When a train is ready to start, and also when it is running, compressed air stands at equal pressure throughout its length—that is to say, in the pipe from end to end of the train, and in the branch pipes, triple valve, and auxiliary reservoir on each vehicle.

4. To apply the brake, air is allowed to escape by the Engineman, or, in an emergency, by the Guard. This causes the triple valve to move so that the air stored in the auxiliary reservoir can pass instantly into the brake cylinders, forcing the pistons out, and pressing the blocks against the tyres of the wheels.

5. To release the blocks from the wheels of vehicles attached to an engine, air is allowed to pass from the main reservoir along the train pipe. This moves the triple valves to the release position, recharges the auxiliary reservoirs, and at the same time allows the air which had forced out the pistons to escape into the atmosphere.

6. The air brake must be tested in the following manner, but if the whole of the vehicles on a train have not the brake in operation the rear cock of the rear vehicle fitted with the air brake and coupled up to bring the air brake into operation, must be opened:—

When the train is made up, or when any extra vehicle is attached to a train, the Engineman must charge the train pipe with air to not less than 50lbs. pressure. He must then place the brake valve handle in the LAP POSITION and signal to the Examiner, or Guard where there is not an Examiner, to apply the brakes from the last vehicle fitted with the air brake, and coupled up to bring the air brake into operation.

To do this the rear cock must be opened on the last vehicle for one or two seconds, when, if there be pressure, the air will escape and the brakes be applied. The person making the test must then walk along the train and see if the brakes on every vehicle, including the engine and tender, are all applied, and must inform the Engineman if any of the brakes be not in operation, and how many of the vehicles in the train are unbraked. When the Engineman has received this information he must put the handle of the brake valve to the RELEASE POSITION, in order to reverse the triples, thus releasing the brakes, and then bring it back to the RUNNING POSITION, in which position the pressure in the train pipe and auxiliary reservoirs will be restored through the feed valve to the authorised pressure. The person making the test must then walk back and see that the brakes on every vehicle, including the engine and tender, are all off. If any of the brakes remain on, the fact must be at once reported to the Engineman. The object of this test is to show that the brake is in working order throughout the train; but if there be air in the train pipe, and a coupling cock closed, or the hose pipe uncoupled in any part of the train, the brakes would be applied on the vehicles in the rear of the obstruction by the opening of the cocks on the last vehicle. The Engineman, however, will not be able from the engine to release the brakes which have been applied in the rear of such obstruction. On the other hand, if there be no air in the rear part of the train pipe behind the obstruction, or fault, on opening the cock at the rear of the last vehicle, air will not escape, and the brakes will not be applied, and the Engineman must be told by the person making the test that the brakes are not in working order. At Adelaide, however, the Train Examiner must make this test before the trains are shunted to the platforms preparatory to starting on their journey.—W.N. No. 23/14.

7. If from any cause the air brake be not used, or fails to act when required, or if there be any irregularity in its working, a remark to that effect must be made by the Engineman on his engine ticket, and by the Guard on his report. The Engineman must also report the circumstance to his foreman as soon as possible. A defective hose pipe on a train must be replaced by the Engineman (in the absence of an Examiner), with a new one, obtained from the Guard's brakevan. The Engineman, when fitting a new hose, must take charge of the defective pipe, and, on arrival at the depot, hand it to the officer in charge, giving the number and class of vehicle from which it was removed.—W.N. No. 8/16.

8. Air brake pipe, if improperly used on vehicles fitted with the air brake, must give special attention.

9. An engine or vehicle, when closing the coupling hose couplings must be closed without affecting the pressure in the pipe under vehicles. Some vehicles are fitted with a cut-out cock is not to three positions, but

When the handle of the brake valve is moved to N, the brake is released, and the quick action of the "ordinary and improved" acting feature of the position M.

10. When an engine is under the underframe, "his superior officer, or his superior officer, must be notified on receipt of the order."

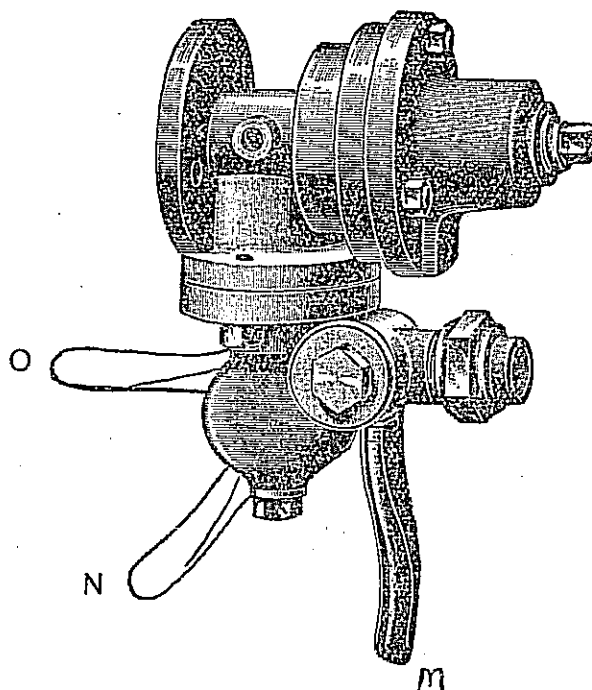
11. Except in cases where the Westinghouse brake is operated from the engine, the brake must be used in conjunction with the Westinghouse brake.

12. Guards must be kept together before starting, and must, as far as possible, be in good order.

E.

When required, or if there be made by the Engineman, the Engineman must also report the hose pipe on a train must be a new one, obtained from the engine house, and must take charge of the defective hose, giving the number and class

9. An engine or vehicle may be detached from a train without setting the brakes, by first closing the coupling cocks on the train pipe at the ends of the vehicles to be separated. The hose couplings must next be disconnected before the screw or drag coupling chains are unhooked. The brakes of any vehicle fitted with the ordinary, or bulb triple, valves can be put out of operation without affecting the brakes of any other vehicle by closing the cut-out cock on branch pipe under vehicles fitted with either of the two kinds of valves mentioned. When this cock is open the handle lies straight along the branch pipe, and, when closed, across the branch pipe. Some vehicles are, however, fitted with the quick-acting triple valve, and on these vehicles the cut-out cock is not placed on the branch pipe, but the handle is fixed on to the valve, and works to three positions, as shown in the following diagram :—



12. Guards must see that the hose pipes of the air brakes on their trains are properly coupled together before starting from a station, and when any vehicle is attached or detached; and they must, as far as possible, when the train stops at a station, examine the pipes, and see that they are in good order.

13. Guards must advise the Enginemen of the number of brake-connected vehicles on their trains, and when there are vehicles over which the Enginemen have no brake control. Guards must give the necessary attention to the hand brakes of these vehicles.

14. The air pipes on all vehicles must be fixed, when not in actual use, to the dummies or hooks where provided; or if vehicles are fitted with duplicate air pipes the latter must be coupled together, to prevent dust and dirt collecting in the pipes and being carried by air pressure into the triple valves.

15. If the brakes be applied by the separation of the train; by the breaking of a pipe; by opening the coupling cock at the end of a vehicle; or by the Guard from his brakevan; they can be released by opening the release valve, or by being again connected to the engine, but they cannot be released from the brakevan or end of vehicle. The release valves are worked by wires from either side of the vehicles. These release wires must not on any account be bent or interfered with in such manner as to prevent their working in their normal position. If the wires be bent it prevents the valve from closing, and throws the brake out of working order.—W.N. No. 48/10.

16. Guards must not apply the Westinghouse air brake unless in cases of absolute necessity, and when they do so a full report of the circumstances must be made on their Train running statements. They must at all times be ready to apply the hand brake should the Engineman call for its assistance. When the air brake is applied from the brakevan or from the end of the vehicle the tap must be opened **AND THE AIR ALLOWED TO ESCAPE GRADUALLY UNTIL THE TRAIN IS BROUGHT TO A STANDSTILL.**

17. Where a train is formed of air-braked vehicles in front, and hand-braked vehicles behind, the Guard must put on his hand brake when an ordinary stop is being made: and to prevent the rebound of vehicle buffers his hand brake must be kept on until the train is about to start.

18. On the Adelaide, Somaphore, Outer Harbor, Henley Beach, Glenelg, Brighton, Northfield, and Sleep's Hill suburban trains one spare pipe, and on all other trains two spare pipes for the Westinghouse brake must be carried in the Guard's brakevan. Guards and Examiners must see that this is done.

19. Guards must, in all cases, screw the hand brake clear off before starting. When using the hand brake in brakevans while the air brake is in operation, the former must be released again with the air brake.—C.M.E., 1913/06.

20. With the exception of the one at the rear of the train, which must be closed, the coupling cocks at each end of every vehicle must always be opened *after* connecting the hose couplings and closed *before* separating them. It must be ascertained before uncoupling that the Engineman has taken the air brake off and that the Guard's hand brake has been applied.

21. The Guard's brake valve must not be tampered with, as by doing so the brake is instantly applied.

22. Enginemen must see (1) that the top of steam cylinder is kept well lubricated; (2) that the air cylinder is sparingly lubricated with a small quantity of refined petroleum—tallow must not be used in the air pump; (3) that the pump is constantly run, but never faster than is necessary to maintain the required air pressure; and (4) that the standard pressure of 70lbs. per square inch is carried in the train pipe, and of from 80lbs. to 95lbs. in the main reservoir.

23. In releasing the brakes the handle must be put into the **RELEASE POSITION** in order to reverse the triple valves, and then brought back at once to the **RUNNING POSITION**, where it must remain while the train is running.

24. Trains must be pulled up at terminal stations, and at Port Adelaide Dock Station, by the hand brakes on the engine, tender, and brakevan. The Westinghouse air brake must not be used at such places except in cases of emergency. When approaching junction stations an Engineman must have his train well under control.

25. Ordinary stoppages must not be made by Enginemen too quickly, but the air brake must be applied slightly, some distance from where the train is to be stopped, by opening the Driver's valve and closing it gently after the pressure has been reduced by from 4lbs. to 8lbs. on the gauge. The application of the brake must be gradual and uniform. The brakes are fully applied when the pressure shown on the gauge is reduced by 25lbs. Any further reduction is a waste of air.

26. Enginemen must test the brake when approaching stations at which they are appointed to stop, and must satisfy themselves that it is in working order, and be prepared to bring their train to a stand by the use of the hand brake should necessity require it. Guards must keep a good look-out and be ready to apply their hand brakes at any moment.

27. When it is necessary to stop the train quickly the Driver's valve must be opened at once to the fullest extent and allowed to remain in that position until the train has come to a standstill.

28. The pressure in the brake cylinders must be regulated by the Driver's valve to suit the speed of the train and the gradients of the road.

29. In addition to station, test the condition of the brake or two seconds. If the pressure is not to the Engineman. The pressure must be maintained, and this pressure must be maintained that the Engineman is the alert and ready to v

30. Enginemen, automatically, must at once the right, thus prevent book under the heading

31. Enginemen must the drain plug.

32. If vehicles, have themselves on those vehicles brakes in the train, an maximum pressure in the of his brake valve to the engine has been cou selves they must be at auxiliary reservoir, whi

33. Should the Eng render it ineffective, he of the hand brake in th

34. Enginemen mu as if this cock or valve at stations will result. applies the hand brake, the stoppage being con are attached to a train, until the train has actu

35. If an Enginem: the brake with full pres

36. In attaching er when the hose pipes are and afterwards the cou must be observed, and Fireman are responsible Engines to Trains."

37. When attachin centre coupling must a afterwards the coupling must be observed, and

38. Enginemen in must bring the trains to unless in cases of emer, the train must, unless column, and the engine up.—W.N. No. 10/14.

39. Enginemen wh —W.N. No. 38/14.

40. Enginemen vo at the platform, reduce coming on to the train:

41. In all cases of t the brake couplings in control of the brake pe brake valve and no isc in the **LAP POSITION** engine to the train pipe. must be placed in the fr of the second engine in main reservoir, so that brakes in case of necess shows the pressure the the pressure maintain the second engine must

of brake-connected vehicles on
men have no brake control,
of these vehicles.

in actual use, to the dummies
its air pipes the latter must be
and being carried by air pressure

by the breaking of a pipe; by
Guard from his brakevan; they
connected to the engine, but
The release valves are worked
must not on any account be bent
in their normal position. If
the brake out of working order.

in cases of absolute necessity,
he made on their Train running
d brake should the Engineman
brakevan or from the end of the
TO ESCAPE GRADUALLY

and hand-braked vehicles behind,
s being made: and to prevent
until the train is about to start.
each, Glenelg, Brighton, North-
all other trains two spare pipes
brakevan. Guards and Examiners

before starting. When using
on, the former must be released

which must be closed, the coupling
connecting the hose couplings
uncoupling that the Engineman
has been applied.

as by doing so the brake is

er is kept well lubricated; (2)
of refined petroleum—tallow
ly run, but never faster than is
standard pressure of 70lbs. per
lbs. in the main reservoir.

RELEASE POSITION in order
RUNNING POSITION, where

ort Adelaide Dock Station, by
Westinghouse air brake must not
approaching junction stations an

too quickly, but the air brake
to be stopped, by opening the
reduced by from 4lbs. to 3lbs.
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25lbs. Any further reduction

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29. In addition to any other test the Guard of the train must, before starting from a terminal station, test the condition of the brake apparatus by opening the valve in the brakevan for one or two seconds. If the escape of air does not apply the brakes the fact must be at once reported to the Engineman. The gauge in the brakevan indicates the air pressure existing in the train pipe, and this pressure usually stands at 70lbs. per square inch. If, however, the gauge indicates that the Engineman is unable to maintain a pressure of at least 60lbs., the Guard must be on the alert and ready to work his hand brake if necessary.

30. Enginemen, upon feeling that the brakes have been applied by the Guard, or automatically, must at once aid in stopping the train by turning the handle of the brake valve towards the right, thus preventing escape of air from the main reservoir. See also instructions in this book under the heading "Passenger Signal Communication."

31. Enginemen must drain the water out of the main reservoir once a week by removing the drain plug.

32. If vehicles, having different air pressures, be coupled together, the brakes will apply themselves on those which have the highest pressure. To ensure the certain release of all the brakes in the train, and also that trains be charged quickly, the Engineman must carry the maximum pressure in the main reservoir before connecting to a train, and then put the handle of his brake valve to the RELEASE POSITION until the train is charged with air. If after the engine has been coupled to a train not charged with air the brakes on the engine apply themselves they must be at once taken off by opening the release valve from the brake cylinder or auxiliary reservoir, which valve can be worked from the footplate.

33. Should the Engineman discover any defect in the working of the brake which will render it ineffective, he must at once give the Guard notice, and arrange with him as to the use of the hand brake in the brakevan.

34. Enginemen must not run with the engine brake cylinder release valve or cock open, as if this cock or valve be not closed serious damage to coupling and brake gear when pulling up at stations will result. When stopping at stations the Engineman must see that the Fireman applies the hand brake, and the air brake must be released just before the train comes to rest, the stoppage being completed by the action of the hand brake. When, however, two engines are attached to a train, the Engineman in charge of the air brake must keep the brake applied until the train has actually stopped.—W.N. No. 20/13.

35. If an Engineman finds the air pressure in his train too high he can reduce it by applying the brake with full pressure and then releasing it.

36. In attaching engines to trains the centre coupling must always be first connected, and when the hose pipes are coupled the coupling cock on the engine train pipe must be opened first, and afterwards the coupling cock at the end of the vehicle. In detaching, the reverse process must be observed, and the engine centre coupling disconnected last. The Engineman and Fireman are responsible for this work under the instructions in this book, headed "Coupling Engines to Trains."

37. When attaching together two vehicles fitted with the Westinghouse air brake the centre coupling must always be first connected; then the hose pipes must be coupled; and afterwards the coupling cocks on each vehicle must be opened. In detaching, the reverse process must be observed, and the centre coupling disconnected last.

38. Enginemen in charge of long and heavy goods trains, when entering station yards must bring the trains to a stand with the aid of the hand brake only, the air brake not being used unless in cases of emergency. When engines of such trains require to take water at stations, the train must, unless otherwise directed by a Traffic employee, be stopped short of the water column, and the engine uncoupled from the train for taking water, and subsequently recoupled up.—W.N. No. 16/14.

39. Enginemen when shunting must carry not less than 65lbs. air pressure in train pipe.—W.N. No. 38/14.

40. Enginemen working long distance trains into Adelaide must, after coming to a stop at the platform, reduce the train pipe pressure to 50lbs. in order that shunting engines when coming on to the trains will have no difficulty in releasing the brakes.—W.N. No. 10/13.

41. In all cases of two engines being coupled together and fitted with the Westinghouse brake, the brake couplings must be connected, and the Engineman of the leading engine take full control of the brake power of the train; and if the second engine is fitted with the ordinary brake valve and no isolating cock, the Engineman must place the handle of the brake valve in the LAP POSITION, so as to cut off the communication from the main reservoir of that engine to the train pipe. If the second engine is fitted with the equalising brake valve, the handle must be placed in the full RELEASE POSITION, and the isolating cock closed. The air pump of the second engine must be kept working, and the maximum air pressure maintained in the main reservoir, so that the Engineman of the second engine may be ready to take charge of the brakes in case of necessity or emergency. The black hand of the indicator on the second engine shows the pressure the leading engine is maintaining in the train pipe, and the red hand shows the pressure maintained by the second engine in its own main reservoir. The Engineman of the second engine must take no action in the ordinary stoppages, but he must be, at all times,

prepared to apply the brake in cases of emergency. In case of failure to brake apparatus on the leading engine, the Engineman on the second engine must take charge of the brake until the arrival at the first station or siding where the position of the engines can be reversed. If more than two engines or a push engine are attached to a train similar action must be taken by the engineman of the push, third, and each succeeding engine as is taken by the second Engineman.—C.M.E., 1518/16.

42. Train Examiners must see (1) that the brake connections are perfect and properly adjusted for the wear of the blocks and wheels by being uniformly taken up throughout a train. The pistons on the double cylinders should travel not less than 2in. nor more than 4in., and those of the single piston cylinders should travel not less than 4in. nor more than 8in.; (2) that the triple valves and brake cylinders are perfect, and lubricated at least every three months with mineral oil; (3) that the joints are all airtight; (4) that the hose couplings of vehicles on trains are united and the coupling cocks in the pipes open, except the one at the end of the train, which must be closed; (5) that the cut-out cocks under each vehicle are in their proper position before a train starts; and (6) report verbally to the Brake Fitter on duty any defects in the brake apparatus.—W.N. No. 16/14.

43. Brake Fitters must see (1) that all triple valves are cleaned every three months, date of cleaning chalked on the outside of the valve, and also recorded in a book kept for the purpose; (2) that brake cylinders are lubricated at least every six months, and the date of greasing chalked on the outside of cylinder, and also recorded for future guidance; (3) that new brake blocks are fitted when required and piston travel adjusted so that the brake piston will not exceed the maximum travel; (4) that the joints of air pipes, &c., are kept tight, and air leaks in the brake apparatus attended to at the first opportunity.—W.N. No. 16/14.

44. An Engineman must, before detaching from his train at junction or terminal stations, report verbally to the Examiner on duty the numbers of any vehicles with faulty air brakes, stating the defects, and the Examiner must also obtain this information from the Engineman. The Examiner must mark the vehicles "for brake repairs" and enter particulars on his daily report for the information of the Rolling-stock Inspector. If a hose pipe becomes defective and has to be replaced by the Examiner, the damaged pipe must be forwarded by the Examiner to the Brake Inspector with the number of the vehicle from which it was removed.

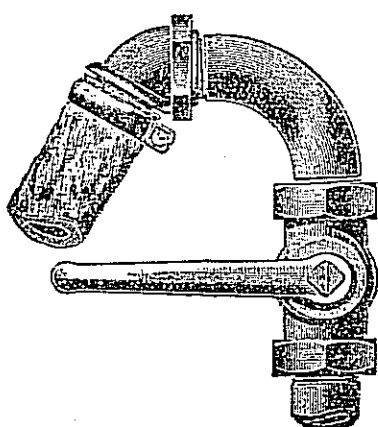
45. When vehicles are marked "for brake repairs" the Stationmaster or Foreman must, as soon as possible after they are unloaded, send them to the nearest Loco. Depot for repairs and they must not be reloaded until repairs have been effected.

46. The instructions concerning air brake coupling cocks refer to what is known as the "straight" pattern, which are fitted to South Australian rolling-stock.

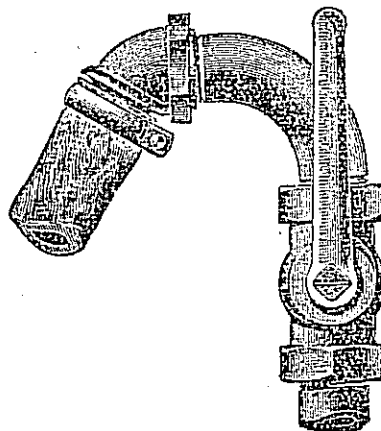
Some of the Victorian rolling-stock are fitted with what is known as the "bent" pattern coupling cock, the handles of which stand parallel with the pipe when open and across the pipe when closed, or reverse positions to those of the "straight" pattern.

The following diagram shows the respective positions of "straight" and "bent" patterns. Should any doubt exist, the position of any cock can be determined by the cut on the head of the plug. The cut lies along the pipe when open, and across it when closed.—W.N. No. 46/10.

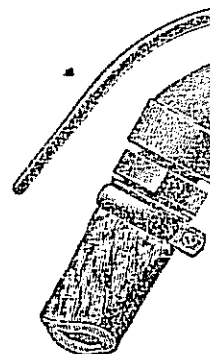
STRAIGHT PATTERN.



Cock open.



Cock closed.



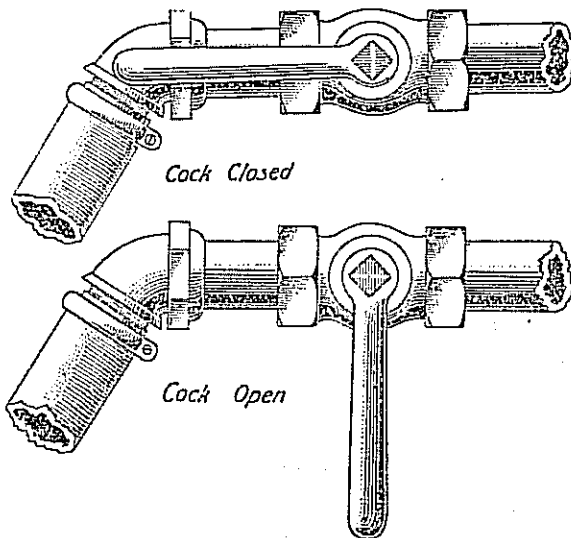
Cock o

1. The apparatus of the carriage, with open communication is made of so doing opens the valve sufficiently to attract the disc is fixed, the normal signal the disc assumes.

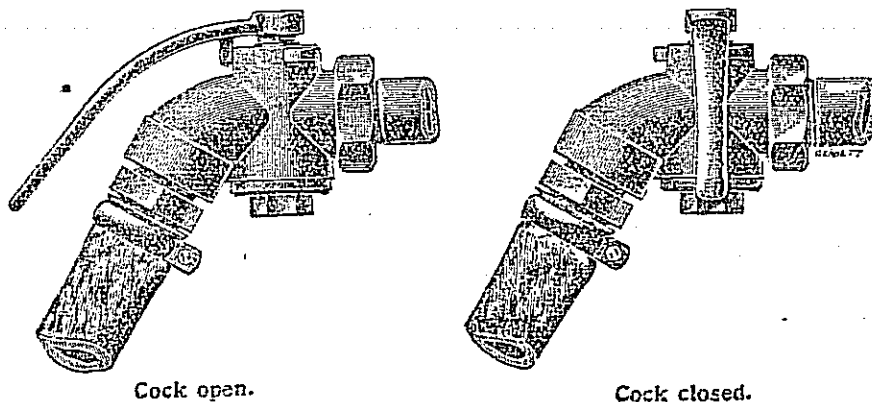
2. Enginemen must close the Driver's valve, if left open.

3. When the Engineman has quickly as possible, and to do so. In the latter position quicken the speed of the train into a safe position.

STRAIGHT PATTERN—continued.



BENT PATTERN.

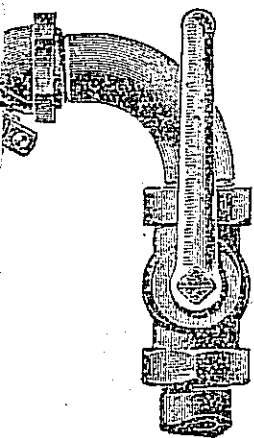


PASSENGER SIGNAL COMMUNICATION.

1. The apparatus consists of a continuous chain running through pipes under the ceiling of the carriage, with openings in each compartment to enable the chain to be pulled down. The communication is made by pulling down the chain in the compartment a few inches; the act of so doing opens the valve connected with the Westinghouse brake, and the brake is applied sufficiently to attract the attention of the Engineman and Guard. At the end of each carriage a disc is fixed, the normal position of which is horizontal, but when the chain is pulled to operate the signal the disc assumes a vertical position.

2. Enginemen must observe clause 23 of the Westinghouse brake instructions, because the Driver's valve, if left in the RELEASE POSITION, will prevent the signal from acting.

3. When the Engineman observes that the brake is being applied, he must stop the train as quickly as possible, except when on a bridge or in such a situation that it would be dangerous to do so. In the latter case he must put the Driver's valve in the RELEASE POSITION and quicken the speed of the air pump, thus enabling him to keep the brakes off and pull the train into a safe position.



4. When the passenger signal has been used the Guard must ascertain as quickly as possible the name of the passenger who manipulated the signal, and why it was used. The position of the disc indicates the carriage from which the signal was given, and the compartment is indicated by the signal chain hanging loose where it was pulled. Before again giving the starting signal the Guard must close the signal valve by turning the disc from the vertical to the horizontal position.

5. When the Guard has ascertained the cause of the passenger signal having been used, and the Engineman has seen that he has shut the signal valve by turning the disc from the vertical to the horizontal position, the Engineman can release the brakes and proceed as usual.

6. Enginemen and Guards must report on their train tickets each case where the communication is used by passengers, giving full particulars. Guards must also report the circumstances to the Station Master at the first station at which the train stops.

7. If a Conductor or Train Porter be provided on a train, the duty specified above for the Guard will devolve on one of the former, while the Guard must protect the train in accordance with the instructions in the Rule Book. If there be no conductor or train porter the Guard must act as prescribed above, and the Fireman must, instead of the Guard, at once protect the train, in accordance with the instructions in the Rule Book, first obtaining the necessary signals and instructions from the Guard.—G.T.M. 2564/02.

List of Inf

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the compartment is indicated
again giving the starting signal
from the vertical to the horizontal

signal having been used.
by turning the disc from the
brakes and proceed as usual.
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tator also report the circumstances

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to protect the train in accordance
with the train porter the Guard
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first obtaining the necessary

List of Infringements on Minimum Structure Gauge.

LIST OF INFRINGEMENTS ON MINIMUM STRUCTURE GAUGE.

G.T.M., 6945/02.

Locality.	Infringement.
MIDLAND SYSTEM.	
Adelaide	Overway Bridge, King William Road. (Height)
Wasleys	Sides of Shed, Gilbert & Co.
Midland System	Cutwaters of Guard Rails
Bowden	Gateway to S.A. Gas Co.'s Property
Port Adelaide	4 Openings to S.A. Gas Co.'s Buildings (off Turntables)
	Back of Weighbridge Office opposite Crano on Goods Plat- form
<i>Port Adelaide Wharf Lines—</i>	
Canal Company's Sidings	3 Sets Overhead Framing (Height) and Gate at Lipson Street, Walter & Morris
" " "	Entrance, Sid. of Shed, and Overhead Framing, and other Infringements, Harrison's Mill
" " "	Walls and Doors, Luxmore & Co.'s Shed
" " "	Entrance to Shed, Wilcox & Co.
" " "	Side of Shed, S.A. Farmers' Union
North Parade	Gate Post, Adelaide Milling Co., Mundy Street
St. Vincent Street	Lamp Post at Corner of St. Vincent Street East
" " "	Platform (Height) Dalgety & Co.
St. Vincent Street East	Platforms, Elder, Smith & Co.'s Store
Santo Parade	Entrance to Elder, Smith & Co.'s Store
" " "	Entrance to D. & J. Fowler's Store
North Side of S.A. Co.'s Basin	Post and Overhead Framing (Height), Coal Bins, Huddart Parker
Off Siding to Ocean Steamers' Wharf	Shed Framing (Height), Adelaide Chemical Works
Ocean Steamers' Wharf	Overhanging Verandah (Height), Sheds Nos. 1 and 2
Off Fussell Street	Entrance to Darling's Mill
Queen's Wharf	Centres of Sidings at Back of Wharf (centres 10ft. 0in.)
Birkenhead Wharf	Entrance (Height) Darling's Store, near Ferry Steps
" " "	Overhanging Verandah (Height), Mt. Lyell Co.
WESTERN SYSTEM.	
Stockyard Creek	Weighbridge Office
Stockyard Creek Bridge	Guard Rails
Owen	Weighbridge Office
Balaklava	Doorway in Old Goods Shed
" " "	Tank House
" " "	Weighbridge Office
" " "	Goods Shed Openings
Port Wakefield	N.W. Corner of Loco. Repair Shop
" " "	N.E. Corner of Loco. Repair Shop
" " "	Western Wall of Carriage Shop
" " "	Weighbridge Office
" " "	Coal Stage
" " "	Engine Shed Door
" " "	Running Shed Openings
" " "	Carriage Shed Openings
" " "	Goods Shed Openings
South Hummocks	Box Office Wall
Melton	Box Office Wall and Handrail
Paskeville	Tank House
Thrington	Box Office Wall
Kadina	Weighbridge Office

LIST

Locality.

Kadina	
Wallaroo	
" " "	
" " "	
Moonta	
" " "	
Dunn's Bridge	
Hoyleton	
" " "	
Blyth	
" " "	
Brinkworth	
Snowtown	
" " "	
" " "	
" " "	
Port Pirie South	
" " "	
Crystal Brook	
Peterborough	
Port Pirie	
Gladstone	
Caltowie	
Jamestown	
Peterborough	
Eurelia	
Carrieton	
Bruce	
Oodla Wirra	
Northern System	
" " "	
" " "	
Peterborough to Cockburn L.	
Port Augusta	
Port Augusta	
Quorn	
" " "	
Hawker	
Telford	
Farina	
Coward	
Great Northern System	

LIST OF INFRINGEMENTS, &c.—continued.

Locality.	Infringements.
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WESTERN SYSTEM—continued.

Kadina	Goods Shed Openings
Wallaroo	Paint Shed Openings
"	Weighbridge Office
"	Corner of Paint Shop
"	Running Shed Openings
Moonta	Running Shed Openings
"	Coal Stage
"	Goods Shed Openings
Dunn's Bridge	The Girders of Dunn's Bridge near Balaklava
Hoyleton	Weighbridge Office
"	Goods Shed Openings
Blyth	Weighbridge Office
"	Goods Shed Openings
Brinkworth	Weighbridge Office
Snowtown	Weighbridge Office
"	Goods Shed Openings
"	Milling Co.'s Chimneystack
"	Milling Co.'s Shed
"	Milling Co.'s Wooden Platform

NORTHERN SYSTEM.

Port Pirie South	Goods Office
"	Loco. Lavatory
"	Point Indicator near Coal Stage
Crystal Brook	Supports of Overhead Tank at Pirie End of Yard
Peterborough	Supports of small Overhead Tank at West End of Yard
Port Pirie	Weighbridge Office
Gladstone	Weighbridge Office
Caltowie	Weighbridge Office
Janestown	Weighbridge Office
Peterborough	Weighbridge Office
Eurelia	Weighbridge Office
Carrieton	Weighbridge Office
Bruce	Weighbridge Office
Oodla Wirra	Weighbridge Office
Northern System	Doorways of all Goods Sheds
"	Doorways of all Carriage Sheds
"	Doorways of all Running Sheds
"	Angle Guard Rails to Bridges
Peterborough to Cockburn Line.	Guard Timbers at Bridges

GREAT NORTHERN SYSTEM.

Port Augusta	Doorway and Encroachment on Siding at Young & Gordon's Store
Port Augusta	Doorway and Platform at Thomas & Co.'s Mill
Quorn	Doorway of Carriage Running Shed
"	Goods Platform, Waters & Co.'s Siding
Hawker	Platform and Buildings at Adelaide Milling Co.'s Northern Siding
Telford	Chute and Staging on Coal Siding
Farina	Doorway of Engine Running Shed
Coward	Doorway of Engine Running Shed
Great Northern System	Level Crossing Posts and Cutwaters of Guard Rails

LIST OF INFRINGEMENTS, &c.—continued.

Locality.	Infringements.
SOUTHERN SYSTEM.	
Nairne	Goods Platform
Strathalbyn	Goods Platform
Mount Barker Junction	Island Goods Platform
Mile End Yard	Livestock Platform
"	Charlick's Siding Engine House
Tailem Bend	Island Platform
Cooke's Plains	Goods Platform
Wolsley	Goods Platform
"	Passenger Platform
SOUTH-EASTERN SYSTEM.	
Naracoorte	Doorsteps to Carriage and Loco. Running Sheds
"	Platform at Dalgety's Siding
Kingston	Doorsteps to Carriage and Loco. Running Sheds
"	Platform at Dalgety's Siding No. 3
Wolsley and Naracoorte Line...	Level Crossing Fences
Naracoorte and Kingston Line...	Level Crossing Fences
Mt. Gambier and Beachport Line	Level Crossing Fences and Warning Boards

NOTE.

For further Infringements see Divisional Instructions under the Station concerned.