

HINTS FOR GUARDS

WORKING

JOHNSONVILLE, MANAWATU

AND

WAIRARAPA LINES



This booklet has been prepared to provide you with a ready reference to assist you with your job as a Guard while working in the Wellington Running Area.

#### WELLINGTON- LONGBURN

##### - INTERMEDIATE STOP AND STAY SIGNALS WELLINGTON -PAEKAKARIKI

There are twelve intermediate stop and stay signals between Wellington and Paekakariki. These are:-

#### Wellington to Paekakariki:

- One between Kaiwharawhara and No. 1 tunnel
- One between No. 1 and No.2 tunnel
- Two in No.2 tunnel
- One approximately 1/2 mile north of Plimmerton Station
- One at Pukerua Bay
- One at Muri

#### Paekakariki to Wellington:

- One between No.5 and No.6 tunnel
- One at the entrance to No.2 tunnel
- Two in No.2 tunnel
- One between No.2 and No. 1 tunnel

These signals cannot be passed in the "stop" position without a train running telegram. Authority to pass a signal in the stop position, is obtained from the train control operator. There are train control phones beside all of these signals. When you are required to write down a telegram inside the tunnel and the phone is on the opposite side of the tunnel, take extreme care of trains running on the opposite line.

#### Wanted Winker Lights:

Are placed at Takapu Road - Tawa, South and North Junctions.

## STATIONS

### Tawa:

This station cannot be shunted unless the signal-man is on duty. There are three switch locks by which you can go from the loop to the siding and the release for these is obtained from the signalman.

The siding has no overhead power so it can only be shunted with diesel locomotives. A back shunt is provided at north end of the loop controlled by A.I. and P.I. indicator. Trap points are at the north end of the siding.

Guards shunting at Tawa are advised of the danger of working between the loop and the up main from north bound trains.

### Porirua:

This station cannot be shunted unless the signalman is on duty. Porirua has no low speed signals on the home signals. You must be signalled into the loop. No overhead power is provided on No. 1 and No.2 roads.

This station has a train reversing button on the up main side of the station for trains terminating there when the station is unattended. Control must be advised before pushing the reversing button as there could be trains on the down main. If you push the reversing button signal 21B on the down main goes to red.

The A light on the south end home signal automatically goes out when a train trips the signal, and stays out until the train has cleared the section. This gives protection for a terminating train from a following movement.

Motor points M.5.

### Plimmerton:

This station cannot be shunted unless there is a signalman on duty.

Plimmerton has a train reversing button on the up main side of the station that operates in the same way as Porirua, except, you do not claim for a signal until just prior to your departure. The signal activates the crossing alarm on Steyne Street Crossing. Remember!! CONTROL MUST GIVE YOU PERMISSION TO CLAIM FOR THE SIGNAL.

On the down main side of the station are two signal clearing buttons that are operated when the station is unattended. As soon as the clearing button is pushed, a white light will illuminate at the bottom of the whistle board at the south end of the station, indicating the claim has been registered. Non stopping trains have a whistle board approximately 400 yards north of the station. Cancelling button only at south end of station.

There is no overhead power on No.1 road.

Motor points M.5.

#### South and North Junctions:

Before taking local control, permission must be obtained from the Train control Operator. There is no time delay to switch in these two panels. As soon as Train Control has granted permission to switch the panel, in all that is required is to turn the local control lever from out to in. This will illuminate the panel giving you control of the points, home, and departure signals.

Motor points M.5.

#### McKays:

This has an emergency panel and cannot be switched in until the Train Controller has disconnected the CTC line from McKays to Otaki. When McKays is switched in Control will then reconnect the CTC line from McKays to Otaki. Entry to the station panel is gained with an A.S. key, located south of road crossing.

Motor points Nippon.

### Paraparaumu:

All signal aspects and points are controlled by the Wellington C.T.C. Operator. Before shunting commences, release for the XR signal and switchlock release must be obtained from the C.T.C. Operator. A station panel is provided inside the station. The XR signal is a low speed aspect for shunting up the north end backshunt.

There is plenty of head room on the loop for shunting the south end.

Because the main line signals are not the required train braking distance apart, three yellow signal aspects can be obtained simultaneously for a northbound train provided the up departure signal is held at red.

Motor points Nippon.

### Waikanae:

This station is equipped with local control panels at each end of the station.

Before shunting commences, local control must be obtained from the C.T.C. Operator. After obtaining local control open the switch lock door and place the lever from lock to free, then commence your movements. If you failed to free the switch lock before signalling a train you would track lock the section and would be unable to release the switch lock.

A station panel is provided in the station. Care must be taken when shunting the south end as the departure signal and road crossing signals work in conjunction with each other, when setting back into the yard always bring the locomotive inside the departure signal and restroke the lever, after 30 seconds have elapsed the departure signal will clear to proceed.

Motor points G.R.S.

### Te Horo:

Crossing loop only. Emergency station panel locked in a telephone box and entry is gained with an A.S. key.

Motor points G.R.S.

### Otaki:

There are three free switch locks from the loop to sidings.

At the north end of Otaki there is a small back shunt with an arrow indicator controlling its entrance. Entry is obtained by turning the small blue lever in the local panel box from stop to go. This lever must be returned to the stop position on the completion of the shunting movement.

From the Otaki ballast siding there is an all trains stop board at the south end of the yard.

Between the two switch locks at the south end of the yard five YDs or 8YC can be held for the purpose of running the locomotive around.

Control telephones have two press buttons, one for Palmerston North and one for Wellington Control.

Motor points G.R.S.

### SHUNTING MOVEMENTS UP BACKSHUNTS IN C.T.C. AREAS

#### When Arrow Indicators or Colour Light Signals Fail to Operate

The Shunter or member in charge after ascertaining that the route is safe and that the points are correctly set for the intended movement must advise the Enginedriver of the circumstances and hand signal accordingly.

Motor operated points must be isolated in all cases.

## Where Arrow Indicators or Colour Light Signals are NOT Provided

Automatic Signalling Regulation 19 (d) lists the conditions under which a Departure Signal may be passed at stop. This regulation can only be modified by the application of Rule 99 (c) , i.e. by issue of a train advice which must incorporate any instructions necessary to ensure safe working.

Therefore, the only correct method of authorising a movement into a back shunt past a Departure Signal, where no other signal is provided for the purpose, is by authority of a Train Advise.

Motor operated points must be isolated in all cases.

### Manakau to Tokomaru:

All stations between Manakau and Tokomaru have safety points at each end of the yard to protect the main line during shunting operations and all have free switch locks.

#### Manakau:

Manakau has a lime siding and can only be entered from the south end.

Going north on the loop there is a starting signal. For a reverse movement there is a starting signal with a low speed aspect for south. Both can be operated without taking local control from a small alarm crossing box just south of the local panel by the Monena Kohere Road Crossing. The switchlock must be reversed before 12R signal button is pressed operation of these signals without local control does not effect trains on the main line. Free switch lock.

Motor points G.R.S.

#### Ohau:

##### Crossing Loop

A local panel is provided both ends of the loop. Siding to cement works is now closed. Free switch locks.

Motor points G.R.S.

Levin:

North end has a low speed light for protection when shunting over Mako Mako Road. South end has A.I. indicator on short back shunt.

Guards right away lights. Push buttons for these are placed near the local panels and on the station platform. Remember to push the button for the correct line. Free switchlocks.

Motor points G.R.S.

Koputaroa:

When shunting this station make sure plenty of hand brakes are applied, the grade is fairly deceptive. Local panels both ends normal C.T.C station. Free switchlocks

Motor points G.R.S.

Tokomaru:

This station has the same attributes as Koputoroa.

Motor points G.R.S.

Shannon:

At the north end of the loop there are starting signals on a gantry to protect the Sheenan Street crossing. The loop starting signal has a low speed light that is controlled from the local panel. At the south end there is a back shunt with and A.I. and P.I. indicator, controlled from the local panel board. Free switchlocks. A low speed button is provided at Sheenan Street Road crossing for shunting movements off the loop on the left side of the gantry structure.

Motor points G.R.S.



### Longburn:

Local control must be obtained from the Train Controller at Palmerston North. The three position power shunting signal at the south end of the loop is called a starting signal and controls the movements from the loop to main line. The departure signal is placed approximated 300 yards further south opposite the Long burn freezing works. Trap point indicator at north end on a pole elevated to approximately 8 feet.

Motor points G.R.S.

### Wellington to Mangatainoka:

#### Fletchers Siding:

Double line switch lock with a time delay of 120 seconds (2 minutes). If a locomotive had been locked in the siding for a shunting movement, and is ready to return to the main line the Guard or Shunter in charge must obtain permission from the Petone Signalman before unlocking the switchlock door.

Permission will only be granted if the down main is clear for the movement. Opening the switchlock door places No. 1237 signal at the south end of Ava to red, and extinguishes the "A" light.

#### Trentham Defence Siding:

Double line switch lock with a time delay of 90 seconds. This siding can only be shunted by south bound trains. The switchlock must be locked when shunting the defence siding to enable trains to depart from Trentham. If the shunt is to return to Trentham, or Upper Hutt, the Trentham panel must be switched in. Permission must be obtained before the switchlock door is opened on completion of the shunt, and verbal authority must be obtained to return to 28 signal (2 position power shunt signal) via the down main.

#### Trentham to Featherston:

C.T.C. controlled by signalman at Upper Hutt. Station cannot be shunted unless staff are in attendance.

Maymorn:

This station has local control panels at the north end of the station, and release is obtained from the signalman at Upper Hutt. An emergency station panel is provided in case of C.T.C. failure, and entry is gained by an A.S. key. Switchlock to siding -release from Upper Hutt.

Motor points G.R.S.

Rimutaka Loop:

C.T.C. crossing station equipped with an emergency panel, situated halfway between the departure signals, No local control boxes.

There is no road access to this crossing loop.

Motor points G.R.S.

Featherston:

Tablet commences and terminates at the north end. C.T.C. commences and terminates at the south end. This station is in attendance for all trains.

Motor points G.R.S.

Carterton:

Tablet Switch out Station

This station has starting signals at both ends. To clear the signal when you have switched in, the appropriate key is placed in the panel above the signal levers and turned. 'A' key for south end, 'B' key for north end. The 'A' woods lock key is always on your right hand side as you face the signal levers.

The hand points at the north end of the yard are double throws, and extra care should be taken, to make sure they are set in the correct position when crossing of trains, as some trains may have to reverse up the back shunt for clearance to the main

line. Check the stop blocks when shunting. The points from the loop to the sidings are locked with a points lock. (Barrel Type) .

### Waingawa

Switch out tablet station.

On the west side of the station building is a small box, containing the yard lighting switch. Adjacent to the signal levers are crossing alarm switches controlling the Borthwicks and Norfolk Roads crossings.

To switch the station in for shunting purposes the points key (barrel type) must be inserted in the place provided at the rear of the signal levers, push the key hard against the spring as you turn it. After turning the key the signal levers can then be placed in the stop position, allowing the 'A' or 'B' key to be removed, as required. Check the action of the signal levers by observing the back light on the home semaphore signal.

At both ends of the yard are two woods sleepers locked points, that must be unlocked before placing the key in the main line points lever and must be replaced in the lock position after completion of the shunt.

If the temperatures are low, the points and signal interlocking may not free owing to the contraction of the signal wires, so pressure is sometimes required on the hatchet, at the interlocking mechanism at the base of the points, to release ground frame lever.

There are crossing alarm switches at both ends of the yard and if a locomotive is leaving from the sidings the switch from the sidings must be used. The same applies to the main line. If this is not done the alarms will keep ringing until turned off manually.

Owing to the gradient of the yard, make sure sufficient hand brakes are applied.

To switch out, replace the keys in the signal levers, pull the levers to the proceed position, and withdraw the points key from the rear of the levers.

#### Taratahi:

Tablet locked siding and can only be shunted by south bound trains.

This siding holds 30 crossing total from the lime worm on the stop block, the last wagon in must be placed past, or opposite the worm so that the wagon can be worked.

A light press button switch is situated on a pole adjacent to the tablet lock.

#### Mauriceville :

##### Lime Siding

To gain access to the lime siding you will require the 'A' or 'B' woods lock key, depending on the direction of travel.

#### Mauriceville:

Switch out station.

On the east side of the station there is a small box containing the yard lighting switch. To switch in, unlock the 'C' keys before inserting the points key, into the place provided at the rear of the signal levers.

The main line points are single throw type. At the north end are two sleeper lock bars and one stop block. The south end has one stop block and one sleeper lock bar. It is a good practice at all table stations to start your movements from the yard, and work your way to the main line points removing the stop blocks and locking bars.

To switch Mauriceville out with a train at the station, it must be set back with the locomotive clear of the down home signal.

Eketahuna:

Security Station

At the South end are G.R.S. motor points with the crank handle in a box opposite the motor points. The 'B' key unlocks the lever points from the loop to the yard, with a double set of trap points from No. 1 and the shed road. The north end requires the 'A' and 'C' keys for the two stop blocks and two woods sleeper locking bars. The main line points are woods frame lever double ended.

When the station is switched out the woods keys are locked in a box on the east side, south end of the station, and entry is gained by a (Yale type) points key.

There is a guard's right away button at the south end of the station.

Motor points G.R.S. south end only.

Pahiatua:

This station cannot be shunted unless the signalman is in attendance, as all the woods keys are locked in the panel inside the station building.

Motor points G.R.S. north end only.

Manqatainoka:

Switch out station.

North end 'B' key for two sleeper lock bars and main line points. South end 'A' key for bottle siding, three woods sleeper locked points, and main line points to loop. One stop block at the south end of the No. 1 road.

Main line points at both ends are double ended.

The "up home" signal displays a low speed light for entering the loop.

### Woodville:

Officered station 24 hours.

Motor points S.G.E.

### Wellington to Johnsonville:

The first duty of the Guard on the departure from Wellington is to check with the driver of the crossings to be made and at what stations.

Wadestown -Ngaio and Khandallah are crossing stations with an up and down main line, all are equipped with cancelling and clearing buttons and M.5 motor points.

The Johnsonville line is fully automatic, if a a train arrives at a crossing station, and the section ahead is clear the points will set for the main line and the departure signal will clear to proceed.

The cancelling button is used if an up train was due to cross a down train, and the departure signal clears to green before the down train arrives, the cancelling button mus be pressed immediately, to prevent delaying the down train waiting at the station in advance. It can also be used for placing the points back to the normal position if fouled by an obstruction.

The clearing button is used when a train arrives at a station, and the points and departure signal have failed to clear after, or, when no scheduled crossing is timed for that station.

All stations are equipped with train control phones. In the phone boxes at Wadestown, Ngaio, Khandallah and Johnsonville are Mis 59 Mis 56, Mis 53 and Mis 54's.

### Ngaio:

Ngaio Station is provided with a signal box.

To switch the box in, the indicator button must be pushed first to ascertain that no trains are approaching the station. If

trains are approaching the station and the signal box is to be switched in on the arrival of same, the claim button can be pressed, that will allow the trains to enter the station and will cancel the automatic as soon as the trains are clear of the points, then the lever can be turned from out to in. If the switch in lever is turned before the trains have arrived at the station, it will throw all signals to stop, and extinguish the 'A' lights.

To signal a train from the up main to the down main, the low speed button must be pushed after turning No.2 lever. All signal and points levers must be in normal position, and the time delay light extinguished before the panel can be switched out.

The points in the normal position are set for the up main at all crossing stations. Ngaio is the only station that trains can be signalled from the up main to return to Wellington.

Always check the time delay indicator before setting up a route, as any movement of the levers while the time delay is operating, will only extend the time.

#### Wadestown to Khandallah

Single line automatic crossing stations on arriving at the home signal of any station on the Johnsonville line with the home signal at red and the 'A' light out, the Guard becomes the Officer in Charge. He must immediately isolate the points, set them for the correct route and pilot his train into the platform, restoring them to normal after the train is clear, advise Control.

If the departure signal is showing proceed on arrival at a station and the train you are waiting for to cross has not arrived, do not hesitate to cancel out, as the delay is 90 seconds and in peak periods can disrupt train services.

Remember "you" are the Officer in Charge

Cancel clearing buttons are provided on both sides of the stations. If the departure signal will not clear to proceed, check that the points are not obstructed or racing, that the

half pilot key is still in its location draw. If all these are normal advise Control.

Johnsonville:

The departure signal at Johnsonville will automatically clear to proceed when the unit arrives at the platform.

TRAFFIC TRAINING

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