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LOCOMOTIVE CORRESPONDENCE COURSE : ENGINE-DRIVERS WORKING TIMETABLE

LESSON 21

Both North and South Island Enginedrivers are supplied with Working Timetables for their guidance. The instructions contained therein affect Enginedrivers to this extent that not only does it modify some rules and regulations contained in the rule book, it also gives a full coverage of: Train times and crossings, (except where running as directed by the T.C.O.), track telephones, schedules of maximum speeds and rolling stock restrictions, locomotive runs, tender first running, extra locomotives on trains and locomotive loads, shunting trains, tractors, multiple units, and railcars and local instructions for each District. The need to keep such a book up to date cannot be overstressed. To cover such a complex system, train advices and amendments are often issued and it is the Enginedrivers responsibility to keep his Timetable up to date when these Train Advices are issued.

Once a year a check of Working Timetables and Rule Books is made by the Assistant Locomotive Supervisor. During this check he will also test Enginedrivers and Locomotive Assistants with an oral examination. The purpose of this lesson is to help those members who have not been issued with a Working Timetable.

The following extracts from the Working Timetable are included in this lesson:

(1) Explanatory notes. This enables each member to understand how to read any particular train running section and the legend of his district.

(2) Page 154 North Island Working Timetable, Gisborne-Napier a Single Line Automatic area.

(3) Pages 248 - 249 - 250 North Island.
Railcars, Shunting Tractors. Exceptions to speed.

(4) Page 260 Turning Diesel Electric Locomotives and Locomotive Loads.

(5) Pages 450 - 451 - 452 Wangaehu River Flood Warning Device.

These are but a few pages which give an idea of the vast amount of information contained in the Working Timetables.

No attempt is made here to cover all the important aspects but a few highlights from various pages will indicate the necessity to study this book.

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EXTRA LOCOMOTIVES ON TRAINS

For the purpose of this instruction "Locomotives coupled together" include locomotives travelling under their own power and dead locomotives. The term "coupled together" also applies to locomotives with coupling bars or one runner wagon between the locomotives. Except in restricted areas, several groups of locomotives coupled together may run in any train provided each group of coupled locomotives is separated from the next group of coupled locomotives by the equivalent of at least four four-wheeled wagons. But in all cases the maximum load and total schedule are still applicable.

Coupling between locomotives when in multiple must be made by a coupling link.

Bank engine keys are still in operation in the following areas in the North Island :- Whangarei, Kaukapakapa and Opapa and Tablet Regulation 18 applies.

Steam heat vans on express trains are normally attached to the locomotive so that the locomotive crew may check that the van is functioning correctly. However in emergency circumstances when branch lines are used owing to a blockage of the Main trunk the steam van may be run as last vehicle between Stratford and Taumarunui.

ROLLING STOCK RESTRICTIONS

This section covers such a wide field of our rolling stock that those members who have not been issued with a Working Timetable should borrow one to bring themselves into line with these restrictions.

PROCEDURE TO BE FOLLOWED WHEN TRAINS COME TO A STAND IN A TUNNEL

This is a very important instruction, especially as train crews are affected. Firstly it must be clearly understood that when a train is so stopped the Guard and Locomotive Assistant MUST proceed towards each other along the LEFT HAND SIDE of the train in its DIRECTION OF TRAVEL. Each member should carry a hose and spanner. However, if the stop is caused by a locomotive failure the Locomotive Assistant will inform the Guard who will advise the Train Control Officer. In areas where one man operation is worked the Guard will proceed to the locomotive as above. In areas mentioned in the Working Timetables such as Rimutaka Tunnel when a train or railcar has come to a stand, the engine must be shut down if such a stop is to exceed five minutes and not restarted until ready to proceed.

POWER BRAKING PASSENGER TRAINS

As a precaution against accidents during storms, passenger trains are not to be run down the gradients between Rimutaka Loop and Featherston either way by gravitation. The couplings of all vehicles are to be kept in tension by the locomotive under power with the brakes

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applied. Carriage and wagon brakes may also be applied if necessary in addition to the van brakes when the weight of the train renders it necessary to do so.

SUSPENSION OF TABLET WORKING AND SIGNALS

At those stations mentioned in the Working Timetable under this heading, it will be found that Tablet Regulation 20 is modified accordingly insofar as the stations mentioned thereunder are concerned. Members are to make themselves fully conversant with the sections through which they run so as to enable them to know which are suspended stations and which are switch out stations. This will involve a study not only of the Signalling and Interlocking circulars for the district but also the Working Timetable and Tablet Regulation 20.

QUESTIONS

1. In a Double Line Automatic Signalling Area a train is disabled. What is the procedure to get a relief locomotive from the station in advance to move the train to that station and what precautions must be taken after the member has been sent for the relief locomotive? R.78

2. In a Double Line Automatic Signalling Area a train is stalled or disabled and assistance is available from a train in the rear to push it through the section. Describe the procedure to clear the section. R.79

3. If in a Double Line Automatic Signalling Area a train is prevented from moving forward and it is necessary to return to the station in the rear -
   (a) What authority is required?
   (b) If two or more trains are involved how many Mis.52 forms will be issued?
   (c) When the last train is clear of the section, what must the Enginedriver do with the Mis.52? R.80

4. If in a Double Line Automatic Signalling Area it is necessary for a train to return to the station in the rear, what precautions must the Enginedriver take when setting back?
   R.81, R.82, R.91, Clause (a) Sub clause (iv) and Clause (b). R.138.

5. If in a Double Line Automatic Signalling Area a train stops as a result of brakes applying by unknown causes and the Enginedriver cannot see that the opposite line is clear what procedure must be carried out to protect both lines? R.83

6. Pilotworking is in operation in a Double Line Automatic Signalling Area -
   (a) Who personally dispatches each train?
   (b) Communication exists between stations, when may a following train be dispatched? R.88

7. Pilotworking is in operation in a Double Line Automatic Area:-
   (a) What authority will the Enginedriver require to travel through the section when not accompanied by the Pilotman?
   (b) Where communication does not exist under what conditions may trains be dispatched? R.88

8. In a Double Line Area pilotworking is in operation, State by what method an Enginedriver would be signalled back on to the right line? R.89

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9. In a Double Line Automatic Signalling Area pilotworking is in operation. What is the procedure when -

   (a) A train accompanied by the Pilotman is disabled?

   (b) A train unaccompanied by the Pilotman is disabled? R.93

10. When and for what purpose and in what areas is a Mis. 31 used? R 96

11. What authority is required to pass a defective Home or Starting Signal? R.98 (b).

12. Before a relief locomotive is dispatched into an Open Section to render assistance to a disabled train, what authority must the Enginedriver have? R.99

13. In an Open Section Area when alterations are required to the running order or crossing of trains, what authority must the Enginedriver receive and who issues this authority? R.99

14. When a "Block Of Line" train advice has been issued, what is its purpose? R.101.

15. What are the Enginedriver's duties regarding train advices:-

   (a) When coming on duty?

   (b) Before commencing a journey?

   (c) When changing over with another Enginedriver en-route? R.103.

16. What are the restrictions and what precautions must be taken when kicking or slipping of vehicles is required over level crossings? R.125.

17. On receipt of right away from the Guard, what must the Enginedriver do and observe before starting his train:-

   (a) At stations where points are controlled from a signal box but there are no fixed signals controlling the exit from the station?

   (b) At stations where fixed signals are provided? R.134.

18. What are the instructions regarding locomotives running in reverse? R.137.

19. What instructions apply to dead locomotives being towed to a repair depot on a train? R.140.

20. What instructions apply when the first of two trains travelling through an "Open Section" is losing time and encroaches within 15 minutes of the schedule of the following train? R.145.

EXPLANATORY NOTES

Trains running towards Auckland are **UP** trains, and those running in the opposite direction are **DOWN** trains. **UP** trains are numbered with even numbers, and **DOWN** trains with odd numbers.

EXCEPTIONS—Goods trains to or from the North Auckland line running between Newmarket and Westfield will retain the number allotted in accordance with the direction of travel north of Newmarket.

When the arrival and departure times are not both shown, the time shown is the departure time, and trains must, whenever possible, arrive in time to do any necessary work before the departure time.

The small figures in the timetables are check times only and show the times trains should pass the station opposite which the small figures appear. In the case of trains scheduled to stop, the relative indication symbol is also shown.

Train times shown in parentheses in cyclostyled train advices indicate "small" type.

A bar thus ——5 shown immediately above departure time at a station indicates that a train has to be passed or crossed at that station, and the figure opposite the crossing bar is the number of the train which has to be passed or crossed there.

When two or more trains are to be crossed or passed at a station, the numbers of the trains are shown thus ——(49,50)

The days of the week on which intermittent trains are to run are shown at the top of each column immediately under the number of the train.

Trains, except those otherwise specified, run on weekdays only.

M.U. indicates trains composed of multiple unit electric rolling stock.

Express trains have first and second class passenger accommodation. All other regular passenger conveying trains have second class accommodation only.

A Automatic signalling.
E Train examining station.
F Flag station with Officer in Charge, Signalman or Station Agent.
G Flag station with Caretaker.
H Holiday switch tablet station—switched in only after all concerned have been advised.
I Interlocked station.
J Unattended flag station.
K Station open for passenger traffic only.
L Station open for passengers, parcels, and small lots of goods traffic only.
M Crossing siding or service station only—no public traffic unless specially authorized.
N Station open for parcels and goods traffic only.
P Station open for parcels and small lots of goods traffic only.
Q Station open for goods traffic in wagon lots only.
R Refreshment Room.
RR Train will run only when required, and only after all concerned have been advised.
T Electric tablet station.
X Officer permanently in charge. The names of officered stations are printed in heavier type than those of other stations.
¶ Private siding only, no public siding, goods in wagon lots accepted for private siding holder only.
* Train stops, if required, to pick up or set down passengers.
a Stops for train purposes only. If purposes for which train stopped are completed or train is not required to stop for train purposes it may leave the station ahead of scheduled time, provided such earlier dispatch does not conflict with whatever block regulations may be in operation.
b Train stops, if required, only to set down passengers.
c Train stops, if required, only to pick up passengers.
% Time has been allowed in the schedule for only 50 per cent of the intermediate stops between stations where large times are shown and, should the stops which require to be made in these areas exceed this number, the running time is to be extended accordingly.

GISBORNE - NAPIER—continued

Distance From Gsbrne	Distance Between Stations	DOWN STATIONS			909 Tu, We, Th, Fri, Sat. Goods	%975 Mon, Sat. To Wgton Railcar	965 RR Tu, We, Th, Fri. Goods	937 RR Tu, We, Th, Fri, Sat. Light Engine	957 To Wgton Railcar	935 Tu, We, Th, Fri. To Wgton Goods
M Ch	M Ch				a.m.	a.m.	a.m.	a.m.	a.m.	a.m.
..	..	**Gisborne**	AEIX	dep	..	3.50	..	7.0	7.45	10.0
3 20	3 20	Matawhero	AIF	,,	..	*	..	..	*7.51	..
10 28	7 08	Muriwai	AJ	arr	..	*	..	..	*	..
		,,		dep	..	4.5 (978)	..	..	8.1	..
15 62	5 34	Maraetaha	AJ	arr	..	..	..	..	*	.. (938)
		,,		dep	..	*	..	..	8.10	10.40
16 51	0 69	Bartletts	JK	,,	..	*	..	..	*	..
20 41	3 70	Beach Loop	AM	arr	..	..	..	..	..	..
		,,		dep	..	4.24	..	..	8.22	..
30 41	10 00	Paritu Loop	AM	,,	..	..	..	..	8.42	..
32 34	1 73	Kopuawhara	AJ	,,	..	*	..	..	*8.46	..
33 79	1 45	Opoutama	JL	,,	..	*	..	..	*	..
35 29	1 30	Waikokopu	AJ	arr	..	..	..	..	*	11.38 (970)
		,,		dep	..	*	..	..	8.54	11.44
41 23	5 74	Nuhaka	AF	arr	..	..	..	8.20	.. (938)	..
		,,		dep	From Gsbrne prev day (see p. 155)	5.5	..	..	9.7	..
49 30	8 07	Whakaki	AJ	,,		*	..	..	*9.21	..
54 00	4 50	Tuhara	JL	,,		*	..	..	..	..
58 57	4 57	Swifts (NZ) C Ltd Sdg ¶		,,		..	..	..	..	..
59 48	0 71	**Wairoa**	AEIRX	arr	12.10	..	.. (978)	..	9.38	12.40
		,,		dep	12.35	5.37	5.47	..	9.45	1.5
64 58	5 10	Ohinepaka	AJ	arr	.. (978)	*	..	..	..	.. (972)
		,,		dep	12.48	5.46	..	..	..	1.25
71 44	6 66	Waihua	AJ	,,	..	*	..	..	10.2	..
79 60	8 16	Raupunga	AF	arr	..	*	6.40 (938)	..	10.16 (970)	..
		,,		dep	..	6.9	6.48	..	10.18	..
87 12	7 32	Kotemaori	AJ	arr	..	..	..	..	..	..
		,,		dep	..	*	..	..	10.34	..
92 73	5 61	Putorino	AJ	arr	..	*	..	..	.. (972)	2.50 (632)
		,,		dep	..	6.36	..	..	10.45	3.3
97 59	4 66	Kahika	JL	,,	..	*	..	..	..	..
102 09	4 30	Tutira	AJ	arr	2.38 (964)	..	..	..	.. (982)	..
		,,		dep	2.42	*	..	..	11.3	..
107 00	4 71	Waikoau	AJ	arr	..	*	..	..	*	.. (974)
		,,		dep	..	7.5	..	..	11.15	3.54
114 73	7 73	Waipunga	AJL	arr	..	..	*h* (972)	..	..	..
		,,		dep	..	*	8.35	..	..	..
119 67	4 74	Eskdale	AJ	arr	..	*	8.48 (970)	..	*	..
		,,		dep	..	7.30	8.53	..	11.42	..
124 45	4 58	Bay View	JL	,,	..	*	..	..	*	..
128 25	3 60	Westshore	AJ	arr	..	..	..	..	..	..
		,,		dep	..	*	..	..	..	..
129 69	1 44	Tawa Tmbr C Ltd Sdg ¶		,,	..	..	..	..	..	..
130 40	0 51	MSD Speirs Ltd Sdg ¶		,,	..	..	..	..	..	..
131 55	1 15	**Napier**	AEIRX	arr	3.56	7.51 Thence to Wgton as No. 955 as shown on p. 160	9.25	..	12.1 Thence as shown on p. 161	4.55 Thence as shown on p. 162

h No. 965 will take the crossing loop at **Waipunga** when crossing No. 972.

RAILCARS

Runs—Standard railcars may run as single or double units on all lines in the North Island.

Eightyeight-seater articulated railcars may run as single, double, or triple units in the following areas:

Opua-Auckland
Auckland-Wellington
Okaihau-Otiria
Frankton-Rotorua
Morrinsville-Taneatua
Okahukura-Stratford
Marton - New Plymouth
Palmerston North - Gisborne
Woodville-Wellington

Loading—The maximum load of standard railcars is equal to 60 adult passengers irrespective of the speed.

The maximum load of 88-seater articulated railcars is equal to 110 adult passengers. When the passengers offering for an 88-seater articulated railcar exceed equal to 110 adults and there is no alternative road or rail service available the maximum load may be exceeded for short distances, e.g., Woodville - Palmerston North, Upper Hutt - Featherston, provided the maximum speed of the railcar is reduced to 40 miles per hour. The Train Control Operator must be advised in all cases where the maximum speed of railcars is to be reduced.

Under no circumstances is the maximum loading shown in the footnote on page 253 of the Working Timetable to be exceeded.

Manning When Running in Multiple—When railcars run in double multiple the guard must ride in the trailing railcar and a second competent member of the Traffic Branch must ride in the leading railcar.

When passengers are not carried in the additional railcar the second member may be a competent member of the Mechanical Branch, who will ride in the empty railcar. In such cases the guard will ride in the railcar carrying passengers.

When railcars run in triple multiple the service must be manned by two enginedrivers, a guard, and two other competent members of the Traffic Branch, except as shown hereunder, when passengers are not carried in the rear railcar. The additional enginedriver and one member of the Traffic Branch must ride in the rear railcar, the guard in the centre railcar and the other member of the Traffic Branch in the front railcar.

When passengers are not carried in the rear railcar the service must be manned by two enginedrivers, a guard, and one other competent member of the Traffic Branch. The additional enginedriver must ride in the rear railcar, the guard in the centre railcar, and the other member of the Traffic Branch in the front railcar.

Bell Signals to Driver—The following bell signals are to be used by the guard of a railcar, or his assistant, to signal the driver from any one of the key controlled push buttons located throughout the railcar:

Code	Indication	For Use by
One	Clear – proceed	Guard only.
Two	Set back cautiously (as arranged with guard or pilot)	Guard only.
Three (given quickly)	Stop	Guard or guard's assistant.
Four (given slowly) ..	Stop at next stopping station	Guard or guard's assistant.

Direction of Travel—Railcars MUST, unless prevented by unavoidable circumstances, be driven from the leading driving compartment in the direction of travel. If, through unavoidable circumstances, it is necessary to drive a railcar from the rear driving compartment the driver MUST be piloted from the leading end and the pilot's signals relayed to the driver by a second member stationed at the rear.

Persons Entitled to Ride in Driving Compartments—Excluding staff booked to run the railcar, the following persons **only** are permitted to ride in the driving compartments of a railcar in service:

Front Driving Compartment—

Persons holding gold medallion passes issued to Senior Officers of Australian and New Zealand Railways.

Persons holding the written authority of the General Manager or Chief Mechanical Engineer to ride in this compartment.

Persons holding official passes as endorsed "Available by cab of railcar".

Not more than two persons, in addition to the driver, may ride in the leading driving compartment of a railcar.

Other Driving Compartments—

Persons holding gold medallion passes referred to above.

Locomotive running staff travelling "passenger" in the course of rostered duty.

Persons holding official passes endorsed' 'Available by cab of railcar".

Persons holding the written authority of the General Manager or Chief Mechanical Engineer to ride in the driving compartment.

Signal and Staff Instructors, provided the seats they occupy are not required for locomotive running staff travelling "passenger".

Guards and Assisting Guards travelling "passenger" in the course of rostered duty, and Ticket Inspectors—only so permitted when seating is not available in passenger compartments and provided the seats they occupy are not required by locomotive running staff travelling "passenger".

MULTIPLE-UNIT ELECTRIC TRAINS

Multiple-unit electric trains composed of Dm and D class coaches may run on electrified lines between Wellington and Paekakariki, between Wellington and Johnsonville, and between Wellington - Melling - Upper Hutt.

SHUNTING TRACTORS

1. **Runs**—TR shunting tractors may run on all lines, wharves, private sidings etc., ballast and service sidings in the North Island. When running on the main line between stations, those not fitted with air brakes must not have wagons attached except as detailed in clause 3 below.

2. **Speeds**—The maximum speeds for shunting tractors when operating on the main line shall be:

(a) *Tractors fitted with air brakes:*

Running light	15 miles per hour.
Hauling less than half the maximum permissible load for the section of line concerned ..	11 miles per hour.
Hauling half or more than half the maximum permissible load for the section of line concerned	8 miles per hour.
(b) *Tractors not fitted with air brakes*	8 miles per hour.

(for maximum speeds to be observed when tractors are being towed, see page 250).

3. **Operation in Automatic Signalling Areas and Over Level Crossings Where Automatic Warning Devices Are Installed**—When operating in automatic signalling areas or over level crossings where automatic warning devices are installed, whether within or outside station limits, rail tractors must have at least two four-wheeled wagons attached.

4. **Manning:**

(a) *On Main Line:* When a rail tractor provided for shunting is authorised in the performance of such work to run on the main line between stations, the service, in addition to the driver (Mechanical or Traffic Branch member) must be accompanied by a second member who will act as guard or shunter-in-charge, and who must ride on the last vehicle.

(b) *In Automatic Signalling Areas:* When a rail tractor is operating in an area where its movements are controlled by automatic signals, whether within or outside station limits, it must be accompanied by two members both of whom must be fully qualified in the Rules and Automatic Signalling Regulations.

(c) *Transferring Under Own Power:* When a rail tractor is transferred under its own power from one station to another it is to be driven by a competent locomotive member who must be accompanied by a second locomotive running member or a qualified guard or shunter. When a locomotive member competent to drive the tractor is not available, the tractor is to be driven by a competent fitter who will attend to any defects which may develop. In such cases an enginedriver and guard must accompany the fitter and be equally responsible for the working of the tractor in accordance with Rules 128, 129, and 173.

SCHEDULE OF MAXIMUM SPEEDS AND EXCEPTIONS THERETO (RULE 154).

General—The maximum speeds at which trains may run over all sections of the North Island Main Line and Branches are set out in the following schedules:

Curves—The maximum speed on curves must NOT exceed that shown on the curve board.

Exception: Standard and 88-seater articulated railcars may exceed the curve board speed by 10 per cent in areas where maximum speeds of 60 miles per hour are authorised for railcars.

Although a curve board may show a higher speed, in no case may a train exceed the speed authorised in the schedule of maximum speeds for the particular type of locomotive or train, over the section of track where the curve is situated.

TURNING Da, Db, AND Di CLASS LOCOMOTIVES

Da, Db, and Di class locomotives may run with either the short hood or the long hood leading.

EXCEPTION—Da, Db, and Di class locomotives are to be run short hood leading through the Rimutaka tunnel.

If, after completing a run, a Da, Db, or Di class locomotive is required to work a return service, it may be turned to permit the run to be made with the short hood leading, provided the time occupied in turning the locomotive will not delay any train, hold up shunting or otherwise disorganise operations.

LOCOMOTIVE LOADS

Subject to the instructions regarding "Maximum Number of Vehicles on Trains", the goods and passenger train loads for the various classes of locomotives over the specified sections are as follows:

In ordinary circumstances the loads specified in the locomotive schedules should be taken and the scheduled goods load must not be exceeded.

In exceptional circumstances the scheduled loads may be reduced by the enginedriver. In cases where rail conditions are known to be adverse the scheduled goods load may be reduced by 20 percent on the request of the enginedriver. All cases of load reduction must be reported by the guard.

The scheduled loads for express trains (passenger or goods) will be the authorised passenger train load for the section concerned unless otherwise provided.

EXCEPTIONS:

The scheduled load for an express goods train hauled by a Da class locomotive from Auckland to Kakahi, from National Park to Wellington and from Wellington to Auckland will be 500 tons.

(Down trains conveying a through load of more than 380 tons but not exceeding 500 tons require a banking locomotive from Kakahi to National Park.)

The scheduled load for an express goods train in the following areas will be the scheduled goods train load for the section concerned.

Between Tauranga and Hawkens
Mt Maunganui Branch
Kawerau Branch
Murupara Branch

To ensure that adequate brake power is available at speed, express goods trains must not exceed an average weight of 29 tons per vehicle excluding the locomotives and any Ul, Urc, Us or Zp wagons which classes have adequate brake power when fully loaded. The speed of express goods trains exceeding this weight must be restricted to 40 miles per hour in accordance with the instructions contained in the "Schedule of maximum speeds and exceptions thereto (Rule 154)" on page 249.

Trains hauled by multiple locomotives—The loads of trains hauled by multiple locomotives will be computed as follows:

When a train is worked by more than one locomotive, the maximum load will be the combined scheduled loads for each locomotive with a maximum load of 1500 tons, except when the schedule load of any one of the locomotives exceeds 1500 tons in which case the load of that one locomotive will be deemed the maximum load of the train.

13. WHANGAEHU RIVER FLOOD WARNING DEVICE : PROTECTION OF BRIDGE No. 136 AT 234 MILES 20 CHAINS (BETWEEN KARIOI AND TANGIWAI)

A flood warning device is erected in the Whangaehu River bed 7 miles upstream from Bridge No. 136 at 234 miles 20 chains (between Karioi and Tangiwai).

Special instructions covering the use and testing of this device are posted in the Train Control Office at Ohakune and at Waiouru station.

The warning device is connected to a panel at the Waiouru station and to the C.T.C. panel at Ohakune which indicate when the river is rising and five levels of water in the river bed. It also operates an audible warning device in the Ohakune Train Control Office when the "River Rising" indication is illuminated and upon each change in water level.

PROCEDURE TO BE ADOPTED ON RECEIPT OF WARNINGS:

INDICATION	PROCEDURE
River Rising) Level 1)	To be noted in Mis.6a train register and recorded on train diagram.
Level 2	Crews of trains which must cross Bridge No. 136 to be advised. To be recorded as for Level 1.
Level 3	Crews of trains which must cross Bridge No. 136 to be instructed to keep a sharp lookout and reduce speed of train to 6 m.p.h. before passing over Bridge No. 136. To be recorded as above.
Level 4	Trains to be stopped and piloted over Bridge No. 136 by a member of the Way and Works Branch. To be recorded as above and District Engineer to be advised.
Level 5	STOP ALL TRAFFIC FROM PASSING OVER BRIDGE No. 136 UNTIL BRIDGE CERTIFIED SAFE FOR TRAFFIC BY FOREMAN OF WORKS OR BRIDGE INSPECTOR, OHAKUNE. To be recorded as above and District Engineer to be advised.

Turnouts—The speed of all trains through the curved roads of turnouts must NOT exceed 15 miles per hour unless a higher speed is authorised in the schedule of maximum speeds.

Express Goods Trains—When the load of an express goods train exceeds an average weight of 29 tons per vehicle, excluding the locomotives and any Ul, Urc, Us, or Zp wagons, the speed of such train must NOT exceed 40 miles per hour on any section of the track where higher speeds are authorised. The guard will be responsible for informing the enginedriver where the load necessitates the train being run at reduced speed.

The speed of express goods trains conveying Ul or Url wagons loaded with logs must NOT exceed 40 miles per hour.

Goods Trains Conveying Coil spring Four-wheeled Wagons—The speed of trains conveying coil spring four-wheeled wagons must NOT exceed 30 miles per hour. When such wagons are included in a train at the starting station, the train examiner (or guard, if a train examiner is not available) must inform the enginedriver accordingly. When a coil spring four-wheeled wagon is attached to a train en route, the guard must inform the enginedriver.

Ed Locomotives—Must NOT exceed a maximum speed of 40 miles per hour. When running light, must NOT exceed a maximum speed of 30 miles per hour.

Da locomotives—Must NOT exceed a maximum speed of 40 miles per hour.

Except (i) Da locomotives may operate up to the speeds authorised for express and passenger trains on the following sections:
Newmarket - Kaukapakapa
Auckland - Wellington (via Orakei or Newmarket and Main Trunk).
Tauranga - Hawkens
Aramoho - Marton
Ashhurst - Palmerston North
Masterton - Wellington

(ii) Locomotives Da 1400 to 1412 inclusive must NOT exceed authorised goods train speeds and through curved roads of ANY turnout must NOT exceed 15 miles per hour.

De locomotives—Must NOT exceed a maximum speed of 45 miles per hour.

Except (i) De locomotives may operate up to the speeds authorised for express and passenger trains on the following sections:
Newmarket - Kaukapakapa
Auckland - Paekakariki (Via Orakei or Newmarket and Main Trunk)
Masterton - Wellington

(ii) When running with cab end leading in suburban areas must NOT exceed 10 miles per hour over level crossings.

(iii) When running with cab end leading in other than suburban areas must NOT exceed the speeds in the following schedule:

	Maximum Allowable Speeds		
On straights and curves where authorised speeds are 35 miles per hour and over	On curves where authorised speeds are under 35 miles per hour	After dark on unfenced lines	Over level crossings
m.p.h. 20	m.p.h. 15	m.p.h. 15	m.p.h. 10

Dsb Locomotives—Dsb locomotives must NOT exceed a maximum speed of 20 miles per hour.

Dsc Locomotives—The maximum speeds for Dsc locomotives shall be as shown below:
When running light in either direction or when working trains—40 miles per hour.
When being towed dead—Goods train speed.

Multiple-unit Electric Trains—Must NOT exceed a maximum speed of 50 miles per hour.

Flooded areas—Trains are permitted to run through flooded areas provided the track is safe and the water level does not exceed that specified hereunder. The speed of any train through a flooded area must NOT exceed that specified hereunder.

Group	Type of Locomotive or Vehicle	Depth of Water Measured From Top of Rail to Water Level	Maximum Permissible Speed in Miles per Hour
A	Diesel-mechanical locomotives Railcars All other vehicles not shown in Group B	6 inches	4
B	All electric locomotives All electric multiple-unit trains All diesel-electric locomotives	Top of rails must be clear of water	4

Passenger Trains Running on Lines on Which Goods Trains Normally Run—On lines where normally only goods trains are run authority must be obtained from the District Engineer before any passenger train is run.

Special Trips by Railcars—Should a railcar be run for some special purpose on any line for which the railcar speed has not been shown in the following "Schedule of Maximum Speeds" the speed of such railcar must be restricted to that authorised for express and passenger trains, unless prior authority has been obtained from the District Engineer.

Railcars: Temporary Speed Restrictions (Rule 229)—Where a temporary speed restriction to less than 10 miles per hour is imposed, railcars may travel at 10 miles per hour, except that where "Dead Slow" notices are exhibited, the speed of railcars must be reduced accordingly.

Standard and 88-seater Articulated Railcars—In areas where a maximum speed of 60 miles per hour is authorised for rail cars, these railcars may exceed the curve board speeds by 10 per cent, but in no case may the speed exceed 60 miles per hour.

Railcars Towed by Other Than Railcars—When it is necessary to tow a railcar with a locomotive, the train pipe on the locomotive and the emergency pipe on the railcar shall be coupled together.

If carrying passengers 88 seater articulated railcars may be towed at a speed not exceeding 30 miles per hour, but without passengers, the railcars may be towed at normal operating speeds.

Standard and Vulcan railcars, however, with or without passengers, must not be towed at a speed exceeding 20 miles per hour.

In all cases when it is necessary for a railcar to be towed, a driver or depot fitter must travel in the railcar.

When a railcar is towed at the rear of a train, speed must not exceed 20 miles per hour.

Conveyance of Diesel Mechanical and Diesel Hydraulic Shunting Locomotives or Tractors on trains—Diesel mechanical or diesel hydraulic locomotives or tractors must have the side rods removed when being conveyed by a train. When fitted with train pipes they are to be marshalled at the front of the train, separated from the train locomotive by a runner in accordance with Rule 139, and in these circumstances it will not be necessary for a member of the staff to ride in the cab of the locomotive or tractor being hauled; Inspections *en route* will be made by the enginedriver of the train. Locomotives or tractors not fitted with train pipes,or which cannot be marshalled at the front of a train because of a defect must be attached as last vehicle on the train and a fitter or competent locomotive member must ride in the cab.

When being conveyed the following maximum speeds will apply:

All Ds, Dsa, and Dsb locomotives	25 m.p.h.
TR 150–176	25 m.p.h.
TR 100–118	20 m.p.h.
TR 13–18, 20–36, 38, 54, 60–64, 67, 81	15 m.p.h.

If in order to clear the main line, it is necessary to haul any of the shunting locomotives or tractors enumerated above with the side rods in place, the maximum speed is 15 m.p.h., and a competent locomotive member must ride in the cab.

In all instances when locomotives or tractors are being conveyed, the enginedriver must be advised and he will be responsible for ensuring that side rods and axleboxes, in the case of plain bearings, are adequately lubricated.

The procedure to be adopted for the various levels must be maintained for a period of two hours after the appropriate flood level indication falls to ensure that the flood level at the point seven miles upstream has reached Bridge No. 136 before the appropriate precautionary measure is relaxed.

NOTE: It is important that any trains between Ohakune and Waiouru which must cross the bridge should be notified as soon as possible of the appropriate level warnings.

Stationmaster, Waiouru **MUST** advise Train Control, Ohakune, **IMMEDIATELY** of any change of indication, either up or down. The Train Control Operator must in turn record such information on the train diagram.

When staff at Waiouru commence duty, any flood indications **MUST** be immediately reported to Train Control.

Train Control Operator, Ohakune, will be responsible for issuing the appropriate instructions to train crews and for arranging piloting etc., as necessary.

DISPATCH OF TRAINS FROM KARIOI AND TANGIWAI

UNDER LOCAL CONTROL WORKING PERMISSION MUST FIRST BE OBTAINED from Train Control, Ohakune before any "Down" train is dispatched from Karioi or any "Up" train is dispatched from Tangiwai.

"Wanted Winker" lights are situated as follows:—

One mounted on a telephone shelter approximately 110 yards north of No. 8RA "Up" Departure from Main Signal at Tangiwai.

One at the north end of Bridge No. 136.

Twin indicators at 233 miles 72 chains (between Karioi and Bridge No. 136).

The selection of "Wanted Winkers" at 233 miles 72 chains by the Train Control Operator, Ohakune, will place at "Stop" the Departure signals at both ends of the Karioi – Tangiwai block section and intermediate signal No. 23371.

To obviate the possibility of a train entering upon the bridge when dangerous conditions obtain, the Train Control Operator **MUST** place at "Stop" the Departure signals at **KARIOI** and **TANGIWAI** and communicate with the train crew by selecting the required "Wanted Winker" light.

Staff concerned must keep a sharp lookout for "Wanted Winker" lights.

EMERGENCY C.T.C. CODE TO TANGIWAI

An emergency C.T.C. Code is available to the Train Control Operator at Ohakune. This code when transmitted will put the Departure signals at both ends of the block section and Intermediate signal No. 23371 at "Stop".

EMERGENCY ISOLATOR BUTTONS : BRIDGE No. 136

Emergency isolator buttons have been provided at both ends of Bridge No. 136. The operation of either button will immediately place the Departure signals at both ends of the Karioi – Tangiwai section and Intermediate signal No. 23371 at "Stop".

FAILURE OF C.T.C. OR FLOOD WARNING DEVICE

In the event of the C.T.C. system becoming unservicable the Departure signals at each end of the Karioi – Tangiwai section and Intermediate signal No. 23371 will revert to "Stop" (if cleared) within 30 seconds.

Any failure or irregular operation of the flood warning device, must be immediately reported to the Mechanician, Ohakune. Train Control must also arrange for a member of the Way and Works Branch to patrol Bridge No. 136 until such time as the Flood Warning Device is certified by the Mechanician, Ohakune, to be operating efficiently.

ADVICE TO OTHER INTERESTED BODIES

Upon receipt of a Level 1 indication the Train Control Operator, Ohakune, is to arrange for the Rangitikei Catchment Board, Marton, to be notified.

When the warning device indicates that flood water has risen to level 5, the Train Control Operator, Ohakune **MUST** advise District Engineer, the Ministry of Works, Waiouru, Camp Commandant, Waiouru Military Camp and the Waimarino County Council, Raetihi.