# Rail Operating Code

## Section 6 - Locomotive Load Schedules

Publication date 10 Dec, 2024

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# 6.1 Hamilton North and Bay of Plenty

All schedules are shown in tonnes and are for the trailing train (not including live locomotives).

The Max Load column shows the maximum allowable train tonnage for hook and pin drawgear.

## 1. North Auckland Line

| From | To | Max Load | DSC | DH or DSG | DC | DFB | DX Series | DL |
|---|---|---|---|---|---|---|---|---|
| Westfield | Penrose | 1320 | 180 | 440 | 560 | 920 | 920 | 1000 |
| Penrose | Henderson | 1130 | 150 | 380 | 510 | 800 | 800 | 900 |
| Henderson | Helensville | 1470 | - | 580 | 730 | 1190 | 1200 | 1300 |
| Helensville | Kaipara Flats | 1130 | - | 370 | 470 | 780 | 780 | 900 |
| Kaipara Flats | Portland | 1250 | - | 480 | 610 | 1000 | 1000 | 1000 |
| Portland | Whangarei | 2000 | 500 | 1000 | 1650 | 2000 | 2000 | 2000 |
| Whangarei | Kamo | 1300 | 140 | 410 | 520 | 850 | 860 | - |
| Kamo | Otiria | 1300 | 170 | 490 | 620 | 1020 | 1020 | - |
| **From** | **To** | | | | | | | |
| Otiria | Whangarei | 1300 | 160 | 430 | 550 | 890 | 890 | - |
| Whangarei | Portland | 2000 | 400 | 940 | 1210 | 1910 | 1910 | 1950 |
| Portland | Kaipara Flats | 1300 | - | 290 | 610 | 1000 | 1000 | 1000 |
| Kaipara Flats | Helensville | 1300 | - | 290 | 490 | 810 | 810 | 940 |
| Helensville | Henderson | 1330 | - | 290 | 660 | 1070 | 1080 | 1080 |
| Henderson | Penrose | #1300 | 150 | 390 | 510 | 800 | 800 | 850 |
| Penrose | Westfield | 2000 | 800 | 1170 | 1320 | 2000 | 2000 | 2000 |

| From | To | Max Load | 2DC | DFB + DC | 2DX, 2DFB or DX + DFB | 3DC | DL + DC | DL + DFB | 2DL |
|---|---|---|---|---|---|---|---|---|---|
| Westfield | Penrose | 1320 | - | 1320 | 1320 | 1320 | 1320 | 1600 | 1990 |
| Penrose | Newmarket | 1130 | - | 1050 | 1130 | 1130 | 1200 | 1450 | 1800 |
| Newmarket | Henderson | 1130 | - | 1100 | 1130 | 1130 | 1150 | 1350 | &1750 |
| Henderson | Helensville | 1470 | - | 1470 | 1470 | 1470 | 1600 | 2050 | 2300 |
| Helensville | Kaipara Flats | 1130 | - | 1100 | 1130 | 1130 | 1200 | 1500 | 1900 |
| Kaipara Flats | Portland | 1250 | - | 1200 | 1250 | 1250 | 1350 | 1650 | 2050 |
| Portland | Whangarei | 2000 | - | 2000 | 2000 | 2000 | 2000 | 2050 | 2300 |
| Whangarei | Kamo | 1300 | 900 | 1130 | 1300 | 1300 | - | - | - |
| Kamo | Otiria | 1300 | 900 | 1400 | 1700 | 1300 | - | - | - |
| **From** | **To** | | | | | | | | |
| Otiria | Whangarei | 1300 | 900 | 1300 | 1700 | 1300 | - | - | - |
| Whangarei | Portland | 2000 | - | 2000 | 2000 | 2000 | 2000 | 2000 | 2300 |
| Portland | Kaipara Flats | 1300 | - | 1300 | @1350 | 1300 | #1350 | &1650 | 2050 |
| Kaipara Flats | Helensville | 1300 | - | 1300 | @1350 | 1300 | 1300 | &1530 | 1900 |
| Helensville | Henderson | 1330 | - | 1330 | @1350 | 1330 | 1500 | &1650 | 2400 |
| Henderson | Newmarket | 1100 | - | 1100 | @1350 | #1300 | #1300 | &1390 | &1750 |
| Newmarket | Penrose | 1100 | - | 1100 | @1350 | #1300 | #1300 | &1390 | &1750 |
| Penrose | Westfield | 2000 | - | 2000 | 2000 | 2000 | 2000 | 2000 | 2400 |

**# to run 1300 tonnes (NAL - Whangarei to Westfield):**

 

- 1300 tonnes only applies for 3DC or DL+DC under special conditions
- Refer ROC S1.4 Motive Power Restrictions 5. Descending Grades
- DXB, DXC, DFT or DFB locomotives may be substituted on a one for one basis for any of the DCs
- The first 200 tonne must be fully loaded, and fitted with auto couplers
- The locomotive coupling onto the wagons must be fitted with auto couplers
- Hook and Pin couplers may be used between the locomotives

**@ to run 1350 tonnes (NAL - Whangarei to Westfield):**

- The first 250 tonne must be fully loaded and fitted with auto couplers

**& For loads between 1350 and 1750 tonnes on the ruling grades:**

- The leading 600 tonnes must be on IAB, IH, IK, IL or IBB wagons or wagons fitted with Type 22 bogies which are loaded to 50 tonnes minimum
- The second 600 tonnes must be on auto coupler wagons loaded to at least 30 tonnes
- The last 550 tonnes can be loaded as required.

# 2. Dargaville Branch

LINE LEASED - RESERVED FOR FUTURE USE

# 3. Onehunga Branch

| From | To | Max Load | DSC | DH, DSG | DC |
|---|---|---|---|---|---|
| Penrose | Onehunga | 2000 | 650 | 800 | 1200 |
| Onehunga | Penrose | 1240 | 260 | 490 | 560 |

# 4. Auckland - Newmarket Line

| From | To | Max Load | DSC | DH, DSG, DSJ | DC | DFT | DFB | DXB, DXC, DXR | DL |
|---|---|---|---|---|---|---|---|---|---|
| Auckland Station | Newmarket | 1100 | 120 | 330 | 370 | 660 | 750 | 840 | 840 |
| Newmarket | Auckland Station | 1100 | 150 | 380 | 430 | 730 | 800 | 840 | 880 |

| From | To | Max Load | DFT + DC | DFB + DC | DL + DC | 2DFB or DX + DFB | 3DC | DL + DFB | 2DL |
|---|---|---|---|---|---|---|---|---|---|
| Auckland Station | Newmarket | 1100 | 1020 | 1130 | 1250 | 1350 | 1350 | 1550 | 1950 |
| Newmarket | Auckland Station | 1100 | 1020 | 1130 | 1250 | 1350 | 1350 | 1550 | 1950 |

# to run 1300 tonnes (Newmarket to Westfield via Waterfront):

- 1300 tonnes applies for 3DC under special conditions, refer ROC S1.4 Motive Power Restrictions 5. Descending Grades
- DXB, DXC, DFT or DFB locomotives may be substituted on a one for one basis for any of the DCs
- The first 200 tonne must be fully loaded, and fitted with auto couplers
- The 3rd locomotive on the consist must couple to the wagons with an auto coupler
- Hook and Pin couplers may be used between the locomotives

& to run 1300 tonnes:

 

- 1300 tonnes applies for a DL+DC under special conditions, refer ROC S1.4 Motive Power Restrictions 5. Descending Grades
- The leading 200 tonnes must be on wagons fitted with auto couplers.
- The locomotive coupling onto the wagons must be fitted with auto couplers.

# 5. Auckland - Hamilton

| From | To | Max Load | DSC | DH, DSG, DSJ | DC | DFT | DFB |
|---|---|---|---|---|---|---|---|
| Auckland Station | Papakura | 2600 | 450 | 1170 | 1220 | 2000 | 2200 |
| Papakura | Mercer | 2600 | 320 | 860 | 1100 | 1700 | 1870 |
| Mercer | Hamilton | 2600 | 500 | 1250 | 1500 | 2000 | 2200 |

| From | To | Max Load | DXB, DXR, DL | DX + DC | 3DC | 2DX | DX + DFT |
|---|---|---|---|---|---|---|---|
| Auckland Station | Papakura | 2600 | 2250 | 2600 | 2600 | 2600 | 2600 |
| Papakura | Mercer | 2600 | 2000 | 2600 | 2600 | 2600 | 2600 |
| Mercer | Hamilton | 2600 | 2250 | 2600 | 2600 | 2600 | 2600 |

| From | To | Max Load | DSC | DH, DSG, DSJ | DC | DFT | DFB |
|---|---|---|---|---|---|---|---|
| Hamilton | Mercer | 2600 | 500 | 1250 | 1500 | 2000 | 2200 |
| Mercer | Otahuhu | 2600 | 320 | 870 | 1100 | 1700 | 1870 |
| Otahuhu | Auckland Station | 2600 | 450 | 1190 | 1200 | 2000 | 2200 |

| From | To | Max Load | DXB, DXR, DL | DX + DC | 3DC | 2DX | DX + DFT |
|---|---|---|---|---|---|---|---|
| Hamilton | Mercer | 2600 | 2250 | 2600 | 2600 | 2600 | 2600 |
| Mercer | Otahuhu | 2600 | 2000 | 2600 | 2600 | 2600 | 2600 |
| Otahuhu | Auckland Station | 2600 | 2250 | 2600 | 2600 | 2600 | 2600 |

# 6. Mission Bush Branch, Rotowaro Branch, ECMT And Branches

## 6.1 Mission Bush Branch

| From | To | Max Load | DSC | DH, DSG | DC | DX or DFT | DFB | DXB or DXR |
|---|---|---|---|---|---|---|---|---|
| Paerata | Mission Bush | 1650 | 510 | 510 | 730 | 1040 | 1140 | 1140 |
| #Paerata | Mission Bush | 1510 | 490 | 490 | 620 | 930 | 1020 | 1020 |
| **From** | **To** | | | | | | | |
| Mission Bush | Paerata | 2280 | 750 | 750 | 1020 | 1450 | 1590 | 1600 |

| From | To | Max Load | DX + DC | 3DC | 2DX or 2DL | DL | DL + DC | 2DC |
|---|---|---|---|---|---|---|---|---|
| Paerata | Mission Bush | 1650 | 1600 | 1650 | 1650 | 1520 | 1650 | - |
| #Paerata | Mission Bush | 1510 | 1420 | 1510 | 1510 | 1350 | 1510 | - |
| **From** | **To** | | | | | | | |
| Mission Bush | Paerata | 2280 | 2280 | 2280 | 2280 | 1850 | 2280 | 1440 |

 

# This applies if there are not clear signals from Pukekohe to Glenbrook, also if there is a temporary speed restriction of less than 30 km/h between 0.00 km and 2.00 km on the Mission Bush Branch. No attempt is to be made to restart it. It must set back to the NIMT in accordance with the procedure set out in the Rules

## 6.2 Rotowaro Branch

| From | To | Max Load | DSC | DH, DSG | DC | DX, DFT | DXB or DXR | DFT or DFB + DC | DL |
|---|---|---|---|---|---|---|---|---|---|
| Huntly | Rotowaro | 2000 | 300 | 700 | 850 | 1250 | 1380 | 2000 | 2000 |
| Rotowaro | Huntly | 2600 | 550 | 1160 | 1350 | 2000 | 2200 | 2100 | 2200 |

## 6.3 East Coast Main Trunk

| From | To | Max Load | DSC | DH or DSG | DC | DX or DFT | DFB | DXB or DXR |
|---|---|---|---|---|---|---|---|---|
| Te Rapa | Morrinsville | 2500 | 600 | 1250 | 2200 | 2000 | 2200 | 2440 |
| (a) Hamilton | Claudelands | 2500 | 350 | 730 | 1540 | 2000 | 2200 | 2440 |
| (b) " | " | 2500 | 400 | 780 | 1540 | 2000 | 2200 | 2440 |
| Morrinsville | Waharoa | 2500 | 420 | 1030 | 1540 | 2000 | 2200 | 2440 |
| Waharoa | Tauranga | (f) 2500 | 450 | 850 | 1540 | 2200 | 2200 | 2440 |
| (c) " | " | (f) 2500 | 370 | 850 | 1270 | 1650 | 1810 | 2010 |
| (d) " | " | (f) 2500 | 350 | 800 | 1120 | 1500 | 1650 | 2000 |
| (e) " | " | 2350 | 330 | 760 | 990 | 1420 | 1560 | 2000 |
| Tauranga | Te Maunga | 2500 | 500 | 900 | 1760 | 2100 | 2310 | 2500 |
| Te Maunga | Kawerau | 2500 | 500 | 1200 | 1430 | 2100 | 2310 | 2500 |
| **From** | **To** | | | | | | | |
| Kawerau | Te Maunga | (g) 2500 | 500 | 1200 | 1980 | 2500 | 2500 | 2500 |
| Te Maunga | Tauranga | 2500 | 500 | 1400 | 1980 | 2500 | 2500 | 2500 |
| Tauranga | Waharoa | 2370 | 280 | 760 | 990 | 1420 | 1560 | 2000 |
| Waharoa | Te Rapa | 2500 | 600 | 1200 | 1980 | 2000 | 2200 | 2440 |

| From | To | Max Load | DX + DC | 2DC | 2DFT/DX or 3DC | DL |
|---|---|---|---|---|---|---|
| Te Rapa | Morrinsville | 2500 | 2500 | 2500 | 2500 | 2500 |
| (a) Hamilton | Claudelands | 2500 | 2500 | 2500 | 2500 | 2500 |
| (b) " | " | 2500 | 2500 | 2500 | 2500 | 2500 |
| Morrinsville | Waharoa | 2500 | 2500 | 2500 | 2500 | 2500 |
| Waharoa | Tauranga | (f) 2500 | 2500 | 2500 | 2500 | 2500 |
| (c) " | " | (f) 2500 | 2500 | 2500 | 2500 | 2010 |
| (d) " | " | (f) 2500 | 2500 | 2180 | 2500 | 2000 |
| (e) " | " | 2350 | 2200 | 1900 | 2350 | 2000 |
| Tauranga | Te Maunga | 2500 | 2500 | 2500 | 2500 | 2500 |
| Te Maunga | Kawerau | 2500 | 2500 | 2500 | 2500 | 2500 |
| **From** | **To** | | | | | |
| Kawerau | Te Maunga | (g) 2500 | 2800 | 2500 | 2800 | (g) 2800 |
| Te Maunga | Tauranga | 2500 | 2500 | 2500 | 2500 | 2500 |
| Tauranga | Waharoa | 2370 | 2200 | 1800 | 2500 | 2000 |
| Waharoa | Te Rapa | 2500 | 2500 | 2500 | 2500 | 2440 |

a. If there is a temporary speed restriction of 25 km/h or less over Bridge No. 6.
b. If there is a temporary speed restriction of 40 km/h or less over Bridge No. 6.

 

c. If there are temporary speed restrictions of less than 50 km/h between 79.30km and 81.50km or between 83.20 km and 85.30 km.
d. If there are temporary speed restrictions of less than 40 km/h between 79.30km and 81.50km or between 83.20 km and 85.30 km.
e. If there are temporary speed restrictions of less than 25 km/h between 79.30km and 81.50km or between 83.20 km and 85.30 km.
f. 2500 tonnes provided tonnage in excess of 2300 tonnes consists of wagons with automatic couplers marshalled at the head of the train.
g. 2800 tonnes provided the wagons have automatic couplers. At a minimum the first 300 tonnes must be autocouplers.

## 6.4 Mt Maunganui Branch

| From | To | Max Load | DSC | DH, DSG | DC | DX, DFT | DXB, DXR or DL |
|---|---|---|---|---|---|---|---|
| Te Maunga | Mt Maunganui | +2500 | 800 | 1700 | 2200 | 2500 | +2800 |
| Mt Maunganui | Te Maunga | +2500 | 700 | 1500 | 1980 | 2100 | 2310 |

+ 2800 tonnes provided the wagons have automatic couplers.

## 6.5 Hautapu Branch

| Between | | Max Load | DSC | DSG | DC | 2DC |
|---|---|---|---|---|---|---|
| Ruakura | Hautapu | 2500 | 600 | 1100 | 1200 | 2400 |

## 6.6 Waitoa Branch

| Between | | Max Load | DSC | DSG | DC | 2DC |
|---|---|---|---|---|---|---|
| Morrinsville | Waitoa | 2200 | - | - | 1100 | 2200 |

## 6.7 Kinleith Branch

| From | To | Max Load | DH, DSG | DC | DX, DFT | DFB | DXB or DXR | DL |
|---|---|---|---|---|---|---|---|---|
| Waharoa | Putaruru | 2000 | 700 | 930 | 1300 | 1430 | 1430 | 1430 |
| Putaruru | Kinleith | 1700 | 550 | 730 | 900 | 900 | 990 | 990 |
| **From** | **To** | | | | | | | |
| Kinleith | Waharoa | 2500 | 1000 | 1980 | 2200 | 2200 | 2420 | 2450 |

## 6.8 Rotorua Branch

LINE CLOSED - RESERVED FOR FUTURE USE

## 6.9 Taneatua Branch

LINE CLOSED - RESERVED FOR FUTURE USE

## 6.10 Murupara Branch

| From | To | Max Load | DC | DFT | DFB | DXB |
|---|---|---|---|---|---|---|
| Kawerau | Murupara | 1100 | 440 | 460 | 500 | 510 |
| **From** | **To** | | | | | |
| *Murupara | Kawerau | #1500 | 880 | 920 | 1010 | 1010 |

| From | To | Max Load | 3DC | DL | 2DL or 2DX | DL or DX + DFT/DFB | DL or DX + DC |
|---|---|---|---|---|---|---|---|
| Kawerau | Murupara | 1100 | 1100 | 1000 | 1100 | 1100 | 1100 |
| **From** | **To** | | | | | | |
| *Murupara | Kawerau | #1500 | #1500 | #1500 | %#1650 | %#1650 | %#1650 |

* Refer to ROC S1.4 Motive Power Restrictions 5. Descending Grades

# Tonnage in excess of 1100 tonnes must:

- Consist of wagons with automatic couplers marshalled at the head of the train.
- Have a train size not exceeding 30 wagons

% Tonnage in excess of 1400 tonnes must:

- DL or DX Class, plus either of the following locomotives – DF Class, DL, DX Class, or DC
- Releasing speed is 0 km/h (stationary) until after the air brake system has fully recharged. - Air and dynamic brakes must be operating on all locomotives.
- Maximum speed descending Matahina and Tahuna Banks gradients must not exceed 40 km/h.

| From | To | Max Load | DL + 2DC | 2DL |
|---|---|---|---|---|
| Kawerau | Murupara | 1100 | 1100 | 1100 |
| **From** | **To** | | | |
| *Murupara | Kawerau | @2150 | 2150 | 2150 |

@ to run 2150 tonnes:

- Only applies for DL + 2DC or 2DL under special conditions, refer ROC S1.4 Motive Power Restrictions 5. Descending Grades
- Train size to be the lesser of 2150 tonnes or 45 wagons or 750m total wagon length
- The first 1050 tonnes must be auto couplers
- DFTs, DXs, can be used in place of a DC
- Releasing speed is 0 km/h (stationary) until after the air brake system has fully recharged
- Air and dynamic brakes must be operating on all locomotives
- Maximum speed descending Matahina and Tahuna Banks gradients must not exceed 40 km/h

# 7. Revisions

| Version | Date | Change Description |
|---|---|---|
| 2 | 29-Nov-07 | NAL added 1,100 tonnes for a DC + DFT combo, 730 tonnes for DFT, From Henderson to Penrose |
| 3 | 4-Dec-07 | ECMT between Hamilton and Claudelands the load schedule has changed when there is a speed restriction on bridge 6 to the following: > DC or DAR = 1,400 tonnes > DBR = 970 tonnes > ZTR DC = 1,540 tonnes |
| 4 | 6-Dec-07 | New Load Schedule on ECMT for DXR and DXB locomotives |
| 5 | 21-Jan-08 | Multiple locomotive combinations added for Newmarket Line |
| 6 | 13-Mar-08 | Revision table added. DXB, C, R schedule added between Hamilton and Auckland Station on NIMT. Reference to Maxi DFT changed to DFM and DFB. File version published as pdf. Rotowaro Branch, DFT/M/B + DC schedule added. |
| 7 | 8-Sep-08 | KiwiRail Logo Added |
| 8 | 6-Sep-10 | New Load Schedule on NAL, Auckland - Newmarket, Mission Bush Branch, Rotowaro Industrial Line, Mt. Maunganui Branch, Kinleith Branch, Murupara Branch for single DXB locomotive. (SR) |
| 9 | 8-Sep-10 | Maxi DFT Removed, called DFB. DF removed, DQ/QR removed. DFM reduced to same as DFT. Columns put in loco and load order. DXR changed to new DXB schedule. DXC removed from North Island schedules. (SR) |
| 10 | 4-Apr-11 | Add preliminary DL schedule same as DXB (SR). Huntly - Rotowaro for DF*+DC corrected back to 2000 tonne from 2100 (TM) |

 

| Version | Date | Change Description |
|---|---|---|
| 11 | 6-May-11 | Adjusted DL ECMT & Kinleith Branch Load Schedules (SR). |
| 12 | 7-Nov-11 | Updated DL load schedules for DL, Mission Bush, Murupara, North Island Main Trunk (Hamilton - Auckland) & Rotowaro. (SR) |
| 13 | 27-Jan-12 | Auckland-Newmarket Line (NEW) load schedules updated due to change in grade |
| 14 | 21-May-12 | ECMT between Kawerau - Te Maunga lifted to 2800 tonnes provided the wagons have autocouplers, schedule for Otamarakau removed. Mission Bush - Paerata DL schedule reduced. (SR) |
| 15 | 13-Jun-12 | Murupara Branch: Murupara to Kawerau, Maximum Tonnage set as 1400 tonnes as per updated Descending Grades Limit. One exception of 1650 added for 2 Locomotives. |
| 16 | 17-Oct-12 | Special Load Schedule for 40 wagons / 1900 Tonnes added to Murupara Branch (SR) |
| 17 | 2-Nov-12 | DL Mission Bush - Paerata & Paerata - Mission Bush adjusted. DL+DC added SR |
| 18 | 29-Jul-13 | Special Load Schedule 2150 tonnes/45 wagons added for Murupara branch. |
| 19 | 21-Oct-15 | Add Load Schedule for Waitoa Branch, added DC load for Cambridge Line, reduce DL load Kinleith, add 2DC Mission Bush to Paerata |
| 20 | 10-Nov-15 | Add Load Schedule for 3 DC NAL / Newmarket to Auckland for 1300 tonne |
| 21 | 20-Nov-15 | Murupara Branch: reduce max load for 1 DL down to 1300 tonne |
| 22 | 22-Jan-16 | Kinleith Branch: maximum load DL to 2450 tonne |
| 23 | 22-Jul-16 | Murupara Branch: increase max load for 1 DL up to 1500 tonne |
| 24 | 28-Jul-16 | Murupara Branch: increase maximum load and 3DCs ex MUPRA up to 1500 tonne, Single DL ex KWRAU up to 1000 tonne. Added 30 wagon maximum train size. Deleted Taneatua and Rotorua Branch Line Load Schedules |
| 25 | 23-Jun-17 | NAL: Increase maximum load for 2DFB, 2DX & DX+DFB to 1350 tonnes ECMT, corrected position of (f) annotations (2500T trains require 200T Heavy Drawgear wagons on the head) |
| 26 | 25-May-20 | Auckland - Newmarket: DL+DC Load Schedule Added NAL between Henderson & Penrose DC load schedule raised to 510T both directions References to DAR, DBR and ZTR DCs removed. DC Load Schedules updated to reflect ZTR DC Schedules (no non-ZTR DCs in Operation). Dargaville, Onehunga, Rotowaro and Cambridge Industrial Lines updated to the correct Branch names |
| 27 | 10-Sep-20 | NAL: DL+DC Load Schedule of 1300T added for Westfield - Newmarket both ways NAL Max load for Hook & Pin wagons corrected for Portland to Penrose. (Was increased in error) |
| 28 | 1-Mar-21 | Express Freight Load Schedules removed |
| 29 | 31-May-21 | Mission Bush Branch: 2DL Load Schedule added |
| 30 | 20-Jan-23 | NAL Load Schedule amended following line upgrade to 18T Auckland - Newmarket Line following Engineering review |
| 31 | 14-Jun-24 | NAL: 2DC load schedule added for WREI-OTRIA in both directions Dargaville Branch status changed to Line Leased - Reserved for Future Use |

 

# 6.2 South of Hamilton

All schedules are shown in tonnes and are for the trailing train (not including live locomotives).

The Max Load column shows the maximum allowable train tonnage for hook and pin drawgear.

## 1. North Island Main Trunk

### 1.1 Hamilton - Wellington

| From | To | Max Load | DSC | DH, DSG, DSJ | DC | DFT | DFB | DXB, DXC, DXR | DL | DFB + DC |
|---|---|---|---|---|---|---|---|---|---|---|
| Hamilton | Te Awamutu | 2070 | 220 | 660 | 990 | 1500 | 1650 | 1750 | 1850 | - |
| Te Awamutu | Te Kuiti | 2070 | 220 | 660 | 990 | 1500 | 1650 | 1750 | 1850 | - |
| Te Kuiti | Taumarunui | 1700 | 190 | 540 | 710 | 950 | 1040 | 1120 | 1200 | - |
| Taumarunui | Kakahi | 1760 | 240 | 560 | 710 | 1050 | 1150 | 1220 | 1300 | - |
| Kakahi | National Park | 1400 | - | - | 460 | 720 | 790 | 840 | 900 | - |
| National Park | Ohakune | 1700 | - | - | 710 | 1000 | 1100 | 1160 | 1260 | - |
| Ohakune | Tangiwai | 1800 | - | - | 710 | 1050 | 1150 | 1120 | 1280 | - |
| Tangiwai | Waiouru | 1700 | - | - | 710 | 950 | 1040 | 1120 | 1200 | - |
| Waiouru | Taihape | 1700 | - | - | 820 | 1150 | 1260 | 1350 | 1440 | - |
| Taihape | Marton | 1920 | - | - | 710 | 1050 | 1150 | 1220 | 1300 | - |
| Marton | Feilding | 2040 | 280 | 640 | 830 | 1200 | 1320 | 1400 | 1500 | - |
| Feilding | Palmerston Nth | 2100 | 360 | 1100 | 1210 | 2000 | 2100 | 2100 | 2100 | - |
| Palmerston Nth | Koputaroa | 2600 | 300 | 850 | 1650 | 2000 | 2200 | 2300 | 2400 | 2500 |
| Koputaroa | Levin | 2400 | 300 | 850 | 1100 | 1500 | 1650 | 1760 | 1900 | 2400 |
| Levin | Paekakariki | 2600 | 300 | 850 | 1140 | 1600 | 1760 | 1880 | 2000 | 2500 |
| Paekakariki | Pukerua Bay | 1700 | 220 | 540 | 610 | 980 | 1070 | 1160 | 1240 | 1580 |
| Pukerua Bay | Wellington | 2400 | 220 | 540 | 1130 | 1600 | 1760 | 1760 | 1760 | 1580 |

| From | To | Max Load | DXB + DC | 2DXB, 2DXC, 2DXR | 3DC | DXB + DFT | DL + DC | 2DFT | 2DL |
|---|---|---|---|---|---|---|---|---|---|
| Hamilton | Te Awamutu | 2070 | 2000 | 2070 | 2070 | 2070 | 2070 | 1700 | 2070 |
| Te Awamutu | Te Kuiti | 2070 | 2000 | 2070 | 2070 | 2070 | 2070 | 1700 | 2070 |
| Te Kuiti | Taumarunui | 1700 | 1550 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Taumarunui | Kakahi | 1760 | 1600 | 1760 | 1760 | 1760 | 1760 | 1400 | 1760 |
| Kakahi | National Park | 1400 | 1160 | #1700 | 1260 | 1280 | 1250 | 1400 | #1700 |
| National Park | Ohakune | 1700 | 1550 | 1700 | 1700 | 1700 | 1620 | 1700 | @2000 |
| Ohakune | Tangiwai | 1800 | 1600 | 1800 | 1800 | 1800 | 1720 | 1700 | @2000 |
| Tangiwai | Waiouru | 1700 | 1550 | 1700 | 1700 | 1700 | 1620 | 1700 | @2000 |
| Waiouru | Taihape | 1700 | 1700 | 1700 | 1700 | 1700 | 1800 | 1700 | @2000 |
| Taihape | Marton | 1920 | 1780 | 1920 | 1920 | 1920 | 1780 | 1700 | @2000 |
| Marton | Feilding | 2040 | 1880 | 2040 | 2040 | 2040 | 1880 | 1900 | 2040 |
| Feilding | Palmerston Nth | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 1900 | 2100 |
| Palmerston Nth | Koputaroa | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |
| Koputaroa | Levin | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 |
| Levin | Paekakariki | 2600 | 2500 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |
| Paekakariki | Pukerua Bay | 1700 | 1500 | 1700 | 1680 | 1700 | 1700 | 1700 | 1700 |
| Pukerua Bay | Wellington | 2400 | 2400 | 2400 | 2400 | 2400 | 2150 | 2150 | 2400 |

 

| From | To | Max Load | DSC | DH, DSG, DSJ | DC | DFT | DFB | DXB, DXC, DXR | DL |
|---|---|---|---|---|---|---|---|---|---|
| Wellington | Plimmerton | 2400 | 200 | 550 | 1240 | 1760 | 1930 | 2060 | 2200 |
| Plimmerton | Paekakariki | 1700 | 200 | 550 | 630 | 950 | 1000 | 1050 | 1000 |
| Paekakariki | Otaki | 2600 | 280 | 790 | 1150 | 1700 | 1870 | 1980 | 2100 |
| Otaki | Manakau | 2400 | 280 | 790 | 990 | 1450 | 1590 | 1700 | 1800 |
| Manakau | Palmerston Nth | 2600 | 280 | 790 | 1150 | 1700 | 1870 | 1980 | 2100 |
| Palmerston Nth | Feilding | 2600 | 340 | 940 | 1150 | 1700 | 1870 | 1980 | 2100 |
| Feilding | Marton | 2070 | 260 | 630 | 840 | 1230 | 1350 | 1430 | 1520 |
| Marton | Taihape | 1950 | 260 | 630 | 770 | 1150 | 1260 | 1340 | 1420 |
| Taihape | Waiouru | 1700 | - | - | 630 | 950 | 1000 | 1050 | 1000 |
| Waiouru | National Park | 1700 | - | - | 690 | 1020 | 1120 | 1200 | 1280 |
| National Park | Kakahi | 1700 | - | - | 1300 | 1300 | 1300 | 1300 | 1300 |
| Kakahi | Taumarunui | 2400 | 550 | 1100 | 1320 | 1600 | 1760 | 1880 | 2000 |
| Taumarunui | Te Kuiti | 1700 | 240 | 540 | 770 | 1150 | 1260 | 1320 | 1400 |
| Te Kuiti | Otorohanga | 2600 | 550 | 1100 | 1650 | 2000 | 2200 | 2300 | 2400 |
| Otorohanga | Hamilton | 2400 | 200 | 650 | 1040 | 1500 | 1650 | 1720 | 2000 |

| From | To | Max Load | DFB + DC | DXB + DC | 2DXB, 2DXC, 2DXR | 3DC | DL + DC | 2DL |
|---|---|---|---|---|---|---|---|---|
| Wellington | Plimmerton | 2400 | 1700 | 2400 | 2400 | 2400 | 2400 | 2400 |
| Plimmerton | Paekakariki | 1700 | 1700 | 1530 | 1700 | 1700 | 1700 | 1700 |
| Paekakariki | Otaki | 2600 | 2400 | 2500 | 2600 | 2600 | 2600 | 2600 |
| Otaki | Manakau | 2400 | 2400 | 2250 | 2400 | 2400 | 2400 | 2400 |
| Manakau | Palmerston Nth | 2600 | 2400 | 2500 | 2600 | 2600 | 2600 | 2600 |
| Palmerston Nth | Feilding | 2600 | - | 2500 | 2600 | 2600 | 2600 | 2600 |
| Feilding | Marton | 2070 | - | 1600 | 2070 | 2070 | 1700 | 2070 |
| Marton | Taihape | 1950 | - | 1820 | 1950 | 1950 | 1900 | @2000 |
| Taihape | Waiouru | 1700 | - | 1460 | 1700 | 1600 | 1580 | @2000 |
| Waiouru | National Park | 1700 | - | 1550 | 1700 | 1700 | 1620 | @2000 |
| * National Park | Kakahi | 1700 | - | 1300 | 1700 | 1300 | 1400 | @2000 |
| Kakahi | Taumarunui | 2400 | - | 2300 | 2400 | 2400 | 2300 | 2400 |
| Taumarunui | Te Kuiti | 1700 | - | 1650 | 1700 | 1700 | 1710 | @2000 |
| Te Kuiti | Otorohanga | 2600 | - | 2600 | 2600 | 2600 | 2600 | 2600 |
| Otorohanga | Hamilton | 2400 | - | 2200 | 2400 | 2400 | 2200 | 2400 |

* Refer ROC, Section 1.4, Motive Power Restrictions 5. Descending Grades

# 1700 tonne trains - Wagons on head must be automatic couplers, 1400 tonne maximum for standard hook and pin.

@ The loading rules for trains between 1700 and 2000 tonnes are:

- The maximum consist is 41 wagons trailing load
- The leading 600 tonnes of the trailing load must be on heavy drawgear wagons loaded to minimum of 40 tonnes gross.
- The middle 600 tonnes of the trailing load must be on wagons loaded to a minimum of 30 tonnes gross and must be on wagons fitted with either heavy drawgear or Alliance drawgear
- The load up to 800 tonnes at the rear of the train can be on a mix of empty and loaded wagons

# This is the load schedule in the event of an EF defect where only one traction motor group is available.

 

@ 1700 tonne trains - Wagons on head must be automatic couplers, 1400 tonne maximum for standard hook and pin.

### 1.2 Hamilton - Palmerston North - Electric Services

| From | To | Max Load | EF | 2EF | # EF |
|---|---|---|---|---|---|
| Te Rapa | Te Kuiti | 2070 | 1650 | 2070 | #770 |
| Te Kuiti | Taumarunui | 1700 | 1200 | 1700 | #570 |
| Taumarunui | National Park | 1400 | 900 | @1700 | #400 |
| National Park | Waiouru | 1700 | 1150 | 1700 | #520 |
| Waiouru | Marton | 1700 | 1370 | 1700 | #630 |
| Marton | Palmerston Nth | 2040 | 1470 | 2040 | #680 |
| **From** | **To** | | | | |
| Palmerston Nth | Marton | 2070 | 1450 | 2070 | #670 |
| Marton | National Park | 1700 | 1250 | 1700 | #570 |
| National Park | Taumarunui | 1700 | 1290 | 1700 | #590 |
| Taumarunui | Te Kuiti | 1700 | 1290 | 1700 | #590 |
| Te Kuiti | Te Rapa | 2400 | 2000 | 2400 | #950 |

# This is the load schedule in the event of an EF defect where only one traction motor group is available.

@ 1700 tonne trains - Wagons on head must be automatic couplers, 1400 tonne maximum for standard hook and pin.

### 1.3 Palmerston North - Wellington

Trains banked between North Junction & Pukerua Bay (southbound) and between Plimmerton & Pukerua Bay (northbound)

| From | To | Max Load | Banker Loco | DC | | | 2DC / DXB / DFT | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Train Loco(s) | | DXB or DFT | 2DC | DXB+DC or DFT+DC | DXB or DFT | 2DC | DXB+DC or DFT+DC |
| Palmerston Nth | Wellington | 1700 | | 1400 | 1680 | 1700 | %1500 | 1700 | 1700 |
| **From** | **To** | | | | | | | | |
| Wellington | Palmerston Nth | 1700 | | 1400 | 1700 | 1700 | 1400 | 1700 | 1700 |

In all cases bankers may be attached on either the head or the rear of the train. Refer to ROC instructions for operating locomotives in multiple.

% 1700 tonnes provided there are clear signals through the main line at Koputaroa, Levin, Manakau and Waikanae. Every effort must be made to avoid stopping trains exceeding 1500 tonnes at these locations. Trains exceeding 1500 tonnes hauled by a single DFT, DL, DXB or DXC must be banked from Paekakariki to Wellington.

## 2. Marton - New Plymouth Line

| From | To | Max Load | DSC | DSJ, DSG | DC | DFB or DFT | DXB or DXR | DL | DL + DC | DFB + DFT or 2DFT |
|---|---|---|---|---|---|---|---|---|---|---|
| Breakwater | Moturoa | 1500 | 260 | 470 | 620 | 950 | 1100 | 950 | 1500 | 1500 |
| Moturoa | New Plymouth | 2000 | 500 | 1200 | 1430 | 1600 | 1840 | 1600 | 2000 | 1780 |
| New Plymouth | Stratford | 1600 | 180 | - | 670 | 1000 | 1140 | 1030 | 1300 | 1300 |
| Stratford | Whareroa | 2000 | 450 | - | 1430 | 1900 | 2000 | 1280 | 1640 | 2000 |

 

| From | To | Max Load | DSC | DSJ, DSG | DC | DFB or DFT | DXB or DXR | DL | DL + DC | DFB + DFT or 2DFT |
|---|---|---|---|---|---|---|---|---|---|---|
| Whareroa | Waitotara | 1400 | - | - | 590 | 810 | 930 | 1000 | 1400 | #1550 |
| *Waitotara | Wanganui | 1100 | - | 350 | 410 | 600 | 690 | 700 | 1020 | 1040 |
| Wanganui | Marton | 2070 | 240 | 690 | 880 | 1230 | 1410 | 1500 | 2070 | #2280 |
| **From** | **To** | | | | | | | | | |
| Marton | Wanganui | 2070 | 240 | 450 | 830 | 1230 | 1410 | 1500 | 2070 | #2280 |
| Wanganui | Waitotara | 960 | - | 280 | 350 | 510 | 590 | 700 | 960 | 960 |
| Waitotara | Whareroa | 1400 | - | - | 590 | 810 | 930 | 1000 | 1400 | #1550 |
| Whareroa | Hawera | 1700 | 220 | - | 930 | 1180 | 1360 | 1450 | 1700 | #2400 |
| Hawera | Stratford | 1700 | 190 | - | 720 | 1040 | 1200 | 1260 | 1700 | #1840 |
| Stratford | Lepperton | 2000 | 230 | - | 990 | 1000 | 1280 | 1280 | 1880 | 1840 |
| Lepperton | New Plymouth | 1600 | 230 | - | 710 | 800 | 1030 | 1030 | 1300 | 1500 |
| New Plymouth | Breakwater | 1800 | 280 | 600 | 770 | 1120 | 1290 | 1120 | 1800 | 1800 |

| From | To | Max Load | 3DC | DXB + DC | DL + DFT | DL + DFB | DL + DXB | 2DXB | 2DL | 3DL | DFB + DC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Breakwater | Moturoa | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | - | - |
| Moturoa | New Plymouth | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | - | - |
| New Plymouth | Stratford | 1600 | 1600 | 1600 | 1300 | 1500 | 1600 | 1600 | #2050 | - | - |
| Stratford | Whareroa | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | #2050 | - | - |
| Whareroa | Waitotara | 1400 | 1400 | 1380 | #1500 | #1600 | #1800 | #1700 | #2050 | - | - |
| *Waitotara | Wanganui | 1100 | 1100 | 1000 | 1050 | #1200 | #1300 | #1300 | #1400 | $# 1500 | - |
| Wanganui | Marton | 2070 | 2070 | 2070 | 1950 | 1950 | #2350 | #2270 | #2490 | - | 1600 |
| **From** | **To** | | | | | | | | | | |
| Marton | Wanganui | 2070 | 2000 | 2070 | 1950 | 2050 | #2350 | #2270 | #2500 | - | 1600 |
| Wanganui | Waitotara | 960 | 960 | 870 | #1050 | #@ 1200 | #@ 1300 | #@ 1300 | #@ 1400 | $#@ 1500 | - |
| Waitotara | Whareroa | 1400 | 1400 | 1380 | #1500 | #1600 | #1800 | #1700 | #2050 | - | - |
| Whareroa | Hawera | 1700 | 1700 | 1700 | 1550 | 1700 | #1900 | #1800 | #2150 | - | - |
| Hawera | Stratford | 1700 | 1700 | 1700 | 1550 | 1700 | #1900 | #1800 | #2150 | - | - |
| Stratford | Lepperton | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | #2150 | - | - |
| Lepperton | New Plymouth | 1600 | 1600 | 1600 | 1300 | 1500 | 1600 | 1600 | #2050 | - | - |
| New Plymouth | Breakwater | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | - | - |

* Refer ROC Section 1.4, Motive Power Restrictions 5. Descending Grades

# Any additional tonnage above the hook and pin load limit must be on the head of the train on fully loaded auto coupler wagons.

@ If load exceeds 1100 tonnes, the train length must not exceed 640 metres

$ This load is for trains with 1 or 2 additional balancing locomotives attached. A 3rd loco may run in power over the sections specified only.

 

# 3. Wanganui Freight Branch and Castlecliff Branch

| From | To | Max Load | DSC | DSG | DC | DL | 2DFT/DFB or 2DL | DXB, DXR | DFT + DC |
|---|---|---|---|---|---|---|---|---|---|
| Wanganui | Wanganui FC | 2200 | 600 | 1480 | 1540 | 1500 | 2000 | 2000 | 1600 |
| Wanganui FC | Castlecliff | 2000 | 500 | 1250 | 1300 | 1500 | 2000 | - | 1600 |
| **From** | **To** | | | | | | | | |
| Castlecliff | Wanganui FC | 2000 | 450 | 1060 | 1100 | 1500 | 2000 | - | 1600 |
| Wanganui FC | Wanganui | 2200 | 420 | 820 | 870 | 1500 | 2000 | 1370 | 1600 |

# 4. Palmerston North - Gisborne Line

| From | To | Max Load | DSC | DH, DSG, DSJ | DC | DFT | DFB | DXB, DXC, DXR | DL |
|---|---|---|---|---|---|---|---|---|---|
| Palmerston Nth | Woodville | 2400 | 400 | 850 | 1100 | 1530 | 1580 | 1660 | 1760 |
| Woodville | Takapau | 1460 | 150 | 440 | 560 | 810 | 860 | 930 | 1050 |
| Takapau | Hatuma Sdg | 2560 | 330 | 1000 | 1320 | 1550 | 1600 | 1730 | 1760 |
| #Hatuma Sdg | Otane | 2230 | 330 | 770 | 990 | 1410 | 1550 | 1620 | 1760 |
| *Otane | Hastings | 1400 | 400 | 700 | 1320 | 1400 | 1400 | 1400 | 1400 |
| Hastings | @ Eskdale | 2600 | 750 | 1200 | 1650 | 2000 | 2150 | 2300 | 2400 |
| *Eskdale | Muriwai | 1490 | 170 | 480 | 520 | 820 | - | - | - |
| Muriwai | Gisborne | 2000 | 600 | 1000 | 1540 | 1600 | - | - | - |
| **From** | **To** | | | | | | | | |
| Gisborne | Muriwai | 2000 | 600 | 1000 | 1540 | 1600 | - | - | - |
| *Muriwai | Eskdale | 1430 | 170 | 480 | 520 | 820 | - | - | - |
| Eskdale | @ Hastings | 2600 | 750 | 1200 | 1650 | 2000 | 2150 | 2300 | 2400 |
| Hastings | Otane | 1300 | 130 | 380 | 480 | 730 | 760 | 840 | 900 |
| Otane | Waipukurau | 2000 | 310 | 850 | 1100 | 1580 | 1700 | 1820 | 1820 |
| Waipukurau | Takapau | 1550 | 180 | 520 | 660 | 960 | 1020 | 1100 | 1200 |
| Takapau | Dannevirke | 1400 | 150 | 430 | 550 | 800 | 860 | 920 | 1000 |
| Dannevirke | Palmerston Nth | 2300 | 400 | 940 | 1210 | 1600 | 1700 | 1880 | 1960 |

* Refer ROC Section 1.4, Motive Power Restrictions 5. Descending Grades

| From | To | Max Load | DFT + DC | DXB + DC | 2DXB, 2DFB, 3DC | DL + DC | 2DXB% | 2DL | DL + DFB |
|---|---|---|---|---|---|---|---|---|---|
| Palmerston Nth | Woodville | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 |
| Woodville | Takapau | 1460 | 1230 | 1350 | 1420 | 1360 | 1700 | &2000 | &1650 |
| Takapau | Hatuma Sdg | 2560 | 2500 | 2560 | 2560 | 2500 | 2560 | 2560 | 2560 |
| #Hatuma Sdg | Otane | 2230 | 2150 | 2230 | 2230 | 2150 | 2230 | 2230 | 2230 |
| *Otane | Hastings | 1400 | 1400 | 1400 | 1400 | 1360 | 1700 | &2000 | &1650 |
| Hastings | @ Eskdale | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |
| *Eskdale | Muriwai | 1490 | 1280 | 1350 | 1430 | - | - | - | - |
| Muriwai | Gisborne | 2000 | 2000 | 2000 | 2000 | - | - | - | - |
| **From** | **To** | | | | | | | | |
| Gisborne | Muriwai | 2000 | 2000 | 2000 | 2000 | - | - | - | - |
| *Muriwai | Eskdale | 1430 | 1280 | 1370 | 1430 | - | - | - | - |
| Eskdale | @ Hastings | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |
| Hastings | Otane | 1300 | 1080 | 1190 | 1300 | 1200 | 1550 | &1800 | &1400 |
| Otane | Waipukurau | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |

 

| From | To | Max Load | DFT + DC | DXB + DC | 2DXB, 2DFB, 3DC | DL + DC | 2DXB% | 2DL | DL + DFB |
|---|---|---|---|---|---|---|---|---|---|
| Waipukurau | Takapau | 1550 | 1470 | 1550 | 1550 | 1270 | 1550 | &1800 | 1550 |
| Takapau | Dannevirke | 1400 | 1220 | 1340 | 1400 | 1200 | 1550 | &1800 | &1400 |
| Dannevirke | Palmerston Nth | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |

* Refer ROC Section 1.4, Motive Power Restrictions 5. Descending Grades

# Loads for Takapau - Hatuma Siding apply if the train does not stop at Hatuma Siding.

@ Loads for Eskdale - Hastings and vice versa apply to Napier FC also.

% Special Load Schedule: 2DXB with Dynamic Brakes. Vehicles in front of Max Load Limit must have auto couplers (see ROC, Section 1.4, Motive Power Restrictions 5. Descending Grades for full requirements)

& Special Load Schedule: Refer LNI L3.3, Instruction 6.1 Load Schedule for full requirements, otherwise Maximum Load Column applies

## 5. Wairarapa Line

| From | To | Max Load | DSC | DSG | DC | DXB, DFT, DXR | DFB | DL | DXB + DC | 2DFT, 2DXB, DFT + DXB, 3DC |
|---|---|---|---|---|---|---|---|---|---|---|
| Wellington | Woburn | 2600 | 500 | 1400 | 1650 | 2600 | 2600 | 2600 | 2600 | 2600 |
| Woburn | Upper Hutt | 2600 | 450 | 900 | 1320 | 1800 | 1950 | 1950 | 2600 | 2600 |
| Upper Hutt | Featherston | 2100 | 240 | 660 | 820 | 1230 | 1350 | 1350 | 1900 | 2100 |
| Featherston | Masterton | 2100 | 400 | 830 | 1070 | 1500 | 1650 | 1650 | 2100 | 2100 |
| Masterton | Pahiatua | 2100 | 240 | 660 | 820 | 1230 | 1350 | - | 1900 | 2100 |
| Pahiatua | Woodville | 2600 | 500 | 1000 | 1320 | 2000 | 2200 | - | 2600 | 2600 |
| **From** | **To** | | | | | | | | | |
| Woodville | Pahiatua | 2400 | 300 | 760 | 990 | 1400 | 1540 | - | 2200 | 2400 |
| Pahiatua | Mauriceville | 2100 | 230 | 660 | 820 | 1200 | 1320 | - | 1900 | 2100 |
| Mauriceville | Masterton | 2100 | 400 | 1200 | 1430 | 1700 | 1870 | - | 2100 | 2100 |
| Masterton | Featherston | 2100 | 400 | 1200 | 1430 | 1700 | 1870 | 1870 | 2100 | 2100 |
| Featherston | Upper Hutt | 2100 | 240 | 660 | 820 | 1230 | 1250 | 1350 | 1900 | 2100 |
| Upper Hutt | Wellington | 2600 | 500 | 1400 | 1650 | 2600 | 2600 | 2600 | 2600 | 2600 |

## 6. Gracefield Branch

| Between | | Max Load | DSC | DSG | DC | DXB, DXR, DFT |
|---|---|---|---|---|---|---|
| Woburn | Gracefield | 2600 | 700 | 1400 | 1500 | 2600 |

## 7. Revisions

| Date | Version # | Action | Change |
|---|---|---|---|
| 26-Jul-10 | 1 | Delete | Maxi DFT schedules, Marton - New Plymouth Line |
| | | Insert | DC+DXB and DXB loads Marton - New Plymouth Line |
| | | Delete | Maxi DFT schedules, Palmerston North - Gisborne Line |
| 6-Sep-10 | 2 | Insert | DC+DXB and DXB loads Palmerston North - Gisborne Line |

 

| Date | Version # | Action | Change |
|---|---|---|---|
| 8-Sep-10 | 3 | Insert | DXR as DXB, change Maxi DFT to DFB, make DFM same as DFT. Put columns in load and loco order |
| | | Delete | DQ/QR and combinations |
| 7-Oct-11 | 4 | Insert | DL Locomotives |
| | | Insert | 1700 tonne limit on NIMT |
| 29-Apr-13 | 5 | Insert | Section 7.2 |
| | | | Special Double DXB Load Schedule for PNGL added |
| | | | Schedule reduced to Descending Grades limits |
| 12-Dec-13 | 6 | Add | Single DL load schedules between Wellington and Hamilton |
| | | Change | Single DXB, C, R load schedules between Wellington and Hamilton |
| 13-Dec-13 | 7 | Add | Single DL Express load schedules between Wellington and Palmerston North |
| 16-Dec-13 | 8 | Add | Single DL and DFT for PNGL |
| | | Correct | Single DFT, DFB, DXB for PNGL |
| 6-Nov-14 | 9 | Add | Load schedule for DL / DC for MNPL, PNGL and between Palmerston North and Wellington |
| 1-Oct-15 | 10 | Add | Load Schedule for Single DL between Palmerston North and Whareroa |
| 21-Oct-15 | 11 | Add | Load schedule for DL / DC between Palmerston North and Hamilton |
| 18-Dec-15 | 12 | Change | Load schedule for DL between Otorohanga and Te Rapa |
| 9-Mar-17 | 13 | Add | Load Schedule for DSJ for MNPL |
| 31-Aug-17 | 14 | Delete | DBR Load schedules. Class obsolete |
| | | Delete | Section 2.4 Stratford - Okahukura Line. Line closed |
| | | Delete | DXR from Wellington - Woodville Express Load Schedule. No Running Rights north of Woburn |
| | | Change | DL Load Schedules between New Plymouth and Marton |
| | | Change | Load Schedules for DX Class to DXB and deleted DX Class where DXB already existed |
| | | Change | Load Schedules reduced for DFT & DFB and DXB & DXR Stratford - Lepperton and Lepperton - New Plymouth |
| | | Change | Castlecliff Industrial Line to Castlecliff Branch |
| | | Change | Gracefield Industrial Line to Gracefield Branch |
| | | Add | Load Schedule for 2DFT/2DFB on Castlecliff Branch |
| | | Add | DL+DFT, DL+DFB, DL+DXB, 2DXB and 2DL to MNPL Freight |
| 8-Dec-17 | 15 | Add | Load schedule for 2DFT / DFT&DFB to MNPL Freight |
| 13-Feb-20 | 16 | Add | Freight Load schedule for DFT+DC to Castlecliff Branch |
| | | Add | Freight Load schedule for DFT+DC for Wanganui to Palmerston North and Palmerston North to Wellington |
| | | Change | All DCs now ZTR so reference removed and ZTR load schedules applied to DC columns where applicable. |
| | | Change | 2DFB on Castlecliff Branch from 1370 to 2000 between Wanganui FC and Wanganui |
| | | Change | 2DFT to 2DFB on PNGL Load Schedule |
| 21-Dec-20 | 17 | Change | DFB load schedule from 1350 to 1250 between Featherston and Upper Hutt after Engineering review |
| 9-Feb-21 | 18 | Add | Load Schedule for DL class on Wairarapa Line between Wellington and Masterton |
| 1-Mar-21 | 19 | Delete | Express Freight Load Schedules |
| 13-Jul-21 | 20 | Amend | DFB load schedule from 1040 to 980 between Plimmerton and Paekakariki after Engineering review |
| | | Add | PNGL Load Schedule for 2DL and DL+DFB. Refer ROC Section 2 - L3 Instruction 3.2.3 Load Schedule |
| 21-Jul-21 | 21 | Add | DL and 2DL Load Schedules to Wanganui Freight Branch and Castlecliff Branch |
| 23-Nov-21 | 22 | Amend | DL Load Schedule for Wanganui Freight Branch and Castlecliff Branch due to Engineering Review (TK) |
| 31-May-22 | 23 | Amend | 2DL Load Schedule for NIMT up to 2000T between National Park and Palmerston North after Test Train Trial (TK) |
| | | Amend | 2DL Load Schedule for NIMT up to 2000T between Palmerston North and Te Rapa after Test Train Trial (TK) |

 

| Date | Version # | Action | Change |
|---|---|---|---|
| 9-Nov-22 | 24 | Amend | Reduce the single DFB, DX and DL load schedule on the NIMT northbound between Plimmerton and Paekakariki and between Taihape and Waiouru after test train trials. DX now performs better than DL in low adhesion conditions (TK) |
| 25-Jul-24 | 25 | Add | MNPL - 3DL Load Schedule between Waitotara and Wanganui only |
| | | Amend | MNPL - Max length descending grade between Waitotara and Wanganui to 640m |
| | | Amend | NIMT - Loading rules for trains between 1700 and 2000 tonnes. First 600 tonnes now loaded to a minimum 40T |
| | | Update | References to align with Shield |

 

# 6.3 South Island

All schedules are shown in tonnes and are for the trailing train (not including live locomotives).

The Max Load column shows the maximum allowable train tonnage for hook and pin drawgear.

## 1. Main North Line

| From | To | Max Load | DSG | DC | DFT | DFB | DX | DFT + DC | 2DFT, DX + DFT or DX + DC | 2DX | 2DX Special |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Christchurch | Rangiora | 2600 | 900 | 1430 | 2100 | 2400 | 2540 | 2600 | 2600 | 2600 | 2600 |
| Rangiora | Waipara | 2400 | 800 | 1100 | 1500 | 1600 | 1800 | 1800 | 2400 | 2400 | 2400 |
| Waipara | Wharanui | 1980 | 600 | 800 | 1170 | 1300 | 1500 | 1780 | 1980 | 1980 | @2100 |
| Wharanui | Lake Grassmere | 1420 | 470 | 570 | 840 | 900 | 1000 | 1300 | 1420 | #1800 | @2100 |
| Lake Grassmere | Vernon | 1370 | 450 | 530 | 820 | 900 | 1000 | 1220 | 1370 | #1800 | @2100 |
| Vernon | Blenheim FC | 2000 | 1000 | 1320 | 1800 | 1900 | 2000 | 2000 | 2000 | #2000 | @2100 |
| *Blenheim FC | Picton | 1410 | 460 | 500 | 800 | 800 | 800 | 1250 | 1410 | #1600 | #1600 |
| **From** | **To** | | | | | | | | | | |
| Picton | 343.91 km | 1100 | 350 | 400 | 615 | 670 | 800 | 920 | 1100 | #1600 | #1600 |
| 343.91 km | Blenheim FC | 2400 | 900 | 1650 | 1600 | 1760 | 2000 | 2400 | 2400 | 2400 | 2400 |
| Blenheim FC | Vernon | 2400 | 1100 | 1650 | 1600 | 1760 | 2000 | 2400 | 2400 | 2400 | 2400 |
| *Vernon | Seddon | 1400 | 450 | 530 | 800 | 880 | 1000 | 1200 | 1400 | #1800 | @2100 |
| Seddon | Wharanui | 1820 | 500 | 630 | 910 | 1000 | 1200 | 1430 | 1620 | #1800 | @2100 |
| Wharanui | Waipara | 2100 | 630 | 850 | 1230 | 1350 | 1600 | 1900 | 2100 | 2100 | 2100 |
| Waipara | Rangiora | 2600 | 900 | 1200 | 1700 | 1900 | 2200 | 1900 | 2100 | 2100 | 2100 |
| Rangiora | Christchurch | 2600 | 1200 | 1650 | 2200 | 2420 | 2600 | 2600 | 2600 | 2600 | 2600 |

* Refer ROC Section 1.4 Motive Power Restrictions 5. Descending Grades

DX = DXB, DXC or DXR

# All tonnage greater than the Maximum Load must be conveyed on heavy drawgear wagons marshalled on the head of the train

# Trail locomotive drawbar must be an alliance coupler

@ Refer LNI L5 6. Main North Line for special conditions to haul consists in excess of the Maximum Load up to 2100 tonnes

### 1.1 Trains Banked In Rear - Picton to 343.91 km (Elevation)

The loads that can be taken from Picton to 343.91km with a locomotive banking in the rear are limited by the stress on the drawgear behind the leading locomotives, setting the power of the banking locomotive so it is not overloaded causing wheelslip and limiting the speed of the train so that the banking locomotive can push it's share of the load.

The following tables set out the load and limits for combinations of leading and banking locomotives:-

DX = DXB / DXC or DXR

 

| Leading Locomotives | DC | DFT | DFB | DX |
|---|---|---|---|---|
| **DC** | 740 | 920<br>DFT Notch 7 | 920 | 1170 |
| **DFT** | 920<br>DFT Notch 7 | 1230 | 1230 | 1230 |
| **DX** | 1170 | 1230 | 1400 | 1400 |
| **2 DFT / 2DFB** | 1410 | 1600 | 1600 | 1600 |
| **DX + DC** | 1470 | 1470<br>DFT Notch 7 | 1470 | 1500 |
| **2DX** | 1600 | 1600 | 1600 | 1600 |
| **DX + DFT** | 1470 | 1600 | 1600 | 1600 |

# 2. Midland Line

## 2.1 Rolleston - Arthur's Pass, Otira - Greymouth

| From | To | Max Load | DC | 2DC | 3DC | DX | DFT | DX + DC | 2DFB |
|---|---|---|---|---|---|---|---|---|---|
| Rolleston | Racecourse Hill Siding | 1950 | 670 | 1700 | 1830 | 1200 | 1200 | 1950 | 1950 |
| Racecourse Hill Siding | Springfield | 1950 | 670 | 1220 | 1830 | 1200 | 1200 | 1950 | 1950 |
| Springfield | Arthur's Pass | 1280 | 460 | 840 | 1280 | 700 | 700 | 1150 | #1500 |
| Refer to Arthur's Pass - Otira Section | | | | | | | | | |
| Otira | Stillwater | 2000 | 880 | 1600 | 2000 | 1400 | 1400 | 2000 | 1780 |
| Stillwater | Greymouth | 2500 | 1100 | 2000 | 2500 | 1700 | 1700 | 2500 | 2500 |
| **From** | **To** | | | | | | | | |
| Greymouth | Jackson | 2300 | 820 | 1500 | 2200 | 1320 | 1320 | 2050 | 1950 |
| Jackson | Otira | 1850 | 660 | 1200 | 1800 | 1020 | 1020 | 1570 | 1500 |
| Refer to Arthur's Pass - Otira Section | | | | | | | | | |
| * Arthur's Pass | Springfield | 1800 | 630 | 1160 | 1540 | 1010 | 960 | 1480 | 1500 |
| Springfield | Rolleston | 2500 | 1650 | 2500 | 2500 | 2000 | 2000 | 2500 | 2500 |

| From | To | Max Load | DXR | DSC | DSG | 2DX | 2DXC or 3DXC | Loaded Unit Coal Trains - 2DXC<br>Max 30 Auto Coupler wagons |
|---|---|---|---|---|---|---|---|---|
| Rolleston | Springfield | 1950 | 1460 | 320 | 610 | 1950 | 1950 | - |
| Springfield | Arthur's Pass | 1280 | 850 | 180 | 420 | 1280 | #1500 | - |
| Refer to Arthur's Pass - Otira Section | | | | | | | | |
| Otira | Stillwater | 2000 | 1700 | 340 | 800 | 2000 | 2000 | - |
| Stillwater | Greymouth | 2500 | 2070 | 410 | 1000 | 2500 | 2500 | - |
| **From** | **To** | | | | | | | |
| Greymouth | Jackson | 2300 | 1610 | 300 | 720 | 2300 | 2300 | @2150 |
| Jackson | Otira | 1850 | 1240 | 200 | 600 | 1850 | &2150 | @2150 |
| Refer to Arthur's Pass - Otira Section | | | | | | | | |
| * Arthur's Pass | Springfield | 1800 | 1170 | 200 | 580 | 1800 | &2150 | 2150 |
| Springfield | Rolleston | 2500 | 2440 | 500 | 1500 | 2500 | 2500 | 2150 |

* Refer ROC Section 1.4 Motive Power Restrictions 5.0 Descending Grades

 

# For trains exceeding 1280 tonnes: 45 wagons maximum, and leading 300 tonnes on head must have heavy drawgear

@ If a Dynamic Brake Failure occurs on one DXC then the maximum load is reduced to 1932 tonnes (or 26 loaded coal wagons + 4 empties). Refer ROP Local Network Instructions Section L6 All Lines West of Rolleston 6.17 Avoca Bank - Coal Trains, for the modified Maintaining Braking rule on the Avoca Bank

& To haul freight between 1800 and 2150 tonnes:

- Maximum length is 550m
- Leading 25 wagons must be OM, IAB, IH, IK, CC, or CE type
- The leading 15 wagons must be loaded to 50 tonnes minimum
- The 16 – 25th wagons must be loaded to 30 tonnes minimum, wagons 26 – 35 can be loaded as required
- If a traction motor or dynamic brake has failed on one of the DXC locos en route, the maximum trailing load must be reduced to 1970 tonnes
- Current 30 wagon coal train braking rules apply

### 2.2 Arthur's Pass - Otira

| From | To | Max Load | DC | 2DC | 3DC | DX + DC | DX, DFT | 2DX | DXR |
|---|---|---|---|---|---|---|---|---|---|
| + Arthur's Pass | Otira | 750 | 400 | 400 | 600 | 600 | 450 | 600 | 700 |
| Otira | Arthur's Pass | 1440 | 205 | 410 | 410 | 600 | 450 | 600 | 700 |

+ Refer ROP Local Network Instructions Section 6.1 Otira Tunnel, 4. Coal and Express Freight Trains

## 3. Stillwater - Ngakawau Line

| From | To | Max Load | DC | 2DC | 3DC | DX | DX + DC | 2DX |
|---|---|---|---|---|---|---|---|---|
| Stillwater | Ikamatua | 2200 | 990 | 1800 | 2200 | 1150 | 1800 | 2200 |
| Ikamatua | Reefton | 2030 | 550 | 1000 | 1450 | 800 | 1200 | 1450 |
| Reefton | Westport | 2500 | 1180 | 2160 | 2500 | 1700 | 2500 | 2500 |
| Westport | Ngakawau | 2030 | 770 | 1400 | 1700 | 1050 | 1600 | 1700 |
| **From** | **To** | | | | | | | |
| Ngakawau | Westport | 2500 | 1430 | 2000 | 2500 | 1500 | 2300 | 2500 |
| Westport | Inangahua | 2500 | 1430 | 2000 | 2500 | 1500 | 2250 | 2500 |
| Inangahua | Reefton | 2500 | 770 | 1400 | 1900 | 1100 | 1700 | 2500 |
| Reefton | Tawhai | 2030 | 480 | ab880 | 1320 | 865 | 1300 | 1730 |
| Tawhai | Stillwater | 2500 | 1320 | 2400 | 2500 | 1600 | 2400 | 2500 |

a 910 tonnes for trains consisting entirely of wagons with scheffel bogies.

b 940 tonnes for trains consisting of 14 C type wagons with scheffel bogies, two other empty bogie wagons and either dry weather conditions or DC4847 hauling the train: DC4847.

| From | To | Max Load | DFT | DFT + DC | DFT + DX | 2DFT | Loaded Unit Coal Trains - 2DXC Max 30 Auto Coupler wagons |
|---|---|---|---|---|---|---|---|
| Stillwater | Ikamatua | 2200 | 980 | 1486 | 1925 | 2022 | - |
| Ikamatua | Reefton | 2030 | 980 | 1486 | 1925 | 2022 | - |
| Reefton | Westport | 2500 | 1600 | 2500 | 2500 | 2500 | - |
| Westport | Ngakawau | 2030 | 980 | 1486 | 1925 | 2022 | - |
| **From** | **To** | | | | | | |

| From | To | Max Load | DFT | DFT + DC | DFT + DX | 2DFT | Loaded Unit Coal Trains - 2DXC Max 30 Auto Coupler wagons |
|---|---|---|---|---|---|---|---|
| Ngakawau | Westport | 2500 | 980 | 1486 | 1925 | 2022 | @2150 |
| Westport | Inangahua | 2500 | 980 | 1486 | 1925 | 2022 | @2150 |
| Inangahua | Reefton | 2030 | 980 | 1486 | 1925 | 2022 | @2150 |
| Reefton | Tawhai | 2030 | 700 | 1486 | 1925 | 2022 | @2150 |
| Tawhai | Stillwater | 2500 | 980 | 1486 | 1925 | 2022 | @2150 |

@ If a Dynamic Brake Failure on one DXC then the maximum load is reduced to 1932 tonnes (or 26 loaded coal wagons + 4 empties).

Refer LNI L6 All Lines West of Rolleston 6.17 Avoca Bank - Coal Trains for the modified Avoca Bank Instructions for Coal Trains

# 4. Rapahoe Branch

| From | To | Max Load | DSC | DSG | DC | Loaded Unit Coal Trains - 2DXC Max 30 Auto Coupler wagons |
|---|---|---|---|---|---|---|
| Greymouth | Rapahoe | 1960 | 240 | 600 | 710 | - |
| Rapahoe | Greymouth | 2500 | 470 | 1100 | 1260 | @2150 |

@ If a Dynamic Brake Failure on one DXC then the maximum load is reduced to 1932 tonnes (or 26 loaded coal wagons + 4 empties).

Refer LNI L6 All Lines West of Rolleston 6.17 Avoca Bank - Coal Trains for the modified Avoca Bank Instructions for Coal Trains

# 5. Hokitika Line

| From | To | Max Load | DSC | DSG | DC | 2DC | 2DXC/B | DXC/B + DC |
|---|---|---|---|---|---|---|---|---|
| Greymouth | Gladstone Siding | 2500 | 410 | 1000 | 1100 | 1600 | 2100 | 2100 |
| Gladstone Siding | Hokitika | 2100 | 320 | 800 | 860 | 1600 | 2100 | 2100 |
| **From** | **To** | | | | | | | |
| Hokitika | Kumara Siding | 2100 | 350 | 810 | 1000 | 1800 | 2100 | 2100 |
| Kumara Siding | Greymouth | 2500 | 450 | 1080 | 1200 | 1800 | 2100 | 2100 |

| From | To | Max Load | DFB + DXC/DXB | 2DFB | DFB + DC |
|---|---|---|---|---|---|
| Greymouth | Gladstone Siding | 2500 | 2100 | 2100 | 2100 |
| Gladstone Siding | Hokitika | 2100 | 2100 | 2100 | 2100 |
| **From** | **To** | | | | |
| Hokitika | Kumara Siding | 2100 | 2100 | 2100 | 2100 |
| Kumara Siding | Greymouth | 2500 | 2100 | 2100 | 2100 |

# 6. Main South Line

| From | To | Max Load | DSC | DSG | DC | 2DC | 3DC | DFT |
|---|---|---|---|---|---|---|---|---|
| Lyttelton | Christchurch | 2600 | 450 | 1100 | 1760 | 2600 | 2000 | 2600 |
| Christchurch | Ashburton | 2600 | 450 | ^600 | 1760 | 2600 | 2000 | 2600 |
| Ashburton | Oamaru | 2600 | 150 | 1100 | 1980 | 2600 | 2000 | 2600 |
| Oamaru | Sawyers Bay | 1350 | 180 | 410 | 480 | 880 | 1230 | 760 |

 

| From | To | Max Load | DSC | DSG | DC | 2DC | 3DC | DFT |
|---|---|---|---|---|---|---|---|---|
| Sawyers Bay | Dunedin | 2600 | 520 | 1600 | 1650 | 2600 | 1800 | 2000 |
| Dunedin | Balclutha | 2300 | x390 | 740 | 880 | 1600 | 1800 | 1380 |
| Balclutha | Clinton | 1920 | - | - | 720 | 1320 | 1800 | 1100 |
| Clinton | Waipahi | 2500 | - | - | 1210 | 2200 | 1800 | 1800 |
| Waipahi | Mataura | 2500 | - | 710 | 1430 | 2500 | 1800 | 2100 |
| Mataura | Edendale | 1940 | - | @1500 | 740 | 1360 | 1800 | 1120 |
| Edendale | Invercargill | 1940 | - | 500 | 740 | 1360 | 1800 | 1120 |
| **From** | **To** | **Max Load** | **DSC** | **DSG** | **DC** | **2DC** | **3DC** | **DFT** |
| Invercargill | Edendale | 2500 | - | 710 | 1210 | 2200 | 2000 | 1600 |
| Edendale | Mataura | 2500 | - | 1500 | 1210 | 2200 | 2000 | 1600 |
| Mataura | Gore | 2500 | - | - | 1210 | 2200 | 2000 | 1600 |
| Gore | Balclutha | 2500 | - | - | 880 | 1700 | 2000 | 1500 |
| Balclutha | Milton | 2500 | - | - | 800 | 1800 | 2000 | 1250 |
| Milton | Mosgiel | 2500 | - | - | 1150 | 1800 | 2000 | 1650 |
| # Mosgiel | Burnside | 2500 | 430 | 900 | 990 | 1800 | 2000 | 1530 |
| # Burnside | Sawyers Bay | 2500 | 520 | 1230 | 1650 | 1800 | 2000 | 2000 |
| * Sawyers Bay | Herbert | 1350 | - | - | 480 | 880 | 1120 | 730 |
| Herbert | Deborah | 1450 | 240 | 500 | 600 | 880 | 1120 | 860 |
| * Deborah | Oamaru | 1450 | 300 | 600 | 710 | 1300 | 1120 | 1100 |
| Oamaru | Temuka | 2600 | 430 | 980 | 1980 | 2600 | 2000 | 2600 |
| Temuka | Hinds | 2600 | 430 | 980 | 1650 | 2600 | 2000 | 2200 |
| Hinds | Rakaia | 2600 | - | - | 1980 | 2600 | 2000 | 2600 |
| Rakaia | Christchurch | 2600 | 550 | 1400 | 2090 | 2600 | 2000 | 2600 |
| Christchurch | Lyttelton | 2600 | 500 | 1100 | 1590 | 2600 | 2000 | 2200 |

| From | To | Max Load | DFB | DXB or DXC | DXR | DFT + DC | DX + DC | 2DF/DX or DF+DX |
|---|---|---|---|---|---|---|---|---|
| Lyttelton | Christchurch | 2600 | 2600 | 2600 | 2600 | 1800 | 2600 | 2600 |
| Christchurch | Ashburton | 2600 | 2600 | 2600 | 2600 | 1800 | 2600 | 2600 |
| Ashburton | Oamaru | 2600 | 2600 | 2600 | 2600 | 1800 | 2600 | 2600 |
| Oamaru | Sawyers Bay | 1350 | 840 | 950 | 1000 | 1200 | 1300 | 1350 |
| Sawyers Bay | Dunedin | 2600 | 2200 | 2400 | 2400 | 1680 | 2600 | 2600 |
| Dunedin | Balclutha | 2300 | 1510 | 1700 | 1700 | 1680 | 1900 | 2300 |
| Balclutha | Clinton | 1920 | 1210 | 1300 | 1340 | 1680 | 1700 | 1920 |
| Clinton | Waipahi | 2500 | 1980 | 2200 | 2200 | 1680 | 2370 | 2500 |
| Waipahi | Mataura | 2500 | 2310 | 2500 | 2500 | 1680 | 2500 | 2500 |
| Mataura | Edendale | 1940 | 1230 | 1350 | 1350 | 1680 | 1740 | 1940 |
| Edendale | Invercargill | 1940 | 1230 | 1350 | 1350 | 1680 | 1740 | 1940 |
| **From** | **To** | **Max Load** | **DFB** | **DXB or DXC** | **DXR** | **DFT + DC** | **DX + DC** | **2DF/DX or DF+DX** |
| Invercargill | Edendale | 2500 | 1760 | 1950 | 1950 | 1800 | 2500 | 2500 |
| Edendale | Mataura | 2500 | 1760 | 1950 | 1950 | 1800 | 2500 | 2500 |
| Mataura | Gore | 2500 | 1760 | 1950 | 1950 | 1800 | 2500 | 2500 |
| Gore | Balclutha | 2500 | 1650 | 1800 | 1800 | 1800 | 2250 | 2500 |
| Balclutha | Milton | 2500 | 1375 | 1560 | 1560 | 1800 | 2350 | 2500 |
| Milton | Mosgiel | 2500 | 1810 | 2000 | 2000 | 1800 | 2350 | 2500 |
| # Mosgiel | Burnside | 2500 | 1680 | 1850 | 1850 | 1800 | 2350 | 2500 |
| # Burnside | Sawyers Bay | 2500 | 2200 | 2400 | 2400 | 1800 | 2350 | 2500 |
| * Sawyers Bay | Herbert | 1350 | 800 | 880 | 880 | 1200 | 1300 | 1350 |
| Herbert | Deborah | 1450 | 950 | 1040 | 1040 | 1200 | 1300 | 1350 |

 

| From | To | Max Load | DFB | DXB or DXC | DXR | DFT + DC | DX + DC | 2DF/DX or DF+DX |
|---|---|---|---|---|---|---|---|---|
| * Deborah | Oamaru | 1450 | 1210 | 1320 | 1320 | 1250 | 1450 | 1450 |
| Oamaru | Temuka | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |
| Temuka | Hinds | 2600 | 2200 | 2600 | 2600 | 2600 | 2600 | 2600 |
| Hinds | Rakaia | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |
| Rakaia | Christchurch | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |
| Christchurch | Lyttelton | 2600 | 2420 | 2600 | 2600 | 2600 | 2600 | 2600 |

# Loads for Milton - Mosgiel apply to Balclutha - Dunedin if the train does not stop between Mosgiel and Green Island inclusive.

# DSG locomotives may convey 1600 tonnes between Dunedin and Sawyers Bay

x 310 tonnes when departing Dunedin Yard.

DSC Class locomotives may convey 305 tonnes between McNab and Edendale.

* Refer ROC Section 1.4 Motive Power Restrictions 5.0 Descending Grades

DX = DXB, DXC or DXR

DF = DFT or DFB

@ for trains exceeding 750T, if the speed at the base of Brydone Hill is less than 30 km/h, the train must be stopped and double banked to Edendale.

# 7. Hornby Branch

| Between | | Max Load | DSC | DSG |
|---|---|---|---|---|
| Hornby | End of Line | 1500 | 520 | 1500 |

# 8. Port Chalmers Branch

| Between | | Max Load | DSC | DSG | DC | DFT or DXC/B/R |
|---|---|---|---|---|---|---|
| Sawyers Bay | Port Chalmers | 2600 | 520 | 1600 | 1600 | 2000 |

# 9. Taieri Branch

| From | To | Max Load | DSC | DSG | DC | DFT or DXB/C/R |
|---|---|---|---|---|---|---|
| Wingatui | Taieri Industrial | 1500 | 500 | 1000 | 1200 | 1400 |
| **From** | **To** | | | | | |
| Taieri Industrial | Wingatui | 1300 | 280 | 440 | 460 | 700 |

# 10. Bluff Branch

| Between | | Max Load | DSC | DSG | DC | DFT/DFB |
|---|---|---|---|---|---|---|
| Invercargill | Bluff | 2600 | 750 | 1250 | 1800 | 2600 |

 

# 11. Ohai Line

| From | To | Max Load | DSC | DSG | DC |
|---|---|---|---|---|---|
| Invercargill | Otautau | 2500 | 500 | 850 | 1130 |
| Otautau | Wairio | 1830 | 210 | 500 | 630 |
| Wairio | Ohai | 1460 | 160 | 400 | 500 |
| **From** | **To** | | | | |
| Ohai | Crawfords | 1200 | 200 | 450 | 570 |
| Crawfords | Wairio | # 1200 | 200 | 450 | 1130 |
| Wairio | Otautau | 2000 | 350 | 800 | 1410 |
| Otautau | Invercargill | 2000 | 500 | 950 | 1410 |

# 800 tonnes if between Crawfords and Nightcaps there is a speed restriction of less than 50 km/h exceeding 150 metres, or two restrictions less than 50 km/h are within 1 km of each other.

# 12. Revisions

| Version | Date | Change Description |
|---|---|---|
| 2 | 9-Dec-11 | Delete reference QR, amend reference for DX to be either DXB, DXC or DXR, add table 1600 tonne services on MNL, update old WTT reference to relevant ROC instruction. |
| 3 | 8-Oct-12 | Add Schedules for Hokitika Industrial Line. Add DXC+DC MSL Express Freight, change DXR+DC MSL Express Freight. Add MSL DXC Express Freight Reduce BALC-DNDN Freight schedule. Tidy up. SR. |
| 4 | 21-Feb-13 | Two minor corrections to MNL Schedules as marked. Title block format changed. TM |
| 5 | 10-Mar-14 | DXB,C,R added to MNL |
| 6 | 14-Mar-14 | MSL schedules updated for DFT, DFB and DXB/C/R. MNL DXB/C/R + DC combo added |
| 7 | 18-Sep-14 | DSG and DC schedule updated for Port Chalmers Line |
| 8 | 5-Mar-15 | Increase load for 2DX Westport to Reefton & remove reference to DQ / QR and DAR |
| 9 | 7-May-15 | Increase max load schedule Midland to 1500t for West Bound services and delete duplicated information in Section 3.2.2 Arthur's Pass - Otira |
| 10 | 2-Dec-15 | Correct DXC/B+DC combo between Invercargill and Dunedin |
| 11 | 16-Feb-16 | Add schedules for Hokitika Line for DFT / DFB and combinations |
| 12 | 14-Sep-16 | Updated Stillwater - Westport Line (SWL) to Stillwater - Ngakawau line (SNL) |
| 13 | 18-Dec-18 | Corrected DXC/B/R+DC and DFT+DC Freight schedules for MTARA-INGIL MSL, Renamed various Industrial Lines to Branch Lines and repaginated the sections, Removed the obsolete Waiareka Industrial Line |
| 14 | 5-Sep-19 | Delete reference DBR Class. Delete reference to Maxi DFT. All DC's now ZTR so reference removed and ZTR load schedules applied to DC columns where applicable. MSL DNDN to OMARU reduced for most combinations to improve performance. Added "DFT+DFB" and "2DFB or DX+DFB" columns. Due to deletions, page formatting and numbering has altered. TK |
| 15 | 16-Mar-20 | Add DSG schedule between Waipahi and Mataura and Invercargill and Gore, MSL Add schedule for Loaded Unit Coal Trains from NGKWU, RPHOE & GYMTH to LYTTN |
| 16 | 2-Oct-20 | Add 2DX Special Load Schedule max 2100 tonnes between Blenheim & Christchurch, MNL Remove the Secondary Maximum Load figure in Section 3.1.3 as was incorrectly placed Amend DSG Load Schedule between Lyttelton and Oamaru, MSL to 600 tonnes Amend DSG Load Schedule between Christchurch and Lyttelton, MSL to 1100 tonnes |
| 17 | 2-Mar-21 | Express Freight Load Schedules removed |
| 18 | 31-May-22 | Remove Kaiapoi as a workstation on the MNL and amend some incorrect figures Add instructions for when a Dynamic Brake failure occurs on a Coal Train on the Rapahoe Br, SNL and Midland Line. |
| 19 | 3-Nov-22 | Amend DFT+DC and DX+DC load schedules for the MSL following an Engineering review Add Racecourse Hill Siding as a waypoint on the Midland Line and amend the 2DC load to 1700T |
| 20 | 22-Dec-22 | Corrected the maximum load for 2DX between Vernon and Blenheim from 1600T to 2000T Amend load schedules for freight trains hauled by 2 or 3 DXC class locomotives on the Midland Line, subject to additional loading and marshalling requirements |
| 21 | 28-Apr-23 | Added DSG Load Schedule from Mataura to Invercargill |

 

| Version | Date | Change Description |
|---|---|---|
| 22 | 7-Jun-23 | Corrected maximum load for freight trains between Springfield and Arthurs Pass to 1280T with 1500T only permitted subject to additional marshalling requirements denoted by a # |
| 23 | 11-Jul-24 | Added Edendale - Mataura section MSL to allow DSG increase to 1500T. Replace DXB/DXC with DFT/DFB classes on Bluff Branch. 2DFB load schedule added to the Midland Line. |

 