

**FRONZ / ONTRACK**  
**APPROVED CODE OF PRACTISE**  
**FOR**  
**HERITAGE NETWORK OPERATORS**

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**Mechanical Supplementary Code**  
**B3.1.2.01**

**Weighing of Locomotives**

<b>Issue</b>	<b>Prepared (P), Reviewed (R), Amended (A)</b>	<b>Approved by</b>	<b>Effective Date</b>
1	P McCallum (P)	Heritage Technical Committee	27 June 2006

**Reference Material**

<b>Source</b>	<b>Description</b>	<b>Date</b>
NZ Railways	Mechanical Branch Code No 36, Issue 3	1/5/1947
NZ Railways	Mechanical Branch Code No 36, Issue 4	1/4/1983

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### Amendment History

Version	Section	Amendment

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## Weighing of locomotives

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### **1 Introduction**

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This Supplementary Code relates to:-

B3.1.1.01 - Mechanical Code Of Practice, Section 3.25 - Weighing of Locomotives

It includes:-

- NZ Railways Mechanical Branch Code No 36, Issue 3 of 1/5/1947
- NZ Railways Mechanical Branch Code No 36, Issue 4 of 1/4/1983

which contain information relevant to the weighing of locomotives. Operators are to use those sections that are relevant to their operation.

NEW ZEALAND GOVERNMENT RAILWAYS MECHANICAL BRANCH	<b>WEIGHING OF LOCOMOTIVES</b> Cancelled; Issue 4; 1/4/83	<b>CODE No. 36</b>
		Issue No 3 Date Issued 1/5/47

**(1) WEIGHING**

After any locomotive has received an overhaul, or after adjustments have been made to the spring gear in the Workshops, the locomotive must be weighed before being allowed to enter into service.

During weighing operations the following conditions must be observed:-

- (a) Gauge glass showing half glass of water in boiler when cold.
- (b) Sand domes full.
- (c) Coal bunkers filled to normal capacity or the equivalent weight placed in bunkers.
- (d) Water tanks or tenders full.
- (e) All brakes fully released

The locomotive, before weighing, must be run a short distance in the yard to ensure that there is free movement in axle-boxes and compensating gear.

**(2) ADJUSTMENT**

The spring gear of the locomotive must be adjusted to ensure that the weights conform to those specified in Locomotive Diagrams B.P.'s W. 15656 to W. 15662.

**(3) RECORDING**

Each time a locomotive is weighed the particulars must be recorded in the place provided on the Loco./135A form.

[Diesel and Electric Traction                      Loco/135E]

NEW ZEALAND RAILWAYS	<b>WEIGHING OF LOCOMOTIVES</b>	<b>CODE No. 36</b>
<b>MECHANICAL BRANCH</b>		Issue No 4 Date Issued 1/4/83

### 1. PURPOSE

The purpose of weighing locomotives is to ensure that the locomotive weight is correctly distributed on each axle and wheel.

This operation is carried out for the following reasons

- (a) to reduce wheelslip
- (b) to increase bogie stability
- (c) to obtain even wear (bearings, tyres etc.)
- (d) to ensure track stresses are even.

Any locomotive that has had an overhaul bogie change, adjustments made to the spring gear or other work carried out which will clearly make a difference in wheel loading, must be weighed before being released into service. If no weighing facilities are available, arrangements are to be made with the Chief Mechanical Engineer to arrange such weighing as necessary.

### 2. WEIGHING

During weighing operations the following conditions must be observed

- (a) the locomotive must be in full running order as described further and it must be run a short distance to ensure that there is free movement in axle boxes and compensating gear.
- (b) fuel tank filled to normal capacity
- (c) sand boxes full of sand
- (d) correct oil and water levels
- (e) all brakes fully released

### 3. ADJUSTMENTS

The spring gear of the locomotive must be adjusted to ensure that the weights conform to those specified on Locomotive Diagrams.

Tolerances are to the standard as promulgated by the Chief Mechanical Engineer.

### 4. RECORDING

Each time a locomotive is weighed the particulars must be recorded on a Loco. 135A form for steam locomotives or Loco 135E form for diesel electric and electric locomotives.