



Freight Handling Code

SECTION 16 - LOGS

Issue Date: *29 February 2024*



Table of Contents

16.1 Transportation.....	3
16.2 Rail Loading Information	3
16.3 Loading Restraints	4
16.4 Load Placement.....	4
16.5 Belly Straps.....	5

For equivalent guidelines in respect of road transportation see Section 3 of this Manual.

This Section provides the requirements for the safe transportation, loading and securement of logs. In the event that any wagon cannot be loaded to meet these requirements, then loading **MUST NOT** commence, and the problem referred to the Customer Service Centre, phone 0800 351 351, for resolution.

Section 16 Logs

16.1 Transportation

For conveyance purposes, logs are defined as follows:

- **Short export logs:** Length below 4.5m, uniform length, diameter size matched logs.
- **Standard export logs:** Length 4.5m & above, uniform length, diameter size matched logs.
- **Random size / length logs:** e.g. pulp.
- **Minimum log length:** 3.7m (for all logs).

16.2 Rail Loading Information

The following table defines the number of cradles for each wagon type, and describes the maximum loading capacity for each wagon type.

Wagon Type	Number of Cradles	Max. Loading Capacity (tonne)
USL	4	38.0
FC	4	53.0
FG	4	41.0
FGS	6	41.0
PKL	4 / 6	41.0
FIH	4 / 6	51.0
FIB	6	48.92
FBB	6	47.92
FIT	4	48

Check the Quick Operating Guide or Fleet Diagram for each wagon type for further restrictions / loading conditions.

16.3 Loading Restraints

The following requirements apply to **all types of logs**:

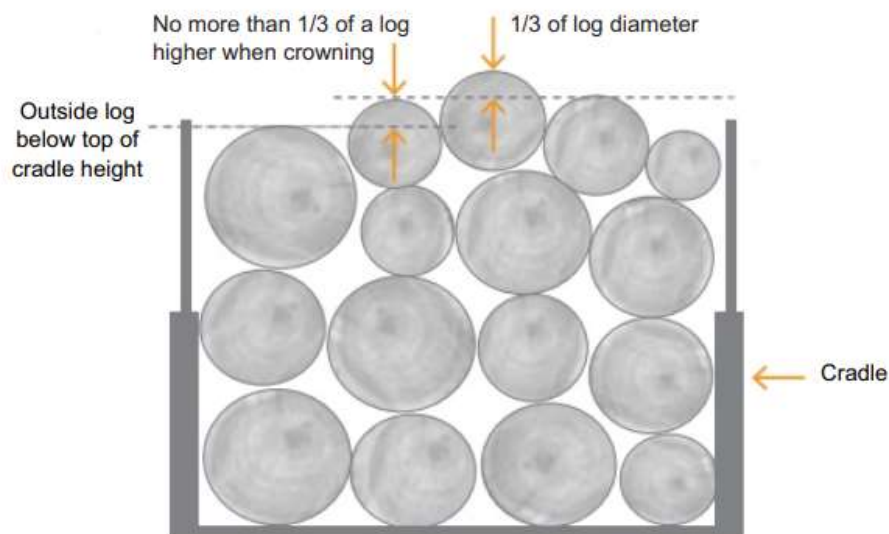
- **All outside logs**, including all those of the top layer, **must protrude** at least 150mm **beyond** the outer end of each cradle supporting the load. Note that Murupara long trains have more stringent rules for tail end wagons. See Murupara Long Train Log Wagon Loading Rules M9203/82.
- Logs **must not protrude outside** the sides of the cradle edges.
- Outside logs on the top layer **must not** exceed the cradle height.
- Logs of any length may be 'crowned' above cradle height as in Diagram 1.
NOTE: Crowning is permitted on log wagons ex Murupara.
- Logs **must be distributed evenly** across the cradle.
- Logs **must** be at least 150mm **clear of all handgrips**.
- Logs **must not overhang** the wagon ends.

16.4 Load Placement

- No part of the outside logs of the load shall be loaded above the top of the cradle.
- Logs loaded in the middle of the load shall not have more than one-third of the diameter of the log above the adjacent logs (see diagram 1).
- The top of the load shall be rounded so that the strop will contact as many logs as possible.

The below diagram is contained in and can be referenced in the Approved Code of Practice for Safety and Health in Forest Operations and has had some labels (in red) amended to reflect KiwiRail's terminology.

Diagram 1 - Maximum Permitted Log Heights with Crowning



16.5 Belly Strops

A minimum of **one** belly strop **must** be applied around each bundle to contain all logs.

A minimum of **two** belly strops **must** be used when:

- logs are moving across Cook Strait on rail
- Eucalyptus logs are being conveyed
- required by KiwiRail (e.g. long trains departing Murupara)

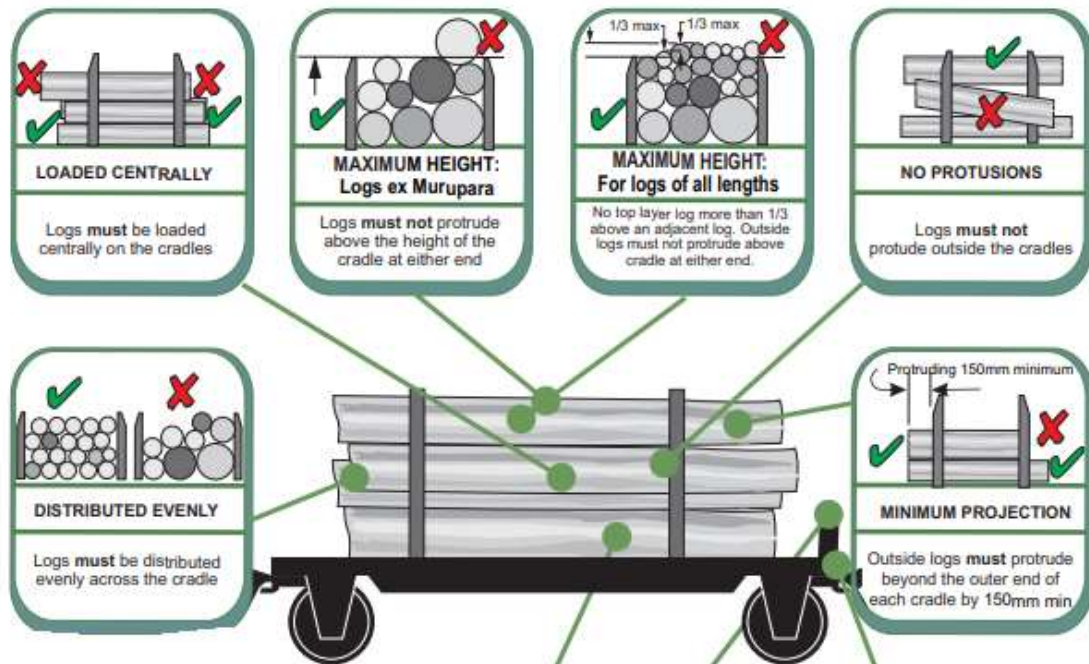
Belly strops when applied **must**:

- go around all logs
- be tight around each bundle
- be positioned inside the cradles
- be fitted centrally between the cradles and parallel to the cradles
- where possible, have all twists in the webbing removed before feeding the strop end through the ratchet
- have both ratchet keeper plates fully engaged and the handle in the locked position
- have excess strop ends over 1m tied off

Belly strops when applied **must not**:

- be put over knots or other sharp edges which may cause rapid wear
- have damaged ratchets or cut webbing
- be removed if the load is insecure or moved past the cradle until secured by a Log Loader

Diagram 2 – General Log Loading Rules



RAIL LOADING DATA		
Wagon Type	Number of Cradles	Maximum Loading Capacity (Tonne)
USL	4	38
FC	4	53
FG	4	41
FGS	6	41
PKL	4 / 6	41
FIH	4 / 6	51
FIB	6	48.92
FBB	6	47.92
FIT	4	48

Refer to Quick Operating Guides and Fleet Diagrams for each wagon type for further restrictions / loading conditions

Log Length
The length of logs that can be loaded is governed by the rules for:

- Minimum projection
- Handgrip clearance
- Wagon overhang
- Nestling short logs

