

Maritime New Zealand Guidelines

MARINE GUIDANCE NOTICE ISSUE 02 - 2007

VEHICLE REQUIREMENTS FOR SHIPMENT BY RO-RO

This guidance is for:

- Any person who offers vehicles for carriage by a ro-ro ship
- Ro-ro ship owners and masters.

Introduction

This notice was developed in conjunction with and support of:

- Road Transport Forum
- Interislander
- Pacifica Shipping
- Strait Shipping, and
- Ministry of Transport.

Maritime Rules Part 24B Carriage of cargoes – stowage and securing came into force on 30 June 2005 except for Rule 24B.10(2) and 24B.10(3) which came into force on 30 June 2007.

The objective of Maritime Rules Part 24B is to prescribe requirements for the stowage and securing of all cargoes other than liquid, gas or solid bulk cargoes, grain, timber deck cargoes and livestock (except where carried in road or rail vehicles). Rules 24B.10(2) and 24B.10(3) specifically prescribe requirements for vehicles on ro-ro ships.

All vehicles must be secured

A master of any ship cannot accept any vehicle on board if they are not satisfied that it can be transported safely. Therefore it is important that any vehicle offered for carriage by a ro-ro ship is capable of being secured in an appropriate and safe manner consistent with the proposed voyage and expected sea state and weather conditions. It is recommended that persons intending to transport vehicles by ro-ro ship contact the shipping company direct to obtain guidance on individual requirements.

A person offering any vehicle, of 3.5 tonnes gross mass or more, for carriage on a ro-ro ship is required to provide the shipping company with details of the gross mass of the vehicle and any special properties of the vehicle or its payload, ie high centre of gravity, ullage / free surface in road tanks, suspended loads, etc. in advance of loading.

The person offering any vehicle must ensure that the gross mass of the vehicle is the same as that declared prior to loading on a ro-ro ship.

Rule 24B.10 Roll on-roll off ships

Maritime Rules 24B.10 states the following:

- 24B.10(1) The master of a ro-ro ship must take appropriate precautions, during the loading and transport of cargo units on board the ship, to ensure that the cargo units remain secure throughout the intended voyage; in particular, the master must have regard to –
- the securing arrangements on the ship;
 - the securing arrangements on the cargo unit; and
 - the strength of the securing points and lashings.
- 24B.10(2) The shipper of a road freight vehicle, road tank vehicle or road livestock vehicle, having a gross mass of 3.5 tonnes or more, must not offer the vehicle for shipment on a ro-ro ship unless it is fitted with vehicle securing points complying with the requirements of **ISO 9367-1**
- 24B.10(3) The master of a ro-ro ship must ensure that a road freight vehicle, road tank vehicle or road livestock vehicle, taken onboard the ship, having a gross mass of 3.5 tonnes or more, is fitted with vehicle securing points complying with the requirements of **ISO 9367-1**¹

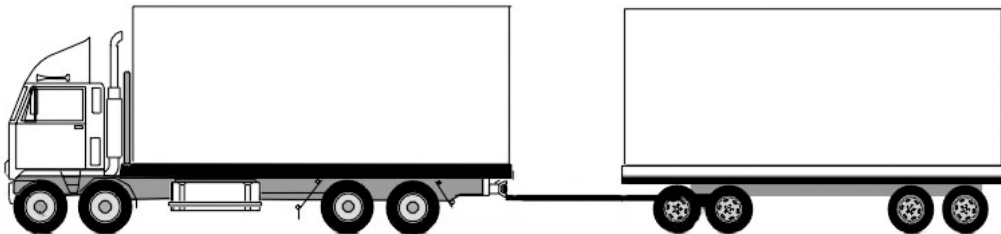
Application

Rules 24B.10(2) and (3) apply to:

Due to the scope of ISO 9367-1 *Lashing and securing arrangements on road vehicles for sea transportation on ro-ro ships – part 1*, Rules 24B.10(2) and (3) apply to:

- road freight vehicles, road tank vehicles and road livestock vehicles, except as noted below, with a
- gross mass of 3.5 tonnes or more, which
- travel on a ro-ro ship.

Examples of vehicles required to comply with rule 24B.10(2) and (3)



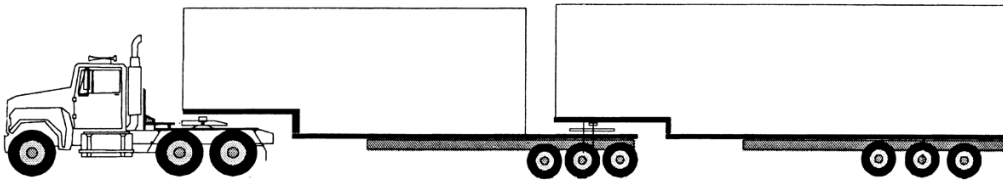
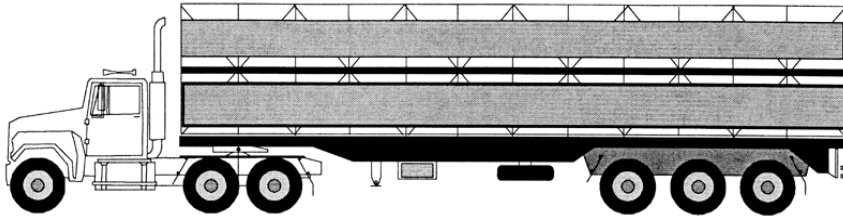
Rules 24B.10(2) and (3) do not apply to:

- road freight, road tank and road livestock **semi-trailers**², with or without a tractor unit
- road freight, road tank and road livestock vehicles which are not intended for transport on ro-ro ships but are being freighted for delivery purposes only, without payload
- passenger vehicles, e.g. cars, mini buses, buses
- motor homes, or caravans
- oversize vehicles; or
- railway wagons.

¹ Masters have been provided with an exemption to this requirement until 01/01/08.

² Lashing and securing arrangements for semi-trailers are covered by ISO 9367 part 2 which is not incorporated within rule 24B.10(2) & (3).

Examples of vehicles **not** required to comply with rule 24B.10(2) and (3)



What is required to meet Rule 24B.10(2)?

This is a summary of the requirements for fitting vehicle securing points in accordance with ISO 9367-1. For comprehensive requirements reference should be made to the ISO standard.

It should be noted that the requirements of New Zealand standard NZS 5444:2005 (part 2) are equivalent to those of ISO 9367-1.

Definitions

Securing point – location of a lashing point on the vehicle, suitably reinforced to withstand lashing forces. Securing points may have more than one lashing point.

Lashing point – that part within a securing point to which a lashing may be directly attached. It is not permissible to have more than one lashing at each lashing point.

Number and strength of securing points

Maximum design total mass (M)	Number of securing points on each side of road vehicle		Value of load to be used for calculation or test of each securing point (F) (kN)
	Min.	Max.	
$3.5\text{ t} \leq M \leq 20\text{ t}$	2	6	$F = \frac{1.2 \times M \times g}{n}$ where: M is maximum design total mass g is the acceleration due to gravity n is the total number of securing points on either side of the vehicle.
$20\text{ t} < M \leq 30\text{ t}$	3	6	
$30\text{ t} < M \leq 40\text{ t}$	4	6	

- Notes
- For road trains the number of securing points applies to each component, i.e. motor vehicle and each trailer respectively.
 - If the towing coupling is used for securing vehicles this shall not replace the number and minimum strength of securing points on each side of the vehicle.
 - In exceptional cases, due to the design, more than the maximum number of securing points is permitted.

Location of securing points

Securing points shall be located so that lashings can be readily and safely attached.

Securing points should be positioned in such a way that the angle between the lashing and the horizontal and transverse planes lies preferably between 30° and 60°.

Size of lashing points³

Each lashing point shall allow the inside free passage of a circle of at least 80 mm diameter, but the aperture need not be circular. The thickness of the lashing point material shall allow engagement of a hook of at least 25 mm opening.

Additional safety requirements

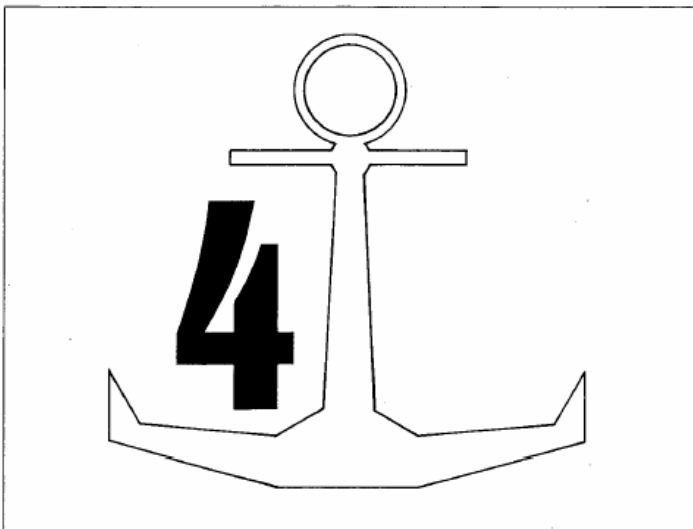
Vehicles transporting types of cargo likely to affect their stability adversely, such as hanging meat, shall have some method of blocking the suspension.

If jacking points are provided, they shall be clearly marked.

Marking and signage

Each lashing point on the vehicle chassis shall be painted in a contrasting colour.

An information plate measuring 200 mm x 150 mm shall be affixed permanently on both sides of the vehicle at or within 1.6 m from the front end. The height from the ground to the plates lower edge shall be 1 m to 1.5 m where possible. The information plate shall comprise a number indicating the number of lashing points per side and an anchor symbol.



Additional recommendations

To ensure unimpeded transport of vehicles the developers of this notice strongly recommend the following:

- lashing points are fitted, rated and a rating plate affixed to the vehicle by an engineering company recognised by Land Transport New Zealand (LTNZ)
- that the owners of semi-trailers and large passenger service vehicles, not presently covered by Rule 24B.10(2), consider fitting appropriate securing points, ie in accordance with ISO 9367-2 or NZS 5444:2005 (part 2).

³ Existing vehicles with undersize lashing points have the option of applying for an exemption, refer below.

Undersize lashing points

Owners of vehicles manufactured and first registered prior to 30 June 2007 that are offered for carriage on a ro-ro ship and which the lashing points are undersize (less than 80 mm), may apply for an exemption from Maritime Rule 24B.10(2). Exemption will be considered if the following conditions are met:

- All lashing points shall allow the inside free passage of a circle of at least 50 mm diameter and the thickness of the lashing point material shall allow engagement of a hook of at least 25 mm opening;
- The vehicle shall be compliant with ISO 9367-1 in all other respects, except clause 4.4 "free passage and hook opening".
- The vehicle and lashing points shall be inspected by an engineer recognised by LTNZ and a statement of compliance verifying that the vehicle, securing points, lashing points and signage complies with ISO 9367-1, except for clause 4.4, shall be provided.

Exemptions will be subject to the following:

- Exemptions will be issued for a 5-year period, (subsequent exemption, if required, may be applied for at this time).
- Any modification or repair to the vehicle which alters the maximum gross vehicle mass, structural strength of the chassis or the securing or lashing points shall invalidate the exemption.

Applications for an exemption must be made in writing and supported by the following:

- Proof of the vehicle's date of manufacture and registration.
- The vehicle's registration and VIN or chassis number.
- A copy of the statement of compliance issued by the recognised LTNZ engineering company not more than one month from the date of issue.
- Declaration that all lashing points allow the inside free passage of a circle of at least 50 mm diameter and the thickness of the lashing point material shall allow engagement of a hook of at least 25 mm opening.
- Contact details of the vehicle owner.

Administration and issuance of an exemption, by MNZ, will incur a cost of \$101 per hour plus GST. It is estimated the average cost for an exemption would be in the order of \$50 plus GST. An owner who has more than one vehicle requiring an exemption may submit all applications together and receive a single exemption for the fleet, thus saving on administration time and cost.

Future requirements for semi-trailers and semi-trailer tractor units

Maritime Rule Part 24B.10 will be reviewed over the next year commencing July 2007, with the view to introducing lashing requirements for semi-trailers, with or without tractor units, when offered for transport by ro-ro ship.

If you wish to receive a copy of the draft rule amendment when released for public consultation, please forward your contact details to the Rules Co-ordinator at Maritime New Zealand.

Email - rules.coordinator@maritmenz.govt.nz or write using the address given below.

Further information or questions

Email: enquiries@maritimenz.govt.nz

or write to

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