

# Maritime Rules

## Part 49: Ships' Lifting Appliances

MNZ Consolidation

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## **Part objective**

Part 49 of the maritime rules deals with the testing, examination and inspection of a ship's lifting appliances and the loose cargo gear carried on board the ship. It also requires the marking of a ship's lifting appliances and loose cargo gear and the carriage of a register of equipment, rigging plan and certificates of test for the lifting appliances and gear.

Part 49 will replace present legislation made under the Harbours Act 1950, in particular the General Harbour (Safe Working Load) Regulations 1982, which are dated and do not reflect current international standards and practice.

Part 49 complements the Guidelines for Safety and Health in Port Operations produced by the Occupational Safety and Health Service of the Department of Labour under the Health and Safety in Employment Act 1992.

Both the Guidelines and Part 49 implement requirements of the International Labour Organization's Occupational Safety and Health (Dock Safety) Convention 1979, No. 152 which is the current international standard covering lifting and working of ship's cargo.

Authority for making Part 49 is found in section 36(1)(b), (1)(f), (1)(k), and (1)(t) of the Maritime Transport Act 1994.

The maritime rules are subject to the Regulations (Disallowance) Act 1989, which requires that the rules are laid before the House of Representatives. The House of Representatives may, by resolution, disallow any rules. The Regulations Review Committee is the select committee responsible for reviewing the rules.

### **Disclaimer:**

This document is the current consolidated version of Maritime Rules Part 49 produced by Maritime New Zealand, and serves as a reference only. It has been compiled from the official rules that have been signed into law by the Minister of Transport. Copies of the official rule and amendments as signed by the Minister of Transport may be downloaded from the Maritime New Zealand website. [www.maritimenz.govt.nz](http://www.maritimenz.govt.nz)

## History of Part 49

Part 49 first came into force on 1 February 2001 and now incorporates the following amendments:

<b>Amendment</b>	<b>Effective date</b>
Amendment 1	1 April 2011
Amendment 2	1 January 2015

### Summary of amendments

#### **Amendment 1**

Maritime Rules Various Amendments PO, 49.5(3) & (4)

#### **Amendment 2**

Maritime Rules Various Amendments 2014 Part objective

All signed rules can be found on our website:

<http://www.maritimenz.govt.nz/Rules/List-of-all-rules/Part49-maritime-rule.asp>

## **Contents**

### **General**

49.1	Entry into force	1
49.2	Definitions	1
49.3	Application	3

### **Lifting appliances and loose cargo gear**

49.4	General	3
49.5	Testing of ship's lifting appliances and loose cargo gear	3
49.6	Examination of ship's lifting appliances and loose cargo gear	4
49.7	Inspection of ship's loose cargo gear	5
49.8	Marking of ship's lifting appliances and loose cargo gear	5
49.9	Register of equipment	5
49.10	Rigging plan	6
49.11	Certificates of test	6
49.12	Lifting appliances and loose gear used in machinery spaces	6
49.13	Cargo or vehicle lifts and vehicle ramps	6



## General

### 49.1 Entry into force

Part 49 comes into force on 1 February 2001.

### 49.2 Definitions

In this Part—

**Act** means the Maritime Transport Act 1994:

**cargo** includes—

- (a) ship's stores, provisions, equipment and fuel;
- (b) mail;
- (c) material for the repair of the ship or for the fitting of a cargo space;
- (d) containers, shipborne barges and any other unit of a permanent character that facilitates the transport of an aggregation of cargo as a single unit, but does not include cargo gear;

**certificate of test** means a certificate of test issued under this Part or the General Harbour (Safe Working Load) Regulations 1982, or recognised by the Director under the Act:

**competent person** means a person who in relation to ship's lifting appliances and loose cargo gear is authorised by:

- (a) the manufacturer of that equipment; or
- (b) a classification society in pursuance of a scheme of classification or certification of such equipment; or
- (c) a testing establishment recognised by—
  - (i) for a New Zealand ship or a foreign ship, the Director; and
  - (ii) for a foreign ship, the Flag State Administration; or
- (d) an international or national inspection agency approved by—
  - (i) for a New Zealand ship or a foreign ship, the Director; and
  - (ii) for a foreign ship, the Flag State Administration; or
- (e) a Flag State Administration;

to carry out any testing, thorough examination and issue of certificates of test required by this Part:

**Director** means the person who is for the time being the Director of Maritime Safety under section 439 of the Maritime Transport Act 1994:

**fishing ship** means a ship used for catching fish, whales, seals, or other living resources of the sea for profit:

**foreign ship** means any ship that is not a New Zealand ship:

**inspection** means a visual inspection by a responsible person carried out to decide whether, so far as can be ascertained in such manner, a ship's lifting appliance or loose cargo gear is safe for continued use:

**lifting appliance** means for the purposes of rules 49.4 to 49.11 inclusive any stationary cargo-handling appliance on board a ship used for suspending, raising or lowering loads or moving loads from one position to another while they are suspended or supported. For the purposes of rule 49.12 it means any appliance or gear fitted in or carried by the ship and used in the ship's machinery spaces to lift any item associated with the operation, maintenance and servicing of such spaces:

**loose cargo gear** means an article of equipment by means of which a load can be attached to a lifting appliance but which does not form an integral part of the appliance or load. Loose cargo gear includes any steel wire rope, shackle, block, hook, clamp, tray, crate, tub, grab, or other receptacle used to convey any cargo, personnel cradle, pallet bar, connecting plate, swivel, ring, chain, beam sling, overhauling weight, lifting beam, spreader, lifting frame, magnetic lifting device, vacuum lifting device or any other similar device that is designed or used to facilitate loading or unloading of cargo; but does not include containers as defined by the International Convention for Safe Containers 1972 (CSC):

**master** means any person (except a pilot) having command or charge of any ship:

**New Zealand Defence Force** has the same meaning as the term "Defence Force" in section 2(1) of the Defence Act 1990:

**New Zealand ship** means a ship that is registered under the Ship Registration Act 1992; and includes a ship that is not registered under that Act but is required or entitled to be registered under that Act:

**owner**

- (a) in relation to a ship registered in New Zealand under the Ship Registration Act 1992, means the registered owner of the ship:
- (b) in relation to a ship registered in any place outside New Zealand, means the registered owner of the ship:
- (c) in relation to a ship to which paragraph (a) or paragraph (b) of this definition applies, where by virtue of any charter or demise or for any other reason, the registered owner is not responsible for the management of the ship, includes the charterer or other person who is for the time being so responsible:
- (d) in relation to an unregistered ship or a registered ship that does not have a registered owner, means the person who is for the time being responsible for the management of the ship:

**proof load** means the total load that any lifting appliance or loose cargo gear is subjected to under test:

**responsible person** means—

- (a) in relation to rule 49.7, a member of the crew of the ship that the master of the ship has deemed competent to undertake inspections of loose cargo gear and appointed to perform that function; or
- (b) in relation to rule 49.9(3):
  - (i) the master or the deck officer of the ship delegated with the task of keeping and maintaining the register of equipment; or
  - (ii) a competent person:

**SWL** means safe working load:

**thorough examination** means a detailed visual examination by a competent person, supplemented if necessary by other means or measures of examination in order to arrive at a reliable conclusion as to the safety of the lifting appliance or item of loose cargo gear examined:

**working cargo** means—

- (a) loading cargo on to or unloading cargo from a ship; or
- (b) handling cargo on a ship.

### 49.3 Application

- (1) Except as provided in rule 49.3(2), this Part applies to—
  - (a) every lifting appliance on a New Zealand ship; and
  - (b) any item of loose cargo gear carried on a New Zealand ship; and
  - (c) every lifting appliance on a foreign ship that is used for working cargo in New Zealand; and
  - (d) any item of loose cargo gear that is carried on a foreign ship and is used for working cargo in New Zealand.
- (2) This Part does not apply to—
  - (a) a fishing ship, provided that the lifting appliances aboard that ship are only used in fishing operations and the handling and discharge of the fish catch of that ship; or
  - (b) a pleasure craft; or
  - (c) a warship of the New Zealand Defence Force; or
  - (d) a warship of any other State.

### Lifting appliances and loose cargo gear

#### 49.4 General

- (1) Subject to rule 49.5(7), the owner and master of a ship must ensure that a certificate of test is obtained for every lifting appliance and every item of loose gear carried on the ship and that the validity of the certificate of test is maintained.
- (2) The owner and the master of a ship must ensure that every lifting appliance and every item of loose cargo gear carried on the ship is maintained in good repair and working order.
- (3) A person using a lifting appliance on a ship or any item of loose cargo gear carried by the ship must—
  - (a) do so in a safe and proper manner; and
  - (b) not load the lifting appliance or gear beyond its safe working load or loads, except for testing purposes required by rule 49.5, in which case it must be loaded and used under the direction of a competent person.
- (4) No person may use a ship's lifting appliance or item of loose cargo gear unless there is in force for that lifting appliance or item of loose cargo gear a valid certificate of test.

#### 49.5 Testing of ship's lifting appliances and loose cargo gear

- (1) The owner of a ship must ensure that, before being put into use for the first time and after any substantial alteration or repair liable to affect its safety—
  - (a) subject to rule 49.5(7), every lifting appliance on the ship is tested in accordance with rule 49.5(3) by a competent person; and
  - (b) each item of loose cargo gear<sup>1</sup> carried on the ship is tested in accordance with rule 49.5(4) by a competent person.
- (2) The owner of a ship must ensure that, at least once in every five year period, subject to rule 49.5(7), every lifting appliance on the ship is re-tested in accordance with rule 49.5(3) by a competent person.
- (3) Where a ship's lifting appliance is tested, the proof load must not be less than the applicable load specified in the following table—

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<sup>1</sup> Built in sheaves and blocks and other items permanently attached to the lifting appliance are not considered as loose gear and any test on the complete system 'as rigged' is accepted as a test on these items.

SWL of Lifting Appliance (tonnes)	Proof Load
Not more than 20	SWL x 1.25
More than 20 but not more than 50	SWL + 5 tonnes
More than 50	SWL x 1.1

- (4) Where an item of loose cargo gear is tested, the proof load must not be less than the applicable load specified in the following table—

Item and SWL(tonnes)	Proof Load
Single sheave block	SWL x 4
<b>Multi sheave blocks:</b>	
Not more than 25	SWL x 2
More than 25 but not more than 160	(SWL x 0.933) + 27 tonnes
More than 160	SWL x 1.1
<b>Hooks, shackles, chains, rings, swivels etc:</b>	
Not more than 25	SWL x 2
More than 25	(SWL x 1.22) + 20 tonnes
<b>Lifting beams, spreaders, frames, magnetic and vacuum lifting devices:</b>	
Not more than 10	SWL x 2
More than 10 but not more than 160	(SWL x 1.04) + 9.6 tonnes
More than 160	SWL x 1.1
Trays, Crates, Tubs, Grabs, etc. and Personnel Cradles	
Not more than 3	SWL x 2
More than 3 but not more than 12	SWL + 3 tonnes
More than 12 but not more than 20	SWL x 1.25
More than 20	SWL + 5 tonnes

- (5) The breaking load<sup>2</sup> of any steel wire rope forming part of a lifting appliance or loose cargo gear must be indicated by a certificate of test details of which are maintained in the register of equipment required by rule 49.9.
- (6) Upon the completion of any test of a lifting appliance or item of loose cargo gear in accordance with rules 49.5(1) and 49.5(2), the competent person must conduct a thorough examination of that lifting appliance or item of loose cargo gear.
- (7) Where the design of a lifting appliance is such that compliance with 49.5(3) is, in the opinion of a competent person, impracticable, the test and thorough examination may be dispensed with, provided that the manufacturer's specification, schedule of examination and maintenance manual are available to the competent person and the examination and maintenance procedures carried out are recorded in the ship's register of equipment by a competent person.

<sup>2</sup> The breaking load should be determined in accordance with the test requirement of the International Organization for Standardization standard ISO 3108:1974 *Steel wire rope for general purposes* or British Standard BS 302:1987 *Stranded steel wire ropes* or an equivalent standard.

**49.6 Examination of ship's lifting appliances and loose cargo gear**

- (1) The owner or master of a ship must ensure that every lifting appliance on the ship and every item of loose cargo gear carried by the ship is thoroughly examined by a competent person at least once in every 12 months.
- (2) The competent person must ensure that the completion of a satisfactory thorough examination is recorded in the register of equipment required by rule 49.9.
- (3) If on completion of a thorough examination the competent person considers the lifting appliance or item of loose cargo gear is unsatisfactory, that lifting appliance or item of loose cargo gear must not be used until any defect is remedied to the satisfaction of a competent person.

**49.7 Inspection of ship's loose cargo gear**

- (1) The master of a ship must ensure that every item of loose cargo gear is inspected by a responsible person before it is used.
- (2) If on inspection the responsible person considers an item of loose cargo gear to be unsatisfactory, no person may use that item of loose cargo gear until any defect is remedied to the satisfaction of a competent person.
- (3) The responsible person must record in the register of equipment required by rule 49.9 any item of loose gear that is, on inspection, found to be unsatisfactory.

**49.8 Marking of ship's lifting appliances and loose cargo gear**

- (1) The master of a ship must ensure that no lifting appliance on a ship and no item of loose cargo gear carried by the ship is used in loading or unloading a ship unless—
  - (a) the lifting appliance is clearly and permanently marked with its safe working load for each operating condition; and
  - (b) the item of loose cargo gear is clearly and permanently marked with its safe working load.
- (2) The safe working load or loads of a ship's lifting appliance and safe working load of loose cargo gear carried on a ship must be marked on each lifting appliance and item of loose cargo gear by a competent person, having regard to the design, strength, material of construction and proposed use of the lifting appliance or gear and the test required by rule 49.5.

**49.9 Register of equipment**

- (1) The master of a ship must ensure that a register of equipment listing all the ship's lifting appliances and items of loose cargo gear carried by the ship and stating their safe working loads, is kept and maintained on board the ship in accordance with the requirements of this Part.
- (2) The master of a ship must ensure that particulars of all tests undertaken or certificates of test issued<sup>3</sup>, as required by rule 49.5, examinations undertaken as required by rule 49.6, inspections undertaken as required by rule 49.7(1) that prove unsatisfactory, and any heat treatment, maintenance, repair or replacement of lifting appliances or loose cargo gear are recorded in the register of equipment.
- (3) A register of equipment may be kept in any convenient form, provided each entry is clearly legible and is authenticated by the responsible person.

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<sup>3</sup> Particulars of the certificate of test may be recorded or the certificate of test itself may be kept as part of the register.

**49.10 Rigging plan**

The owner and the master of a ship fitted with derricks or cranes for working cargo must ensure that the ship has on board a fully detailed rigging plan and any other relevant information necessary to permit the safe rigging of the ship's derricks or cranes, and associated gear.

**49.11 Certificates of test**

- (1) Following a satisfactory test in accordance with rule 49.5(1)(a) and a satisfactory examination in accordance with rule 49.5(6) the competent person must issue a certificate of test in respect of that lifting appliance to the owner of the ship.
- (2) Following a satisfactory test in accordance with rule 49.5(1)(b) and a satisfactory examination in accordance with rule 49.5(6) the competent person must issue a certificate of test in respect of that item of loose cargo gear to the owner of the ship.
- (3) The certificate of test is valid for a period not exceeding 5 years from the date of issue, unless within that period the lifting appliance or loose cargo gear suffers a failure affecting the safe operation of the appliance or gear or undergoes a substantial alteration, in which case the certificate expires on the close of the date of the failure or alteration. If any question arises regarding the date of the failure or alteration, the date is to be determined by the Director.
- (4) The certificate must specify the date of issue, the name of the competent person issuing the certificate and the organisation authorising the competent person to issue the certificate.
- (5) Subject to rule 49.5(7), the master of a ship must ensure that a valid certificate of test, or certified copy of the certificate of test, for each of the ship's lifting appliances and each item of loose cargo gear carried by the ship is readily available on board the ship and kept with the register of equipment.

**49.12 Lifting appliances and loose gear used in machinery spaces**

Lifting appliances fitted in the machinery spaces of New Zealand ships and loose gear carried by a New Zealand ship that is used for lifting purposes within the machinery spaces of such ships must comply with rules 49.4 to 49.9 inclusive and rule 49.11.

**49.13 Cargo or vehicle lifts and vehicle ramps**

The owner of a New Zealand ship fitted with cargo or vehicle lifts or vehicle ramps that are capable of being raised or lowered must ensure that the cargo or vehicle lift or vehicle ramp is—

- (a) maintained and operated in compliance with the requirements of rule 49.4; and
- (b) tested after installation and following any major repair, renewal or alteration in accordance with rules 49.5(1), 49.5(3) and 49.5(6) and issued with a certificate of test in accordance with the requirements of rule 49.11; and
- (c) thoroughly examined by a competent person at least once in every 6 month period, and that rules 49.6(2) and 49.6(3) are complied with.