

Maritime New Zealand Guidelines

MARINE GUIDANCE NOTICE ISSUE 19 – FEBRUARY 2011

Ship crane responsibilities in ports

This guidance notice is for:

- stevedores and their employers
- port companies and shipping agents
- shipping companies and masters
- maritime safety inspectors (MSIs)
- classification societies
- competent persons recognised for crane inspections, examinations and certification.

Purpose

This purpose of this guidance notice is to provide advice on:

- the different responsibilities involved when dealing with ships' cranes in ports
- the role of Maritime New Zealand (MNZ) personnel in relation to cranes, and the extent of their involvement
- how stevedores should react to failures or deficiencies in ships' lifting appliances or loose gear
- what examination, testing, certification and inspection are required to be supported by the ship owner, master and agents.

Key areas of legal responsibility

There are two legislative regimes that interact with the use of cranes in port areas:

- Health and Safety in Employment Act 1992 (HSEA)
- Maritime Transport Act 1994 (MTA) and Maritime Rule Part 49 – Ships' Lifting Appliances

For most typical situations for a land-based crane, the HSEA is the primary piece of legislation that applies to the safety of port operations involving that crane. When the crane's foundation is on a ship, the HSEA, MTA and MTA's maritime rules are all involved.

The land-based port area is a New Zealand workplace and the HSEA applies to safety in that workplace. The requirements and responsibilities applying to the owners of that workplace and the employers of people working there are outlined in the HSEA.

Safety issues in a port area (but not on board a ship) fall under the HSEA, and the enforcement agency is usually the Department of Labour (DoL). Reporting of accidents, incidents or near misses in relation to a port area crane with shore-based foundations should be made to the DoL. Any concerns or complaints that relate to any working practice or faulty or dangerous equipment should also be made to the DoL, if the crane is shore-based.

This guidance provides information to support the responsibilities of people likely to be working with, or in the vicinity of, ships' cranes.

Ship safety requirements

Ships are a little more complicated when it comes to legal requirements, because not all of them are New Zealand ships. On board each foreign-flagged international ship, the legal requirements are a mix of national laws specific to that country and international convention requirements. To simplify this complex situation, the International Maritime Organization (IMO), through the SOLAS Convention, requires countries to comply with standard international safety requirements.

All SOLAS ships trading internationally have to comply with the International Safety Management (ISM) Code, which requires health and safety requirements to be applied on board. The principles applied by the ISM Code are in essence the same as those applied by New Zealand's HSEA. Through the MSIs, the Director of MNZ enforces the standards of safety required by the ISM Code for all international SOLAS ships in New Zealand ports.

New Zealand also has maritime rules that specifically relate to ships' cranes and lifting appliances (Maritime Rule Part 49). These rules apply to all cargo ships in New Zealand ports (see Rule 49.3) and are also enforced by the MSIs. Where a safety concern with a ship's crane is likely to endanger people or property, or be hazardous to the health and safety of any person, the local MSI should be contacted (or MNZ's duty manager). The MSI may, where it is considered necessary, issue a Prohibition Notice¹ or an Order of Imposition of Conditions¹ against the ship.

If the ship is registered in New Zealand, the MSI can also apply the requirements and enforcement tools of the HSEA, because the ship is a New Zealand workplace. This includes having the power to issue a Prohibition Notice² where there is a likelihood of serious harm.

Ship crane inspections, certification and rectifying defects

MSIs are not responsible for undertaking crane testing, thorough examinations, issuing crane certificates or inspections for the purpose of maintenance or rectifying defects. The MSIs should not be contacted for the purpose of acting as a 'competent person', as defined in Maritime Rule Part 49.

If testing of a lifting appliance or a certificate of thorough examination is required by maritime rules, classification society rules or international requirements, one of the following groups of 'competent persons' should be contacted:

- the manufacturer of that equipment
- a classification society that is applying a scheme and involved in the classification or certification of such equipment
- a testing establishment recognised by:
 - the Director of MNZ (for a New Zealand or foreign ship)
 - the flag state administration (for a foreign ship)
- an international or national inspection agency approved by:
 - the Director (for a New Zealand or foreign ship)
 - the flag state administration (for a foreign ship).

Reporting of mishaps, accidents or incidents

The master of any New Zealand ship or any foreign ship in New Zealand waters is required by Section 31 of the MTA to notify MNZ if the ship is involved in a mishap that results in serious harm or an incident or accident.

In the context of lifting appliance failures, an 'accident' includes damage or structural failure that adversely affects the structural strength, performance, or seaworthiness of the ship, or requires the major repair or replacement of the affected component, or poses a threat to the safety of people on board the ship.

¹ Issued under Section 55 of the MTA.

² Issued under Section 42 of the HSEA.

Advice to stevedores involved with a ship's lifting appliances

The following advice is to support stevedores whose responsibilities involve working in the vicinity of a ship's crane:

1. In the event of any failure of lifting appliances, the crane operator and stevedores should take immediate steps to ensure the safety of all persons in the work area.
2. Failure may be due to various causes, including mechanical damage during cargo operations, and subsequent action taken will depend on the nature of the failure. If a failure is an isolated and minor occurrence and has not compromised safety, it may be necessary only to bring it to the attention of the ship's officers to ensure that the appliance is replaced or repaired before work continues. MNZ should be advised of the incident and the action taken. An example would be the partial stranding of a runner wire – if the wire is replaced and other appliances are in good order, there should be no need for further action beyond that reporting.
3. In the event of a serious failure – for example, if a hoist or luffing-wire parts – all cranes working on the ship should immediately stop work.
4. After assessment, cranes may resume working once it is deemed safe to do so. In making this decision, a stevedore may seek guidance from people experienced in the assessment of lifting appliances. If there are still serious concerns about safety, the stevedore should bring them to the attention of the local MSI.
5. After any serious failure, the stevedore in charge should report the following information to MNZ:
 - the ship's name
 - name and contact number of the stevedoring organisation
 - location – port and berth number
 - a description of the incident (for example, "Number three crane hoist wire broken while loading logs")
 - whether there were injuries to personnel
 - the age and general condition of the wires³
 - the crane's SWL and the weight of cargo being lifted³
 - any other information that may be useful.
6. If the hoist wires are old or showing signs of wear or lack of maintenance, or do not meet the crane manufacturer's specifications, the cranes should not be used until:
 - they have been inspected and passed by a 'competent person', or
 - wire ropes have been replaced with new wires that meet the crane manufacturer's specifications.
7. Crane manufacturers' specifications should be found in the rigging plan or accompanying booklets, which should be available on board the ship.
8. A common occurrence is for twin hoist wires to twist around each other. When this happens, their continued use could lead to their failure. The stevedore should inform the ship's master and the ship's agent that the cranes involved will not be used until the problem is resolved. The problem is caused by incorrect rigging and may only be rectified if the wire ropes are run off the crane and twists removed.
9. Other types of crane or derrick failures must be treated on a case-by-case basis, with the action to be taken based on the risk to personnel and the general condition of the lifting appliances.
10. For all but minor failures, the ship's lifting appliances should not be used until the situation has been assessed by the ship's 'responsible person'.
11. Concerns about the condition of lifting appliances should be brought to the attention of the ship's master. Any instances of reporting concerns to the ship's master or officers should be recorded. Lifting appliances should not be used until the stevedore is satisfied that it is safe to do so.

³ This information should be gathered when carrying out the risk assessment of the ship, before starting work.

Advice to ship owners, masters and agents

Ships are likely to suffer delays if their lifting appliances are found not to be in good working order or found not to comply with Maritime Rule Part 49 – Ships' Lifting Appliances.

Every lifting appliance on a New Zealand ship or used in a New Zealand port by a foreign ship must:

- have a current certificate of test and each lifting appliance must be tested by a 'competent person' before being brought into use and tested at least once every five years
- be thoroughly examined by a competent person once every 12 months, and the findings of each examination recorded in the ship's register of equipment.

Every item of loose gear on a New Zealand ship or used in a New Zealand port by a foreign ship must:

- have a certificate of test issued by a 'competent person' before it is brought into use
- before each time it is used, be inspected by a 'responsible person'
- be thoroughly examined by a 'competent person' once every 12 months, and the findings of that examination recorded in the ship's register of equipment.

Ship owners, masters and agents should be aware that the maritime rules make no provision for extending these periods.

'Competent person' and 'responsible person' are defined in Maritime Rule Part 49 – Ships' Lifting Appliances: <http://www.maritimenz.govt.nz/Rules/List-of-all-rules/Part49-maritime-rule.asp> and additional advice is provided in the Advisory Circular for that rule part.

For advice on the examination and renewal of crane wires, please refer the Safety Bulletin 11, issued in June 2007 (see link below).

If one of the ship's crane wires fails, the age, maintenance, load history and current condition of the remainder of the ships' lifting appliances will need to be fully considered before work is resumed. It is recommended that ship owners and masters keep this in mind when selecting the intervals for thorough examination and renewal of the ship's crane wires.

Additional advice on cranes

Safety Bulletin 11, issued June 2007 – *Cargo Vessel Crane Wire – Examination and Renewal*
<http://www.maritimenz.govt.nz/Publications-and-forms/Commercial-operations/Shipping-safety/Safety-updates/Issue11-mnz-safety-bulletin-june-2007.pdf>

Safety Bulletin 12, issued June 2007 – *Lifting Slings, Loose Gear and Dunnage*
<http://www.maritimenz.govt.nz/Publications-and-forms/Commercial-operations/Shipping-safety/Safety-updates/Issue12-mnz-safety-bulletin-june-2007.pdf>

Safety Bulletin 13, issued September 2007 – *Shore-based pre-slung cargo slings*
<http://www.maritimenz.govt.nz/Publications-and-forms/Commercial-operations/Shipping-safety/Safety-updates/Issue13-mnz-safety-bulletin-september-2007.pdf>

Safety Bulletin 14, issued February 2009 – *Crane Controls and Communications*
<http://www.maritimenz.govt.nz/Publications-and-forms/Commercial-operations/Shipping-safety/Safety-updates/Issue14-mnz-safety-bulletin-september-2007.pdf>

Further information

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