

Title	Operate a ship's crane in a port environment		
Level	3	Credits	6

Purpose	People credited with this unit standard are able to: describe factors affecting the operation of a ship's crane; prepare for cargo operations with a ship's crane; control and move loads with a ship's crane; and park and shut down a ship's crane in a port environment.
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Classification	Stevedoring and Ports Industry > Port Machinery Operations
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Available grade	Achieved
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Prerequisite	Unit 20054, <i>Carry out hatchperson duties for cargo operations</i> , or demonstrate equivalent knowledge and skills.
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Guidance Information

- Legislative and regulatory requirements relevant to this unit standard include – Health and Safety at Work Act 2015;
Approved Code of Practice for Health and Safety in Port Operations, available at [Health and safety in port operations | WorkSafe](#);
New Zealand Port and Harbour Marine Safety Code, available at [New Zealand Port and Harbour Marine Safety Code - Maritime NZ](#);
Approved Code of Practice for Load Lifting and Rigging, available at <http://www.worksafe.govt.nz>.
- Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with company requirements, legislative requirements and regulatory requirements.
- Definitions
Company requirements refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions and legislative requirements.
Heavy loads are those which may cause the vessel to roll sufficiently to cause a swing.
Light loads are those which do not cause the vessel to roll sufficiently to cause a swing.

Regulatory requirements refer to regulations set by but not limited to the New Zealand Customs Service, Ministry for Primary Industries and WorkSafe New Zealand.

- 5 Operating a ship's gantry crane is covered by Unit 20049, *Operate a ship's gantry crane in a port environment*.

Outcomes and performance criteria

Outcome 1

Describe factors affecting the operation of a ship's crane in a port environment.

Performance criteria

- 1.1 Ship's crane components and their functions are described.
- Range jib, hook, block, winches, luffing wires, lifting wires, turret, remote controls, emergency stop button/s.
- 1.2 Hazards for crane operations, and indicators that conditions for lifting operations are becoming hazardous once operations are underway are described.
- Range evidence of five hazards are required.
- 1.3 Indicators of a safe and stable load on a ship's crane are described.
- Range evidence of four indicators are required.
- 1.4 Box driving, minimum height of lift, effect of shock loading on crane and lifting equipment, and jib speed in luffed position are described.
- 1.5 Requirements of a final check to ensure the crane is safe to leave are described.

Outcome 2

Prepare for cargo operations with a ship's crane in a port environment.

Performance criteria

- 2.1 Requirements of the operation are identified from briefing information provided.
- Range cargo to be lifted, type of lifting equipment to be used, movements, person in charge.
- 2.2 A pre-operational check is completed, and necessary corrective actions taken.
- Range communication method/s, visual check of crane and lifting equipment, crane's safe working load, hazards in operating area, crane lighting, weather conditions.

2.3 Start up procedures are completed.

Range identification of crane's controls, confirmation of operating instructions, check on operation of warning lights and operation of emergency stop, activation of mechanisms, test manoeuvres, check on operation of any attached cargo handling equipment, check on limit cut-out operations, report on gear characteristics, report on problems.

Outcome 3

Control and move loads with a ship's crane in a port environment.

Performance criteria

3.1 Light loads are moved to and from wharf and vessel smoothly and without sway, using straight lift.

Range trial lift, cargo movements, coordination with cargo handlers and signalman.

3.2 Heavy loads are moved to and from wharf and vessel smoothly and without sway.

Range trial lift, cargo movements, onto twistlocks, coordination with cargo handlers and signalman.

3.3 Ability to kill a swing is demonstrated.

3.4 Load is moved following signalman's directions only, with no line of sight to pick up and put down positions.

3.5 A load is rotated to fit into available space to ship's requirements.

3.6 Coordination and communication with personnel is maintained throughout operations.

3.7 Load movements are carried out in a safe and efficient manner, without risk of damage to crane, lifting equipment, cargo, vessel, and wharf, and without harm to people.

Outcome 4

Park and shut down a ship's crane in a port environment.

Performance criteria

4.1 Crane is temporarily parked and shut down.

4.2 Crane is parked and completely shut down.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 July 2003	31 December 2023
Rollover and Revision	2	17 September 2015	31 December 2023
Review	3	24 February 2022	N/A

Consent and Moderation Requirements (CMR) reference	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.