

Title	Operate ship's gantry crane		
Level	3	Credits	6

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

Explanatory notes

- 1 Compliance requirements include but are not limited to - Health and Safety in Employment Act 1992, General Harbour (Safe Working Load) Regulations 1982, General Harbour (Ship, Cargo, and Dock Safety) Regulations 1968, and *Approved Code of Practice for Load Lifting and Rigging* available at <http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/acop-load-lifting-rigging>
- 2 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
- 3 Definitions
Company policies and procedures refers to relevant workplace documents which are current and accessible to candidates, trainers, and assessors, and which comply with legal requirements.
Hazards refers to situations and conditions presenting actual or potential risk including but not limited to - risk of harm to persons and/or environment, risk of damage to property and/or process, and exposure to financial loss.
Light loads are those which do not cause the vessel to roll sufficiently to cause a swing.
Heavy loads are those which may cause the vessel to roll sufficiently to cause a swing.

- 4 Personal protective equipment must be used throughout operations in accordance with company policies and procedures.

Outcomes and evidence requirements

Outcome 1

Describe factors affecting the operation of a ship's gantry crane.

Evidence requirements

- 1.1 Description identifies ship's gantry crane components and their functions.
- Range lifting equipment, block, winches, lifting wires, controls, deck travel emergency stop button.
- 1.2 Description identifies five hazards for crane operations, and includes indicators that conditions for lifting operations are becoming hazardous once operations are underway.
- 1.3 Description includes four indicators of a safe and stable load on a ship's gantry crane.
- 1.4 Description explains box driving, minimum height of lift, and effect of shock loading on crane and lifting equipment.
- 1.5 Description includes the requirements of a final check to ensure the crane is safe to leave.

Outcome 2

Prepare for cargo operations with a ship's gantry crane.

Evidence requirements

- 2.1 From briefing information provided, requirements of the operation are identified.
- Range includes but is not limited to - 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, in accordance with company policies and procedures.
- Range communication method/s, visual check of crane and lifting equipment, crane's safe working load, hazards in operating area, crane lighting, crane obstructions, weather conditions.
- 2.3 Start up procedures are completed safely in accordance with operating instructions and company policies and procedures.
- Range includes but is not limited to - 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 gantry crane.

Evidence requirements

- 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, coordination with cargo handlers and signalman, may include onto twistlocks.
- 3.3 Ability to kill a swing is demonstrated.
- 3.4 Following signalman's directions only, with no line of sight to pick up and put down positions, a load is moved.
- 3.5 With travel of at least two metres, a load is rotated to fit into available space to ship's requirements.
- Range load - a standard lift as it applies to the vessel.
- 3.6 Coordination and communication with personnel is maintained throughout operations in accordance with company policies and procedures.
- 3.7 Load movements are carried out in a safe and efficient manner, without risk of damage to crane, lifting equipment, loads, cargo, and wharf, and without harm to people.

Outcome 4

Park and shut down a ship's gantry crane.

Evidence requirements

- 4.1 Gantry crane is temporarily parked and shut down in accordance with operating instructions and company policies and procedures.
- 4.2 Gantry crane is parked and completely shut down in accordance with operating instructions and company policies and procedures.

Planned review date	31 December 2020
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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	N/A
Rollover and Revision	2	17 September 2015	N/A

Consent and Moderation Requirements (CMR) reference	0145
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the SSB ssb@email.address if you wish to suggest changes to the content of this unit standard.