

Title	Operate ship's union purchase		
Level	3	Credits	6

Purpose	People credited with this unit standard are able to: describe factors affecting the operation of ship's union purchase; rig up ship's union purchase; prepare for cargo operations with ship's union purchase; control and move loads with ship's union purchase; and park and shut down ship's union purchase.
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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.
Instructions (element 2) refers to best available instructions such as manufacturer's instructions and/or instructions of the person in charge.
- 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 ship's union purchase.

Evidence requirements

- 1.1 Description identifies ship's union purchase components and their functions.
- Range masthead span block, derrick heel lead block, derrick head cargo block, standing guy, goose neck, span wire, winches, spider band, emergency stop button, preventer, shackles, securing points, guy wire, midship guy, topping lift stopper, monkey face.
- 1.2 Description identifies five hazards for union purchase 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 union purchase.
- 1.4 Description explains box driving, minimum height of lift, effect of shock loading on union purchase and lifting equipment, and maximum 120° runner angle.

Outcome 2

Rig up ship's union purchase.

Evidence requirements

- 2.1 Union purchase is rigged up to suit cargo operations and in accordance with instructions.
- Range locking cap checked to be off derrick crutch, topping span wire secured to winch drum and clutch locking pin secured, all controls checked to be in neutral before starting pump, position of emergency stop checked, power supply to winches started, derrick lifted to required height and positioned for cargo operations, guy wires and preventers checked to be free, guy wires and preventers secured to suit cargo operations, topping span secured, topping lift wire released from drum end and dog in and secured to winch drum.
- 2.2 The first lift is stopped at halfway and midship guy tightened, in accordance with instructions.

Outcome 3

Prepare for cargo operations with ship's union purchase.

Evidence requirements

- 3.1 Requirements of the operation are identified from briefing information provided.
- Range includes but is not limited to - cargo to be lifted, movements, person in charge.
- 3.2 A pre-operational check is completed, and any corrective actions taken, in accordance with company policies and procedures.
- Range communication method/s, visual check of union purchase rig and lifting equipment, union purchase's safe working load, hazards in operating area, ship's lighting, weather conditions.
- 3.3 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 union purchase's controls including any pump room controls, confirmation of operating instructions, check guy wires and preventers are correctly set, check on operation of warning lights and operation of emergency stops, activation of mechanisms including coordination with any pump room controls, check on winch motor and brake, test manoeuvres, report on gear characteristics, report on problems.

Outcome 4

Control and move loads with ship's union purchase.

Evidence requirements

- 4.1 Loads are moved to and from wharf and vessel smoothly and with minimal sway.
- Range trial lift, cargo movements, coordination with cargo handlers and signalman.
- 4.2 Ability to kill a swing is demonstrated.
- 4.3 Following signalman's directions only, using a cargo frame or tray, with no line of sight to pick up and put down positions, a load is moved. Movement includes a stop to given hand signal with load at halfway position.
- 4.4 A load is kept level and moved to fit into available space.
- Range wharf to vessel, vessel to wharf.

- 4.5 Coordination and communication with personnel is maintained throughout operations in accordance with company policies and procedures.
- 4.6 Load movements are carried out in a safe and efficient manner, without risk of overloading union purchase, damage to lifting equipment, cargo, vessel, and wharf, and without harm to people.

Outcome 5

Park and shut down ship's union purchase.

Evidence requirements

- 5.1 Union purchase is temporarily parked and shut down in accordance with operating instructions and company policies and procedures.
- 5.2 Union purchase 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.