

<b>Title</b>	<b>Lift loads in engineering installation, maintenance, and fabrication work</b>		
<b>Level</b>	<b>2</b>	<b>Credits</b>	<b>2</b>

<b>Purpose</b>	<p>This is an entry-level unit standard for mechanical engineering and related trades for safety and correct procedures when carrying out lifting operations in installation, maintenance and fabrication work, using simple lifting devices and does not cover the moving or lifting of personnel. Additional training and certification should be undertaken in the workplace on the use of specific lifting appliances and equipment.</p> <p>People credited with this unit standard are able to select and visually inspect lifting appliances and tackle, sling and secure loads, and carry out lifting procedures.</p>
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<b>Classification</b>	Mechanical Engineering > Engineering Core Skills
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<b>Available grade</b>	Achieved
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<b>Entry information</b>	
<b>Critical health and safety prerequisites</b>	Unit 21911, <i>Demonstrate knowledge of safety on engineering worksites</i> ; Unit 21912, <i>Apply safe working practices on an engineering worksite</i> , or demonstrate equivalent knowledge and skills.
<b>Recommended skills and knowledge</b>	Unit 29675, <i>Demonstrate knowledge of safety when lifting loads in engineering installation, maintenance, and fabrication work</i> .

**Explanatory notes**

- References  
Health and Safety at Work Act 2015 and supporting Regulations.  
*Approved Code of Practice for Load-lifting Rigging*. Wellington: Ministry of Business, Innovation and Employment, 2012. This publication is available online at <http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/acop-load-lifting-rigging/rigging-load-lifting-acop.pdf>.

*Approved Code of Practice for Cranes* - includes the design, manufacture, supply, safe operation, maintenance and inspection of Cranes. Ministry of Business, Innovation and Employment, 2009. This publication is available online at <http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/acop-cranes/cranes-acop-2009.pdf>.

## 2 Definitions

*Codes of Practice* refers to the *Approved Codes of Practice* in Explanatory Note 2.

*Lifting appliance* refers to any appliance capable of being operated by mechanical, manual, or other means to raise or lower a load in a vertical or near vertical plane.

*Lifting tackle* refers to any sling, shackle, swivel, ring, hook or other appliances, including lifting beams, frames and spreaders, used in connection with a lifting appliance or from the hook of a crane.

*WLL* refers to the working load limit, the maximum working load designed by the manufacturer. This term is now used instead of SWL (safe working limit).

*Workplace procedures* refers to procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.

## 3 Range

- a loads – typical industrial loads such as machinery, motors, steel pipe, steel beams, with uniform weight distributions or known lifting points. Lifting of personnel is excluded.
- b typical lifting appliances – small floor crane, electric hoist, manual chain hoist, Weston pulley block, electric rope winch, hoist, small gantry crane, I-beam trolley, truck mounted lifting equipment.
- c slinging methods – single-leg, two single-leg, double-leg; choke hitch, basket hitch.
- d sling types – webbing, chain, rope.

Competence must be demonstrated for lifting three different types of loads, one type of appliance, two types of slings, and three slinging methods.

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## Outcomes and evidence requirements

### Outcome 1

Select and visually inspect lifting appliances.

### Evidence requirements

- 1.1 Size, shape, weight, and centre of gravity of loads are assessed in accordance with Codes of Practice.
- 1.2 Lifting appliances suitable for the loads and planned lifts are selected.  
  
Range           WLL, access, height, anchoring points.
- 1.3 Currency and validity of Certificates of Inspection are confirmed.

- 1.4 Lifting appliances are visually inspected in accordance with Codes of Practice, and defective items, if any, are labelled and removed from service.

### Outcome 2

Select and visually inspect lifting tackle.

#### Evidence requirements

- 2.1 Tackle (including slings) is selected for given loads in accordance with Codes of Practice.
- 2.2 Currency and validity of Certificates of Inspection are confirmed.
- 2.3 Tackle is visually inspected for defects in accordance with Codes of Practice, and defective items, if any, are labelled and removed from service.

### Outcome 3

Sling and secure loads.

#### Evidence requirements

- 3.1 Lifting fixtures on the load are visually inspected in accordance with Codes of Practice.
- 3.2 Slings, and tag lines where appropriate, are attached to loads and lifting appliance in accordance with Codes of Practice.

### Outcome 4

Carry out lifting procedures.

#### Evidence requirements

- 4.1 Loads are lifted safely in accordance with Codes of Practice.
- 4.2 Loads are lifted without damage to load, lifting appliance, and tackle.
- 4.3 Lifting appliances and tackle are safely stored in accordance with workplace procedures.

<b>Replacement information</b>	This unit standard replaced unit standard 12299
<b>Planned review date</b>	31 December 2021

Version 4 of this unit standard was republished to correct the title for unit standard 29675 under entry information.

### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 June 2005	31 December 2016
Review	2	17 November 2011	31 December 2021
Review	3	20 August 2015	31 December 2021
Review	4	8 December 2016	N/A
Republished	4	17 February 2017	N/A

### Consent and Moderation Requirements (CMR) reference

0013

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.

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### Comments on this unit standard

Please contact Competenz [qualifications@competenz.org.nz](mailto:qualifications@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.