Title	**Demonstrate and apply knowledge of slinging regular loads safely**		
Level	**3**	**Credits**	**14**

Purpose	People credited with this unit standard are able to: – demonstrate knowledge of hazards, hazard control, and lift planning; – demonstrate knowledge of lifting gear and working load limit (WLL) tables; and – demonstrate the process for preparing and slinging regular loads safely.

Classification	Cranes > Crane Operation

Available grade	Achieved

Guidance information

1 This unit standard is the first of a series of three standards about slinging loads – Unit 30072, *Demonstrate and apply knowledge of slinging regular loads safely*, Unit 3789, *Sling varied regular loads and safely direct a crane during crane operations*, and Unit 3801, *Prepare and sling complex loads for crane operations*.

This unit standard is an introductory standard and is also a pre-requisite unit standard for the cranes unit standards:

- Unit 16617, *Use a truck loader crane to lift and place regular loads*
- Unit 20208, *Use a self-erecting tower crane to lift and place regular loads*
- Unit 3800, *Use a radio remote or pendant controlled gantry crane to lift and place regular loads*
- Unit 3789, *Sling varied regular loads and safely direct a crane during crane operations*

and those used in other industries.

2 Definitions
Crane – the definition as given in the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999.
Regular loads have the following characteristics – uniform weight distribution; concentric loading or regular proportions; known lifting points; repetitively lifted.

3 Assessment
Assessment must involve a minimum of two different slinging examples observed by an assessor.

4 All tasks are to be carried out in accordance with the equipment manufacturer requirements, applicable company procedures, and industry good practice found in the following sources:
- a company quality management systems;
- b health and safety requirements and guidelines consistent with the Health and Safety at Work Act 2015;
- c equipment manufacturer operating instructions;
- d government and local government legislation, regulations, and bylaws;
- e *Crane Safety Manual*, version 3.2 or higher, available from http://shop.cranes.org.nz/;
- f *Approved Code of Practice for Cranes*, 2009 (3rd edition); and/or the *Approved Code of Practice for Load-lifting Rigging* available from http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items and/or the *LEENZ Code of Practice for the Safe Use of Lifting Equipment*.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazards, hazard control, and lift planning.

Performance criteria

1.1 Describe site-specific hazards, potential hazards, and risks.

Range may include but is not limited to – vehicles; equipment; ground condition; underground services; power sources; overhead service lines; trees, buildings, and structures; unauthorised people; adverse weather conditions; simultaneous operations; risks to the environment; pinch points;
evidence is required for at least seven different items.

1.2 Describe the controlling of load hazards, potential hazards, and risks.

Range may include but is not limited to – failure of lifting points and/ or load, sharp edges, regular load differences, load support, loose objects on the load, hazardous goods, load security, effects of weather;
evidence is required for at least five different items.

1.3 Explain lift planning in relation to the people actively involved in the lift, and people in the area of operations.

Outcome 2

Demonstrate knowledge of lifting gear and working load limit (WLL) tables.

Performance criteria

2.1 Describe lifting equipment in relation to their type, purpose and use.

2.2 Explain how to use lifting gear WLL tables.

Range includes – shackles, wire rope slings, chain slings, synthetic slings, eyebolts.

2.3 Explain the difference between WLL, safe working load (SWL), and minimum breaking load (MBL) and identify safety factors for lifting gear.

Range includes but is not limited to – shackles, wire rope slings, chain slings, synthetic slings, eyebolts.

Outcome 3

Demonstrate the process for preparing and slinging regular loads safely.

Performance criteria

3.1 Inspect and evaluate lifting gear to ensure it is safe and appropriate to use.

Range may include but is not limited to – shackles, eye bolts, wire rope, slings chains and synthetic slings;
evidence is required for at least three different items.

3.2 Interpret WLL tables or capacity charts of lifting equipment, to select lifting equipment for regular loads and apply to the load.

Range may include but is not limited to – wire rope slings, chains, synthetic slings, shackles, eyebolts;
evidence is required for at least three different items.

3.3 Demonstrate the process for preparing and slinging of regular loads for lifting, including two loads of different material with different rigging types that have an altered WLL due to sling angle or configuration.

Range at least two of following rigging methods – parallel basket, choke, basket included angle, double wrap; any other lifting equipment.

3.4 Describe the process of packing and dunnage to loads.

3.5 Identify hazards from, and describe controls to, swinging and spinning loads.

Range includes – attaching and using a tag line to control loads when lifted.

3.6 Tie knots using natural or synthetic ropes for use in controlling loads.

Range at least three of – bowline, clove hitch, sheet bend, figure 8.

3.7 Identify the recognised stop signal, as per the Approved Code of Practice, that is used to communicate with a crane operator during a lift.

3.8 Describe the process of removing lifting equipment from load without injury to persons or damage to load and/or equipment.

Planned review date	31 December 2024

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	15 June 2017	31 December 2021
Review	2	26 September 2019	N/A

Consent and Moderation Requirements (CMR) reference	0003

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.