# 40845 Maintain standards of work in the crane industry

Kaupae   Level	2
Whiwhinga   Credit	4
Whāinga   Purpose	This skill standard is for people considering or beginning work in the crane industry in Aotearoa New Zealand.
	People with this skill standard have the skills necessary to work safely while on a crane site.
	This skill standard may contribute to New Zealand qualifications and/ or credentials designed for crane operation environments.

## Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako   Learning outcomes	Paearu aromatawai   Assessment criteria		
Explain the different types of cranes and lifting equipment for crane operations.	The purpose and key components of different types of cranes are explained in terms of how they are used in crane operations.		
	b. The basic mechanics of crane operations are explained in line with the crane operation manual and task requirements.		
Maintain industry standards and behaviour while on a crane site.	Site safety practices are applied and behaviours are demonstrated that promote the safety of self and others.		
	b. Professional behaviour is demonstrated during crane operations.		
	c. Appropriate personal protective equipment is used throughout according to task requirements.		
	d. Basic hand signals and communication methods are demonstrated.		
	e. Basic knots and hitches are tied.		
	f. The purpose of load charts, lift plans and load safety are described relative to a crane site operations.		

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Assessment may be completed in either a real or simulated work environment and candidates must have access to two-way radio communication devices. Candidates must be capable of identifying a range of different crane types and the reason for their use.

Communication methods refer to two-way radio use using a phonetic alphabet, figures and prowords.

Hand signals must include stop.

Hitch refers to what is formed when a rope is tied off onto something else. A knot is formed when a rope is tied off onto itself. For Assessment criterion 2e, learners must evidence a clove hitch and standard bowline.

Lifting equipment is any equipment that can be used to lift and lower loads which may refer to chains, slings, hooks and taglines.

Mechanics refers to pulley, lever, fulcrum, mechanical advantage and counterweight.

Purpose refers to the use for which the crane is most suitable.

Components include boom, jib, trolleys, tracks, wheels, outriggers, stabilisers, hook, cab, winch, and counterweight.

Types of cranes include crawler crane, gantry crane, mini crane, mobile crane, non-slewing articulated crane, tower crane and truck loader crane.

#### Definitions:

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Hitch refers to what is formed when a rope is tied off onto something else. A knot is formed when a rope is tied off onto itself. For Assessment criterion 2e, learners must evidence a clove hitch and standard bowline.

<u>Lifting equipment</u> is any equipment that can be used to lift and lower loads which may refer to chains, slings, hooks and taglines.

Mechanics refers to pulley, lever, fulcrum, mechanical advantage and counterweight.

Purpose refers to the use for which the crane is most suitable.

#### Ngā momo whiwhinga | Grades available

Achieved

#### Ihirangi waitohu | Indicative content

- Basic knowledge of cranes and lifting equipment using common industry terminology to include types, configurations, recommended uses, capabilities and performance ratings.
- Acknowledgement of significant costs involved in crane operations and equipment.
- Common environmental conditions that can impact crane operations such as weather considerations, other activities on site and traffic management requirements.
- Health and safety requirements for personnel during crane operations including examples of personal protective equipment, and motivation for safe practices.
- Knots and hitches include bowline, bowline-on-the-bight, clove hitch, double figure of 8, sheet bend and, running bowline.

### Rauemi | Resources

- Crane Safety Manual (Version 4) For Crane Operators and Dogmen, available from the (<u>Crane Association of New Zealand</u>).
- Health and Safety documents and safety operating procedures from crane companies.
- Worksafe A to Z Cranes, available from <a href="https://www.worksafe.govt.nz/topic-and-industry/cranes/">https://www.worksafe.govt.nz/topic-and-industry/cranes/</a>.

## Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa   Standard Setting Body	Waihanga Ara Rau Workforce Development Council	
Whakaritenga Rārangi Paetae Aromatawai   DASS classification	Service Sector > Cranes > Crane Operation	
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga   CMR	0120	

Hātepe   Process	Putanga   Version	Rā whakaputa   Review Date	Rā whakamutunga mō te aromatawai   Last date for assessment	
Rēhitatanga   Registration	1	27 November 2025	N/A	
Kōrero whakakapinga   Replacement information	N/A			
Rā arotake   Planned review date	31 December 2030			

Please contact Waihanga Ara Rau Workforce Development Council <a href="mailto:qualifications@waihangaararau.nz">qualifications@waihangaararau.nz</a> if you wish to suggest changes to the content of this skill standard.