

40831 Configure and operate a tower crane to lift and place regular and irregular loads

Kaupae Level	4
Whiwhinga Credit	15
Whāinga Purpose	<p>This skill standard is for people intending to complete a qualification and/or credentials in crane operation.</p> <p>People with this skill standard have the skills to configure and operate a tower crane to lift and place regular and irregular loads.</p> <p>This skill standard may contribute to New Zealand qualifications designed for crane operation.</p>
Whakaakoranga me mātua oti Pre-requisites	Skill Standard 40842 <i>Plan lifts for regular and irregular loads</i> , or equivalent skills and knowledge.

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Position the tower crane, and lift and place regular and irregular loads.	a. Crane is inspected, prestart checks undertaken in line with manufacturer's requirements and the crane controller is informed of any issues that impact operation of the crane.
	b. Lift plan for the task using the tower crane is completed according to manufacturer's requirements.
	c. Workplace is analysed to identify hazards and risks related to the planned lift, and control measures are implemented.
	d. Crane is put into in-service condition and positioned according to Lift Plan requirements.
	e. Tasks, hazards, roles and responsibilities are communicated to workers assisting with the lifts, and other people who may be affected, according to Lift Plan requirements.
	f. A check is completed to ensure workers assisting with the lifts, and other people who may be affected, are in their positions ready for the lifts to begin.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
	g. Operator has confirmed with the Dogman or Rigger to ensure the loads are correctly attached.
	h. Loads are lifted and placed according to Lift Plan and rating chart.
2. Put the tower crane into out-of-service condition.	a. Crane is put into out-of-service condition and equipment used for the lift is returned to storage.
	b. Action is taken for any defects in the crane and/or equipment.

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

Assessment specifications:

Pre-start checks follow manufacturer's requirements and site requirements.

Control measures for the planned lift may include equipment, powerlines, service lines, trees, buildings, structures, unauthorised people, exclusion zones, wind and weather, simultaneous activities.

Documentation includes logbooks, records, job sheets, crane equipment inventories, maintenance requests.

Positioning of the crane includes consideration of rating charts, weather conditions, height, boom position and angle, radius, load weight.

For the assessment:

- A verifier must observe and document the candidate completing a minimum of 40 lifts with at least six variations of lifting operations that may include site, crane, loads, and communication methods; and
- At least two irregular loads, including one where the centre of gravity is offset, must be observed by the assessor.

Definitions:

Company requirements refer to instructions to staff on policy and procedures, which are documented in memo or manual format and available in the workplace. These requirements may include site specific requirements, company quality management requirements, manufacturer's requirements, Approved Codes of Practice and guidelines, and legislative requirements.

Industry good practice meets requirements of the Approved Code of Practice for Cranes, Approved Code of Practice for Load-lifting Rigging, and the Crane Safety Manual.

Irregular loads include one or more of the following characteristics: unequal weight distribution, eccentric loading, irregular shape and proportions, with or without set lifting points.

A *lift plan* refers to the planning of a lift that may be in a variety of formats.

Regular loads have the characteristics of uniform weight distribution, concentric loading or regular proportions, known lifting points, and have been repetitively lifted.

Other people who may be affected by the lift include riggers, slingers, dogmen, supervisor and public.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

- Crane manufacturers' specifications and operating manual.
- Types of tower cranes.
- Company requirements and quality management system.
- Risk and hazard assessment.
- Hazards associated with tower crane operation (e.g., climbing the crane) and weather conditions.
- Operation of a tower crane (rating charts, range diagrams, boom clash agreements).
- Lift planning and control.
- Lock-out and tag-out requirements.
- Crane inspection and reporting.
- Out of service condition and equipment storage.

Rauemi | Resources

- Approved Code of Practice for Cranes, available from www.worksafe.govt.nz.
- Government or local government legislation, regulations and bylaws.
- Equipment manufacturers' specifications.
- Company quality management systems or policies.
- Crane Programme Guidance, available from qualifications@waihangaararau.nz.
- Crane Safety Manual: For Crane Operators & Dogmen (Crane Association of New Zealand), available from www.cranes.org.nz.

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Waihanga Ara Rau Construction and Infrastructure 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	This skill standard replaced unit standard 3794.		
Rā arotake Planned review date	31 December 2030		

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihangaararau.nz to suggest changes to the content of this skill standard.