

Title	Erect and dismantle a tower crane		
Level	5	Credits	20

Purpose	People credited with this unit standard are able to: plan the erection and dismantling of a tower crane; assemble, erect and dismantle a tower crane; and inspect work done and carry out safety, functional, and overload tests of the tower crane, and complete documentation.
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Classification	Cranes > Crane Maintenance and Servicing
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Available grade	Achieved
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Entry information	
Critical health and safety prerequisites	Unit 3788, <i>Demonstrate knowledge of crane types, and safe practices required in the crane industry</i> ; and Unit 3789, <i>Sling regular loads and communicate during crane operations</i> ; or demonstrate equivalent knowledge and skills.

Explanatory notes

- 1 Definition
The definition of a *crane* is as given in the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999.
- 2 Assessment
Assessment must be carried out in a crane workplace or equivalent.
- 3 All tasks are to be carried out in accordance with the equipment manufacturers' requirements and company standards and procedures based on industry requirements in:
 - a company quality management systems;
 - b health and safety requirements and guidelines consistent with the Health and Safety in Employment Act 1992 (HSE Act);
 - c equipment manufacturers' operating instructions;
 - d government and local government legislation, regulations, and bylaws;
 - e *Crane Safety Manual*, published by the Crane Association of New Zealand (Inc), PO Box 25 156, Panama Street, Wellington, 6146.
 - f *Approved Code of Practice for Cranes*, published by the Department of Labour, available at <http://www.dol.govt.nz>.
- 4 HSE Act Codes of Practice are available from the Occupational Safety and Health Service of the Department of Labour website, <http://www.osh.dol.govt.nz>.

- 5 This unit standard complements the skills of candidates who already have experience in mechanical engineering and/or rigging.
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Outcomes and evidence requirements

Outcome 1

Plan the erection and dismantling of a tower crane.

Evidence requirements

- 1.1 Survey of site, environment, and surrounding structures, and review of building site plan is conducted in accordance with company procedures.
- Range overhead lines, obstructions, effective crane radius, hazard control, power supply, traffic control.
- 1.2 Foundation for anchoring the crane is checked to ensure that it is designed and built in accordance with company procedures and approved engineering codes.
- 1.3 Personnel involved with the erection and/or dismantling are liaised with in accordance with company procedures throughout the erection and dismantling process.
- Range site controller, electrician, transport operator, mobile crane supervisor, others.
- 1.4 Selected tooling and equipment are appropriate to the make and type of crane.
- Range manufacturers' equipment; suitable mobile crane and specialised tooling for nature of load, height of lift, and facility of movement.
- 1.5 Procedures for assembly, erection, and dismantling of the crane are developed in accordance with equipment manufacturers' instructions, company procedures, and statutory regulations.
- 1.6 Permits are obtained in accordance with regulatory requirements and company procedures.

Outcome 2

Assemble, erect, and dismantle a tower crane.

Evidence requirements

- 2.1 Procedures for the assembly, erection, and dismantling of the tower and the jib are carried out in accordance with equipment manufacturers' instructions, company procedures, and applicable statutory regulations.
- 2.2 Hazard control measures are implemented in accordance with company procedures.

Outcome 3

Inspect work done and carry out safety, functional, and overload tests of the tower crane, and complete documentation.

Evidence requirements

- 3.1 Crane is inspected using the crane manufacturer's checklist to ensure compliance with crane manufacturer's specifications and general arrangement drawings and in accordance with the *Approved Code of Practice for Cranes*.
- 3.2 Safety and functional tests are carried out to ensure that devices are operative and that the crane operates in accordance with equipment manufacturers' specifications.
- 3.3 Overload tests are carried out in accordance with equipment manufacturers' recommendations and the HSE Act.
- 3.4 Documentation is completed in accordance with company procedures.

Range may include but is not limited to – electrical confirmation certification, Department of Labour notifications, work plans, third party inspection notification, hazardous work notification, log books, records, job sheets, crane equipment inventories, purchase orders and/or maintenance requests.

Replacement information	This unit standard and unit standard 27675 replaced unit standard 3818.
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Planned review date	31 December 2016
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	15 March 2012	N/A

Consent and Moderation Requirements (CMR) reference	0025
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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 Skills Organisation at reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.