

<b>Title</b>	<b>Prepare for, and handle non-standard lift and tilt up precast concrete elements during crane operations</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>16</b>

<b>Purpose</b>	People credited with this unit standard are able to: check documentation and lifting arrangement prior to handling of non-standard lift and tilt up of precast concrete elements; prepare for, and carry out handling of non-standard lift and tilt up of precast concrete elements.
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<b>Classification</b>	Cranes > Crane Operation
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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 20864, <i>Prepare for, and handle standard lift precast concrete elements during crane operations</i> , or demonstrate equivalent knowledge and skills.

### Explanatory notes

- 1 Definitions  
The definition of *crane* is as given in the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999.  
*Non-standard lift* – a precast concrete lift that requires specific rigging or load equalisation procedures.
- 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>;

- g *Approved Code of Practice for Cranes*, (Wellington: Department of Labour, 2007);
  - h *Approved Code of Practice for the Safe Handling, Transportation and Erection of Pre-cast Concrete* (Wellington: Department of Labour, 2002);
  - i *Approved Code of Practice for Load-Lifting Rigging* (Wellington: Department of Labour, 2001).
- 4 HSE Act Codes of Practice are available from the Department of Labour website, <http://www.osh.dol.govt.nz>.
- 5 Requirements of the *precast concrete element lifting design* and *precast concrete element design criteria* can be found in the approved codes of practice relating to pre-cast concrete listed above.

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## Outcomes and evidence requirements

### Outcome 1

Check documentation and lifting arrangement prior to handling of non-standard lift and tilting up of precast concrete elements.

#### Evidence requirements

- 1.1 Documentation relating to precast concrete element design criteria is checked to ensure match with producer's statement, and approved codes of practice for loading, transport, and erection at final position.
- 1.2 Documentation relating to precast concrete element lifting design for placement of lifting arrangement is checked to ensure match with producer's statement, and approved codes of practice for loading, transport, and erection at final position.

### Outcome 2

Prepare for handling of non-standard lifting and tilting up of precast concrete elements.

#### Evidence requirements

- 2.1 Rigging is assembled in accordance with precast concrete element lifting design and approved codes of practice.
- 2.2 Minimum sling lengths comply with precast concrete element design criteria.
- 2.3 Check of rigging equipment ensures safe operation throughout the range of movements required.
- 2.4 Strongbacks are installed in accordance with approved codes of practice.
- 2.5 Lifting inserts and clutches are identified and described in terms of ratings and usage.
- 2.6 Lifting systems are checked to ensure anchor, lifting eye clutch, and recess

formed are compatible in accordance with approved codes of practice.

- 2.7 System capacity is consistent with size of unit to be handled and is in accordance with approved codes of practice.
- 2.8 Dunnage is placed in accordance with approved codes of practice and final placement shims are placed as required.

### Outcome 3

Carry out handling of non-standard lifting and tilting up of precast concrete elements.

### Evidence requirements

- 3.1 Lifting clutches are engaged in accordance with crane manufacturer's requirements.
- 3.2 Precast concrete element is dogged and directed into final position.
- 3.3 Temporary propping, bracing, fixing, and base of precast concrete element restraints are secured in accordance with approved codes of practice, prior to releasing the precast concrete element.
- 3.4 Precast concrete element is released and final safety/quality checks are conducted in accordance with company procedures, and approved codes of practice.

<b>Planned review date</b>	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	19 August 2004	30 June 2013
Review	2	20 May 2008	30 June 2013
Review	3	15 March 2012	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	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.

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**Comments on this unit standard**

Please contact The Skills Organisation at [reviewcomments@skills.org.nz](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.