

## Demonstrate and apply knowledge of rigging practices for telecommunications network structures

**Level** 3

**Credits** 25

**Purpose** This unit standard covers the practices for climbing on, lifting, positioning, and fixing telecommunications equipment to telecommunications network structures.

People credited with this unit standard are able to:

- demonstrate and apply knowledge of rigging systems, methods, and equipment used in the installation of telecommunications equipment on telecommunications network structures;
- interpret and use drawings and specifications for the installation of equipment on telecommunications network structures; and
- carry out rigging work on telecommunications network structures.

**Subfield** Lifting Equipment

**Domain** Rigging

**Status** Registered

**Status date** 21 November 2008

**Date version published** 21 November 2008

**Planned review date** 31 December 2013

**Entry information** Open.

**Accreditation** Evaluation of documentation and visit by NZQA and industry.

**Standard setting body (SSB)** The Skills Organisation

**Accreditation and Moderation Action Plan (AMAP) reference** 0183

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

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### Special notes

1 This unit standard has been designed for learning and assessment on-job.

## 2 References

Electricity Act 1992;  
Electricity Regulations 1997;  
Health and Safety in Employment Act 1992 and associated regulations;  
Local Body regulations;  
Telecommunications Act 2001;  
Telecommunications (Residual Provisions) Act 1987;  
Resource Management Act 1991;  
*Approved Code of Practice for Load-Lifting Rigging*, ISBN 0-477-03595-7, Occupational Safety and Health Service, Department of Labour, April 2001;  
*Guidelines for the Prevention of Falls*, ISBN 0-477-03614-7, Occupational Safety and Health Service, Department of Labour, April 2000;  
NZS 2772.1:1999, *Radiofrequency fields – Maximum exposure levels – 3kHz to 300GHz*;  
*Crane Association Crane Safety Manual for Operators/Users*, published by the Crane Association of New Zealand (Inc), PO Box 30074, LOWER HUTT 5040.  
company safety and health procedures;  
and their subsequent amendments and replacements.

## 3 Definitions

*Industry practice* – those practices that competent practitioners within the industry recognise as current industry best practice.

*Installation* – it is assumed that the installer is supplied with design specifications and/or detailed instructions regarding the installation. Installation excludes system design or layout, contract negotiations, or commissioning and operational configuration adjustments required in complex network installations.

*PPE* – personal protective equipment.

*Specifications* – any or all of: detailed job specifications, drawings, plans and instructions; manufacturers' specifications and instructions; and industry codes of practice relating to the type of cabling system being installed.

*Telecommunications network structures* – include poles, towers, and any support for telecommunications feeders, lines and antennae above ground level.

## 4 Range

All work assessed against this unit standard must comply with the requirements of the Health and Safety in Employment Act 1992, relevant regulations, and applicable site and company occupational safety and health procedures.

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## Elements and performance criteria

### Element 1

Demonstrate and apply knowledge of rigging systems, methods, and equipment used in the installation of telecommunications equipment on telecommunications network structures.

### Performance criteria

- 1.1 Fundamental principles of rigging mechanics used in a telecommunications environment are explained in accordance with specifications.

Range load, effort, force, reaction, torque.

- 1.2 Safe working loads for rigging systems and equipment are identified in accordance with specifications.
- Range includes but is not limited to – synthetic ropes, wire ropes, wire rope grips, jointing splices, slings, strops, shackles, connectors, snatch blocks, anchor points, turn buckles, rigging screws, karabiners, shackles.
- 1.3 Cables, lines, and ropes are joined in accordance with industry practice.
- Range splices – eye, back, short;  
knots – evidence of eight is required including two types of bowline.
- 1.4 Guying systems are set up in accordance with industry practice.
- Range tensioning, load cells, temporary anchors, terminations (bulldog grips, preformed dead ends).
- 1.5 Rigging and lifting gear is selected and set up for safe and effective use in accordance with specifications.
- Range includes but is not limited to – synthetic ropes, wire ropes, wire rope grips, jointing splices, slings, strops, shackles, connectors, snatch blocks, anchor points, turn buckles, rigging screws, karabiners, shackles.
- 1.6 Bolts are selected and installed in accordance with specifications.
- Range mild, high tensile, stainless, high strength, torque.

## **Element 2**

Use specifications for the installation of equipment on telecommunications network structures.

### **Performance criteria**

- 2.1 Specifications are accessed from the work supervisor or job pool in accordance with industry practice.
- 2.2 The installed position of equipment to be mounted on telecommunications network structures is identified in accordance with specifications and industry practice.

### Element 3

Carry out rigging work on telecommunications network structures.

#### Performance criteria

- 3.1 Safe working practices are identified in accordance with the Health and Safety in Employment Act 1992 and industry practice.
- Range load calculation, lifting methods, PPE, site hazard identification and control measures.
- 3.2 Rigging equipment is selected and inspected to ensure that it is fit for purpose in accordance with specifications.
- 3.3 Rigging equipment is set up for safe and effective use in accordance with specifications.
- 3.4 Rigging equipment is operated in accordance with specifications.
- 3.5 Internationally recognised communication signals and protocols are used with crane drivers and helicopter crews in accordance with the *Crane Association Crane Safety Manual for Operators/Users*.
- Range hand signals, radio communications.
- 3.6 Rigging equipment is de-rigged and lowered in accordance with specifications.
- 3.7 Site is restored to customer expectations following completion of installation in accordance with industry practice.

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#### Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP 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](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.