

<b>Title</b>	<b>Prepare wire ropes for forest harvesting operations</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	<p>This unit standard is intended for people employed in forest harvesting roles in either a ground-based or cable harvesting operation.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of wire ropes and accessories used in forest harvesting operations; demonstrate knowledge of wire rope handling processes during preparation for use in forest harvesting operations; and prepare wire ropes for use in forest harvesting operations.</p>
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<b>Classification</b>	Forestry > Forestry - Breaking Out
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 This unit standard must be assessed against on-job.
- 2 Legislation relevant to this unit standard includes the Health and Safety at Work (HSW) Act 2015; the Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018; and any subsequent amendments.
- 3 References  
*Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations*, December 2012, available from <https://worksafe.govt.nz/>.  
New Zealand Forest Owners Association, *Forest Practice Guides* (2019), and any subsequent amendments, available from <https://www.nzfoa.org.nz>.
- 4 Definitions  
*Accepted industry practice* – approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.  
*Forest harvesting* refers to the felling and extraction of stems, landing operations, log making, and loading.
- 5 All competencies must be demonstrated in accordance with accepted industry practice.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of wire ropes and accessories used in forest harvesting operations.

#### Performance criteria

- 1.1 The components of wire rope are named and the common constructions used in forest harvesting are described for 6 x 19, 6 x 26, and 6 x 31 ropes.
- 1.2 Terms associated with wire rope use are explained.
- Range Right-Hand Ordinary Lay (RHOL), Independent Wire Rope Core (IWRC), lay (of a rope), tensile grade, shock loading, shackle, ferrule, sprag, marlin spike, strand, wire core, kink, Safe Working Load (SWL), molly grommet, spooling, lubrication, swaging, pig-tailing.
- 1.3 Use of chains as accessories in forest harvesting operations is explained.
- 1.4 Requirements for shackles used in forest harvesting are described.

### Outcome 2

Demonstrate knowledge of wire rope handling processes during preparation for use in forest harvesting operations.

#### Performance criteria

- 2.1 Three means of cutting wire rope are identified.
- 2.2 Two methods of attaching a ferrule to a length of wire rope are described.
- 2.3 The risks specific to preparing wire ropes are identified, and methods to control them are explained.
- Range evidence of four risks and a control method for each is required.
- 2.4 Common causes of damage to wire rope are explained.
- Range physical damage, accelerated wear.
- 2.5 Damage that would render wire rope unusable is explained.

### Outcome 3

Prepare wire ropes for use in forest harvesting operations.

**Performance criteria**

- 3.1 The risks specific to wire rope handling and splicing are assessed and controlled.
- 3.2 Protective clothing and equipment are worn.
- Range includes but is not limited to – gloves, high visibility clothing, eye protection, steel cap boots.
- 3.3 An eye is formed in the end of a wire rope.
- Range logger's eye or married eye;  
evidence required for married eye is two tucks on one side, three tucks on the other;  
evidence required for logger's eye is all tucks on one side.
- 3.4 Wire ropes are cut in accordance with manufacturer's requirements.
- 3.5 Strand ends are controlled when unwinding and tucking wire rope.
- 3.6 The procedure to unspool a wire rope and avoid damage, kinking, and pig-tailing is explained.

<b>Planned review date</b>	31 December 2028
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	28 January 1995	31 December 2012
Review	2	8 November 1996	31 December 2012
Revision	3	19 June 1998	31 December 2012
Review	4	5 December 2000	31 December 2012
Review	5	22 May 2008	31 December 2012
Revision	6	16 July 2010	31 December 2012
Review	7	8 December 2011	31 December 2016
Review	8	19 March 2015	N/A
Review	9	23 January 2020	N/A
Rollover	10	26 April 2024	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0173
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council [qualifications@mukatangata.nz](mailto:qualifications@mukatangata.nz) if you wish to suggest changes to the content of this unit standard.