

Title	Inspect, maintain and operate a cable-assisted forestry machine		
Level	4	Credits	20

Purpose	<p>This unit standard is intended for workers in a forestry operation who are training to become cable-assisted machine operators.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of a cable-assist system; review operational plans based on an assessment of worksite conditions; and operate a cable-assisted machine to complete operational tasks.</p>
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Classification	Forestry > Forest Mechanised Harvesting
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Available grade	Achieved
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Prerequisite	Unit 30584, <i>Demonstrate knowledge of a cable-assisted forestry machine operation</i> , or demonstrate equivalent skills and knowledge.
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Guidance Information

- 1 It is recommended that candidates complete Unit 30583, *Establish an anchor for a cable-assisted forestry machine* prior to assessment of this unit standard.
- 2 Before assessment against this unit standard candidates must have demonstrated competency with operation of the machine to be used in the assessment. Competency is as defined in the Approved Code of Practice for Safety and Health in Forestry Operations available at www.worksafe.govt.nz.
- 3 Definitions

Accepted industry practice – approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.

Manufacturer's instructions – training or documentation supplied by the manufacturer of the equipment including specifications from a certifying engineer.

Operational plans – any plan detailing how operational tasks will be carried out. Examples of operational plans include: job prescriptions, harvesting plans, felling plans, extraction plans.

Workplace procedures – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of a cable-assist system in a forestry operation.

Performance criteria

- 1.1 The operation of controls for the cable-assist system is explained.
- Range may include but is not limited to – screens, displays, monitoring systems, tension monitors and on-board navigation systems.
- 1.2 Maintenance requirements for the cable-assisted system are explained, and components which are not user-serviceable are identified in accordance with the manufacturer's instructions.
- 1.3 The machine's safety and emergency backup systems are identified, and their operation is explained.

Outcome 2

Review operational plans based on an assessment of worksite conditions in a cable-assisted machine forestry operation.

Performance criteria

- 2.1 Areas designated for cable-assisted, mechanical and manual operations are identified from the operational plans, and the way cable-assisted operations will integrate with other operations is explained.
- 2.2 Conditions on the worksite likely to affect cable-assisted operations are identified, and their impact is assessed.
- Range terrain, ground conditions, surface cover, operator capability.
- 2.3 Maximum safe slope on site is calculated using a matrix to score risk factors and the result is explained in terms of the factors considered.
- Range matrix may be one supplied by the equipment manufacturer or a generic forestry version.
- 2.4 Daily risk assessments are carried out and control measures are planned and recorded in accordance with workplace procedures.
- 2.5 Site conditions, maximum safe slope calculations, and risk assessments are compared with the operational plans and any changes required to the plans are recommended.

Outcome 3

Inspect, maintain and operate a cable-assisted machine to complete operational tasks in a forestry operation.

Performance criteria

- 3.1 Inspection and maintenance of the cable-assisted machine is carried out in accordance with manufacturer's specifications and workplace procedures.
- Range may include but is not limited to – cab checks, leak checks, fluid level checks, greasing, and track tension adjustment.
- 3.2 Inspection, testing, replacement and maintenance of rope and rigging is carried out in accordance with manufacturer's specifications and workplace procedures.
- 3.3 Rigging register is maintained in accordance with worksite procedures.
- 3.4 Machine is connected to the anchor and pre-start checks are carried out on the system including safety systems, operation of emergency exits and track tension.
- 3.5 The machine is walked into position on the slope in accordance with accepted industry practice.
- Range up and down slope, across slope, through transitions.
- 3.6 Techniques of good rope management are demonstrated including setting correct tension, working within specified departure angles, minimising shock loading, and avoiding physical damage to the rope.
- 3.7 Techniques to increase traction and maximise stability of the machine before commencing operational tasks are demonstrated.
- 3.8 Techniques to maximise stability of the machine during operational tasks are demonstrated.
- 3.9 Operational tasks are completed in accordance with the operational plan.
- 3.10 Machine is shut down and parked in accordance with manufacturer's specifications and workplace procedures.

Planned review date	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	26 October 2017	N/A
Review	2	25 June 2020	N/A
Rollover	3	26 April 2024	N/A

Consent and Moderation Requirements (CMR) reference

0173

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

Comments on this unit standard

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