

<b>Title</b>	<b>Position, secure and extract stems using a mobile cable yarder</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>20</b>

<b>Purpose</b>	<p>This unit standard is intended for people employed as mobile cable yarder operators in a harvesting operation. Mobile cable yarder operators are responsible for extracting stems and ensuring the safety of any personnel working in close proximity to the mobile cable yarder.</p> <p>People credited with this unit standard are able to: plan and explain the set-up of a mobile cable yarder, identify and manage risks specific to mobile cable yarder operations, prepare a mobile cable yarder for operation, start up and shut down a mobile cable yarder, demonstrate knowledge of a mobile cable yarder and its capabilities, operate a mobile cable yarder to extract stems and carry out general mobile cable yarder operator responsibilities.</p>
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<b>Classification</b>	Forestry > Forest Harvesting Operations
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<b>Available grade</b>	Achieved
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**Guidance Information**

- 1 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.
- 2 References  
*Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations*, December 2012, available from [www.worksafe.govt.nz](http://www.worksafe.govt.nz).  
 New Zealand Forest Owners Association, *Forest Practice Guides* (2019), and any subsequent amendments, available from <https://www.nzfoa.org.nz>.
- 3 Definitions  
*Accepted industry practice* refers to approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.  
*Job prescription* refers to any written instructions for the operation and may include maps, harvest plans or cut plans.  
*PPE* refers to personal protective equipment and may include but is not limited to protective clothing, gloves, safety glasses, headwear, footwear, hearing protection, and safety devices.  
*RT* refers to a radio telephone in which audible communications are established by use of a two way radio transmitter and receiver.

*Talkie Tooter* refers to a remote control radio designed for use in harvesting. *Worksite procedures* refer to documented 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, quality assurance procedures, housekeeping standards, procedures to comply with legislative and local body requirements.

#### 4 Assessment information

This unit standard must be assessed on-job.

All activities and evidence must be carried out in accordance with accepted industry practice and worksite procedures.

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## Outcomes and performance criteria

### Outcome 1

Plan and explain the set-up of a mobile cable yarder.

#### Performance criteria

- 1.1 The position of the mobile cable yarder is planned and explained.
- Range landing or road edge layout, stem landing chute, tower position, track-frame position.
- 1.2 Methods for stabilising the mobile cable yarder are explained.
- 1.3 Procedure to reposition the mobile cable yarder is explained.
- 1.4 Initial site is selected on a prepared landing or road edge and the mobile cable yarder is positioned.
- Range includes but is not limited to – yarding direction, landing or road edge layout, landing or road edge operations, suitable stem landing area, effect on processing, machine stability.
- 1.5 The risks specific to setting up the mobile cable yarder are assessed and controlled.

### Outcome 2

Identify and manage risks specific to mobile cable yarder operations.

**Performance criteria**

2.1 PPE and equipment required for operating and mobile cable yarder is selected and used.

Range personal protective equipment includes but is not limited to – helmet, gloves, high visibility gear, safety boots, hydration pack or water bottle;  
equipment may include – Talkie Tooter, RT.

2.2 The risks specific to mobile cable yarder operations are assessed and controlled.

2.3 The operator's responsibilities for monitoring and enforcing the safe retreat position are explained.

**Outcome 3**

Prepare a mobile cable yarder for operation.

**Performance criteria**

3.1 Pre-start checks are carried out in accordance with the manufacturer's requirements.

Range pre-start checks may include – fluids, hoses, Operator Protection Structures (OPS), signalling means, machine guarding, safety features, fire equipment, wire rope connections, rigging, camera systems, tower certificate.

3.2 Maintenance is carried out in accordance with the manufacturer's requirements.

Range maintenance includes – daily and periodic maintenance requirements, lubrication.

3.3 Defects and maintenance requirements are reported, and defects are rectified prior to operating the mobile cable yarder, in accordance with manufacturer's requirements.

**Outcome 4**

Start up and shut down a mobile cable yarder.

**Performance criteria**

4.1 Start-up and shutdown procedures are explained in accordance with manufacturer's requirements.

Range warning indicators, warm-up requirements, brake or locking device applied.

- 4.2 The mobile cable yarder is started and warmed up in accordance with the manufacturer's requirements.
- 4.3 Consequences of warnings from the mobile cable yarder warning indicators are explained, and rectifying action described, in accordance with the manufacturer's requirements.
- Range may include – oil, water, hydraulic fluid, temperature and levels, computer equipment, warning signals.
- 4.4 Communication system is tested with the mobile cable yarder running, and prior to operation starting.
- 4.5 The mobile cable yarder is shutdown in accordance with the manufacturer's requirements.

### Outcome 5

Demonstrate knowledge of a mobile cable yarder and its capabilities.

#### Performance criteria

- 5.1 Factors that influence payload in terms of mobile cable yarder and/or harvesting system capabilities are explained in accordance with manufacturer's requirements.
- 5.2 Symptoms of overloading the mobile cable yarder are explained in accordance with the manufacturer's requirements.
- Range includes but is not limited to – engine stalling, torque converter stalling, inability to pull drag, mobile cable yarder stability.
- 5.3 The type of braking system used, and the method of holding tension in the wire ropes, are identified in accordance with the manufacturer's requirements.
- 5.4 The advantages of operating an interlock system between the main and haul back drums is explained in accordance with the manufacturer's requirements.
- 5.5 The purpose of winch drum guarding on a mobile cable yarder is explained in accordance with the manufacturer's requirements.

### Outcome 6

Operate a mobile cable yarder to extract stems.

#### Performance criteria

- 6.1 The safe retreat position and procedures for the operation are identified and complied with.

6.2 Operation of the mobile cable yarder is monitored and controlled in accordance with manufacturer’s requirements.

Range may include – lead angle, in-haul and out-haul, strop or carriage placement, positioning wire rope and rigging, raising and tensioning wire ropes, clearing obstructions, fleeting wire ropes on drums, engaging and disengaging interlock system, engaging winch park brake, working within operational limitations, audible signals.

6.3 Mobile cable yarder power and rigging speed appropriate for load size and conditions are maintained in accordance with the manufacturer's requirements.

Range safety of workers, environmental constraints, stem movement, control.

6.4 Communication is maintained between worksite personnel and the mobile cable yarder operator.

Range Talkie Tooters, RTs, face to face.

6.5 Extraction of stems is carried out to meet job prescription requirements.

Range requirements include – environmental, production, quality, safety.

6.6 Emergency stop and hydraulic isolation of the winch system are explained in accordance with manufacturer’s specifications.

**Outcome 7**

Carry out general mobile cable yarder operator responsibilities.

**Performance criteria**

7.1 The mobile cable yarder operator’s cab and engine compartments are cleared of debris and loose equipment.

7.2 Fire extinguishers are checked to meet operational requirements.

Range charged, suitable, secured, within servicing requirements.

7.3 The mobile cable yarder logbook is maintained.

<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	27 August 2020	N/A
Rollover	2	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](mailto:qualifications@mukatangata.nz) if you wish to suggest changes to the content of this unit standard.