

<b>Title</b>	<b>Operate a tracked machine in a forestry situation</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of tracked machines and their capabilities and limitations; conduct pre-start and maintenance checks prior to operating a tracked machine; start up a tracked machine; demonstrate knowledge of hazards and risks specific to operating a tracked machine and operate a tracked machine; and shut down a tracked machine.
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<b>Classification</b>	Forestry > Machine Operations - Forestry
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<b>Available grade</b>	Achieved
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### Guidance Information

#### 1 Assessment information

This unit standard must be assessed on-job and the operator must meet the production requirements of the operation.

#### 2 Definitions

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

*PPE* refers to personal protective equipment and may include but is not limited to high visibility, protective clothing, gloves, safety glasses, headwear, footwear, hearing protection, and safety devices.

*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.

#### 3 Legislation relevant to this unit standard includes the: Health and Safety at Work (HSW) Act 2015, Resource Management Act 1991; the Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018; and the Heritage New Zealand Pouhere Taonga Act 2014, and any subsequent amendments.

#### 4 References

New Zealand Forest Owners Association, *Forest Practice Guides* (2019), and any subsequent amendments, available from <http://www.nzfoa.org.nz>.

*Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations*, December 2012, available from <http://www.worksafe.govt.nz>.

- 5 Tracked machines covered by this unit standard are: crawler tractors; tracked skidders; and grapple tractors.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of tracked machines and their capabilities and limitations.

#### Performance criteria

- 1.1 Factors that influence the locations and conditions where tracked machines can be operated are explained in accordance with accepted industry practice.
- 1.2 The capabilities and limitations of tracked machines are described in accordance with the manufacturer's recommendations and worksite procedures.
- Range ground conditions, slope, load size, travel distances.
- 1.3 The operation of tracked machines is explained in accordance with the accepted industry practice.
- Range protective structures, seat belts, night work, guarding, operating on slopes, emergency exits.

### Outcome 2

Conduct pre-start and maintenance checks prior to operating a tracked machine.

#### Performance criteria

- 2.1 PPE is worn in accordance with the accepted forestry industry practice.
- 2.2 Pre-start checks are performed in accordance with the manufacturer's recommendations and worksite procedures.
- Range may include but is not limited to – fluid levels, operator protection structures, machine guarding, safety features, blade and log attachment equipment, tracks, hydraulic hose condition, fire suppression, equipment in operator cab, operator visibility, debris in engine compartment; evidence of ten is required.
- 2.3 Access and egress methods are demonstrated in accordance with the accepted forestry industry practice.
- Range facing machine, three-point contact, step and grab rail condition.

- 2.4 Means of communication with other workers is checked for suitability in accordance with worksite procedures.
- 2.5 Daily maintenance of the tracked machine is performed in accordance with the manufacturer's recommendations and worksite procedures.

### Outcome 3

Start up a tracked machine.

#### Performance criteria

- 3.1 Machine warning indicators are explained, and rectifying actions described, in accordance with the manufacturer's recommendations.
- Range may include – high oil or water temperature, low oil levels, low engine oil pressure, oil filter replacement, park brake status.
- 3.2 The machine is started and warmed up in accordance with the manufacturer's recommendations.
- 3.3 Warning indicators are checked, and corrective action is taken when necessary in accordance with manufacturers recommendations.

### Outcome 4

Demonstrate knowledge of hazards and risks specific to operating a tracked machine and operate a tracked machine.

#### Performance criteria

- 4.1 The hazards and associated risks specific to operating tracked machines are described and ways to control these explained, in accordance with the accepted forestry industry practice and worksite procedures.
- Range slopes, track edges, unstable or rocky ground conditions, high soil moisture, obstacles on the ground, debris, speed, machine instability, machine size, mechanical failure, other workers, visibility.
- 4.2 The reason for on-going hazard and risk identification is explained in accordance with the accepted forestry industry practice.
- 4.3 Factors that may change hazards or introduce new hazards or risks are described in accordance with the accepted forestry industry practice.
- Range weather, terrain.

4.4 The machine is operated within its limitations and operator capabilities in accordance with manufacturer’s recommendations, accepted forestry industry practice and worksite procedures.

Range travel speeds, machine manoeuvring, turning on slopes, operating blade and log attachment equipment, positioning machine, turning on road or landing surfaces, minimising soil disturbance.

4.5 Terrain is negotiated in accordance with accepted forestry industry practice.

4.6 Unfavourable ground conditions are overcome by repositioning the machine to improve traction in accordance with accepted forestry industry practice.

4.7 Communication is maintained with other workers using recognised forest industry signals.

**Outcome 5**

Shut down a tracked machine.

**Performance criteria**

5.1 The tracked machine is parked in accordance with worksite procedures and manufacturer’s recommendations.

Range level ground, clear of debris, attachments lowered to the ground.

5.2 The tracked machine is shut down in accordance with the manufacturer's recommendations.

Range may include but is not limited to – transmission in neutral, brakes applied, engine idled down, turbo timer used.

5.3 Post-operational checks on the tracked machine are carried out in accordance with the manufacturer’s recommendations and worksite procedures.

Range may include but is not limited to – wear on components, damage to components, hydraulic leaks, structural damage, condition of tracks, wire ropes, hydraulic fluid level; evidence of six is required.

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<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	8 November 1996	31 December 2012
Revision	2	19 June 1998	31 December 2012
Review	3	5 December 2000	31 December 2012
Review	4	22 May 2008	31 December 2012
Revision	5	16 July 2010	31 December 2013
Revision	6	15 September 2011	31 December 2016
Review	7	19 March 2015	N/A
Review	8	25 June 2020	N/A
Rollover	9	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.