Title Operate a tracked machine in a forestry situation

Level 4

Credits 5

Purpose
People credited with this unit standard are able to: demonstrate knowledge of tracked machines and their capabilities; conduct pre-start and maintenance checks prior to operating a tracked machine; start up a tracked machine; operate a tracked machine; and shut down a tracked machine.

Classification
Forestry > Machine Operations - Forestry

Available grade
Achieved

Explanatory notes

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

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

3. Definitions
   Accepted forestry industry practice refers to documented 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 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.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of tracked machines and their capabilities.

Evidence requirements

1.1 Factors that influence where tracked machines can be operated are explained in accordance with the accepted forestry industry practice.
1.2 The 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 mobile plant is explained in accordance with the accepted forestry 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.

**Evidence requirements**

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 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 instructions and worksite procedures.

**Outcome 3**

Start up a tracked machine.

**Evidence requirements**

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.

Outcome 4
Operate a tracked machine.

Evidence requirements

4.1 Hazards specific to operating tracked machines are described and ways to manage 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 identification is explained in accordance with the accepted forestry industry practice.

4.3 Factors that may change hazards or introduce new hazards 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 the 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 the accepted forestry industry practice.

4.6 Unfavourable ground conditions are overcome by repositioning the machine to improve traction.

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

Outcome 5
Shut down a tracked machine.

Evidence requirements

5.1 The tracked machine is parked in accordance with worksite procedures and manufacturer’s instructions.
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 accepted forestry industry practice 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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Please note
Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The
CMR 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 Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.