Title Operate an excavator based tracked machine in a forestry situation

Level 4 Credits 5

Purpose People credited with this unit standard are able to: demonstrate knowledge of excavator based tracked machines and their capabilities; conduct pre-start and maintenance checks prior to operating an excavator based tracked machine; start up an excavator based tracked machine; operate an excavator based tracked machine; and shut down an excavator based 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 Excavator based tracked machines covered by this unit standard are: knuckle boom loaders; excavator based machines with purpose built land preparation facilities; and excavator based machines with processing and/or felling heads.

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 high-viz, protective clothing, gloves, face and eye protection, safety helmet, 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 excavator based tracked machines and their capabilities.
Evidence requirements

1.1 Factors that influence where excavator based tracked machines can be operated are explained in accordance with the accepted forestry industry practice and manufacturer’s recommendations.

1.2 The limitations of excavator based tracked machines are described in accordance with manufacturer’s recommendations and worksite procedures.

Range ground conditions, slope, load size, machine weight, traction.

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 an excavator based tracked machine.

Evidence requirements

2.1 PPE is worn in accordance with worksite procedures.

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, inspection of components, 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 is checked for service, channel selection and preparedness for use in accordance with worksite procedures.

2.5 Daily maintenance of the excavator based tracked machine is performed in accordance with the manufacturer’s instructions and worksite procedures.

Outcome 3

Start up an excavator based tracked machine.
Evidence requirements

3.1 Machine warning indicators are explained and rectifying action 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, computer equipment.

3.2 The machine is started and warmed up in accordance with the manufacturer's recommendations.

Outcome 4

Operate an excavator based tracked machine.

Evidence requirements

4.1 Hazards specific to operating excavator based tracked machines are described and ways to manage these explained, in accordance with the accepted forestry industry practice.

Range slopes, track edges, ground conditions, soil moisture content, obstacles on the ground, debris, machine instability, overhead hazards, slew momentum, machine size, mechanical failure, other workers, restricted 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 machine manoeuvring, boom and stick movement, slewing on varying terrain conditions, operating attachment, travel speeds.

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

Outcome 5

Shut down an excavator based tracked machine.

Evidence requirements

5.1 The machine is parked in accordance with worksite procedures and manufacturer's instructions.
Range level ground, clear of debris, attachments lowered to the ground.

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

Range may include but is not limited to – hydraulic lock engaged, engine idled down, turbo timer used.

5.3 Post-operational checks on the 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, track condition, hydraulic fluid level; evidence of six is required.

Planned review date 31 December 2020

Status information and last date for assessment for superseded versions

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Consent and Moderation Requirements (CMR) reference 0173


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.