



Australian Government

FWPHAR2210 Operate a forest machine simulator in a virtual environment

Release: 1

FWPHAR2210 Operate a forest machine simulator in a virtual environment

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 7.0.

Application

This unit of competency describes the skills and knowledge required to use a forestry machine simulator in a virtual forest environment for practicing work methods before learning to operate real equipment.

This unit does not provide technical skills and knowledge that enable a person to operate a forestry machine in the workplace, but rather provides foundation skills in forestry machine operations.

This unit does not include the use of on-board computing functions.

The unit applies to entry level workers who intend to pursue further training and work as forest machine operators in a forest or plantation setting.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Harvesting and Haulage (HAR)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate a forest machine simulator	1.1 Review simulator activity requirements and, where required, seek clarification from simulator supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Complete operator log-in
2. Conduct pre-operational service and safety checks on a forest machine simulator	2.1 Assess personal, machine and site hazards in virtual forest work site and need for personal protective equipment and effective communication procedures in real life work sites 2.2 Complete virtual walk-round and inspection of forest machine to identify forest machine components, service points and faults 2.3 Confirm setup for base machine in virtual forest environment to meet activity requirements
3. Operate a forest machine simulator	3.1 Identify forest machine simulator controls and functions 3.2 Select and use simulator controls to drive forest machine, including gear selection, steering, acceleration and reversing 3.3 Use simulator controls to demonstrate basic machine crane functions according to simulator activity requirements 3.4 Demonstrate use of forest machine attachments and functions in virtual forest environment as required 3.5 Optimise position of forest machine in virtual forest environment and select the correct angle and alignment of boom and attachments during simulated operation 3.6 Respond to variation in production targets, tree type, slope and terrain characteristics during simulation 3.7 Respond to on-screen and instructor advice and take corrective actions as required
4. Review personal use of a forest machine simulator	4.1 Review personal performance data on operation of forest machine simulator 4.2 Participate in debriefing on operation of forest machine simulator with simulator supervisor

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
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Skill	Description
Oral communication	Use appropriate vocabulary, including technical language directly relevant to role
Numeracy	Recognise and respond to basic symbols, numerical and graphical information shown on forest machine simulator displays

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPHAR2210 Operate a forest machine simulator in a virtual environment	Not applicable	The unit has been created to address a skill or task required by industry that is not covered by an existing unit	Newly created

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWP HAR2210 Operate a forest machine simulator in a virtual environment

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has used a simulator to demonstrate the operation of one type of forest machine in four different harvesting scenarios consistent with workplace conditions.

In undertaking this activity, the individual has:

- reviewed simulator activity requirements
- completed operator log-in
- identified forest machine simulator controls and functions
- selected and used simulator controls to drive forest machine and perform basic machine crane functions
- optimised position of forest machine in the virtual forest environment and selected correct angle and alignment of boom and attachments during simulated operation
- responded to variation in production targets, tree type, slope and terrain characteristics during simulation
- responded to on-screen and instructor advice and take corrective actions as required
- reviewed personal performance data on operation of forest machine simulator.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- types, uses, capacity of forest machines
- pre-operational checks for forest machines, including service points
- basic components of forest machines
- forest machine hand controls and functions
- operator techniques for safe and efficient operations of forest machines
- basic machine alignment and boom geometry

- basic terminology related to forest machine operations
- basic effects of slope, weather and terrain conditions on forest machine stability and operation
- basic work site and communication requirements
- hazardous or safe working zones in forest machine operations
- health and operational hazards or risks related to forest machine operations
- personal protective equipment required in forest machine operations.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a simulated environment that represents forest machine operations consistent with workplace conditions
- resources, equipment and materials:
 - forest machine simulator.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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