



Australian Government

FWPHAR3235 Conduct mechanically assisted tree falling operations

Release: 1

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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 machinery, winches and cables to push or pull trees away from their natural direction of fall.

The unit applies to individuals who operate mechanically assisted tree falling equipment as part of forestry operations.

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 for tree pushing or pulling	1.1 Determine job requirements from work order or instruction and, where required, seek clarification from appropriate personnel 1.2 Confirm safety and environmental requirements, including use of personal protective equipment (PPE), for the task according to workplace procedures 1.3 Identify, assess and take actions to mitigate risks and hazards associated with mechanically assisted tree falling operations

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Identify emergency plan procedures to follow in the event of an incident or accident 1.5 Select appropriate cutting equipment and pushing or pulling equipment for work, and check for operational effectiveness 1.6 Consult with appropriate personnel to ensure that work is coordinated effectively with others in the workplace 1.7 Identify type and quantity of trees to be pushed or pulled, and assess for safe working conditions 1.8 Plan tree pushing or pulling activities according to workplace procedures and environmental requirements
2. Assess and plan tree pushing or pulling	2.1 Assess tree location and stability for conditions likely to affect safety of tree pushing or pulling activities 2.2 Visually assess tree for defects, grade and recovery status 2.3 Mark trees too dangerous to be felled safely and refer to appropriate personnel 2.4 Apply manual or mechanical techniques to clear growth around tree 2.5 Plan cutting sequence to control direction of the fall and minimise damage to the tree, hang-ups and surrounding environment 2.6 Plan and clear an escape route 2.7 Establish and maintain communication with other personnel to ensure safety
3. Push or pull trees	3.1 Perform pre-start-up checks on equipment according to workplace procedures 3.2 Monitor movement and whereabouts of other personnel to ensure safety 3.3 Remove and clear leaders according to tree pushing or pulling plan 3.4 Identify and diagnose unexpected tree characteristics, and review planned actions 3.5 Check winches, cables and machinery for correct tension and position and make scarf cut according to planned falling direction and safety requirements 3.6 Make appropriate cuts below scarf cut to assist fall angle of tree 3.7 Use planned escape route once tree begins to fall

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	3.8 Monitor movement of tree on ground until stable, and immediately flag and clear trees that hang up 3.9 Clear work site of refuse created by tree falling following workplace environmental care procedures 3.10 Record and report tree pushing or pulling operations according to workplace procedures
4. Conduct operator maintenance	4.1 Follow equipment lock-out procedures according to workplace procedures and manufacturer specifications 4.2 Inspect condition of tools and equipment on completion of felling activities 4.3 Identify blunt or damaged chainsaw chain 4.4 Remove, sharpen, maintain, adjust and refit chainsaw chain and other components according to manufacturer recommendations 4.5 Assess and adjust chainsaw setup according to workplace procedures 4.6 Check and service tree pushing or pulling equipment according to workplace procedures 4.7 Record and report equipment maintenance activities according to workplace procedures

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
Reading	Read safety plans and instructions relevant to mechanically assisted tree falling operation
Writing	Complete paper-based or electronic forms to record production and maintenance information
Oral communication	Ask questions to clarify work instructions
Numeracy	Estimate height and distance between trees

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
WP HAR3235 Conduct mechanically assisted tree falling operations	FWPHAR3213 Conduct mechanically assisted tree falling operations	Minor updates to Performance Criteria Updated Knowledge Evidence for alignment Updated Foundation Skills and Assessment Conditions	Equivalent

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 FWPHAR3235 Conduct mechanically assisted tree falling operations

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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 machinery, winches and cables to push or pull one tree away from the natural direction of fall.

In undertaking this activity, the individual has:

- prepared, planned and carried out mechanically assisted pushing and pulling operations to fall one tree
- assessed site and tree conditions and planned to work safely
- complied with safety and environmental requirements including use of personal protective equipment (PPE)
- followed work plan for conducting mechanically assisted tree falling operations
- used cutting equipment safely, including saws and chainsaws, along with procedures for chainsaw lock-out
- directed pulling or pushing equipment safely, including excavators, winches and grabs
- planned cutting sequence to control the direction that tree falls and minimise damage to tree, equipment and surrounding environment
- established communication with other personnel and monitored their movements to maintain safety on site
- used and maintained pushing and pulling tools, machinery and equipment
- conducted operator maintenance on a chainsaw.

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:

- commonwealth, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for conducting mechanically assisted tree falling operations

- environmental protection requirements, including the safe disposal of waste material and the cleaning of plant, tools and equipment
- risks and hazards associated with mechanically assisted tree falling operations
- characteristics of trees and timber defects
- workplace standards, requirements, policies and procedures for conducting mechanically assisted tree falling operations
- tree pushing or pulling methods
- chainsaw operation, cutting sequences and safety
- procedures for condition assessment of chainsaw chain and tree pushing or pulling equipment
- types of tools and equipment used in mechanically assisted tree falling operations, and procedures for their safe use, operation and maintenance
- procedures for recording and reporting workplace records and information
- workplace health and safety requirements, fire protocols and emergency evacuation procedures.

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 forest or wood products work environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - site with trees that can be felled away from their natural direction of fall
 - chainsaws, machinery or winches and cables to push or pull trees, and consumable materials used in mechanically assisted tree falling operations
 - PPE required for conducting mechanically assisted tree falling operations
- relationships
 - work team and other personnel in proximity to work site
- specifications:
 - workplace health, safety and environmental policies and procedures applicable to conducting mechanically assisted tree falling operations
 - workplace procedures related to conducting mechanically assisted tree falling operations
 - manufacturer manual for chainsaw.

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

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