



Australian Government

FWPHAR3213 Conduct mechanically assisted tree falling operations

Release: 1

FWPHAR3213 Conduct mechanically assisted tree falling operations

Modification History

Release	Comment
1	Replaces equivalent unit FPIHAR3213B Conduct mechanically assisted tree falling operations, which was first released with FPI11 Forest and Forest Products Training Package Version 1. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to use machinery, winches and cables to push or pull trees away from their natural direction of fall.

The unit applies to those conducting mechanically assisted tree falling operations in a forest or farm forest environment.

Licensing, legislative, regulatory or certification requirements apply to this unit in some state and territories at the time of publication, and may differ according to jurisdiction.

Pre-requisite Unit

Nil

Unit Sector

Harvesting and Haulage

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for tree pushing or pulling	1.1 Review work plan and clarify with appropriate personnel. 1.2 Identify type and quantity of trees to be pushed or pulled and assess for safe working conditions. 1.3 Select appropriate cutting equipment and pushing or pulling equipment for work and check for operational effectiveness.

2. Assess and plan tree pushing or pulling	2.1 Plan tree pushing or pulling activities are in line with site procedures, taking into consideration environmental requirements and conditions. 2.2 Assess tree location and stability for conditions likely to affect safety of tree pushing or pulling activities. 2.3 Visually assess tree for defects, grade and recovery status. 2.4 Mark trees too dangerous to be felled safely refer to appropriate personnel. 2.5 Clear growth around tree and clear either manually or mechanically. 2.6 Plan cutting sequence to control direction of the fall and minimise damage to the tree, hang ups and surrounding environment. 2.7 Plan and clear an escape route. 2.8 Establish and maintain communication with other personnel to ensure safety.
3. Push or pull trees	3.1 Pre start-up checks are carried out on equipment in line with site requirements. 3.2 Monitor movement and whereabouts of other personnel to ensure safety. 3.3 Remove and clear leaders in line with the tree pushing or pulling plan. 3.4 Unexpected characteristics of a tree are diagnosed and planning is reviewed. 3.5 Secure and tension winches, cables or machinery and make scarf cut in line with planned falling direction and safety requirements. 3.6 Make appropriate cuts below the scarf cut to assist the fall angle of the tree. 3.7 Use planned escape route once the tree begins to fall. 3.8 Monitor movement of the tree on the ground until stable and immediately flag and clear trees that hang up. 3.9 Clear the work site of refuse created by tree falling, following workplace guidelines, safe waste disposal and environmental care requirements.
4. Conduct operator maintenance	4.1 Inspect condition of tools and equipment on completion of felling activities. 4.2 Identify blunt or damaged chain or equipment for repair or replacement. 4.3 Remove, sharpen, maintain, adjust and refit chain and other

	components in line with manufacturer's recommendations. 4.4 Follow equipment lock-out procedures in line with safety and site procedures. 4.5 Record and report tree pushing or pulling activities and maintenance information according to workplace procedures.
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Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	determine the cutting sequence and the direction of fall to minimise damage on surrounding environment.
Communication skills to:	interact verbally and non-verbally using hand signals and agreed gestures with others on site to ensure safe tree felling operations.
Reading skills to:	interpret site requirements, environmental information and manufacturer's instructions.
Writing skills to:	complete log book requirements, maintenance records.
Problem solving skills to:	identify problems and equipment faults and select treatments.

Range of Conditions

Not Applicable

Unit Mapping Information

FPIHAR3213B Conduct mechanically assisted tree falling operations

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPHAR3213 Conduct mechanically assisted tree falling operations

Modification History

Release	Comment
1	Replaces equivalent unit FPIHAR3213B Conduct mechanically assisted tree falling operations, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.

Performance Evidence

- A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:
- prepare, plan, carry out mechanically assisted pushing and pulling operations to fall trees
- assess site and tree conditions and plan to work safely
- follow work plan for conducting mechanically assisted tree felling operations
- use cutting equipment safely including saws and chainsaws along with procedures for chainsaw lock-out
- use pulling or pushing equipment safely including excavators, winches and grabs
- plan cutting sequence to control the direction that trees fall and minimise damage to tree, equipment and surrounding environment
- establish communication with other personnel and monitor their movements to maintain safety on site
- use and maintain pushing and pulling tools, machinery and equipment
- conduct operator maintenance on a chainsaw.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- workplace requirements and site standards for carrying out mechanically assisted tree falling operations
- environmental protection requirements
- operational procedures and checks including start-up and shut-down procedures
- established communication channels and protocols to maintain safety

- tree pushing and pulling methods
- processes for managing risks and hazards associated with tree falling operations
- knowledge of defects in trees that can effect processing and cause risk
- chainsaw operation, cutting sequences and safety
- chainsaw chain and tree pushing or pulling equipment condition assessment and maintenance
- workplace health and safety requirements, fire protocols and emergency evacuation procedures.

Assessment Conditions

The following resources must be made available:

- machinery, winches and cables to push or pull trees
- site with trees that can be felled away from their natural direction of fall
- work order, workplace requirements and site standards for conducting mechanically assisted tree falling operations
- personal protective equipment for conducting mechanically assisted tree felling operations including:
 - safety helmet
 - safety gloves
 - protective footwear
 - eye protection
 - hearing protection
 - high visibility clothing
 - leg protection (trousers or chaps)

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

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