



Australian Government

FWPHAR4201 Apply tree jacking techniques

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPIHAR4201B Apply tree jacking techniques, 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.

Application

This unit of competency describes the outcomes required to use tree jacking techniques in the process of felling trees 180° away from their natural direction of fall using purpose built tree jacks. Techniques are used in a forest or farm forest setting.

The unit applies to job roles including Harvesting Supervisor, Harvesting Team Leader, Arboriculture Supervisor, Farm Forestry Supervisor, Forestry Supervisor, Forestry Operations Supervisor, Propagation and Stand Health Supervisor and Tree Farm Supervisor.

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

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 jacking	1.1 Review work plan and check where required with appropriate personnel. 1.2 Identify type and quantity of trees to be tree jacked and assess activities for safety and environmental protection practices. 1.3 Select appropriate equipment and check for operational effectiveness in line with manufacturer's recommendations.

	1.4 Plan tree jacking activities in line with workplace health and safety (WHS) procedures and work plan.
2. Assess and plan tree jacking	2.1 Assess environmental conditions and use outcomes to plan felling of each tree. 2.2 Monitor location and movement of other personnel and modify work to ensure safety. 2.3 Assess tree, location and stability for conditions likely to affect safety of tree jacking activities. 2.4 Visually assess tree for defects, grade and recovery status. 2.5 Select escape route, clear route and growth around tree manually or mechanically. 2.6 Assess fall direction and allowable degree of error, considering hang ups, damage, extraction constraints and available open space. 2.7 Plan cutting sequence to control direction of fall and minimise damage to tree and surrounding environment; communicate to others. 2.8 Mark trees too dangerous to fell safely and refer to appropriate personnel.
3. Tree jack trees	3.1 Complete equipment pre start-up checks. 3.2 Remove and clear leaders in line with tree jacking work plan. 3.3 Diagnose unexpected characteristics of tree and review plan. 3.4 Make jacking slots to provide for placement of tree jacks in line with planned falling direction. 3.5 Adjust cutting technique and use tree jacks to control movement and direction of tree being felled. 3.6 Complete felling and use planned safe exit route in line with safety procedures. 3.7 Monitor ground movement of tree; assess and clear trees that hang up. 3.8 Record and report tree jacking process and equipment faults to appropriate personnel.
4. Complete operator maintenance	4.1 Follow organisational safety procedures to lock out equipment. 4.2 Check chain for bluntness or damage. 4.3 Remove, sharpen, adjust and replace chain and other components in line with manufacturer's recommendations. 4.4 Assess and adjust chainsaw set-up to suit cutting conditions. 4.5 Maintain operational condition of chainsaw to meet standards prior to use.

	4.6 Check and service tree jacks.
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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:	- identify quantities of trees within work plans and complete basic calculations of time required to complete activities - determine dimensions of trees through estimation or measurement and calculate appropriate quantities of tree jacks - complete calculations and report on size, length, diameter and grade of felled trees.
Oral communication skills to:	- ask questions and actively listen to clarify contents of work plans - provide clear, unambiguous information about jacking and felling process to ensure safety of self and others.
Reading skills to:	- interpret: - WHS procedures - work plans - manufacturers 'maintenance recommendations.
Writing skills to:	complete accurate reports on tree jacking process and equipment faults.
Planning and organising skills to:	efficiently and logically sequence the stages of preparation for and felling of trees using work order to guide activities.
Problem-solving skills to:	identify unexpected operational, environmental and equipment problems and implement appropriate responses.
Technology skills to:	select, use and maintain appropriate machinery, tools and personal protective equipment used for tree jacking.

Range of Conditions

Not Applicable

Unit Mapping Information

FPIHAR4201B Apply tree jacking techniques

Links

Companion Volume implementation guides are found in VETNet -

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