



**Australian Government**

# **FWPHAR4202 Coordinate log recovery (hook tender)**

**Release: 1**

## FWPHAR4202 Coordinate log recovery (hook tender)

### Modification History

| Release | Comment                                                                                                                                                                                                                                             |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Replaces equivalent unit FPIHAR4202B Coordinate log recovery (hook tender), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.<br><br>This is the first release of this unit in the new standards format. |

### Application

This unit of competency describes the outcomes required to coordinate operational planning and setting up of cable log recovery systems in a forest or farm forest setting, including coordinating and supervising rigging slingers, yarders, choker setters and chasers.

The unit applies to job roles including Harvesting Supervisor, Harvesting Team Leader, and Forest Operations Supervisor.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & 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

|                                                  |                                                                                                                                                                                                        |
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| <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> |
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|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Prepare for hook tender operations        | <p>1.1 Review work plan and where appropriate check with appropriate personnel.</p> <p>1.2 Identify required type and quantity of cable recovery equipment and assess for safety and environmental protection practices.</p> <p>1.3 Select appropriate equipment and check for operational effectiveness in line with manufacturer's recommendations</p> <p>1.4 Plan cable operation activities in line with workplace health and safety (WHS) procedures and work plan.</p>                                                                                                                                                                                                                                                                                                                                                                                            |
| 2. Plan cable system layout                  | <p>2.1 Obtain and evaluate information to plan cable system layout and inspect site for hazards and factors affecting harvesting operations.</p> <p>2.2 Provide personnel with information about landing location and size, hauling boundaries, access routes and construction requirements.</p> <p>2.3 Consider code of practice, site topography, minimising system design additions and select cable system type to optimise log extraction rate.</p> <p>2.4 Identify general requirements for anchor points, backline and intermediate supports and provide instruction to fallers.</p>                                                                                                                                                                                                                                                                             |
| 3. Coordinate yarder and cable system set up | <p>3.1 Select rope sizes for lines in line with code of practice, yarder capacity and system design.</p> <p>3.2 Select components and rigging to meet code of practice requirements and system design.</p> <p>3.3 Inspect and install components and lines.</p> <p>3.4 Direct and assist personnel to layout lines, select anchors and position mobile backstops.</p> <p>3.5 Assess felled trees for location, size and obstructions; plan recovery extraction sequence to minimise line shifts, log and environmental damage.</p> <p>3.6 Select support trees and provide directions for rigging.</p> <p>3.7 Check unloaded and loaded system performance and calculate loads to ensure they are within system and equipment capacity.</p> <p>3.8 Monitor operations, change and communicate procedures or system design to improve safety and payload efficiency.</p> |

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| 4. Coordinate rigging of spars, towers and trees    | <p>4.1 Check cable system plans and determine operational requirements for tower, spars and support trees.</p> <p>4.2 Ensure rigging of spars, towers and trees complies with code of practice.</p> <p>4.3 Check and select spars or support trees to be rigged, guylines and anchor points.</p> <p>4.4 Select rigging and rope sizes to meet load.</p> <p>4.5 Provide directions to check components for wear, failure or missing parts prior to rigging; identify faults and take corrective action.</p> <p>4.6 Coordinate rigging on machine towers to prepare, assemble and fit operational lines, prior to raising, in line with system design.</p> <p>4.7 Identify climbing and pass line equipment.</p> <p>4.8 Coordinate guyline positioning and rigging within location angle requirements to provide minimal difference in length and tension.</p> <p>4.9 Check system components for size, safe working load, layout, position, safety straps, joins, lead angles and operating angles.</p> |
| 5. Coordinate line shifts and rigging modifications | <p>5.1 Anticipate line shifts and prepare required rigging in advance.</p> <p>5.2 Diagnose limitations of system design or positioning and plan modifications in line with code of practice.</p> <p>5.3 Monitor operations; change and communicate procedures to improve safety and payload efficiency.</p> <p>5.4 Locate new support trees, anchor points and mobile tail anchor position; assign riggers to prepare and rig in line with system requirements.</p> <p>5.5 Record and report breakout processes and equipment faults in line with site procedures.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Foundation Skills

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

|                     |                                                                                                                                                                                                                                                                                                                                                        |
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| Numeracy skills to: | <ul style="list-style-type: none"> <li>• complete routine calculations to optimise log extraction rate for number and size of felled trees</li> <li>• identify and interpret numerical requirements within codes of practice and manufacturer's recommendations</li> <li>• complete calculations involving height, length, weight, tension,</li> </ul> |
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|                                      | <ul style="list-style-type: none"> <li>angles, loads to determine efficient and safe operational capacity of rigging</li> <li>identify boundaries on maps and plans and calculate spatial requirements for yarder and rigging operations.</li> </ul>                                                                                                                                                     |
| Oral communication skills to:        | <ul style="list-style-type: none"> <li>ask questions and actively listen to clarify: <ul style="list-style-type: none"> <li>contents of work plans</li> <li>site personnel understanding of instructions</li> </ul> </li> <li>provide clear, unambiguous rigging instructions to site personnel</li> <li>use language and concepts appropriate to individual social and cultural differences.</li> </ul> |
| Reading skills to:                   | <ul style="list-style-type: none"> <li>interpret: <ul style="list-style-type: none"> <li>WHS procedures</li> <li>work plans</li> <li>cable system plans</li> <li>topographic maps</li> <li>codes of practice.</li> </ul> </li> </ul>                                                                                                                                                                     |
| Writing skills to:                   | <ul style="list-style-type: none"> <li>complete accurate reports on breakout process and equipment faults.</li> </ul>                                                                                                                                                                                                                                                                                    |
| Initiative and enterprise skills to: | <ul style="list-style-type: none"> <li>initiate and determine the most time and cost effective method of log recovery.</li> </ul>                                                                                                                                                                                                                                                                        |
| Planning and organising skills to:   | <ul style="list-style-type: none"> <li>design, plan and coordinate establishment of cable recovery systems.</li> </ul>                                                                                                                                                                                                                                                                                   |
| Problem-solving skills to:           | <ul style="list-style-type: none"> <li>anticipate operational, environmental and equipment problems and implement appropriate responses.</li> </ul>                                                                                                                                                                                                                                                      |
| Teamwork skills to:                  | <ul style="list-style-type: none"> <li>lead the team of site personnel to ensure efficient and safe log recovery.</li> </ul>                                                                                                                                                                                                                                                                             |
| Technology skills to:                | <ul style="list-style-type: none"> <li>select and coordinate installation of appropriate cable systems and rigging components to meet operational and environmental requirements.</li> </ul>                                                                                                                                                                                                             |

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## Range of Conditions

Not Applicable

## Unit Mapping Information

FPIHAR4202B Coordinate log recovery (hook tender)

## 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 FWPHAR4202 Coordinate log recovery (hook tender)

### Modification History

| Release | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | <p>Replaces equivalent unit FPIHAR4202B Coordinate log recovery (hook tender), 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.</p> <p>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.</p> |

### 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:

- safely and efficiently design, plan and coordinate the establishment of cable recovery systems
- follow organisational policies and procedures relevant to coordinating log recovery (hook tender)
- coordinate hook tender operations
- establish these types of cable recovery systems:
  - high lead (no skyline)
  - standing skyline
  - running skyline
- coordinate line shifts
- establish these types of lines:
  - extensions
  - guylines
  - haulback lines
  - mainlines
  - skylines
  - strawlines

- establish these types of anchors:
  - block stumps
  - mobile backstops
  - tailholds.

## Knowledge Evidence

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

- content and application of applicable state or territory code of practice for log recovery activities
- key features of these varying environmental conditions and effects on the layout, set up and operation of cable systems for log recovery:
  - fallen trees
  - general forest lean
  - ground growth
  - ground hazards and obstacles
  - ground slope
  - density of trees
  - wet and adverse weather conditions
  - wind speed and direction
- environmental protection practices for forest and forest farm settings:
  - safe disposal of waste material
  - cleaning of plant, tools and equipment
  - soil and water protection
- industry standard lengths for logs
- operational planning processes for:
  - designing and coordinating the establishment of cable recovery systems
  - determining the most time and cost effective method of log recovery
- techniques used in cable log recovery:
  - log extraction methods
  - rigging techniques
- typical industry chain of command for communication of information and instruction
- purpose, features and operation of cable logging system and rigging components:
  - cable systems:
    - high lead (no skyline)
    - standing skyline
    - running skyline
  - system design additions:
    - blind leads
    - bridling

- multispans
- yarders and anchors:
  - anchors
  - block stumps
  - mobile backstops
  - tailholds
- lines:
  - extensions
  - guylines
  - haulback lines
  - mainlines
  - skylines
  - strawlines
- towers
- spars and support trees
- organisational procedures specific to cable log recovery coordination:
  - workplace health and safety with particular emphasis on use of equipment
  - communication reporting lines during set up and operation of cable systems for log recovery
  - recording and reporting breakout process and equipment faults.

## Assessment Conditions

The following resources must be made available:

- cable systems
- yarder and anchors:
  - anchors
  - block stumps
  - mobile backstops
  - tailholds
- lines:
  - extensions
  - guylines
  - haulback lines
  - mainlines
  - skylines
  - strawlines
- towers
- rigging equipment for log recovery
- personal protective equipment suitable for log recovery coordination

- work plan for log recovery activities with specific instructions for the work site
- applicable state or territory code of practice
- topographic maps for the site
- template reports for recording breakout process and equipment faults
- organisational procedures for log recovery coordination
- a team of rigging slingers, yarders, choker setters and chasers with whom the individual can interact.

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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