



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **FPIHAR4202B Coordinate log recovery (hook tender)**

**Release: 1**

## **FPIHAR4202B Coordinate log recovery (hook tender)**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit descriptor**

This unit describes the outcomes required to coordinate operational planning and setting up of cable recovery systems, including supervision and coordination of rigging slingers, yarders, choker setters and chasers

Compliance with licensing, legislative, regulatory or certification requirements may be required in various jurisdictions.

This unit replaces FPIHAR4202A Coordinate log recovery (hook tender)

### **Application of the Unit**

#### **Application of the unit**

The unit involves coordinating log recovery (hook tender) in a forest or farm forest setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

### **Licensing/Regulatory Information**

Refer to Unit Descriptor

### **Pre-Requisites**

#### **Prerequisite units**

## **Employability Skills Information**

**Employability skills**            This unit contains employability skills

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for hook tender operations	<p>1.1. Applicable <i>Occupational Health and Safety</i> (OHS), <i>environmental</i>, <i>legislative</i> and <i>organisational requirements</i> relevant to coordinating log recovery (hook tender) are identified and followed</p> <p>1.2. <i>Work order</i> is reviewed and checked with <i>appropriate personnel</i></p> <p>1.3. Type and quantity of <i>cable recovery equipment</i> are identified and assessed for safe working conditions and <i>environmental protection measures</i></p> <p>1.4. <i>Equipment</i> is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations</p> <p>1.5. <i>Hooker</i> and <i>cable operations</i> activities are planned in line with site procedures</p> <p>1.6. <i>Communication</i> with others is established and maintained in line with OHS requirements</p>
2. Plan cable system layout	<p>2.1. Information essential to the planning of the cable system layout is obtained, evaluated and the site inspected for factors affecting harvesting operations and potential hazards</p> <p>2.2. <i>Landing</i> location and size, <i>hauling boundaries</i>, access routes and construction requirements are provided to construction personnel</p> <p>2.3. Cable system type is selected to provide optimum extraction rate for trees to be felled, considering site <i>topography</i> and codes of practice and minimising <i>system design additions</i></p> <p>2.4. General requirements for anchor points, backline and intermediate supports are identified and instructions given to fallers</p>
3. Coordinate <i>yarder</i> and cable system set up	<p>3.1. Rope sizes are selected for <i>lines</i> in line with the code of practice, yarder capacity and system design</p> <p>3.2. <i>Components</i> and rigging are selected to meet code of practice requirements and system design</p> <p>3.3. Components and lines are inspected during installation and set up</p> <p>3.4. Site personnel are directed and assisted to layout lines, select <i>anchors</i> and position mobile backstops</p> <p>3.5. Felled trees and <i>extraction sequence</i> are assessed for size, location and <i>obstructions</i> with recovery</p>

**ELEMENT****PERFORMANCE CRITERIA**

- planned to minimise *line shifts*, log and environmental damage
- 3.6. **Support trees** are selected and directions provided for rigging
- 3.7. Unloaded and loaded system performance is checked and loads calculated to ensure they are within system and equipment capacity
- 3.8. Operations are monitored and procedural or system design changes to improve safety and payload efficiency noted and communicated
4. Coordinate rigging of *spars, towers* and trees
- 4.1. Cable system is checked from plans and operational requirements interpreted for tower, spars and support trees
- 4.2. Spars or support trees to be rigged, necessary *guylines* and required anchor points are checked from the plan or selected within guidelines provided, with trees topped in line with the code of practice
- 4.3. Rigging suitable for operational requirements, loads and rope sizes is selected to meet the code of practice and industry standards
- 4.4. Directions are provided to check components for wear, failure or missing parts prior to rigging, faults are identified and corrective action is taken
- 4.5. Rigging is coordinated on machine towers to prepare, assemble and fit operational lines in line with system design, prior to raising
- 4.6. **Climbing and pass line equipment** is identified to be operated in line with the code of practice
- 4.7. **Guys** positioning and rigging within location angle requirements of the code of practice to provide minimal difference in length and tension is coordinated
- 4.8. System components are checked to ensure they meet the code of practice for size, safe working load, layout, position, safety straps, joins, lead angles and operating angles
5. Coordinate line shifts and rigging modifications
- 5.1. Line shifts are anticipated and required rigging is prepared in advance
- 5.2. Limitations of system positioning or design are diagnosed and modifications planned in line with the code of practice
- 5.3. Operations are monitored and procedural changes to improve safety and payload efficiency noted and

**ELEMENT****PERFORMANCE CRITERIA**

communicated

5.4. New support trees, anchor points and mobile tail anchor position are located and riggers assigned to prepare and rig these in line with system requirements

5.5. Breakout processes and equipment faults are *recorded and reported* to the appropriate personnel

**Required Skills and Knowledge****REQUIRED SKILLS AND KNOWLEDGE**

This describes the essential skills and knowledge and their level required for this unit

**Required skills**

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; efficiently and safely coordinate hook tender operations
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to estimate measure and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures

**Required knowledge**

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for coordinating log recovery (hook tender)
- Environmental protection requirements, including the safe disposal of waste material and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for coordinating log recovery (hook tender)
- Cable recovery operations and planning
- Rigging techniques
- Industry standard lengths
- Rigging and yarding operations
- Timber extraction methods
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding

**REQUIRED SKILLS AND KNOWLEDGE**

techniques

- Types of tools and equipment and procedures for their use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace records and information

# Evidence Guide

## EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

### Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they safely and efficiently coordinate hook tender operations within organisational requirements

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to coordinating log recovery (hook tender)
- following organisational policies and procedures relevant to coordinating log recovery (hook tender)
- coordinating hook tender operations in line with the work order and within prescribed organisational tolerances
- planning the layout of cable systems in line with site conditions
- modifying rigging and coordinating line shifts in line with the hook tender's instructions

### Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
  - workplace location or simulated workplace
  - materials and equipment relevant to undertaking work applicable to this unit
  - specifications and work instructions



## EVIDENCE GUIDE

### Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge
- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

## RANGE STATEMENT

### **OHS requirements:**

are to be in with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying

### **Environmental requirements** may include:

- legislation
- organisational policies and procedures
- workplace practices

### **Legislative requirements:**

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

### **Organisational requirements** may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement

## RANGE STATEMENT

processes and standards

- OHS, emergency and evacuation procedures
- ethical standards
- recording and reporting requirements
- equipment use and maintenance and storage requirements
- environmental management requirements (waste disposal, recycling and re-use guidelines)

**Work order** is to include:

- instructions for coordinating hook tender operations from the work site

and may include

- type
- size
- length
- quantity
- grade
- instructions for the environmental monitoring of work and procedures
- environmental care requirements relevant to the work

**Appropriate personnel** may include:

- supervisors
- suppliers
- clients
- colleagues
- managers

**Cable recovery equipment** may include:

- yarders
- spars
- rigging equipment
- cables

**Environmental protection measures** may include:

- ground growth
- canopy
- general forest lean
- wind speed and direction
- fallen trees
- density of trees
- ground slope
- soil and water protection
- ground hazards
- obstacles

## RANGE STATEMENT

- contingencies for modifying operations during wet or other adverse weather conditions
- Equipment** is to include:
- refer to cable recovery equipment
  - procedures for equipment lock-out such as protecting operators and co-workers from accidental injury by isolating the machine

**Hooker** (hook tender) is the cable logging team leader who decides which method of logging will be the fastest and most efficient, and also designs, plans and coordinates the establishment of cable recovery systems (the higher the hooker can get the logs off the ground means fewer broken logs, hang ups and snags)

- Cable operations** may include:
- activities covering a full range of species, log sizes, falling and retention densities, slope, other environmental conditions
  - the use of cable systems including high lead (no skyline), standing skyline and a running skyline with hauling both uphill and downhill
  - logs attached optimising payload without exceeding the lift or haul capacity of the system

- Communication** may include:
- verbal and non-verbal language
  - constructive feedback
  - active listening
  - questioning to clarify and confirm understanding
  - use of positive, confident and cooperative language
  - use of language and concepts appropriate to individual social and cultural differences
  - control of tone of voice
  - body language

**Landing** is the location where the yarder is positioned to receive the logs

**Hauling boundaries** are designated forest coupes owned privately, by Government or by the forestry organisation with boundaries which fall within survey pegs for the land allocated for logging

**Topography** is a map of the designated area showing terrain

## RANGE STATEMENT

	levels
<b>System design additions</b> are to include:	<ul style="list-style-type: none"> <li>• multispans</li> <li>• blind leads</li> <li>• bridling</li> <li>• other techniques potentially reducing extraction efficiency</li> </ul>
<b>Yarder</b>	is the crane-like vehicle which winches the timber from the felling site to the landing using a cable system
<b>Lines</b> are to include:	<ul style="list-style-type: none"> <li>• mainlines</li> <li>• haulback lines</li> <li>• skylines</li> <li>• strawlines</li> <li>• extensions</li> <li>• guylines</li> </ul>
<b>Components</b> may include:	<ul style="list-style-type: none"> <li>• carriages</li> <li>• jacks</li> <li>• butt rigging</li> <li>• chokers</li> <li>• grapples</li> <li>• blocks</li> <li>• sheaves</li> <li>• ropes</li> <li>• shackles</li> <li>• pins</li> <li>• tail rope</li> <li>• straps</li> <li>• intermediate supports</li> </ul>
<b>Anchors</b> are to include:	<ul style="list-style-type: none"> <li>• anchors</li> <li>• tailholds</li> <li>• block stumps</li> <li>• mobile backstops</li> </ul>
<b>Extraction sequence</b>	is the method of removing the log from the work site with mechanical equipment and cables, considering site conditions and specific log location, in a way which minimises downtime and risk of snags, breakage and hang ups
<b>Obstructions</b> may include:	<ul style="list-style-type: none"> <li>• standing trees</li> <li>• stumps</li> </ul>

## RANGE STATEMENT

- rocks
- ground projections

### Line shifts

are the moving of rigging lines from one area of operation to a new area

### Support trees

are trees (with heads removed) which can act as spars and be rigged accordingly

### Spars

are out-posted erections which provide elevation for the cables some distance from the yarder tower

### Towers

are the crane like raised towers which the cables operate from to provide height for extraction of logs.

### Guylines

support the tower or spar and other rigged erections to provide stability and strength during operation

### Climbing and pass line equipment

are lines linked to the drum line for the purposes of climbing trees and spars

### Guys

- refer to guylines

### Records and reports may include:

- cable recovery operations
- extraction methods
- hazards
- incidents
- equipment malfunctions

and may be:

- manual
- using a computer-based system or another appropriate organisational communication system

## Unit Sector(s)

### Unit sector

No sector assigned

## **Co-requisite units**

**Co-requisite units**

## **Competency field**

**Competency field**            Harvesting and Haulage