

**Modification history**

| Release   | Comments  |
|-----------|---|
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 6.0. |

| FWPHAR3231               | Operate yarder   |
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| <b>Application</b>       | <p>This unit of competency describes the skills and knowledge required to operate a yarder for log production and use optimised production processes in a commercial forest harvesting environment.</p> <p>The unit applies to individuals who work as yarder operators in a cable logging operation in a forest or plantation setting.</p> <p>All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p> |
| <b>Prerequisite Unit</b> | Nil  |
| <b>Unit Sector</b>       | Harvesting and Haulage   |

| Elements   | 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. Plan and prepare to operate a yarder          | <p>1.1 Review work order or instruction to determine job requirements and, where required, seek clarification from appropriate personnel</p> <p>1.2 Confirm production plan targets for felling and processing and assess wood flow requirements to ensure efficient machine operation and overall productivity</p> <p>1.3 Review workplace health and safety procedures, including the use of personal protective equipment and safe manual handling techniques</p> <p>1.4 Confirm type, size and quantity of stems and/or logs to be moved with yarder to ensure that loads, machine and cable system are consistent with safe working load requirements and workplace health and safety [WHS] and workplace procedures</p> <p>1.5 Identify, assess and take actions to mitigate risks and hazards associated with yarder operations</p> <p>1.6 Identify workplace environmental protection procedures for protecting and natural and cultural assets, minimising and disposing of waste material, recycling and reusing materials and cleaning plant, tools and equipment</p> <p>1.7 Identify emergency plan procedures to follow in the event of an emergency</p> <p>1.8 Use production plans to identify location of landing area, extraction routes and entry points for efficient extraction of stems and/or logs and minimum interference with other forestry operations</p> <p>1.9 Assess terrain characteristics to establish machine stability</p> |

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| 2. Set up yarder                                 | <p>2.1 Use industry-accepted warning signs, vehicle-to-vehicle communication systems and procedures to maintain communication and workplace safety during yarder set-up and operation</p> <p>2.2 Move yarder to the landing according to workplace, contractual and regulatory requirements</p> <p>2.3 Position yarder on landing for stability according to planned system design by adjusting the technique in response to terrain conditions and ensuring a stable level support base for outriggers</p> <p>2.4 Check that tower or spar is rigged to suit system design and raised according to manufacturer recommendations and regulatory requirements</p> <p>2.5 Work with other personnel to tension lines with enough slack to facilitate yarder movements</p>   |
| 3. Inspect and maintain cable system             | <p>3.1 Observe mechanical system components during normal operations, note faults and take corrective actions</p> <p>3.2 Routinely inspect system components and maintain, repair or replace according to manufacturer recommendations, workplace procedures and regulatory requirements</p> <p>3.3 Routinely inspect guy lines and adjust tension to equalise load according to manufacturer recommendations, workplace procedures and regulatory requirements</p> <p>3.4 Lubricate blocks to maintain operational condition</p> <p>3.5 Identify repetitive damage of cable system and review and amend operational practices</p>  |
| 4. Haul stems and/or logs                        | <p>4.1 Carry out pre-operational checks on machine and cable system according to workplace procedures and manufacturer recommendations to ensure optimal production performance and operational effectiveness</p> <p>4.2 Perform yarder operations only in response to breakout, landing signals or own transmitted signals</p> <p>4.3 Monitor, manage and control yarder mechanical systems to maintain log alignment and satisfy safe operating limits</p> <p>4.4 Control tension in running and standing lines to balance the lift and deflection consistency with payload and rope capacities</p> <p>4.5 Anticipate hang-ups and obstacles, halt haul and clear in cooperation with the rigging slinger</p> <p>4.6 Use haul speed, line swing and bridling to position logs on the landing, control payloads and work with the chaser to optimise workflow</p> <p>4.7 Position and construct stacks of stems or logs to avoid product damage, provide stability, restrict height for efficient extraction and facilitate safe access and conduct of other landing and machine operations according to worksite layout and production plan requirements</p> <p>4.8 Return rigging to extraction point and position according to signals from rigging slinger</p> <p>4.9 Operate yarder to minimise breakage and damage to stems and/or logs, standing trees and environment according to workplace procedures and production plan requirements</p> |
| 5. Carry out machine operator maintenance        | <p>5.1 Park, shut-down, de-energise and isolate yarder according to workplace procedures or manufacturer recommendations</p> <p>5.2 Clean, check and carry out routine maintenance activities on yarder to maintain optimum operational performance</p> <p>5.3 Identify and report machine faults, malfunctions or problems according to workplace procedures and manufacturer recommendations</p> <p>5.4 Clean work area of all debris and waste resulting from yarder operation and dispose of or recycle waste materials according to workplace environmental management plan</p> <p>5.5 Record yarder operations and maintenance activities</p>   |

| <b>Foundation Skills</b>   |   |
|--|---|
| <i>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.</i> |   |
| <b>Skill</b>   | <b>Description</b>  |
| Learning   | <ul style="list-style-type: none"> <li>Access and apply current information in logging code of practice on work practices</li> </ul>  |
| Reading  | <ul style="list-style-type: none"> <li>Read production plans, site safety and environmental management plans in a forest harvesting environment</li> <li>Read standard operating procedures and/or manufacturer instructions for the operation of forest harvesting machinery</li> </ul>    |
| Writing  | <ul style="list-style-type: none"> <li>Record operation, production and machine maintenance on paper based or electronic media</li> </ul>   |
| Oral Communication   | <ul style="list-style-type: none"> <li>Ask questions to clarify contents of production plans</li> </ul>   |
| Numeracy   | <ul style="list-style-type: none"> <li>Interpret gauges relevant to safe machinery operation</li> <li>Determine haul speed to optimise workflow</li> <li>Estimate the weight of logs to determine loading requirements and compliance to machine and cable system specifications</li> </ul> |

| <b>Unit Mapping Information</b>       |  |                 |                           |
|---------------------------------------|--|-----------------|---------------------------|
| <b>Code and title current version</b> | <b>Code and title previous version</b> | <b>Comments</b> | <b>Equivalence status</b> |
| FWPHAR3XXX<br>Operate yarder          | FWPHAR3231<br>Operate yarder           |                 |                           |

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| <b>Links</b> | Companion Volumes, including Implementation Guides, are available at VETNet:<br><a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a> |
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| TITLE  | Assessment requirements for FWPHAR3XXX Operate yarder |
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| <b>Performance Evidence</b>  |   |
| <p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that, on at least one occasion, the individual has:</p> <ul style="list-style-type: none"> <li>• planned, prepared and safely and effectively operated a yarder and cable system on four occasions to lift and carry stems and/or logs on slopes from the stump to the roadside or landing area according to a production plan</li> <li>• carried out routine maintenance on a yarder on two occasions.</li> </ul>   |   |
| <b>Knowledge Evidence</b>  |   |
| <p>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</p> <ul style="list-style-type: none"> <li>• information and requirements contained in a production plan and site safety and environmental management plans</li> <li>• hazardous or safe working zones in forest harvesting operations</li> <li>• health and workplace hazards or risks related to yarder operations and factors that can change or introduce new hazards</li> <li>• industry-accepted work health and safety risk control measures, legal obligations of the current Work Health and Safety Acts or Occupational Health and Safety Acts and regulations and requirements of industry standards and/or codes of practice for yarder operations as outlined in workplace procedures and production plan</li> <li>• warning signs, their correct positioning, vehicle-to-vehicle communication systems and procedures to maintain communication and workplace safety during yarder operations</li> <li>• required emergency response procedure including firefighting resources and emergency response</li> <li>• potential impacts of yarder operations on onsite and offsite environmental values including cultural heritage, flora, fauna, ground compaction, water contamination and soil erosion</li> <li>• environmental control measures, restrictions, legal obligations of the current Environment Protection Acts and regulations and requirements of industry standards and codes of practice for yarder operations as outlined in workplace procedures and production plan</li> <li>• landings usage</li> <li>• typical location of loading and/or landing site</li> <li>• tree felling patterns</li> <li>• extraction methods</li> <li>• wood flow requirements and extraction and production bottlenecks particular to a production system</li> <li>• effects of weather on ground conditions</li> <li>• effects of slope and terrain conditions on yarder stability and operation</li> <li>• machine specifications, restrictions and safe operating procedures including stability and operation in different terrain conditions and slopes and methods to shut down, de-energise and isolate the machine as outlined in in workplace procedures or operator's manual</li> <li>• cable systems used in yarder operations, application, maintenance and handling</li> <li>• using machine cabin controls</li> <li>• machine operating techniques to pull stems and/or logs and avoid mechanical damage to products during operations</li> <li>• techniques to manoeuvre obstacles and minimise damage to products, machine, cables and environment</li> <li>• techniques for positioning and stacking logs for efficient extraction</li> <li>• methods to conduct machine and cable system pre-operational checks and detect faults as outlined in workplace procedures or operator's manual</li> <li>• location of machine's major mechanical systems and parts of the machine in which energy is stored as outlined in operator manuals for safe and efficient conduct of the machine operator maintenance tasks</li> <li>• machine and cable systems maintenance and servicing requirements as outlined in user or operator manuals</li> <li>• reporting requirements regarding site, incident and hazard, personal reporting, check-in, production, machine maintenance and block completion.</li> </ul> |   |

| <b>Assessment Conditions</b>   |  |
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| <p>Assessment of the skills in this unit of competency must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions:                             <ul style="list-style-type: none"> <li>• skills must be demonstrated in a forest harvesting setting</li> </ul> </li> <li>• resources, equipment and materials:                             <ul style="list-style-type: none"> <li>• yarder</li> <li>• cable system for yarder</li> <li>• stems and/or logs to be carried with yarder</li> <li>• personal protective equipment required in harvesting operations</li> <li>• vehicle-to-vehicle communication system</li> </ul> </li> <li>• specifications:                             <ul style="list-style-type: none"> <li>• access to work order or instruction detailing log recovery activities to be carried out by operator</li> <li>• access to workplace policies and procedures which cover current Work Health and Safety Acts or Occupation Health and Safety Acts, regulations and related industry standards and codes of practice applicable to forest harvesting operations</li> <li>• access to workplace policies and procedures which cover current Environment Protection Acts, regulations and related industry standards and codes of practice applicable to forest harvesting operations</li> <li>• access to production plan</li> <li>• access to workplace safety and environmental protection plans</li> <li>• access to site emergency procedure</li> <li>• access to workplace safe operating procedures for yarder or operator's manual</li> <li>• access to user manual for vehicle-to-vehicle communication system.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p> |  |

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| <b>Links</b> | Companion Volume implementation guides are found in VETNet - <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a> |
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