



Australian Government

FWPHAR3231 Operate yarder

Release: 1

FWPHAR3231 Operate yarder

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 3.0.

Application

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. The main job functions are to lift and carry stems and/or logs on slopes from the stump to the roadside or landing area. Activities are to be conducted safely and efficiently.

The unit applies to individuals who work as yarder operators in small or larger harvesting crews. Operators generally work under broad direction to complete routine activities related to yarder operations and take responsibility for their work.

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

Pre-requisite Unit

Nil

Unit Sector

Harvesting (HAR)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to operate a yarder	1.1 Confirm production plan targets for felling and processing and assess wood flow requirements to ensure efficient machine operation and overall productivity 1.2 Confirm type, size and quantity of stems and/or logs to be moved with yarder to ensure that loads, machine and cable system are in line with safe working load requirements and industry standards for

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	operations 1.3 Confirm, identify and report health, safety, environmental and heritage risks of operation in line with standard operating procedures and site safety management plans 1.4 Apply risk control measures in line with standard operating procedures, site operational plan, legislative requirements and industry standards to eliminate or minimise risks 1.5 Identify emergency plan procedures to follow in the event of an emergency 1.6 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 1.7 Assess terrain characteristics to establish machine stability
2. Set up yarder	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 2.2 Move yarder to the landing in line with industry standards 2.3 Position yarder on landing for stability in line with planned system design by adjusting the technique in response to terrain conditions and ensuring a stable level support base for outriggers 2.4 Check that tower or spar is rigged to suit system design and raised in line with manufacturers' recommendations and industry standards 2.5 Work with other personnel to tension lines with enough slack to facilitate yarder movements
3. Inspect and maintain cable system	3.1 Observe mechanical system components during normal operations, note faults and take corrective actions 3.2 Routinely inspect system components and maintain, repair or replace in line with industry standards 3.3 Routinely inspect guylines and adjust tension to equalise load in line with industry standards 3.4 Lubricate blocks to maintain operational condition 3.5 Identify repetitive damage of cable system and review and amend operational practices
4. Haul stems and/or logs	4.1 Carry out pre-operational checks on machine and cable system in line with workplace procedures or manufacturers' recommendations to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	ensure optimal production performance and operational effectiveness 4.2 Perform yarder operations only in response to breakout, landing signals or own transmitted signals 4.3 Monitor, manage and control yarder mechanical systems to maintain log alignment and satisfy safe operating limits 4.4 Control tension in running and standing lines to balance the lift and deflection consistency with payload and rope capacities 4.5 Anticipate hang-ups and obstacles, halt haul and clear in cooperation with the rigging slinger 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 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 in line with worksite layout and production plan requirements 4.8 Return rigging to extraction point and position in line with signals from the rigging slinger 4.9 Operate yarder to minimise breakage and damage to stems and/or logs, standing trees and environment in line with the production plan requirements
5. Carry out machine operator maintenance	5.1 Park, shut-down, de-energise and isolate yarder in line with workplace procedures or manufacturers' recommendations 5.2 Clean, check and carry out routine maintenance activities on yarder to maintain optimum operational performance 5.3 Identify and report machine faults, malfunctions or problems in line with workplace procedures or manufacturers' recommendations 5.4 Clean work area of all debris and waste resulting from yarder operation and dispose of or recycle waste materials in line with site environmental management plan 5.5 Record yarder operations and maintenance activities

Foundation Skills

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.

Skill	Description
Reading	- read production plans, site safety and environmental management plans in a forest harvesting environment - read standard operating procedures and/or manufacturers' instructions for the operation of forest harvesting machinery
Writing	record operation, production and machine maintenance on paper based or electronic media
Oral Communication	- interact verbally and non-verbally using agreed systems and processes to communicate with chaser, rigging slinger and others on site to ensure safe and effective machine and cable system operations - use appropriate vocabulary including technical language directly relevant to role
Numeracy	- interpret gauges relevant to safe operation of harvesting machinery - determine haul speed to optimise workflow - determine construction of stable log stack - estimate the weight of logs to determine loading requirements and compliance to machine and cable system specifications
Navigate the world of work	understand main tasks, responsibilities and boundaries of own role
Interact with others	- use modes of communication suitable to purpose to confirm and clarify understanding - communicate and report operational and safety information to on-site personnel
Get the work done	- recognise and respond to routine problems - plan and organise own work activities and resources

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPHAR3231 Operate yarder	FWPHAR3211 Operate yarder	Significant changes to reflect industry requirements for a safe, appropriate and efficient operation, including product quality. New PCs were added, some	No equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
		PCs were edited and PE and KE increased in content to map against the revised PCs. Additional foundation skills identified. Code change.	

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 FWPHAR3231 Operate yarder

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Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria of this unit. There must be evidence that, on at least one occasion, the individual has:

- planned, prepared and safely and effectively operated a yarder and cable system to lift and carry stems and/or logs on slopes from the stump to the roadside or landing area in line with a production plan
- checked risks associated with the operation and applied standard operating procedures
- followed production plan requirements and site safety and environmental management plan
- set up a yarder and adjusted machine positioning technique in response to terrain conditions
- assisted to shift lines in line with the hook tender's instructions
- inspected and modified rigging
- pulled stems and/or logs from the stump to the roadside or landing area
- anticipated and cleared obstacles in cooperation with a rigging slinger
- applied speed, braking, drums and chokers techniques to manoeuvre obstacles and minimise damage to products, machine, cables and surrounding environment in line with the production plan requirements
- placed and stacked products for efficient extraction in line with the production plan requirements
- communicated effectively with rigging slinger and others in the work area
- shut down, de-energised and isolated machine in line with workplace procedures and operator's manual
- carried out routine maintenance on yarder parts.

Knowledge Evidence

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:

- information and requirements contained in a production plan and site safety and environmental management plans
- hazardous or safe working zones in forest harvesting operations

- health and operational hazards or risks related to yarder operations and factors that can change or introduce new hazards
- 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
- industry-accepted warning signs, their correct positioning, vehicle-to-vehicle communication systems and procedures to maintain communication and workplace safety during yarder operations
- required emergency response procedure including firefighting resources and emergency response
- potential impacts of yarder operations on onsite and offsite environmental values including cultural heritage, flora, fauna, ground compaction, water contamination and soil erosion
- industry-accepted 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
- landings usage
- typical location of loading and/or landing site
- tree felling patterns
- extraction methods
- wood flow requirements and extraction and production bottlenecks particular to a production system
- effects of weather on ground conditions
- effects of slope and terrain conditions on yarder stability and operation
- 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 workplace procedures or operator's manual
- cable systems used in yarder operations, application, maintenance and handling
- using machine cabin controls
- machine operating techniques to pull stems and/or logs and avoid mechanical damage to products during operations
- techniques to manoeuvre obstacles and minimise damage to products, machine, cables and environment
- techniques for positioning and stacking logs for efficient extraction
- methods to conduct machine and cable system pre-operational checks and detect faults as outlined in workplace procedures or operator's manual
- 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
- machine and cable systems maintenance and servicing requirements as outlined in user or operator manuals
- industry-accepted reporting requirements regarding site, incident and hazard, personal reporting, check-in, production, machine maintenance and block completion.

Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a forest harvesting site or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - yarder
 - cable system for yarder
 - stems and/or logs to be carried with yarder
 - personal protective equipment required in harvesting operations
 - vehicle-to-vehicle communication system
- specifications:
 - 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
 - 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
 - access to production plan and site safety and environmental management plans
 - access to site emergency procedure
 - access to workplace safe operating procedures for yarder or operator's manual
 - access to user manual for vehicle-to-vehicle communication system.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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