



Australian Government

FWPHAR3224 Operate crawler tractor

Release: 2

FWPHAR3224 Operate crawler tractor

Modification History

Release	Comments
Release 2	This version released with FWP Forest and Wood Products Training Package Version 4.0.
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 crawler tractor for log production and use optimised production processes in a commercial forest harvesting environment. The main job functions are to move stems and/or logs from felling site to roadside or landing area. Other functions include product segregation, stacking, and removal of slash. Activities are to be conducted safely and effectively.

The unit applies to individuals who work as crawler tractor operators in small or larger harvesting crews. Operators generally work under broad direction to complete routine activities related to crawler tractor 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 crawler tractor	1.1 Review production plan, confirm its targets for felling and processing and assess wood flow requirements to ensure efficient machine operation and overall productivity

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Confirm type, size and quantity of stems and/or logs to be moved with crawler tractor to ensure that loads and machine are in line with safe working load requirements and industry standards for operations 1.3 Confirm, identify and report health, safety, environmental and heritage risks of operation, in line with standard operating procedures and site safety and environmental 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 plan to identify location of extraction routes, entry points and directions to the landing for efficient extraction of logs and minimum interference with other forestry operations 1.7 Assess terrain characteristics to establish machine stability 1.8 Carry out pre-operational checks on machine in line with workplace procedures or manufacturers' recommendations to ensure optimal production performance and operational effectiveness
2. Operate crawler tractor	2.1 Use industry-accepted warning signs, vehicle-to-vehicle communication systems and procedures to maintain communication and workplace safety during operation 2.2 Select products, stems and/or logs or slash to be moved based on their position, location and size 2.3 Position crawler tractor for stability and safe access to products or slash by adjusting the technique in response to terrain conditions 2.4 Carry out hooking-on and winching techniques or use cabin controls to grapple products or slash avoiding damage to the products in line with the production plan requirements 2.5 Drive the machine to move products or slash to the roadside or landing area to achieve optimum efficiency and minimise breakage and damage to products, standing trees and surrounding environment in line with the production plan requirements 2.6 Unhook and position or construct stacks of stems, logs or slash at the roadside or landing area to avoid product damage, provide stability, restrict height for efficient extraction and facilitate safe access and conduct of other landing and equipment operations in line with worksite layout and production plan requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.7 Recover all merchantable product or slash from site in line with the production plan requirements
3. Carry out machine operator maintenance	3.1 Park, shut-down, de-energise and isolate crawler tractor in line with workplace procedures or manufacturers' recommendations 3.2 Clean, check and carry out routine maintenance activities on crawler tractor and equipment to maintain optimum operational performance 3.3 Identify and report machine faults, malfunctions or problems in line with workplace procedures or manufacturers' recommendations 3.4 Clean work area of all debris and waste resulting from crawler tractor operation and dispose of or recycle waste materials in line with site environmental management plan 3.5 Record crawler tractor 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 others on site to ensure safe and effective machine operations - Use appropriate vocabulary including technical language directly relevant to role
Numeracy	- Interpret gauges relevant to safe operation of harvesting machinery - Determine construction of stable log stack - Estimate the weight of logs to determine loading requirements and compliance to machine specifications

Skill	Description
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
FWPHAR3224 Operate crawler tractor Release 2	FWPHAR3224 Operate crawler tractor Release 1	Amended typographical error in Application	Equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPHAR3224 Operate crawler tractor

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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 crawler tractor to move products and/or slash 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
- determined suitability and stability of crawler tractor for operation and safe working load limits by considering machine and equipment specifications, terrain characteristics and type and size of stems and/or logs to be moved
- adjusted machine driving and positioning technique in response to terrain conditions
- applied machine manipulation techniques to move products and/or slash and minimise damage to products, machine 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 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 crawler tractor 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 crawler tractor 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 crawler tractor 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 work safety during crawler tractor operations
- required emergency response procedure including firefighting resources and emergency response
- potential impacts of crawler tractor operations on onsite and offsite environmental values including cultural heritage, flora, fauna, ground compaction, water contamination and soil erosion
- industry-accepted environmental control measures, environmental restrictions, legal obligations of the current Environment Protection Acts and regulations and requirements of industry standards and/or codes of practice for crawler tractor 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
- techniques particular to a production system to avoid mechanical damage to stems and logs during moving and stacking; position and stack logs for efficient extraction
- effects of weather on ground conditions
- effects of slope and terrain conditions on crawler tractor stability and operation
- machine specifications, restrictions, applications and safe operating procedures, including stability and operation in different terrain conditions, slopes and road types and methods to shut down, de-energise and isolate the machine as outlined in workplace procedures or operator's manual
- using machine cabin controls
- techniques for safe and efficient driving of crawler tractor
- methods to conduct machine 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 maintenance and servicing requirements as outlined in user and 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 skills 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:
 - crawler tractor
 - suitable stems/logs and/or slash to be moved
 - 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 standard operating procedures for single grip harvester 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.

Links

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