



Australian Government

FWPHAR3226 Operate feller buncher

Release: 1

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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 feller buncher for log production and use optimised production processes in a commercial forest harvesting environment. The main job functions are to fell trees and pre-bunch stems for further processing. Activities are to be conducted safely and to ensure optimal harvesting production.

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

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

Competency Field

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 feller buncher	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 1.2 Confirm, identify and report health, safety, environmental and heritage risks of operation in line with standard operating procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	and site safety and environmental management plans 1.3 Apply risk control measures in line with standard operating procedures, site operational plan, legislative requirements and industry standards to eliminate or minimise risks 1.4 Identify emergency plan procedures to follow in the event of an emergency 1.5 Use production plans to identify entry points to the coupe, access to trees, extraction routes and directions to landings to facilitate an efficient process and minimise interference with other forestry operations 1.6 Check work area to ensure there is appropriate space to safely manoeuvre both the machine and stems 1.7 Identify cutting sequence and felling directions to minimise damage to the trees and the surrounding environment in line with the production plan 1.8 Carry out pre-operational checks on machine and cutting head attachment in line with workplace procedures or manufacturers' recommendations to ensure optimal production performance and operational effectiveness
2. Operate feller buncher	2.1 Use industry-accepted warning signs, vehicle-to-vehicle communication systems and procedures to maintain communication and workplace safety during operation 2.2 Assess individual trees to determine the best machine position, fall direction, hazards, placement of cuts and tree quality grade 2.3 Drive and position the machine and felling head in response to tree characteristics and terrain conditions to ensure stability 2.4 Use cabin controls to clamp and cut stems in line with cutting instructions and/or production plan and value recovery requirements 2.5 Adjust clamping and cutting techniques in response to unexpected characteristics, movement or condition of tree 2.6 Use controlled manipulation of equipment to free tree hang ups while ensuring safety and minimising damage to the trees, the machine and the environment 2.7 Place stems at pre-bunching site and ensure minimal damage to stems and surrounding environment 2.8 Move machine over pre-arranged routes to eliminate or minimise

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	environmental impact
3. Segregate and stack stems	3.1 Visually assess stems for size species and quality characteristics during stacking at the pre-bunching site to ensure they are placed in the appropriate stack for transport and further processing in line with the production plan requirements 3.2 Position and pre-bunch stems to avoid stem damage, provide stability, restrict height for efficient extraction and allow space for the conduct of other operations in line with worksite layout and production plan requirements 3.3 Maintain stack separation and identification to ensure products are presented for optimum transport and logistics cycle time in line with industry standards and production plan requirements
4 Carry out machine operator maintenance	4.1 Park, shut-down, de-energise and isolate feller buncher in line with workplace procedures or manufacturers' recommendations 4.2 Clean, check and carry out routine maintenance tasks on feller buncher to maintain optimum performance 4.3 Inspect the machine and cutting head attachment for signs of damage and report faults, malfunctions or problems in line with workplace procedures and manufacturers' recommendations 4.4 Clean work area and dispose of or recycle waste materials in line with site environmental management plan 4.5 Record feller buncher 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

Skill	Description
	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
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
FWPHAR3226 Operate feller buncher	FWPHAR3207 Conduct feller buncher operations	Significant changes to reflect industry requirements for a safe appropriate and efficient operation, including value recovery and product quality. A new element and new PCs were added, most PCs were edited and PE and KE increased in content to map against the revised PCs. Additional foundation skills identified. Code and title change for consistency with other machine	No equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
		operation units.	

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 FWP HAR3226 Operate feller buncher

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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 feller buncher to fell trees and pre-bunch stems in line with cutting instructions and/or the production plan and optimum value recovery requirements
- checked risks associated with the operation and applied standard operating procedures
- followed production plan requirements, cutting instructions and site safety and environmental management plan
- planned cutting sequence
- adjusted machine driving and positioning technique in response to tree characteristics and terrain conditions
- applied felling techniques to minimise damage to the stem, standing trees, machine and environment in line with the production plan requirements
- adjusted operating techniques in response to unexpected characteristics, movement or condition of tree
- applied knowledge of tree species, quality characteristics and defects during operation in line with the production plan requirements
- positioned, stacked and presented stems for efficient transportation and identification 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 feller buncher.

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, cutting instructions and site safety and environmental management plans

- hazardous or safe working zones in forest harvesting operations
- health and operational hazards or risks related to feller buncher operations and factors that can change or introduce new hazards or risks, including characteristics of difficult trees and risks associated with falling them safely
- 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 feller buncher 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 feller buncher operations
- required emergency response procedure including firefighting resources and emergency response
- potential impacts of feller buncher 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 current Environment Protection Acts and regulations and requirements of industry standards and/or codes of practice for feller buncher operations as outlined in workplace procedures and production plan
- typical location of loading and/or landing site
- extraction methods
- wood flow requirements and extraction and production bottlenecks particular to a production system
- tree species, quality characteristics, shape and defects particular to the site and production system
- regional quality requirements for log products with particular end uses, markets and values
- maximum stump height requirements and methods to achieve maximum stump height in response to unexpected characteristics or condition of the trees and ground level
- maximum stem damage and defect allowance and minimum quality allowance particular to a production system
- techniques particular to a production system to avoid mechanical damage to, or breakage of, stems and standing trees during operation; avoid incorrect or excessive log butting; stack, separate and present logs for efficient transportation and identification of the product
- effects of weather on ground conditions
- effects of slope and terrain conditions on feller buncher stability and operation
- machine specifications, restrictions and safe operating procedures, including stability and operation in different terrain conditions, slopes and road types, chain shot rules, methods to shut down, de-energise and isolate the machine and optimal direction of travel as outlined in workplace procedures or operator's manual
- using machine cabin controls
- techniques for safe and efficient driving of feller buncher

- 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
- method to conduct machine and cutting head attachment pre-operational checks and inspections to detect faults as outlined in workplace procedures or operator's manual
- machine maintenance and servicing requirements as outlined workplace procedures or operator's manual
- 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:
 - feller buncher
 - suitable trees to fell
 - 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 Occupational 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, cutting instructions and safety and environmental management plans
 - access to site emergency procedure
 - access to workplace safety procedures for operating single grip harvester or operator's manual
 - access to user manual for vehicle-to-vehicle communication unit.

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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