



Australian Government

FWPSAW3226 Saw logs using CNC optimising systems

Release: 1

FWPSAW3226 Saw logs using CNC optimising systems

Modification History

Release	Comment
1	Replaces equivalent unit FPISAW3226B Saw logs using CNC optimising systems, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to set up and operate computer numerically controlled (CNC) optimising systems and saws to maximise timber output from every log. Work is completed in a forest and wood products factory and includes operator maintenance.

The unit applies to Benchman, Machine Operator, Timber Products Technician, Saw Operator.

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

Pre-requisite Unit

Nil

Unit Sector

Sawmilling and Processing

Elements and 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. Prepare for machining	1.1 Review work order and where required check with appropriate personnel. 1.2 Select appropriate personal protective equipment and check for operational effectiveness.

	1.3 Plan log sawing process in line with work order.
2. Set up optimising system	2.1 Set CNC optimising program to job specifications. 2.2 Check safety equipment and saw and cutting mechanisms for safe and effective operation. 2.3 Adjust saw settings in line with work order. 2.4 Conduct trial runs to check system operation, accuracy and quality of finished work. 2.5 Complete final adjustments to CNC optimising program and equipment in line with organisational procedures.
3. Operate optimising log saw	3.1 Use equipment in line with organisational safety procedures, manufacturer's instructions and environmental protection practices. 3.2 Complete pre start-up checks to ensure operational effectiveness. 3.3 Feed logs into machine, operate saw and monitor use to minimise waste and ensure quality product and output. 3.4 Repair or dispose of sub-standard product in line with environmental protection practices. 3.5 Direct processed logs to designated area in line with work order. 3.6 Identify routine processing problems and resolve or report to appropriate personnel.
4. Complete operator maintenance	4.1 Follow organisational safety procedures to lock out equipment. 4.2 Check saw blades for bluntness or damage. 4.3 Remove and replace saw blades in line with manufacturer's recommendations. 4.4 Dispose of used blades in line with environmental protection practices. 4.5 Complete basic non-specialist maintenance for equipment. 4.6 Keep machine clear of dust and debris in line with organisational safety procedures. 4.7 Record and report equipment faults and maintenance requirements to appropriate personnel.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	- identify quantities of required material within work orders and count number of logs to be sawn - set numerical data on CNC optimising program to suit sizing specifications - calculate the feed rate to optimise quality and quantity of production output.
Oral communication skills to:	ask questions and actively listen to clarify contents of work orders
Reading skills to:	- interpret: - workplace health and safety and other organisational procedures - work orders - manufacturers' instructions and maintenance recommendations.
Writing skills to:	complete accurate basic records for equipment faults and maintenance requirements.
Planning and organising skills to:	efficiently and logically sequence the stages of preparation and production using work order to guide activities.
Problem-solving skills to:	- identify and repair or dispose of sub-standard products - identify processing problems and faulty equipment and resolve by reporting or rectifying.
Technology skills to:	- select and use appropriate personal protective equipment for sawing activities - use computerised operating controls for CNC optimising saws to efficiently and safely saw logs - accurately identify and replace blunt or damaged saw blades.

Range of Conditions

Not Applicable

Unit Mapping Information

FPISAW3226B Saw logs using CNC optimising systems

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 FWPSAW3226 Saw logs using CNC optimising systems

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Release	Comment
1	Replaces equivalent unit FPISAW3226B Saw logs using CNC optimising systems, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- follow organisational policies and procedures relevant to sawing logs using CNC optimising systems
- saw logs using CNC optimising systems in line with work order and within prescribed organisational tolerances
- set computer programs for the CNC optimising system to follow
- complete these types of basic non-specialist maintenance:
 - cleaning the machine of wood chips and sawdust
 - replacing blunt saw blades
 - inspecting machine parts for wear or damage, including guards
 - greasing and lubricating moving parts
 - checking the operation of emergency stop buttons and lock out systems.
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Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- environmental protection practices for forest products factory settings:
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber
 - reducing water and energy use

- typical log defects and how they affect ability to produce quality flitches and cants:
 - warp
 - wane
 - curvature
 - cupping
 - shakes
 - insect defects
 - knots
 - resin pockets
- typical work flow processes for sawing flitches and cants with CNC optimising saws
- typical flow of log supply in and out of the sawing area
- range of cutting patterns used on logs to achieve maximum output of flitches and cants
- range of feed rates and how they affect production output and finished quality of flitches and cants
- purpose, features and operation of CNC optimising and other equipment used to saw flitches and cants:
 - CNC optimising saws
 - CNC computer program
 - mechanical feed
 - conveyor system to transport logs to and from the sawing area
 - maintenance tools and equipment for saws
- methods for assessing saw blade condition
- organisational procedures specific to operating CNC optimising saws:
 - workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - recording and reporting processing problems and equipment faults.
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Assessment Conditions

The following resources must be made available:

- CNC optimising saws
- CNC computer program
- maintenance tools and equipment for saws
- consumable saw blades
- personal protective equipment suitable for operating CNC optimising saws
- a diverse, comprehensive and commercial range of logs
- manufacturers':
 - instructions for equipment use
 - recommendations for repairing and maintaining equipment

- work order with specific instructions for sawing logs and despatch to downstream processing
- template documents for recording equipment faults and maintenance requirements
- relevant personnel for the purposes of communicating information
- organisational procedures for operating CNC optimising saws.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

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