



Australian Government

FWPCOT3279 Assess and maintain saw technology tools

Release: 1

FWPCOT3279 Assess and maintain saw technology tools

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 5.0.

Application

This unit of competency describes the skills and knowledge required to assess and maintain straight edges, hammers, measuring equipment, back gauges and tension gauges.

The unit applies to individuals who maintain saw technology tools in a timber products manufacturing facility.

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.

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

Pre-requisite Unit

Nil

Unit Sector

Common Technical (COT)

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. Prepare for maintenance	1.1 Review work order to determine job requirements and, where required, seek clarification from appropriate personnel 1.2 Review workplace health and safety procedures, including the use of personal protective equipment, equipment lock-out and safe manual handling techniques 1.3 Identify, assess and take actions to mitigate risks and hazards

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	associated with maintaining saw technology tools 1.4 Identify workplace environmental protection procedures for minimising and disposing of waste material, cleaning tools and equipment, and maximising energy efficiency 1.5 Select appropriate repair and maintenance tools and equipment, and check for operational effectiveness 1.6 Plan maintenance process according to work order
2. Maintain straight edge	2.1 Assess straight edge damage and wear and select appropriate maintenance method 2.2 Determine correct work angle for resurfacing or removal of wear 2.3 Clamp straight edge at correct angle to prevent movement, vibration and slippage during the resurfacing process 2.4 Inspect abrasive wheel or cutting tool, clean or change as required to suit work material removal, tolerance and surface texture requirements 2.5 Grind, machine or file straight edge to remove distortions and maintain edge straightness and flatness without overheating or causing distortion 2.6 Remove all signs of wear or damage from reference surfaces 2.7 Clean straight edge and de-bur edges 2.8 Dispose of distorted straight edge according to environmental protection practices 2.9 Record and report maintenance activities to appropriate personnel
3. Maintain tension gauges	3.1 Select grinder or other safe and appropriate method for maintaining tension gauges according to workplace procedures 3.2 Set grinder to produce required radius or circle diameter for the tension gauge 3.3 Position tension gauge and clamp in grinder securely, ensuring cord height is central to gauge length and arc is ground square to plane of the gauge body 3.4 Inspect grinding wheel and dress and change to suit work, material and required tolerance 3.5 Grind gauge to required accuracy and profile until all visible edge and face wear is removed 3.6 Select and monitor grinding speed and feed rates to avoid

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	overheating, distortion and burn marks 3.7 Dispose of tension gauges distorted during the process according to environmental protection practices 3.8 Record and report maintenance activities to appropriate personnel
4. Maintain measuring equipment	4.1 Access information required for maintenance or measuring equipment from manufacturer manuals 4.2 Check and calibrate measuring equipment against manufacturer specifications 4.3 Tag and remove from service faulty measuring equipment according to workplace procedures 4.4 Clean and store measuring equipment according to workplace and equipment manufacturer specifications 4.5 Record and report maintenance activities to appropriate personnel
5. Maintain hammers	5.1 Clean hammers according to manufacturer instructions 5.2 Assess condition of hammers according to workplace and manufacturer procedures 5.3 Grind and resurface worn hammers 5.4 Remove unserviceable hammers from service, and replace according to workplace procedures 5.5 Record and report maintenance activities to appropriate personnel
6. Maintain back gauges	6.1 Maintain back gauges according to manufacturer instructions 6.2 Tag and remove from service damaged or worn back gauges 6.3 Clean and store back gauges according to workplace procedures 6.4 Record and report maintenance activities to appropriate personnel

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
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Skill	Description
Reading	Extracts key information from operational manuals to determine safe operating procedures for equipment
Writing	Prepares routine written reports using required format, language and structure
Oral communication	Employs active listening and questioning to clarify content of work orders
Numeracy	- Reads basic numeric setting on grinding wheels - Estimates speeds to suit straight edge and tension gauge requirements - Uses standard units of measurement for speed - Interprets tension gauge markings
Navigate the world of work	Understands main tasks, responsibilities and boundaries of own role
Interact with others	Uses modes of communication suitable to purpose to confirm and clarify understanding
Get the work done	Recognises and responds to routine problems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT3279 Assess and maintain saw technology tools	FWPCOT3211 Maintain sawdoctoring tools	Added new elements; redrafted performance evidence; expanded knowledge evidence and assessment conditions to include additional tools; changed title and unit code to reflect updates and for compliance	No 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 FWPCOT3279 Assess and maintain saw technology tools

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- assessed the condition of and maintained each of the following saw technology tools:
 - straight edges
 - hammers
 - measuring equipment
 - back gauges
 - tension gauges
- in doing the above job:
 - read and clarified a work order for assessing the condition and maintaining saw technology tools
 - followed work order and relevant workplace health and safety and environmental protection procedures
 - prepared for maintenance activities
 - maintained a straight edge
 - maintained a tension gauge
 - ground and resurfaced a hammer
 - maintained measuring equipment
 - maintained back gauge
 - completed workplace reports on maintenance activities.

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:

- purpose, features and operation of tools and equipment used to maintain saw technology tools:
 - grinding machines
 - grinding machine attachments
 - abrasive grinding wheels
- types, purpose, features and use of:
 - straight edges
 - hammers including doghead, twist face, cross face, combination
 - measuring equipment including micrometers, vernier callipers, feeler gauge, pressure gauge, setting gauge
 - back gauges
 - tension gauges
- methods for:
 - assessing condition of straight edges and tension gauges
 - selecting appropriate grinding wheels
 - selecting and preparing appropriate straight edge/tension gauge material
 - maintaining straight edges, back gauges and tension gauges to specified requirements
 - maintaining measuring equipment
 - grinding and resurfacing hammers
- angles at which straight edges and tension gauges are ground
- range of speeds at which abrasive wheels can be operated without damaging materials being processed
- types of risk and hazards and mitigation measures associated with maintaining saw technology tools
- workplace procedures specific to maintaining saw technology tools:
 - workplace health and safety, with particular emphasis on equipment lock-out, use of personal protective equipment (PPE) and safe manual handling
 - communication reporting lines
 - recording and reporting processing problems and equipment faults
- environmental protection practices for repairing and maintaining saw technology tools:
 - reducing water and energy use
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing materials.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a saw technician workshop, a sawmill or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- grinding machines
- grinding machine attachments
- abrasive grinding wheels with suitable characteristics
- hand files
- oil stones
- straight edges, back gauges, hammers, measuring equipment and tension gauges
- PPE suitable for repairing and maintaining saw technology tools
- specifications:
 - template documents for recording maintenance activities
 - manufacturer instructions for use, repair and maintenance of equipment
 - work order with specific instructions for maintaining saw technology tools
 - organisational procedures for maintaining saw technology tools.

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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