



Australian Government

FWPSAW3234 File and set saw blades for hand saws and circular saws

Release: 1

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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 file and set saw blades for hand saws and circular saws. This activity includes removing and replacing saw blades, positioning blades in jigs, stands or vices, producing bevels along the back clearance angles of teeth, checking blade clearance requirements and setting teeth to workplace requirements.

The unit applies to individuals who file and set saw blades in a saw technician workshop or timber processing 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

Sawmilling and Processing (SAW)

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 filing and setting saw blades	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

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	of personal protective equipment, equipment lock-out and safe manual handling techniques 1.3 Identify, assess and take actions to mitigate risks and hazards associated with filing and setting saws 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 equipment and check for operational effectiveness according to manufacturer recommendations 1.6 Remove and replace saw blades according to safe work practices and manufacturer instructions
2. File teeth	2.1 Assess saw blade condition 2.2 Select appropriate tools and equipment 2.3 Sharpen saw blade to strip mark 2.4 Check saw blade cutting edge is sharp with consistent angle face, back and corners 2.5 Check tooth profiles are uniform and sharpened according to workplace procedures 2.6 Inspect sharpened saw blade and identify sharpening defects 2.7 Repair saw blade sharpening defects or remove the blade from service
3. Set saw blade	3.1 Set up saw blade in a selected jig to enable setting work 3.2 Check kerf and finish requirements to suit machine horsepower, saw type, materials to be sawn and cutting conditions 3.3 Examine individual teeth to check the amount of setting required 3.4 Maintain consistency of set between alternate teeth 3.5 Measure and assess teeth for the correct setting 3.6 Bevel teeth and assess bevel length 3.7 Apply set to teeth and allow for estimated spring back 3.8 Check set to teeth using gauges according to workplace procedures 3.9 Identify routine processing and equipment faults, and resolve or report 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
Numeracy	• Applies standard units of measurement in saw setting • Uses basic estimation skills to determine spring back • Interprets numerical information on a setting gauge
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
FWPSAW3234 File and set saw blades for hand saws and circular saws	FWPSAW3210 File and set saws	Clarified the type of sawing equipment for which saw blades are filed and set; updated unit code and title to reflect application and for compliance	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 FWPSAW3234 File and set saw blades for hand saws and circular saws

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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:

- followed work order and relevant workplace health and safety and environmental protection procedures
- removed and replaced saw blades from a hand saw, circular saw or both
- assessed saw blade condition through checking for each of the following:
 - cracks
 - altered state of tension in a blade from excessive heat during cutting
 - weaknesses or damage caused through the stress of bending teeth
- bevelled teeth and assessed bevel lengths, widths, angles and surface texture according to workplace procedures and production requirements
- set teeth and assessed conditions in line with standard operating procedures.

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 saws for which blades are filed and set:
 - hand saws
 - circular saws
- features and names of different parts of saw blades
- purpose, features and operation of tools and equipment used to file and set saw blades:
 - jigs
 - vices
 - setting instruments
 - levers and gauges
 - automatic or hand-held grinders

- bevel files
- importance of setting teeth to match requirements for:
 - characteristics of various materials sawn
 - speed of the sawing process
 - direction of the sawing process
 - cutting angle for sawing
 - saw blade specifications
- methods for:
 - removing saw blades from saws
 - assessing saw blade condition
 - setting teeth to a specified profile
 - grinding and bevelling teeth to required shape, tolerance and pitch
 - compensating for the effects of spring back
- back clearance and face angles at which blades are bevelled (blade geometry)
- characteristics of metal used in saw blades
- causes and consequences of spring back
- types of risk and hazards and mitigation measures associated with filing and setting saw blades
- workplace policies and procedures specific to filing and setting saw blades:
 - workplace health and safety, with particular emphasis on equipment lock-out, the use of personal protective equipment (PPE) and safe manual handling techniques
 - communication reporting lines
 - recording and reporting of processing and equipment faults
- environmental protection practices applicable to saw technician workshops or timber processing facilities:
 - 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 timber processing facility or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - tools and equipment used to file and set saw blades: jigs, vices, setting instruments, levers and gauges, automatic or hand-held grinders, hand files
 - one or more of the following types of saws for which the saw blade is to be filed and set: hand saws, circular saws
 - PPE suitable for filing and setting saw blades

- specifications:
 - template documents for recording processing and equipment faults
 - manufacturer instructions for use, repair and maintenance of equipment
 - work order with specific instructions for filing and setting saw blades in specified sawing equipment
 - workplace policies and procedures for filing and setting saw blades.

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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