



Australian Government

FWPSAW3245 Join band saw blades

Release: 1

FWPSAW3245 Join band saw blades

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 the condition of band saw blades, prepare and weld meeting ends and finish the welded surface ready for operation.

The unit applies to individuals who join band saw blades in a saw technician workshop or sawmill.

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 joining	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

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify, assess and take actions to mitigate risks and hazards associated with joining band saw blades 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
2. Join or repair band saw blade	2.1 Obtain saw blank and cut to length or cut existing blade at weld defect 2.2 Trim ends to obtain correct back alignment and pitch and/or shape to assist metal penetration 2.3 Set up and pre-heat blade ends and jig to specified tolerances 2.4 Apply weld to ensure metal penetrates through blade thickness and is protected from accidental contact 2.5 Loosen clamps and anneal joint immediately after welding 2.6 Grind surplus weld material from blade without overheating
3. Finish band saw blade	3.1 Finish blade to eliminate bumps in blade surface 3.2 Identify damaged blades or those with sub-standard joins, and dispose of these according to environmental protection practices 3.3 Package band saw for protection during return to service 3.4 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
Reading	Extracts key information from operational manuals to determine safe operating procedures for equipment

Skill	Description
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	- Completes precise calculations to determine if a blade will fit on the band saw when shortened - Uses standard units of measurement when marking out blanks for cutting to length - Uses arithmetic skills to calculate position of cutting lines to maintain correct tooth pitch
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
FWPSAW3245 Join band saw blades	FWPSAW3214 Join band saw blades	Reworded application statement; updated workplace health and safety requirements; removed performance criteria regarding removing blade from machine; added performance criteria to clarify process; split element 2; specified the types of band saw blades in performance evidence	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 FWPSAW3245 Join band saw blades

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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, at least on one occasion, the individual has:

- joined the following types of band saw blades:
 - narrow band
 - wide band
- in doing the above job, the individual has:
 - followed work order and relevant workplace health and safety and environmental protection procedures
 - welded and annealed blades to specified requirements
 - grinded surplus weld material
 - removed all distortions from the blade surface
 - tensioned the welded zone
 - adjusted back length of the blade
 - cleaned welded zone.

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, types, features and operation of band saws
- features and names of different parts of band saw blades
- purpose, features and operation of tools and equipment used to join and anneal band saw blades:
 - band saw welding equipment
 - grinding and finishing equipment
 - hand or power operated tools

- importance of joining and annealing blades to suit machine design requirements
- weld defects and effects on blade operation
- methods for:
 - welding and annealing blades to specified requirements
 - grinding surplus weld material
 - removing all distortions from the blade surface
 - tensioning the welded zone
- types of risk and hazards and mitigation measures associated with joining band saw blades
- workplace procedures specific to joining band saw blades:
 - 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 of processing and equipment faults
- environmental protection practices for repairing and maintaining tools and equipment in forest products factory settings:
 - 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, sawmill or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - band saw welding equipment including one or more of the following: gas metal arc welding (GMAW), gas tungsten arc welding (GTAW), flash butt welders, butt welders
 - grinding and finishing equipment
 - hand or power operated tools
 - saw blades, including narrow and wide band saw blades that cut both ferrous and non-ferrous material
 - PPE suitable for joining band saw blades
- specifications:
 - manufacturer instructions for use, repair and maintenance of equipment
 - work order for repair and maintenance activities with specific instructions for joining band saw blades for specified equipment
 - documents, spreadsheets and proformas for recording processing and equipment faults
 - workplace procedures for joining band saw blades.

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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