



Australian Government

Department of Education, Employment and Workplace Relations

FPISAW3214B Join band saw blades

Release: 1

FPISAW3214B Join band saw blades

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to assess the band saw blade condition, to prepare and weld meeting ends and to finish the welded surface ready for operation

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPISAW3214A Join band saw blades

Application of the Unit

Application of the unit

The unit involves joining band saw blades in a forest products factory setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for joining	1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to joining band saw blades are identified and followed 1.2. Work order is reviewed and checked with appropriate personnel 1.3. Band saw blades to be joined are removed from the designated machinery 1.4. Equipment is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations 1.5. Joining process is planned in line with site procedures and environmental requirements 1.6. Communication with others is established and maintained in line with OHS requirements
2. Join or repair band saw blade	2.1. Pre start-up checks are carried out on equipment in line with site requirements 2.2. Saw blank is obtained and cut to length or the existing blade cut at the weld defect 2.3. Ends are trimmed to obtain correct back alignment and pitch and/or shaped to assist metal penetration 2.4. Ends are set up in the welder to tolerances specified by the manufacturer 2.5. Weld is applied to ensure metal penetration through thickness of the blade and protected from accidental contact 2.6. Surplus weld material is ground from blade without burning or annealing the metal 2.7. Blade is finished to eliminate bumps in blade surface 2.8. Sub-standard joined/repared band saw blades and band saw blades damaged during the join/repair process are segregated and disposed of in line with site procedures, manufacturer's recommendations and environmental requirements 2.9. Band saw is packaged for protection during return to service 2.10. Joining process and equipment faults are recorded and reported to the appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit

Required skills

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; efficiently and safely join band saw blades
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for joining band saw blades
- Environmental protection requirements, including the safe disposal of waste material, minimising carbon emissions and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for joining band saw blades
- Environmental risks and hazards
- Characteristics of band saw blades
- Joining methods
- Band saw welding procedures
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their safe use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently join band saw blades within organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to joining band saw blades
- following organisational policies and procedures relevant to joining band saw blades
- joining band saw blades in line with the work order and within prescribed organisational requirements
- removing and replacing band saw blades from equipment

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with

EVIDENCE GUIDE

application of required knowledge

- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements:

are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and may include:

RANGE STATEMENT

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying
- machine isolation and guarding
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements
may include:

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements
may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards
- OHS, emergency and evacuation procedures
- ethical standards
- recording and reporting requirements

RANGE STATEMENT

- Work order** is to include:
- equipment use and maintenance and storage requirements
 - environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
 - instructions for the joining of band saw blades in designated equipment

and may also include:

- instructions for the environmental monitoring of work and procedures
- environmental care requirements relevant to the work

Appropriate personnel may include:

- supervisors
- suppliers
- clients
- colleagues
- managers

Blades may include:

- narrow and wide band saws blades that cut both ferrous and non-ferrous materials
- frame or 'gangsaw' blades
- other blades that require joins that alter blade length

Joining

is the process of using welding equipment that fuses together the two ends of a saw blade to form a continuous loop or alter the total length of a blade to suit machine design requirements

Equipment may include:

- specialised band saw welding plant
- GMAW
- GTAW
- MMAW
- oxyacetylene equipment
- grinding and finishing equipment
- hand or power operated tools

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language

RANGE STATEMENT

- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice
- body language

Pre start-up checks

are conducted to ensure:

- equipment has been set-up correctly
- systems are performing accurately
- equipment is operating to optimum performance

Saw blank

is a new fully toothed band saw blade or ribbon of steel which is yet to be joined to form a loop

Weld defects

are any features produced in the weld zone or weld deposit that have the effect of weakening the weld zone or deposit

Ends

are the ends of the blank or the ends of the existing blade being rejoined at either the crack or the previous joining point

Welder

refer to equipment

Tolerances

are the spacing between the ends when welding, allowing for penetration of the weld to occur

Burning is to include:

is the overheating of the weld deposit and saw steel during removal of the weld bead to a point that has an effect of weakening the strength of the weld or join

Annealing

- is the process of post heating the heat affected weld zone to the recommended temperature range and allowing slow cooling of the post-heated zones
- can be done manually or by specialised equipment

Finishing

is the process of:

- removing all distortions from the blade surface
- tensioning the weld zone (where applicable)
- adjusting back length of the blade (where applicable)
- cleaning welded zone to enterprise standard

RANGE STATEMENT

Disposing of may include:

- recycling sub-standard joined/repaired band saw blades and band saw blades damaged during the join/repair process
- re-using sub-standard joined/repaired band saw blades and band saw blades damaged during the join/repair process

Records and reports may include:

- the blade type
- welding technique
- size
- inspection
- grading and labelling outcomes
- storage locations
- quality outcomes
- hazards
- incidents
- equipment malfunctions

and may be:

- manual
- using a computer-based system or other appropriate organisational communication system

Unit Sector(s)

Unit sector

No sector assigned

Co-requisite units

Co-requisite units

Competency field

Competency field Sawmilling and Processing