



Australian Government

Department of Education, Employment and Workplace Relations

FPISAW3222B Recondition band mill wheels

Release: 1

FPISAW3222B Recondition band mill wheels

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare the band mill, fit special grinders, grind the wheel profile and re-assemble the band mill in readiness for return of bandsaws and wide bandsaws to service

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 FPISAW3222A Recondition band mill wheels

Application of the Unit

Application of the unit

The unit involves reconditioning band mill wheels 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 reconditioning	<p>1.1. Applicable <i>Occupational Health and Safety</i> (OHS), <i>environmental</i>, <i>legislative</i> and <i>organisational requirements</i> relevant to reconditioning band mill wheels are identified and followed</p> <p>1.2. <i>Work order</i> is reviewed and checked with <i>appropriate personnel</i></p> <p>1.3. <i>Equipment</i> is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations</p> <p>1.4. Reconditioning process is planned in line with site procedures and environmental requirements</p> <p>1.5. <i>Communication</i> with others is established and maintained in line with OHS requirements</p>
2. Fit and grind wheel profile	<p>2.1. Wheel is inspected and measured to identify wear and method of <i>grinding</i></p> <p>2.2. Wheel grinder is serviced, fitted and aligned to the <i>band mill</i> and wheel in line with manufacturer's specifications and recommended <i>tolerances</i></p> <p>2.3. Trial cut is taken to check and further <i>align</i> the grinder</p> <p>2.4. Wheel is ground until all signs of wear are removed, ensuring the face is not hollow and obtaining the required wheel <i>profile</i> and finish</p> <p>2.5. Grinding <i>feeds</i> are controlled to obtain the required profile</p> <p>2.6. Wheel is measured to ensure the diameter of back and front edges are equivalent</p> <p>2.7. Wheel profile is measured to ensure grinding has achieved the required profile</p> <p>2.8. Grinder traversing speeds are controlled to obtain the required profile</p>
3. Reassemble band mill	<p>3.1. Grinder and base plate are removed from band mill at completion of grinding</p> <p>3.2. Band mill components are reassembled to manufacturer's specifications</p> <p>3.3. Band saw is set up on <i>mill</i> to specified alignment</p> <p>3.4. Band saw and mill operation are tested to ensure correct operation</p> <p>3.5. <i>Isolation padlocks or tags</i> are removed at</p>

ELEMENT**PERFORMANCE CRITERIA**

completion of the work in line with OHS legislation and site procedures

3.6. Band saw mills damaged during the process that cannot be repaired are *disposed of* in line with site procedures and environmental requirements

3.7. Reconditioning process and equipment faults are investigated, *recorded and reported* in line with site requirements

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 recondition band mill wheels
- 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 take wheel measurements, and 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 reconditioning band mill wheels
- 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 reconditioning band mill wheels
- Environmental risks and hazards
- Characteristics of metal and saws
- Disassembly and reassembly methods

REQUIRED SKILLS AND KNOWLEDGE

- Band mill wheel assessment
- Grinding and alignment techniques
- 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 recondition band mill wheels 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 reconditioning band mill wheels
- following organisational policies and procedures relevant to reconditioning band mill wheels
- reconditioning band mill wheels in line with the work order and within prescribed organisational requirements
- removing and replacing wheels from band mill if faces are to be resurfaced on a metal lathe
- assessing band mill wheel conditions in line with standard operating procedures

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

EVIDENCE GUIDE

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 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.

RANGE STATEMENT

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:

- 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

RANGE STATEMENT

- quality and continuous improvement processes and standards
- OHS, emergency and evacuation procedures
- ethical standards
- recording and reporting requirements
- equipment use and maintenance and storage requirements
- environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)

Reconditioning

is the process of re-grinding the faces of the band mill wheels with grinding equipment to regain the specified profile for continued accuracy during operation

Band and wide band mill wheels are to include:

- the drive and driven wheels of any bandmill that support, turn, and maintain the alignment of the band saw blade for accurate cutting

Work order is to include:

- instructions for the reconditioning of band mill wheels 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

Equipment may include:

- specialised grinding equipment
- measuring equipment

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

RANGE STATEMENT

	<ul style="list-style-type: none"> body language
Grinding	is the process of removing wear and defects from band mill wheels
Band mill	is the same as 'mill' and is to include the entire mechanical structure and componentry that make up the machine
Tolerance may include:	<ul style="list-style-type: none"> wheel alignment alignment of saw guides to wheel faces wheel thickness to manufacturer's specifications
Alignment	is the process of measuring and testing the band mill wheels to ensure they run in a manner which makes the band saw blade rotate consistently without movement across the wheels
Profile	is the even shape and width of the wheel
Feeds	is the process of matching the speed of band mill wheel rotation with the speed and depth of cut taken by the abrasive grinding wheel or cutting tool being used to re-surface the wheel face
Mill may include:	<ul style="list-style-type: none"> all of the processing plant and timber feed systems which are linked to the band mill
Isolation padlocks and tags may include:	<ul style="list-style-type: none"> devices that isolate the piece of machinery devices that alert personnel to its isolation from service
Disposing of may include:	<ul style="list-style-type: none"> recycling band saw mills damaged during the process that cannot be repaired re-using band saw mills damaged during the process that cannot be repaired
Records and reports may include:	<ul style="list-style-type: none"> reconditioning of band mill wheels inspection storage locations quality outcomes hazards incidents equipment malfunctions <p>and may be:</p> <ul style="list-style-type: none"> manual using a computer-based system or other

RANGE STATEMENT

appropriate organisational communication
system

Unit Sector(s)

Unit sectors No sector assigned

Co-requisite units

Co-requisite units

Competency field

Competency field Sawmilling and Processing