



Australian Government

Assessment Requirements for FWPSAW3232 Sharpen band saw blades

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.

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:

- sharpened one or more of the following types of saw blades:
 - narrow band saw blade
 - wide band saw blade
- followed work order and relevant workplace health and safety and environmental protection procedures
- assessed the cutting performance of the blade, taking into account:
 - saw performance balanced against achievement of required production time
 - degree of deviation in the range of sawn products
- assessed the condition of blade teeth for:
 - sharpness of each tooth
 - damage to teeth
 - straightness of teeth
 - kerf width
- set up the sharpening machine.

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:

- basic knowledge of physics of sawing, including:
 - saw blade material and properties
 - impact of timber properties on saw blades
 - direction of cut
 - forces on a blade

- heat removal
- sawtooth configuration
- purpose, features and operation of band saws for which blades are sharpened
- features and names of different parts of band saw blades
- purpose, features and operation of tools and equipment used to sharpen band saw blades:
 - sharpening machines
 - grinding wheels
- importance of sharpening and setting teeth and tension to match requirements for:
 - characteristics of various materials sawn
 - speed of the sawing process
 - direction of the sawing process
 - hook/rake angles for sawing
 - saw blade specifications
- methods for:
 - assessing saw blade condition
 - sharpening blades to specified requirements
 - grinding teeth to a specified profile
 - tensioning blades to specified requirements
 - aligning saw teeth
- tooth pitch and tooth angles at which blades are sharpened (blade geometry)
- range of speeds at which abrasive wheels can be operated without damaging blades
- coolants used in the sharpening process, and impact on efficient sharpening
- types of risk and hazards, and mitigation measures associated with sharpening band saw blades
- workplace policies and procedures specific to sharpening band saw blades:
 - workplace health and safety, with particular emphasis on 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 for repairing and maintaining tools and equipment in sawmills:
 - 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:
 - sharpening machines
 - grinding wheels
 - grinding coolant where applicable
 - band saws for which blades are to be sharpened
 - one or more of the following types of band saw blades to be sharpened: wide band saw blades used for processing timber products, narrow band saw blades used for cutting both ferrous and non-ferrous materials
 - PPE suitable for sharpening band saw blades
- specifications:
 - manufacturer instructions for use, repair and maintenance of equipment
 - work order with specific instructions for sharpening band saw blades
 - template documents for recording equipment faults and maintenance requirements
 - workplace procedures for sharpening band saw blades.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>