



Australian Government

Assessment Requirements for FWPSAW3233 Sharpen circular 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:

- set up and operated a manually controlled grinder to sharpen one or both of the following types of circular saw blades:
 - circular crosscut blades
 - rip saw blades.

In doing the above job, the individual has:

- reviewed work order to determine job requirements
- followed relevant workplace health and safety and environmental protection procedures
- removed and replaced circular saw blades from the sawing equipment
- assessed cutting performance and determined need to replace or sharpen blades
- assessed condition of blade teeth, including:
 - sharpness of tooth cutting edges
 - angles within the tooth profile
 - tooth strength
 - damage to teeth
 - pitch
 - gullet depth
- sharpened circular saw blades according to workplace procedures
- cleaned work area and equipment
- identified routine processing and equipment faults, and resolved or reported to appropriate personnel.

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 saws for which circular saw blades are sharpened
- features and names of different parts of circular saw blades
- purpose, features and operation of tools and equipment used to sharpen circular saw blades:
 - gulleting and grinding machines
 - machine attachments
 - abrasive wheels
 - hand-held tools
- 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
 - cutting angle for sawing
 - saw blade specifications
- methods for:
 - removing saw blades from equipment
 - assessing saw blade condition
 - maintaining clearance between the body and the tooth of a saw blade
 - sharpening blades to specified requirements
 - grinding teeth to a specified profile
 - maintaining concentricity of 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 saw blades
- risks and hazards and mitigation measures associated with sharpening circular saw blades
- procedures specific to sharpening circular 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 applied to saw technician workshops and 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 sharpen circular saw blades: gulleting and grinding machines, machine attachments, hand-held tools and abrasive wheels
 - saws for which circular saw blades are to be sharpened
 - one or more of the following types of circular saw blades to be sharpened: circular crosscut blades, rip saw blades
 - PPE suitable for sharpening circular saw blades
- specifications:
 - manufacturer instructions for use, repair and maintenance of equipment
 - work order with specific instructions for sharpening circular saw blades
 - template documents for recording operational problems and equipment faults
 - workplace procedures for sharpening circular 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>