



Australian Government

Assessment Requirements for FWPSAW3247 Replace tungsten tips

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:

- followed work order and relevant workplace health and safety and environmental protection procedures
- removed worn tungsten tips from circular saw blades
- replaced tungsten tips for circular saw blades
- assessed condition of tungsten tips in line with workplace procedures.

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
 - saw tooth configuration
- purpose, features and operation of saws for which tungsten tips are replaced:
 - circular saws
- features and names of different parts of saw blades
- purpose, features and operation of tools and equipment used to replace tungsten tips:
 - brazing equipment and brazing material
 - brazing jigs
- methods for:

- removing saw blades from saws
- assessing saw blade condition
- removing tungsten tips from saw blades
- cleaning excess braze alloy and carbide fragments from tip seats
- lengthening or deepening tip seats to match replacement tip requirements
- selecting size and type of replacement tip
- pre-tinning new tips
- brazing new tungsten tips onto the tooth face or tooth seat
- appropriate tolerances for brazing alloy joint thickness, replacement tip sizes and side clearance objectives
- characteristics of metal used in saw blades, and effects of brazing
- types of risk and hazards and mitigation measures associated with replacing tungsten tips
- workplace procedures specific to replacing tungsten tips:
 - workplace health and safety, with particular emphasis on equipment lock-out and use of personal protective equipment (PPE)
 - communication reporting lines
 - recording and reporting processing and equipment faults
- environmental protection practices applicable to saw technician workshops or 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, timber processing facility or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - brazing equipment
 - brazing jigs
 - circular saws
 - tungsten tips
 - brazing material: silver alloy, flux in the form of a liquid or paste
 - side clearance dial indicator: Kafer Gauge
 - PPE suitable for replacing tungsten tips
- specifications:
 - documents, spreadsheets and templates for recording operation and equipment faults
 - manufacturer instructions for use, repair and maintenance of equipment
 - work order with specific instructions for replacing tungsten tips for circular saws

- workplace procedures for replacing tungsten tips.

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>