



Australian Government

Assessment Requirements for FWPSAW3251 Apply principles of blade design to sawing procedures

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
- selected blades for sawing procedures according to workplace procedures
- identified and evaluated blade characteristics, properties and design capacities for at least three of the following types of blades:
 - circular saw blades
 - band saw blades
 - wide saw blades
 - standard steel
 - tungsten tipped
 - Stellite tipped
- assessed saw blade condition and completed basic records of faults for at least three types of blade
- selected appropriate blades to suit material being cut and production requirements for three separate work orders.

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:

- types of risk and hazards and mitigation measures associated with applying principles of blade design to sawing procedures
- workplace procedures specific to applying principles of blade design to sawing procedures:

- workplace health and safety, with particular emphasis on equipment lock-out and use of personal protective equipment (PPE)
- communication reporting lines
- recording and reporting of processing problems and equipment faults
- environmental protection practices for timber processing operations:
 - reducing water and energy use
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber
- purpose, features and operation of blades:
 - circular saw blades
 - band saw blades
 - gang saw blades
 - wide saw blades
 - standard steel
 - tungsten tipped
 - Stellite tipped
- properties of blades used in the timber processing and manufacturing industry:
 - metal from which blades are made
 - geometry and concentricity
- characteristics of blades and names and purpose of blade parts:
 - tooth pitch
 - kerf
 - gullet
 - tooth face
 - set
 - straightness
 - tooth profile
 - tooth and side clearance angles
 - gullet depth/tooth height
 - tension ring
 - application (crosscutting or ripping)
- methods to optimise the use of saw blades
- effects of different types of materials on saw blade wear
- typical machinery and equipment issues that can cause product waste and adversely affect blade lifespan
- methods for assessing saw blade condition
- workplace quality system procedures for the use and care of blades.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a timber processing or manufacturing facility or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - blades for at least three of the following types of saws: circular saws, narrow band saws and wide band saws
 - different styles of blade: solid tooth, tungsten tipped and Stellite tipped
 - maintenance tools and equipment for blades
 - personal protective equipment suitable for handling blades
- specifications:
 - template documents for recording blade faults
 - manufacturer specifications for blade use and recommendations for repairing and maintaining blades
 - work orders with specific information on materials to be cut and production requirements
 - workplace quality system procedures for the use and care of 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>