



Australian Government

FWPSAW3225 Maintain frame saw blades

Release: 1

FWPSAW3225 Maintain frame saw blades

Modification History

Release	Comment
1	Replaces equivalent unit FPISAW3225B Maintain frame saw blades, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to hammer, tension, back-gauge, weld and replace teeth on frame saw blades. It includes inspecting saws, repairing defects including damaged or missing teeth and cracks, and hammering ridges and lumps. Work is completed in a forest and wood products factory setting.

The unit applies to Sawdoctor, Saw Repairer.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Sawmilling and Processing

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for maintenance	1.1 Review work order and where required check with appropriate personnel. 1.2 Select appropriate repair, maintenance and personal protective equipment and check for operational effectiveness in line with manufacturer's recommendations. 1.3 Plan repair process in line with work order.
2. Assess saw	2.1 Follow organisational safety procedures throughout all

condition	maintenance and repair processes. 2.2 Remove frame saw blades from machinery. 2.3 Handle saws to avoid damaging teeth. 2.4 Clean foreign material on saw surfaces for inspection. 2.5 Inspect saw to assess condition of teeth and saw blade. 2.6 Check and mark teeth and tips requiring repair or replacement. 2.7 Declare saw unserviceable where hazardous defects are found. 2.8 Segregate and dispose of unserviceable saws in line with organisational procedures and environmental protection practices.
3. Hammer, tension and back-gauge saw blade	3.1 Assess ridges or lumps across and along saw on both sides of blade. 3.2 Use gauges and straight edges in both directions to test blade accuracy. 3.3 Remove ridges or lumps progressively through hammering and use stretcher or levelling rolls to flatten. 3.4 Control hammering or rolling patterns to localise stresses to avoid spring-back and re-occurrence of defects. 3.5 Check saw blade against required curvature using a gauge to identify tensioning requirements. 3.6 Obtain tension curvature across and along saw blade. 3.7 Check alignment of saw back against tolerances using a gauge; roll non-conforming areas to obtain required tolerance.
4. Repair teeth	4.1 Place saw blade in welding jig for heat application and welding activities. 4.2 Check amount of damaged tooth to be removed and mark weld line. 4.3 Remove metal to proposed line, prepare metal edge for welding and clean burn marks. 4.4 Apply heat and pressure to prepare worn, broken or ground surface for metal build up or replacement. 4.5 Build up or replace teeth using material and processes that ensure specified metal penetration and density. 4.6 Use weld run-off tabs to limit stress and hollows at saw edges. 4.7 Grind or file teeth to required shape, tolerance and pitch. 4.8 Dispose of sub-standard saw blades in line with environmental protection practices. 4.9 Identify routine processing and equipment faults and resolve or

	report to appropriate personnel.
--	----------------------------------

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	• use gauges and straight edges to: • measure results of hammering and/or rolling the blade • measure curvature • check alignment against tolerances.
Oral communication skills to:	• ask questions and actively listen to clarify contents of work orders.
Reading skills to:	• interpret: • workplace health and safety procedures • work orders • manufacturers' maintenance recommendations.
Writing skills to:	• complete accurate basic records for processing and equipment faults.
Planning and organising skills to:	• efficiently and logically sequence stages of preparation and repair work using work order to guide activities.
Problem-solving skills to:	• assess blade condition and complete necessary levelling and tensioning adjustments and repair work • identify and dispose of unserviceable saws • recognise faulty equipment and resolve by reporting or rectifying.
Technology skills to:	• select and use appropriate repair, maintenance and personal protective equipment for maintaining frame saw blades • efficiently and safely maintain frame saw blades.

Range of Conditions

Not Applicable

Unit Mapping Information

FPISAW3225B Maintain frame saw blades

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPSAW3225 Maintain frame saw blades

Modification History

Release	Comment
1	New unit. Replaces equivalent unit FPISAW3225B Maintain frame saw blades, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- follow organisational policies and procedures relevant to maintaining frame saw blades
- maintain frame saw blades in line with a work order and within prescribed organisational requirements
- remove and replace saws from equipment
- assess saw condition in line with standard operating procedures
- use welding processes and materials to produce:
 - welds which provides enough penetration to ensure strong cohesion
 - density that ensures the weld is free of holes and inclusions.
-

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- purpose, features and operation heavy duty frame saws for which repairs are completed
- features and names of different parts of frame saw blades
- purpose, features and operation of tools and equipment used to repair and maintain frame saw blades:
 - hammers
 - structure rolls

- levelling rolls
- tensioning instruments
- gauges and straight edges
- welding equipment and welding materials
- importance of levelling blades, setting tension, applying curvature and setting teeth 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 heavy duty frame saws
 - assessing saw blade condition
 - hammering, levelling and tensioning blades to specified requirements
 - applying curvature
 - welding to build up and replace teeth
 - grinding and filing teeth to required shape, tolerance and pitch
- characteristics of metal used in frame saw blades and range of force which can be applied without damaging blades
- organisational procedures specific to maintaining frame saw blades:
 - workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - recording and reporting processing and equipment faults
- environmental protection practices for repairing and maintaining tools and equipment in forest products factory settings:
 - reducing water and energy use
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing materials
-

Assessment Conditions

The following resources must be made available:

- tools and equipment used to repair and maintain frame saw blades:
 - hammers
 - structure rolls
 - levelling rolls
 - tensioning instruments
 - gauges and straight edges

- welding equipment
- welding jigs
- run-off tabs
- punches
- engineers hammers
- angle grinders
- sanders
- hand files
- abrasive paper or cloth
- welding material
- tools and equipment to be repaired and maintained:
- large heavy duty frame saws used to cut timber
- personal protective equipment suitable for repairing and maintaining frame saw blades
- manufacturers' instructions for use, repair and maintenance of equipment
- work order for repair and maintenance activities with specific instructions for repairing frame saw blades in specified equipment
- template documents for recording processing and equipment faults
- relevant personnel for the purposes of communicating information
- organisational policies and procedures for maintaining frame saw blades.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>