



Australian Government

FWPCOT3215 Swage and shape saw blades

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPICOT3215B Swage and shape 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 widen then press into shape, through a cold forming process, the cutting points of saw teeth to create a block that has the required hook, back, tangential and radial clearance angles for efficient saw operation. Work is completed in a 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

Common Technical

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. Set up equipment	1.1 Review work order and where required check with appropriate personnel. 1.2 Identify required swage shape and thickness from existing saws and relevant records. 1.3 Select appropriate personal protective and other equipment and check for operational effectiveness.

	1.4 Set up saw, swage and shaping equipment to meet production requirements. 1.5 Check die or swage clamp or vice shape against required shape, clearances and kerf, and change as required. 1.6 Secure saw in a swage clamp or vice or swager with teeth aligned to swager or vice shape. 1.7 Apply anti-scuffing paste to areas of saw for swaging.
2. Swage teeth	2.1 Use equipment in line with organisational safety procedures, manufacturer's instructions and environmental protection practices. 2.2 Complete trial swage, check and adjust swaging setup. 2.3 Accept or reject trialled material and dispose of in line with environmental protection practices. 2.4 Inspect swage shape and thickness and measure for tangential and radial clearance and kerf. 2.5 Adjust swaging operation to meet production specifications. 2.6 Check dies for wear and adjust to ensure accurate operation. 2.7 Swage remaining teeth in line with production and manufacturer specifications.
3. Shape teeth	3.1 File and shape excess material resulting from swaging process. 3.2 Complete trial shape and check tooth tolerances, adjusting as required. 3.3 Accept or reject trialled material and dispose of in line with environmental protection practices. 3.4 Assess shape and check tooth alignment, adjusting remaining teeth as required. 3.5 Record and report processing problems and equipment faults 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:	complete precise calculations to swage and shape saw blades specified hook, back, tangential and radial clearance angles.
Oral communication skills to:	ask open and closed probe questions and actively listen to clarify contents of work orders.

Reading skills to:	• interpret: • workplace health and safety and other organisational procedures • work orders • manufacturers' recommended specifications for swaging and shaping teeth.
Writing skills to:	• complete basic accurate records for processing problems and equipment faults.
Planning and organising skills to:	• efficiently and logically sequence the stages of preparation and production using work order to guide activities.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3215B Swage and shape 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 FWPCOT3215 Swage and shape saw blades

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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 swaging and shaping saw blades
- inspect kerf and swage block to assess both as part of the setup procedures for swaging and shaping
- swage and shape teeth in line with organisational requirements and specifications

Knowledge Evidence

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

- purpose, features and operation of circular, band and gang saws for which saw blades are shaped and swaged
- features and names of different parts of circular, band and gang saw blades
- purpose, features and operation of tools and equipment used to shape and swage blades:
 - swagers
 - swage clamps or vices
 - dies
 - measuring equipment
- importance of swaging and shaping saw blades 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
- techniques used to swage and shape saw teeth to specified hook, back, tangential and radial clearance angles
- industry standard and organisational tolerances
- organisational procedures specific to swaging and shaping 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 problems 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 swage and shape saw blades:
 - swagers
 - swage clamps or vices
 - dies
- measuring equipment including one or more of the following:
 - wire gauges
 - test bars
 - rules
 - micrometers
 - vernier callipers
- saw blades to suit:
- circular saws
- band saws
- gang saws
- personal protective equipment suitable for swaging and shaping saw blades
- manufacturers' instructions for use of equipment and recommended specifications for swaging and shaping teeth
- work order with specific instructions for swaging and shaping saw blades for specified equipment
- template documents for recording processing problems and equipment faults
- organisational policies and procedures for swaging and shaping 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.

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