Title	**Swage and shape a saw**		
Level	**4**	**Credits**	**10**

Purpose	People credited with this unit standard are able to: demonstrate knowledge of hazards and safe work practices associated with swaging and shaping a saw; prepare saws for swaging and shaping; swage saws; chip saws; and shape saws.

Classification	Solid Wood Manufacturing > Saw Doctoring

Available grade	Achieved

Guidance Information

1 Legislation
Health and Safety at Work Act 2015.
Resource Management Act 1991.

2 Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider wood manufacturing industry as examples of best practice.
Chipping, for the purpose of this unit standard, is synonymous with the term *tipping*.
Workplace procedures refer documented policies and procedures set by the organisation carrying out the work, and to documented or other directions provided to staff, and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the wood manufacturing sector.

3 Range
Saws – one of frame saw or bandsaw.
Swage and shapers – hand or pneumatic.

4 Assessment information
All activities and evidence must be in accordance with workplace procedures and accepted industry practice.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazards and safe work practices associated with swaging and shaping a saw.

Performance criteria

1.1 Hazards associated with swaging and shaping a saw are identified and actions to be taken to manage the hazard are described.

Range hazards may include but are not limited to – moving equipment, dust, mobile plant, noise, pneumatic pressure.

1.2 Safe work practices associated with swaging and shaping a saw are identified and applied.

Range practices may include but are not limited to – isolation procedures, lock-outs, emergency stops, machine guarding, wearing of appropriate safety equipment.

Outcome 2

Prepare saws for swaging and shaping.

Performance criteria

2.1 Saw and work areas are cleaned of all foreign matter that could affect swaging and shaping operations.

2.2 Saw teeth are checked for damage and evenness, and the requirement for swaging and shaping is determined with regard to required kerf.

2.3 Tools are checked for wear and damage and remedial action is taken.

Range may include but is not limited to – micrometers, callipers, wire and dial gauges, swage and shape parts, manufacturer's adjustment tools, files, saw set, swaging clamp, anvil, die, clamp screws.

2.4 Saw is clamped for stability during swaging and shaping.

2.5 Saw tooth faces are lubricated.

2.6 Saw is positioned in the middle of the barrel slot, with even adjustment of the clamp screws.

Outcome 3

Swage saws.

Performance criteria

3.1 Front stop screw is adjusted to prevent the die from striking the anvil.

3.2 One tooth is swaged and checked for required size, and the swage is re-adjusted if required.

3.3 All teeth are swaged to required size.

3.4 Swage is adjusted for the saw gauge.

Range front stop, anvil.

3.5 Anvil is set to the anvil setting gauge, allowing removal of the gauge by hand.

3.6 Anvil is adjusted to sit flat on the backs of the teeth.

Outcome 4

Chip saws.

Performance criteria

4.1 Need for chipping is determined.

4.2 Teeth are chipped so the length of the swage is even on each tooth.

Outcome 5

Shape saws.

Performance criteria

5.1 Shaper dies are adjusted in accordance with manufacturer’s specifications.

5.2 Shaper tooth stop is adjusted for the finished swage size.

5.3 All teeth are shaped to required size and meet requirements for sharpness.

Planned review date	31 December 2024

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 January 1994	31 December 2015
Review	2	24 October 1996	31 December 2015
Review	3	10 February 1999	31 December 2015
Review	4	18 December 2006	31 December 2015
Review	5	20 March 2014	N/A
Review	6	24 September 2020	N/A

Consent and Moderation Requirements (CMR) reference	0013

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.