

Title	Tip circular saw teeth		
Level	4	Credits	15

Purpose	People credited with this unit standard are able to: demonstrate knowledge of hazards and safe work practices associated with tipping circular saws; prepare circular saws for tipping; tip circular saw teeth; and profile circular saw tips.
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Classification	Solid Wood Manufacturing > Saw Doctoring
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Available grade	Achieved
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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.
Tipping refers to the fixing of a metallic tip to saw teeth.
Workplace procedures refer to 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
Tip material – tungsten carbide.
- 4 Assessment information
All activities and evidence must be in accordance with workplace procedures and accepted industry practice.
- 5 Recommended unit standard for entry: Unit 15759, *Sharpen circular saws*.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazards and safe work practices associated with tipping circular saws.

Performance criteria

1.1 Hazards associated with tipping circular saws are identified and actions to be taken to manage the hazards are described.

Range hazards may include but are not limited to – hot objects; moving equipment; grinding wheel disintegration; loose grinding wheel; exposure to grinding coolant; toxic fumes and gases from tip cleaning agents, stellite rod, and fusion casting during the brazing process.

1.2 Safe work practices associated with tipping circular saws are identified and applied.

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

Outcome 2

Prepare circular saws for tipping.

Performance criteria

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

2.2 Tips and seats are cleaned of all foreign matter that could affect tipping operations.

2.3 Teeth are assessed for wear and damage and teeth are re-profiled where indicated.

2.4 Tipping equipment is checked for wear and lubricated in accordance with manufacturer's requirements.

Range may include but is not limited to – brazing equipment, dial gauges, micrometer, calipers, tweezers, safety equipment, cleaning agent.

2.5 Saw is set up in the tipping machine in accordance manufacturer's specifications.

2.6 Seats are ground to receive the length of the tip.

2.7 Teeth are deburred.

2.8 Tips are selected for size and type to suit saw application.

Outcome 3

Tip circular saw teeth.

Performance criteria

3.1 Flux and rod or shim are selected and applied.

3.2 Tipping equipment is set up and operated in accordance with manufacturer’s specifications.

3.3 Tips are brazed so that they adhere to the tooth.

3.4 Heat affected area is tempered if required.

3.5 Each tip is checked for sufficient material for side dressing to the required kerf.

Outcome 4

Profile circular saw tips.

Performance criteria

4.1 Selected grinding wheel meets requirements for grit, size, and diamond concentration.

4.2 Angles are set.

4.3 Saw tip is profiled.

Range replacement teeth conform to saw configuration.

4.4 Grinding solutions are handled and stored in accordance with Safety Data Sheets.

4.5 Saw is cleaned, protected, and stored.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 October 1996	31 December 2012
Review	2	10 February 1999	31 December 2012
Review	3	18 December 2006	31 December 2012
Review	4	15 April 2011	N/A
Review	5	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.