

Title	Sharpen circular saws		
Level	3	Credits	15

Purpose	People credited with this unit standard are able to: demonstrate knowledge of hazards and safe work practices associated with sharpening a circular saw; prepare circular saws for sharpening; calibrate circular saw centre sharpening machinery and explain the main function of tools and equipment used for calibration; sharpen circular saws; and store circular saws safely, ready for use.
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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.
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
Sharpening equipment – hand, automatic.
- 4 Assessment information
All activities and evidence must be in accordance with workplace procedures and accepted industry practice.
- 5 Recommended unit standards for entry: Unit 656, *Set circular saws*; and Unit 669, *Demonstrate knowledge of grinding wheels and fluids*.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazards and safe work practices associated with sharpening a circular saw.

Performance criteria

- 1.1 Hazards associated with sharpening a circular saw are identified and actions to be taken to manage the hazards are described.
- Range hazards may include but are not limited to – moving equipment, grinding wheel disintegration, sharp saw teeth, exposure to grinding coolant, noise sharp edges, dust, cobalt; evidence of three is required.
- 1.2 Safe work practices associated with sharpening a circular 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; evidence of five is required.

Outcome 2

Prepare circular saws for sharpening.

Performance criteria

- 2.1 Saw and work area are cleaned of all foreign matter that could affect sharpening operations.
- 2.2 Saw is checked for defects and required remedial action are taken.
- Range blunt, bent, broken or chipped teeth, saw cracks.
- 2.3 Sharpening equipment is checked for wear and is lubricated in accordance with manufacturer's requirements.
- Range may include but is not limited to – automatic or manual grinder, wheel shaper, grinding wheel cleaner, dust extraction unit, setting lever, files, dial gauge, vernier gauge, wire gauge, safety equipment.

Outcome 3

Calibrate circular saw centre sharpening machinery and explain the main function of tools and equipment used for calibration.

Performance criteria

- 3.1 The tools and equipment used to calibrate sharpening machinery are identified and their main function is explained.
- Range measuring tools, alignment tools, specialist manufacturer's tools.
- 3.2 Sharpening machinery components are checked for wear.
- Range components may include but are not limited to – face plate, rolls, bearings, support slides.
- 3.3 Action is taken to repair or replace any worn sharpening machinery components.
- 3.4 Sharpening machinery components are calibrated.
- Range levelled, aligned.
- 3.5 Face plate and saw spigot are checked for correct alignment and action to rectify any incorrect alignment is carried out.

Outcome 4

Sharpen circular saws.

Performance criteria

- 4.1 Grinder is set up, grinding wheel is selected and dressed, and saw is mounted on the saw spigot.
- 4.2 Running adjustments, cleaning, and reshaping of grinding wheel are carried out.
- 4.3 Hand filed circular saws are sharpened to the strip mark.
- 4.4 Saw teeth have a sharp cutting edge with consistent angle face, back, and corners.
- 4.5 Sharpening is carried out to ensure tooth profiles are uniform and sharp.
- 4.6 Saws are checked for absence of sharpening defects.

Outcome 5

Store circular saws safely, ready for use.

Performance criteria

- 5.1 Tooth protection is fitted.
- 5.2 Saw is 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	10 February 1999	31 December 2012
Review	2	18 December 2006	31 December 2012
Review	3	15 April 2011	N/A
Review	4	24 September 2020	N/A

Consent and Moderation Requirements (CMR) reference	0013
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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.