

Title	Maintain and align circular saw centre		
Level	4	Credits	15

Purpose	People credited with this unit standard are able to: demonstrate knowledge of hazards and safe work practices associated with maintaining and aligning a circular saw centre; clean circular saw centre components and determine maintenance requirements; repair and replace circular saw centre components; align and adjust circular saw centre; test operation of circular saw centre to confirm alignment is accurate; dress and re-set guides and explain the main function of guiding parts and materials; and calibrate milling machinery and explain the main function of tools and equipment used for calibration.
----------------	--

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.
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
Competence must be demonstrated for the following saw systems – breast bench, edger saw, docking saw.

- 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 15762, *Demonstrate knowledge of the alignment of bandsaw and circular rip saw centres.*

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazards and safe work practices associated with maintaining and aligning a circular saw centre.

Performance criteria

- 1.1 Hazards associated with maintaining and aligning a circular saw centre are identified and actions to be taken to manage the hazards are described.
- Range hazards may include but are not limited to – moving equipment, dust, noise; evidence of three is required.
- 1.2 Safe work practices associated with maintaining and aligning a circular saw centre 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

Clean circular saw centre components and determine maintenance requirements.

Performance criteria

- 2.1 Maintenance requirements are determined in accordance with manufacturer's requirements.
- 2.2 Machine and work areas are cleaned of all foreign matter that could affect maintenance operations.
- 2.3 Components are assessed for wear and damage.
- Range may include but is not limited to – guides, guards, bearings, slides, saw lubrication systems, feed systems, guide systems, collars, arbors.
- 2.4 Maintenance requirements are reported.
- Range electrical or mechanical requirements.

2.5 Maintenance equipment is checked for wear and is lubricated to meet manufacturer's requirements.

Range may include but is not limited to – hand tools, manufacturer's special tools, guide block, resurfacer or jig, safety equipment; evidence of four is required.

Outcome 3

Repair and replace circular saw centre components.

Performance criteria

3.1 Equipment used for repair and replacement is operated.

3.2 Collars are repaired and replaced.

3.3 Saw frames, guide arms, riving knives, and spacer blocks, where fitted, are set to manufacturer's specifications.

Outcome 4

Align and adjust circular saw centre.

Performance criteria

4.1 Alignment is checked against manufacturer's specifications.

Range saw guides, lubricators, saws.

4.2 Alignment equipment is selected and used in accordance with manufacturer's requirements.

4.3 Adjustable components are aligned and adjusted in a sequence which prevents re-adjustment during the process and in accordance with manufacturer's requirements.

Range may include but is not limited to – arbor, in-feed and out-feed systems, guides, scrapers, frames, chains, spacer blocks.

4.4 Moving parts and pads are checked for lubrication in accordance with manufacturer's requirements.

4.5 All safety components are re-fitted before operation of the saw machine commences.

Outcome 5

Test operation of circular saw centre to confirm alignment is accurate.

Performance criteria

- 5.1 Saw centre is operated.
- 5.2 Saw centre is operated to ensure sawn product meets dimensional and quality requirements.
- Range taper cutting, within board variation and wedging.
- 5.3 Any remedial actions required to rectify faults are carried out.

Outcome 6

Dress and re-set guides and explain the main function of guiding parts and materials.

Performance criteria

- 6.1 Guiding parts and materials are identified, and their main function is explained.
- Range guiding parts may include but are not limited to – sockets, guide holders;
materials may include but are not limited to – babbitt, formica, tufnol, guide blocks;
evidence of three guiding parts made from different materials is required.
- 6.2 Dressed guides are re-machined and re-set.
- Range setting may include but is not limited to – babbitt plug fitting, cassette adjustment;
evidence of one is required.
- 6.3 Tolerances are measured.
- Range measurement may include but is not limited to – tools, uniformity, amounts of clearances, calculations;
evidence of three is required.
- 6.4 Action is taken to rectify any tolerances outside of required specifications.

Outcome 7

Calibrate milling machinery and explain the main function of tools and equipment used for calibration.

Performance criteria

- 7.1 The tools and equipment used to calibrate milling machinery are identified and their main function is explained.
- Range measuring tools, alignment tools, specialist manufacturer's tools.

7.2 Milling machinery components are checked for wear in accordance with manufacturer's specifications.

Range components may include but are not limited to – cutter tips, bearings, support slides, mounting plates.

7.3 Action is taken to repair or replace any worn milling machinery components.

7.4 Milling machinery components are calibrated in accordance with manufacturer's specifications.

Range levelled, aligned.

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 2012
Review	2	24 October 1996	31 December 2012
Review	3	10 February 1999	31 December 2012
Review	4	18 December 2006	31 December 2012
Review	5	15 April 2011	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.