

Title	Set manually operated production engineering machines		
Level	3	Credits	15

Purpose	<p>This unit standard covers setting of manually operated machinery in a mechanical engineering production environment.</p> <p>People credited with this unit standard are able to prepare to set, and set, production engineering machines, measure sample components, and monitor production engineering machine operation.</p>
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Classification	Mechanical Engineering > Engineering Machining and Toolmaking
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Available grade	Achieved
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Guidance Information

- 1 References

Health and Safety at Work Act 2015.
Best Practice Guidelines, Safe Use of Machinery, Worksafe, 2014.
- 2 Definitions

Specifications – detail that defines an object being made; commonly communicated by annotated and dimensioned drawings; by written description, or by other communication media. External references may also be used to specify objects such as tables or industry standards.

Workplace procedures – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- 3 Assessment Information

This unit standard does not apply to Computer Numerical Control (CNC), Computer Aided Manufacturing (CAM), or sequence programmed production machines.

Outcomes and Performance criteria

Outcome 1

Prepare to set production engineering machines.

Range examples of production engineering machines are – drills, mills, lathes, presses, folders;
evidence is required for two different types of machines.

Performance criteria

- 1.1 Machines are lubricated and routine maintenance carried out in accordance with workplace procedures.
- 1.2 Drawings, instructions, and specifications are interpreted to establish job requirements.
- 1.3 Sequence of operations is planned to achieve job requirements efficiently, and verified in accordance with workplace procedures.
- 1.4 Accessories, work-holding fixtures, and tools are selected for efficient production and in accordance with workplace procedures.

Outcome 2

Set production engineering machines.

Range machines prepared in outcome 1.

Performance criteria

- 2.1 Machine is set up to accept work safely and without damage to workpiece or machine.

Range work-holding devices, accessories and tools.
- 2.2 Operational parameters are selected appropriate to machine, material and tooling.
- 2.3 Machine is set to produce specified component and operation is verified in accordance with workplace procedures.
- 2.4 Sample components are produced to specified standard of quality.

Outcome 3

Measure sample components.

Range components produced in outcome 2.

Performance criteria

- 3.1 Sample components are measured to confirm that the machine performs to specified tolerances.

Outcome 4

Monitor production engineering machine operation.

Range machines set in outcome 2.

Performance criteria

- 4.1 Operator verifies operational instructions are understood.
- Range production requirements, safety equipment, condition monitoring.
- 4.2 Component quality and tolerances are monitored, and corrective action taken when out of limits, in accordance with workplace procedures.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 January 1995	31 December 2012
Revision	2	14 April 1997	31 December 2012
Revision	3	13 November 1997	31 December 2012
Revision	4	5 January 1999	31 December 2012
Revision	5	25 September 2001	31 December 2012
Review	6	20 June 2006	31 December 2022
Rollover and Revision	7	17 November 2011	31 December 2022
Review	8	17 August 2017	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.