Title	**Demonstrate and apply knowledge of the selection, use, and care of portable hand held engineering power tools**		
Level	**2**	**Credits**	**4**

Purpose	This is an entry-level unit standard for people to demonstrate a basic understanding of selecting, using, and caring for engineering hand held power tools. People credited with this unit standard are able to: demonstrate knowledge of the selection of hand held engineering power tools to complete tasks; demonstrate and apply safety when using hand held engineering power tools; select, use and care for portable hand held engineering power tools.

Classification	Mechanical Engineering > Engineering Core Skills

Available grade	Achieved

Explanatory notes

1 References
Health and Safety at Work Act 2015 and supporting regulations.
Accident Compensation Corporation and Department of Labour. *Metal Industry Guidelines for Safe Work*. (Wellington: ACC, 2007). Available from http://www.acc.co.nz/PRD_EXT_CSMP/idcplg?IdcService=GET_FILE&dID=3023&dDocName=PRD.

2 Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider mechanical engineering industry sectors as examples of best practice.
Servicing refers to routine actions that ensure operational integrity. Examples include cleaning, lubricating, and minor adjustments.
Stored energy – the storage of a compressible or non-compressible medium in the case of pneumatics or hydraulics respectively, or charge storage in the case of electrical storage devices such as batteries, capacitors or cables.
Workplace procedures refers to procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – 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.
Worksafe guidelines refers to the Metal Industry Guidelines for Safe Work and other relevant WorkSafe New Zealand publications; and the Health and Safety at Work Act 2015 and supporting regulations.

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3 Range
Portable hand held engineering power tool examples – drills, grinders, sanders, brushes, buffs, wrenches (including impact type).
Evidence is required for the selection, use and care of at least four portable hand held power tools. These may be powered by electric, pneumatic, or hydraulic sources.

4 Assessment information
Examples/evidence given must be within the context of mechanical engineering or fabrication and must meet applicable worksite procedures and accepted industry practice. Numerous reference texts and training manuals on engineering hand held power tools are available and may be used; however, no one textbook or source of information is envisaged.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of the selection of hand held engineering power tools to complete tasks.

Evidence requirements

1.1 Hand held powered tools are described, and an example stated of a task suitable for the use of each.

Range a minimum of five hand held power tools.

1.2 The selection of hand held powered tools for given tasks is stated, and the reason for the selection described.

Range evidence is required of four different given tasks.

Outcome 2

Demonstrate and apply knowledge of safety when using hand held engineering power tools.

Evidence requirements

2.1 Hazards associated with portable hand held engineering power tool use are described in accordance with Worksafe guidelines and accepted industry practice.

Range examples of hazards – electric shock, noise, presence of sharp and/or hot particles, dust, moving parts, cutting tools, stored energy.

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2.2 Electrically operated portable hand held engineering power tools are used in conjunction with appropriate electrical safeguards to reduce risk of electrocution in accordance with Worksafe guidelines and accepted industry practice.

Range examples of safeguards – residual current devices, isolating transformers, monitored-earth circuits, double insulated tools.

2.3 Tools are isolated from power supply prior to changing attachments.

Range attachments may include but are not limited to – cutting discs, drill bits.

Outcome 3

Select and use portable hand held engineering power tools.

Evidence requirements

3.1 Pre-use checks are carried out to ensure tool is safe for use.

Range pre-use checks include but are not limited to – visual inspection for cracked or damaged casing, damaged plugs or leads, certification label.

3.2 Hazards for tasks to be carried out are identified and methods to eliminate or reduce them are stated.

3.3 Portable hand held engineering power tools are selected to meet task requirements in accordance with workplace procedures or accepted industry practice.

3.4 Attachments are selected and attached in accordance with workplace procedures or accepted industry practice.

Range attachments may include but are not limited to – cutting discs, drill bits.

3.5 Portable hand held engineering power tools are used to meet task requirements in accordance with workplace procedures or accepted industry practice.

Outcome 4

Care for portable hand held engineering power tools.

Evidence requirements

4.1 Portable hand held engineering power tools are inspected for damage and any faults found reported in accordance with workplace procedures.

4.2 Portable hand held engineering power tools are serviced and stored in accordance with workplace procedures and/or accepted industry practice.

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Planned review date	31 December 2021

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 October 1994	31 December 2011
Revision	2	14 April 1997	31 December 2011
Revision	3	5 January 1999	31 December 2011
Review	4	28 October 1999	31 December 2011
Review	5	19 August 2004	31 December 2016
Review	6	17 November 2011	31 December 2021
Review	7	15 September 2016	N/A

Consent and Moderation Requirements (CMR) reference	0013

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

Please note
Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

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.

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