

Title	Demonstrate knowledge of the working principles, maintenance, and servicing of petrol and diesel engines		
Level	2	Credits	2

Purpose	People credited with this unit standard are able to demonstrate knowledge of: the working principles of 2-stroke and 4-stroke petrol, and diesel, engines; and the maintenance and servicing of 2-stroke and 4-stroke petrol, and diesel engines.
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Classification	Agriculture > Agricultural Vehicles and Machinery
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Available grade	Achieved
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Explanatory notes

- 1 Definition
Workplace procedures refer to verbal and written instructions to staff on procedures for engine maintenance and servicing.
- 2 Legislation relevant to this unit standard includes but is not limited to the Health and Safety in Employment Act 1992, and its subsequent amendments.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of the working principles of 2-stroke and 4-stroke petrol, and diesel engines.

Evidence requirements

- 1.1 The sequence and working principles of each engine type are described.
- 1.2 The mechanical variance of each engine type is explained in terms of operational characteristics and relative merits.
- 1.3 The engine components and their functions are identified.

Range components include – filters, carburettor, injectors, alternator or generator, head, block, sump, rocker assembly, big end, pistons, connecting rods, crankshaft, flywheel, clutch assembly, pumps, filters, spark and glow plugs, leads.

Outcome 2

Demonstrate knowledge of the maintenance and servicing requirements of 2-stroke and 4-stroke petrol, and diesel engines.

Evidence requirements

2.1 The maintenance requirements of each engine type are described in accordance with manufacturers' specifications and workplace procedures.

Range must include – bleeding of diesel fuel systems.

2.2 The servicing requirements of each engine type are described in accordance with manufacturers' specifications and workplace procedures.

Planned review date	31 December 2016
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 June 2002	31 December 2013
Review	2	20 May 2008	31 December 2013
Review	3	21 June 2012	N/A

Consent and Moderation Requirements (CMR) reference	0052
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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 the Primary Industry Training Organisation standards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.