

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 describe the maintenance and servicing requirements 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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Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
 - Health and Safety at Work Act 2015; and any subsequent amendments.
- 2 All evidence presented in this unit standard must be in accordance with workplace procedures.
- 3 Definition
Workplace procedures refer to verbal and written instructions to staff on procedures for engine maintenance and servicing.

Outcomes and performance criteria

Outcome 1

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

Performance criteria

- 1.1 Describe the sequence and working principles in terms of each engine type.
- 1.2 Describe the mechanical variance of each engine type in terms of operational characteristics and relative merits.

1.3 Identify engine components in terms of their functions.

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

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

Performance criteria

2.1 Describe the maintenance requirements of each engine type in accordance with manufacturers' specifications.

Range must include – bleeding of diesel fuel systems.

2.2 Describe the servicing requirements of each engine type in accordance with manufacturers' specifications.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions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	31 December 2023
Review	4	30 September 2021	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>.

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.