

<b>Title</b>	<b>Disassemble and reassemble a single cylinder or multi-cylinder four-stroke engine under supervision</b>		
<b>Level</b>	<b>2</b>	<b>Credits</b>	<b>2</b>

<b>Purpose</b>	<p>This unit standard is intended for people who wish to gain experience on the mechanics of engines.</p> <p>People credited with this unit standard are able to: disassemble, and reassemble, a single cylinder or multi-cylinder four-stroke engine under supervision.</p>
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<b>Classification</b>	Motor Industry > Engines
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, and company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Performance of the outcomes of this unit standard must comply with the following: Health and Safety at Work Act 2015.
- 3 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 4 Definitions
 

*Company requirements* refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.

*Service information* refers to technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

*Suitable tools and equipment* refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.
- 5 A multi-cylinder engine referred to in this unit standard can be either a four-cylinder overhead valve or single overhead camshaft engine.

## Outcomes and performance criteria

### Outcome 1

Disassemble a single cylinder or multi-cylinder four-stroke engine under supervision.

#### Performance criteria

- 1.1 Engine assembly is inspected before disassembling to ensure exterior dirt and oil are removed.
- 1.2 Engine assembly is secured on an engine stand so that it is safe.
- 1.3 Cylinder head and sump are removed in a manner that minimises damage to parts and fasteners.
- 1.4 Parts and fasteners are stored in a parts tray suitable for the purpose.
- 1.5 Crankshaft and piston assembly or assemblies are removed from the engine.
- 1.6 Parts are laid out and tabulated for easy identification.

### Outcome 2

Reassemble a single cylinder or multi-cylinder four-stroke engine under supervision.

#### Performance criteria

- 2.1 Oil and water passages are identified, and the flow paths of lubricating oil and coolant are determined.
- 2.2 Engine components are assembled, and all tightening torques are strictly adhered to.

<b>Planned review date</b>	31 December 2025
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 July 2005	31 December 2022
Rollover and Revision	2	26 November 2007	31 December 2022
Review	3	29 April 2021	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

Please contact MITO New Zealand Incorporated [info@mito.org.nz](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.