

<b>Title</b>	<b>Recondition engine cylinder blocks</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to: prepare to recondition engine blocks; and recondition engine blocks.
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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 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the current version of the Health and Safety at Work Act 2015; and any subsequent amendments and replacements.
- 3 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* may include – technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.
- 4 Assessment against this standard includes a minimum of two petrol fuelled short block assemblies from different multi-cylinder engine configurations, and two diesel wet liner short block assemblies from different multi-cylinder engine configurations.
- 5 It is recommended that people first hold credit for Unit 32322, *Demonstrate knowledge of automotive cylinder head reconditioning practices*, before being assessed against this standard.

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### Outcomes and performance criteria

#### Outcome 1

Prepare to recondition engine blocks.

**Performance criteria**

- 1.1 The engine block is inspected and measured.
- 1.2 A condition report is completed.

**Outcome 2**

Recondition engine blocks.

**Performance criteria**

- 2.1 Liners are removed and replaced.  
Range may include – recess machining, protrusion, oversize.
- 2.2 Engine block is repaired to normal operating condition.  
Range may include – crack, corrosion, damage.
- 2.3 Block face surfaces are machined to appropriate surface finish.
- 2.4 Cylinders are deglazed or rebored and finish honed in accordance with machining tolerances.  
Range integral bores, cylinder sleeves.
- 2.5 Bearings are fitted and checked for correct clearance.  
Range main, big end;  
may include – camshaft, balance shaft.
- 2.6 All coolant and oil passages are cleared to enable normal circulation to occur.
- 2.7 All components are assembled, fitted and adjustments carried out.
- 2.8 The machined engine block assembly is cleaned, lubricated, protected against damage and foreign matter, and labelled to ensure identification.

<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	25 September 1997	31 December 2023
Review	2	28 February 2001	31 December 2023
Review	3	25 January 2008	31 December 2023
Review	4	25 February 2021	N/A

**Consent and Moderation Requirements (CMR) reference**

0014

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

**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.