

Title	Inspect and test diesel engine induction and exhaust systems		
Level	3	Credits	4

Purpose	<p>This unit standard is intended for people in the automotive repair industry.</p> <p>People credited with this unit standard are able to inspect and test the induction system on a diesel engine for faults and inspect and test the exhaust system on a diesel engine for faults.</p>
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Classification	Motor Industry > Automotive Fuel Systems and Exhaust
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Available grade	Achieved
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Guidance Information

- 1 It is recommended that people hold credit for Unit 30559, *Demonstrate knowledge of induction and exhaust systems* before being assessed against this unit standard.
- 2 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.
- 3 Performance of the outcomes of this unit standard must comply with the following:
Health and Safety at Work Act 2015;
Land Transport Rule: Heavy Vehicles 2004;
Land Transport Rule: Vehicle Repair 1998.
- 4 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.
- 5 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.

- 6 Range
This unit standard includes either – two stroke diesel engines or four stroke diesel engines.
- 7 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.

Outcomes and performance criteria

Outcome 1

Inspect and test the induction system on a diesel engine for faults.

Performance criteria

- 1.1 Diagnostic test equipment and/or restriction indicator is used, to enable identification of inlet system restrictions.
- 1.2 Air pressure readings are checked, and the results reported.
- 1.3 Induction system is inspected, and any faults found are reported to the supervisor.

Range may include but is not limited to – turbocharger, scoop, prefilters, filters, pipework, elements, hoses, clamps, mounts.

Outcome 2

Inspect and test the exhaust system on a diesel engine for faults.

Performance criteria

- 2.1 Test equipment is used to enable identification of exhaust system restrictions.
- 2.2 Exhaust system is inspected and tested, and any faults found are reported to the supervisor.

Range may include but is not limited to – flanges, pipework, mufflers, spark arrestors, exhaust brake, mountings, wastegate and actuator linkage, manifold connections.
- 2.3 Exhaust system faults and their causes are identified by using test equipment.

Replacement information	This unit standard, unit standard 24178, and unit standard 24179 replaced unit standard 930 and unit standard 15404.
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Planned review date	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 January 2008	31 December 2022
Review	2	29 April 2021	N/A

Consent and Moderation Requirements (CMR) reference	0014
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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 MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.