

Title	Demonstrate knowledge of diesel fuel injectors		
Level	4	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of diesel fuel injectors.
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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 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.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of diesel fuel injectors.

Performance criteria

- 1.1 Injector types are identified.
 Range mechanical, common rail, unit, twin-spring.
- 1.2 Injector construction is described.
 Range name of parts, location of parts.

- 1.3 Injector nozzle types are described.
- Range pintle, multi-hole, pencil.
- 1.4 Injector nozzle operation is explained.
- Range fuel pressure path, needle valve operation, spray patterns, chatter group identification.
- 1.5 The importance of cleanliness is described.
- Range contamination, precise machining tolerances, close operating fits of parts, damage, premature failure, filtration.
- 1.6 Faults which affect injector operation are described.
- Range fuel contamination, wear, opening pressure, leakage, damage.
- 1.7 Removing and refitting procedures are described.
- Range sealing, cleanliness of injector and surrounding area, torque settings, coding, bleeding.
- 1.8 The importance of coding and its effect on injector operation is described.

Replacement information	This unit standard, unit standard 24196, and unit standard 24197 replaced unit standard 5452 and unit standard 19302.
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Planned review date	31 December 2023
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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 2020
Review	2	26 April 2018	31 December 2020
Review	3	30 August 2018	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.