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| <b>Title</b> | <b>Demonstrate knowledge of radial piston diesel fuel injection pumps</b> |                |          |
| <b>Level</b> | <b>4</b>  | <b>Credits</b> | <b>8</b> |

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| <b>Purpose</b> | People credited with this unit standard are able to demonstrate knowledge of radial piston diesel fuel injection pumps. |
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| <b>Classification</b> | Motor Industry > Automotive Fuel Systems and Exhaust |
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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 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.

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### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of radial piston diesel fuel injection pumps.

#### Performance criteria

- 1.1 Pump types and their construction are described.  

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| Range | types include – DPA, DP200, DP210, VP44, Denso V4, Stanadyne. |
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1.2 Pump operation is described.

Range pump types include – DPA, DP200, DP210, VP44, Denso V4, Stanadyne;  
operation includes – pumping action, delivery, controls, advance devices, cold start.

1.3 The importance of cleanliness when working with pump components is identified.

Range contamination, precise machining tolerances and close operating fits of components, damage and premature failure.

1.4 Faults which affect the fuel pump operation are described.

Range fuel contamination, misalignment of fuel pump and drive train, timing advance, seal leakage, incorrect adjustments.

1.5 Causes of wear on components are described.

Range fuel and lubrication contamination, misalignment, lack of lubrication, corrosion, cavitation.

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| <b>Planned review date</b> | 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       | 30 August 2018 | N/A                      |

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| <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>.

#### 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.