Title | Overhaul a Simms Minimec diesel fuel injection pump
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Level | 4
Credits | 6

**Purpose**

This unit standard is for people in the diesel fuel injection industry. People credited with this unit standard are able to: dismantle a Simms Minimec fuel injection pump and complete an inspection report; renew and replace Simms Minimec fuel injection pump components and reassemble pump; and bench test a Simms Minimec fuel injection pump assembly and adjust settings.

**Classification**

Motor Industry > Automotive Fuel Systems and Exhaust

**Available grade**

Achieved

**Guidance Information**

1. Legislation relevant to this unit standard includes but is not limited to – Health and Safety in Employment Act 1992.

2. Definitions

   Company requirements refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – company specifications and procedures, work instructions, manufacturer specifications, product quality specifications, and legislative requirements.

   Service information may include but is not limited to – technical information of a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions and specifications; technical terms and descriptions; and detailed illustrations. This can be accessed in hard copy or electronic format and is normally sourced from the manufacturer.

   Suitable tools and equipment means 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.

3. For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.

4. Recommended entry information: Unit 24200, Demonstrate knowledge of Simms Minimec diesel fuel injection pumps.
Outcomes and performance criteria

Outcome 1

Dismantle a Simms Minimec fuel injection pump and complete an inspection report.

Performance criteria

1.1 Safe working practices are observed throughout the task in accordance with legislative requirements.

Range personal safety, safety of others, workshop safety, environmental safety, tools and equipment safety.

1.2 Suitable tools and equipment are selected and used to enable the pump assembly to be dismantled and inspected in accordance with service information.

1.3 The fuel pump assembly is dismantled on a stripping jig in accordance with service information.

1.4 All parts are cleaned to enable an inspection to be carried out in accordance with company requirements.

1.5 A condition report is completed in accordance with company requirements.

Range inspection of parts, identifying and recording faults, recommending repairs and replacement of parts.

Outcome 2

Renew and replace Simms Minimec fuel injection pump components and reassemble pump.

Performance criteria

2.1 Safe working practices are observed throughout the task in accordance with legislative requirements.

Range personal safety, safety of others, workshop safety, environmental safety, tools and equipment safety.

2.2 Suitable tools and equipment are selected and used to enable the components to be replaced and the pump assembly to be reassembled in accordance with service information.

2.3 All parts determined as requiring replacement are ordered from a supplier in accordance with company requirements.

Range interpreting parts catalogues, using updates and supersessions, obtaining pricing and delivery details.
2.4 The pump is reassembled in accordance with service information.

**Outcome 3**

Bench test a Simms Minimec fuel injection pump assembly and adjust settings.

**Performance criteria**

3.1 Safe working practices are observed throughout the task in accordance with legislative requirements.

Range personal safety, safety of others, workshop safety, environmental safety, tools and equipment safety, safety precautions when working with fuel at high pressure.

3.2 Suitable tools and equipment are selected and used to enable the pump assembly to be tested and adjustments made in accordance with service information.

3.3 The fuel pump assembly is mounted and set up for testing and setting on the test bench in accordance with test bench instructions.

3.4 The fuel pump assembly is tested, and settings adjusted, in accordance with service information.

Range calibration and phase, timing mark checked.

3.5 The fuel pump assembly is removed from the test bench with fuel inlets and adjustments sealed in accordance with company requirements.

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**Replacement information**

This unit standard and unit standard 24200 replaced unit standard 15385.

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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

**Status information and last date for assessment for superseded versions**

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

0014