AUTOMOTIVE FUEL SYSTEMS AND EXHAUST
Perform minor servicing tasks on a diesel fuel system

level: 2
credit: 2
planned review date: December 2009
sub-field: Motor Industry
replacement information: This unit standard and unit standard 21677 replaced unit standard 241.
purpose: This unit standard is for people who wish to enter or are employed in the automotive repair industry. People credited with this unit standard are able to remove and replace diesel fuel injectors, remove and replace a fuel filter, and bleed air from a diesel fuel system.
entry information: Recommended: Unit 21677, Demonstrate knowledge of a diesel fuel system, or demonstrate equivalent knowledge and skills.
accreditation option: Evaluation of documentation by NZQA and industry.
moderation option: A centrally established and directed national moderation system has been set up by the NZ Motor Industry Training Organisation.
special notes: 1 Legislation relevant to this unit standard includes but is not limited to Health and Safety in Employment Act 1992.
2 Reference to suitable tools means industry approved tools that are recognised within the industry as being the most suited to complete the task to a professional and competent manner with due regard to safe working practices.
Elements and Performance Criteria

**element 1**

Remove and replace diesel fuel injectors.

Range: non-metering injectors.

**performance criteria**

1.1 Safe working practices are observed throughout the task according to legislative requirements.

   Range: personal safety, safety of others, equipment and vehicle safety, high-pressure fuel safety.

1.2 Suitable tools are selected for removing and replacing the injectors.

1.3 The injectors are disconnected and removed without damage to the injectors, pipes, and connections.

1.4 Replacement injectors are installed and connected to the manufacturer’s specifications.

**element 2**

Remove and replace a fuel filter.

**performance criteria**

2.1 Safe working practices are observed throughout the task according to legislative requirements.

   Range: personal safety, safety of others, equipment and vehicle safety, fuel safety.

2.2 Suitable tools are selected for removing and replacing the fuel filter.
AUTOMOTIVE FUEL SYSTEMS AND EXHAUST
Perform minor servicing tasks on a diesel fuel system

2.3 The fuel filter element is removed without damage to the fuel casing and the element, and any other componentry, and wasted fuel is disposed of in a manner that will not cause a hazard.

2.4 A new filter element and gasket are selected, fitted, and tightened to the manufacturer’s specifications, ensuring that dirt and moisture are kept out.

element 3
Bleed air from a diesel fuel system.

performance criteria

3.1 Safe working practices are observed throughout the task according to legislative requirements.

Range: personal safety, safety of others, equipment and vehicle safety, high-pressure fuel safety.

3.2 The need for bleeding air from a diesel fuel system is determined from the nature of work undertaken on the system.

3.3 The fuel tank is checked to ensure sufficient fuel is available to carry out the task successfully.

3.4 Air is bled from the system in accordance with the manufacturer’s instructions and specifications.

Comments on this unit standard

Please contact the NZ Motor Industry Training Organisation jlane@mito.org.nz if you wish to suggest changes to the content of this unit standard.

Please Note
Providers must be accredited by the Qualifications Authority or a delegated inter-institutional body before they can register credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.
AUTOMOTIVE FUEL SYSTEMS AND EXHAUST
Perform minor servicing tasks on a diesel fuel system

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for providers wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

This unit standard is covered by AMAP 0014 which can be accessed at http://www.nzqa.govt.nz/site/framework/search.html.