

Diagnose and rectify oil leaks on transmission and driveline components on light vehicles

Level 3

Credits 2

Purpose This unit standard is for people in the automotive repair industry who work on light vehicles. People credited with this unit standard are able to diagnose and rectify oil leaks on transmission and driveline components on light vehicles.

Subfield Motor Industry

Domain Automotive Transmission Systems

Status Registered

Status date 25 February 2008

Date version published 25 February 2008

Planned review date 31 December 2012

Entry information Open.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) NZ Motor Industry Training Organisation (Incorporated)

Accreditation and Moderation Action Plan (AMAP) reference 0014

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

- 1 Legislation relevant to this unit standard includes but is not limited to – Health and Safety in Employment Act 1992; Land Transport Rules: Vehicle Repair 1998, Rule 34001; Vehicle Standards Compliance 2002, Rule 35001/1.
- 2 Land Transport Rules are produced for the Minister of Transport by Land Transport New Zealand. These rules are available online at <http://www.landtransport.govt.nz/rules/>.

3 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.

Light vehicle refers to classes as listed from Land Transport New Zealand website table <http://www.landtransport.govt.nz/publications/infosheets/infosheet-1-10.html#classes>: passenger vehicle MA, MB, MC; omnibus MD, MD1, MD2; and goods vehicle NA.

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.

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

Elements and performance criteria

Element 1

Diagnose oil leaks on transmission and driveline components on light vehicles.

Performance criteria

- 1.1 Safe working practices are observed throughout the task in accordance with legislative requirements.
- Range personal safety, safety of others, vehicle safety, workshop safety, environmental safety, tools and equipment safety.
- 1.2 Suitable tools and equipment are selected and used to enable the leak to be identified in accordance with service information.
- 1.3 Vehicle is run to operational temperature, and a visual inspection is carried out to identify the leak, in accordance with company requirements.
- 1.4 The transmission oil level is checked, and its condition noted, in accordance with service information.
- 1.5 Driveline components are checked on the vehicle for wear and damage, and any faults noted, in accordance with service information.

1.6 The transmission is checked visually to determine the cause of the oil leaks and any obvious faults are identified and noted.

Range may include but is not limited to – damage, worn components, loose components; seal area, plugs, joints, gaskets.

Element 2

Rectify oil leaks on transmission and driveline components on light vehicles.

Performance criteria

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

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

2.2 Suitable tools and equipment are selected and used to enable the leak to be repaired in accordance with service information.

2.3 The transmission is removed and the oil leak rectified in accordance with service information.

Range may include but is not limited to – seals replaced, bearings replaced, gaskets replaced, loose components tightened.

2.4 Transmission is refitted and tested to ensure no leaks remain in accordance with service information.

2.5 The driveline is removed from the vehicle, with due care being taken to minimise spillage of oil, in accordance with service information.

2.6 The driveline and joints are disassembled and cleaned, inspected for damage and wear, and repaired in accordance with service information.

Range may include but is not limited to – new shaft, bearings, seals.

2.7 The joint is assembled in accordance with service information. Any faults are rectified to meet manufacturer specifications.

2.8 The assembled driveline is installed in the vehicle in accordance with service information. All components are checked to ensure that they are securely attached and in compliance with vehicle manufacturer specifications.

Range may include but is not limited to – shafts, joints, support bearings, engine and transmission mounts, differential and hubs, driveline angle and run-out.

- 2.9 The vehicle is operated and transmission and driveline operation is checked to ensure no oil leaks, vibration, or excessive noise exists as a result of the repairs.
- 2.10 Tools and equipment are put away in their places and the work area is clean in accordance with company requirements.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

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 organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

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