

Overhaul a manual transmission on a light vehicle

Level 4

Credits 4

Purpose This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to remove a manual transmission from a light vehicle, and overhaul a manual transmission on a light vehicle.

Subfield Motor Industry

Domain Automotive Transmission Systems

Status Registered

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Entry information Prerequisite: Class 1 driver licence.

Recommended: Unit 24317, *Diagnose faults in manual transmissions on light vehicles*, or demonstrate equivalent knowledge and skills.

Replacement information This unit standard and unit standard 24317 replaced unit standard 959.

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 and publications relevant to this unit standard include but are not limited to – Health and Safety in Employment Act 1992; *The Official New Zealand Road Code*, Land Transport New Zealand.
- 2 New Zealand Road Code information can be obtained from the following website <http://www.landtransport.govt.nz/roadcode>.

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.

Manual transmission refers to either an inline transmission or a transaxle unit.

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

Remove a manual transmission from a light vehicle.

Performance criteria

- 1.1 Safe working and driving 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 The results of tests are interpreted in accordance with manufacturer specifications.
- 1.3 Transmission is removed from the vehicle in accordance with service information.

Element 2

Overhaul a manual transmission on a light vehicle.

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 The transmission is cleaned externally to prevent the ingress of dirt and foreign matter during disassembly in accordance with company requirements.
- 2.3 Suitable tools and equipment are selected and used to enable the transmission to be overhauled in accordance with service information.
- 2.4 The transmission is disassembled, and signs that could indicate causes of faults identified and noted, in accordance with service information.
- 2.5 All transmission components are cleaned and inspected for wear, damage, and blockage of passageways, and any faults are rectified in accordance with service information.
- 2.6 The transmission is assembled in accordance with service information. Any clearances and preloads are adjusted to comply with manufacturer specifications.
- 2.7 The transmission is replaced on the vehicle, and any further adjustments are carried out, in accordance with service information.
- 2.8 The vehicle is road tested to ensure the operation of the transmission is in accordance with manufacturer specifications.

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.