

Remove and replace heavy vehicle or equipment transmissions and clutches

Level 3

Credits 3

Purpose This unit standard is for people in the automotive heavy repair industry. People credited with this unit standard are able to remove and replace heavy vehicle or equipment transmissions and clutches.

Subfield Motor Industry

Domain Automotive Transmission Systems

Status Registered

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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 Rule: Vehicle Repair 1998, Rule 34001.
- 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.

Heavy vehicle refers to a motor vehicle that is of Class MD3, MD4, ME, NB, NC, TC or TD; or has a gross vehicle mass that exceeds 3500 kg and is not of a class specified in the Table of vehicle classes as listed from Land Transport New Zealand website <http://www.landtransport.govt.nz/publications/infosheets/infosheet-1-10.html#classes>.

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 heavy vehicle or equipment transmissions and clutches.

Performance criteria

- 1.1 Safe working practices are observed throughout the task in accordance with legislative requirements.
- Range personal safety, safety of others, vehicle or equipment safety, workshop safety, environmental safety, tools and equipment safety.
- 1.2 The type of transmission is identified from reference to service information.
- 1.3 Suitable tools and equipment are selected and used that enable the transmission and clutch to be removed in accordance with service information.
- 1.4 The transmission is disconnected from driveline and removed from the vehicle or equipment, in a manner that avoids personal injury and damage to the transmission and vehicle or equipment, in accordance with service information.
- 1.5 The clutch is removed from the heavy vehicle or equipment in accordance with service information.

Element 2

Replace heavy vehicle or equipment transmissions and clutches.

Performance criteria

- 2.1 Safe working practices are observed throughout the task in accordance with legislative requirements.
- Range personal safety, safety of others, vehicle or equipment safety, workshop safety, environmental safety, tools and equipment safety.
- 2.2 The clutch is attached to the engine flywheel and the friction disc(s) aligned under supervision in accordance with service information.
- 2.3 The transmission is installed in and connected to the vehicle or equipment in accordance with service information.
- 2.4 The transmission oil is checked, and if necessary topped up to the required level with the type determined by the manufacturer.
- 2.5 With the transmission installed, any external clutch faults are identified and reported to supervisor in accordance with company requirements.
- 2.6 The release mechanism is adjusted in accordance with service information. The operation of the clutch is tested, and any further adjustments found to be necessary are made under supervision.
- Range clutch slip, clutch release, clutch braking.
- 2.7 Tools and equipment are put away in their place 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.