

Dismantle and inspect, overhaul, and reassemble an automatic transmission or transaxle assembly from a light vehicle

Level 4

Credits 8

Purpose This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to dismantle and inspect, overhaul, and reassemble, an automatic transmission or automatic transaxle assembly from a light vehicle.

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 Recommended: Unit 24314, *Diagnose faults in automatic transmissions on light vehicles*, or demonstrate equivalent knowledge and skills.

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.

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.

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.

Elements and performance criteria

Element 1

Dismantle and inspect an automatic transmission or automatic transaxle assembly from a light vehicle.

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 The transmission is cleaned externally in order to prevent the ingress of dirt and foreign matter during disassembly in accordance with company requirements.
- 1.3 Suitable tools and equipment are selected and used to enable the transmission to be dismantled in accordance with service information.
- 1.4 The torque converter is removed, drained, and inspected, and any faults noted, in accordance with service information.

Range noisy operation, welds, bearing and sealing surfaces, one-way clutch operation.
- 1.5 The torque converter mounting plate and starter ring gear are inspected, and any damage noted, in accordance with service information.
- 1.6 The environment where the transmission is to be dismantled is inspected for cleanliness, to ensure that no dust or foreign matter will affect the components, in accordance with company requirements.

Range personal cleanliness, workshop environment, tools and equipment.

- 1.7 The transmission is disassembled in the sequence and manner prescribed by the vehicle manufacturer. Signs that could indicate causes of faults are identified and noted.
- 1.8 Any electronic control mechanisms are stored to prevent ingress of foreign matter or damage.
- 1.9 Sub-assemblies are disassembled and cleaned to remove all traces of foreign matter in accordance with service information.
- Range includes but is not limited to – pump, servos, clutches, governor, valve body, gear sets.
- 1.10 All the transmission components are inspected for wear, damage, blockage of passageways, and any faults noted, in accordance with service information.

Element 2

Overhaul an automatic transmission or automatic transaxle assembly from 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 environment where the transmission is to be overhauled is inspected for cleanliness, to ensure that no dust or foreign matter will affect the components, in accordance with company requirements.
- Range personal cleanliness, workshop environment, tools and equipment.
- 2.3 Suitable tools and equipment are selected and used that enable the transmission to be overhauled in accordance with service information.
- 2.4 Transmission or transaxle assembly faults found as a result of dismantling and inspecting components and circuits are rectified to meet manufacturer specifications.

Element 3

Reassemble an automatic transmission or automatic transaxle assembly from a light vehicle.

Performance criteria

- 3.1 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.
- 3.2 The environment where the transmission is to be reassembled is inspected for cleanliness, to ensure that no dust or foreign matter will affect the components, in accordance with company requirements.
- Range personal cleanliness, workshop environment, tools and equipment.
- 3.3 Suitable tools and equipment are selected and used that enable the transmission to be reassembled in accordance with service information.
- 3.4 The transmission is assembled in the sequence and manner prescribed by the manufacturer. Any clearances and preloads are adjusted to comply with manufacturer specifications.
- 3.5 Specific fluid type is used to comply with manufacturer specifications.
- 3.6 An air pressure test and any electronic tests are conducted in accordance with service information to confirm correct assembly after overhaul.
- 3.7 Tools and equipment are cleaned and put away after use 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.