

## Prepare and overhaul a final drive assembly from a light vehicle

**Level** 4

**Credits** 6

**Purpose** This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to prepare to overhaul a final drive assembly from a light vehicle, and overhaul a final drive 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** Prerequisite: Class 1 driver licence.

Recommended: Unit 24315, *Diagnose faults in final drive assemblies on light vehicles*, or demonstrate equivalent knowledge and skills.

**Replacement information** This unit standard and unit standard 24315 replaced unit standard 957.

**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>.

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### Special notes

- 1 Legislation and publications relevant to this unit standard include but are not limited to – Health and Safety in Employment Act 1992; Land Transport Rule, Vehicle Repair 1998, Rule 34001; *The Official New Zealand Road Code*, Land Transport New Zealand.

- 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/>. 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.  
*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 Range  
This unit standard includes – either a non-limited slip differential assembly or a limited slip differential assembly.

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## Elements and performance criteria

### Element 1

Prepare to overhaul a final drive assembly from a light vehicle.

#### Performance criteria

- 1.1 Crownwheel and pinion backlash, and the preload of the pinion and differential bearings are measured and noted, and tooth markings are taken to determine pinion depth of mesh, in accordance with service information.

### Element 2

Overhaul a final drive 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 Suitable tools and equipment are selected and used to enable a final drive assembly to be overhauled in accordance with service information.
- 2.3 The final drive assembly is disassembled in the sequence and manner prescribed by the manufacturer, and any signs that could indicate the causes of any faults are noted in accordance with company requirements.
- 2.4 The component parts are examined, and signs of wear and damage identified and noted, in accordance with service information.
- 2.5 The information gained by inspecting the final drive assembly is analysed to determine the causes of any faults, and a recommendation is made to eliminate the problem in accordance with company requirements.
- 2.6 Parts not suitable for further service are replaced with serviceable parts that meet manufacturer specifications.
- 2.7 The final drive unit is assembled in accordance with service information.
- 2.8 The pinion depth, mesh, backlash, and bearing preloads are adjusted and checked to ensure that they comply with manufacturer specifications.
- 2.9 The final drive assembly is filled with oil to the specification and level prescribed by the manufacturer.
- 2.10 The vehicle is tested to verify that the final drive operates in accordance with manufacturer specifications.

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### **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.

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### **Comments on this unit standard**

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