

Title	Demonstrate knowledge of light vehicle final drive assembly operation		
Level	3	Credits	4

Purpose	This theory-based unit standard is for people in the automotive repair industry. People credited with this unit standard are able to demonstrate knowledge of light vehicle final drives and differential mechanisms.
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Classification	Motor Industry > Automotive Transmission Systems
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Available grade	Achieved
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Guidance Information

Definitions

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.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of light vehicle final drives.

Range spiral bevel, hypoid, helical.

Performance criteria

- 1.1 The gears used for each type of final drive are identified, and the relative positioning of the gears in each case described, in accordance with manufacturer specifications.
- 1.2 The application of each type of drive is explained in accordance with service information.

Outcome 2

Demonstrate knowledge of light vehicle differential mechanisms.

Performance criteria

- 2.1 The purpose and operation of a differential unit are described in accordance with service information.
- 2.2 The purpose and operation of a limited slip differential are described in accordance with service information.

Range cone type, clutch type (passive, hydraulic, electronic).
- 2.3 The purpose of a third differential is described in accordance with service information.
- 2.4 The operation of a viscous fluid differential and its uses (including all-wheel drive) are described in accordance with service information.

Range smooth operation, apportioning torque.
- 2.5 The operation of electronic traction control is described in accordance with service information.

Replacement information	This unit standard, unit standard 24307 and unit standard 24325 were replaced by unit standard 30561.
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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	29 October 1993	31 December 2020
Review	2	4 October 1996	31 December 2020
Review	3	26 February 1999	31 December 2020
Review	4	25 February 2008	31 December 2020
Review	5	26 October 2017	31 December 2020

Consent and Moderation Requirements (CMR) reference	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.