

<b>Title</b>	<b>Check and rectify faults in manual single plate clutches used on light vehicles</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>2</b>

<b>Purpose</b>	This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to: check the clutch operation on a light vehicle; remove and replace a manual transmission on a light vehicle; and rectify faults in manual single plate clutches fitted to light vehicles.
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<b>Classification</b>	Motor Industry > Automotive Transmission Systems
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<b>Available grade</b>	Achieved
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<b>Prerequisite</b>	Class 1 driver licence
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### Guidance Information

- 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.

*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 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.
- 5 It is recommended that people hold credit for Unit 239, *Demonstrate knowledge of automotive manual transmissions*, or demonstrate equivalent knowledge and skills.

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## Outcomes and performance criteria

### Outcome 1

Check the clutch operation on 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 clutch operation is checked with the vehicle stationary and the engine running and any faults found are recorded in accordance with service information.  
  
Range includes but is not limited to – freeplay, pedal feel, noise, engagement, pedal height.
- 1.3 The clutch operation is checked on a road test and any faults found are recorded in accordance with service information.  
  
Range includes but is not limited to – pedal feel, noise, engagement, slippage, vibration, take-off shudder, smell of burnt linings.

### Outcome 2

Remove and replace 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 Suitable tools and equipment are selected and used that enable a transmission to be removed and replaced in accordance with service information.

- 2.3 The transmission is drained of oil, and disconnected and removed from the vehicle in a manner that avoids personal injury and damage to the transmission and vehicle.
- 2.4 The transmission is installed in, and connected to, the vehicle in accordance with service information.
- 2.5 The transmission is filled with oil of the type, and to the level, specified by the vehicle manufacturer.

**Outcome 3**

Rectify faults in manual single plate clutches fitted to light vehicles.

**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 Suitable tools and equipment are selected and used that enable clutch faults to be rectified in accordance with service information.
- 3.3 The clutch unit is removed from the flywheel, with care being taken to release any spring tension evenly, in accordance with service information.
- 3.4 The clutch components are inspected for signs of damage, wear, and overheating, and an assessment is made to determine which parts are suitable for further use in accordance with company requirements.  
  
Range flywheel, pressure plate, clutch cover assembly, friction disc, spigot bearing, release bearing, cross shaft, release fork.
- 3.5 Clutch faults are rectified in accordance with service information.
- 3.6 The clutch is assembled on the flywheel and the friction disc aligned, in accordance with service information.
- 3.7 Moving parts are lubricated in accordance with service information.
- 3.8 The clutch is adjusted in accordance with vehicle manufacturer specifications.
- 3.9 The vehicle is road tested to ensure the clutch operates in accordance with manufacturer specifications.

<b>Replacement information</b>	This unit standard was replaced by unit standard 31051.
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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 January 2008	31 December 2020
Review	5	1 March 2018	31 December 2020

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

**This unit standard is expiring**