

Title	Demonstrate knowledge of clutches and transmissions used on all-terrain vehicles (ATVs)		
Level	3	Credits	2

Purpose	This theory-based unit standard is for people in the motorcycle repair industry. People credited with this unit standard are able to demonstrate knowledge of clutches used on ATVs, and transmissions and sub-transmissions used on ATVs.
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Classification	Motor Industry > Automotive Transmission Systems
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Available grade	Achieved
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Guidance Information

Definition

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 clutches used on ATVs.

Range includes but is not limited to – centrifugal clutch, one-way type, starter clutch, magneto rotor.

Performance criteria

- 1.1 The types of clutch in general use on ATVs are described in accordance with service information.
- 1.2 The operation of clutches and the power flow through them are described in accordance with service information.
- 1.3 Clutch assembly dismantling and reassembling procedures are described in accordance with service information.

Outcome 2

Demonstrate knowledge of transmissions and sub-transmissions used on ATVs.

Range includes but is not limited to – two wheel drive, four wheel drive, differential lock, constantly variable transmission (CVT), hydrostatic transmission, manual transmission.

Performance criteria

2.1 Transmission gears used on ATVs are described in accordance with service information.

Range shaft layout, gear and shaft locations.

2.2 Methods of selecting and changing gears are described, and the parts of a selector mechanism identified, in accordance with service information.

Range hand levers, foot levers; cam, fork.

2.3 Secondary bevel gear assembly servicing is described in accordance with service information.

Range removal, replacement, adjustments, tooth contact, backlash, lubrication, shim thickness.

2.4 Sub-transmission features and construction are identified in accordance with service information.

2.5 Final bevel gear assembly servicing is described in accordance with service information.

Range removal, replacement, adjustments, backlash, lubrication, shim thickness, torques.

Replacement information	This unit standard, unit standard 24309, unit standard 24310, unit standard 24311, and unit standard 24313 replaced unit standard 926 and unit standard 927.
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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	25 February 2008	31 December 2020
Review	2	26 April 2018	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>.

This unit standard is Expiring