



Australian Government

**Assessment Requirements for AURLTX001
Diagnose and repair light vehicle manual
transmissions**

Release: 1

Assessment Requirements for AURLTX001 Diagnose and repair light vehicle manual transmissions

Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- diagnose and repair two of the following faults in two different light vehicle manual transmissions, including faults in two of the following components:
 - input or primary shaft gear or bearing
 - secondary shaft or main shaft gear or bearing
 - synchroniser assembly
 - shift rail, shift fork, interlock and detent mechanisms
 - counter shaft gear or bearing
- remove, refit or replace one manual transmission in a light vehicle.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to diagnosing and repairing light vehicle manual transmissions, including procedures for lifting, supporting and manual handling light vehicle manual transmissions
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from transmissions
- operating principles light vehicle manual transmissions, including:
 - gear types
 - gear ratios and torque reduction and multiplication
 - simple gear trains
 - compound gear trains
 - lubricant types

- application, purpose and operation of light vehicle manual transmissions and components, including:
 - power flows, including:
 - longitudinal manual transmissions
 - transaxles
 - transfer cases
 - synchromesh operation
 - gearshift mechanisms
 - transfer cases, including:
 - part-time four wheel drives
 - full-time four wheel drives
 - all-wheel drives
- diagnostic testing procedures for light vehicle manual transmissions, including:
 - abnormal noise diagnosis
 - shift diagnosis
- repair procedures for light vehicle manual transmissions, including procedures for removing, replacing and adjusting them
- post-repair testing procedures for light vehicle manual transmissions.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the light vehicle manual transmissions that they have worked on, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- manufacturer light vehicle manual transmission specifications
- two different light vehicles with faults in the manual transmission components specified in the performance evidence
- diagnostic equipment for light vehicle manual transmissions
- tools, equipment and materials appropriate for repairing light vehicle manual transmissions.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

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