



Australian Government

Assessment Requirements for AURTTF006 Diagnose and repair petrol carburettor systems

Release: 1

Assessment Requirements for AURTTF006 Diagnose and repair petrol carburettor systems

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 a fault in three of the following different petrol carburettor systems fitted to different vehicles or engines:
 - one type of variable venturi carburettor
 - one type of multi-barrel carburettor
 - one simple carburettor.

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 petrol carburettor systems, including procedures for working with flammable petrol fuel
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from fuel systems
- operating principles of petrol carburettor systems and associated components, including:
 - fuel atomisation
 - air-fuel ratios and combustion cycles
 - detonation and pre-ignition
 - venturi action
- application, purpose and operation of petrol carburettor systems and components, including:
 - carburettor systems, including:
 - float system

- idle system
- fast idle system
- main system
- choke system
- power system
- accelerating system
- single barrel carburettor operation, including:
 - mixture correction, including air-bleed, compensating jet, and metering rod mixture correction
- manual and automatic choke operation
- multi-barrel carburettors, including:
 - two-barrel and four-barrel carburettors
 - two-stage carburettors, including vacuum and mechanical control of second stage
- diagnostic testing procedures for petrol carburettor systems, including:
 - fuel pump pressure, volume and vacuum testing
 - air-leak testing
 - cold-start enrichment testing
 - exhaust gas analysis
- repair procedures for petrol carburettor systems, including procedures for:
 - installing fuel pumps
 - dismantling, cleaning, repairing and reassembling carburettors
 - removing, replacing and adjusting carburettors
- post-repair testing procedures for petrol carburettor systems.

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 carburettors 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 vehicle petrol carburettor system specifications
- three different vehicles or engines with faults in the petrol carburettor systems specified in the performance evidence

- diagnostic equipment for petrol carburettor systems, including an exhaust gas analyser,
- tools, equipment and materials appropriate for repairing petrol carburettor systems.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>