



**Australian Government**

**Assessment Requirements for AURMTF001  
Analyse and repair performance  
carburetted fuel systems**

**Release: 1**

# Assessment Requirements for AURMTF001 Analyse and repair performance carburetted fuel 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:

- analyse and repair faults in the performance of the carburetted fuel systems of two different competition vehicles, including:
  - two of the following faults:
    - rough running
    - under or over fuelling
    - contamination or leaks
  - one of the following faults:
    - fuel cells venting
    - fuel pump pressure and/or flow regulation
- conduct post-repair checks on the above fuel systems.

## Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) and environmental requirements relating to analysing and repairing performance carburetted fuel systems, including procedures for working with petrol fuel systems
- environmental requirements, including procedures for trapping, storing and disposing of petrol fuel released during repairs or testing
- types, function, operation and limitations of carburetted fuel systems and components, including:
  - properties of fuels used in the motor sport industry, including compatibility with carburetted fuel system components

- fuel system components, including:
  - rollover valves
  - fuel cells
  - fuel lines
  - breathers
  - pickup pumps
  - main pumps
  - filters
  - fuel pots, surge tanks and collector tanks
  - pressure and temperature sensors
- multi-barrel carburettors, including:
  - two-barrel and four-barrel carburettors
  - two-stage carburettors, including vacuum and mechanical control of second stage
- diagnostic testing procedures of performance carburetted fuel systems, including:
  - fuel pump pressure, volume and vacuum testing
  - testing for air leaks
  - cold-start enrichment testing
  - exhaust gas analysis
- procedures for repair and improvement of performance carburetted fuel systems, including:
  - fuel pump installation
  - carburettor dismantling, cleaning, repair and reassembly
  - carburettor removal, replacement and adjustment
- post-repair testing procedures of performance carburetted fuel 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 complex performance carburetted fuel systems they have analysed and repaired, e.g. work order.

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 specifications for vehicle performance carburetted fuel systems

- two different competition vehicles with faults in their performance carburetted fuel systems
- diagnostic equipment for performance carburetted fuel systems, including exhaust gas analyser
- repair tools, equipment and materials appropriate for analysing and repairing performance carburetted fuel systems.

## **Links**

Companion Volume implementation guides are found in VETNet -

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

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