



Australian Government

AURTTF001 Inspect and service petrol fuel systems

Release: 1

AURTTF001 Inspect and service petrol fuel systems

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to inspect and service petrol fuel systems. It involves preparing for the task, inspecting the fuel system for leaks, inspecting the air filter, reporting the inspection findings, servicing and adjusting the system, and completing workplace processes and documentation.

It applies to those working in the automotive service and repair industry. The petrol fuel systems include those of agricultural machinery, heavy commercial vehicles, light vehicles, marine vessels, motorcycles, mobile plant or outdoor power equipment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Competency Field

Mechanical Miscellaneous

Unit Sector

Technical – Fuel Systems

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Prepare to inspect and service petrol fuel system	1.1 Job requirements are determined from workplace instructions 1.2 Servicing information is sourced and interpreted 1.3 Hazards associated with the work are identified and risks are managed

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
	1.4 Tools, equipment and materials are selected and checked for serviceability
2. Inspect petrol fuel system	2.1 Inspection is carried out according to manufacturer specifications, workplace procedures and safety requirements 2.2 inspection results are compared with manufacturer specifications 2.3 Inspection findings are reported according to workplace procedures, including recommendations for necessary repairs or adjustments
3. Service petrol fuel system	3.1 Service and adjustments are carried out according to manufacturer specifications, workplace procedures, and safety and environmental requirements , and without causing damage to components or systems 3.2 Post-service testing is carried out according to workplace procedures
4. Complete work processes	4.1 Final inspection is made to ensure work is to workplace expectations and vehicle or machinery is presented ready for use 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected 4.3 Tools and equipment are checked and stored according to workplace procedures 4.4 Workplace documentation is processed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance and are not explicit in the performance criteria.\

Skills	Description
Learning skills to:	locate appropriate sources of information efficiently.
Reading skills to:	interpret information from manufacturer and workshop literature when seeking service procedures and specifications relating to petrol fuel systems.
Writing skills to:	legibly and accurately fill out workplace documentation when reporting inspection findings, making recommendations, and recording parts and material used.

Skills	Description
Oral communication skills to:	- clarify instructions - report inspection findings and make repair recommendations.
Numeracy skills to:	calculate liquid volumes and service schedule intervals using basic mathematical operations, including addition and subtraction.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Safety requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for working with: - stored fuel pressure - flammable liquids.
<i>Service</i> must include:	- pre- and post-inspection of all petrol fuel system components - servicing air filters - replacing fuel filters.
<i>Environmental requirements</i> must include:	- procedures for: - trapping, storing and disposing of flammable liquids released from fuel systems - disposing of filters.
<i>Post-service testing</i> must include:	- starting up and running system to full operation - testing system for leaks and correct operation.

Unit Mapping Information

Equivalent to AURTTF2001 Service petrol fuel systems

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for AURTTF001 Inspect and service petrol fuel systems

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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:

- inspect and service the petrol fuel systems of two different vehicles or machinery, including replacing their fuel filters.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to inspecting and servicing petrol fuel systems, including procedures for working with:
 - stored fuel pressure
 - flammable liquids
- environmental requirements, including procedures for:
 - trapping, storing and disposing of flammable liquids released from fuel systems
 - disposing of filters
- identification, function and basic operation of petrol fuel system components, including:
 - types and applications of fuels, including petroleum and biofuels
 - fuel tank, cap and lines
 - fuel filters
 - fuel pumps, including:
 - mechanical
 - electrical
 - carburettors
 - electronic control unit and sensors

- fuel injection system components
- accelerator pedal or control lever
- air filter and air intake housing and ducting
- inspection procedures for petrol fuel systems, including:
 - inspecting components for damage and leaks
 - inspecting air filter and air intake housing and ducting for blockage or damage
- service and adjustment procedures for petrol fuel systems, including:
 - replacing fuel filter
 - cleaning or replacing air filter and checking air intake housing and ducting for damage
 - checking and adjusting base idle speed as required
 - fuel pressure testing as required
- post-service testing procedures for petrol 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 petrol fuel systems 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 petrol fuel system specifications
- two different vehicles or machinery with petrol fuel systems requiring servicing
- tools, equipment and materials appropriate for inspecting and servicing petrol fuel systems.

Links

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