



Australian Government

AURTTL001 Inspect and service CNG fuel systems

Release: 1

AURTTL001 Inspect and service CNG fuel systems

Modification History

| Release | Comment |
|-----------|-------------------------|
| Release 1 | New unit of competency. |

Application

This unit describes the performance outcomes required to inspect and service compressed natural gas (CNG) fuel systems. It involves preparing for the task, inspecting the system, 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 CNG fuel systems include those of agricultural machinery, forklifts, heavy commercial vehicles, light vehicles or mobile plant machinery.

Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.

Competency Field

Mechanical Miscellaneous

Unit Sector

Technical – Alternative Fuels

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 CNG fuel system | 1.1 Job requirements are determined from workplace instructions 1.2 Servicing information is sourced and interpreted 1.3 Hazards associated with work are identified and risks are managed according to <i>safety and environmental requirements</i> |

| 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 CNG fuel system | 2.1 Inspection is carried out according to manufacturer specifications, workplace procedures, safety requirements, and AS/NZS 2739 Natural gas (NG) fuel systems for vehicle engines 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 CNG fuel system | 3.1 Service and adjustments are carried out according to manufacturer specifications, workplace procedures, AS/NZS 2739, 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 system 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: | <ul style="list-style-type: none"> locate appropriate sources of information efficiently. |
| Reading skills to: | <ul style="list-style-type: none"> interpret information from manufacturer and workshop literature when seeking service procedures and specifications relating to CNG fuel systems. |
| Writing skills to: | <ul style="list-style-type: none"> legibly and accurately fill out workplace documentation when reporting inspection findings, making recommendations, and |

| Skills | Description |
|-------------------------------|---|
| | recording parts and material used. |
| Oral communication skills to: | <ul style="list-style-type: none"> clarify instructions report inspection findings and make repair recommendations. |
| Numeracy skills to: | <ul style="list-style-type: none"> use basic mathematical operations, including addition and subtraction, to calculate service schedule intervals. |
| Problem solving skills to: | <ul style="list-style-type: none"> refer problems outside area of responsibility to appropriate person. |

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 and environmental requirements</i> must include: | <ul style="list-style-type: none"> work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: <ul style="list-style-type: none"> working with a lighter-than-air flammable gas avoiding cold burns storing CNG environmental requirements, including procedures for preventing loss of gas to atmosphere. |
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Unit Mapping Information

Equivalent to AURTTL3001 Inspect and service CNG fuel systems

Links

Companion Volume implementation guides are found in VETNet -

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