



Australian Government

Assessment Requirements for AURTTL105 Diagnose and repair LNG fuel systems

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- diagnose and repair a fault in one of the following components in at least two vehicles with different liquefied natural gas (LNG) fuel systems:
 - mixers
 - regulators
 - fuel lock-off valves
 - electronic control valves or switches.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to diagnose and repair LNG fuel systems, including:
 - information provided by customer and supervisors
 - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair LNG fuel systems, including:
 - establishing serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment
 - storage of equipment
 - identification, tagging and isolation of faulty equipment
 - disposal of excess materials
 - recycling procedures

- work health and safety (WHS) requirements relating to diagnosing and repairing LNG fuel systems, including procedures for:
 - working with extremely cold and flammable gas
 - storing LNG
- environmental requirements, including procedures for preventing loss of gas to atmosphere
- key requirements of AS/NZ 2739 Natural gas (NG) fuel systems for vehicle engines
- operating principles of LNG fuel systems and associated components
- application, purpose and operation of LNG fuel systems and components, including:
 - mixers
 - regulators
 - fuel lock-off valves
 - filters
 - tanks
 - control valves and switches
- diagnostic testing procedures for LNG fuel systems, including:
 - mixers
 - regulators
 - fuel lock-off valves
 - electronic control valves and switches
- repair procedures for LNG fuel systems, including procedures for removing, replacing and adjusting the systems
- post-repair testing procedures for LNG fuel systems.

Assessment Conditions

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 LNG 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 LNG fuel system specifications
- AS/NZ 2739 Natural gas (NG) fuel systems for vehicle engines
- two vehicles with different LNG fuel systems with faults
- diagnostic equipment for LNG fuel systems, including exhaust gas analyser
- tools, equipment and materials appropriate for repairing LNG fuel systems.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

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