



Australian Government

Assessment Requirements for AURHTB106

Diagnose complex faults in heavy commercial vehicle braking 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 a complex fault in each of the following heavy commercial vehicle braking systems:
 - air braking system
 - air over hydraulic braking system
 - anti-lock braking system
- the work must involve developing a testing strategy to diagnose the cause of at least two of the following complex faults:
 - an intermittent fault
 - a fault that affects more than one system
 - a fault introduced as a result of a system repair
 - an indirect fault caused by the influence of external systems.

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 complex faults in heavy commercial vehicle braking systems, including:
 - heavy commercial vehicle braking system manufacturer specifications
 - workplace procedures required to diagnose complex faults in heavy commercial vehicle braking systems, including:
 - establishing the serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment
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- storage of equipment
 - identification, tagging and isolation of faulty equipment
 - safe disposal of materials
 - recycling procedures
 - workplace health and safety (WHS) requirements relating to diagnosing complex faults in heavy commercial vehicle braking systems, including procedures for:
 - working with stored energy, including pneumatic pressure and spring energy
 - handling and controlling brake dust and brake fluids
 - environmental requirements, including procedures for trapping, storing and disposing of hazardous materials and substances released from braking systems, including hydraulic fluid, brake fluid and brake fibres
 - types of complex faults relating to heavy commercial vehicle braking systems, including:
 - intermittent
 - multi-system
 - introduced as a result of system repair
 - indirect, caused by the influence of external systems
 - types and operation of heavy commercial vehicle braking systems, including:
 - air braking systems
 - hydraulic braking systems
 - air over hydraulic braking systems
 - anti-lock braking systems
 - testing procedures for heavy commercial vehicle braking systems, including procedures for:
 - vehicle dynamic and static testing
 - abnormal noise analysis
 - component failure analysis
 - key features and limitations of diagnostic testing equipment required to diagnose complex faults in heavy commercial vehicle braking systems
 - procedures for accessing and interpreting scan tool system data, including:
 - diagnostic trouble codes (DTCs), including:
 - conditions that set the DTCs
 - conditions for running DTCs
 - live data
 - freeze frame data
 - waveforms
 - vehicle continuous and non-continuous monitored 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 heavy commercial vehicle braking 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 heavy commercial vehicle braking system specifications
- three different heavy commercial vehicles with complex faults in the braking systems specified in the performance evidence
- heavy commercial vehicle braking system diagnostic equipment, including:
 - pressure gauge
 - scan tool
- tools, equipment and materials appropriate for diagnosing complex faults in heavy commercial vehicle braking 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>
