



Australian Government

Assessment Requirements for AURHTB107 Diagnose and repair heavy commercial vehicle electronic 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 and repair a fault in the electronic components of at least two different heavy commercial vehicle electronic braking 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:

- techniques for reading and interpreting technical information, including circuit types, diagrams and symbols
- methods to locate and interpret information required to diagnose and repair heavy commercial vehicle electronic braking systems, including:
 - information provided by customers and supervisors
 - manufacturer specifications and procedures or equivalent documentation
 - Australian Design Rules ADR35 and ADR38 relating to repairing heavy vehicle brakes
- workplace procedures required to diagnose and repair heavy commercial vehicle electronic braking 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

- workplace health and safety (WHS) requirements relating to diagnosing and repairing heavy commercial vehicle electronic braking systems, including procedures for working safely with high air pressure systems and an electronically controlled actuator
- environmental requirements relating to diagnosing and repairing heavy commercial vehicle electronic braking systems
- operating principles of heavy commercial vehicle electronic braking systems and associated components, including:
 - electronic systems
 - pneumatic systems
- purpose and operation of heavy commercial vehicle electronic braking systems and components, including:
 - electronic control unit (ECU)
 - dual circuit pneumatic foot pedal control valve with electronic position sensing
 - front circuit electric over air modulation and relay valve
 - rear circuit electric over air modulation and relay valve
 - wheel speed sensors and pole wheel
 - tractor protection air valve
 - pressure sensor in airbag system or load sensor
- diagnostic testing procedures for heavy commercial vehicle electronic braking systems that comply with manufacturer specifications, including:
 - accessing and interpreting scan tool system data, including:
 - diagnostic trouble codes (DTCs)
 - live data
 - waveforms
 - using diagnostic flow charts
- repair procedures for heavy commercial vehicle electronic braking systems that comply with manufacturer specifications, including procedures for removing, replacing and adjusting braking system components
- post-repair testing procedures for heavy commercial vehicle electronic braking systems, including static and dynamic performance tests of electronic braking system.

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 vehicle electronic 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 braking system specifications
- two different heavy commercial vehicles with faults in their electronic braking systems
- diagnostic equipment for heavy commercial vehicle electronic braking systems
- Australian Design Rules ADR35 and ADR38
- tools, equipment and materials appropriate for repairing and adjusting heavy commercial vehicle electronic 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>