



Australian Government

Assessment Requirements for AURHTB007 Diagnose and repair heavy commercial vehicle electronic braking systems

Release: 1

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Modification History

Release	Comment
Release 1	New unit of competency.

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:

- diagnose and repair a fault in the electronic components of two different heavy commercial vehicle electronic braking systems.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to diagnosing and repairing heavy commercial vehicle electronic braking systems, including procedures for working safely with high air pressure systems
- operating principles of heavy commercial vehicle electronic braking systems and associated components, including:
 - electronic systems
 - pneumatic systems
- Australian Design Rules ADR35 and ADR38 relating to repairing heavy vehicle brakes
- application, 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
 - freeze frame data
 - waveforms
- repair procedures for heavy commercial vehicle electronic braking systems that comply with manufacturer specifications, including removal, replacement and adjustment procedures for electronic braking system components
- post-repair testing procedures for heavy commercial vehicle electronic braking systems that comply with manufacturer specifications, including static and dynamic performance tests of electronic braking 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 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.

Links

Companion Volume implementation guides are found in VETNet -

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

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