



Australian Government

Assessment Requirements for AURHTB001 Diagnose and repair heavy vehicle air 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 three heavy vehicle air braking systems as follows:
 - one disc braking system, in which the work must involve removing and refitting or replacing the brake actuators, disc pads and disc rotors
 - one drum braking system, in which the work must involve removing and refitting or replacing the brake actuators, brake shoes and drums
 - one air braking system, in which the work must involve removing and refitting or replacing the following:
 - air compressor, delivery and storage components
 - slack adjusters
 - pneumatic and electronic control circuits and valves.

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 air braking systems, including procedures for:
 - working safely with stored energy in springs and high air pressure systems
 - managing and controlling brake dust and brake fluids
 - removing and refitting wheel assemblies
- environmental requirements, including procedures for trapping, storing and disposing of hazardous materials and substances released from braking systems, including brake dust and fibres
- Australian Design Rules ADR35 and ADR38 relating to repairing heavy vehicle brakes

- operating principles of air braking systems and associated components, including:
 - levers
 - friction
 - pneumatics
 - electronics
- application, purpose and operation of heavy vehicle air braking systems and components, including:
 - disc braking systems
 - drum braking systems
 - air compressors, air storage, air dryers and valves
 - brake actuators
 - foot valves
 - air control valves
 - manual and automatic slack adjusters
 - trailer brake valves
 - pneumatic and electronic control circuits and valves
- diagnostic testing procedures for air braking systems, including:
 - air control system testing
 - air brake component inspection and evaluation
 - brake system stationary and mobile performance tests
- repair procedures for air braking system components, including:
 - wheel end components, including:
 - disc braking systems
 - drum braking systems
 - air compressors, air storage, air dryers and valves
 - brake actuators
 - foot valves
 - manual and automatic slack adjusters
 - trailer brake valves
 - pneumatic and electronic control circuits and valves
- post-repair testing procedures for air braking systems, including stationary and mobile performance tests.

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 air 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 vehicles with faults in the air braking systems specified in the performance evidence
- diagnostic equipment for heavy vehicle air braking systems
- Australian Design Rules ADR35 and ADR38
- tools, equipment and materials appropriate for repairing and adjusting heavy vehicle air braking systems.

Links

Companion Volume implementation guides are found in VETNet -

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

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