



Australian Government

**Assessment Requirements for AURHTB002
Diagnose and repair heavy vehicle
hydraulic and air over hydraulic braking
systems**

Release: 1

Assessment Requirements for AURHTB002 Diagnose and repair heavy vehicle hydraulic and air over hydraulic braking systems

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 a heavy vehicle hydraulic braking system, including:
 - master cylinder and wheel cylinders
 - disc and drum brake wheel end components
 - parking brake
- diagnose and repair a fault in a heavy vehicle air over hydraulic braking system, including:
 - disc and drum brake wheel end components
 - air compressor, delivery and storage components
 - foot valves
 - parking brake.

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 vehicle hydraulic and air over hydraulic 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 procedures for trapping, storing and disposing of hazardous materials and substances released from braking systems, including brake fluids and brake dust and fibres

- operating principles of heavy vehicle hydraulic braking systems and associated components, including:
 - levers
 - friction
 - pneumatics
 - hydraulics
- Australian Design Rules ADR35 and ADR38 relating to repairing heavy vehicle brakes
- application, purpose and operation of heavy vehicle hydraulic and air over hydraulic braking systems and components, including:
 - hydraulic braking systems, including:
 - disc and caliper assemblies
 - drum and lining assemblies
 - master cylinder and boosters
 - brake lines and hydraulic valves
 - load compensating valves
 - proportioning valves
 - air over hydraulic braking systems, including:
 - air storage
 - brake valves
 - air compressor
 - brake lines and valves
 - receiver drier
 - parking brake systems
- diagnostic testing procedures for heavy vehicle hydraulic and air over hydraulic braking systems, including:
 - air control system tests
 - hydraulic system component inspection and evaluation
 - air braking system component inspection and evaluation
 - brake fluid tests
 - parking brake operational tests
 - drum and disc brake operational tests
 - drum brake and shoes, disc and pad measurement and evaluation
 - stationary and mobile performance tests
- repair procedures for heavy vehicle hydraulic and air over hydraulic braking systems, including:
 - removal, replacement and adjustment procedures for hydraulic system components, including:
 - disc and caliper assemblies
 - drum and lining assemblies
 - master cylinder and boosters
 - brake lines and valves

- switches
- removal, replacement and adjustment procedures for hydraulic and air over hydraulic braking system components, including:
 - brake valves
 - air compressors
 - air storage
 - brake lines and valves
 - receiver driers
- post-repair testing procedures for heavy vehicle hydraulic and air over hydraulic 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 hydraulic and air over hydraulic 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 heavy vehicles with the faults and braking systems specified in the performance evidence
- diagnostic equipment for heavy vehicle hydraulic and air over hydraulic braking systems
- Australian Design Rules ADR35 and ADR38
- tools, equipment and materials appropriate for repairing and adjusting heavy vehicle hydraulic and air over hydraulic 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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