



Australian Government

Assessment Requirements for AURHTB005

Analyse and evaluate faults in heavy commercial vehicle 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:

- analyse and evaluate a fault in the braking systems of three different heavy commercial vehicles
- the above faults must be in two of the following braking systems:
 - pneumatic system
 - air over hydraulic system
 - hydraulic system
 - electronic system
 - auxiliary braking system.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to analysing and evaluating faults in heavy commercial vehicle braking systems, including procedures for:
 - handling and controlling brake dust and brake fluids
 - working with stored energy in springs, air springs, torsion bars and air storage
- environmental requirements, including procedures for trapping, storing and disposing of brake dust and brake fluid released from braking systems
- principles and processes involved in planning and implementing analysis and evaluation of braking system faults
- design and planning of diagnostic procedures of heavy commercial vehicle braking systems, including procedures for diagnosing:

- hydraulic faults
- mechanical faults
- pneumatic faults
- electrical faults
- types, functions, operation and limitations of the following systems and components:
 - foundation brakes
 - friction materials
 - anti-lock braking system (ABS)
 - electronic braking system (EBS)
 - pneumatic braking system
 - pneumatic and electronic control circuits and valves
 - hydraulic braking system
 - air over hydraulic braking system
 - heavy trailer braking system
 - auxiliary braking systems (compression and transmission retarders)
- testing procedures for heavy commercial vehicle braking systems, including:
 - brake timing and balancing
 - air supply performance
 - vehicle stopping distance
- types, functions, operation and limitations of diagnostic testing equipment required to analyse and evaluate faults in braking systems
- procedures for documenting and reporting the analysis and evaluation process required to analyse and evaluate faults in braking systems
- requirements of Australian Design Rules (ADRs) relating to heavy commercial vehicle 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 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 faults in the braking systems specified in the performance evidence
- diagnostic equipment for heavy commercial vehicle braking systems
- tools, equipment and materials appropriate for analysing and evaluating heavy commercial vehicle 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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