



Australian Government

AURTTB005 Assemble and fit braking system components

Release: 1

AURTTB005 Assemble and fit braking system components

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to assemble and fit braking system components to vehicles. It involves preparing for the task, assembling and fitting brake components, post-fitting testing, and completing workplace processes and documentation.

It applies to those working in the automotive service and repair industry. The braking systems include those of vehicles in all sectors of the industry.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Competency Field

Mechanical Miscellaneous

Unit Sector

Technical - Brakes

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Prepare to assemble and fit braking system components	1.1 Job requirements are determined from workplace instructions 1.2 Procedures and information for assembling and fitting braking system components are sourced and interpreted 1.3 Assembly options are analysed and those most appropriate to the circumstances are selected 1.4 Hazards associated with the work are identified and risks are

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	managed 1.5 Tools and equipment are selected and checked for serviceability
2. Assemble and fit components	2.1 Components are inspected and faults reported 2.2 Components are assembled according to manufacturer specifications, workplace procedures, and <i>safety and environmental requirements</i> 2.3 Components are fitted according to safety requirements using installation procedures that comply with manufacturer specifications and tolerances, and without causing damage to components or systems
3. Test components	3.1 Testing procedures and requirements are accessed and interpreted from manufacturer specifications 3.2 Braking system is tested according to manufacturer specifications and adjusted as required 3.3 Failed components are tagged for further work 3.4 Test results are recorded according to workplace procedures
4. Complete work processes	4.1 Final inspection is made to ensure work is to workplace expectations and vehicle is presented ready for use according to workplace procedures 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected 4.3 Tools and equipment are checked and stored according to workplace procedures 4.4 Workplace documentation is processed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance and are not explicit in the performance criteria.

Skills	Description
Learning skills to:	locate appropriate sources of braking system information efficiently.
Reading skills to:	interpret safe operating procedures for assembling, fitting and testing braking system equipment from signs and workplace and

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	manufacturer literature interpret information from manufacturer and workshop literature when seeking braking system specifications and procedures.
Writing skills to:	legibly and accurately fill out workplace documentation when reporting diagnostic findings, making repair recommendations, and recording parts and material used.
Oral communication skills to:	clarify instructions, report faulty components, and make fitting recommendations.
Numeracy skills to:	measure braking system and vehicle components and use basic mathematical operations, including addition and subtraction, to calculate distances and tolerances.
Planning and organising skills to:	plan own work requirements and prioritise actions to achieve required outcomes and ensure tasks are completed within workplace timeframes.
Technology skills to:	use braking system measuring equipment, such as vernier calipers, micrometers and brake drum calipers.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Safety and environmental requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: - lifting and supporting vehicles - handling and controlling brake dust and brake fluids - environmental requirements, including procedures for trapping, storing and disposing of brake dust and brake fluid released during assembly and fitting process.
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Unit Mapping Information

Equivalent to AURTTB3005 Assemble and fit braking system components

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for AURTTB005 Assemble and fit braking system components

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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:

- assemble and fit three different components from one of the following braking systems:
 - hydraulic
 - pneumatic over hydraulic
 - vacuum over hydraulic
 - electric
 - electric over hydraulic
 - pneumatic.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to assembling and fitting brake system components, including procedures for:
- lifting and supporting vehicles
- handling and controlling brake dust and brake fluids
- environmental requirements, including procedures for trapping, storing and disposing of brake dust and brake fluid released during assembly and fitting process
- operating principles and construction of the following braking systems:
 - hydraulic
 - pneumatic over hydraulic
 - vacuum over hydraulic
 - electric
 - electric over hydraulic

- pneumatic
- procedures and techniques for assembling braking system components
- procedures and techniques for fitting and testing braking system components.

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 braking systems and components that they have assembled and fitted, 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
- braking system component manufacturer specifications
- components of the braking systems specified in the performance evidence
- vehicles requiring the fitting and assembly of the braking systems specified in the performance evidence
- equipment, hand and power tooling appropriate for assembling, fitting and testing braking systems and associated components.

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