



Australian Government

AURTTB007 Remove and replace brake assemblies

Release: 1

AURTTB007 Remove and replace brake assemblies

Modification History

Release	Comment
Release 1	New unit of competency

Application

This unit describes the performance outcomes required to remove and replace the front and rear brake assemblies of a vehicle. It requires the learner to plan and prepare the task; identify types of brake assemblies; inspect components and identify their function; remove and replace the front and rear brake assemblies; and maintain the work area, tools and equipment.

It applies to those undertaking a Vocational Education and Training in Schools (VETiS) or pre-vocational qualification as preparation to entering the automotive service and repair or automotive manufacturing industry.

The unit is designed for use in a highly supervised context and is not suitable for use in a vocational qualification.

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 italicised text is used, further information is detailed in the range of conditions section
1. Prepare to remove and replace brake assemblies	1.1 <i>Safety and environmental requirements</i> are sourced and interpreted 1.2 Task instruction is interpreted and vehicle brake assemblies to be worked on are identified

ELEMENTS	PERFORMANCE CRITERIA
	1.3 Manufacturer specifications and workplace procedures for brake assemblies removal and replacement are sourced and interpreted 1.4 Potential hazards and risks associated with task are identified and reported to workplace supervisor 1.5 Tools and equipment required for removing and replacing brake assemblies are identified according to manufacturer specifications
2. Remove and inspect brake assemblies	2.1 Tools, equipment and materials are selected and checked prior to use according to manufacturer specifications and safety requirements 2.2 Vehicle is prepared for brake assemblies removal according to workplace procedures and safety and environmental requirements 2.3 Brake assemblies are removed according to workplace procedures and safety and environmental requirements, and without causing damage to components, tools or equipment 2.4 Brake assemblies' components are arranged, identified and inspected according to manufacturer specifications 2.5 Brake assemblies' inspection results are recorded
3. Replace brake assemblies	3.1 Brake assemblies are prepared for replacement 3.2 Brake assemblies are replaced according to workplace procedures, manufacturer specifications, and safety and environmental requirements, and without causing damage to components, tools or equipment 3.3 Brake assemblies are adjusted and bled
4. Complete work processes	4.1 Final inspection is made to ensure work meets task instruction and workplace standards, and vehicle is presented ready for use or storage according to workplace procedures 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored according to environmental requirements and workplace procedures 4.3 Tools and equipment are checked and stored according to workplace procedures, or tagged and reported where necessary 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 vehicle braking system information and brake assembly removal and replacement procedures.
Reading skills to:	- select and interpret key information from manufacturer specifications, safety requirements and workplace procedures to safely remove and replace front and rear brake assemblies - select and interpret key information from environmental requirements and workplace procedures to ensure a clean and safe work site.
Writing skills to:	legibly and accurately fill out workplace documentation using correct industry terminology and conventions.
Oral communication skills to:	participate effectively in verbal exchanges using questioning and active listening to request, clarify and clearly convey information.
Numeracy skills to:	- read and interpret numerical information in brake system component identification codes - use specialist tools and measuring equipment correctly, including verniers, and report and record the results correctly using relevant mathematical symbols and conventions (e.g. mm for millimeters) - use basic mathematical operations, including addition, subtraction, multiplication and division, to calculate clearances.
Planning and organising skills to:	plan own work requirements and prioritise actions to achieve required outcomes.
Self-management skills to:	recognise own limitations when selecting and using tools and equipment and seek timely advice.
Problem-solving skills to:	- identify potential or actual hazards and take action to minimise risk - refer problems that cannot be readily resolved and seek assistance from workplace supervisor.
Technology skills to:	set up and operate equipment and tools required to remove and replace front and rear brake assemblies.

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:	information about key aspects of work health and safety (WHS), occupational health and safety (OHS) and environmental
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	requirements, including: • use of personal protective equipment, including safety glasses, ear protection and safety footwear • use of hand tools and lifting equipment • application of procedures for handling and disposing of used brake fluid, lubricants and asbestos-based products, including brake dust.
<i>Brake assemblies</i> must include:	• both front disc brake assemblies • both rear drum brake assemblies.

Unit Mapping Information

No equivalent unit.

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 AURTTB007 Remove and replace brake assemblies

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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:

- correctly remove and replace the brake assemblies of at least two different vehicles.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- key aspects of work health and safety (WHS), occupational health and safety (OHS) and environmental requirements, including:
 - use of personal protective equipment, including safety glasses, ear protection and safety footwear
 - use of hand tools and lifting equipment
 - safety data sheets (SDS) and procedures for handling and disposing of waste brake fluid, lubricants and asbestos-based products, including brake dust
- types, application and basic operation of brake assembly, including:
 - disc brake systems
 - drum brake systems
 - hand brake systems
 - brake fluids
- brake assembly function and basic principles of operation
- brake assembly component names and their functions
- brake assembly dismantling procedures, including:
 - disc caliper, pad and disc removal
 - brake drum, shoes and wheel cylinder removal
- brake assembly inspection procedures, including:
 - brake hose serviceability
 - disc thickness

- disc runout
- brake shoe serviceability
- brake drum wear
- brake assembly replacement procedures, including:
 - disc pad replacement
 - caliper pin lubrication
 - disc replacement
 - brake cylinder and shoe replacement
 - bleeding and adjustment procedures
- work area clean-up and maintenance requirements.

Assessment Conditions

Assessors must satisfy SNR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the vehicles where they have removed and replaced front and rear brake assemblies, 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 workplace or simulated workplace
- personal protective equipment appropriate to the workplace
- two vehicles fitted with front and rear brake assemblies, including disc and drum brake assemblies
- tools and special equipment, including lifting equipment.

Links

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