Australian Government

AURBTB001 Service and repair bicycle mechanical braking systems

Release: 1

AURBTB001 Service and repair bicycle mechanical braking systems

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to service and repair bicycle mechanical braking systems. It involves preparing for the work, selecting and using specialist tools and equipment, planning, inspecting, servicing and repairing, and testing the bicycle braking system, and completing workplace processes and documentation.

It applies to those working in the bicycle retail, service and repair industry.

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

Competency Field

Bicycle

Unit Sector

Technical - Brakes

Elements and Performance Criteria

Elements Elements describe the essential outcomes.	**Performance Criteria** 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 service and repair bicycle mechanical braking system	1.1 Job requirements are determined from workplace instructions 1.2 Manufacturer specifications, workplace procedures and other relevant technical information are accessed and interpreted 1.3 Hazards associated with the work are identified and risks are

Elements Elements describe the essential outcomes.	**Performance Criteria** 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.
	managed 1.4 Tools and equipment, including personal protective equipment (PPE), are selected and checked for serviceability 1.5 Work is planned to avoid damage to bicycle, minimise waste and use time efficiently
2. Inspect and diagnose braking system	2.1 ***Mechanical braking system*** is inspected for faults and worn or damaged components using visual inspection methods and by comparing measurements against manufacturer specifications 2.2 Condition of bicycle braking system is determined in line with system specifications and customer requirements 2.3 Service and repair options are identified 2.4 Service and repair items are documented and costed for customer approval according to workplace procedures
3. Carry out service and repair of braking system	3.1 Tools and equipment are used according to workplace procedures and manufacturer specifications 3.2 Service and repair of mechanical braking system are carried out according to work plan and ***safety and environmental requirements*** 3.3 Required replacement parts are checked and fitted according to manufacturer specifications 3.4 Braking system specifications are checked and tested for correct operation in a safe location 3.5 Adjustments are made to braking system as required according to workplace procedures
4. Complete work processes	4.1 Final inspection is made to ensure work meets workplace expectations and bicycle is presented ready for use 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored 4.3 Tools and equipment are checked, reported if faulty, 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 information efficiently.
Reading skills to:	• interpret mechanical brake component technical information and manufacturer specifications.
Writing skills to:	• legibly and accurately fill out workplace documentation, including service checklists and repair reports.
Oral communication skills to:	• ask questions to clarify instructions and requirements.
Numeracy skills to:	• use measuring equipment, including metric and imperial units of measurement • match component codes, serial numbers and specifications.
Problem solving skills to:	• identify faults, quality issues and potential problems associated with bicycle mechanical braking systems during service and repair activities.
Technology skills to:	• use specialist bicycle tools and equipment in line with workplace procedures.

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.

Mechanical braking system must include:	• cantilever, disc, internal coaster and drum brakes • composite material brake pads • mechanical linkages and cables • integrated brake and gear levers.

Safety and environmental requirements must include:	• work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for:
	  • manually handling bicycles and their systems
	  • identifying workplace hazards
	  • using PPE
	  • identifying safe location for testing brakes
	• environmental requirements, including procedures for disposing of waste materials.

Unit Mapping Information

Equivalent to AURBTB2001 Service and repair bicycle mechanical braking systems

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1