



Australian Government

AURBTD003 Repair and overhaul bicycle steering systems

Release: 1

AURBTD003 Repair and overhaul bicycle steering systems

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to repair and overhaul bicycle steering systems. It involves preparing for the work, selecting and using specialist tools and equipment, inspecting, repairing and testing the bicycle headset, handlebar and stem, 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 - Steering and Suspension

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 repair and overhaul bicycle steering 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 managed 1.4 Tools and equipment, including personal protective equipment

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	(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 steering system	2.1 Bicycle <i>steering system</i> is checked for faults and worn or damaged components using visual inspection methods and by comparing measurements against manufacturer specifications 2.2 Repair and replacement options are identified, documented and costed for customer approval according to workplace procedures 2.3 Work area, replacement parts and bicycle are prepared for repair work
3. Carry out repair and overhaul of steering system	3.1 Repair and overhaul activities are carried out according to workplace procedures, work plan, and <i>safety and environmental requirements</i> 3.2 Required replacement parts are checked and fitted according to manufacturer specifications 3.3 Repaired steering system is checked and tested for correct operation according to manufacturer specifications 3.4 Repaired steering system is adjusted and aligned as required according to workplace procedures 3.5 Results and quality issues are reported to authorised personnel as required
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
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Skills	Description
Learning skills to:	locate appropriate sources of information efficiently.
Writing skills to:	legibly and accurately fill out workplace documentation, including repair reports.
Oral communication skills to:	ask questions to clarify instructions and requirements.
Numeracy skills to:	complete measurements to determine repair requirements.
Problem solving skills to:	identify technical and operational faults and defects, quality issues and potential problems associated with bicycle steering systems.
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.

<i>Steering system</i> must include:	- forks - headsets - handlebars and stems.
<i>Safety and environmental requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: - manually handling bicycles and their steering systems - identifying workplace hazards - using tools and equipment, including PPE - environmental requirements, including procedures for disposing of waste materials.

Unit Mapping Information

Equivalent to AURBTD3003 Repair and overhaul bicycle steering systems

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 AURBTD003 Repair and overhaul bicycle steering systems

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Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standard defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- repair and overhaul three different bicycle steering systems according to manufacturer specifications
- repair and overhaul the following components in the course of the above work:
 - forks
 - headsets
 - handlebars and stems.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to repairing and overhauling bicycle steering systems, including procedures for:
 - manually handling bicycles and their steering systems
 - identifying workplace hazards
 - using tools and equipment, including personal protective equipment (PPE)
- environmental requirements, including procedures for disposing of waste materials
- key bicycle steering system terminology
- purpose of bicycle steering systems and their relationship to suspension, wheels, drivetrain, frame and braking systems
- operating principles of steering system components, including:
 - forks
 - headsets
 - handlebars and stems

- types and use of tools and equipment used to repair and overhaul bicycle steering systems
- techniques and processes for repairing and overhauling bicycle steering systems, including:
 - identification of bicycle steering components, materials and specifications
 - fault identification
 - measuring techniques
 - steering system adjustment techniques
 - steering system testing procedures.

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 bicycle steering systems that they have repaired and overhauled, 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:

- bicycle workplace or simulated workplace, including location to test bicycle steering system
- workplace instructions detailing job requirements
- manufacturer specifications and technical information for bicycle steering systems
- PPE required to repair and overhaul bicycle steering systems
- component parts as required
- three different bicycles with steering systems requiring repair and overhaul
- tools and equipment appropriate for repairing and overhauling bicycle steering systems.

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