



Australian Government

AURBTJ002 Service bicycle wheels and hubs

Release: 1

AURBTJ002 Service bicycle wheels and hubs

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to service bicycle wheels and hubs. It involves preparing for the work, selecting and using specialist tools and equipment, inspecting, removing, adjusting and refitting the bicycle wheels and hubs, 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 - Wheels and Tyres

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 service bicycle wheels and hubs	1.1 Job requirements, including <i>wheel and hub service</i> needs, are determined from workplace instructions 1.2 Bicycle manufacturer specifications and service instructions for wheels and hubs are researched and interpreted 1.3 Condition of bicycle wheels and hubs is inspected for faults and worn or damaged components using visual inspection methods

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	and by comparing measurements against manufacturer specifications 1.4 Hazards associated with the work are identified and risks are managed 1.5 Tools and equipment, including personal protective equipment (PPE), are selected and checked for serviceability 1.6 Work area is prepared and work is planned to avoid damage to bicycle, minimise waste and use time efficiently
2. Carry out service of wheels and hubs	2.1 Bicycle wheels are removed according to workplace procedures and manufacturer specifications 2.2 Wheels and hubs are serviced according to work plan, manufacturer specifications, and <i>safety and environmental requirements</i> 2.3 Serviced wheels and hubs are refitted to bicycle and tested and adjusted as required according to job requirements and workplace procedures
3. Complete work processes	3.1 Final inspection is made to ensure work meets workplace expectations and bicycle is presented ready for use 3.2 Problems outside own area of responsibility are reported to appropriate person 3.3 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored 3.4 Tools and equipment are checked, reported if faulty, and stored according to workplace procedures 3.5 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.
Writing skills to:	legibly and accurately fill out workplace documentation, including service reports.

Skills	Description
Oral communication skills to:	ask questions to clarify instructions and requirements, including with the customer.
Numeracy skills to:	calculate required adjustments and settings.
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>Wheel and hub service</i> must include:	- wheel components: - spoke, disc and tri-spoke wheels - conventional, clincher, tubular, aero, deep dished and composite material wheel rims - hub components: - quick release, allen head and nut wheel fasteners - vertical and horizontal frame lugs - disc, drum and coaster, and internal foot brake hubs - loose ball, cage and roller bearings - lubricants.
<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 wheels - identifying workplace hazards - using tools and equipment, including PPE - environmental requirements, including procedures for disposing of waste materials.

Unit Mapping Information

Equivalent to AURBTJ2002 Service bicycle wheels and hubs

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 AURBTJ002 Service bicycle wheels and hubs

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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:

- service three different bicycle wheels and three different hubs.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to servicing bicycle wheels and hubs, including procedures for:
 - manually handling bicycles and wheels
 - identifying workplace hazards
 - using tools and equipment, including personal protective equipment (PPE)
- environmental requirements, including procedures for disposing of waste materials
- key bicycle terminology relating to wheels and hubs
- application, purpose and function of bicycle wheels and hubs
- bicycle wheel and hub components specified in the range of conditions
- types of lubricants and their application
- types and use of tools and equipment used to service bicycle wheels and hubs
- techniques for servicing bicycle wheels and hubs, including:
 - procedures for different types of bicycles
 - wheel and hub specifications
 - wheel and hub mechanical principles
 - wear or faults in bicycle wheel and hubs
 - torque measurement and adjustment of wheels
 - wheel and hub 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 wheels and hubs that they have serviced, e.g. service 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
- workplace instructions detailing job requirements
- wheel and hub technical and component specifications
- PPE required to service bicycle wheels and hubs
- three bicycles with differing wheels and hubs requiring servicing and testing
- tools and equipment appropriate for servicing bicycle wheels and hubs.

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