



Australian Government

AURBTJ102 Service bicycle wheels and hubs

Release: 1

AURBTJ102 Service bicycle wheels and hubs

Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Application

This unit describes the skills and knowledge required to service bicycle wheels and hubs. The unit 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.

The unit 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.

Unit Sector

Bicycle Technical - Wheels and Tyres

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to service bicycle wheels and hubs	1.1 Determine job requirements from workplace instructions 1.2 Research and interpret bicycle manufacturer specifications and service instructions for wheels and hubs 1.3 Inspect condition of bicycle wheels and hubs for faults and worn or damaged components using visual inspection methods and comparison of measurements against manufacturer specifications 1.4 Identify hazards associated with the work and manage risks 1.5 Select and check tools and equipment for serviceability 1.6 Prepare work area and plan work to avoid damage to bicycle, minimise waste and use time efficiently
2. Carry out service of	2.1 Remove bicycle wheels according to workplace procedures

ELEMENTS	PERFORMANCE CRITERIA
wheels and hubs	and manufacturer specifications 2.2 Service wheels and hubs according to work plan, manufacturer specifications, and safety and environmental requirements 2.3 Refit serviced wheels and hubs to bicycle and test and adjust as required according to job requirements and workplace procedures
3. Complete work processes	3.1 Conduct final inspection according to workplace procedures and confirm bicycle is ready for use 3.2 Report problems outside own area of responsibility to required person 3.3 Clear work area and dispose of or recycle materials according to workplace procedures 3.4 Complete documentation according to workplace procedures

Foundation Skills

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

SKILL	DESCRIPTION
Learning	Locates required sources of information efficiently.
Numeracy	Calculates required adjustments and settings.
Oral communication	Asks questions to clarify instructions and requirements, including with the customer.
Technology	Uses specialist bicycle tools and equipment in line with workplace procedures.

Unit Mapping Information

Supersedes and is equivalent to AURBTJ002 Service bicycle wheels and hubs.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for AURBTJ102 Service bicycle wheels and hubs

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- service at least three different bicycle wheels and at least three different hubs.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to service bicycle wheels and hubs, including:
 - information provided by customer and supervisors
 - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to service bicycle wheels and hubs, including:
 - establishing serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment
 - storage of equipment
 - identification, tagging and isolation of faulty equipment
 - disposal of excess materials
 - recycling procedures
- work health and safety (WHS) 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, including:
 - spoke, disc and tri-spoke wheels
 - conventional, clincher, tubular, aero, deep dished and composite material wheel rims
 - 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
- 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
 - identifying wheel and hub service needs
 - selection and checking of personal protective equipment
 - 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

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.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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