



Australian Government

AURBTY001 Repair bicycle frames

Release: 1

AURBTY001 Repair bicycle frames

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to inspect, repair and test bicycle frames. It involves preparing for the work, selecting and using specialist tools and equipment, identifying frame damage, identifying repair options, carrying out repairs according to manufacturer specifications, and completing workplace processes and documentation.

It applies to those working in the bicycle retail, service and repair industry. It does not apply to the repair of carbon fibre bicycle frames.

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

Competency Field

Bicycle

Unit Sector

Technical - Chassis and Frame

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 bicycle frame	1.1 Job requirements are determined from workplace instructions 1.2 Bicycle manufacturer specifications 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

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.
	(PPE), are selected and checked for serviceability 1.5 Work area is prepared and work is planned to avoid damage to bicycle, minimise waste and use time efficiently
2. Inspect bicycle frame	2.1 <i>Bicycle frame</i> to be repaired is identified and checked against job requirements 2.2 Bicycle frame is inspected for faults, wear or damage using visual inspection methods and by comparing measurements against manufacturer specifications 2.3 Repair options for bicycle frame are identified and confirmed with customer 2.4 Required parts and materials are identified and their availability checked 2.5 Work area is prepared and repair sequence, including post-repair testing, is planned to avoid damage to bicycle, minimise waste and use time efficiently
3. Carry out repairs to bicycle frame	3.1 Bicycle frame is <i>repaired</i> according to workplace instructions, manufacturer specifications, and <i>safety and environmental requirements</i> 3.2 Required replacement parts are checked and fitted according to manufacturer specifications, and identified problems are reported to appropriate person 3.3 Repaired frame is checked and tested against manufacturer specifications 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.
Writing skills to:	legibly and accurately fill out workplace documentation, including repair reports.
Oral communication skills to:	ask questions to clarify instructions and procedures.
Numeracy skills to:	identify component codes and serial numbers relating to frame manufacturer specifications.
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>Bicycle frame</i> must be from the following types of bicycles:	- mountain bicycle - road bicycle - touring bicycle - hybrid bicycle - recumbent bicycle - BMX bicycle.
<i>Repair</i> must include:	- facing, reaming, and chasing threads and alignment - left and right hand threads.
<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 - identifying workplace hazards - using tools and equipment, including PPE - environmental requirements, including procedures for disposing of waste materials.

Unit Mapping Information

Equivalent to AURBTY3001 Service and repair bicycle frames

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 AURBTY001 Repair bicycle frames

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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 three different types of bicycle frames according to manufacturer specifications, chosen from the following:
 - mountain bicycle
 - road bicycle
 - touring bicycle
 - hybrid bicycle
 - recumbent bicycle
 - BMX bicycle.

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 bicycle frames, including procedures for:
 - manually handling bicycles
 - identifying workplace hazards
 - using personal protective equipment (PPE)
- environmental requirements, including procedures for disposing of waste materials
- key bicycle terminology relating to frames
- different bicycle frames specified in the performance evidence and their components, including:
 - braking system
 - wheel sizes
 - drivetrain system

- steering system
- types and use of tools, equipment and materials used to repair bicycle frames
- techniques for repairing bicycle frames, including:
 - measuring techniques
 - frame preparation techniques
 - frame repair options
 - testing procedures and safety checks.

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 frames that they have repaired, e.g. work 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
- manufacturer specifications for bicycle frames
- PPE required to repair bicycle frames
- three different bicycle frames requiring repair
- tools and equipment appropriate for repairing bicycle frames.

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