



Australian Government

AURBTA005 Restore bicycles

Release: 1

AURBTA005 Restore bicycles

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to restore a used or vintage bicycle to original condition and full function. It involves preparing for the work, selecting and using specialist tools and equipment, selecting and matching bicycle components, identifying any required external services, dismantling, reassembling, adjusting and testing the bicycle, 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

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 for bicycle restoration	1.1 Job requirements are determined from workplace instructions 1.2 Bicycle type, make and model are identified 1.3 Bicycle specifications and original components are located 1.4 Suppliers of new or used original components are identified and sourced

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.
	1.5 Work is planned to minimise component damage and waste, and use time efficiently
2. Inspect bicycle	2.1 Bicycle systems and components are inspected for faults and worn or damaged components, and measurements are taken as required 2.2 Original bicycle condition and specifications are compared with job requirements 2.3 Replacement and repair options for bicycle components, including parts and labour outsourcing, are identified 2.4 Required restoration work and associated cost are documented and customer approval is obtained
3. Dismantle bicycle	3.1 Hazards associated with the work are identified and risks are managed 3.2 Tools and equipment, including personal protective equipment (PPE), are selected and checked for serviceability 3.3 Work area is prepared and materials are selected according to job requirements 3.4 Bicycle is dismantled and components are tagged according to workplace procedures and safety and environmental requirements
4. Restore bicycle	4.1 Individual components are repaired as necessary according to manufacturer specifications, workplace procedures, and safety and environmental requirements 4.2 Work that cannot be carried out is outsourced as required 4.3 Repaired and replaced bicycle components and accessories are reassembled, fitted to the bicycle with correct fastener tensions, and lubricated and adjusted according to manufacturer specifications, workplace procedures, and safety and environmental requirements 4.4 Assembled bicycle is inspected and tested for correct tension of components and operation, and adjusted as required according to workplace procedures
5. Complete work processes	5.1 Final inspection is made to ensure work meets workplace expectations and bicycle is presented ready for use 5.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored 5.3 Tools and equipment are checked, reported if faulty, and stored according to workplace procedures 5.4 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 inspection reports.
Numeracy skills to:	- interpret numerical information to match component codes, serial numbers and manufacturer specifications - measure bicycle components and use basic mathematical operations, including addition and subtraction, to calculate distances and deviations from manufacturer specifications.
Planning and organising skills to:	- plan own work requirements and prioritise actions to achieve required outcomes and ensure tasks are completed within workplace timeframes - source new or used original bicycle components.
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>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 - working with specialist bicycle tools and equipment - environmental requirements, including procedures for trapping, storing and disposing of waste grease and oils.
<i>Testing</i> must include testing for:	- gear changing, as required - handling, turning and steering - seat, handlebar, control and reflector position - component fastener tension.

Unit Mapping Information

Equivalent to AURBTA3005 Restore bicycles

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 AURBTA005 Restore bicycles

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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:

- restore a used or vintage bicycle and its following components to original condition and full function according to customer requirements and work instructions:
 - frame
 - wheels and rims
 - drivetrain system and gears
 - braking system
 - steering and suspension systems.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to restoring bicycles, including procedures for:
 - manually handling bicycles
 - working with specialist bicycle tools and equipment
- environmental requirements, including procedures for trapping, storing and disposing of waste grease and oils
- application, purpose and function of key bicycle components, including appropriate new and used parts
- types and use of tools and equipment used to restore, assemble and adjust bicycles
- bicycle types, accessories and component fitting methods
- bicycle restoration procedures, including:
 - procedures for planning bicycle restorations
 - bicycle measuring techniques

- bicycle component assembly and adjustment methods
- bicycle component fitting, testing and adjustment methods, including fastener tensioning methods
- bicycle testing procedures, including post-assembly adjustment 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 used or vintage bicycle that they have restored, 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
- bicycle manufacturer specifications
- a used or vintage bicycle with the components specified in the performance evidence requiring restoration
- tools, equipment and materials appropriate for restoring used or vintage bicycles.

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