



Australian Government

Department of Education, Employment and Workplace Relations

AURB211304B Assemble bicycles

Release: 1

AURB211304B Assemble bicycles

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit of competency describes the skills and knowledge required to assemble bicycles from a semi-assembled state.</p> <p>It requires the ability to understand specifications and use tools and equipment to fit and adjust bicycle components and accessories to Australian standards.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who undertake the selection, fitting and adjustment of bicycle components and accessories and final assembly of bicycles in a bicycle retail, service and repair environment.</p> <p>For assembly of new (box) bicycles, <i>AURB211305A Assemble box bicycle for retail sale</i>, should be selected.</p> <p>Work requires individuals to demonstrate some judgement and problem-solving skills in managing own work activities and contributing to a productive team environment.</p>
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	1.1. Check and confirm customer requirements in accordance with workplace procedures 1.2. Research bicycle assembly requirements and access and check specifications 1.3. Check tooling and equipment prior to use, for availability and conformity with specifications and safe condition 1.4. Prepare work area and set up equipment and materials
2. Select/unpack bicycle components	2.1. Plan unpacking and assembly sequence 2.2. Remove packing material without causing damage to frame or other components or accessories 2.3. Determine condition of components by inspection and measurement and compare with specifications and customer use requirements 2.4. Identify damaged and/or missing frames and components and report/replace according to workshop procedures
3. Fit, test and adjust bicycle components	3.1. Perform fitting operation for bicycle components according to plan using personal safety equipment and precautions to protect others in the workplace 3.2. Select and use tooling and equipment in accordance with occupational health and safety (OHS) requirements 3.3. Check fitted bicycle components, complete adjustments, and prepare unit for delivery
4. Complete work and clean-up	4.1. Store portable tooling and equipment in approved designated areas 4.2. Update workplace records, customer file and warranty information as required by enterprise 4.3. Clean up work area and dispose of packing materials in accordance with workplace procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- technical skills to the level required to safely use tooling and equipment to assemble a bicycle, test the unit and make adjustments
- communication skills to the level required to confirm work requirements and specifications, to communicate effectively regarding work requirements with supervisor, other workers and customers, to report work outcomes and problems, and to relate to people from a range of social, cultural and ethnic backgrounds and of varying physical and mental abilities
- literacy skills to the level required to understand information related to work orders, including common industry terminology, plans and safety procedures, to prepare reports, and interpret technical information and specifications
- numeracy skills to the level required to correctly complete tests and measurements to determine safe assembly and operation
- problem-solving skills to the level required to identify technical and procedural problems to avoid planning and scheduling problems, and time and material wastage
- team skills to the level required to work effectively and cooperatively with others to optimise workflow and productivity

Required knowledge

Required knowledge includes:

- bicycle anatomy and terminology
- manufacturer and/or component supplier specifications
- component function and application
- material used in accessories and fittings
- classification of accessory and fitting types
- assembly procedures
- testing procedures and adjustment methods
- tools and equipment used in bicycle assembly
- Australian standards applicable to bicycles
- applicable commonwealth, state or territory legislation, regulations, standards and codes of practice, including OHS, personal safety and environment, relevant to assembling bicycles
- organisational policies and procedures, including quality requirements, reporting and recording procedures, and work organisation and planning processes, related to assembling bicycles

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently:

- observe safety procedures and requirements
- communicate effectively with others involved in or affected by the work
- select methods and techniques appropriate to the circumstances
- complete preparatory activity in a systematic manner
- conduct removal, replacement, tensioning and adjustment of a range of components and common accessories in accordance with workplace and manufacturer/component supplier requirements
- complete removal and adjustment of components and accessories within workplace timeframes
- present bicycle for delivery to customer in compliance with workplace requirements and Australian standards.

Context of, and specific resources for assessment

- The application of competency is to be assessed in the workplace or a simulated environment that reflects as far as possible the actual working environment.
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.
- Assessment is to comply with relevant regulatory requirements, including specified Australian standards.
- Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.
- The following resources should be made available:
 - a range of bicycle models and components
 - equipment, hand and power tools appropriate to assembling bicycles
 - technical specifications and standards
 - workplace documentation.

EVIDENCE GUIDE**Method of assessment**

- Assessment must satisfy the endorsed Assessment Guidelines of this Training Package.
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of Required Skills and Knowledge.
- Assessment methods must be by direct observation of tasks and include questioning on Required Skills and Knowledge to ensure its correct interpretation and application.
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process.
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.
- Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.

Guidance information for assessment

Assessment processes and techniques must be culturally sensitive and appropriate to the language and literacy capacity of the candidate and the work being performed.

Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Bicycles

Bicycles may include:

- those with and without gears, and with lever operated brakes
- children and adult models of different heights
- mountain, road, hybrid, BMX, track and trials models

RANGE STATEMENT	
Tooling and equipment	<p>Tooling and equipment may include:</p> <ul style="list-style-type: none"> • hand tooling • hand-held power tooling • floor stands, workbench and air tooling
Assembly methods	<p>Assembly methods may include:</p> <ul style="list-style-type: none"> • fitting and manual adjustments of components and accessories • measuring, screwing, bonding, clamping, filing, riveting and drilling • greasing and lubrication • torque settings
Materials	<p>Materials may include:</p> <ul style="list-style-type: none"> • tapes • fitting consumables • cleaning materials
Assembly tasks	<p>Assembly tasks may include:</p> <ul style="list-style-type: none"> • basic adjustments and setup of a cycle • frame alignment and preparation • headset fitting and adjustment • brake fitting and adjustment, cable and general hydraulic • gear fitting and adjustment, including dérailleurs and hub gears, shifters, chain, cassette, chain set and bottom bracket • wheel fitting and adjustment • peddles • saddles
Testing	<p>Testing is to confirm:</p> <ul style="list-style-type: none"> • safety and efficiency • stable handling, turning and steering • no failure in parts of the bicycle • no loosening or misalignment of seat, handlebars, controls or reflectors • no loss of components or accessories
Information/documents	<p>Information/documents may include:</p> <ul style="list-style-type: none"> • verbal or written and graphical instructions, signage, work schedules/plans/specifications,

RANGE STATEMENT	
	<p>work bulletins, memos, material safety data sheets (MSDS), diagrams or sketches</p> <ul style="list-style-type: none"> • safe work procedures related to assembling bicycles • regulatory/legislative requirements pertaining to bicycle safety • engineer's design specifications and instructions • organisation work specifications and requirements • instructions issued by authorised enterprise or external persons • Australian standards
OHS requirements	<p>OHS requirements are to be in accordance with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:</p> <ul style="list-style-type: none"> • personal protective equipment and clothing • safety equipment • first aid equipment • hazard and risk control • elimination of hazardous materials and substances • manual handling, including shifting, lifting and carrying • emergency procedures
Legislative requirements	<p>Legislative requirements are to be in accordance with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice, and may include:</p> <ul style="list-style-type: none"> • award and enterprise agreements • industrial relations • Australian standards • Australian Design Rules • confidentiality and privacy • OHS • the environment • equal opportunity • anti-discrimination • relevant industry codes of practice • duty of care

RANGE STATEMENT	
Environmental requirements	Environmental requirements may include: <ul style="list-style-type: none"> • waste management • noise • dust • clean-up management
Quality requirements	Quality requirements may include: <ul style="list-style-type: none"> • regulations, including Australian standards • internal organisational quality policies and procedures • enterprise operations and procedures
Organisational policies and procedures	Organisational policies and procedures may include: <ul style="list-style-type: none"> • quality policies and procedures, including Australian standards • OHS, sustainability, environment, equal opportunity and anti-discrimination • manufacturer specifications and industry codes of practice • safe work procedures • reporting and recording procedures

Unit Sector(s)

Unit sector	Bicycle
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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