



**Australian Government**

# **AURBTJ2001 Remove, repair and fit bicycle tyres**

**Release 1**

## AURBTJ2001 Remove, repair and fit bicycle tyres

### Modification History

Release	Comment
Release 1	Replaces AURB218168B Remove, repair and fit bicycle tyres Unit code updated to meet policy requirements Reference to OHS legislation replaced with new WHS legislation

### Unit Descriptor

Unit descriptor	This unit of competency describes the skills and knowledge required to remove, repair and fit bicycle tyres and complete documents.  No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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### Application of the Unit

Application of the unit	This unit applies to individuals who undertake the removal, repair and fitting of bicycle tyres in a bicycle retail, service and repair environment.  Work requires individuals to demonstrate some judgement and problem-solving skills in managing own work activities and contributing to a productive team environment.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

Not applicable.

## Employability Skills Information

<b>Employability skills</b>	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 required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Gather information on bicycle tyre	1.1. Check customer requirements in accordance with workplace procedures 1.2. Confirm intended use of tyre by discussions with customer 1.3. Research bicycle tyre fitting requirements and access and check specifications 1.4. Check tooling and equipment prior to use for conformity with specifications and safe condition 1.5. Determine condition of tyre by visual and tactile inspections and pressure measurement 1.6. Compare conditions found with bicycle tyre specifications and customer use requirements 1.7. Cost repairs and additional work and gain customer approval
2. Prepare for removal, repair and fitting of a bicycle tyre and tube	2.1. Plan removal, repair and fitting sequence and determine availability of tooling and equipment 2.2. Ensure plan includes post-fitting testing and checking process 2.3. Select tooling and equipment to meet job requirements and set up work area
3. Remove fit, and test bicycle tyre and tube	3.1. Perform removal, repair and fitting operation for bicycle tyre and tube according to plan 3.2. Select, use and maintain tooling and equipment in accordance with workplace health and safety (WHS) requirements 3.3. Perform fitting and repair operations using personal safety equipment and precautions to protect others in the workplace 3.4. Check customer requirements and bicycle tyre and tube specifications following fitting procedures 3.5. Check fitted bicycle tyre and tube, complete pressure 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. Prepare accounts and invoices as required by enterprise 4.4. Clean up work area and dispose of packing materials in accordance with workplace procedures

## 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 remove, repair and fit bicycle tyres
- 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 count and measure accurately
- 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
- classification of tyres and tubes and fitting types
- purpose and requirements of bicycle tyres and tubes and their relationship to wheels, steering systems, suspension, drivetrain, frame and braking system
- application of mechanical and pneumatic principles
- material used in bicycle tyres and tubes
- removal, repair and fitting procedures and techniques
- Australian standards applicable to bicycles
- applicable commonwealth, state or territory legislation, regulations, standards and codes of practice, including WHS, personal safety and environment, relevant to removal, repair and fitting of bicycle tyres
- organisational policies and procedures, including quality requirements, reporting and recording procedures, and work organisation and planning processes, related to removal, repair and fitting of bicycle tyres

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<p>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.</p>	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Assessors must be satisfied that the candidate can competently and consistently:</p> <ul style="list-style-type: none"> <li>• observe safety procedures and requirements</li> <li>• communicate effectively with others involved in or affected by the work</li> <li>• select methods and techniques appropriate to the circumstances</li> <li>• complete preparatory activity in a systematic manner</li> <li>• remove, inspect, repair and fit a range of bicycle tyres to different rim configurations to manufacturer/component supplier specifications.</li> </ul>
<b>Context of, and specific resources for assessment</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.</li> <li>• Assessment is to comply with relevant regulatory requirements, including specified Australian standards.</li> <li>• Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</li> <li>• The following resources should be made available: <ul style="list-style-type: none"> <li>• a range of bicycle tyres and rim configurations</li> <li>• equipment, hand and power tools appropriate to removal, repair and fitting of bicycle tyres</li> <li>• technical specifications and standards</li> <li>• workplace documentation.</li> </ul> </li> </ul>
<b>Method of assessment</b>	<ul style="list-style-type: none"> <li>• Assessment must satisfy the endorsed Assessment Guidelines of this Training Package.</li> <li>• 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.</li> <li>• Assessment methods must be by direct observation of tasks and include questioning on Required Skills and Knowledge to ensure its correct interpretation and application.</li> </ul>

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"><li>• Assessment may be applied under project-related conditions (real or simulated) and require evidence of process.</li><li>• 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.</li><li>• Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.</li></ul>
<b>Guidance information for assessment</b>	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.

<b>Bicycles</b>	<p>Bicycles may include:</p> <ul style="list-style-type: none"> <li>• those with and without gears, and with lever operated brakes</li> <li>• children and adult models of different heights</li> <li>• mountain, road, hybrid, BMX, track and trials models</li> </ul>
<b>Tyres</b>	<p>Tyres may include:</p> <ul style="list-style-type: none"> <li>• road</li> <li>• track</li> <li>• heavy duty</li> <li>• tubed</li> <li>• tubeless</li> <li>• solid tyres</li> </ul>
<b>Rims</b>	<p>Rims may include:</p> <ul style="list-style-type: none"> <li>• steel</li> <li>• aluminium</li> <li>• deep dish</li> <li>• aero</li> <li>• composite material</li> <li>• disc type rims</li> </ul>
<b>Tooling and equipment</b>	<p>Tooling and equipment may include:</p> <ul style="list-style-type: none"> <li>• specific tyre removing, repairing, fitting and general workshop equipment tooling</li> <li>• specific testing equipment and pneumatic inflation equipment</li> <li>• floor stands, workbench and air tooling</li> </ul>
<b>Materials</b>	<p>Materials may include:</p> <ul style="list-style-type: none"> <li>• spare parts</li> <li>• adhesives and cleaning agents</li> <li>• plastic, rubber and cloth rim tapes</li> <li>• cleaning materials</li> </ul>
<b>Information/documents</b>	<p>Information/documents may include:</p> <ul style="list-style-type: none"> <li>• verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material</li> </ul>



<b>RANGE STATEMENT</b>	
	<p>safety data sheets (MSDS), diagrams or sketches</p> <ul style="list-style-type: none"> <li>• safe work procedures related to removal, repair and fitting of bicycle tyres</li> <li>• regulatory/legislative requirements pertaining to bicycle safety</li> <li>• engineer's design specifications and instructions</li> <li>• organisation work specifications and requirements</li> <li>• instructions issued by authorised enterprise or external persons</li> <li>• Australian standards</li> </ul>
<b>WHS requirements</b>	<p>WHS 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"> <li>• personal protective equipment and clothing</li> <li>• safety equipment</li> <li>• first aid equipment</li> <li>• hazard and risk control</li> <li>• elimination of hazardous materials and substances</li> <li>• manual handling, including shifting, lifting and carrying</li> <li>• emergency procedures</li> </ul>
<b>Legislative requirements</b>	<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"> <li>• award and enterprise agreements</li> <li>• industrial relations</li> <li>• Australian standards</li> <li>• Australian Design Rules</li> <li>• confidentiality and privacy</li> <li>• WHS</li> <li>• the environment</li> <li>• equal opportunity</li> <li>• anti-discrimination</li> <li>• relevant industry codes of practice</li> <li>• duty of care</li> </ul>
<b>Environmental requirements</b>	<p>Environmental requirements may include:</p> <ul style="list-style-type: none"> <li>• waste management</li> <li>• noise</li> <li>• dust</li> <li>• clean-up management</li> </ul>
<b>Quality requirements</b>	<p>Quality requirements may include:</p>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• regulations, including Australian standards</li> <li>• internal organisational quality policies and procedures</li> <li>• enterprise operations and procedures</li> </ul>
<b>Organisational policies and procedures</b>	<p>Organisational policies and procedures may include:</p> <ul style="list-style-type: none"> <li>• quality policies and procedures, including Australian standards</li> <li>• WHS, sustainability, environment, equal opportunity and anti-discrimination</li> <li>• manufacturer specifications and industry codes of practice</li> <li>• safe work procedures</li> <li>• reporting and recording procedures</li> </ul>

### **Unit Sector(s)**

<b>Unit sector</b>	Bicycle
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### **Co-requisite units**

Not applicable.

### **Competency field**

<b>Competency field</b>	Technical - Wheels and Tyres
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