

Title	Repair bicycle components		
Level	4	Credits	14

Purpose	<p>This unit standard is for people who work in bicycle repair workshops.</p> <p>People credited with this unit standard are able to identify and repair faults in bicycle components; and test repaired bicycle components in accordance with organisational procedures.</p>
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Classification	Retail, Distribution, and Sales > Bicycle Sales and Servicing
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Available grade	Achieved
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Entry information	
Recommended skills and knowledge	Unit 20182, <i>Use equipment in a bicycle workshop</i> , and Unit 20185, <i>Identify and carry out repairs needed in bicycle components</i> .

Explanatory notes

- All tasks are to be carried out in accordance with organisational procedures, the organisation being the enterprise carrying out the work.
- Performance of the outcomes of this unit standard must comply with the following standards, available through www.standards.govt.nz:
 Australian/New Zealand Standards
 - AS/NZS 1927: 2010 *Pedal bicycles – Safety requirements*;
 New Zealand Standards
 - NZS 5441.1:1987 *Lighting and retroreflectors for pedal cycles – Specification for lamp units and retroreflectors suitable for fitting to pedal cycles*;
 - NZS 5441.2:1987 *Lighting and retroreflectors for pedal cycles – Code of practice for the fitting of lamp units and retroreflectors to pedal cycles*.
- Reference texts* may include but are not limited to – Barnett, John. *Barnett's Manual DX*. Current edition. Colorado Springs, CO: Barnett Bicycle Institute, and those that come with the bicycle.
- Any relevant Acts, regulations, and bylaws must be complied with during assessment against this standard.

5 Definitions

Organisational procedures referred to in this unit standard may include but are not limited to the applicable procedures found in the following: organisational performance guidelines and standards; manufacturer's procedures and specifications; Government and local body legislation.

Tools and equipment means industry approved tools and equipment that are recognised within the industry as being the most suited to complete a task in a safe, professional and competent manner.

Bicycle components may include but are not limited to –

wheels – hubs, spokes, rims, tyres, tubes;

drive chain – bottom bracket, chain wheel, chain, pedals, cluster;

gears – shifters, cables, derailleurs;

brakes – levers, cables, callipers, pads;

steering – headset, stem, bars, grips;

frames – drop out, forks, suspension, frame parts;

seat – seat, post.

- 6 Assessment evidence must be provided while carrying out commercial jobs in the workplace under normal workplace conditions.

Outcomes and evidence requirements

Outcome 1

Identify faults in bicycle components.

Evidence requirements

- 1.1 Faults are identified accurately using the correct tools and equipment.
- 1.2 Faults covered by the Consumer Guarantees Act 1993 or warranties are identified and recorded.

Outcome 2

Repair faults in bicycle components.

Range Evidence is required for the repair of a hydraulic front suspension fork, the repair of hydraulic disc brake, the building of a multi-speed rear wheel.

Evidence requirements

- 2.1 All required repairs are identified for each fault.
- 2.2 Repairs are carried out.
- 2.3 Broken and bent parts are repaired or replaced.
- 2.4 Moving parts are set up.
- 2.5 Tools and equipment used enable repairs to be carried out.

- 2.6 Repairs are completed within quoted or estimated timeframes to meet customer requirements.
- 2.7 Components are repaired so the bicycle meets the requirements of the relevant Australian/New Zealand Standards.
- 2.8 Work documentation is completed.

Outcome 3

Test repaired bicycle components.

Range Evidence is required for the repair of a hydraulic front suspension fork, the repair of hydraulic disc brake, the building of a multi-speed rear wheel.

Evidence requirements

3.1 Repaired components are tested for safety and efficiency.

Range safety and efficiency includes but is not limited to – stable handling, turning and steering; no failure in parts of the bicycle; no loosening or misalignment of seat, handlebars, controls, reflectors; no loss of components or accessories.

Planned review date	31 December 2021
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 February 2004	31 December 2018
Rollover and Revision	2	20 June 2008	31 December 2018
Review	3	8 December 2016	N/A

Consent and Moderation Requirements (CMR) reference	0225
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact ServiceIQ qualifications@ServiceIQ.org.nz if you wish to suggest changes to the content of this unit standard.