

Title	Demonstrate knowledge of motorcycle wheel assemblies, and repair them		
Level	3	Credits	4

Purpose	This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to: demonstrate knowledge of motorcycle wheel assemblies; diagnose the wheel assembly condition; repair a spoked wheel; and repair a composite construction wheel assembly.
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Classification	Motor Industry > Vehicle Steering and Suspension
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Available grade	Achieved
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Explanatory notes

- 1 The following regulations and amendments are required to be consulted and followed where applicable:
 - Traffic Regulations, 1976
 - Transport (Vehicle Standards) Regulations, 1990.

- 2 Repairs to aluminium alloy wheels that involve any heating or welding of any part is **not allowed** under the Transport (Vehicle Standards) Regulations 1990.

Only minor cosmetic repairs are permissible involving for example, the polishing out of a burr.

- 3 Because of the particular nature of this unit standard, it is essential that the practical assessment evidence is obtained from commercial jobs in the workplace under normal workplace conditions.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of motorcycle wheel assemblies.

Evidence requirements

- 1.1 Warrant of Fitness Regulations as they apply to wheel assemblies are described according to traffic regulations.

Range	front and rear wheel bearings, front and rear wheel springing, worn components that effect the steering, security of assembly, alignment.
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- 1.2 Lateral and radial run-out tolerances are described in relation to wheel assemblies.
- 1.3 The various rim and wheel types are described according to manufacturer's specifications.
- Range composite construction, pressed, spoked, cast.
- 1.4 Spoke patterns, types, and threads are identified in relation to spoked wheel assemblies.
- 1.5 Wheel offset in relation to hubs is described according to manufacturer's workshop manual description.
- 1.6 The inspection and servicing of wheel assemblies are described according to manufacturer's workshop manual instructions.
- Range truing, balancing, bearing and seal replacement, sprocket drive assemblies, bushings, rims.

Outcome 2

Diagnose the wheel assembly condition.

Range composite construction, pressed, spoked, cast.

Evidence requirements

- 2.1 Safe working practices are observed throughout the task.
- Range personal safety, safety of others, equipment and machine safety.
- 2.2 The wheel assembly is inspected for faults and a report given to the supervisor.
- Range visual inspection, cleaning components, measuring lateral and radial run-out.
- 2.3 Suitable tools and equipment are selected and used that enable components to be dismantled.
- 2.4 Component parts are dismantled in a logical sequence in accordance with manufacturer's workshop manual instructions, and an assessment of their condition is made.
- 2.5 The feasibility of a repair is determined, based on relevant factors.
- Range type and extent of repair required, cost of repair, adherence to Traffic Regulations, guarantee.
- 2.6 A recommendation based on the feasibility of repair is presented to the supervisor.

Outcome 3

Repair a spoked wheel.

Evidence requirements

- 3.1 Safe working practices are observed throughout the task.
- Range personal safety, safety of others, equipment and machine safety.
- 3.2 Hub bearings are serviced according to motorcycle manufacturer's workshop manual instructions.
- Range cleaning, inspecting condition, repacking, replacing, tensioning.
- 3.3 Wheel off-set is determined as specified by the manufacturer.
- 3.4 Suitable tools and equipment are selected and used that enable the wheel assembly to be rebuilt.
- 3.5 The spoked wheel is rebuilt to motorcycle manufacturer's specifications.
- Range dismantling spokes, making spoke selection, reassembling spokes to hub and rim, truing rim, tensioning spoke assembly.
- 3.6 The spokes are re-tensioned after the settling period.

Outcome 4

Repair a composite construction wheel assembly.

Evidence requirements

- 4.1 Safe working practices are observed throughout the task.
- Range personal safety, safety of others, equipment and machine safety.
- 4.2 Suitable tools and equipment are selected and used that enable the wheel assembly to be repaired.
- 4.3 The hub bearings are serviced according to motorcycle manufacturer's workshop manual instructions.
- 4.4 The wheel assembly is reassembled according to motorcycle manufacturer's workshop manual instructions.
- 4.5 Rivets and bolts are checked and repaired according to motorcycle manufacturer's specifications.

Replacement information	This unit standard and unit standard 15472 have been replaced by unit standard 24403, unit standard 24404, and unit standard 24405.
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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 September 1994	31 December 2016
Review	2	21 February 1999	31 December 2016
Review	3	25 January 2008	31 December 2016
Rollover	4	19 November 2010	31 December 2016
Rollover	5	18 February 2016	31 December 2020

Consent and Moderation Requirements (CMR) reference	0014
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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, or an inter-institutional body with delegated authority for quality assurance, 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.

Consent requirements 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.