

Title	Repair motorcycle wheel assemblies		
Level	3	Credits	2

Purpose	This unit standard is for people in the motorcycle repair industry. People credited with this unit standard are able to: diagnose wheel assembly condition; repair a spoked wheel; and repair a composite construction wheel assembly.
----------------	--

Classification	Motor Industry > Vehicle Steering and Suspension
-----------------------	--

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Legislation and publications relevant to this unit standard include but are not limited to – Health and Safety in Employment Act 1992; Land Transport Rules: Tyres and Wheels 2001, Rule 32013; Vehicle Repair 1998, Rule 34001; *Vehicle Inspection Requirements Manual (VIRM) In-service Certification, Motorcycle section 10 Tyres, wheels and hubs*; *Health and Safety Guidelines for Tyre Fitters*, (Wellington: Occupational Safety and Health Service, Department of Labour, 2001).
- 2 Land Transport Rules are produced for the Minister of Transport by Land Transport New Zealand. These rules are available online at <http://www.landtransport.govt.nz/rules/>.
The VIRM is published by Land Transport New Zealand and is available online at <http://www.landtransport.govt.nz/certifiers/virm-in-service/index.html>.
Health and Safety Guidelines for Tyre Fitters is available online from the Department of Labour website <http://www.osh.govt.nz/order/catalogue/106.shtml>.
- 3 Definitions
Company requirements refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – company specifications and procedures, work instructions, manufacturer specifications, product quality specifications, and legislative requirements.
Service information may include but is not limited to – technical information of a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions and specifications; technical terms and descriptions; and detailed illustrations. This can be accessed in hard copy or electronic format and is normally sourced from the manufacturer.
Suitable tools and equipment means industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.

- 4 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.
- 5 Repairs to aluminium alloy wheels that involve any heating or welding of any part is not allowed under the Land Transport Rules. Only minor cosmetic repairs are permissible involving for example, the polishing out of a burr.
- 6 Recommended entry information: Unit 24403, *Demonstrate knowledge of motorcycle and all-terrain vehicle (ATV) wheel assemblies, tyres, and puncture repairs.*

Outcomes and performance criteria

Outcome 1

Diagnose wheel assembly condition.

Range composite construction, pressed, spoked, cast.

Performance criteria

- 1.1 Safe working practices are observed throughout the task in accordance with legislative requirements.

Range personal safety, safety of others, motorcycle safety, workshop safety, environmental safety, tools and equipment safety.
- 1.2 The wheel assembly is inspected for faults, and a report given to the supervisor, in accordance with service information.

Range visual inspection, cleaning components, measuring lateral and radial run-out.
- 1.3 Suitable tools and equipment are selected and used that enable components to be dismantled in accordance with service information.
- 1.4 Component parts are dismantled in a logical sequence, and an assessment of their condition made, in accordance with service information.
- 1.5 The feasibility of a repair is determined, based on relevant factors in accordance with company requirements.

Range relevant factors may include but are not limited to – type and extent of repair required, cost of repair, adherence to the VIRM requirements, guarantee.
- 1.6 A recommendation based on the feasibility of repair is presented to the supervisor in accordance with company requirements.

Outcome 2

Repair a spoked wheel.

Performance criteria

- 2.1 Safe working practices are observed throughout the task in accordance with legislative requirements.
- Range personal safety, safety of others, motorcycle safety, workshop safety, environmental safety, tools and equipment safety.
- 2.2 Hub bearings are serviced in accordance with service information.
- Range cleaning, inspecting condition, repacking, replacing, tensioning.
- 2.3 Wheel off-set is determined as specified by the manufacturer.
- 2.4 Suitable tools and equipment are selected and used that enable the wheel assembly to be rebuilt in accordance with service information.
- 2.5 The spoked wheel is rebuilt to motorcycle manufacturer specifications.
- Range dismantling spokes, making spoke selection, reassembling spokes to hub and rim, truing rim, tensioning spoke assembly.
- 2.6 The spokes are re-tensioned after the settling period in accordance with service information.

Outcome 3

Repair a composite construction wheel assembly.

Performance criteria

- 3.1 Safe working practices are observed throughout the task in accordance with legislative requirements.
- Range personal safety, safety of others, motorcycle safety, workshop safety, environmental safety, tools and equipment safety.
- 3.2 Suitable tools and equipment are selected and used that enable the wheel assembly to be repaired in accordance with service information.
- 3.3 The hub bearings are serviced in accordance with service information.
- 3.4 The wheel assembly is reassembled in accordance with service information.
- 3.5 Rivets and bolts are checked and repaired or replaced in accordance with service information.

Replacement information	This unit standard, unit standard 24403, and unit standard 24405 replaced unit standard 2327 and unit standard 15472.
--------------------------------	---

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	25 January 2008	31 December 2020
Review	2	26 April 2018	31 December 2020

Consent and Moderation Requirements (CMR) reference	0014
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.