

Title	Demonstrate knowledge of, and the procedures for carrying out, vehicle wheel alignment		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of vehicle wheel alignment, and procedures for carrying out a vehicle wheel alignment.
----------------	--

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

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

Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, and company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the Health and Safety at Work Act 2015; Land Transport Rule: Vehicle Repair 1998, Rule 34001; and any subsequent amendments and replacements.
- 3 Definitions
Company requirements refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.
Service information may include – technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of vehicle wheel alignment.

Performance criteria

1.1 Wheel alignment geometry is identified.

Range camber, caster, toe, toe out on turns, steering axis inclination, king pin inclination, track, wheelbase, ride height, scrub radius, rear thrust line, thrust angle, included angle.

1.2 Purpose of having wheel alignment adjusted is identified.

Range tyre wear, straight ahead driving, handling, braking.

1.3 Equipment used for measuring wheel alignment is described.

Range optical, laser.

Outcome 2

Demonstrate knowledge of procedures for carrying out a vehicle wheel alignment.

Performance criteria

2.1 The importance of obtaining information from the customer prior to diagnosing faults is described.

2.2 Workshop facilities for carrying out a wheel alignment are identified.

Range general workshop equipment, jacking or lifting equipment, pit or hoist, level floor.

2.3 Pre-check wheel alignment procedures are described.

Range test drive, steering components, suspension components, tyre wear, tyre inflation, ride height.

2.4 Wheel alignment faults are identified.

Range vehicle tracking or pulling to one side, steering wheel position incorrect, wheel shimmy, wheel tramp, steering light or heavy, braking instability, poor returnability of the steering wheel, wander and instability, tyre scuffing, memory steer, bump steer, oversteer, understeer.

2.5 Procedures for carrying out a wheel alignment are described.

Range equipment set-up, calibration, measurements, adjustments.

Planned review date	31 December 2024
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 November 2007	31 December 2021
Review	2	26 September 2019	N/A

Consent and Moderation Requirements (CMR) reference

0014

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

Comments on this unit standard

Please contact MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.