Title	**Demonstrate knowledge of heavy vehicle and trailer wheel and chassis alignment procedures**		
Level	**4**	**Credits**	**7**

Purpose	People credited with this unit standard are able to: demonstrate knowledge of wheel alignment pre-check procedures for heavy vehicles and trailers, and checking chassis alignment; and describe procedures for carrying out a wheel alignment on heavy vehicles and trailers.

Classification	Motor Industry > Vehicle Steering and Suspension

Available grade	Achieved

Guidance Information

1 It is recommended that people hold credit for Unit 24026, *Demonstrate knowledge of, and the procedures for carrying out, vehicle wheel alignment* before being assessed against this unit standard.

2 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.

3 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.

4 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 wheel alignment pre-check procedures for heavy vehicles and trailers.

Performance criteria

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

1.2 Wheel alignment pre-check procedures for heavy vehicles and trailers are described.

Range inspection of steering components, second steer system, suspension components, turntable, towing coupling, tyre wear, self-steer axles, lifting tag axles and steered tag axles; test drive.

1.3 Symptoms that could indicate faulty wheel alignment are identified.

Range includes but is not limited to – vehicle and/or trailer tracking and/or pulling to left or right, steering wheel position incorrect, steering not self centring, excessive road shock, wander and instability, tyre squeal and scuffing on turns, excessive body sway.

Outcome 2

Demonstrate knowledge of checking chassis alignment.

Performance criteria

2.1 Purpose of checking chassis alignment is described.

2.2 Types of measuring systems are identified.

Range tape measure, trammel gauge, centring gauges, universal measuring systems, laser systems, computerised systems.

2.3 Types of measurements used for chassis alignment are described.

Range datum, centre line, symmetrical and asymmetrical dimensions, three dimensional checking.

Outcome 3

Describe procedures for carrying out a wheel alignment on heavy vehicles and trailers.

Performance criteria

3.1 Procedures for carrying out a wheel alignment are described.

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

Replacement information	This unit standard replaced unit standard 15482.

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 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.