

<b>Title</b>	<b>Demonstrate knowledge of wheel tractor braking systems</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of: wheel tractor brake systems, servicing procedures, and fault diagnosis; wheel tractor hand brake and emergency brake systems, fault diagnosis, and repair procedures; and wheel tractor auxiliary braking systems.
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<b>Classification</b>	Motor Industry > Vehicle Braking Systems
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<b>Available grade</b>	Achieved
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### 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 Performance of the outcomes of this unit standard must comply with the following:  
Health and Safety at Work Act 2015;  
Land Transport Rule: Light-vehicle Brakes 2002;  
Land Transport Rule: Vehicle Repair 1998.
- 3 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 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* refers to information such as technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.  
*Suitable tools and equipment* refer to 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.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of wheel tractor brake systems, servicing procedures, and fault diagnosis.

Range outboard slow axle brakes, high speed axle shaft brakes (dry), high speed shaft axle brakes (wet), high speed transmission brakes (dry).

### Performance criteria

1.1 Safety requirements relating to workshop and field work are identified.

Range personal safety, safe jacking procedure and jacking points, lifting equipment, slings and chains.

1.2 Construction of tractor braking systems is described.

Range features, identification of parts, layout of parts.

1.3 Operation of tractor braking systems is described.

Range braking action (combination, independent).

1.4 Servicing and diagnostic procedures of wheel tractor braking systems are described.

1.5 Brake lining materials used for tractor braking systems are described.

Range asbestos and non-asbestos linings, bronze and steel plate discs.

1.6 Wet brake lubrication requirements are identified.

Range manufacturer specified oils, oil company specified oils, compatibility and interchangeability of oils, oil requirements.

### Outcome 2

Demonstrate knowledge of wheel tractor hand brake and emergency brake systems, fault diagnosis, and repair procedures.

Range high speed transmission shaft, transmission disc, main overriding system.

### Performance criteria

2.1 Construction of tractor hand brake and emergency braking systems are described.

Range features, identification of parts, layout of parts.

2.2 Braking action of a tractor wheel emergency braking system is described.

- 2.3 Diagnostic procedures of tractor hand brake and emergency braking systems are described.
- 2.4 Repair procedures of tractor hand brake and emergency braking systems are described.

### Outcome 3

Demonstrate knowledge of wheel tractor auxiliary braking systems.

Range overriding drawbar brakes, operator-controlled brakes.

### Performance criteria

- 3.1 Construction of tractor auxiliary braking systems is described.  
Range features, identification of parts, layout of parts.
- 3.2 Braking action and operation of tractor auxiliary braking systems are described.
- 3.3 Repair procedures of tractor auxiliary braking systems are described.

<b>Replacement information</b>	This unit standard and unit standard 24417 replaced unit standard 5437.
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<b>Planned review date</b>	31 December 2025
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### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 January 2008	31 December 2022
Review	2	29 July 2021	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0014
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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](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.