

<b>Title</b>	<b>Check, remove and refit wheels from heavy machines or equipment</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>7</b>

<b>Purpose</b>	This unit standard is for people in the automotive heavy and tyre industry. People credited with this unit standard are able to carry out maintenance checks on heavy machine or equipment tyres, remove wheels from heavy machines or equipment and refit wheels to heavy machines or equipment.
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<b>Classification</b>	Motor Industry > Tyres
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Evidence presented for assessment against the performance criteria of this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's specifications, service information, company 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 current version of– Health and Safety at Work Act 2015, Land Transport Rules: Tyres and Wheels 2001, Rule 32013; Vehicle Repair 1998, Rule 34001; and any subsequent amendments and replacements.
- 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 policies and procedures, work instructions, 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; technical terms and descriptions; and detailed illustrations. This may be accessed 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.

*Heavy machines and equipment* in this unit standard may include forklifts, earth moving equipment, grader equipment, loaders, dozers, tractors, and other heavy portable industrial equipment using tubed or tubeless radial and bias ply tyres or industrial cushion solid type (resilient) tyres.

**4 Range**

This unit standard includes – maintenance checks, and removal and refitting procedures for wheels only. Does not include the removal of the tyre from the wheel.

**5 Special safety requirements**

If the incorrect wheel nuts are loosened before PC 2.3 is undertaken, then a split rim may separate.

Some heavy machines and equipment models have inner and outer nuts that vary by only 1mm. Precautions must be taken by the candidate to prevent placing the nuts on the wrong studs in outcome 3.

For tyres with pressure that has dropped to less than 70% of recommended cold inflation in PC 1.1, the tyre pressure should not be adjusted. Instead, the tyre should be inspected as per PC 1.3 only.

**Outcomes and performance criteria****Outcome 1**

Carry out maintenance checks on heavy machine or equipment tyres.

**Performance criteria**

- 1.1 Inflation checks are carried out on cold tyres, tyres with pressures at or above 70% of the recommended cold inflation pressures are adjusted in accordance with tyre manufacturer specifications.
- 1.2 Hot pressure checks are performed to determine pressure build-up during operating conditions and any pressure build-up above 25% from cold settings is reported.
- 1.3 Visual inspection of the tyres is completed.
- Range may include – impact breaks and damage, cuts, tread depth, tread damage, wall damage.
- 1.4 Tyre maintenance checks are carried out on machines or equipment.
- Range may include– tyre to machine clearance; wedged stones; matching of dual tyres; overloading; repairs to cuts; oil, grease or fuel contamination; mechanical problems; rim damage; wheel damage; abnormal wear; air leaks; separation of tread or piles; tread depth; valve caps fitted; wheel nuts secure; locating key secure.

**Outcome 2**

Remove wheels from heavy machines or equipment.

Range may include – single wheels, dual wheels.

**Evidence requirements**

- 2.1 The machine or equipment is raised and secured to enable the wheel to be removed.
- 2.2 Tyre/s deflated to nominal pressure before removing the wheel from the machine or equipment.
- 2.3 The wheel is removed from the machine or equipment without causing damage.

**Outcome 3**

Refit wheels to heavy machines or equipment.

Range may include – single or dual wheels.

**Evidence requirements**

- 3.1 Wheel to be fitted is compatible to the machine or equipment’s application and conforms to machine or equipment manufacturer specifications.

Range may include – spacers, inner and outer nuts, location lugs, tyre type and size, tyre condition, load capacity.

- 3.2 The wheel is fitted to the machine or equipment without causing damage.

Range may include – inflation pressure to machine or equipment manufacturer specifications, machine lowered to the ground and rendered safe, nuts tightened diagonally and torqued to machine or equipment manufacturer specifications.

<b>Replacement information</b>	This unit standard and unit standard 30221 replaced unit standard 24462.
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<b>Planned review date</b>	31 December 2022
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	18 May 2017	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>.

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**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.