



Australian Government

MEM27029 Maintain wheels and tyres

Release: 1

MEM27029 Maintain wheels and tyres

Modification History

Release 1. Supersedes and is equivalent to MEM18038B Maintain wheels and tyres

Application

This unit of competency defines the skills and knowledge required to assess wheel condition, and repair/replace and maintain the wheel.

It covers the basic maintenance and repair or replacement of wheel rims and to the full range of wheel/tyre assemblies, plant and equipment using appropriate regulations, codes of practice, manufacturer specifications or in-house standards as a guide for assessment repair and assembly.

Where complex rim repairs are required appropriate fitting or welding units should also be selected.

Where interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of power tools/hand held operations is required unit MEM18002 Use power tools/hand held operations should also be selected.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools

Competency Field

Maintenance and diagnostics

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|-----------------------------------|-----|--|
| 1 | Determine job requirements | 1.1 | Follow standard operating procedures (SOPs) |
| | | 1.2 | Comply with work health and safety (WHS) requirements at all times |
| | | 1.3 | Use appropriate personal protective equipment (PPE) in accordance with SOPs |
| | | 1.4 | Identify job requirements from specifications, job sheets or work instructions |
| 2 | Assess wheel condition | 2.1 | Apply rim/tyre designs, constructions, codes, balancing, fastening principles and terminology when assessing wheel condition |
| | | 2.2 | Assess fastening components for damage and security |
| | | 2.3 | Recognise abnormal tyre wear and determine cause of fault |
| | | 2.4 | Recognise unsafe tyre and/or wheel condition and determine remedial action |
| 3 | Rectify and maintain wheel | 3.1 | Adhere to safety procedures associated with tyre/wheel removal, handling, inflation, assembly and disassembly and fastening |
| | | 3.2 | Remove wheels/tyres and replace using appropriate tools, equipment and techniques |
| | | 3.3 | Apply tools and equipment in accordance with SOPs |
| | | 3.4 | Perform ballasting and/or inflation of tyres to specification |
| | | 3.5 | Perform static/dynamic balancing of wheels to specification |
| | | 3.6 | Rectify rim/tyre/tube faults to specifications, regulations or codes |
| | | 3.7 | Lubricate wheel bearings to specification |
| | | 3.8 | Record all service/rectification activities |

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

No range of conditions provided for this unit.

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

Assessment Requirements for MEM27029 Maintain wheels and tyres

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting specifications, charts, lists and other applicable reference documents to maintain wheels and tyres
- checking wheels and tyres for compliance to specifications
- inspecting wheel fastening components for damage and security and tyres for abnormal wear
- identifying corrective action to be taken for unsafe tyre and wheel condition
- removing and replacing wheels/tyres using appropriate tools, equipment and techniques
- undertaking ballasting and/or inflation of tyres and balancing wheels to specifications
- identifying and repairing rim, tyres and tube faults to specifications
- lubricating wheel bearings in accordance with specifications
- recording/reporting all service/work activities in accordance with SOPs.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- design and construction of a variety of rims and tyres
- principles of fastening and balancing of wheels
- relevant codes and standards
- procedures for:
 - checking wheels for damage and secure fastening and reasons that apply
 - removing, handling, inflating, assembling/disassembling and fastening of tyres and wheels and tools, techniques and equipment to be used
 - static and dynamic balancing of wheels and reasons for selecting the chosen tools, techniques and equipment
 - repairing rim, tyre and tube faults and tools, techniques and equipment to be used
 - recording repairs undertaken on rims, tyres and tubes
 - lubricating wheel bearings and the type of lubricant and their application that applies

- causes of abnormal tyre wear and examples and causes of unsafe tyre and wheel condition
- examples of unrepairable rim, tyre and tube faults.

Assessment Conditions

- Assessors must:
 - have vocational competency in maintaining wheels and tyres at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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