



Australian Government

AURKTJ002 Remove, inspect and fit earthmoving and off-the-road wheel and rim assemblies

Release: 2

AURKTJ002 Remove, inspect and fit earthmoving and off-the-road wheel and rim assemblies

Modification History

Release	Comment
Release 1	New unit of competency
Release 2	Minor changes to the application, performance criteria, foundation skills, range of conditions, performance evidence, knowledge evidence and assessment requirements

Application

This unit describes the performance outcomes required to remove, inspect and fit earthmoving and off-the-road (OTR) wheel and rim assemblies and fasteners.

It applies to those who fit wheel assemblies and rim assemblies of not less than 600 mm (24 inches) nominal diameter.

Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.

Competency Field

Mechanical - Mobile Plant

Unit Sector

Technical - Wheels and Tyres

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
1. Prepare to remove wheel and rim assembly from a vehicle	1.1 Australian standards for earthmoving and OTR wheel and rim assemblies, workplace procedures and safety requirements are identified and interpreted 1.2 Site and task hazards are identified and control measures determined 1.3 Wheel and rim assembly to be removed is identified 1.4 Wheel and rim assembly is cleaned and visually inspected to assess potential health and safety threats according to workplace

ELEMENTS	PERFORMANCE CRITERIA
	procedures 1.5 Tools and equipment are selected and checked according to manufacturer instructions and workplace procedures
2. Control risk	2.1 Hazardous conditions in work environment are identified and controlled 2.2 Hazardous wheel and rim assembly conditions are identified and controlled
3. Remove wheel and rim assembly from vehicle	3.1 Vehicle is raised and supported according to Australian standards and workplace procedures 3.2 Tyre is deflated according to Australian standards and workplace procedures 3.3 Wheel and rim assembly is removed according to manufacturer instructions and workplace procedures
4. Inspect wheel and rim assembly, mounting surfaces and fasteners	4.1 Wheel and rim assembly is cleaned and visually inspected according to Australian standards and workplace procedures 4.2 Mounting components and fasteners are visually inspected according to manufacturer instructions and workplace procedures 4.3 Findings are recorded and reported according to Australian standards and workplace procedures
5. Fit wheel and rim assembly	5.1 Wheel and rim assembly is checked and confirmed prior to fastening 5.2 Wheel and rim assembly is fitted using handling equipment according to Australian standards and workplace procedures 5.3 Wheel and rim assembly positioning and alignment are checked prior to fastening 5.41 Wheel and rim assembly tightening sequence and torque settings are applied according to Australian standards and workplace procedures
6. Inflate tyre	6.1 Tyre inflation safety procedures are identified and applied prior to inflating tyre 6.2 Tyre is inflated according to Australian standards and workplace procedures 6.3 Tyre, wheel and rim assembly are monitored during inflation according to Australian standards and workplace procedures
7. Complete work processes	7.1 Vehicle is lowered according to Australian standards and workplace procedures 7.2 Wheel fastener torque settings are re-checked according to Australian standards and workplace procedures 7.3 Wheel and rim assembly clearances are checked 7.4 Final inspection is made to ensure work is to workplace

ELEMENTS	PERFORMANCE CRITERIA
	requirements 7.5 Tools and equipment are checked and stored according to workplace procedures, or tagged and reported where necessary 7.6 Workplace documentation is completed and processed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Skills	Description
Reading skills to:	- read and interpret: - written information in Australian standards, workplace procedures, manufacturer instructions, and occupational health and safety (OHS) and work health and safety (WHS) requirements relating to removing, inspecting and fitting earthmoving and OTR wheel and rim assemblies - charts, lists, drawings and other applicable documents.
Writing skills to:	document inspection findings and recommended repair actions.
Oral communication skills to:	- follow oral instructions - ask questions to clarify instructions and procedures - report inspection results - brief team and customers.
Numeracy skills to:	- read and interpret metric and imperial systems of measurement - use specialist tools and measuring equipment, including: - gauges - pressure testing guns - read and interpret mathematical information, including charts and drawings.
Digital literacy skills to:	use workplace computerised technology and tools relating to removing and refitting earthmoving and OTR wheel and rim assemblies.
Planning and organising skills to:	plan and prioritise own work to achieve required outcomes.
Self-management skills to:	- select and use appropriate equipment, materials, processes and procedures - recognise own limitations when selecting and using tools and

Skills	Description
	equipment and seek timely advice.
Problem-solving skills to:	• seek information and assistance as required to solve problems • identify tyre condition and performance • match wheel and rim assemblies to tyres and vehicle type.
Teamwork skills to:	• work with team members, such as riggers, doggers, mechanics, tyre fitters, drivers and site operators.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Safety requirements</i> must include:	• those prescribed under Australian standards, OHS and WHS Acts and regulations, and workplace policies and procedures • hazard control • manual-handling techniques • personal protective clothing and equipment • use of tools and equipment • working with dangerous or toxic substances: • chemicals • compressed air • nitrogen gas • polyurethane resin (PUR) tyre fill • tyre additive.
<i>Wheel and rim assembly</i> must include:	• one piece wheel and rim • rim or hub-mounted multi-piece rim • rim or hub-mounted split rim • safety lock rim • split rim • tyre and rim • tyre and rim mounted to a hub.
<i>Tools and equipment</i> must include:	• bead breakers • cranes • earthmoving and OTR tyre handlers • forklifts • grab trucks • hand tools

	• inflation and deflation tools • integrated tool handlers • jacks • lifting equipment • lock ring catcher • mufflers • pneumatic tools • power tools • soft face hammers • support stands • torque tools • tyre levers • wire brushes.
Hazardous conditions must include:	• changing and unstable ground conditions • dust • hard, soft or uneven ground conditions • line of fire • noise • standard or non-standard heavy rims • traffic • variable weather conditions • working in or around other machinery.
Work environment must include:	• day and night • indoors and outdoors • interaction of work personnel • workshop or work site.
Hazardous wheel and rim assembly conditions must include:	• blocked or damaged valves • cracks • corrosion • cuts and damage • distortion • dislodged components • expired scheduled testing date • heat damage • leakage • mechanical damage • structural damage • tyre defects • under- or over-inflated tyre • valve gear • wear

	• wheel and rim component defects.
<i>Mounting components and fasteners</i> must include:	• adaptor rings • bolts • cleats • nuts • reducers • spacer bands • studs • washers • wedge bands • wedges.
<i>Checked and confirmed</i> must include:	• component compatibility • wheel and rim component serviceability • correct assembly of wheel and rim assembly.
<i>Workplace documentation</i> must include:	• job safety analysis • risk assessment • tyre change documentation.

Unit Mapping Information

AURKTJ002 Remove, inspect and fit earthmoving and off-the-road wheel and rim assemblies

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Assessment Requirements for AURKTJ002 Remove, inspect and fit earthmoving and off-the-road wheel and rim assemblies

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Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- remove, inspect and fit earthmoving and off-the-road (OTR) wheel and rim assemblies on a minimum of three occasions
- perform the above work on wheel assemblies and rim assemblies of not less than 600 mm (24 inches) nominal diameter.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- Australian standards relevant to removing, inspecting and fitting earthmoving and OTR wheel and rim assemblies
- procedures relating to earthmoving and OTR wheel and rim assemblies:
 - fitting
 - hazard identification and risk control methods
 - inflation and deflation
 - inspection
 - post-fitting inspection
 - pre-removal inspection
- raising, supporting and lowering procedures for mining and construction vehicles that include soft ground support procedures and systems
- removal procedures of earthmoving and OTR wheel and rim assemblies:
 - methods for undoing wheel or rim fasteners
 - handling methods

- safety lock rim
- split industrial rim
- rim or hub-mounted multi-piece rim
- one piece wheel and rim
- types and classifications of earthmoving and OTR tyres, wheels and rim assemblies
- types of mounting systems for earthmoving and OTR wheel and rim assemblies
- methods for deflating earthmoving and OTR tyres
- occupational health and safety (OHS) and work health and safety (WHS) requirements relevant to removing, inspecting and fitting earthmoving and OTR tyres.

Assessment Conditions

Assessors must satisfy SNR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the vehicles that they have worked on, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- Australian standards relevant to removing, inspecting and fitting earthmoving and OTR wheel and rim assemblies
- crane
- earthmoving and OTR tyre handler
- earthmoving and OTR wheel and rim assemblies
- forklift
- grab truck
- integrated tool handler
- OHS and WHS requirements relevant to removing, inspecting and fitting earthmoving and OTR wheel and rim assemblies
- tools and equipment appropriate for removing and fitting earthmoving and OTR wheel and rim assemblies
- tyre, wheel and rim assembly specifications and workplace instructions
- operational vehicles with earthmoving and OTR wheel and rim assemblies
- workplace location or simulated workplace.

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