



Australian Government

AURKTJ001 Remove, inspect and fit earthmoving and off-the-road tyres

Release: 2

AURKTJ001 Remove, inspect and fit earthmoving and off-the-road tyres

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) tyres to construction, mining, agricultural and industrial vehicles. It involves removing the tyre from the rim; controlling risks; inspecting the tyre, wheel and rim assembly; recommending required repair action; fitting the tyre to the wheel and rim assembly; and preparing the tyre, wheel and rim assembly for use or storage.

It applies to those who fit tyres to 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
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section
1. Prepare to remove tyre	1.1 Australian standards for earthmoving and OTR tyres,

ELEMENTS	PERFORMANCE CRITERIA
from wheel and rim assembly of a vehicle	manufacturer instructions, workplace procedures and safety information are identified and interpreted 1.2 Site and task hazards are identified and control measures determined 1.3 Safety requirements are identified and applied 1.4 Tyre, rim and mounting system is identified 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 tyre and wheel and rim assembly conditions are identified and controlled 2.3 Tyre is deflated according to Australian standards, manufacturer instructions and workplace procedures
3. Remove tyre from wheel and rim assembly	3.1 Australian standards and workplace procedures are accessed and interpreted to determine tyre removal procedures 3.2 Tyre is removed according to Australian standards and workplace procedures 3.3 Tyre removal is completed without causing component damage 3.4 Tyre and rim assembly are cleaned and visually inspected according to Australian standards and workplace procedures
4. Inspect tyre, wheel and rim assembly	4.1 Tyre is cleaned and visually inspected for damage and wear according to Australian standards and workplace procedures 4.2 Wheel and rim assembly are visually inspected for serviceability 4.3 Mounting components and fasteners are visually inspected for damage, wear, corrosion, foreign material and cracks according to workplace procedures
5. Recommend repair action and replace unserviceable parts and components	5.1 Inspection findings are recorded and reported according to workplace procedures 5.2 Recommended repair actions are documented according to workplace procedures 5.3 Unserviceable parts and components are replaced and reported according to workplace procedures
6. Fit tyre to wheel and rim assembly	6.1 Workplace procedures for fitting tyres are accessed and interpreted 6.2 Tyre is fitted according to workplace procedures 6.3 Tyre and rim assembly are checked according to Australian standards and workplace procedures to confirm correct assembly and component compatibility and serviceability prior to inflation
7. Inflate tyre	7.1 Tyre inflation safety procedures are identified and applied prior

ELEMENTS	PERFORMANCE CRITERIA
	to inflating tyre 7.2 Tyre is inflated according to Australian standards and workplace procedures 7.3 Tyre and rim assembly are monitored during inflation according to Australian standards and workplace procedures
8. Complete work processes	8.1 Final work inspection is conducted to ensure work is to required standard 8.2 Tyre, wheel and rim assembly are prepared for use or storage according to workplace procedures 8.3 Tools and equipment are checked, tagged where necessary, and stored according to workplace procedures 8.4 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 are not explicit in the performance criteria.

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 tyres - charts, lists, drawings and other applicable documents.
Writing skills to:	document inspection findings and recommend repair actions.
Oral communication skills to:	- 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 - read and interpret mathematical information, including charts and drawings - use specialist tools and measuring equipment, including: - gauges - pressure testing guns.
Digital literacy skills to:	use workplace computerised technology and tools relating to the

	removal and refitting of earthmoving and OTR tyres.
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 equipment and seek timely advice.
Problem-solving skills to:	- seek information and assistance as required to solve problems - identify tyre condition and performance - match tyres to wheel and rim assemblies 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 - using tools and equipment - working with dangerous or toxic substances: - chemicals - compressed air - nitrogen gas - polyurethane resin (PUR) tyre fill - tyre additive.
<i>Tools and equipment</i> must include:	- bead breakers - cranes - 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 tyre and 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.
Mounting components and fasteners must include:	• adaptor rings • bolts

	• cleats • nuts • reducers • spacer bands • studs • washers • wedge bands • wedges.
Workplace documentation must include:	• job safety analysis • risk assessment • tyre change documentation.

Unit Mapping Information

AURKTJ001 Remove, inspect and fit earthmoving and off-the-road tyres.

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 AURKTJ001 Remove, inspect and fit earthmoving and off-the-road tyres

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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) tyres on a minimum of three occasions
- perform the above work on tyres fitted to 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 tyres
- procedures relating to earthmoving and OTR tyres:
 - fitting
 - hazard identification and risk control methods
 - inflation and deflation
 - inspection
 - post-fitting inspection
 - pre-removal inspection
- removal procedures of earthmoving and OTR wheel and rim assemblies relating to:
 - methods for undoing fasteners
 - methods for handling earthmoving and OTR wheel and rim assemblies
 - 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, rims and wheel 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 tyres, wheels and rim assemblies
- crane
- earthmoving and OTR tyre handler
- earthmoving and OTR tyres, wheels and rim assemblies
- forklift
- grab truck
- integrated tool handler
- tyre, wheel and rim assembly specifications and workplace instructions
- tools and equipment appropriate for removing, inspecting and fitting earthmoving and OTR tyres
- OHS and WHS requirements and workplace procedures relevant to removing, inspecting and fitting earthmoving and OTR tyres
- workplace location or simulated workplace.

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