



**Australian Government**

# **AURKTJ011 Remove, inspect and fit earthmoving and off-the-road tyres**

**Release: 1**

# AURKTJ011 Remove, inspect and fit earthmoving and off-the-road tyres

## Modification History

Release	Comment
Release 1	New unit of competency

## Application

This unit describes the performance outcomes required to remove, inspect and fit earthmoving and off-the-road (OTR) tyres to construction and mining vehicles. It involves removing the tyre from the rim, identifying and controlling risks, inspecting the tyre, assembling the wheel and rim, recommending required repair action, inflation, deflation, and preparing the tyre, wheel and rim assembly for use or storage.

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

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

## 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.
1. Assess and control risks	1.1 Identify and control hazardous conditions in the work environment 1.2 Identify and apply safety requirements to control hazardous tyre, wheel and rim assembly conditions, noting points where safety checks are required 1.3 Obtain and interpret emergency procedures and be prepared for fires, accidents and emergencies 1.4 Identify hazards and environmental issues, assess potential risks, and implement control measures in line with workplace policies

ELEMENTS	PERFORMANCE CRITERIA
2. Prepare to remove tyre from wheel or rim	2.1 Obtain and interpret manufacturer procedures original equipment manufacturer (OEM) specifications, workplace procedures, and applicable standards for earthmoving and off-the-road tyres 2.2 Obtain, interpret, clarify and confirm work requirements 2.3 Plan sequence of work, noting points where safety checks are required 2.4 Select and wear personal protective equipment required for the work activity 2.5 Coordinate and communicate planned activities with others at the site as per work requirements 2.6 Identify tyre, wheel and rim components 2.7 Select and inspect tools and equipment according to manufacturer instructions and workplace procedures 2.8 Prepare, clean and inspect tyre, wheel and rim assembly for damage, wear, corrosion, foreign material, cracks, and compatibility of component
3. Deflate and remove tyre from wheel or rim	3.1 Isolate, jack, raise and support vehicle according to workplace procedures 3.2 Deflate tyre according to manufacturer instructions and workplace procedures 3.3 Verify appropriate deflation of tyre in line with workplace procedures and OEM requirements 3.4 Apply workplace procedures for the safe removal and purging of hazardous fill substances 3.5 Remove tyre according to workplace procedures and without causing component damage or injury
4. Inspect tyre, wheel or rim and recommend repair and replacement actions for unserviceable components	4.1 Clean and visually inspect tyre, wheel or rim for serviceability and compatibility for application according to workplace procedures and OEM specifications 4.2 Record and report inspection findings according to workplace procedures 4.3 Document recommended repair and replacement actions and report to relevant personnel according to workplace procedures
5. Fit tyre to wheel or rim	5.1 Access and interpret workplace procedures and OEM specifications for fitting tyres 5.2 Assess need for tyre additive and nitrogen and add where required 5.3 Fit tyre according to workplace and manufacturer procedures 5.4 Perform post-fit inspections of tyre, wheel and rim assembly

ELEMENTS	PERFORMANCE CRITERIA
	according to workplace procedures to confirm correct assembly, component compatibility, serviceability, and correct seating of components prior to inflation
6. Inflate tyre	<p>6.1 Identify and apply tyre inflation safety procedures</p> <p>6.2 Inflate tyre for transport, storage or use according to workplace procedures and manufacturer specifications</p> <p>6.3 Monitor tyre, wheel and rim assembly during inflation according to workplace procedures</p>
7. Complete work processes	<p>7.1 Perform final inspection to ensure work meets workplace requirements and OEM requirements</p> <p>7.2 Prepare tyre, wheel and rim assembly for use or storage according to workplace procedures</p> <p>7.3 Inspect and store tools and equipment according to workplace procedures, tagging or reporting where necessary</p> <p>7.4 Complete workplace documentation according to workplace procedures</p>

## 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:	<ul style="list-style-type: none"> <li>• read and interpret: <ul style="list-style-type: none"> <li>• written information in workplace procedures, manufacturer instructions, and work health and safety (WHS) requirements relating to removing, inspecting and fitting earthmoving and off-the-road (OTR) tyres</li> <li>• charts, lists, drawings and other applicable documents.</li> </ul> </li> </ul>
Writing skills to:	<ul style="list-style-type: none"> <li>• document inspection findings and recommend repair and replacement actions</li> <li>• engage with workplace documents.</li> </ul>
Oral communication skills to:	<ul style="list-style-type: none"> <li>• ask questions to clarify inspection observations, instructions and procedures</li> <li>• report inspection results</li> <li>• brief team and customers</li> </ul>

Numeracy skills to:	<ul style="list-style-type: none"> <li>• read and interpret metric and imperial systems of measurement</li> <li>• read and interpret mathematical information, including charts and drawings</li> <li>• use specialist tools and measuring equipment, including: <ul style="list-style-type: none"> <li>• gauges and pressure regulators</li> <li>• pressure testing tools.</li> </ul> </li> </ul>
Digital literacy skills to:	<ul style="list-style-type: none"> <li>• use workplace computerised technology and tools relating to the removal and refitting of earthmoving and OTR tyres.</li> </ul>
Planning and organising skills to:	<ul style="list-style-type: none"> <li>• plan and prioritise own work to achieve required outcomes</li> <li>• plan appropriate risk controls to minimise risks before, during and after the tyre fitting process.</li> </ul>
Self-management skills to:	<ul style="list-style-type: none"> <li>• select and use appropriate equipment, materials, processes and procedures</li> <li>• recognise own limitations when selecting and using tools and equipment and seek timely advice.</li> </ul>
Problem-solving skills to:	<ul style="list-style-type: none"> <li>• seek information and assistance as required to solve problems</li> <li>• identify tyre, wheel and rim assembly condition and performance</li> <li>• match tyres to wheel and rim assemblies and vehicle type.</li> </ul>
Teamwork skills to:	<ul style="list-style-type: none"> <li>• work alongside other team members in a work environment, including those fulfilling other roles, such as riggers, dogmen, mechanics, tyre fitters, drivers and site operators.</li> </ul>

## 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.

Safety requirements must include:	<ul style="list-style-type: none"> <li>• those prescribed under applicable standards, WHS Acts and regulations, and workplace policies and procedures</li> <li>• isolation procedures</li> <li>• hazard control</li> <li>• manual-handling techniques</li> <li>• personal protective clothing and equipment</li> <li>• using tools and equipment</li> <li>• working with hazardous substances, including: <ul style="list-style-type: none"> <li>• nitrogen gas</li> <li>• chemicals</li> <li>• hydraulic pressure</li> <li>• compressed air</li> <li>• polyurethane resin (PUR) tyre fill</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>• tyre additive</li> </ul>
Tools and equipment must include:	<ul style="list-style-type: none"> <li>• tyre handling equipment</li> <li>• bead breakers</li> <li>• rim and wheel assembly stands</li> <li>• inspection stands</li> <li>• hand tools</li> <li>• inflation and deflation tools and pressure gauges</li> <li>• lock ring catcher</li> <li>• mufflers</li> <li>• pneumatic tools</li> <li>• hydraulic tools</li> <li>• power tools</li> <li>• soft face hammers</li> <li>• support stands or jacks</li> <li>• torque tools</li> <li>• tyre levers</li> <li>• wire brushes</li> <li>• air compressors</li> <li>• gauges</li> </ul>
Hazardous conditions must include:	<ul style="list-style-type: none"> <li>• changing and unstable ground conditions</li> <li>• dust</li> <li>• sparks from use of grinders</li> <li>• hard, soft or uneven ground conditions</li> <li>• line of fire during inflation of tyre, wheel or rim assembly</li> <li>• noise</li> <li>• vehicles/pedestrians/machinery/other personnel within the workplace</li> <li>• handling of tyres, rim components and assemblies</li> </ul>
Hazardous tyre and wheel or rim conditions must include:	<ul style="list-style-type: none"> <li>• damage</li> <li>• wear</li> <li>• corrosion</li> <li>• foreign material</li> <li>• cracks</li> <li>• heat damage, including pyrolysis</li> <li>• compatibility of rim components</li> <li>• hazardous fill substances, including nitrogen gas, calcium chloride and polyurethane resin (PUR)</li> <li>• under- or over-inflated tyre</li> </ul>
Rim and wheel component assemblies must include:	<ul style="list-style-type: none"> <li>• adaptor rings and plates</li> <li>• bolts</li> <li>• cleats</li> </ul>

	<ul style="list-style-type: none"> <li>• nuts</li> <li>• reducers</li> <li>• spacer bands</li> <li>• studs</li> <li>• washers</li> <li>• wedge bands</li> <li>• wedges</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AURKTJ011 Remove, inspect and fit earthmoving and off-the-road tyres (Release 1)	AURKTJ001 Remove, inspect and fit earthmoving and off-the-road tyres (Release 2)	Updates to elements and performance criteria, range of conditions, performance and knowledge evidence to ensure safety aspects have been included.	Equivalent

## Links

Companion Volume Implementation Guides are found in VETNet -

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