



Australian Government

PMBPROD341A Finish heavy off-the-road tyre repairs

Release 1

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Modification History

Release 1 - New unit of competency.

Unit Descriptor

This unit of competency covers the skills and knowledge needed to finish repairs to tyres defined by AS 4457.2-2008 Earth-moving machinery - Off-the-road wheels, rims and tyres - Maintenance and repair – Tyres (or its authorised replacement) or similar tyres.

Application of the Unit

This competency is typically performed by operators applying knowledge of materials, knowledge and basic understanding of the tyre design, and product purpose and processes to the finishing of repaired tyres. It also requires the use of some discretion and judgment to recognise and resolve a range of problems.

This unit should be interpreted in line with AS 4457.2-2008 Earth-moving machinery - Off-the-road wheels, rims and tyres - Maintenance and repair – Tyres.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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|---|----------------------|-----|---|
| 1 | Prepare for job | 1.1 | Move tyre into position |
| | | 1.2 | Secure tyre ready for finishing |
| | | 1.3 | Inspect tyre to ensure that it meets required standards |
| | | 1.4 | Select and prepare required equipment |
| | | 1.5 | Check and wear required personal protective equipment (PPE) |
| 2 | Finish repaired tyre | 2.1 | Cut and buff surface to standard |
| | | 2.2 | Reshape tread as required |
| | | 2.3 | Brand tyre to standard |
| | | 2.4 | Finish surface to procedures |
| | | 2.5 | Complete final inspection of tyre and repairs |
| | | 2.6 | Apply sealing compound around patch area as required |
| 3 | Complete job | 3.1 | Move tyre to dispatch area |
| | | 3.2 | Complete all required paperwork |

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- using required tools
- communicating effectively
- working safely in accordance with operational requirements and safe systems of work
- reading and interpreting typical product specifications, job sheets and material labels as provided to operators
- writing to the level of completing workplace forms and production reports

Required knowledge

Required knowledge includes:

- organisation's procedures
- heavy off-the-road (HOTR) tyre construction
- methods of identifying injury position, lug/position identification
- tyre repair inspection methods
- purpose and function of tread voids
- hazards and hazard controls associated with HOTR tyre repair finishing
- causes and symptoms of faults, such as cure faults, repair faults and separation faults

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria required skills and knowledge range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Critical aspects for assessment and evidence are:

- tyre repair is identified and appropriate action for finishing determined
- consistent application of finishing standards
- safety procedures are always followed.

Context of and specific resources for assessment

Assessment will occur on an HOTR tyre repair facility. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Method of assessment

Competence in this unit may be assessed:

- by observation over a range of tyre finishing procedures undertaken in the workplace
- in a situation allowing for the generation of evidence of the ability to respond to problems
- by using a suitable simulation and/or a range of case studies/scenarios
- through a combination of these techniques.

In all cases it is expected that appropriate practical/simulation assessment will be combined with targeted questioning to assess the required knowledge, and theoretical assessment will be combined with appropriate practical/simulation or similar assessment.

Guidance information for assessment

Assessment processes and techniques must be appropriate to the language, competency and safety requirements of the site and consistent with workplace systems or procedures.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Tyre securing methods

Tyre securing methods may include, but are not limited to:

- mounts and stands
- chocks
- wall or floor mounted frames, manually, electrically or hydraulically operated

Location of repairs

Repairs may be undertaken to the:

- tread or crown, including steel components
- shoulder
- sidewall
- bead area
- liner
- body cords

Surface finish

Surface finish may include, but is not limited to:

- cleaning
- tyre paint

Tread voids

Tread voids are the space between the lugs on the tread. Packing is typically done on voids adjacent to a repair.

Final inspection

Completing the final inspection may include, but is not limited to:

- final internal and external inspection, including beads
- correct branding

Standards

Standards may include, but are not limited to:

- AS 4457.2-2008 Earth-moving machinery - Off-the-road wheels, rims and tyres - Maintenance and repair - Tyres
- Rubber Manufacturer's Association of America (RMA)
- Supplier standards, such as technical data sheets and manuals
- internal organisational standards

Procedures

Procedures may be written, verbal, computer-based or in some other form. They may include but are not limited to:

- all work instructions
- standard operating procedures
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant
- good operating practice as may be defined by industry codes of practice

Procedures would be expected to comply with any relevant government regulations.

Paperwork

Paperwork may be paper or electronic-based.

Appropriate action

Appropriate action includes but is not limited to:

- determining problems needing action
- accessing and applying relevant technical and plant data
- applying appropriate problem solving techniques to determine possible fault causes
- rectifying problem using appropriate solution within area of responsibility
- following through items initiated until final resolution has occurred
- reporting problems outside area of responsibility/ability to designated person

Health, safety and environment (HSE)

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between Performance Criteria and HSE requirements, the HSE requirements take precedence.

Unit Sector(s)

Not applicable.

Custom Content Section

Not applicable.