



**Australian Government**

# **PMBPROD337E Prepare heavy off-the-road tyres for repair**

**Release: 1**

# PMBPROD337E Prepare heavy off-the-road tyres for repair

## Modification History

Release 1. Unit code changed. Application changed. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMBPROD337 Prepare heavy off-the-road tyres for repair.

## Application

This unit covers the skills and knowledge required to prepare heavy off-the-road tyres for repair. It applies to tyres defined by AS 4457.2-2008 Earth-moving machinery – Off-the-road wheels, rims and tyres – Maintenance and repair – Tyres (or its replacement) or similar tyres.

This unit applies to an individual working alone or as part of a team.

The unit principally refers to the practical, theoretical and technical knowledge and well-developed skills required in situations that require some discretion and judgement.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

## Pre-requisite Unit

Nil.

## Competency Field

Production – 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. Prepare for job                        | 1.1 Move tyre into position in preparation for tyre inspection and repair<br>1.2 Secure tyre ready for repair preparation<br>1.3 Select and prepare required tools according to repair requirements<br>1.4 Check and wear required personal protective equipment (PPE) |
| 2. Expose injury                          | 2.1 Identify number of injuries, their positions and correct order of preparation for repair<br>2.2 Remove loose tyre materials to expose area for repair<br>2.3 Remove all foreign material in area of injury to ensure repair area                                   |

| <b>Elements</b>                                   | <b>Performance Criteria</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Elements describe the essential outcomes.         | Performance criteria describe the performance needed to demonstrate achievement of the element.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                   | <p>is clear</p> <p>2.4 Skive injury to required size and shape</p> <p>2.5 Inspect exposed injury and validate repair decision against criteria</p>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 3. Prepare injury                                 | <p>3.1 Buff exposed rubber to required standard</p> <p>3.2 Inspect any exposed steel or fabric cords to determine any remedial action required</p> <p>3.3 Prepare steel or fabric cords as required in preparation for repair</p> <p>3.4 Review tyres for hidden injuries to ensure completeness of repair</p> <p>3.5 Measure and record dimensions of injury to support repair process</p> <p>3.6 Make any required decisions about repair to finalise requirements</p> <p>3.7 Strip liner and prepare inner surface to meet requirements using appropriate hazard controls</p> |
| 4. Complete repair preparation                    | <p>4.1 Shape to meet requirements and perform final buff to standard</p> <p>4.2 Clean injury area ready for further process steps</p> <p>4.3 Accurately complete any required paperwork</p> <p>4.4 Pause or stop equipment in normal and abnormal circumstances according to workplace procedures</p> <p>4.5 Perform housekeeping tasks and apply waste management strategies to collect and segregate scrap, trim and other materials according to workplace procedures</p>                                                                                                     |
| 5. Anticipate and solve process control variances | <p>5.1 Recognise existing or potential process control variances and their causes</p> <p>5.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes</p> <p>5.3 Monitor process control variances and corrective actions taken until resolved</p> <p>5.4 Accurately maintain records and logbooks</p>                                                                                                                                                                                                                        |

## Foundation Skills

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

- Numeracy skills to interpret technical information.
- Reading skills to interpret specifications and workplace procedures.
- Writing and oral communication skills to record and report on tyre repair operations.

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

## **Unit Mapping Information**

Supersedes and is equivalent to PMBPROD337 Prepare heavy off-the-road tyres for repair.

## **Links**

Companion Volume implementation guides are found in VETNet – -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

# Assessment Requirements for PMBPROD337E Prepare heavy off-the-road tyres for repair

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## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- prepare heavy off-the-road tyres for repair, including:
  - at least two of the following types of repair:
    - cuts, abrasion, splits, cracks and crazing
    - separations within the structure
    - internal or surface deformities
    - penetrations into and through the casing/carcass
  - at least two of the following repair locations:
    - tread or crown including steel components
    - shoulder or sidewall
    - bead area
    - liner.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- functions and operating principles of preparation and inspection equipment, machine components and ancillary equipment
- heavy off-the-road tyre construction
- radial and bias ply construction
- common injuries to heavy off-the-road tyres and their indicators
- common hidden injuries and their indicators, including:
  - cuts
  - oxidation
  - separations
- methods for repairing injuries to tyres, including:
  - cuts, abrasion, splits, cracks and crazing
  - separations within the structure
  - deformities both surface and internal

- penetrations into and through the casing/carcass
- methods for repairing injuries to tyres in:
  - tread or crown, including steel components
  - shoulder
  - sidewall
  - bead area
  - liner
- types of injuries that do not need repairing, injuries that are reparable and injuries that either individually or in the sum should not be repaired
- methods of identifying lug/position
- impact of significantly faulty tyres falsely passing inspection
- key variables that may affect product quality and production output
- typical and atypical process and product problems, including early warning signs, possible causes and corrective actions
- organisational procedures relevant to the work environment or job role, including procedures for the emergency shutdown of equipment
- hazards that may arise in the job or work environment and:
  - their possible causes
  - potential consequences
  - appropriate risk controls.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

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