



Australian Government

PMBPROD338E Repair heavy off-the-road tyres

Release: 1

PMBPROD338E Repair heavy off-the-road tyres

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 PMBPROD338 Repair heavy off-the-road tyres.

Application

This unit covers the skills and knowledge required to repair heavy off-the-road tyres. 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 repair 1.2 Secure tyre ready for repair 1.3 Determine repair stock and cure time required from injury dimensions 1.4 Select required patches and rubber repair stock to meet repair requirements 1.5 Select, check and prepare tooling required to perform repair 1.6 Acclimate required repair products according to supplier recommendation

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.7 Check and wear required personal protective equipment (PPE)
2. Prepare substrates	2.1 Prepare surfaces in readiness for repair 2.2 Apply adhesive to repair surfaces as required by repair process 2.3 Allow surfaces to 'prime' in preparation for repair
3. Repair injury	3.1 Choose repair materials to meet repair requirements 3.2 Check compatibility of materials with repair type 3.3 Check maximum pre-heating temperatures for materials being used 3.4 Repair tyre components as required according to workplace procedures 3.5 Fill tyre injury according to workplace procedures
4. Patch injury	4.1 Review patch size to ensure adequate coverage for job 4.2 Remove inner liner in preparation for patching 4.3 Prepare surfaces in preparation for patching 4.4 Correctly prepare patch for application 4.5 Install patch according to workplace procedures 4.6 Follow pressurisation or curing instructions for patching of injury
5. Complete repair	5.1 Prepare injury for curing 5.2 Accurately complete required paperwork 5.3 Complete housekeeping and apply waste management strategies according to workplace procedures
6. Anticipate and solve process control variances	6.1 Recognise existing or potential process control variances and their causes 6.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 6.3 Monitor process control variances and corrective actions taken until resolved 6.4 Accurately maintain records and logbooks

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.

Other foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to PMBPROD338 Repair heavy off-the-road tyres.

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 PMBPROD338E Repair heavy off-the-road tyres

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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:

- repair heavy off-the-road tyres, 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:

- the functions and operating principles of heavy off-the-road tyre repair 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 identification
- production workflow sequences
- types of patching materials and their characteristics
- typical quality standards required at each stage of the process
- 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
- 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.

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