



Australian Government

PMBPROD368E Repair conveyor belt carcasses

Release: 1

PMBPROD368E Repair conveyor belt carcasses

Modification History

Release 1. Unit code and title changed. Application changed. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMBPROD368 Repair conveyor belt carcass.

Application

This unit describes the skills and knowledge required to repair conveyor belt carcasses across all types of industrial conveyor belt.

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

The unit principally refers to the technician applying the best repair technique for the particular type of belt and its required service performance.

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 – Conveyor Belt Repair

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. Plan belt carcass repairs	1.1 Identify materials, work and belt carcass repair requirements from job and equipment specifications 1.2 Identify existing belt faults and best approach for bringing conveyor back to production-readiness according to equipment specifications 1.3 Perform pre-repair checks including checking for and controlling hazards 1.4 Design time-efficient and economical work plans that achieve quality standards while minimising downtime and materials wastage 1.5 Identify and perform checks and testing processes required for

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	equipment, materials, quality and production management 1.6 Identify waste management strategies to collect waste to be disposed of, recycled or reprocessed according to workplace procedures
2. Conduct belt carcass repairs	2.1 Select ventilated work area for repair and remove any contaminants 2.2 Isolate equipment and tag according to workplace procedures 2.3 Strip and remove damaged material according to equipment specifications and workplace procedures 2.4 Cut belt carcass to meet measurement and angle specifications and buff damaged area edges 2.5 Prepare damaged area and cut repair materials to size according to repair specifications 2.6 Prepare and finish surfaces in readiness for bonding 2.7 Apply bonding materials and conduct repair to quality standards 2.8 Vulcanise belt carcass repair according to workplace procedures
3. Check belt carcass repairs	3.1 Check repairs meet quality specifications 3.2 Inform customer when belt carcass is ready for use, or prepare belt carcass for storage or delivery, according to job specifications
4. Perform post-repair tasks	4.1 Clean, inspect and store tools and equipment used according to workplace procedures 4.2 Clean work area according to workplace procedures 4.3 Apply waste management strategies to collect waste to be disposed of, recycled or reprocessed according to workplace procedures 4.4 Accurately complete workplace documentation
5. Anticipate and solve repair process control variances	5.1 Recognise existing or potential process control variances and their causes 5.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 5.3 Monitor process control variances and corrective actions taken until resolved 5.4 Accurately maintain records and logbooks

Foundation Skills

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

- Reading skills to interpret job and equipment specifications and workplace procedures.
- Writing and oral communication skills to record and report on conveyor belt carcass repair, both internally and with customers.

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 PMBPROD368 Repair conveyor belt carcass.

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 PMBPROD368E Repair conveyor belt carcasses

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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 conveyor belt carcasses at least once to meet work plan and quality standards.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the functions of conveyor systems and relevant isolation procedures
- the principles of operation and repair of conveyor belt systems
- stresses and tensions on working belt carcasses and common causes of failure
- repair workflow sequences and materials
- vulcanising process
- products, materials and materials characteristics for carcass repairs
- types of belt reinforcement and related repair methods
- cable lay-up and ply replacement requirements to form a satisfactory repair
- typical quality standards required at each stage of the repair process
- key variables that may affect repair quality, including changes in conveyor and repair materials during the repair process:
 - belt cover condition
 - belt location
 - degree of damage
 - forces acting on the conveyor belt
 - environmental conditions
 - lock-out of equipment
- typical and atypical belt process, equipment and materials problems, including early warning signs, possible causes and corrective actions
- the distinguishing characteristics between causes of problems, including:
 - abrasion
 - impact
 - tearing
 - operational problems

- materials properties or failures
- key variables in the vulcanising process, including temperature, pressure and time
- 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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