



Australian Government

PMBPROD368 Repair conveyor belt carcass

Release: 1

PMBPROD368 Repair conveyor belt carcass

Modification History

Release 1. Supersedes and is equivalent to PMBPROD368B Repair conveyor belt carcass

Application

This unit of competency covers the skills and knowledge required to repair conveyor belt carcasses. It applies to all types of industrial conveyor belts (e.g. steel cord, fabric reinforced ply belts and solid woven belts).

This unit of competency applies to experienced operators who are required to plan and sequence the repair job, prepare the belt carcass, make and inspect the repair, remedy faults and non-conformity and solve problems within area of responsibility.

This unit of competency applies to an experienced operator demonstrating theoretical and technical knowledge and well developed skills in situations that require some discretion and judgement. The operator may work alone or as a member of a team or group and will work in liaison with other shift team members, team leader and supervisor, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

PMBPROD265 Operate portable vulcanising equipment

Competency Field

Production

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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| 1 | Plan belt carcass repairs | 1.1 | Review belt specifications and work order documentation |
| | | 1.2 | Identify hazards and risk controls |
| | | 1.3 | Identify belt faults, consider reparability and decide on appropriate repair method |
| | | 1.4 | Plan work, including sequences, times and process stages |
| | | 1.5 | Plan to minimise downtime, economically use materials and meet repair quality specifications |
| | | 1.6 | Assemble equipment, tools and materials required, checking them for condition, quality and compliance tags |
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| 2 | Conduct belt carcass repairs | 2.1 | Select a well-ventilated work area for the repair and remove any contaminants |
| | | 2.2 | Isolate equipment and tag according to procedures (if applicable) |
| | | 2.3 | Strip and remove damaged material |
| | | 2.4 | Cut belt carcass to the appropriate shape and angles and buff edges |
| | | 2.5 | Prepare damaged area and cut repair materials to size as required |
| | | 2.6 | Prepare and finish surfaces to be bonded according to procedures |
| | | 2.7 | Apply bonding materials and conduct repair according to procedures |
| | | 2.8 | Vulcanise belt repair (where required) |

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| 3 | Check belt repair | 3.1 | Check repairs meet quality specifications |
| | | 3.2 | Further repair areas which do not meet quality specifications or tag for further treatment |
| | | 3.3 | Inform customer when belt is ready for use, or prepare belt for storage or delivery |
| | | | |
| 4 | Clean work area | 4.1 | Clean, inspect and store tools and equipment used |
| | | 4.2 | Tag unserviceable tools and equipment, identify faults and inform relevant personnel |
| | | 4.3 | Clean work area and return to approved condition |
| | | 4.4 | Dispose of waste or recycle according to procedures |
| | | 4.5 | Complete appropriate workplace documentation |
| | | | |
| 5 | Anticipate and solve problems | 5.1 | Recognise a problem or a potential problem |
| | | 5.2 | Determine problems needing priority action |
| | | 5.3 | Refer problems outside area of responsibility to appropriate person, with possible causes |
| | | 5.4 | Seek information and assistance as required to solve problems |
| | | 5.5 | Solve problems within area of responsibility |
| | | 5.6 | Follow through items initiated until final resolution has occurred |

Foundation Skills

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

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

Range of Conditions

This field allows for different 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.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, manual handling and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

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 such requirements the legislative requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment Tools and equipment include:

- knives and cutting tools
- hand tools (e.g. pliers and brushes)

- vulcanising equipment/portable vulcanising equipment
- belt restraining devices.

Additional tools and equipment will be selected as required from:

- portable power generating equipment
- hoists/lifting equipment not requiring any special permits or licences
- manual handling aids, such as hand carts and trolleys
- relevant personal protective equipment (PPE).

Hazards

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- damaged rubber and cords
- knives, cutting blades and grinding equipment
- weight, shape, volume of materials to be handled
- hazardous products and materials
- lifting, tracking and securing hazards
- rotational equipment or vibration
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- smoke, dust, vapours or other atmospheric hazards
- high temperatures
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

Problems

Non-routine problems must be resolved by applying operational knowledge to develop new solutions, either individually or in collaboration with relevant experts, to:

- determine problems needing action
- determine possible fault causes
- develop solutions to problems which do not have a known solution
- follow through items initiated until final resolution has occurred
- report problems outside area of responsibility to designated person.

Non-routine problems are unexpected problems or variations of previous

problems and include one or more of:

- access/location issues
- variations in quality
- vulcanising problems
- belts that are not suitable for repair
- emergency situations
- intermittent faults.

Operational knowledge includes one or more of:

- procedures
- training
- technical information, such as journals and engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people.

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>