



**Australian Government**

# **PMBPROD378 Splice solid woven conveyor belts**

**Release: 1**

# **PMBPROD378 Splice solid woven conveyor belts**

## **Modification History**

Release 1. Supersedes and is equivalent to PMBPROD378A Splice solid woven conveyor belts

## **Application**

This unit of competency covers the skills and knowledge required to splice solid woven conveyor belts (including solid woven PVC belts) which may be new or existing belts.

The repairs may be done on-site or in a workshop or off-site repair facility.

This unit of competency applies to experienced operators who are required to plan and sequence the splicing job, prepare the belt, make, cure and inspect the splice, 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.

- |   |                                                           |     |                                                                                                            |
|---|-----------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------|
| 1 | <b>Plan solid woven belt splice</b>                       | 1.1 | Review belt specifications and work order documentation                                                    |
|   |                                                           | 1.2 | Identify hazards and risk controls                                                                         |
|   |                                                           | 1.3 | Plan work, including sequences, times and process stages                                                   |
|   |                                                           | 1.4 | Plan to minimise downtime, economically use materials and meet splice quality specifications               |
|   |                                                           | 1.5 | Assemble equipment, tools and materials required, checking them for condition, quality and compliance tags |
| 2 | <b>Prepare solid woven splice according to procedures</b> | 2.1 | Isolate equipment and conveyor systems as required                                                         |
|   |                                                           | 2.2 | Restrain belt or belt ends to ensure movement does not occur during splice                                 |
|   |                                                           | 2.3 | Cut belt ends to the appropriate fingers, shapes or patterns                                               |
|   |                                                           | 2.4 | Remove belt cover as required                                                                              |
|   |                                                           | 2.5 | Prepare belt surfaces for bonding                                                                          |
|   |                                                           | 2.6 | Lay up splice using appropriate materials                                                                  |
| 3 | <b>Cure solid woven splice</b>                            | 3.1 | Check that splice identification number has been installed as required                                     |
|   |                                                           | 3.2 | Vulcanise splice according to procedures                                                                   |
| 4 | <b>Check solid woven splice</b>                           | 4.1 | Conduct post-cure quality checks on the finished splice                                                    |
|   |                                                           | 4.2 | Carry out subsequent repair in event of splice failure or notify relevant personnel                        |

- |   |                                      |                                                                                           |
|---|--------------------------------------|-------------------------------------------------------------------------------------------|
|   | 4.3                                  | Inform customer when belt is ready for use, or prepare belt for storage or delivery       |
| 5 | <b>Clean work area</b>               |                                                                                           |
|   | 5.1                                  | Clean, inspect and store tools and equipment used                                         |
|   | 5.2                                  | Tag unserviceable tools and equipment, identify faults and inform relevant personnel      |
|   | 5.3                                  | Clean work area and return to approved condition                                          |
|   | 5.4                                  | Dispose of waste or recycle according to procedures                                       |
|   | 5.5                                  | Complete appropriate workplace documentation                                              |
| 6 | <b>Anticipate and solve problems</b> |                                                                                           |
|   | 6.1                                  | Recognise a problem or a potential problem                                                |
|   | 6.2                                  | Determine problems needing priority action                                                |
|   | 6.3                                  | Refer problems outside area of responsibility to appropriate person, with possible causes |
|   | 6.4                                  | Seek information and assistance as required to solve problems                             |
|   | 6.5                                  | Solve problems within area of responsibility                                              |
|   | 6.6                                  | 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 winches

- hand tools (e.g. pliers, brushes, spanners, wrenches and hammers)
- power operated hand tools (e.g. drills, cutting disks and sanders)
- 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, 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:

- variations in quality
- vulcanising problems
- 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/>