



Australian Government

Department of Education, Employment and Workplace Relations

PMBPROD266B Prepare tyre casings for retreading

Revision Number: 1

PMBPROD266B Prepare tyre casings for retreading

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the preparation (buffing) of used tyres prior to the laying on of retread. It applies to the tyre retreading sector of the industry.

Application of the Unit

Application of this unit

This competency applies to operators who buff residual tread from used tyres to prepare a carcass for laying retread. The key factors are the removal of sufficient but not excessive old rubber from the used tyre to establish a sound platform for the new tread. This competency is typically performed by operators working either independently or as part of a work team.

The operator will:

- check job sheets for work requirements
- check product for quality and conformity to specifications
- check materials required
- check machine set-up
- buff the tyre
- deal with non-conforming products, waste and scrap
- notice any problems and take required action (eg repair holes or areas where the steel radial becomes exposed)
- complete logs and reports.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA
1. Check work requirements.	<p>Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.</p> <p>1.1 Identify work requirements from production plan. 1.2 Identify specific requirements of the tyre being retreaded 1.3 Identify required equipment including handling, buffing, inspection and repair equipment. 1.4 Ask questions of appropriate person to confirm unusual practice. 1.5 Identify hazards associated with the job and take appropriate action. 1.6 Perform other pre-operational checks in accordance with procedures.</p>
2. Start up of tyre buffer to procedures.	<p>2.1 Conduct pre-start checks 2.2 Start up tyre buffer.</p>
3. Operate buffing equipment to procedures.	<p>3.1 Start machine safely and correctly when required. 3.2 Monitor buffing operations noting process stages, depth of cut (according to standard operating procedures) and abrasion. 3.3 Check against workplace standards for colour and texture before completing process. 3.4 Make adjustments to remedy non-conformity to buffing requirements. 3.5 Buzz out areas around exposed steel radials with hand held stone grinder. 3.6 Collect and reprocess/discard scrap/trim and other materials, as required. 3.7 Keep equipment and work area clean. 3.8 Pause machine cycle and perform stop, as required.</p>
4. Repair imperfections.	<p>4.1 Locate casing imperfections from previous inspection. 4.2 Repair casings (especially exposed steel areas) with rubber plugs in accordance with standard operating procedures. 4.3 Complete logs and records as required.</p>
5. Complete operations.	<p>5.1 Check casings for compliance with specifications. 5.2 Create job card, tyre ID, other tracking/information</p>

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
	<p>items needed as specified by procedures.</p> <p>5.3 Adhere the metal tag/s to the tyre wall with uncured rubber.</p>
6. Respond to routine problems to procedures.	<p>6.1 Recognise known faults that occur during the operation.</p> <p>6.2 Identify and take action on causes of routine faults.</p> <p>6.3 Log problems as required.</p> <p>6.4 Identify non-routine process and quality problems and take appropriate action.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

Application of knowledge of the materials, equipment and process sufficient to recognise out of specification products, process problems and materials faults.

A knowledge of organization procedures, relevant regulatory requirements and the ability to implement them within appropriate time constraints and work standards. For example the minimum allowable depth of cover over the belt before retreading.

Application of the knowledge of managing risks using the hierarchy of controls applied to the buffing process. Application of approved hazard control and safety procedures and the use of PPE in relation to handling materials, equipment operation and cleanup.

Show knowledge of and skills in the preparation of tyre casings for retreading and its main components sufficient for the consistent production of quality products including:

- different mould part types
- types of releasing agents
- role of releasing agents
- procedures
- factors which may affect product quality or production output and appropriate remedies

Competence includes knowledge of:

- production workflow sequences and materials demand
- the reasons for checking process controls
- the normal range of process variability
- the potential effects of variations in materials and equipment operation in relation to quality of product.
- purpose of the buffing and repair processes
- correct selection and use of equipment, materials, processes and procedures.

Competence also includes the ability to:

- check process controls and report readings which are outside the normal range of process variability
- identify factors which may affect product quality or production output and appropriate remedies
- recognise pre-cure retreads and cured recaps, remould retreads and the relevant procedures to buff casings for each type
- explain the effect of unauthorised or emergency shutdown in relation to safety and production requirements
- plan own work, including predicting consequences and identifying improvements
- accurately monitor equipment operation and product quality
- identify when the operator is able to rectify faults, when assistance is required and who is the appropriate source for assistance
- identify and describe own role and role of others involved directly in the preparation of tyre casing for retreading process.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets, procedures, basic machine control panels, material labels and safety information as provided to operators.

Writing is required to the level of completing workplace forms.
Basic numeracy is required, eg to determine that two 25 kg bags are needed to make up a requirement for 50 kg.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- apply the required skills and knowledge to prepare tyre casings for retreading
- apply approved procedures.

Consistent performance should be demonstrated. For example, look to see that production standards are met consistently.

Assessment method and context

Assessment will occur on an industrial buffing machine(s) equipment and will be undertaken in a work-like environment.

Competence in this unit may be assessed:

- by using an appropriate, industrial tyre buffing machine requiring demonstration of operation and start/stop procedures
- in a situation allowing for the generation of evidence of the ability to respond to problems
 - by using a suitable simulation and/or a range of case studies/scenarios
 - through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency unit includes the use of manual handling aids and various powered equipment/aids. This competency applies to work environments and sectors within the rubber industry. It includes the operation of all relevant ancillary equipment.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards. These may include:

- movement of materials
- stacking of materials
- basic measurement of quantities
- basic pre-blending of materials.

Tools and equipment

This competency includes use of equipment and tools such as:

- hand carts and trolleys
- knives and other bag opening equipment
- hoists/lifting equipment not requiring any special permits or licences
- bung spanners and similar
- basic hand tools required for opening of material packaging
- relevant personal protective equipment.

Hazards

Typical hazards include:

- spills
- dusts/vapours
- hazardous materials (including rubber dust produced during the buffing process)
- manual handling hazards
- knife hazards.

Problems

Respond to routine problems' means 'apply known solutions to a variety of predictable problems'. Typical process and product problems may include:

- variations in tyres

- contamination of tyres
- damaged tyres.
- wrong raw materials
- inappropriate blade selection
- insufficient or too deep buffing.
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Unit Sector(s)

Not applicable.