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## Overview

This standard is about inspecting heavy goods and public service vehicle tyres to assess their condition and suitability for repair and carrying out necessary repair, replacement or refitting activities.

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## Performance criteria

### You must be able to:

P1 select and use suitable personal protective equipment throughout all heavy goods and public service vehicle tyre **inspection**, repair and replacement activities

P2 use suitable sources of technical information to support your **inspection**, repair, re-grooving and replacement of **heavy goods and public service vehicle tyres \***

***P3 work in a way that minimises the risk of damage to the vehicle and its systems***

***P4 confirm that all the \*tools and equipment*** required are safe prior to use

P5 ensure your **inspection techniques** are sufficiently in depth to identify the severity of all tyre and wheel defects

P6 conduct all **inspection**, repair and replacement activities following:

P6.1 manufacturers' instructions

P6.2 your workplace procedures

P6.3 health and safety requirements

P6.4 the current industry standard for tyre repair

P7 carry out all **inspection**, repair and replacement activities using:

P7.1 suitable **tools and equipment**

P7.2 the correct **inspection techniques \***

***P7.3 the correct type, size and construction of tyre***

***P8 clearly identify and record the cause of any tyre, valve or wheel faults following your normal workplace procedures***

***P9 make clear and accurate recommendations for further action to the relevant person(s) when necessary***

***P10 ensure that replaced and refitted \*heavy goods and public service vehicle tyres*** and valves are correctly fitted

P11 ensure re-grooved tyres meet manufacturer's and legal requirements prior to release to the customer

P12 dispose of removed components and debris safely to meet current legal and your workplace requirements

P13 complete all activities within the agreed timescale

P14 promptly report any anticipated delays in completion and any additional faults identified to the relevant person(s)

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## Knowledge and understanding

### You need to know and understand:

#### **Legislative and organisational requirements and procedures**

K1 the current health and safety legislation and workplace procedures relevant to workshop practices and personal and vehicle protection

K2 the current legal requirements for heavy goods and public service vehicle tyres, and the relevant parts of the prevailing British and or European standard for the repair of **heavy goods and public service vehicle tyres** BASU159

K3 how to isolate scrapped tyres and dispose of waste materials in your workplace

K4 the importance of disposing of waste safely and the consequences of not doing so to others and the environment

K5 the importance of selecting, using and maintaining the appropriate personal protective equipment when inspecting, repairing and replacing *\*heavy goods and public service vehicle tyres \**

K6 the agreed work specification

K7 your workplace procedures for:

K7.1 the referral of problems

K7.2 reporting of delays to the completion of work

K7.3 personal protection

K7.4 ensuring vehicle is safe to work upon

K8 the requirements for protecting the vehicle and contents from damage before, during and after removing and replacing wheels

K9 the importance of working to agreed timescales and keeping others informed of progress

K10 the relationship between time and cost

K11 the importance of promptly reporting anticipated delays to the relevant person(s)

#### **Tools and equipment**

K12 how to select, prepare and use the **tools and equipment** necessary for inspecting, repairing, re-grooving, replacing and refitting **heavy goods and public service vehicle tyres**, including the use of specialist bead unseating tools for EVA/AVH rims

K13 ensure correct calibration (self/third party) of **tools and equipment**

#### **Materials**

K14 the types of tyre repair materials available (i.e. rubber only plug patch unit and rubber only patch and filler material)

K15 the repair material manufacturer's instructions for the application of repair materials for the type(s) of tyres on which you are working

#### **Tyre inspection, removal, repair and replacement**

K16 how to find and use suitable sources of information on **heavy goods and public**

**service vehicle tyres**

K17 the purpose, function and construction of **heavy goods and public service vehicle tyres** \*

***K18 the specific commercial tyre positions e.g drive, steer and trailer and how to select the appropriate tyre***

***K19 the types and functions of tyre pressure monitoring systems***

***K20 the types of heavy goods and public service vehicle wheel rims and how to inspect them and their components for compatibility and serviceability***

***K21 the types of valves used in \*heavy goods and public service vehicle tyres*** and their installation techniques

K22 the types of heavy goods and public service vehicle wheel fixings and how to inspect them for compatibility and serviceability BSAU 50

K23 the common faults associated with **heavy goods and public service vehicle tyres** and their possible causes

K24 the potential risks associated with aged tyres

K25 the manufacturer's recommendations on the 'reparability' of their tyres

K26 what a tyre **inspection** should cover

K27 the inspection techniques associated with **heavy goods and public service vehicle tyres** and how to conduct them

K28 the importance of taking accurate measurements and ensuring any adjustments are within

K29 acceptable tolerances for the vehicle

K30 the importance of basing your decision to replace or repair tyres upon the results of your **inspection** \*

***K31 how to remove, repair, replace and refit \*heavy goods and public service vehicle tyres***, wheels and valves

K32 how to identify the re-groovability of **heavy goods and public service vehicle tyres**

K33 how to re-groove **heavy goods and public service vehicle tyres** to manufacturers' recommendations

K34 the biological and environmental hazards associated with working in the industrial environment

K35 the importance of checking the safety and operation of equipment prior to use

K36 how to work safely avoiding injury to yourself, others and damage to wheels when removing and refitting **heavy goods and public service vehicle tyres**

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## Scope/range

1. **\*\*Heavy goods and public service vehicle tyres\*\*** are fitted to:

- 1.1. 17.5, 19.5 and 22.5 diameter code rims
- 1.2. external valve aperture or hole (EVA/EVH, A type, U type) rims
- 1.3. split rims
- 1.4. wide single rims

2. **Tools and equipment** includes:

- 2.1. lifting and supporting equipment
- 2.2. wheel removal and refitting tools
- 2.3. tyre removal and refitting hand tools
- 2.4. measuring equipment
- 2.5. tyre safety inflation equipment
- 2.6. wheel balancing equipment if applicable
- 2.7. tyre re-grooving equipment
- 2.8. tyre repair tools
- 2.9. Tyre Pressure Monitoring Systems (TPMS)

3. **Inspection** includes:

- 3.1. wheel rim components and fixings
- 3.2. tyres
- 3.3. valves
- 3.4. inner tubes
- 3.5. flaps

4. **Inspection techniques** include:

- 4.1. visual
- 4.2. measurements of tread depth
- 4.3. tyre pressures
- 4.4. balance
- 4.5. electronic

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## Glossary

*This section contains examples and explanations of some of the terms used but does not form part of the standard.*

### **Agreed timescales**

Examples include job times set by your company or agreed with a specific customer.

### **Heavy goods and public service vehicles**

These are medium and heavy goods vehicles, buses and coaches of 3500kgs gross vehicle mass (GVM) and above.

### **Sources of information**

Examples include: vehicle and tyre manufacturer's publications, Government publications, company documentation, BSI publications.

### **Tyre safety inflation equipment**

Examples include: tyre safety cages and 'bag-it' type inflation devices.

### **Workplace**

Examples include: workshops, an outdoor environment, customer's premises and wherever you would normally work when dealing with heavy goods or public service vehicles.

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