
Overview

This standard is about inspecting light 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 light vehicle tyre **inspection**, repair and replacement activities
 - P2 use suitable sources of technical information to support your **inspection**, repair and replacement of **light vehicle tyres**
 - P3 work in a way which 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
 - P6.5 tyre labelling legislation
 - 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 workplace procedures
 - P9 make clear and accurate recommendations for further action to the relevant person(s) when necessary
 - P10 ensure that replaced and refitted **light vehicle tyres** and valves are correctly fitted and balanced and conform to legal requirements prior to releasing the vehicle to the customer
 - P11 ensure that all work carried out conforms to any legal requirements prior to releasing the vehicle to the customer
 - P12 dispose of removed components 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 **light vehicle tyres** and their repair or replacement
- K3 tyre labelling legislation
- K4 how to isolate scrapped tyres and dispose of waste materials in your workplace
- K5 the importance of disposing of waste safely and the consequences of not doing so to others and the environment
- K6 the importance of selecting, using and maintaining the appropriate personal protective equipment when inspecting, repairing and replacing high performance **light vehicle tyres**
- K7 the agreed work specification
- K8 your workplace procedures for:
 - K8.1 the referral of problems
 - K8.2 reporting of delays to the completion of work
 - K8.3 personal protection
 - K8.4 ensuring vehicle is safe to work upon
- K9 the requirements for protecting the vehicle and contents from damage before, during and after removing and replacing wheels
- K10 the importance of working to agreed timescales and keeping others informed of progress
- K11 the relationship between time and cost
- K12 the importance of promptly reporting anticipated delays to the relevant person(s)

You need to know and understand:

Tools and equipment

- K13 how to select, prepare and use the **tools and equipment** necessary for inspecting, repairing, replacing and refitting high performance **light vehicle tyres**
- K14 ensure correct calibration (self/third party) of **tools and equipment**

You need to know
and understand:

Materials

- K15 the types of tyre repair materials available (i.e. rubber only plug patch unit and rubber only patch and filler material)
- K16 the repair material manufacturer's instructions for the application of repair materials for the type(s) of tyres on which you are working

You need to know
and understand:

Tyre inspection, removal, repair and replacement

- K17 how to find and use suitable sources of information for the tyres on which you are working
- K18 the purpose, function and construction of **light vehicle tyres**
- K19 the types and functions of tyre pressure monitoring systems
- K20 the types of valves used in **light vehicle tyres** and their installation techniques including TPMS where fitted
- K21 how run flat tyres function
- K22 the common faults associated with **light vehicle tyres** and their causes
- K23 the manufacturer's recommendations on the 'reparability' of their tyres
- K24 what a tyre **inspection** should cover
- K25 the **inspection techniques** associated with **light vehicle tyres** and how to conduct them
- K26 the importance of taking accurate measurements and ensuring any adjustments are within acceptable tolerances for the vehicle
- K27 the importance of basing your decision to replace or repair tyres upon the results of your **inspection**
- K28 how to remove, repair, replace and refit **light vehicle tyres**, wheels and valves
- K29 the characteristics of ultra tyres and how they are fitted
- K30 the importance of checking the safety and operation of equipment prior to use
- K31 how to work safely avoiding injury to yourself, others and damage to wheels when removing and refitting **light vehicle tyres**
- K32 the potential risks associated with aged tyres

Scope/range

- 1. 1. Light vehicle tyres include:**
 - 1.1. radial
 - 1.2. cross ply
 - 1.3. bias belted
 - 1.4. run flat
 - 1.5. partial run flat
 - 1.6. self sealing
 - 1.7. sound absorbing
 - 1.8. manufacturer specific
 - 1.9. those with a W, Y or ZR rating
 - 1.10. those having an aspect ratio of 50% or below
 - 1.11. directional, asymmetric and Ultra High Performance tyres (UHP)

- 2. Tools and equipment includes:**
 - 2.1. lifting and supporting equipment
 - 2.2. wheel/tyre removal and refitting equipment
 - 2.3. measuring equipment, to include electronic measuring devices
 - 2.4. tyre inflation equipment, including alternative gases
 - 2.5. bead blaster/Cheetah
 - 2.6. wheel balancing equipment
 - 2.7. specialist equipment for tyre removal
 - 2.8. tyre repair tools
 - 2.9. Tyre Pressure Monitoring Systems (TPMS)

- 3. Inspection includes:**
 - 3.1. wheel and fixings
 - 3.2. tyres
 - 3.3. valves

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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**Additional
information**

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

Glossary**Agreed timescales**

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

Light vehicle tyres

These can be from light vehicles, light commercials, trailers and caravans.

Sources of information

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

Wheel fixings

These include spigot mountings, tyre retainers, locking wheel nut indicators.

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IMIVF02
Inspect, repair and replace light vehicle tyres

Developed by	IMI
Version number	3
Date approved	December 2021
Indicative review date	December 2024
Validity	Current
Status	Original
Originating organisation	IMI Ltd
Original URN	VF02
Relevant occupations	Vehicle Fitters; Vehicle Fitting Operations (Automotive)
Suite	Vehicle Fitting
Key words	Inspect; repair; replace; light; vehicle; tyres;