
Overview

This standard is about inspecting industrial equipment tyres to assess their condition and suitability for repair and carrying out necessary repair, replacement or refitting activities.

DRAFT

Performance

criteria

- You must be able to:
- P1 select and use suitable personal protective equipment throughout all industrial tyre **inspection**, repair and replacement activities
 - P2 use suitable sources of technical information to support your **inspection**, repair and replacement of **industrial 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, valve 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 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 **industrial tyres** and valves are correctly fitted
 - P11 ensure that any work carried out conforms to 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)

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 relating to **industrial tyres**
- K3 the hazards and risks associated with working in industrial environments
- K4 the specific health and safety requirements for the industrial environment(s) in which you are working
- K5 how to isolate scrapped tyres and dispose of waste materials in your workplace
- K6 the importance of disposing of waste safely and the consequences of not doing so to others and the environment
- K7 the importance of selecting, using and maintaining the appropriate personal protective equipment when inspecting, repairing and replacing **industrial tyres**
- K8 the agreed work specification
- K9 your workplace procedures for:
 - K9.1 the referral of problems
 - K9.2 reporting of delays to the completion of work
 - K9.3 personal protection
 - K9.4 ensuring vehicle is safe to work upon
- K10 the requirements for protecting the vehicle and contents from damage before, during and after removing and replacing wheels
- K11 the importance of working to agreed timescales and keeping others informed of progress
- K12 the relationship between time and cost
- K13 the importance of promptly reporting anticipated delays to the relevant person(s)

You need to know and understand:

Tools and equipment

- K14 how to select, prepare and use the **tools and equipment** necessary for inspecting, repairing, replacing and refitting **industrial tyres**, including the use of specialist bead unseating tools
- K15 ensure correct calibration (self/third party) of **tools and equipment**

You need to know
and understand:

Materials

- K16 the types of tyre repair materials available (i.e. rubber only plug patch unit, rubber only patch and filler material and externally applied repair materials) and tube repair materials
- K17 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

- K18 how to find and use suitable sources of information on **industrial tyres**
- K19 the purpose, function and construction of **industrial tyres**
- K20 the specific industrial tyre positions e.g. drive and steer and how to select the appropriate tyre
- K21 the types of industrial vehicle wheel rims and how to inspect them and their components for compatibility and serviceability
- K22 the difference between well base (WB) and double well base (DWB) and divided type wheel rims and multi piece wheels
- K23 the types of valves used in **industrial tyres** and their installation techniques
- K24 the types of industrial vehicle wheel fixings and how to inspect them for compatibility and serviceability
- K25 how to improve traction by the use of ballast (i.e. water ballasting, wheel weights, chassis weights)
- K26 the common faults associated with **industrial tyres** and their possible causes
- K27 the potential risks associated with aged tyres
- K28 the manufacturer's recommendations on the 'reparability' of their tyres
- K29 what a tyre **inspection** should cover
- K30 the **inspection techniques** associated with **industrial tyres** and how to conduct them
- K31 the importance of taking accurate measurements and ensuring any adjustments are within acceptable tolerances for the vehicle
- K32 the importance of basing your decision to replace or repair tyres upon the results of your **inspection**
- K33 how to remove, repair, replace and refit **industrial tyres**, wheels, valves and tubes
- K34 how to identify the re-groovability of industrial vehicle tyres

-
- K35 how to re-groove industrial vehicle tyres to manufacturers' recommendations
 - K36 how to make the vehicle safe in an outdoor industrial environment
 - K37 the biological and environmental hazards associated with working in the industrial environment
 - K38 the importance of checking the safety and operation of equipment prior to use
 - K39 how to work safely avoiding injury to yourself, others and damage to wheels when removing and refitting **industrial tyres**

DRAFT

Scope/range

- 1. Industrial tyres** include:
 - 1.1. pneumatic
 - 1.2. resilient
 - 1.3. press on band
 - 1.4. direct band

- 2. Tools and equipment** includes:
 - 2.1. lifting and supporting equipment
 - 2.2. wheel removal and refitting tools
 - 2.3. tyre removal and refitting equipment
 - 2.4. measuring equipment
 - 2.5. tyre safety inflation equipment
 - 2.6. tyre repair tools
 - 2.7. tyre re-grooving equipment

- 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. tyre pressure
 - 4.3. measurement

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.

Plant equipment

Examples include: fork lift trucks, cranes and load moving equipment, etc.

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, portable 'H' cages, and 'bag-it' type inflation devices (dependent on vehicle size).

Workplace

Examples include: workshops, an industrial environment such as a factory or warehouse, customer's premises and wherever you would normally work when dealing with industrial equipment.

| | |
|---------------------------------|--|
| 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 | VF06 |
| Relevant occupations | Vehicle Fitters; Vehicle Fitting Operations (Automotive) |
| Suite | Vehicle Fitting |
| Key words | Inspect; repair; replace; industrial; equipment; tyres; |