

Fork lift truck tyre safety

Function of a tyre

Tyres provide grip for movement, friction for braking and an element of suspension for safety and comfort.

The correct tyres in good condition are an essential aid to safe and efficient operations. Incorrect tyres for the application, or tyres in poor condition or excessively worn, are a potentially dangerous and expensive hazard.

Vulnerability to damage

When damaged, in poor condition or in the case of pneumatic tyres, under or over inflated, they may adversely affect the stability of the truck.

Tyre condition checks

Checking of all tyres is therefore an important element of a daily or pre-shift check. Tyre condition will also be monitored as part of routine preventive maintenance. Action should be taken to replace damaged or worn tyres without delay.

Tyre and wheel maintenance

It is important to check and maintain tyres and wheels:

- Inspect all tyres daily for damage
- Change tyres as recommended by the manufacturer.
- Always replace tyres with the equivalent type (the same size, type, ply and performance specification).
- Check pressures on pneumatic tyres weekly or more often if there is evidence of deflation. They should be maintained at the manufacturer's recommended pressure. Failure to do this can result in instability and reduced tyre life.
- If safety critical defects are identified, such as displaced locking rings and flanges, damaged flanges or rims, the wheel/tyre must be withdrawn from use.
- Do not attempt to repair or modify a wheel or its components because this can affect the strength and integrity of the assembly.

Removal of wheels and tyre fitting

Removing wheels can involve risks, particularly when they are fitted with pneumatic tyres, which can suddenly release pressure and cause injury. Wheels and tyres should only be removed by trained and competent people with the appropriate equipment for the wheel and tyre combination. No one should ever attempt to repair or remove a wheel with a pneumatic tyre, using heat, with the tyre in place.

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Tyre Wear

Pneumatic tyres should have a minimum of 1.6mm of the original or re-grooved tread pattern over the centre 75% of the tread around the entire circumference.

Solid rubber resilient tyres may be used until they are worn to the wear indicator, also known as the 60J line, or safety line as indicated on tyre sidewall. See illustration below.

Press-on band, moulded direct and conical base tyres may be used until 2/3rds of the original thickness remains. They should be changed if there is any sign of damage, deformation or the tyre coming away from the wheel.

Not all tyres have a tread. Some tyres that do can be re-grooved but this should only be done professionally, in accordance with the tyre manufacturer's instructions and never below the 60J line.

Tyre wear can be difficult to assess. If in doubt advice should be sought from the fork lift truck supplier or manufacturer.



Health and Safety Executive (HSE) guidance

HSE publication **INDG433 Safety during tyre inflation in motor vehicle repair** deals specifically with the dangers during tyre inflation.

HSG261 Health and safety in motor vehicle repair and associated industries offers advice on the other hazards that can be found in motor vehicle repair and associated industries.

British Industrial Truck Association (BITA) guidance

BITA has produced a variety of associated Guidance Notes listed below, that are all available from their webstore [here](#).

- GN50 - Tyre tread wear
- GN63 - Solid Tyre Fitting Guidance
- GN64 - Press Fitting of Solid Tyres
- GN67 - Multi-piece pneumatic tyred wheels – Inspection, maintenance and repairs

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Operator daily checks inspection booklets

The **FLTA “Operator Safety – Daily or Pre-shift Checks” booklet** is a practical booklet that contains 66 inspection pages, for completing essential daily checks. It also contains a detailed guide as to how checks should be completed. The booklet is designed to fit inside a self-adhesive clear fronted plastic **storage pouch**.

The ‘cheque-book’ type **FLTA Pre-Shift Inspection Pad** contains 30 inspection forms. The pad and completed inspection forms are designed to fit inside a durable plastic, clear fronted **plastic storage paddle**. The paddle comes complete with a cable tie for attaching to the truck.

UKMHA further guidance

Also see UKMHA Fact Sheets 10 and 28 for further information.

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The information in this Fact Sheet has been assembled and interpreted to give truck owners and users basic guidance on frequently asked questions. Further important information will be given in the quoted reference documents. Responsibility for meeting the safety obligations discussed rests with the employer, and the UKMHA will not accept liability for any problem arising as a result of the content of this document. Technical Bulletins, containing more detailed information and updated as appropriate, are made available free to members of the **UKMHA SAFE USER GROUP**.

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