

Tyre Management Guide

Tyres form one of the most crucial elements of vehicle safety. Although tyre manufacturers go the extra mile by producing safe, dependable, and compliant products, it's your responsibility to keep the tyres in good working condition. Otherwise, it may lead to defective tyres, which can cause accidents or delayed deliveries due to tyre failure.

Notably, there are legal obligations and detailed laws concerning the suitability of tyres fitted to vehicles. So, how can you effectively manage and take care of your fleet's tyres?

This guide contains vital information required for safe and efficient tyre management.

Tyre Pressure

Appropriately inflated tyres are vital to maintaining a safe and fuel-efficient fleet. Remember, over-inflated tyres present a safety concern because they reduce the amount of tread in contact with the road. This drastically impacts vehicle braking and the overall comfort of your ride.

The situation can be even worse on wet roads where reduced contact area increases the risk of aquaplaning. On the other hand, deflation will increase tyre wear and tear alongside fuel consumption. Keep in mind that a 10% decrease in tyre pressure leads to a 2% increase in fuel consumption.

This, in turn, leads to an increase in carbon dioxide and nitrogen oxide gas emissions. Tyres tend to wear more quickly when under-inflated, thus adding to costs. Fortunately, a Tyre Pressure Monitoring System (TPMS) can warn you when your tyre pressure drops.

Although it's not a requirement by law, you can purchase a TPMS from most vehicle manufacturers to stay ahead of events. But no matter how useful they are, they should never replace regular tyre checks as part of your daily walk-around check.



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Tyre Selection

When selecting a suitable tyre for your company vehicle, you need to consider the following:

- **Tyre structure**: There are three types of tyre structure bias-belted, radial, and cross-ply tyres. Generally, cross-ply tyres come with diagonally lapping plies, while the plies in radial tyres are arranged according to how the tyre rotates. As for the bias-belted tyres, they're similar in structure to the cross-ply ones but come with additional steel belts for carcass protection.
- **Pairing of tyres with various structures**: You should always ensure that any tyre you fit in an axle is of the same design and size.
- **Super singles**: Normally found on larger PCVs and HGVs, super singles have a road contact area of about 300mm. You can effectively use them on steer and trailer axles. They're a favourite to most drivers because they've got less rolling resistance and weigh less than dual tyres, resulting in low fuel consumption.
- **Twin (dual) tyres**: These tyres are commonly used on larger vehicles because they provide better grip and stability. Before fitting them to the same axle, ensure they're of the same construction. And when fitting them, make sure they don't touch (except for laden vehicles).
- **Size**: The tyre size you settle for must be suitable for your operational needs. Before choosing a specific size, consider section width, the tyre's rim diameter, and aspect ratio.
- **Run-flat tyres**: These tyres have reinforced sidewalls that can temporarily support the weight of your vehicle after a puncture.
- *Tyre speed rating*: It's wise to know the maximum speed your tyre is legally approved for. Plus, consider the full load defined for your tyre.
- Load ratings: Each tyre comes with a maximum load rating which you shouldn't exceed.



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Tyre Storage

The ETRTO recommendations contain detailed guidance regarding tyre storage. It'd help if you keep your tyres in a cool, dry place. It's also a good idea to store them in a moderately ventilated environment and away from any contact with lubricants, oil, or hydrocarbon solvents.

You need to keep your tyres away from heat sources like radiators and pipes and protect them from exposure to strong artificial lighting and sunlight. It's best to perfectly arrange your tyres vertically and store them in a relaxed condition free from compression, tension, and any other deformation.

Performing Routine Checks

Routine tyre checks are essential in keeping them in top condition and extending their functional lifespan. Any technician who performs vehicle maintenance must be trained and certified to identify tire irregularities. Routine checks enable you to prevent premature tyre failure as you'll be able to identify wear patterns and the changes in your tyre characteristics.

Your driving team should know tyre pressure maintenance guidelines and other relevant policies regarding wheels and tyres.

Recycling/Disposing Of Tyres

As a vehicle operator, it's your responsibility to implement a viable procedure for recycling or disposing of tyres according to the local waste regulations. When working with professionals, ensure that they have policies, guidelines, and good tools to enable effective tyre recycling and disposal.

Caring For Tyres In Different Terrains And Weather

When it comes to caring for your tyres in different terrains and weather, it's advisable to appoint a reliable and responsible person who'll be accountable for maintenance duties. With the help of an expert, you can cover periodic safety inspections of tread depth, and the tyre condition. That way, you'll be able to address issues earlier, thus keeping your tyre running in many different terrains and weather conditions.



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Closing Thoughts

Developing a detailed and well-planned tyre management policy plays a pivotal role in helping you protect your investment. Besides leading to driver and vehicle safety, efficient tyre management further contributes to a significant saving on your operating costs.