



Dowse Haulage Tyre / Fuel use Policy

It is our policy to make our staff and drivers aware of the legal limits and their responsibility when driving Company vehicles.

Why are tyres important? In 2007, defective or under-inflated tyres were a contributory factor in the death of 43 motorists in the UK, and played a part in a further 984 accidents. In the HGV sector, statistics recorded by VOSA reveal an MOT failure rate of 36.5 percent in 2007/8, with 'condition of tyres' ranking as the second most common failure defects. The VOSA statistics reveal that the percentage of failure defects attributed to tyres rose from 4.9 percent in 2006/7 to 5.6 percent in 2007/8 among HGV motor vehicles. Tyres are of fundamental importance to road safety as they provide the only contact a vehicle has with the road. Basic checks such as making sure tyres are correctly inflated can make all the difference, as the pressurised air inside an HGV tyre has to support the weight of the vehicle and its load. Tyres must also be well maintained in order to keep the vehicle stable as it travels around corners, work in harmony with the vehicle's main suspension system and help the vehicle accelerate and brake effectively. Dowse Haulage aims to raise awareness of the importance of driving on safe and correctly maintained tyres among road haulage communities and commercial vehicle users

Safety

When a tyre is under-inflated, heat builds up inside the tyre, which may eventually lead to a blowout. Tyre failure may cause the driver to lose control of the vehicle, which is particularly dangerous on motorway carriageways.

In the event of a tyre failure, super-single tyres can present the driver with a particular challenge in terms of maintaining control of the vehicle.

Other motorists can be put at risk by any tyre debris left on motorway carriageways/roads.

Fitting a replacement tyre on a motorway hard shoulder is a highly dangerous activity. We have Road side assist for this!

Correct tyre maintenance can greatly reduce these risks and provide a safer working environment for drivers and fitters.

Vehicle handling

The tyre is a complex component of a vehicle that has been engineered to work in harmony with the vehicles sophisticated brake, steering and suspension systems. When a tyre is under-inflated, the tyre contains insufficient air to support the weight of the vehicle properly, which adversely affects acceleration, braking and cornering.

3. Fuel economy

By keeping tyres at their correct pressure, drivers can travel further on each tank of fuel and help to reduce CO2 emissions.

- When tyres are under-inflated, the contact patch with the road surface increases, causing increased drag, which in turn places more load on the engine
- The rolling resistance of an under-inflated tyre increases as it requires more energy to return to its original shape after each contact with the road
- Keeping tyres correctly inflated helps commercial fleets to minimise their cost per kilometre rate, while economising on fuel costs.

4. Premature tyre wear

Keeping tyres inflated to the recommended tyre pressure level for the vehicle ensures even tyre pressure distribution, optimum handling, and consequently a more even wear rate, keeping the tyres in service for longer.

- Driving on under-inflated tyres places excess stress on the tyre shoulders, causing uneven wear towards the outside edge of the tread
- Under-inflated tyres also heat up more quickly than correctly inflated tyres, and in extreme cases can lead to tyre failure
- Over-inflation causes high wear in the centre of the tread.

• What are the Different Types of Truck Tyre Wear?

1. Shoulder wear occurs when the tyre is travelling straight ahead while the wheel is pulling to one side. It causes a feathering effect which can be felt either on the outer or the inner edges of the tyre depending on whether the wheel is pulling inwards (known as toe-in or outwards (known as toe-out). It can be made worse by the camber of the road.
2. Sloped wear is smooth to the touch and is caused when the weight distribution of the vehicle is unbalanced by excessive camber. It can also be caused by hard cornering, overloading or a bent stub axle.
3. Rounded wear is caused by under-inflation or overloading, which produces a heel and toe effect whereby the leading edge of the contact patch is compressed and the trailing edge is rasped off as the compressed patch is dragged along the road.
4. Centre wear is the result of over-inflation, as all the heat caused through friction with the road passes solely through the central third.
5. Irregular wear can be caused by a number of factors including loose wheel nuts, incorrect twinning, poor wheel balancing, faulty brakes or suspension and irregular tyre pressures.
6. Eccentric wear is the result of a tyre that has been eccentrically fitted to the rim. It can also be caused by worn stud holes or severe imbalance.
7. Localised wear occurs when only one part of the tyre has been affected. Potential causes could be testing on a rolling road, a frozen axle, locked brakes, assembly imbalance, structural damage or failed repair

Top tips for correct tyre maintenance

Tyre Pressure

1. Check the pressure of HGV tyres before they leave the workshop, or once a week if the vehicle is a frequent visitor.
2. Check the pressure in all tyres not forgetting to check any spare tyre(s) as well.
3. Tyre pressure should be checked against the vehicle manufacturer's recommended pressure for the axle loads (or the tyre manufacturer's recommended operating pressures).
4. Check the pressure when tyres are cold or when the vehicle has travelled less than two miles.
5. Use a reliable and accurate pressure gauge.
6. Ensure that valve extensions are fitted and working for inner twins.
7. If you are unsure on any aspect of tyre pressure or tyre condition take your vehicle to an approved fitting centre and speak to the experts.

Tread depth

Dowse Haulage recommends that we change tyres before the legal limit of 1mm on trailers, 1.6mm on the tractor unit. The same regulation applies to re-grooved tyres. Tyre tread depth should be checked at least once a month or at every fleet inspection, using an accurate tread depth gauge.

Condition of tyres

1. Clean the dirt from the valves and make sure that valve caps are fitted to each wheel
2. Remove any stones and other objects embedded in the tread. Look out for any bulges, lumps or cuts to the tread & sidewalls.
3. Steering alignment should be corrected if front tyres show signs of excessive or uneven wear.
4. If the tyres have been re-grooved, check that there are no exposed cords and advise the fleet manager immediately as the tyre is unsafe for use.

What legislation should fleet managers be aware of? Poorly maintained tyres can cause commercial fleet managers a number of challenges ranging from a duty of care for their drivers and other motorists involved in a tyre failure incident, health and safety risks for those making roadside wheel changes through to vehicle downtime, premature tyre wear and higher fuel consumption. Fleet operators have a duty of care to their drivers and must ensure they are provided with a safe working environment, including the provision of safe and roadworthy vehicles. Since the Health and Safety Offences Act came into force in January 2009, UK courts have greater authority to prosecute businesses for committing offences such as fitting illegal tyres or faulty brakes. The maximum penalty has increased from £5,000 to £20,000.

Duty of care

Not only is the safety of the fleet's own drivers put at risk from a tyre failure, but other motorists can also be put at risk by any debris left on the carriageway. Furthermore, as any tyre fitter can testify, fitting a replacement tyre on a motorway hard shoulder is an activity fraught with risk and danger. Correct tyre maintenance can greatly reduce these risks and provide a safer working environment for drivers and fitters.

What should workshop managers look out for when a truck comes into the workshop? Commercial vehicle workshops can play their part in helping to keep truck drivers and other road users safe on the roads and reducing the number of HGV MOT test failures by checking a vehicle's tyres thoroughly when it enters the workshop.

What should fleet inspectors look out for in terms of damage and wear? Fleet inspectors can play their part in helping to keep truck drivers and other road users safe on the roads and reducing the number of HGV MOT test failures by checking a vehicle's tyres during the course of a routine fleet inspection. A list of the major causes of truck tyre damage and wear can be found here.

What regulations apply to truck drivers? Drivers can benefit from taking more time over tyre maintenance. Not only do they risk heavy fines and penalty points by driving on illegal tyres, they put themselves and other road users at risk by driving on tyres with insufficient tread depth to brake safely in the wet. Similarly, adopting a responsible attitude towards correct tyre inflation helps to ensure driver safety. If the tyres on your vehicle are under-inflated before you set off, arrange for them to be inflated. When a tyre is under-inflated, the tyre contains insufficient air to support the weight of the vehicle properly, which adversely affects acceleration, braking and cornering. Over-inflated tyres can also reduce the handling quality of the vehicle and cause high wear in the centre of the tread.