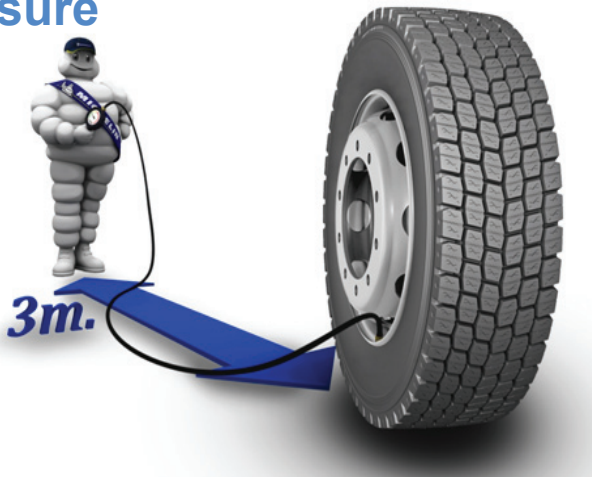


Ask The Michelin Man



The correct tyre inflation pressure



The air pressure in the tyre is of prime importance for the tyre to work correctly, it is what makes it possible to support and move the load or the people being carried in a way that is:

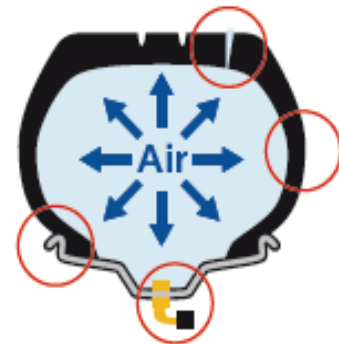
- Safe
- Durable
- Economical
- Comfortable

However, in the surveys and monitoring carried out by MICHELIN, the pressure often appears as one of the maintenance points that is least-well monitored.

➔ Tyres and pressure

Whilst in use, a tyre can lose pressure for various reasons:

- Natural pressure loss through the components.
- Perforation completely through the structure.
- Damaged wheel (cracks, welds, etc.).
- Leak between the valve and the wheel.
- Leak in the valve mechanism.
- Leak in the wheel-bead join.



As tyre pressures are not included in most vehicle's built-in monitoring systems, regular visual checking with a calibrated pressure gauge is the only normal way of detecting possible air leakage problems.

➔ Tyres and pressure

Running a tyre with inappropriate tyre inflation pressure is likely to have a detrimental effect on some basic safety-related performance aspects such as:

- The integrity of the tyre casing.
- The stability and handling of the vehicle.
- The available grip from the tyre.
- Sensitivity of the tyre to accidental damage such as "kerb impacts".



Tyres and pressure

Life and wear pattern

Incorrect tyre inflation pressure affects the mileage and wear pattern of the tyres. In addition it can reduce the possibilities of regrooving and retreading the tyres.

Pressure - 20%* = life - 20%
 Pressure - 22psi = life - 40,000 km*

* For a nominal pressure of 116psi and an average mileage of 125,000 miles (200,000 km)

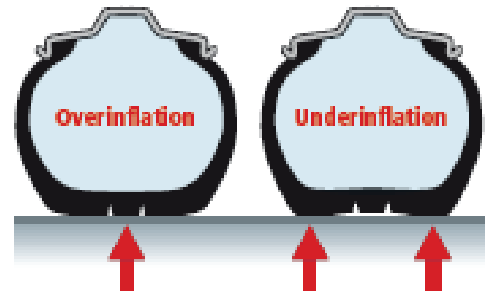
ii: - 22psi gives a 10% mileage loss).

Fuel consumption

An underinflated tyre has a higher rolling resistance and therefore increased fuel consumption.




Pressure - 20% = consumption + 1.7%
 Pressure - 22psi = consumption + 0.6 l/100 km*

* on a road going 6 axle combination used on motorways with nominal pressures between 85 and 130 psi. This figure may vary according to vehicle make and model as well as speed and application



Monitoring the pressures

Please note that this table is a guide only

Under inflation of up to - 7psi Over inflation of up to + 7psi	+safety + life - Fuel consumption	ACCEPTABLE PRESSURE Correct to the recommended pressure as soon as possible	
Under inflation of between - 8psi and 14.5psi	- life/irregular wear + fuel consumption	TEMPORARILY ACCEPTABLE PRESSURE Correct immediately and monitor	
Under inflation of more than - 14.5psi	Rapid damage when driving with risk of rapid deflation - stability and grip - life/irregular wear + fuel consumption	UNACCEPTABLE PRESSURE Remove the tyre and inspect the interior. If twin fitment: remove and examine the adjacent assembly	

In all circumstances the pressures recommended by the manufacturer of the vehicle or of the tyre must be observed (1). The pressures must always be appropriate for the load and the use.

(1) The standard recommended pressures are available from your MICHELIN Technical department; also consult www.michelintransport.com

MICHELIN recommendations

It is essential to regularly monitor the condition of your tyres (tread depth, wear pattern, damage, etc.) and in particular the inflation pressures. In so doing, certain recommendations must be observed:

- Use an accurate pressure gauge that has been calibrated and is in working order.
- Check and adjust the pressures when the tyres are cold.
- When a tyre is first fitted, the inflation pressure must be checked after 24 hours.
- Never adjust the pressure when the tyre is hot.
- Do not inflate a truck tyre to more than 145psi.
- Check the internal condition of a tyre that has been used when underinflated to ensure it is suitable for further service.

For more information on inflation pressures, tyre damage and suitability for further service, contact Michelin Technical department on: 0845 366 1535

