TOYO TIRE TALK

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Issued by Technical Service Department of TOYO Japan.

Subject : Tire Inflation Pressure

This TTT is a reissue, based on TTT-033 (released in September 1995).

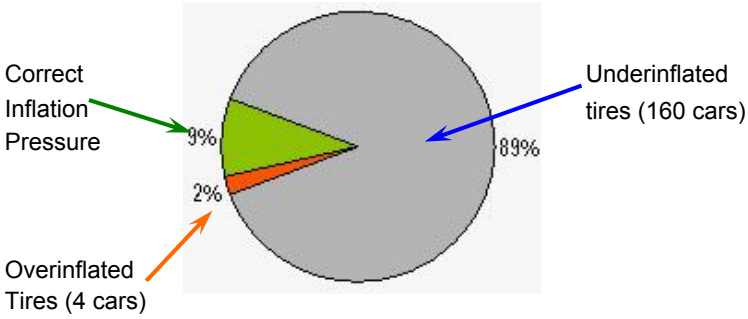
As is known, correct inflation pressure is essential to ensure tire performance and safe driving. Despite this, pressure maintenance is often neglected by tire users. In this TTT the subject of correct inflation pressure maintenance is covered again, with the aim of promoting awareness of correct tire inflation pressure.

Tire Inflation Pressure

Vehicles are held up and supported by the air chamber formed within the tires. The most important factor affecting tire performance is inflation pressure. However, it is a fact that many vehicles are driven with underinflated tires.

The following results from a JATMA* survey are provided in support of this statement. In the survey, the rate of vehicles running with underinflated tires was nearly 90 percent.

* JATMA - The Japan Automobile Tyre Manufacturers Association



Survey Data
Date : Nov. 15 & 16, 2007
Object : 181 cars (742 tires)
Place : Two parking areas in a shopping mall in Nagoya city.

Underinflation is the most common cause of tire damage and lower fuel economy.

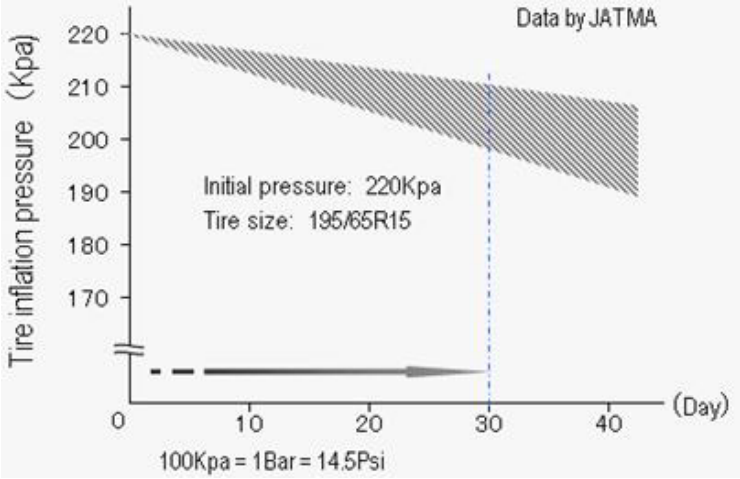
In the worst case, an extremely underinflated tire will burst, which can cause serious traffic accidents.

Run flat damage caused by extreme underinflation.

Tire Air Loss

Tires are mainly made of rubber. Although good airtight inner liners are used to prevent air from escaping through tires, air will still leak out slowly, similar to how a balloon loses its air from its surface over a period of some days.

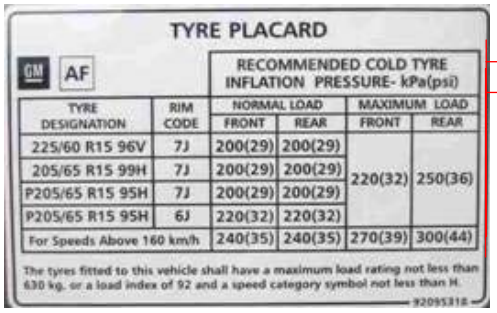
Tires will gradually deflate as air escapes from their casing over the course of time. The following graph has reference data of air loss with time. Generally, even if a vehicle has not been driven, the tire pressures may decrease by 5%-10% every month.



Pressure may decreases by
10 kPa - 20 kPa (5%-10%) monthly.

Correct Tire Inflation Pressure

What is the correct tire inflation pressure? The correct inflation pressure is recommended by the vehicle manufacturer as indicated on the tire information placard, and in the owner's manual. Tire pressures must be checked regularly and adjusted according to placard. The following is an example of a tire placard.



TYRE PLACARD

GM AF

TYRE DESIGNATION	RIM CODE	RECOMMENDED COLD TYRE INFLATION PRESSURE- kPa(psi) NORMAL LOAD FRONT	NORMAL LOAD REAR	MAXIMUM LOAD FRONT	MAXIMUM LOAD REAR
225/60 R15 96V	7J	200(29)	200(29)	220(32)	250(36)
205/65 R15 99H	7J	200(29)	200(29)		
P205/65 R15 95H	7J	200(29)	200(29)		
P205/65 R15 95H	6J	220(32)	220(32)		
For Speeds Above 160 km/h		240(35)	240(35)	270(39)	300(44)

The tyres fitted to this vehicle shall have a maximum load rating not less than 630 kg. or a load index of 92 and a speed category symbol not less than H.

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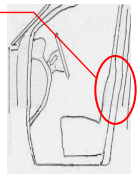

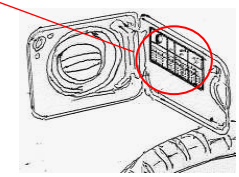

In most vehicles, the placard is located on the driver's side pillar, inside the glovebox, or on the inside of the fuel filler door.

The correct inflation pressure for the vehicle is NOT on the tire. That is the maximum tire pressure. →

Hints for Maintenance

Regular checking of tire inflation pressure is very important for tire performance and safe driving. Please recommend the following to customers on how to check tire inflation pressures.

1. Check tire pressures at once a month, and every time before driving a long distance, and check the pressures when the tires are cold.
2. Check tire pressures with a tire pressure gauge, not just a visual check. It is very difficult to determine whether tires are properly inflated just by looking at them, especially low profiles.
3. Spare tire pressure may decrease, don't forget to check it too.
4. If the tire pressure rises because of over-heating, do NOT release the 'excess' air from the tire.

In the next TTT, 'The Influence of inflation pressure on tire performance' will be covered.