# Tire pressure and wear.

220 kPa/2,2 BAR / 32 psi

What do these letters and numbers mean?

# Why know the meaning of these letters and numbers?

- You will probably own a vehicle one day and will be responsible for checking and adjusting the tire pressure on your vehicle.
- You will also need to make sure for your own safety and the safety of your passengers that your tires are safe in terms of tread wear.
- You will also have to make sure that your tires have an even wear pattern so that you are always safe on the road.

# You can find the recommended tire pressure on the sticker of the driver's door or in the owner's manual:



## Tire pressure

- Tires must be inflated to the pressure recommended by the manufacturer.
- Tires have a maximum pressure marked on the sidewall of the tire. This pressure indicates the maximum pressure to which the tire can be safely inflated.

### Tire pressure

- Tire pressure is usually measured in Psi and kPa.
- PSI (pound per square inch) is an Anglo-Saxon unit of pressure.
- The kPa is a metric unit of measurement that indicates kilo Pascal.
- The measuring tool used by the technician is the pressure gauge.



#### An under-inflated tire

- An under-inflated tire causes several problems such as
  - Increased fuel consumption.
  - Increased tire heat and risk of a blowout.
  - Risk of tire deformation due to premature wear.
  - Premature wear on the sidewalls of the tire.

#### An overinflated tire

- An overinflated tire causes several problems such as
  - Decreased contact area between the tread and the road. (less traction)
  - Compromised handling at cruising speeds, in curves and during braking.
  - Premature wear in the centre of the tread.

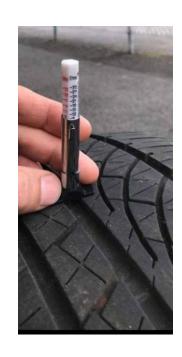
#### The wear indicator on the tread

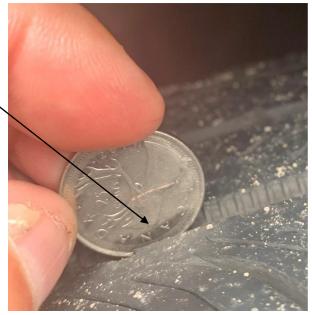
- A tire has six wear indicators evenly distributed on the tire.
- This indicator shows the minimum depth of the tire. This wear represents 2/32 of an inch or 1.59 mm.
- The tire has lost 80% of its efficiency on water when the wear indicators are equal to the tread.
- Wear indicators :

# Checking tire wear

• The tool for checking tire wear is called a depth gauge.

• A quarter will check if the tire has a minimum of 4/32 or 3.175 mm. If you can see the moose's nose tip, then the tire needs to be replaced.





#### Non-uniform wear

- Uneven tire wear may indicate:
  - A problem with the steering geometry.
  - A problem with the suspension.
  - A problem with the wheel balance.

Insert your picture here

Insert your picture here

Insert your picture here