

PROPER MOUNTING OF A MICHELIN® MOTORCYCLE TIRE

MOUNTING

PRIOR TO MOUNTING

The rim must be clean and in good condition.

For Tubeless (TL) tires:

- Make sure the rim is compatible with a tubeless tire. See table below for details.
- A new valve is recommended.

For Tube Type (TT) tire

- Make sure the rim is compatible with a tube type tire.
- A new inner tube is recommended. Lightly inflate prior to installing to avoid kinks or pinching.

STEP 1

Lubricate both beads of the tire and both bead seats and safety humps on the rim (Fig. 1).

STEP 2

Observe the rolling direction indicated by the rotation arrow on the tire before placing the tire on the rim.

STEP 3

Place the lower bead on the rim and perform bead-to-rim mounting using suitable levers or tire mounting machine (Fig. 2).

- Ensure the gap between the rim and head of the machine is at least 3mm.
- Ensure the head of the machine is oriented with the curvature of the rim.
- Start / finish mounting the bead at the location of the valve.

STEP 4

Position the head of the machine to install the second bead (Fig. 3).

During the fitment of the second tire bead, it is mandatory to maintain pressure on the sidewall opposite the levers or machine head in order to reduce excessive stretching of the tire, which could cause degradation (Fig. 4).

STEP 5

Once the tire is on the rim orient it in an upright position with the valve at the six o'clock position (Fig. 5). If needed, compress the tire against the bead to establish a seal during inflation (Fig. 6).

STEP 6

Slowly inflate the tire without the valve core up to 51 psi (3.5 bars) in order to seat the beads correctly at all points around the rim. Verify both beads seat identically and that the tire is centered on the rim.

TT: Completely deflate the tire to allow tube to properly orient itself inside the tire.

STEP 7

Install the valve core and inflate to the recommended pressure according to the motorcycle manufacturer's specifications (Fig. 7). Check proper bead seating one last time.

STEP 8

Install the valve cap and balance the tire assembly if needed.



Fig. 1: Lubricating the tire and rim.



Fig. 2: Installing the first bead.



Fig. 3: Installing the second bead.



Fig. 4: Applying pressure to avoid stretching.



Fig. 5: Position uninflated tire vertically.



Fig. 6: Apply pressure to establish a seal if needed.



Fig. 7: Inflate to the recommended pressure according to the motorcycle manufacturer's specifications.

MIXING TL / TT SOLUTIONS

WHEEL	TUBE	TIRE	OPINION
TUBELESS	WITH	Tubeless (TL) (trail)	YES
		Tube Type (TT)	YES
	WITHOUT	Tubeless (TL)	YES
		Tube Type (TT)	NO
TUBE TYPE	WITH	Tubeless (TL)	YES
		Tube Type (TT)	YES
	WITHOUT	Tubeless (TL)	NO
		Tube Type (TT)	NO

REMOVAL

STEP 1

Unscrew the valve and allow the tire to deflate completely.

STEP 2

Break the seal between the tire beads and the rim and lubricate the rim and beads.

STEP 3

Remove the tire using two tire levers.

IMPORTANT CONDITIONS TO LOOK FOR

DAMAGE

CROWN



DESCRIPTION

Crown damage with or without puncture and/or tears and splits. Localized breaking.

CAUSES

External aggression either by running over sharp/blunt objects or by rubbing against a foreign body.

DEVELOPMENT

Damage to a tire by running underinflated, breakage of plies, product delamination.

CHECKS / ADVICE

- Check conditions of use.
- Check pressure used.
- Replace the product(s) concerned if the damage is extensive and has reached plies or the carcass.

IMPACT

CROWN



DESCRIPTION

Impact with plies broken on the crown. Evidence of impact is generally found on the tread.

CAUSES

External aggression by running over sharp/blunt objects.

DEVELOPMENT

Rubber and/or plies broken on the sidewall, running underinflated.

CHECKS / ADVICE

- Check conditions of use.
- Replace the tire.
- Examine the other tires on the vehicle.

CRACKS

CROWN



DESCRIPTION

Cracks in the tread. Cracks at the base or edge of the shoulder tread pattern.

CAUSES

- Product aging.
- Exposure to ozone or UV, use of an aggressive cleaning product, risk of developing into splits.

DEVELOPMENT

Splits.

CHECKS / ADVICE

- Check the conditions of use, parking / storage and servicing of the vehicle.
- Replace the product(s) concerned if the splits are deep and reach the plies or carcass.

SPLITS

CROWN



DESCRIPTION

Splits in the rubber on the crown, edge or base of tread, with or without radial or circumference tears.

CAUSES

Conditions of use.

DEVELOPMENT

Risk of contamination with damage to crown or sidewall.

CHECKS / ADVICE

- Check conditions of use.
- Replace the product(s) concerned if the damage is extensive and has reached plies or the carcass.

SIDEWALL



DESCRIPTION

Damage to sidewalls with or without puncture instead of perforation and/or tears.

CAUSES

External aggression either by running over sharp/blunt objects or by rubbing against a foreign body.

DEVELOPMENT

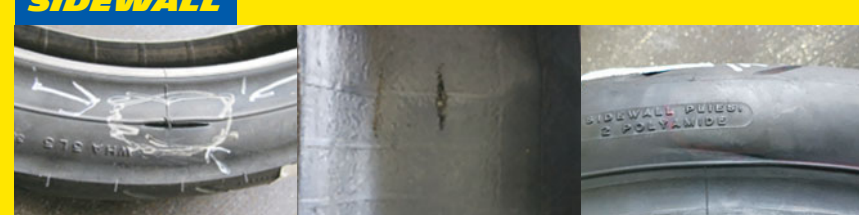
Rubber and/or plies broken on the sidewall, running underinflated.

CHECKS / ADVICE

- Check the conditions of use.
- Check pressure used.
- Replace the product(s) concerned if the damage is extensive and has reached plies or the carcass.



SIDEWALL



DESCRIPTION

Cuts extended to the carcass, visible plies with or without broken cords. Pinching impact. Immediate break without pinching.

CAUSES

Impact or pinching of the sidewalls after running over a pothole or hitting a curb for example.

DEVELOPMENT

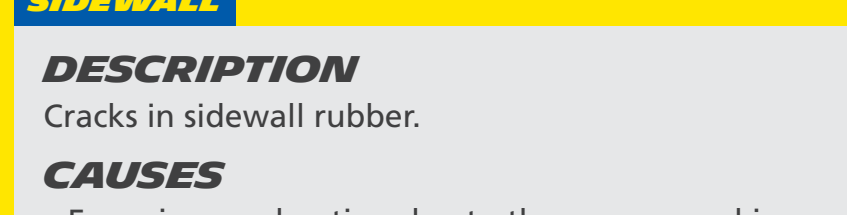
Rubber and/or plies broken on the sidewall.

CHECKS / ADVICE

- Check conditions of use.
- Replace the product(s) concerned if the carcasses are damaged.



SIDEWALL



DESCRIPTION

Cracks in sidewall rubber.

CAUSES

- Excessive overheating due to the carcass working too hard (used when underinflated).
- Exposure to ozone, prolonged exposure to light.
- Wax, varnish, washing products, etc.

DEVELOPMENT

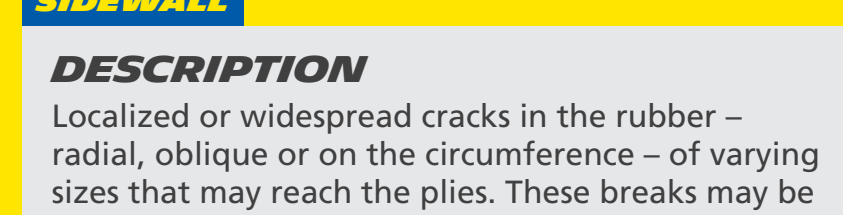
Check conditions of use.

CHECKS / ADVICE

- Check conditions of use.
- Type of riding, speed load, pressure
- Check the tire storage or servicing conditions
- Check pressure used.



SIDEWALL



DESCRIPTION

Localized or widespread cracks in the rubber – radial, oblique or on the circumference – of varying sizes that may reach the plies. These breaks may be on all sidewall areas of the tire.

CAUSES

Visible damage in the flexed area.

CHECKS/ADVICE

- Types of surface of use.
- Roads, paths, accesses.
- Speed load, pressure.
- Inspect the other tires on the vehicle.
- Adapt pressure to use.
- Replace the product(s) concerned if the splits are deep or have reached the plies or carcass.

TIRE DAMAGE / WEAR – TYPES OF WEAR

CROWN



DESCRIPTION

- Uneven wear.
- Type of wear on crown: sawtooth wear in the rolling direction, max-min wear, evidence of wear on the shoulder, rail-type wear.

DEVELOPMENT

If wear is too pronounced, risk of damage to the crown plies.

CHECKS / ADVICE

- Go over the history of the tire (mileage, dates changed, load, front/rear fitment, etc.)
- Check conditions of use.
- Check if the size is suitable and the one recommended by the manufacturer.
- Check inflation pressure.
- Check the mechanical condition of suspension, steering and wheel bearing elements.
- Correct all mechanical anomalies on the vehicle.
- Do not exceed the recommended load.

GRAINING

SHOULDER



DESCRIPTION

Formation of deep wrinkles, visible on the internal or external shoulder of the tire.

CAUSES

- Excessive overheating due to the carcass working too hard (used when underinflated).
- Exposure to ozone, prolonged exposure to light.
- Wax, varnish, washing products, etc.

CHECKS / ADVICE

- Check conditions of use, type of riding, speed load and pressure.
- Check the tire storage or servicing conditions.
- Choose another type of tire more adapted to the type of use, adapt pressure to type of use.

MARBLE

INNER LINER



THE TIRE MUST NOT SHOW ANY SIGNS OF MARBLING DURING NORMAL USE

DESCRIPTION

The marble is a pleating of the inner liner. In the marbled areas, the rubber is blackened on a width which can have different sizes.

CAUSES

Puncture, pressure loss, under pressure riding, excessive load evolutions.

DEVELOPMENT

Run-flat riding, tire dislocation.

CHECKS / ADVICE

Damage can not be seen from the outside of the tire, in the case of puncture the tire must be demounted to be checked internally. A tire with marbling evident is no longer fit for continued use and should be scrapped.

TIRES ARE NOT BANANAS!



DOESN'T STAY FRESH

STAYS FRESH

RESEARCH SHOWS NO DIFFERENCE BETWEEN THE PERFORMANCE OF RECENTLY-PRODUCED TIRES VERSUS TIRES PRODUCED THREE YEARS AGO

- Studies show no difference in performance between tires that were newly made versus tires in storage for three years. Studies were conducted by Korean Department of Consumer Protection, ADAC, and the German Motorist Organization.
- As long as the tire is kept in recommended storage conditions.
- Michelin recommends that tires older than 10 years from Date of Manufacture be removed from service.

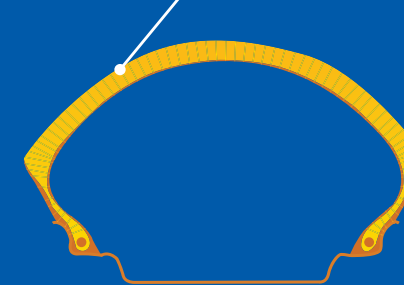
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THE ANTI-STATIC STRIP

A NECESSARY FEATURE OF SOME MOTORCYCLE TIRES

- A vehicle is charged with static electricity and must be able to discharge this electricity into the ground. Because the tire is the only point of contact between the vehicle and the ground, design regulations require a minimum level of conductivity of tires.
- When carbon black is used as a reinforcement filler, tires normally have an acceptable level of conductivity. When other reinforcement fillers are used, such as silica, which reduces rolling resistance and produces industry-leading levels of wet traction, the level of conductivity may decrease. It then becomes necessary to apply design features to restore conductivity to an acceptable level.
- The "zebrure" strip, which may be visible on the tread, is a fine slice of rubber that offers greater conductivity enabling the vehicle to discharge its static electricity into the ground. This unique visual feature on the tread is totally neutral as far as the performance of the tread is concerned (longevity, grip, etc.).



MICHELIN