



THE PRESSURES OF THE JOB

BY MIRIAM SCHOTTLAND

Tires are far more than Big, Black round things! They are a very complicated part of your car. **THEY ARE LITERALLY THE MOST IMPORTANT FACTOR IN KEEPING YOUR CAR SAFE** and it is a "Do-It-Yourself-Job"! Knowing and adjusting your tire pressure should be mandatory in the drivers' test. Just a pound or two under or over the correct pressure can drastically change how your car handles. As a matter of fact, the Society of Automotive Engineers says that 4 pounds under is already extremely dangerous!

Your car, when it is standing still, presses down on all four tires and the part of the tire coming in contact with the road is called the **contact patch**. Just like pressing down on a balloon on a table. The more you press down, the bigger the contact patch. It is the contact patch in contact with the road that gives you traction.

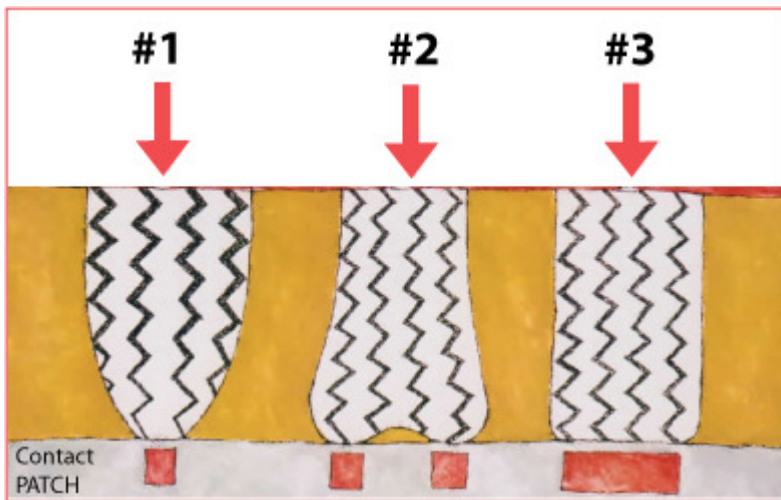
When you start to move, those contact patches change. For instance, when you accelerate, some of the weight of the car is transferred to the rear, giving you larger contact patches in the rear, and vice versa for braking. When you make a right turn, the weight of the car is on the left, giving you a larger contact patch on the left and vice versa for a left turn.

Everything you do to the car; accelerating, turning and braking, are caused by the contact patches that are generating those forces that make the car do what you want it to do. You can drastically change the way a car behaves by changing the pressures in your tires. So, it is very important for you to make sure you have the correct PSI (Pounds per square inch) in each tire.

Ok, so where do you find the correct pressures? It is not on your tire! By Law, there must be a sticker with the tire pressure printed on it somewhere in your car and also look in your

manual. Look for it! Different cars require different pressures even though they may use the same type and size of tire. When you check your pressures, the tires should be cold, otherwise you will not get a true reading. By the way, you cannot tell by just looking if a tire has the correct pressures, you need a tire pressure gauge! You unscrew the valve cap push the end of the gauge onto the valve stem HARD so no air escapes. You can bleed off air with the bleed off button or with a ball point pen.

A little HINT; those tire pressures are on the low side since Americans like a mushy car....UGGGGHH! A very bad idea! Bump up those pressures another two pounds and your car will handle a lot better, although it will be slightly harsher ride. After all, your car is not a mobile living room. It is a dangerous type of locomotion and you want as much control over it as possible. You cannot control a car very well with screwy tire pressures.



Tire #1 has too much air, and it has ballooned out to a point.... Literally! You are now riding on a point!

Tire #2 has too little air and the sidewalls are rolling under, and the middle of the tire has no place to go as it is being pinched up. So, now you are riding on just the outside of your tires!

In drawing #3, the tire has the correct pressure as you can see by the contact patch.

So, Which one of these three tire pressures will cause a blow out?

Which one of these tire pressures will be the best in heavy rain with standing water on the roads?

Are you surprised about how much there is to know? More some other time!