Excessive Tire Wear

Excessive tire wear, and/or cupping, is a problem that most motorcyclists experience over time. Too often this is simply the result of failing to maintain proper tire pressure. However, this is far from a complete answer.

Cupping is a phenomena that is absolutely normal! Excessive cupping or excessive wear on one side of the tire as compared to the other is not.

There are at least seven causes of cupping and/or uneven wear in the front tire other than tire air pressure:

- **Most roads are banked away from the center. Thus, if you ride vertical, the side of your tire closest to the center of the road wears more.**
- **Your tires 'scuff' when you force a speed change with them. The rear tire scuffs when you accelerate and when you brake (and every time you ride in a direction other than straight ahead.) Thus, it tends to have even 'cupping' as compared to the front tire (which scuffs when you brake but not when you accelerate.)**
- **While alignment is not usually a problem with motorcycles - it can be.**
- **Carrying an unevenly divided load (all your tools, jumper cable, etc.) in one saddlebag can result in your riding the bike other than vertical most of the time.**
- **Setting your TRAC (anti-dive) unequally can easily cause uneven tire wear.**
- **If one of your front shocks is defective you will experience uneven tire wear.**
- **Excessive use of the front brake will result in excessive cupping.**

Tire Pressure

By James R. Davis

As we are now into the colder months of the year I thought it appropriate to post a reminder about tire pressures and the effect of temperature on same.

Stamped on the outside of many of your tires is a recommended tire pressure range. (At least an upper limit.) For longest tire life it is my recommendation that you strive to keep them at the higher limit of those recommendations (regardless of what your motorcycle owner's manual might say to the contrary.) Further, this pressure should be determined while the tires are cold - meaning, have not been used for a couple of hours.

Time and outside temperature effect the pressure within your tires. It is NORMAL for a tire to lose about 1 pound per square inch (psi) per month. Outside temperatures affect your tire pressure far more profoundly, however. A tire's pressure can change by 1 psi for every 10 degrees Fahrenheit of temperature change. As temperature goes, so goes pressure.

For example, if a tire is found to have 38 psi on an 80-degree mid-summer day, it could lose enough air to have an inflation pressure of 26 psi on a 20-degree day six months later. This represents a loss of 6 psi over six months and an additional loss of 6 psi due to the 60 degree temperature reduction.

At 26 psi, your tire is severely under inflated and dangerous!

There is nothing wrong with your tire if it behaves like this, of course. What is being illustrated here is that you MUST check your tire pressure on a regular basis (about once a week is reasonable) and to be particularly aware of it on cold days.

Tire Plugs

By James R. Davis

Sometimes you can't win. I just had to replace a virtually new Elite II rear tire on my motorcycle because it had picked up a couple of small nails.

I know, all I really had to do was plug the tire. Right? Wrong!

Here are a few things you might consider about tire plugs:

- **Almost any single puncture (thru the tread) can be repaired by the use of a tire plug. (I would be willing to ride with a properly {from the inside} plugged tire anytime.)**
- **You cannot put more than one plug within the same quadrant of a tire - safely.**
- **You cannot put more than two plugs into a tire - period.**

The manufacturers of tire plugs specifically disavow the safety of doing either of the last two items listed above. They also void their speed warranties as a result of any tire plugging. Your tire is probably marked with an 'H' speed designation, meaning it is rated for safety up to 130 MPH. If you have even one tire plug in it you should not drive faster than about 80 MPH using that tire.

I had picked up three small nails in my tire. All three leaked air when I removed them. 'My kingdom for a horse!' It cost me $150 for another new Elite II. (Life is too important to be left in the hands of three plugs when the manufacturers refuse to stand up for their safety.)

[In case you missed it earlier, every reference made here about 'tire plugs' refers to professionally installed, from the inside, tire repair plugs - NOT the emergency roadside repair kits which install from the outside of your tire.]