

Tires-Where the Rubber Hits the Road- Steve Warmath



Last month I mentioned the two things that have the greatest connection to the open road while riding on your bike. They are: 1), your butt, and 2), your tires. We took care of #1, now it's time for a #2 with no where to stop. This month, Jeff Hamilton provided some useful links to get additional information about tires. (See list at the end of this article). I know tires have been mentioned before in safety articles, but this is a subject worth repeating on a regular basis because of its importance.

The greatest bike, greatest engine and the greatest brakes are all useless, if the tires that the bike is riding on do not have good contact with the road. Those precious few square inches of rubber connecting with pavement is what everything is relying on to function, as well as controlling your safety. What good are all the cool accessories, chrome, etc. you've purchased if they end up sliding down the road without you because a tire blew out? And that's not to mention the road rash or worse, having *your* parts strewn across the pavement. Tires are the most important safety factor on your bike - yet many bikers neglect them, cut costs, or are unaware of all the factors that affect them. Tires support the weight of the vehicle chassis off the ground. They help absorb shocks from the road surface. They transmit traction and braking forces to the road surface and change or maintain your direction of travel. Your tires control steering, stopping, position and acceleration – all the major safety factors. **This is not an area to skimp on or neglect.**

Tires are even more important to the group of cyclists that do touring. The longer distances and typically heavier loads increase the chances of failure. Do you know what your bikes load capacity is? Do you know how much your bike weights if you are riding two up with cargo?

Tires are abused more often than any other system on your bike. They have to stand up against extremes in temperature, exposure to the elements, potholes, and debris on the road. Now add incorrect inflation and overloading, wheel spin, lockup, a significant amount of straight road driving, and you can understand how important it is to monitor your tires. The National Agenda for Motorcycle Safety as assembled by the [Motorcycle Safety Foundation](#) (MSF) states that tire punctures are the major cause of all the vehicle failures that result in a crash.

The Dunlop tire company http://www.dunlopmotorcycle.com/infocenter_tiretips.asp proclaims on it's website "As the world leader in motorcycle tires, Dunlop continues to be concerned about the lack of attention paid by many cyclists to proper use and maintenance of their tires, particularly when fitted to motorcycles intended for touring." They attend many motorcycle rallies and randomly check maximum load and corresponding tire inflation with all types of tires - and find a high percentage of rear tires under-inflated.

The air inside of the tires carries the weight of the motorcycle, not the tires themselves. The tire's ability to hold air pressure, the amount of air pressure, and the amount of space between the tire and wheel available to hold the air, determines what a tire can support. It is very important to follow the manufacturer's instructions for load and inflation. Your owner's manual will guide you on load limits of your bike's chassis and suspension, and the sidewall of your tires will have inflation information. This information can also be found on the VIN plate, which is usually near the steering head.



(Continued on page 4)

(Continued from page 3)

Steve Warmath.....

Slow leaks can result in blowouts. Conscientious bikers know that tire pressure should be checked during your pre-ride inspection. Tires have to be checked when they are COLD. Even if you ride a mile, they will heat up and show a higher pressure. Wait one hour if you have been riding your bike. Make sure that the stem cap is on tight. Centrifugal force may open the valve inside the stem. It is also very critical that your tire gauge be accurate. How do you know if it is? The best way is to compare with several people at the same time. If you all measure the same tire, you can compare how your gauges read. Some gauges have flashlights; some have sound so that you can check your tires in the dark. Other factors are large display, digital read out. Use a top quality gauge. Never bleed air out of a hot tire!

When tires are underinflated, they have to flex more when the tire flattens to meet the road. This causes excess heat and premature tire wear. It could also cause a catastrophic failure. A tire can also rotate (slip) on the wheel. If you are using tube type tires, this can cause the valve stem to be pulled from the tube. In addition to checking inflation with an accurate gauge, observe the tire's overall appearance. If you notice tread groove stress cracks, sidewall cracks, blisters, bulges, uneven wear, cuts, punctures, flat spots and knots – replace the tire! It cannot be repaired. If you are unsure, call the manufacturer. Do not rely on wear bars. How does the bike feel when you are riding it? Is there a change? Is it difficult to steer? Vibration and wobble are very serious and you should stop immediately.

Trailers can cause problems with your tires in addition to handling problems. The extra weight of the trailer tongue combined with quick starts and stops put too much stress on the back tire and can cause it to fail. At best, you should be sure the load rating is up to the task and expect accelerated wear on the rear tire. Some accessories can increase load as well, so you should consider the cumulative weight of all of your bolt-ons.

Dunlop recommends the following guidelines for touring motorcycle loading:

- A. Light loads-single rider with some luggage (up to 200 lbs total) - minimum tire pressure of 32 psi front and 36 psi rear must be maintained.
- B. Heavier loads-dual riding and/or luggage (from 200lb. Total up to maximum motorcycle capacity stated in the owner's manual - pressure of 36 psi front and 40 psi rear must be maintained. **(Refer to your owner's manual for specific tire pressures for your model)**

For any dual riding or fully loaded use, 40 psi must be maintained in all **Dunlop rear tires fitted to touring motorcycles**. When you decide to replace your tires, keep these factors in mind. Do not use maximum power, do abrupt lean overs or extreme cornering until you have ridden at least 100 miles. Let the tire cool for three hours and then check inflation pressure. This allows you to get use to the new feel and handling of the bike. New tires will have a different lean over edge. If you have only replaced one tire, use caution until you have tested the handling.

Make sure that you have your tires balanced, and rebalanced any time that a tire is removed. Motorcycle tire repairs leave no room for error and should be done by a professional. Tire repair should be done from the inside only, with the tire off of the wheel. You should not go more than 50 miles per hour for the first 24 hours and never go 80 or above. The wheel must still be in good condition, not bent or cracked, and the general condition of the tire must be good with no cracks. The tire should

(Continued on page 11)