P.S.I.™ THE INFLATION SYSTEM

COMMERCIAL FLEET TIRE DIGEST

The authoritative guide to reducing commercial tire expenditures from Pressure Systems International, the manufacturer of the Meritor Tire Inflation System by PSI™

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What's all that rubber on the side of the road?

I saw a significant amount of rubber on the road during a recent road trip from Atlanta to Birmingham with ambient temperatures well over 90°F under bright sun and traffic moving along the interstate at speeds exceeding 70 mph.

What is it about summertime that increases those very dangerous tire pieces and parts commonly known as "road alligators"?

Heat is a tire's worst enemy. Under normal operating speeds, at proper load and inflation, tires will run "cool" and have no performance related issues. But, when tires run underinflated, especially in combination with excessive speed and high loads, the tire footprint area and sidewall deflection will lead to extreme heat buildup in the rubber compounds. During the summer months, with high ambient temperatures and much hotter road surfaces, those underinflated tires are prone to even higher rubber temperatures. The rubber will actually start chemically breaking down inside the tire casing, which can lead to a tire blowout and rubber on the road.

Air is what carries the load - so when a tire is run underinflated it can no longer support the load properly and the heat buildup is significant. In many cases, the inside dual tires are the least maintained wheel position on a vehicle when it comes to proper tire inflation pressure. If the heat becomes high enough, the tire will fail. When that tire runs flat, now the outside dual is handling a much higher load and will be the next tire to possibly have a major issue. It is a domino effect.

In several studies commissioned by NHTSA and the Technology and Maintenance Council (TMC) of the American Trucking Association, it has been concluded that more than 90% of the rubber debris found on the road is due to running a tire with little or no air for an extended period of time.

The uneducated motoring public believes that the rubber on the road is due solely to "bad" retreads. This is just not the case but it is the perception. If a new tire or a retread is run underinflated, it can eventually fail. This is why it is so important to keep tires properly inflated to make the roads safer by eliminating most road alligators. Tire pressure monitoring systems (TPMS) and automatic tire inflation systems (ATIS) for trailer tires are two popular solutions. TPMS relies on the driver to physically stop and find air when the warning light is illuminated in the cab while ATIS will simply add air to any low trailer tire as the vehicle is rolling down the highway.

Nearly every year, a senator or congressperson runs over a road alligator which causes damage to their personal car. The result is new proposed legislation to ban retreads in their home state. This misconception can be prevented by simply keeping tires properly inflated.

Enjoy a Safe and Happy Summer

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Q&A PSI ANSWERS YOUR QUESTIONS

Q. What are the current commercial tire aging standards?

A. There is no official rulemaking when it comes to truck tire casing age limits. Fleets typically have their own standards based on casing retreadability data. Some fleets have 5 year casing age limits while others use 7 years. Some fleets have been reported as high as 10 years for their casings. Industry data has been very difficult to generate. It is very dependent on environment and operating conditions.