



COMMERCIAL FLEET TIRE DIGEST

*The authoritative guide to reducing commercial tire expenditures from
Pressure Systems International,
the global leader in Automatic Tire Inflation Systems*

VOLUME 11 ISSUE 1

JANUARY 2017

Measuring Tire Tread Depth

Learn about the impact of Greenhouse Gas Phase 2 and its impact on tires by attending the technical session being held on Wednesday, March 1, at 2:30 during the 2017 Technology and Maintenance Council Annual Meeting in Nashville, TN.

Contact acohn@psitireinflation.com for more information

Why is measuring tire tread depths important? The DOT has minimum tread depth standards for commercial tires. These standards are dependent on wheel position as follows: The legal limit in the fastest wearing groove is 4/32" for steer tires and 2/32" for drive, trailer and dollie tires.

Tires are expensive, making the casing quite valuable when it comes to retreading. Retreads are one third to one half the price of a new tire so protecting the casing from stone damage, cuts and tearing is a number one priority for fleets. Waiting to remove tires until they reach the legal tread depth limit will leave the casing more susceptible to damage. It is always a good idea to remove tires somewhere between 6/32" to 8/32" of remaining rubber to get the most life out of the casing. It makes sense for trailer tires which have been retreaded for the last time to run down to the 2/32" legal limit.

Fleets should establish a tire performance baseline by calculating miles/32" of rubber for the various specific tire makes and models running in their operation. Treadwear is measured either in actual tire removal miles or in miles/32". Miles/32" is the more accurate measurement when comparing tire models with different starting tread depths. A steer tire may have 18/32" when new while a different design steer tire may begin with 22/32" of rubber. Typically the deeper tread depth tires have a higher initial cost because more raw materials are required for manufacture.

Tires that see pure linehaul service (e.g. California to New York in a straight shot) can see anywhere between ten and twenty thousand miles/32". But the same tires running in pickup and delivery city service

with lots of turning may only get five or six thousand miles/32". Service vocation is the number one variable affecting treadwear. Assuming that all tires are running in similar service vocations on the same route with similar loads, the next largest variable affecting tire wear is the driver.

There was an interesting study done at a fleet in Virginia where ten identical vehicles with the same route and load on a dedicated run were tracked closely for one year. New tires of the same make/model were mounted on the ten tractors within a few weeks to minimize any variation because of the seasons (winter versus summer). Tire performance measured in miles/32" varied by 35% between the ten trucks. The only significant variable was the driver. Analysis of the driver data was most interesting. The older, more experienced drivers delivered the best tire performance. The younger drivers were scrubbing the tread off at a much more rapid pace. These young drivers drove faster and more aggressively than their more experienced counterparts.

Heat is a tire's worst enemy so driving faster leads to higher rubber temperatures and the rubber will scrub off more readily. Tie that in with more aggressive braking and turning, and the result was early tire removals.

This particular fleet, after reviewing the data, implemented a driver incentive program which rewarded drivers that met target tire removal miles; and their tire cost/mile has improved considerably.

Training drivers on Tires-101 and how to maximize their tire mileages will go a long way to a fleet's bottom line. At P.S.I., we offer a class for drivers and mechanics about tires with that goal in mind.

Visit us On-line

For current and back issues of
**Commercial Fleet
Tire Digest**

And to subscribe or submit your inquiries to be answered here, go to

**www.
psitiredigest
.com**

Q&A PSI ANSWERS YOUR QUESTIONS

Q. How often should I be inspecting my tires?

A. Depends on service vocation. Mixed service and pickup and delivery require a higher frequency compared to tires running in line haul service since those tires have are more prone to punctures and damages. At least once per week is recommended for linehaul tires plus daily driver visual inspection.