

# 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™*

VOLUME 2 ISSUE 2

FEBRUARY 2008

## Tire Tread Depths - How to Measure & Why its Important



TREAD DEPTH GAUGE

When you purchase a tire, whether it's a new tire or a retread, the amount of rubber (more commonly called "tread depth") has a direct impact on your fleet's bottom line. Tires come in a variety of designs and there are typical ranges of tread depth sometimes known in the tire industry as "non-skid".

Tire Location	Tread Depth Range
Steer	18/32" - 22/32"
Drive	22/32" - 32/32"
Trailer	12/32" - 14/32"

In the U.S. and most of Canada tread depth is always measured in 32nd's of an inch. But the rest of the world measures tread depth in millimeters (mm). I mention millimeters because the majority of tread depth gauges have both units of measures on their gauges (see picture). It is important for your mechanics and drivers who actually measure tire tread depth to be aware that (2) forms of measurement are indicated on the gauge; it is quite easy to read the wrong "column" on the gauge and record the millimeter column in place of inches. One inch = 32/32" = 25.4 mm

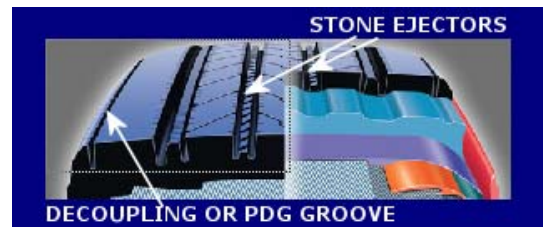
Tread depths need to be checked and recorded because DOT has a legal limit - 4/32" for steer tires and 2/32" of rubber for drive and trailer tires. That means that if any spot in the major grooves of a steer tire are found to be 4/32" or less, that tire must be removed from service. However, it can either be retreaded or moved to the trailer and run down to 2/32" minimum before entering the retreading process. Drive tires would be required to be removed from service or retreaded when any major groove reaches 2/32" of rubber to be safe. Most fleets have found over the years that running the tire down to 2/32"

will reduce the number of tire casings that are acceptable for retreading because with so little rubber to protect the casing, cuts, punctures, and stone drilling down to the steel belts becomes a problem. To protect your fleet's tire investment, it is better to remove the tire in the 6/32" - 8/32" range to maximize your retreadability.

For trailer tires, if it's a virgin casing, it is best to remove the tire in the 4/32" range to maximize the casing for retreadability. However, if the trailer tire is in its second or third retread life, taking the tire down to 2/32" could certainly maximize your investment.

Most modern tire designs have stone ejectors built into the bottom of the tire's grooves. This is a great invention to prevent stones from getting embedded inside the groove. Without stone ejectors, stones will stay embedded in the bottom of the groove which may lead to stone holding & eventually stone drilling, damaging the steel belts.

Stone ejectors protrude up 2/32" - 3/32" inch from the bottom of the groove. If you measure the tires tread depth incorrectly on top of a stone ejector, the measurement will be off significantly. This would result in a tire coming out of service prematurely which will adversely affect your tire budget.



Courtesy of the Bridgestone Tire & Rubber Co.

The last tip about measuring tread depth: never measure in the decoupling groove which is found in many steer tire designs to reduce irregular wear. This outside decoupling groove is sometimes known as a PDG groove (Pressure Distribution Groove) and they may be very deep or may be very shallow - but it is not the same depth as the major tire grooves.

### 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**