

## Winter Tire Program



Figure 1

For commercial tires, fall is the best time to insure winter tire programs are completely up to speed. Vehicle traction now is especially critical from both a driver and safety standpoint. Tires with tread depth near the legal limits of  $4/32''$  for steer tires and  $2/32''$  for all the other wheel positions do not have the same level of traction as tires with full tread depth. Fleets that run rib tires in all wheel positions may have success in good weather but will be at a clear traction disadvantage in the drive wheel position during winter. Selecting tread patterns with lugs will increase drive tire traction dramatically under snow and slushy conditions.

It is important to do a serious inspection of tires prior to winter. This involves:

- Measuring tread depth in multiple locations around the tire circumference
- Checking for signs of irregular wear
- Identify & repair any punctures
- Verify casing age
- Check sidewall appearance for signs of impact breaks and ozone cracking
- Rotate tires as required

Let's address these 6 points.

A common mistake when measuring tread depth is to use a tread depth gauge and obtain a tread depth reading at one random location on the tire. This can be very misleading as tires are not always wearing evenly across the tread (from shoulder to shoulder) and also circumferentially around the tire. Tread depth measurements should be taken at each major groove across the tread at point A and then take the same measurements 180 degrees away from point A. Many tires have stone ejectors at the bottom of the major grooves. It is important to NOT measure tread depth on a stone ejector as the measurement will give you an in-

accurate low reading of approximately  $2/32''$ . It is also important to insure that your tread depth measuring device is calibrated. Easiest check is to confirm that the tread depth shows 0 when measuring on a flat surface. (See figure 1).

To maximize treadwear & fuel economy requires that the tire is running smoothly and evenly. Running your hand across the tread surface (commonly known as fingertip diagnostics) along with a visual inspection will confirm that the tire is running uniformly. If there is shoulder cupping, depressed ribs, alternate lug wear, or other signs of irregular wear, then there is typically an issue with the vehicle or the tires themselves. It may be vehicle alignment related, underinflated tires, running overloaded, or running fully loaded going out and empty coming home.

Truck tires have a propensity to pick up puncturing objects. Checking for tire damage and punctures 360 degrees around the tire is important to insure that you minimize tire related roadside service calls.

Most fleets have targets when it comes to tire casing age. It may be six years or even ten years but fleets should have a number based on historical tire performance retreadability data. Tire casing age can be easily identified through the last 4 digits (month/year) of the DOT code found on one side of the tire.

Use fingertip diagnostics to check the sidewall for undulations and visually look for signs of impact damage and cracking.

Based on the measured tread depths, it may be time to rotate the worn steer tires back to the trailer position and generate additional mileage. Some fleets even rotate drive tires especially in pickup and delivery operations where the rear drive axle tires can wear out significantly faster than the front axle drive tires. When vehicles turn frequently in city applications, the pivot point is the first drive axle and the rear axle tires tend to scrub the tread rubber off very rapidly.

The bottom line is that fleets need to review their tire program to insure that tires are in good shape going into the winter season.

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