



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 10 ISSUE 9

SEPTEMBER 2016

Protecting Your Casings for Retreading

P.S.I. and Meritor Host Annual Fleet Technology Event in San Antonio, Sept 13-14

I visited my local truck stop last week to check out pricing for the latest fuel efficient premium steer, drive, and trailer tires for linehaul service. The prices quoted are for the most common linehaul 295/75R22.5 LR G tires. Steer and drive tires were quoted at approximately \$600 each and trailer tires very close to \$500. After adding \$25.23 in FET tax for each tire, an owner/operator or small fleet is looking at a cost of over \$10,000 to outfit each of his tractor-trailers with 18 new tires. This significant investment is the reason why tires are taken so seriously.

Tire cost is a major reason why more than 85% of fleets retread today. That's because retreads are a third to half the cost of a new tire. The good news is that today's commercial truck tires are designed to be retreaded multiple times. Protecting the investment in your casings is critical to reducing your tire budget and lowering cost/mile. Casings can make it realistically to one million miles with implementation of a serious tire casing program. Tire casings that are taken care of diligently should last a minimum of one retread and often two retreads in linehaul service. Tire casings in pickup & delivery service can expect up to three or four retreads.

One of the best ways to maximize the retreadability of your tires is to maintain proper tire inflation pressure. Air is what carries the load. Refer to published "load-inflation" tables for the correct "cold" tire inflation pressure for your worst case load scenario for a given axle and tire to determine the best inflation pressure. "Cold" is really a misnomer here...by definition a tire is cold when it is not hot! The load-inflation tables are actually based on a cold temperature of 70° F. Tire pressure will

increase about 15% after running on the highway at 65 mph and fully loaded. It can take a tire several hours to cool down after coming off the highway. It makes little sense to check air in a "hot" tire. The best time to check air pressure is during the morning driver walk-around when it will be the most accurate. Always utilize a calibrated tire pressure gauge when measuring tire pressures.

The major ingredient in commercial truck tires is natural rubber. If a tire is running underinflated, the casing becomes significantly hotter because of a combination of the longer tire footprint (18% more rubber on the road at 80 psi versus 100 psi) and the additional flexing of the sidewalls will heat up the natural rubber. When the steel belt package reaches around 200° F, the natural rubber based compounds will start reverting (rubber compounds inside the tire start decomposing due to excessive heat). This is unnoticeable until the retreader rejects the casing for retreading and can be a major blow to the tire budget.

Another tip for maximizing retreadability is to protect the casing from cuts and stone penetration. Running the tread down too low will make the casing more susceptible to damage. Many fleets have target tread depth removals in a 6-8/32" range for steer and drive tires and 2-4/32" for trailer tires. The tradeoff is that removal mileage will be down slightly, but protecting the casing to insure the next retread is most important.

It's always a good idea to evaluate any retreader to be sure they meet your vendor quality standards. Always work with your local tire professional to design a tire program for your specific service vocation.

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Q&A PSI ANSWERS YOUR QUESTIONS

Q. My tires seem to lose air without even any nail punctures. What is "normal" air loss?

A. It depends on the quality of the materials used in the manufacturing of the tire casing. Tires typically lose 1-3 psi per month through casing osmosis. Tires also may lose air through leaking valve cores.