



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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Tires and Air Loss

Visit P.S.I. at MATS in the Smartway area Booth #12069

We have been preaching for years about the importance of maintaining the proper tire inflation pressure to insure that removal miles, fuel economy, and retreadability are all maximized. When tires are run smoothly and evenly, without irregular wear, at the recommended tire pressure, that is when rolling resistance is minimized and fuel economy is at its peak.

So why do tires lose air and what can fleets do to minimize air loss? Tires will lose air due to osmosis by just sitting in storage. Air will slowly migrate out through the tire casing over time, just like a balloon. But not all tires are the same. Depending on specific tire construction and compounding, some tires are more effective in trapping the air. The first line of defense for keeping air where it belongs is the tire innerliner compound. A combination of innerliner gauge and compounding will insure that air will remain inside the tire for a long time. Over the years, industry studies have shown that commercial truck tires can lose anywhere between 1 – 4 psi/month through osmosis.

Slow leaking punctures in the tread area are clearly the #1 reason why tires lose air. Truck tires tend to run in an environment where nails, screws, and bits of steel are vacuumed up into the hot tire tread at high highway speeds. Punctures can be picked up on the local city streets when you make your deliveries at lower speeds as well. Instead of losing a couple pounds of air per month via osmosis, a

16-penny nail embedded into one of the tread grooves will typically cause air loss of a few pounds a day. Before the week is out, tires will become significantly underinflated leading to a longer footprint, more heat being generated by the flexing sidewalls, and irregular wear may start to develop. A serious tire inspection program along with a tire inflation system will help to keep those pressures running at the recommended psi.

The second major reason why tires lose air is leaking valve stems. Sometimes the rubber becomes brittle and cracks and at other times the valve cores begin leaking air. Over tightening valve cores is a big industry problem. There is actually a recommended spec of 4 in-lbs of torque for a truck valve core. 4 in-lb valve core torque tools, such as offered by Myers Tire Supply, are available in the market and are highly recommended. Fleets that torque their valve cores to the proper value report less tire related roadside service calls.



Valve Core Torque Tool

Every good fleet tire program needs to have an initiative in place to insure tires are running at the recommended pressure. Using calibrated air pressure gauges is a must. The common stick type pressure gauges are only accurate to +/- 3 psi brand new out of the box. Dropping them a few times on the hard concrete floor will affect the accuracy further. Using a master gauge will insure that your stick gauges are accurate and should become standard practice.

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Q&A PSI ANSWERS YOUR QUESTIONS

- Q.** What pressure do you recommend for best tire performance on my new widebase trailer tires size 445/55R22.5?
- A.** It depends on your worst case load scenario. Use the load/inflation tables available on all the tire company websites.