



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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Evaluating Performance of Improved Tire Designs

P.S.I. Europe will be exhibiting at the 65th IAA Commercial Vehicles show in Hannover, Germany Sept 23-Oct 2 Hall 26 Stand D35

Tire companies continue to make improvements to existing products on an ongoing basis. New materials in combination with new and improved design construction may significantly help tire performance. Improving tire mileage, increasing traction & decreasing stopping distance, increasing fuel economy, and improving casing retreadability are all reasons why it is important for fleets to give serious consideration to evaluating new tires and retreads.

For commercial truck tires, just because a particular tire make/model runs well on one model tractor or trailer does not guarantee that the same tire performs equally as well on another make model vehicle.

Take tread depths for drive tires as an example. Tread depths ranging from as low as 22/32" to as high as 32/32" are available in the market. Choosing a deep tread depth design does not always guarantee the highest tire removal miles. Too much tread depth can lead to increased heat buildup along with the deep tread lugs squirming as it rolls down the highway. The increased heat may adversely affect the tire casing when it gets to the retreading stage. Too much tread lug squirm will lead to early onset of irregular wear and adversely affect fuel economy

Tire compounds also play a major role in tire performance. Innovative tread compounds utilizing the latest and greatest materials can improve fuel economy up to two or three percent. Fuel economy is a major consideration for every linehaul and regional fleet so it is important to evaluate these new fuel efficient tires. Even a tenth

of a mile per gallon increase in fuel economy can save a fleet thousands if not millions of dollars per year in annual savings. Of course, if you do not keep your tires properly inflated the benefit of running these more expensive fuel efficient tires will be disappointing.

The following variables need to be considered when running a tire evaluation

- Vehicle make/model
- Route and service vocation
- Load
- Speed
- Tire pressure
- Drivers

This is why determining the proper sample size for the evaluation is so important. If the sample size is too small you will get inconclusive results. And, having too large a sample makes it very difficult to track and record the data because of errors in data entry. The TMC of the American Trucking Association recommends a sample size of thirty if the number of units in your fleet can support that.

As new products become available from the tire manufacturers, it behooves a fleet to determine if the specific "improvements/enhancements" are something in the best interest of their fleet operation. Will the new tires improve cost/mile while maximizing tire removal miles and increasing fuel economy? It takes a serious commitment from the fleet to run a good tire evaluation. Working with your local tire professional is always a good idea.

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Q&A PSI ANSWERS YOUR QUESTIONS

- Q.** Trying to determine best pressure spec for my trailer tires... Any recommendation?
- A.** Tire pressure is based on your worst case vehicle load scenario. Use the load/inflation tables available on-line on the tire company websites