THE INFLATION SYSTEM

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 & Fuel Economy Testing

Tires play a major role in overall vehicle fuel economy and every fleet would like to maximize it and at the same time, get the most tire removal miles. With fuel prices on the rise again and tire prices at record costs, fleets are evaluating the latest and greatest fuel efficient tires to determine what is the best choice for their operation. In some cases the fuel efficient tires have less initial tread depth versus the non-fuel efficient designs. While less rubber is better for fuel economy it will reduce the total miles to removal. If a fleet is currently averaging 15,000 miles/32" on their 30/32" drive tire design and now purchases more fuel efficient drive tires with only 26/32", the difference of 4/32" equates to a reduction of 60,000 miles. Historically, even though the tire removal miles may be lower, the one to three percent increase in vehicle fuel economy gained by spec'ing the more expensive fuel efficient tires is clearly the winner when it comes to total cost savings.

How is the best way to test various tire designs for maximum fuel efficiency in your fleet? There is a Type II and a Type III fuel test procedure available as approved test methods by both TMC and SAE.

The Type II procedure uses a control vehicle that is NOT modified in any way during the actual test. The control vehicle's tires should be equipped with the current tires spec'd by the fleet. The fuel consumption of this control vehicle is used to generate the baseline data from the real world conditions during the test period. The test vehicle is first equipped with the SAME tires as on the control vehicle to determine the vehicle effect. The next phase is to replace the tires on the test vehicle with the new tires the fleet wishes to evaluate for fuel economy. It is strongly recommended to weigh the amount of fuel that is used to be most accurate in calculating fuel economy.

What is different about a Type III fuel economy test procedure? You need to choose two identical vehicles: A & B. Vehicle "A" is equipped with one set of tires that will be compared to another set of tires on Vehicle "B". The test consists of two runs or segments. In the first segment, Vehicle "A" runs the control tires and Vehicle "B" runs the test tires. In the second segment the tires are swapped between the two vehicles.

To find out more details about these two different procedures and how to do the actual calculations, read RP 1102 and 1103 at TMC or you can visit the SAE website (sae.org) and search for Type II and Type III Fuel Test Procedures.

Stop and see PSI and the Meritor Tire Inflation System (MTIS) by PSI at Mid America Truck Show – Booth #12069

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Q&A PSI Answers Your Questions

Q. I purchased tires that were marketed as fuel efficient tires that have been running for about a year. It appears my fuel economy is up but mileages are going to be less based on the current tread depth. Is that normal to have faster wear rates with fuel efficient tires?

A. Many fleets report that tire removal miles are somewhat lower with fuel efficient tires. In some cases the fuel efficient tread may have an initial tread depth that is 2 or 3/32" less than the equivalent non-fuel efficient tire. Less rubber is always better for fuel economy. A worn tire has the highest fuel economy. Some fuel efficient tread compounds are not always the best for treadwear. Better fuel economy far outweighs any loss in early tire removals