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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Don't get Tricked by Underinflation, Treat Your Fleet to Automatic Tire Inflation Systems

Fleets & Fuel Economy

Maximizing fuel economy is the key to success in maximizing fleet profits while reducing greenhouse gas emissions. Every fleet is looking at all viable options for both the tractor and trailer when it comes to fuel economy. So what are these options and do they offer a short return on investment?

Reducing speed is one option because fuel economy gets worse the faster a truck travels. Many fleets are looking at reducing their top speed from 65 to 62 mph. Depending on your specific engine set up the rule of thumb is a 0.01 improvement in miles/gallon for each drop of one mile/hour. Going from 65 to 62 mph should save about .03 miles/gallon. Reducing idle time is another great way of reducing your fuel costs. Some fleets are using financial incentives with their drivers when they keep the idle time to a minimum.

A recent industry sponsored study showed that the driver has a tremendous effect on fuel economy. In line-haul service, a good driver averaged 11% better fuel economy versus an aggressive driver. This is magnified in pickup and delivery service where there is much more braking and turning. In P&D, there could be as much as a 33% advantage for the non-aggressive driver in fuel economy. Driver education can play a tremendous role in reducing fuel costs.

Improving the aerodynamics of the vehicle is another option for improving fuel economy. Trailer skirts are becoming more popular and in some cases have shown up to a 7.4% reduction at 60 mph in fuel consumption. Another good way to improve vehicle aerodynamics is to adjust the fifth wheel keeping the trailer as close as possible to the tractor. There are a few fleets that are also using hubcap covers and even trailer "nose cones" that are installed on the back of the trailer to improve the aerodynamics.

Reducing vehicle weight is an obvious way to improve fuel economy. The key here is to use light weight components that will not adversely affect durability. Tires also play a large role in fuel economy. The reason the new generation of wide base tires have proved so popular (sales doubling every year for the last 10 years) is the weight savings and fuel economy improvement versus running duals. Running wide base tires on both the drive and trailer wheel positions along with aluminum wheels can save up to 1000 pounds. Maintaining the proper tire pressure is critical for these wide base tires. Running even 10% underinflated will lead to irregular wear and early tire removals. Most fleets that run wide base on the trailer position also run an automatic tire inflation system which adds air to the tires as the vehicle is moving down the highway. Underinflation also affects fuel economy with dual tires. If you are running dual tires, underinflated tires can reduce fuel economy two or even three percent. Those inside duals which are rarely checked for proper inflation can be as much as 30 or 40 psi lower than the outside duals. When this happens, the tire rotations per mile change dramatically and fuel economy drops even more so.

There are many options for fleets when it comes to improving fuel economy and saving significant costs for your fleet. Work with your suppliers and talk to other fleets to get their input as to those fuel economy improvements which gives the fastest payback.

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Q&A PSI ANSWERS YOUR QUESTIONS

Q. As an owner/operator I check my tire pressures once per week. The tire pressures never seem to be all the same. Sometimes I see a 7 or 8 psi difference between tires. Is that normal?

A. If you make sure all the tires are set at 100 psi and then check a week or 2 later, you can be certain that there will be a range of tire pressures when you go to recheck. The outside duals will probably be a few psi higher than the inside duals because the sun has been beating down on that wheel position. Some tires may lose more air due to osmosis. It's also possible a tire may have picked up a nail and now is slowly losing air.