



# 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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## Cost of Fuel and Your Tires

Utility Trailer presented with inaugural Athena Award for promoting the use of MTISTM with ThermALERTSM wheel-end heat sensing technology.

On April 23rd, the cost of one barrel of oil was \$115.00 and diesel fuel reached well over \$4 per gallon in many states. Economic news continues to be gloomy. Many analysts who predicted a significant turnaround by the third quarter are now backing off those forecasts.

The price of a barrel of oil affects both a fleet's number one overall cost - fuel; as well as their highest maintenance cost item, tires. Both costs can be reduced with proper tire inflation. Commercial tire prices have risen by over 5% so far this year, and they will continue to rise because of the raw materials used in the manufacture of a commercial truck tire. As an example, natural rubber has doubled in price over the last couple of years. Natural rubber is used extensively in commercial truck tires because it runs cooler than synthetic rubber. Steel is another major ingredient in truck tires; those prices are rising too. Oils, carbon black, anti-oxidants, anti-ozonants, and various resins are also used in compounding today's truck tires. And guess what....these ingredients are all by-products of that \$110 barrel of oil.

If your fleet's tire expenses continue to escalate, what can you do to help offset those costs? Maximizing tire removal miles, increasing vehicle fuel economy, and reducing tire related roadside service calls are all required to reduce tire costs. The easiest way to accomplish all three is to implement a serious tire inflation program.

For trailers, it can be quite straightforward if automatic tire inflation systems are used. Maintaining the proper air pressure at ALL the times is the secret to success and automatic tire inflation systems do that for you. Keeping the tire running cool with the proper footprint will maximize fuel economy, reduce uneven or irregular wear, and increase your retreadability. As for the tractor, since automatic tire inflation systems are not yet widely available for these applications, steer and drive tires must be checked at least weekly on a line-haul fleet and daily on tires that see mixed-service operations. Your shop must be checking tire pressures with a calibrated air pressure gauge (verified versus a master gauge); and if it is not accurate, it should be thrown away. It can take up to 10 minutes to check pressure on 10 tires, but it is really worth the effort. Flow-through valve caps are more expensive than conventional steel caps (plastic caps are not a serious option) but they allow the operator to do a pressure check without removing the cap. Conventional valve caps tend to be lost quite readily, especially in the colder weather.

Fleets report that if they can increase their miles per gallon by even 1/10<sup>th</sup> (6.6 versus 6.5 miles/gallon), the savings is about \$85,000 per year (for a line-haul fleet of 100 vehicles each traveling 120,000 miles per year). And the best way to increase that miles/gallon is by keeping your tires properly inflated.

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## Q & A PSI ANSWERS YOUR QUESTIONS

**Q.** About 40% of the time my loads are very light and 60% of the time I carry very heavy paper products. I tend to develop a significant amount of uneven wear on my trailer tires. How do I determine the correct air pressure to be running?

**A.** Air carries the load. You must determine your air pressure based on your worst case or heaviest load. Weigh your trailer axle when fully loaded with the heavy paper (worst case load scenario) and divide by the number of trailer tires on that axle. Once you know the load/tire, use the tire load-inflation tables available on your tire manufacturer's web sit to determine the correct air pressure to be running. Irregular wear will be minimized by keeping your tires properly inflated.