



# 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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## Fuel, Fuel, Fuel

Wow, the cost of a gallon of diesel fuel still has not peaked. Every commercial fleet is looking for ways to mitigate this rising cost by increasing fuel economy and minimizing any unnecessary miles.

The factors that can affect vehicle fuel economy are:

**Loads:** Heavy loads or light loads? Obviously, light loads are the best for maximizing fuel economy; however, when you charge your customers by tonnage they are not particularly good for the fleet's bottom line.

**Speed:** Higher speeds have been well documented as a major contributor to bad fuel economy. Many fleets are now lowering their maximum speeds to 62-63 mph. Again this is good for increasing fuel economy but it may now take longer to complete trips.

**Vehicle Make and Model:** Just about all of the Class 6, 7, and 8 vehicle producers offer fuel efficient tractors with a complete aerodynamic package. Trailer manufacturers also offer various aerodynamic fairings.

**Road surfaces** also can significantly affect fuel economy. The smoother the road surface the better the fuel economy. Today's roads can be made from asphalt, concrete, macadam, and even mixtures which contain "shells" creating anything but a smooth surface. Rough road surfaces may be good for traction, but very poor if your goal is to maximize fuel economy. Additionally tires can wear out more rapidly due to the abrasive nature of some road surfaces. A good example are the roads in the state of Florida. The Florida DOT builds their highway roads with a mixture that includes the shells mentioned above. The combination of shells in the road surface and the state's high ambient temperatures substantially decrease the expected life of a commercial vehicle tire.

**Type of Service:** The specific service routine or duty cycle of a fleet will also affect fuel economy. Pure Line Haul service (New York to California) would get the best fuel economy versus poorer fuel economy for regional, local service or severe duty vocational fleets which involve a high degree of vehicle turning, stopping and starting, and poor surface conditions.

**Drivers** can also have a major impact on fuel consumption. The driver that does not rapidly accelerate, is easy on turns, shifts gears at the appropriate time, and knows how to brake effectively, gets the best fuel economy. The new, young and aggressive drivers (just out of truck driving school) tend to have an adverse effect on the fuel economy equation. In addition to mentor programs, fuel bonuses and other programs to encourage drivers to pay more attention to fuel economy, many fleets are adopting automated manual transmissions to offset the impact new drivers have on fuel consumption.

**Tires** have a major impact on fuel economy, on top of their own escalating cost that is affected by oil prices - so it's a double whammy! As we mentioned last month, next to the cost of fuel, tires are the highest expense for most fleets; as the price of a barrel of oil increases (now at over \$125), cost of diesel goes up and so do tire prices. That's because almost all of the raw materials that are required to compound/build a commercial truck tire are oil based. Tires affect fuel economy when they are run underinflated. The slow loss of air pressure can occur from leaking valve stems, osmosis through the tire casing, and those very common slow "leakers" due to tread punctures. A vehicle running on underinflated tires will consume more fuel than a vehicle with properly inflated tires.

Understanding the factors that affect fuel economy will help today's maintenance manager to choose the right strategy to maximize fuel economy and maximize profits.

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