P.S. PRESSURE SYSTEMS INTERNATIONAL TIRE FACTS

PROUD SPONSOR OF ATA'S "SHARE THE ROAD" PROGRAM

1. What is tire pressure?

Tire pressure is a measure of the amount of air in a vehicle's tires, in pounds per square inch. It's what carries the load!! Just sitting, tires can lose 1-4 pounds per month - because air molecules diffuse – or "leak" – through the tire itself. Checking tire pressure on a regular basis is critical.

2. How many tires are on a typical trailer?

4 singles or 8 duals. Total cost to replace with new tires??

Answer: Approximately \$8,000. Trucking fleets calculate their tire costs on a per mile basis to a tenth of a penny. In 2017, the average tire cost per mile for a truck & trailer was 3.8 cents (Source: American Transportation Research Institute 2018 report).

3. "Road Gators" are pieces of tire that are found on road and highways. The primary cause of gators is a bad retread? True or False?

Answer: False. Under inflation is the primary cause. Studies have shown that 'gators' are just as likely to come from a new tire, as a retread. The real cause is excessive heat, typically from running under-inflated.

(BTW, never pick up a gator with your bare hands! It is full of steel cords that are very sharp!!)

- 4. It takes approximately (21) gallons of oil to create a truck tire. It only takes (7) gallons to make a retread. Tire casings can be retreaded 2-3 times!
- 5. The average 18-wheeler goes through approximately 20,500 gallons of fuel per year. With fuel costing approximately \$3.50/gallon, that is \$71,750, which is almost the cost of the truck itself!!
- 6. When putting air in your car's tires, you look on the side of the tire for the proper inflation. True or False?

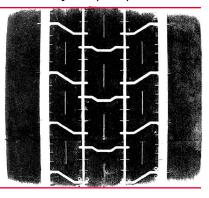
Answer: False. The sidewall tells you its maximum allowable pressure of the tire. The vehicle manufacturer tells you what pressure you should be running based on vehicle design/weight. It is found on the inside of the driver's door.

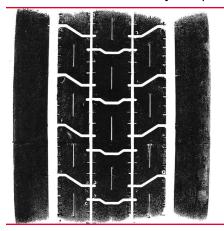
TIRE CONTACT PATCH @ 100 psi vs. 70 psi

Tire and rolling resistance <u>increase</u> as inflation pressure <u>decreases</u>. Fuel economy drops up to 3.8% if a tire is under-inflated by 30 psi.*

7.0" Long Contact Patch @ 100 psi

Optimum Fuel Economy





8.25" Long Contact Patch @ 70 psi

18% more rubber on the road equals a 3.8% decrease in fuel economy.*

^{*} Laboratory testing performed by Standards Testing Laboratories, Massillon, Ohio.

HOW IT WORKS

Automatic Tire Inflation System (ATIS)

The patented P.S.I. ATIS provides constant pressure, ready to supply air to any tires that fall below the recommended cold tire air pressure setting -- whether stationary, or in transit.

Air pressure is supplied from the Trailer's Air
Tank through a Pressure Protection Valve (PPV).

Utilizing the hollow axle as a conduit, air is routed through the axles.

Regulated at the Control Box, filtered air is set to deliver air at the cold pressure setting.

Air flows through the rotary union and tire hoses into the tires.

ThermALERT STANDARD



The patented ThermALERT™ feature helps avoid costly collateral damage to the axle, suspension and trailer.

If a wheel-end temperature elevates to abnormally high levels, the Thermal Screw core will melt

Air escapes axle, out through the hub cap vent system.

Indicator light is illuminated, alerting driver to potential issues

Driver finds a safe place to stop.

Problematic wheel end is repaired and new thermal screw is easily replaced.

Why P.S.I. Trailer ATIS?

- Automatically keeps tires filled
-) Improved fuel economy
- Improved tread wear
- Reduced labor costs
- Exclusive with ThermALERT®
- HOS efficiency
- Protects casings for retreading
- Reduced tire-related CSA violations



Why add TireView™ TPMS?

- Identifies problematic tire location
- Provides pressure and temperature
- Bumper-to-Bumper solution for trucks, tractors and trailers
- Improved accuracy of tire pressure readings
- **Easy to retrofit**

