



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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Choosing the Correct Tire Pressure

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Tires are designed to carry a specific load at a given air pressure. The higher the pressure the more load a tire can handle. Of course there is a maximum load and pressure limit for any given tire size and load range.

It is a legal requirement that the maximum tire load at a specific pressure be molded onto both tire sidewalls during the manufacturing process. For example, the very common 295/75R22.5 Load Range "G" tire can carry a maximum load of 5,675 pounds at 100 psi as a dual tire configuration. A Load Range "H" of the same size can carry a maximum load as a dual tire of 6,005 pounds at 120 psi. A higher load range simply means that the tire can carry additional load because the tire manufacturer typically uses a heavier gauge & higher tensile strength wire in the casing and belt package. In this example, the approximate 6% increase in tire carrying capacity or 330 pounds for the Load Range "H" tire should only be spec'd if you really need to carry the additional load. Load Range "H" tires are always more expensive than the Load Range "G" tires.

should be spec'ing at your fleet. This is why all of the tire manufacturers publish what is known as a "tire load-inflation" table for every tire size. Just do an internet search for **load inflation tables** and you will readily find these tables.

The recommended procedure in choosing the correct air pressure is always based on your worst case load scenario. To use the load inflation tables, first determine the heaviest load your fleet is hauling. Using portable weigh scales or the scales at your local truck stop, measure the actual load either across the axle or on a specific tire. The load-inflation table lists the maximum tire load at pressures ranging typically from 70 to 120 psi. But be careful, if the tire is a dual trailer tire then make sure you read the "dual" line and not the "single" line. The load capacity of a single tire versus the same tire used in the dual configuration is somewhere in the 7 - 10% higher load capacity range.

The whole concept of choosing the correct pressure for your worst case load scenario is to insure that you have the proper tire footprint maximizing treadwear, minimizing irregular wear, increasing fuel economy, and keeping the tire running cool so that the casing will make it successfully through the re-tread process.

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Just because the tire says it can support so much load at a given pressure does NOT imply that is the proper pressure you

Q&A PSI Answers Your Questions

Q. I recently began spec'ing widebase trailer tires with my new trailer purchases. Tires are running fine but concerned about retreading these tires. Any experience in this matter?

A. Widebase tires are doing the work of two dual tires. A 445/50R22.5 widebase is about 18" wide. Two dual 11R22.5's are 22" of tread width. Widebase tires are doing more "work" with every tire revolution. They generate higher heat than a dual tire because they are bigger and heavier. If tires are properly maintained with the recommended air pressure, you can expect one retread.