



TIRE TALK

Stop tire trouble before it starts: TST Tire Pressure Monitoring Systems for your RV or commercial vehicle keep you safe while saving your fuel dollars and improving tire performance.

Volume 1 Issue 1

August 2018

What is Recommended Tire Pressure for RV Tires?

Tires are a significant investment for RV owners, especially the larger sizes used on Class A motor homes. A new 295/75R22.5 tire will cost in the \$500+ range. Regardless of the tire size and model, maintaining proper inflation is critical to maximizing tire longevity, fuel economy, traction and safety.

Heat is a tire's worst enemy! Depending on load and speed, a tire in the 10-20% underinflated range running for an extended period of time can lead to a highway blowout. With underinflated tires, the sidewalls flex excessively, generating heat, deteriorating the structural integrity, which in turn reduce the tire's life. Underinflation also increases the footprint or patch, so there is more rubber on the road, which also creates additional heat. This increased tire patch also increases the rolling resistance, which decreases your fuel economy.

What is the proper tire inflation pressure for your tires?

Always remember that air carries the load. The recommended cold tire inflation pressure is based on your worst-case (or heaviest) load scenario. The pressure molded onto the tire sidewall is the HIGHEST pressure the tire is rated for at a maximum load, as determined by the tire manufacturer. However, the proper cold pressure is determined by the vehicle manufacturer after they determine what load the tire actually carries (based upon vehicle design). This is typically identified by a separate decal on the vehicle, such as in the door jamb (refer to your owner's manual for details). In absence of this information, or modifications made to the vehicle that impact weight, you can take your RV to a weigh station and measure the load on each axle (which is important because rarely is an RV evenly loaded). Things like appliances, number and placement of slide outs and furniture will affect the "balance." Once you know the weight on each axle, simply divide by the number of tires across that axle to determine the maximum load/tire.

Every tire manufacturer provides load/inflation tables for each model tire, which are usually available on their website. These

tables list the maximum tire pressure for a range of loads. For the larger tire sizes, you will need to know both the tire size and load range (LR). For example, Class A RV tire sizes (295/75R22.5) have multiple load ranges that are molded onto the tire sidewall. The higher the LR "letter", the higher the tire load capacity. An LR "H" tire will have a higher load capacity versus an LR "G". The tire dimensions are the same; however, the LR "H" tire will be built with a higher gauge steel in its casing and belt package to support heavier loads. For this reason, it is also important to replace tires with the proper load capacity rating.

Smaller tire sizes such as the popular 205/70R14, 225/75R15, and 235/80R16 will only be produced with one load range option. Below is an example of a load/inflation table for the ST235/80R16 tire size.

Using tire pressure monitoring systems (TPMS) will alert you whenever the tire pressure drops X percent below your target or recommended pressure setting.

The recommended tire pressure listed in the load/inflation tables is always based on the ambient temperature of 70° F. In Phoenix where the ambient temperature may be 110° F in the summer, those same tires will be approximately (4) psi higher for the smaller tire sizes and (8) psi higher with the 295/75R22.5. When tires are running down the highway, tire pressures will increase in the 10% – 15% range depending on the specific tire size and tread design. Tires with a lug (interrupted tread, typical for adverse weather conditions) design will generate higher heat compared to a straight ribbed tread. When the ambient temperatures are low in the winter, tire pressures will be lower. At 0° F, the 295/75R22.5 size will be about (14) psi lower pressure compared to 70° F. The smaller sizes will drop about (7) psi.

Bottom line, it is always a good idea to work with your local tire dealer for assistance in choosing the proper tire pressure based on your worst-case load scenario of your RV.

Tire Size	Max Speed Rating mph	Inflation Pressure - PSI											
		25	30	35	40	45	50	55	60	65	70	75	80
ST235/80R16	87	1720	1920	2090	2270	2430	2600	2730	2870	3000	3140	3260	3420(E)