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Tire Plus-sizing for Passenger and Light Truck Vehicles

For the US, Canada, and Mexico only *

* - For other countries please check local regulations.

Plus-sizing is an option that allows vehicle owners to customize their vehicle by installing lower aspect ratio tires on wider, and larger diameter rims. The following are important tire related aspects that need to be considered in every plus-sizing application:

1. **Load Capacity –** must be equal to or greater than Original Equipment tire fitment.
2. **Inflation Pressure –** never use a tire inflation pressure lower than the Original Equipment manufacturer's recommendations. Maintain pressure relationship between the front and rear axle tires. See below for more detailed information, for example if replacing Standard Load tires with Extra Load (Reinforced) tires.
3. **Speed Rating –** must be equal to or greater than Original Equipment tire fitment.
4. **Rolling Circumference –** the Original Equipment rolling circumference should be maintained as closely as possible.
5. **Tire and Rim combination –** only use industry approved tire size and rim width combinations.
6. **Body and Chassis Clearance -** ensure sufficient Body and Chassis clearance under all service conditions.

When replacing ZR speed rated tires or replacing with ZR speed rated tires, the following guidelines may not be valid. Please contact the local Continental Tire Customer Service department for assistance at the contact information listed above.

Please note: The guidelines **are** valid for W and Y speed rated tires, even if ZR appears in the tire size designation.

1. Load Capacity:

Use a replacement tire with an equal or greater load carrying capacity compared to the original equipment tire.

Never select a tire with a lower load carrying capacity than the original equipment specification. Determine the original equipment load carrying capacity by referring to the vehicle door placard or owner's manual for tire size maximum load and tire inflation pressure specified for the original equipment tire. If those sources are not available, consult the vehicle or tire manufacturer. Failure to follow this guideline may result in tire overload, and eventual tire disablement.

When selecting a plus size tire, refer to the appropriate product guide or technical data book for load carrying capacity. Prior to mounting the tires to the vehicle, verify that the technical data molded on the tire sidewall (e.g., load carrying capacity and speed symbol) matches these recommendations.

**Please note: There are some circumstances when an inflation pressure higher than the placard pressure must be used to maintain the load carrying capacity of the OE tire at the placard pressure. Do not exceed Continental Tire's maximum tire inflation pressure as imprinted on the sidewall. If the new inflation pressure differs from the recommended inflation pressures listed on the vehicle placard, this must be communicated to the consumer so that they and subsequent vehicle owners can maintain proper inflation pressure and load carrying capacity. Again, even with these adjustments, the load carrying capacity must still be equal to or greater than the original equipment tire fitment at the vehicle manufacturer's vehicle placard pressure.

2. Inflation Pressure:

Always ensure sufficient tire inflation pressure and never use tire inflation pressures below the original equipment manufacturer's recommendations.

Maintaining sufficient tire inflation pressure is critical for the correct performance and durability of the tire. The recommended inflation pressure for the vehicle's original equipment tires is normally located on the door placard, inside the fuel filler flap, or in the owner's manual. Never use tire inflation pressures below the original equipment manufacturers recommendations even if the replacement tire has a higher load index.

Always maintain the relative tire inflation pressure difference between the front and rear axle tires as specified by the original equipment manufacturer for some vehicles. The tire pressure relationship between the axles must be maintained so that vehicle handling and stability is not adversely affected.

Incorrect tire inflation pressure may also cause rapid and/or irregular tire wear, reduced tire life, poor fuel economy, and eventual tire disablement.

If replacing Standard Load (SL) tires with Extra Load (XL) tires, it is important to use tire inflation pressures that maintain the original equipment tire/vehicle characteristics. Use the following chart to determine the correct inflation pressure for Extra Load tires used to replace Standard Load tires.

Original Equipment Standard Load Tire	Plus sized Extra Load Replacement Tire	Change in inflation pressure compared to Original Equipment tire
SL Load Index	Same Load Index as OE SL tire	Increase 0.4 bar (6 psi)
SL Load Index	OE SL Load Index + 1	Increase 0.3 bar (4 psi)
SL Load Index	OE SL Load Index + 2	Increase 0.2 bar (3 psi)
SL Load Index	OE SL Load Index + 3	Increase 0.1 bar (2 psi)
SL Load Index	OE SL Load Index +4 or more	Same inflation pressure as Original Equipment

Never exceed the maximum tire inflation pressure as stated on the tire sidewall.

3. Speed Rating:

Use replacement tires with an equal or greater speed rating as the original equipment tires.

Speed ratings for tires are identified by means of a speed symbol. The speed symbol indicates the maximum speed at which the tire can carry a load corresponding to its load index. The speed symbol is located on the tire sidewall after the size designation (P205/55R16 91 **W**). It is a alphabetic code (e.g. W) associated with the maximum speed capability of a tire.

Prior to mounting the tires to the vehicle, verify the technical data molded on the tire sidewall (e.g., load index and speed symbol).

Please note: For driving in winter conditions, it is generally acceptable to use winter tires with a lower speed rating than the OE tires, however this limits the maximum speed capability of the vehicle

4. Rolling Circumference:

The Original Equipment rolling circumference should be maintained as closely as possible.

The rolling circumference of the original equipment tires is a critical aspect of the tire fitment. If the original equipment tires are replaced with tires that have a rolling circumference different from the OE fitment, it could affect items such as the speedometer calibration, anti-lock brake systems (ABS), stability control systems (ESP), etc. Under most circumstances a change within plus or minus 3% does not require any adjustments to the above mentioned systems. If there is any question about the suitability of the replacement tire size, please contact the vehicle manufacturer and follow those recommendations.

For All Wheel Drive and 4 Wheel Drive vehicles, Continental Tire recommends replacing all tires on the vehicle with the same size tire unless the vehicle came from the vehicle manufacturer with a “staggered” tire fitment.

“Staggered” tire fitments (using different tire size front and rear on the vehicle) require special consideration. Please consult with the vehicle manufacturer.

Alternative to the rolling circumference, the revolutions per mile or tire diameter information provided in a product guide or technical data book can be used to check the suitability of a tire size.

5. Tire and Rim Combinations:

Only use industry approved tire size and rim width combinations.

Consult the appropriate Passenger and Light Truck Product Guide/data book to determine the approved range of rim widths for a specific tire size. Using a rim that is not a proper fitment will affect vehicle handling, vehicle stabilty, tire wear, and tire durability. CTNA does not approve the use of any tire size – rim width combination outside of the applicable standards such as TRA, ETRTO or JATMA.

6. Body and Chassis Clearance:

Ensure sufficient body and chassis clearance under all service conditions.

If replacing with tires and/or wheels that differ from the original equipment specifications, all clearances between the tires/wheels and the vehicle’s components need to be checked, including the full suspension travel for both front and rear applications and the full range of motion for the steer tires. Be sure to include clearance for tire growth and deflection under load and cornering conditions. If the replacement tires/wheels come in contact with any of the vehicle’s components, both the components and replacement tires/wheels must be removed and examined for damage and possible replacement. This contact can cause damage to the tire or the vehicle which could lead to tire disablement or vehicle damage.

Please note: Clearance for the use of tire chains should also be considered.

Please Note:

The information provided within this document are general guidelines. Never assume you can simply substitute plus size tires or alter vehicle suspension without impact to the vehicle's dynamics. Vehicle modifications or alterations that deviate from the vehicle manufacturers original specification can adversely affect handling and stability.