



TECHNICAL BULLETIN

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SALES SEGMENT: ALL PIRELLI PRODUCT SEGMENTS

SUBJECT: Plus Size Changeover; Brake and Wheel Clearance

SUMMARY:

Plus Sizing (increasing the tire section width) is used to change the appearance or handling of a vehicle. When changing from the Original Equipment fitment tires using a Plus Size changeover, there are multiple factors which must be considered to ensure proper vehicle operation.

DETAILS:

Plus Size Changeover

When fitting a Plus Size conversion you must consider the Original Equipment fitment parameters of Load Index/Speed Symbol and Overall Tire Diameter. (The plus concept increases the steering stability by lowering the aspect ratio of the tires and increases the size of the contact patch while maintaining the same overall diameter, load index and speed symbol). Always check the vehicle manufacturer's recommendations.

The following parameters will assist in ensuring proper vehicle operation:

- Overall Diameter: optimum within +/- 1%, acceptable within -3% to +2% of the Original Equipment fitment
- Load Index / Speed Symbol: must be equal to or higher than that of the Original Equipment fitment
- Rim Width and Offset: check against OE/rim manufacturer's recommendations

Brakes:

Original Equipment brake components must operate according to the manufacturer's specification when performance package upgrades of wheels and tires are fitted. Brake upgrades may be required depending on the overall diameter of the Tire/Wheel combination, Tread Compounding, Tread Design, Contact Area and amount of Unsprung weight added to the suspension. Unsprung weight is the weight under the suspension, which moves up and down as the vehicle moves over uneven roads/surfaces and leans in corners. Always refer to the vehicle manufacturer's specifications when upgrading any brake components.

Clearance:

Interference between the tire/wheel and fixed parts of the vehicle must not exist. Check clearance with respect to the maximum range of suspension system (between empty and fully loaded vehicle), the same for the maximum range of the steering system (maximum left and right turns). Allowances must also be considered for the dynamic action of each individual suspension system component.