

# REAL Torque

October 2024

Contact maintenance for any questions on 0800 80 80 69



## Super Single Tyres

We have noticed an increase in tyre failures in the industry, mainly on 6x4 trucks fitted with super single steer tyres. While some incidents have been of a lower consequence causing truck damage only, others have been more high profile. The most recent being a tragic accident on the Auckland motorway in August. As a result, this Real Torque issue is to put the spotlight on super single tyres and the importance of tyre selection and maintenance.

### What is a “super single” tyre?

What we call a “super single” is a tyre greater than 335mm in section width designed to replace 2 tyres in a dual fitment. Used commonly on trailers as you have one tyre with one rim for each side of a trailer axle instead of two tyres with two rims. This reduces the overall tyre weight allowing for extra freight.

These tyres have become very common in steer applications in recent years. As super single tyres have a higher load carrying capacity than a standard 22.5” tyre, when used on the steer axle of a truck it allows for a higher axle loading, thus increasing the overall truck load.

### How to read a tyre size.

**385/65R22.5 158L**



- Nominal Section Width in Millimeters
- Nominal Aspect Ratio as a Percentage
- Radial Construction
- Nominal Rim Diameter in Inches
- Load Index
- Speed Symbol
- overall width
- section height (H)
- rim diameter
- overall diameter

### Highway vs. Mixed Service Tyres

Just like you wouldn't wear your steel cap work boots to play tennis, choosing the appropriate tyre tread pattern is critical to the performance and safety of a truck.

A steer tyre for highway use has a design focused on steering stability, irregular wear resistance, low rolling resistance and noise reduction. Whereas a mixed service steer tyre contains cut resistant rubber, wide grooves, stone ejecting technology and additional traction elements to withstand the harsh condition of quarries or forest roads.



Highway Steer Tyre



Mixed Service Tyre



Stone Ejectors

## Tyre Maintenance for Super Single Tyres

No matter what size a tyre is the importance of proper tyre maintenance cannot be overstated. Super single tyres are no different but can be more sensitive to wear and generate more heat if they're under-inflated and may require additional attention.

Here are some key aspects to consider when maintaining tyres:

**Pressure:** Maintaining the correct tyre pressure is vital. Super single tyres need to be inflated to the manufacturer's recommended pressure to avoid overheating, handling issues or critical tyre failure.

**Load:** Proper weight distribution is essential. Ensure truck and trailer loads do not exceed rated axle loadings to prevent uneven wear and handling problems.

**Condition:** Check the tyre tread and sidewall for cracks, cuts, bulges or any other visible damage that may impact its performance and safety. Replace if necessary.

**Alignment:** Misalignment can cause significant tyre wear and affect steering and suspension components. Regularly check and maintain proper wheel alignment to avoid these issues.

**Heat & Speed:** Super single tyres retain more heat, increasing the risk of premature wear during long trips or heavy loads. Adhere to the maximum speed recommendations from the tyre manufacturer to mitigate this risk.

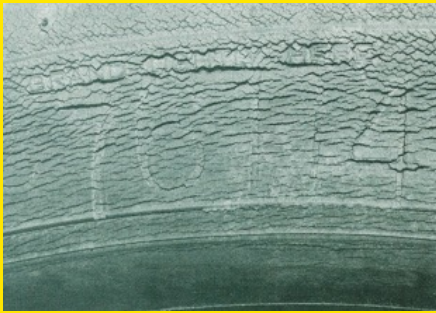
**Parts Maintenance:** Worn components can lead to uneven tyre wear and premature failure. Regularly inspect and maintain key mechanical components, such as kingpins, wheel bearings, and suspension parts to avoid this.

**Regular attention to these areas will enhance tyre longevity, vehicle safety and reduce the risks of tyre failure.**

## Damage

If a tyre shows damage that may compromise its ability to operate in a safe manner or lead to premature tyre failure, then speak to a tyre specialist or have the tyre changed.

Such observable damages include but are not limited to the below.



**Sidewall Deterioration / Ozone Cracking**



**Stone Drilling**



**Mechanical Damage**



**Rib Wear**



**Sidewall Cuts**



**Tread Tearing**

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