

INTRODUCTION

Long haul service presents several unique challenges for tires that can create a variety of wear patterns. While long haul tires include design features to address these challenges it remains critical to properly maintain vehicles in order to achieve uniform treadwear and maximize service life.

MAINTENANCE CONSIDERATIONS

Proper alignment and steer pressure maintenance are critical for achieving uniform wear patterns and maximizing the life of tires used in long haul service.

When aligning a vehicle for long haul service it is important to conduct a full vehicle alignment including the steer and drive axles. Non-uniform steer wear can be a result of misalignment from either the steer or drive axles. Misalignment related steer wear most commonly appears as shoulder wear on one side of the tire. This occurs from lateral forces scrubbing the side of the tire that is fighting to keep the truck straight against that misalignment. Misalignment related sided shoulder wear may appear on one or both of the steer tires.

Proper inflation is also critical to combatting nonuniform wear. Tires are designed so that the contact patch with the road is most ideal when using the manufacturer published pressure spec for a given load. When a tire is over or underinflated relative to the design pressure specified for a load it can contact the road in a way where the loading on the tread isn't evenly balanced resulting in tread elements like ribs wearing at different rates. Poor pressure can also exacerbate the effects of abuse from things like misalignment.

**EVALUATING WEAR**

When irregular wear does occur, it does not necessarily mean there is a loss of performance in the tire that warrants removal. When evaluating irregular wear, it is important to consider the remaining depth of the major grooves and whether any effects are manifesting in vehicle handling. *Poor appearance does not always mean poor performance.* If none of the major grooves are below the fleet's tread depth removal point and there is not an effect felt in handling, then such wear may not be a good reason for removal.

The shoulder defense groove is not considered a major groove, does not have treadwear indicators, and it is not appropriate to use for tread depth measurements. Wear in this area does not warrant removal except in the extreme case where undertread material is exposed (photo at far right, above).