THE INFLATION SYSTEM

COMMERCIAL FLEET TIRE DIGEST

The authoritative guide to reducing commercial tire expenditures from Pressure Systems International, the manufacturer of the Meritor Tire Inflation System by PSI™

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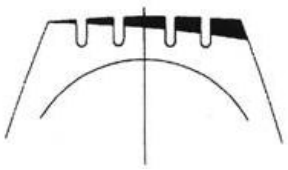
Trailers Tires and Alignment

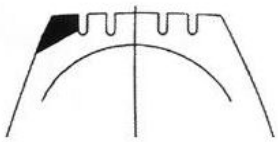
Trailer tires typically have many issues with fleets. They are not inspected very frequently and tire pressure checks are rare. A trailer found to be out of alignment will have a negative impact on both tire removal mileages and fuel economy. The payback for doing a trailer alignment is very short when you take into account the cost of fuel and tires. So what type of tire wear conditions would be a sign that trailer alignment may be an issue?

There are two specific trailer tire wear patterns associated with misaligned trailers. One-sided wear and fast or rapid shoulder wear on one shoulder.



One Sided Wear

One-sided wear can be described as fast shoulder wear on one shoulder and the fast wear continues along each rib in a decreasing manner as you go across the tread surface.



Fast Shoulder Wear

Fast shoulder wear is simply one shoulder (could be inside or outside) that has a rapid wear condition compared to the remaining tire ribs.

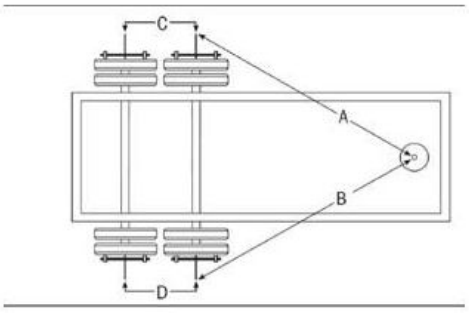
Underinflated trailer tires running on misaligned trailers is the worst scenario which leads to significant early tire removal miles due to irregular wear. Vehicle fuel economy can drop by as much as 3%.

An excellent source of additional information on tire wear conditions is published by TMC (Technology Maintenance Council) of the American Trucking Associations. This book is called the Radial Tire Wear Conditions Analysis Guide

If one-sided wear and/or fast shoulder wear is found on your trailer tires, a trailer alignment is in order.

In April 2012, TMC published an updated Recommended Practice on Trailer Alignment (RP 708B). This RP reviews the procedure required to perform a trailer alignment. It also talks about how to measure "Toe" which is the most important alignment setting when it comes to trailer tire irregular wear.

There is a very minimal investment required by fleets to perform a trailer alignment. You need a trammel bar, wheel-end extender, king-pin extender, a tape measure and a crayon for marking the tires.



- Connect the wheel-end and king-pin extenders
- Measure the A B C and D distances
- A & B target measurements +/- 3/16" OR +/- 7/32"
  (depends on axle track & wheel-end extender lengths)
- C & D measurements <= 1/16"
- Measure "Toe" using the trammel bar

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May you and your family have a joyous holiday! season.

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