

MD Alignment

Are Alignments on Trucks and Buses a GREEN procedure or a Money Drain (Part 19)

Widebase or Super Single Tires

My experience with Widebase tires is a mixed. The intended benefits are improved fuel economy, reduced weight and lower cost per wheel end for replacement tires.

Under identical conditions the WB tire will produce improved fuel economy compared to duals. However there are more and more standard size tires on the market now with rolling resistance numbers comparable to some WB tires.

Reduced weight is a fact but unless you can control your loads to within 800 lbs the benefit here is questionable. Liquid haulers are the most obvious candidate for this benefit.

It is true that one WB tire can be replaced for less than 2 standard tires however if the WB tire wears out faster or has to be replaced more frequently due to irregular wear this benefit disappears rapidly. In the area of rapid or irregular wear we see 3 common issues.

Rapid wear on drive tires from the smaller footprint on the WB tire compared to a standard set of duals. This is simply a function of Horsepower and footprint slippage. Like any hot rod, the more you spin the tire the faster it wears.

Second, inside edge wear close to the frame of the vehicle due to either loose wheel bearings or axle flex. Loose bearings are from improper adjustment procedures and the excessive axle flex is a result of off set rims. Zero off set rims should be used to avoid this problem and any axle can use WB tires if you use those rims. The 2 inch off set rims also accelerate bearing failures and damage to the bearing journal on the axles, particularly the outer bearing and journal.



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The third wear pattern we see is both shoulders on WB tires wearing and this usually is from excessive speed causing distortion of the tire. Most tires in the 385, 425 and 450 wide range suffer from this problem and the speeds where we see this starting to happen is anywhere from 55 MPH and up depending on the weight of the tread on the tire. (I will explain the mechanical causes of this wear pattern in the next couple of posts.)

If you are willing to operate these tires within their preferred performance envelope they will function as advertised. If not you will have issues.

