

MD Alignment

Are Alignments on Trucks and Buses a GREEN procedure or a Money Drain (Part 8)

A few words about trailers. Should trailers be aligned? Absolutely! Proper alignment of the trailer enhances tire wear and handling. The trailer axles should be parallel to each other as close as possible. They also should be aimed slightly up the crown of the road in order to reduce “Dog Tracking” caused by the crown of the road.

Having said that about trailers, there is one other point to be made about trailer alignments.

Trailer mis-alignment has very little if any effect on truck tire wear.

That’s a very strong statement and now I have to defend it. I do that in several ways. First, once we learned how to properly identify the tire wear patterns and we found the most effective procedures and specifications to align trucks, we have been able to solve issues without referring to the trailer. I have a couple of life experience samples to use in this defense.

The first fleet was a refrigerated, line haul operation that ran about 80 power units and we aligned all their trucks. They did not own any trailers. Which means they were pulling a variety of units, in a range of conditions, aligned and un-aligned.

The second fleet, also a refrigerated operation of about the same size, owned their own trailers and we aligned all the trucks and trailers. Both fleets averaged the same steer tire life. If the trailers were a significant factor to steer tire life, the fleet that pulled the “un-aligned” trailers should have shown a significant difference in tire life.

The second point is that the tractor does not know where the trailer is if the fifth wheel plate is properly lubricated. The pin does not move from the locked in position. Unless the trailer is “dog tracking” by a foot or more, there is not enough angle of momentum to attempt to steer the power unit. Remember the power unit has all the horsepower and in the normal US configuration, 48,000 lbs of the weight compared to 34,000 lbs on the trailer. The trailer does not have enough “authority” to steer the truck. A dry fifth wheel can cause directional issues but it will not be consistent. First it will stick in one position and steer one way, then in another and

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steer another way. This does not set up patterns in the steer tires. It just handles poorly.

Finally, if the trailer carries more weight than the power unit you would think it should have more effect. However I have fleets in Canada who run “B” trains with 5 trailer axles following the power unit and they report that they have been able to solve their steer tire issues just by aligning the power units. For me that settles the question.

So why do alignment shops claim that they cannot fix your tire wear issues because the trailer is out of alignment? Maybe they need to expand their concept of what a properly aligned truck is.

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