

MD Alignment

Are Alignments on Trucks and Buses a GREEN procedure or a Money Drain (Part 16)

New subject: Loose Components

This would seem to be a fairly obvious subject. Are the supporting components to the alignment in good condition and yet as I travel and inspect vehicles that have complaints about tire wear or handling issues, the vast majority have loose components. Wheel bearings, tie rod ends, u-bolts some king pins (not many, that seems to be one area everyone focuses on even though it is not that important) bushings and leaf springs are overlooked to the detriment of the tires and handling.

In the last two weeks I have asked to inspect two class 8 tractors that had been aligned within a month and both were in poor mechanical condition. Of 12 wheel ends 10 had loose wheel bearings and one had loose u-bolts on the rear suspension in 3 of 4 positions. Since the wheel bearings were loose it is no surprise that both the toe and drive alignments were incorrect. You cannot align something that can wiggle of its own accord. The same holds true for the drive axle alignment with loose u-bolts.

In addition one of them had a twisted frame and the other's steer axle was out of square with the frame. On average, vehicles that I do a pre-alignment mechanical inspection on require \$1,000 of repair before the alignment can be done.

Please remember that an alignment is similar to an engine tune up. You cannot tune up an engine with bad spark plugs, cracked and worn plug wires, fouled injectors, burnt exhaust valves or holes in the pistons.

As I indicated earlier, some parts are regularly and effectively inspected but some are over looked or give short shift in the process. King Pins are one of the parts replaced more often than they need. Yes when you jack up the front end they may have some play in them however when the vehicle is setting on the ground the movement is minimized. Other parts may seem to



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have minimal movement but when the vehicle is in motion the movement may become a dominate factor.

I will discuss two of them in the next couple of posts.