Humphrey Fleet Service Inc.

Alignment Process

BOOKING YOUR APPOINTMENT

Our Service people are trained in helping you determine the problem. Weather its, a pull, shimmy or bounce we will discuss the solutions with you on how we will correct your vehicles alignment issues. Since most full alignments take several hours, arrangements can be made for use of one of our courtesy vehicles.

PRE-INSPECTION

Our first step when the vehicle arrives is to perform an 21 point inspection of your vehicles condition. This Value Added service is to eliminate or correct some of the obvious conditions prior to setting up the alignment correction tools.

SET-BACK

Set-Back is the 90 degree relationship between front axle and the frame. When this relation ship exceeds +.05 at the curb side or -.07 at the roadside we adjust to reach a value of 0.00. When adjustments are needed, we have the full capabilities to make new U-Bolts for any make/model/year of truck. Some shops do not offer this value, as they cannot do the correction or they need to out source the U-bolts, resulting in costly delays.

CASTER / CAMBER

Camber is the 90 degree relationship of the front wheels to the ground. We make adjust to the axle beam only when we have fully discussed and determined the problem with the customer. The range we will meet is 0.0 to 0.3+.

Caster is the forward tilt of the front axle. We want to have positive settings of 3.5 on the left and 4.0 on the right. We stock a full range of caster wedges and U-bolts to make this critical adjustment. This is something you won't find with a mobile service equipment.

Toe is how straight the front steer tires run down the road.

THRUST / SCRUB

Thrust is the angle formed by the geometric centerline and the thrust line of an axle. Scrub is the angle formed by the two thrust lines of a tandem axle vehicle. Misalignment causes the tandem axles to work against each other.

We look to set to 0.0. Factory specs are more lenient, however, for every .06 degree offset it is equivalent to dragging the tire sideways for 100 miles for every 100,000 miles driven.

OFFSET

Frame offset angle is the angle of the frame referenced to the sensor centerline. This angle is calculated by the aligner when frame offset measurements are entered into the aligner.

RIDE HEIGHT

Correct ride height, especially with today's air rides, is critical to more than a just a quality alignment. Correct ride height will add to the life of many of vehicles key components such as air springs, shocks and driveline. It will reduce or eliminate any vibrations. We pride ourselves on assembling a manual of correct ride heights for every vehicle we have encountered. We have trained our technicians on its importance and on how they can make this correct critical adjustment to the vehicle.

ROAD TEST

We Road Test every vehicle after all the corrections have been made. We pay particular detail to correcting any complaint as to the reason for the alignment in the first place.

As added value we may recognize that a front steer tire swap is needed as a final correction. (Special Directional tires are considered when this decision is made).

CENTRE STEERING WHEEL

Due to many adjustments to the vehicles steering geometry it may be possible that the steering wheel may not be centred. As part of our Value Added service we will correct this situation. There are two types of adjustments, The steering wheel may need to be pulled and re-centred or the drag link end at the steering gearing needs to be adjusted.

FINAL REPORT

When we are done we print off a computerized report detailing the before and after adjustments. Our Service Advisors will take the time to fully explain the adjustments we have made and the benefits it will bring you. You will be very pleased with the results and it will prove to be a wise investment with reduced tire and fuel costs.