

## Jeep Wrangler Toe-in and Steering Wheel Center Adjustment

There are really only two adjustments that are adjustable on the front of 1997-2006 Jeep Wranglers. The first is caster, and that is only adjustable if you either have cam bolts or adjustable control arms. The second is toe-in, and that can easily be done by a home mechanic. There are a couple of different ways to do it and either way is perfectly acceptable. I have used both, and they work equally well.

The first way is to use a couple of pieces of angle aluminum clamped to the brake rotors. I used two pieces of 1½"x 36" angle. I then used a sharpie to mark a center line, and marks for 30", 33", and 35" tires on each end.



First jack up the Jeep and support it under the front axle using jack stands. Then remove both wheels and tires.

Before clamping the aluminum angle to the brake rotors, I used two ½ x 20 nuts on the wheel lugs on each rotor to hold the rotors against the hubs. I then use two 3" spring clamps to clamp the angle aluminum across the bottom of each rotor making sure that they are close to parallel, the center line is centered on the rotor, and the angle is sitting flat against the rotors.



Once the angle is clamped to both rotors, it's a simple matter of hooking a tape measure on one piece of angle and measuring across to the other both in front of the wheel and in the back at the appropriate tire diameter. The toe-in specification on Wranglers is 1/16"-1/8"; that means that the front should be 1/16"-1/8" closer than the back. I normally subtract one measurement from the other, then half the difference so I don't have to keep jumping back and forth with the tape measure. Once I think I'm close, then I re-measure both front and back.







To adjust the toe-in, loosen the two collar clamps on the tie rod sleeve. Once the clamps are loose, the tie rod is lengthened or shortened by turning the sleeve. Since my Wrangler has a Jeep Cherokee tie rod, it has a short sleeve. On stock Wranglers the sleeve is the majority of the tie rod and there is a clamp on each end. If it has not been adjusted for years, you may find it will take a pipe wrench to get it to move. Once the toe in is adjusted, retighten the clamping collars and recheck your measurements.

Once this adjustment is done, pull off the angle aluminum, the nuts that were installed to hold the rotors, and reinstall wheels and tires and put the Jeep on the ground

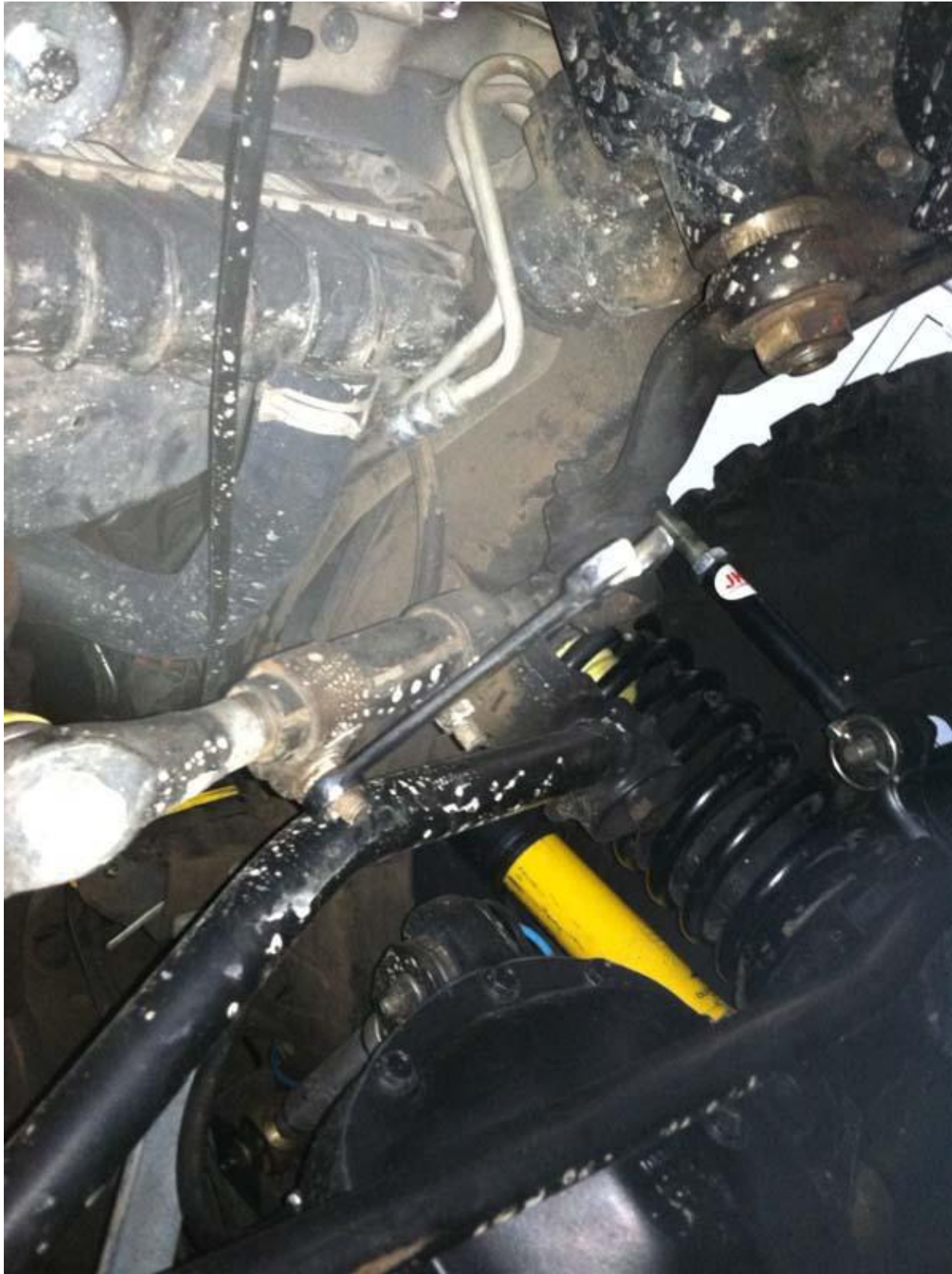


Once the toe in is adjusted you may find that your steering wheel is no longer centered, but this is easily corrected. Take the Jeep for a short drive to allow the suspension to kind of settle, and when you pull in to your work area, pull in with your wheels pointed as straight as possible (no matter where your steering wheel is).

Since I'm usually working alone, I normally put a piece of blue painters tape on my steering wheel that sticks up dead center on the wheel. That way I can see it from the front of the Jeep. Once that is done, I loosen the two collar clamps on the drag link, and turn the adjusting sleeve until the tape is sticking straight up. I then take a look inside, and if happy with the way the wheel is sitting, retighten the clamps. Sometimes I find that after going for another drive, it's still a little off and it takes another time or two to get it perfect.











Once this is done, that's all there is to it.

There is another way of measuring your toe in with your Jeep sitting on the ground. I simply use two pieces of duct tape and take one piece along the lugs (so you can hook a tape measure over the tape and on the lug) on the front of each tire at the same height off the ground. Once that is done, I put a sharpie mark on the tape at the point I will be measuring from/to. Once I have my front measurement, I move the Jeep forward so the tape is now facing the back (make sure you can clear the lower control arms with the tape measure so the tape can be pulled straight). Once the tape is at the back take another measurement from/to the same sharpie points on the tape. All the adjustments are the same.

