

Setting The Torsion Bars:

Once your ball mount is set up properly, the next step is to set the torsion bar pressure by determining which link to use.

- 1) To do this you want ideally a cement pad but nice flat fairly new pavement will work. To start, you want the Trailer and tow vehicle in a straight line, disconnected, with the coupler ready to drop on the ball.
- 2) With the tow vehicle in position but disconnected apply some masking tape to all four corners of the tow vehicle's bumpers. Chose a measurement to mark on the masking tape for example 27 inches, or whatever is appropriate for your tow vehicle. The number does not matter all we are doing is determining the height of the tow vehicle without the trailer so we can measure the amount the height changes when we connect.



- 3) Now that we know how the tow vehicle sits without the trailer we want to determine the change in position when we connect. Generally the goal is to have the tow vehicle pushed straight down, so the front is pushed down the same amount as the rear. Go ahead now and connect the trailer using whichever link you can connect to. If your tow vehicle has independent rear suspension you will need to roll it forward and back about 4' to let the tires swing out to their normal position. Just put a block behind the trailer tire so you stop in the same spot and don't turn the steering wheel.
- 4) You will find that the tow vehicle will have been pushed down by the weight of the trailer. For example, the rear measurement may now be 25" instead of 27" but the front may have come up to 28". In this case, you would need to go up to the next link (adding tension to the torsion bars) and measure again.

- 5) However, you may find that the next link puts you into the opposite position where the front is pushed down 1" to 26" and the back stays even at the 27" mark. This means that the torsion bars are transferring too much weight forward.



6) If this is the case then you need a partial link. To do that overlap two chain links and slide a $\frac{1}{2}$ " bolt through them. A $\frac{1}{2}$ " bolt is $\frac{1}{3}$ of a link of adjustment so in some cases you will need 2 bolts to achieve the correct transfer. (picture attached)

7) Most tow vehicles will end between $26 \frac{1}{4}$ " & $26 \frac{1}{2}$ " front and rear if you started with marks at 27".

8) If you are setting up a new hitch the bars will wear in quite quickly. You will likely need to add a third of a link in 2-500 miles. You will need another third after another 500-1000 miles. You will likely feel the difference in the steering as this happens. After a while it just won't feel as planted as it was after your initial set up. It is fine to experiment $\frac{1}{3}$ of a link at a time you should notice the difference right away if it was the right or wrong change to make.

9) Substantial change in loading in the rear of the tow vehicle or the front or rear of the trailer will also affect your torsion bar settings.

- 10) Always keep the ends of the torsion bars and the ball well greased. The sway bar balls do not require grease.