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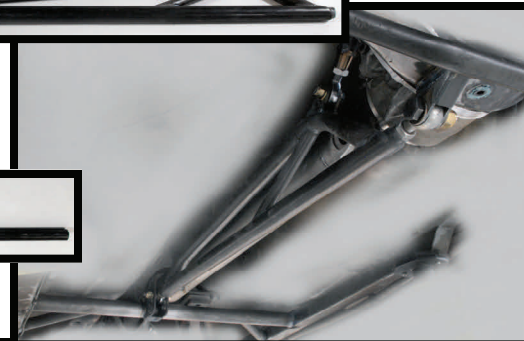
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## Moser 46" Short Torque Arm #737500S Instructions



The 46" torque arm kit consists of either a stamped 9" heavy duty housing or an M-9 housing with adjustable lower control arm mounts, panhard mount and coil spring cups. The torque arm assembly contains all associated hardware to attach the torque arm to the housing and the forward torque arm mount. Also included in the kit is the forward mount, 1 3/4"x 60" crossmember and 2, 1 1/4"x 16" crossmember diagonals. The 46" torque arm is designed to bridge the gap between the stock torque arm and the longer bolt in torque arms that are currently available. The mid length bar is designed primarily for drag radial cars or cars running a small tire, especially ones with high horsepower.



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## Instructions

The short torque arm kit is designed for cars needing more “bite” than available with the stock length bolt in torque arms that are currently available. There is some fabrication and welding required. This project should be done by a competent fabricator, or someone with average fabrication skills. There is also some welding involved in this process, it should be done by a qualified welder.

### Removal & Preparation

#### Step 1:

With the vehicle sitting at ride height, measure the height of the car from the ground in the front and rear of the vehicle. The front and rear of the rocker panel makes a good place to check this dimension. The idea here is to determine the rake of the vehicle so this rake can be duplicated on the jack stands. Also measure the location of the rear wheel in the wheel opening such as from the fender lip to the axle center line, from the front of the wheel opening to the axle center line and the ground to the axle CL. These dimensions will be used to re-locate the new rear in the vehicle. Measure the pinion angle as well. This dimension will be needed during the install process.

#### Step2:

Jack the vehicle up, supporting it by the chassis structure as close to the suspension mounting points as possible. When supporting the vehicle, try to duplicate the “rake” as previously measured. The vehicle must also be level side to side.

Start by removing the existing rear from the vehicle. Remove the end links on the sway bar, the emergency brake cables, the brake hose where it attaches to the chassis, the drive shaft and the panhard rod. Using a floor jack to support the housing, remove the lower shock nuts, pull the studs out of the shock brackets on the housing and carefully lower the rear so the coil springs can be removed. Be very careful during the removal of the rear springs, they’re under an extreme amount of compression! Once the rear has been lowered enough to remove the springs, slide them from their pockets.

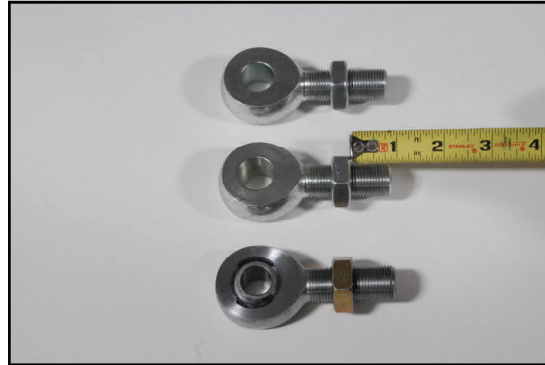
Loosely support the front of the torque arm and remove the front torque arm mount.

Remove the rear control arm bolts and remove the rear assembly from the vehicle.



### **Step4:**

Start the installation by pre assembling the torque arm and associated parts. Use an anti seize lubricant on all of the jam nut and heim joint threads to prevent the threads from sticking. Thread the jam nuts on the solid rod ends 7/8" from the end. Do the same with the left hand heim joint.



### **Step 5:**

Thread one solid rod end into the rear of the torque arm until the jam nut just touches the adapter. The other solid rod end threads in the right hand threaded end of pinion angle adjuster until the nut touches, do the same on the opposite end of the adjuster with the left hand threaded heim.



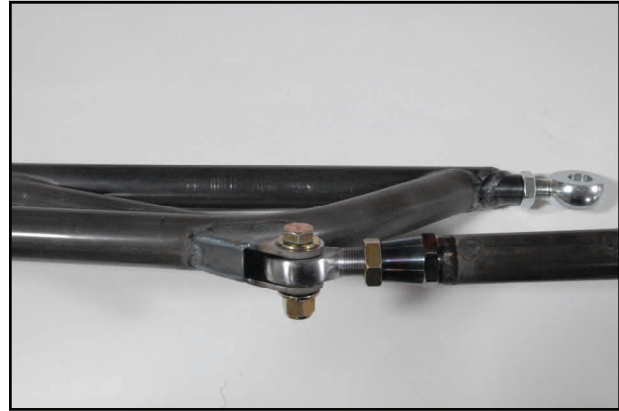
Thread the jam nut on the right hand heim all the way. Lubricate the threads and thread the heim into the slider tube fully. Tighten the jam nut against the slider tube.





## Step 6:

Attach the heim to the top of the torque arm with the 1/2" bolt, washers and nylock nut and 5/8"x3/4" adapter sleeve. The 5/8"OD by 3/4" long adapter sleeve must be inserted into the heim before it is inserted between the two tabs on the torque arm.



Attach the lower solid rod end to the bottom of the housing using one of the 2 1/4"x3/4" bolts, washers and nylock nuts. It's not necessary to tighten hardware completely at this time, the housing will need to be removed later for final assembly.

Repeat the same process with the upper solid rod end at the top of the housing.



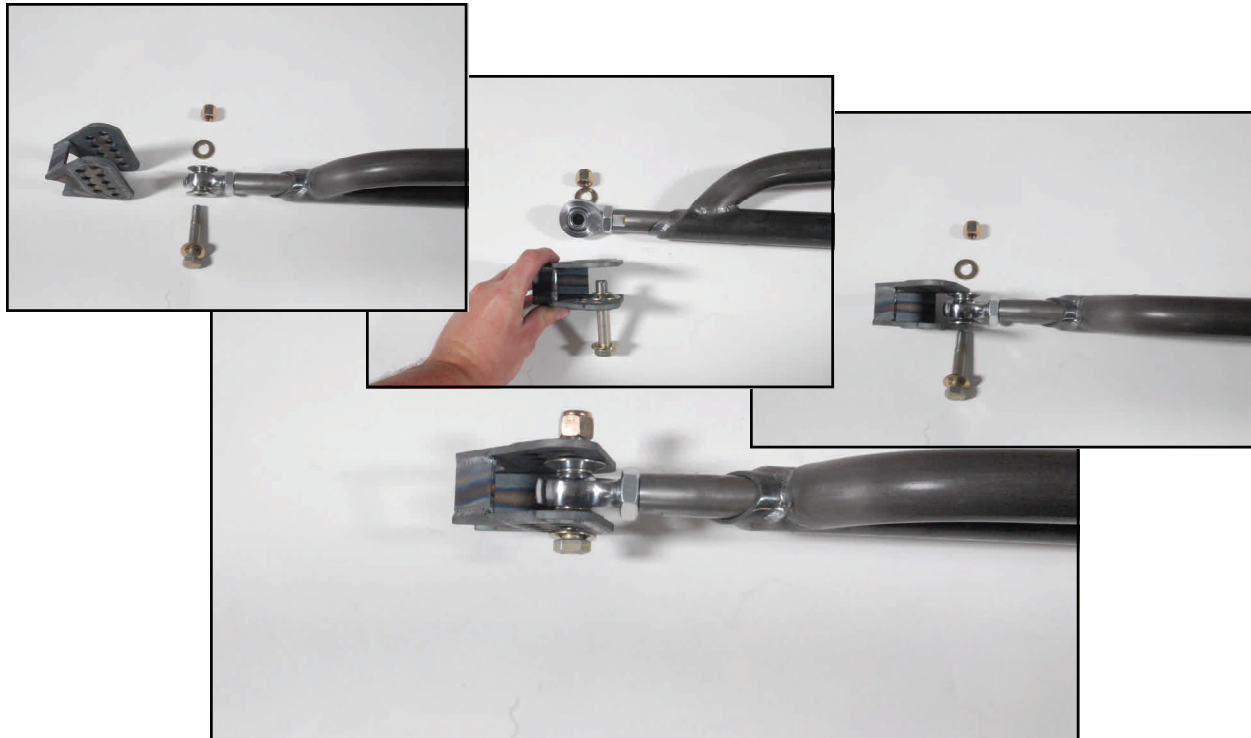
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## Step 7:

At this point in the process the housing and torque arm assembly needs to be temporarily installed into the vehicle. Jack the housing assembly up into the car. Support the housing with jack stands. Use the lower control arm bolts to help locate it front to rear, put a jack stand under the front of the torque arm to simulate the torque arm's location. Using the previously recorded measurements from the rear axle, locate the new housing as closely to those dimensions as possible. Set the bottom of the torque arm level.

Attach the front torque arm mount to the slider/heim assembly using the 5/8"x1 1/4" adapter sleeve, safety washers, 1 1/4"x1/2" bolt, flat washers and nylock nut. Use the center hole to locate the mount. Slide the slider tube into the front of the torque arm, leave 1" of clearance from the torque arm to the jam nut. Support the bracket, plumb and level with the angled part of the mount pointing up.



With the mount properly positioned, measure the location of the 1 3/4" cope at the front of the mount in reference to the vehicle so the cross member can be properly located.

At this point the 1 3/4" cross member can be installed. Typically a car at stock ride height will have the top of the cross member located 3/4" below the pinch welds on the rockers. That dimension is subject to change based on the ride height of the vehicle. The cross member is designed to be welded in the vehicle, preferably to sub frame connectors or some sort of aftermarket chassis stiffeners. If it must be welded to the floor pans or rockers, 6"x6"x1/8" stiffener plates need to be installed to help support the cross member. Do not weld it directly to the sheet metal. Tack weld only! Final welding is completed after all clearances are checked and met!





Once the crossmember is tacked in place locate the forward mount. Measure from the pinch welds to the torque arm front and rear. This dimension should be the same at both ends of the torque arm. Plumb and level the mount and tack weld.



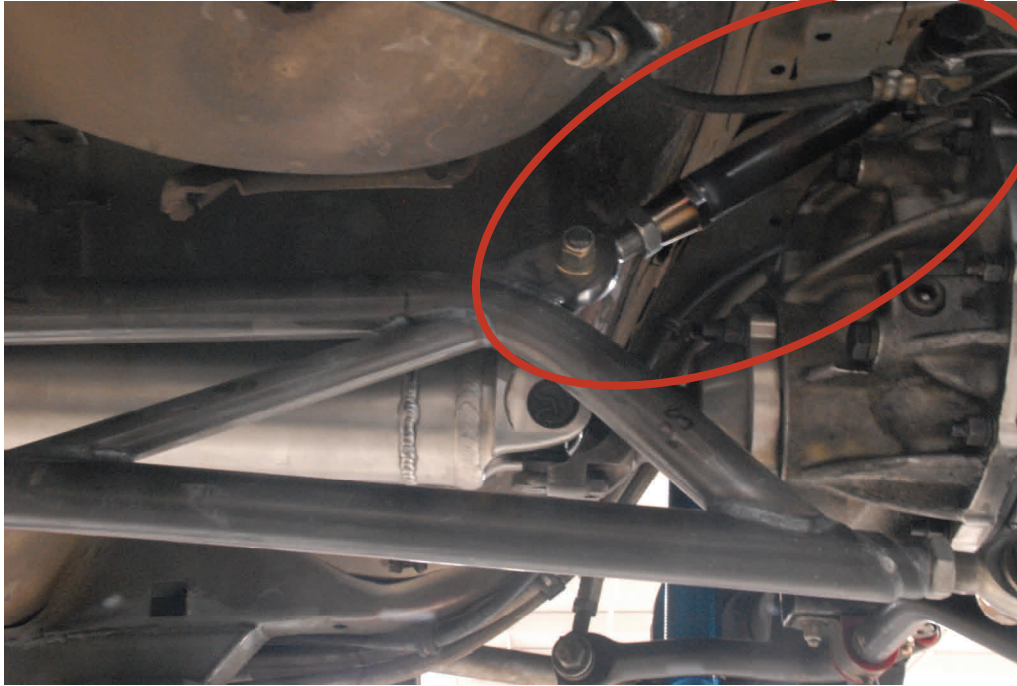
The center section and driveshaft need to be temporarily installed to determine that there is at least  $\frac{1}{4}$ " of clearance from the torque arm and driveshaft. Also make sure the torque arm to the jam nut on the slider is still at 1". With all of these conditions met, install the 1  $\frac{1}{4}$ " diagonal from the chassis to the crossmember. Finish weld all attaching points.

Once all of the welding is finished, all of the assembly can be finished. Remove the housing, clean and install the center section and axles. Re-install the housing assembly along with the coil springs. Install the lower shock mounts, sway bar end links, panhard rod, brakes and brake lines. Add fluids and bleed brakes. Grease the slider. Make sure there are no binding or clearance issues. Double check all fasteners and jam nuts, making sure they are all tight.



## Moser 46" Short Torque Arm Instructions

Reset the pinion angle. This is done by lengthening or shortening the pinion adjuster. Either use the previously recorded angle or set the pinion angle at 1 to 2 degrees down from the engine angle.

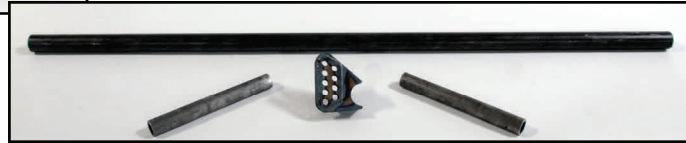


### Important!

**Final adjustments to the torque arm can't be made until preliminary test runs are made to determine the placement of the front of the torque arm in relationship to the mount. Raising the bar increases the amount of hit lowering the bar raises it. Also, raising the bar causes the back of the car to lift, lowering causes the front to lift.**



## Moser 46" Short Torque Arm #737500S Instructions Materials List



<b>718917XX</b>	1/2 - 20 X 2.75" Gr.8 Bolt	1
<b>718915XX</b>	1/2 - 20 X 2.25" Gr. 8 Bolt	1
<b>733817XX</b>	1/2" SAE Flat Washer	3
<b>718365XX</b>	3/4 -16 x 2.5" Gr. 8 Bolts	2
<b>733803XX</b>	3/4" SAE Flat Washers	4
<b>7SW58AX</b>	5/8" Meziere Safety Washers	2
<b>73416SRE</b>	3/4"x3/4 - 16 Solid Rod Ends	2
<b>73416JNR</b>	3/4 - 16 RH Jam Nuts	3
<b>73416MHJ</b>	5/8"x3/4 - 16 RH Moly Heim	1
<b>73416MHL</b>	5/8"x3/4 - 16 LH Moly Heim	1
<b>73416JNL</b>	3/4 - 16 LH Jam Nuts	1
<b>MFG</b>	Slider Tube	1
<b>760105XX</b>	Grease Zerk	1
<b>MFG</b>	1 1/4"x5/8"x.058 Moly Tube (spacer)	1
<b>MFG</b>	3/4"x5/8"x.058 Moly Tube (spacer)	1
<b>71137084</b>	1/2 -20 Nylock Nuts	2
<b>737570XX</b>	3/4-16 Nylock Nuts	2

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