

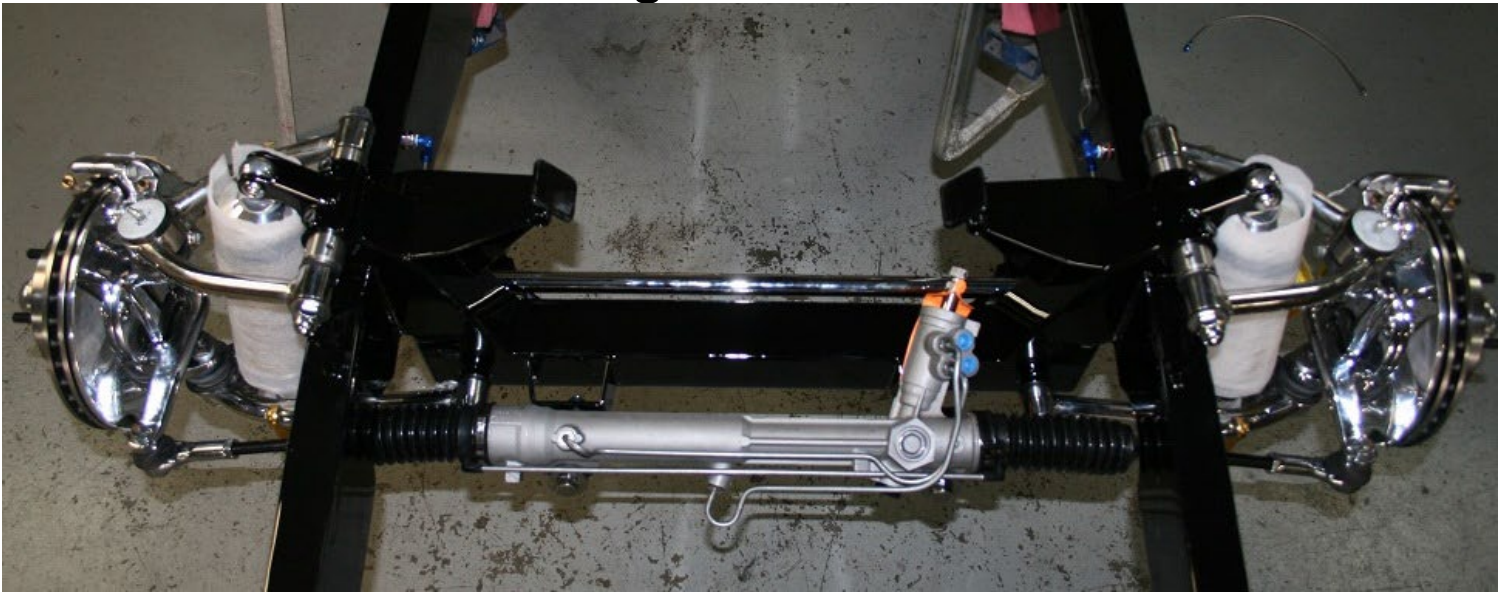
'53-'56 Ford Truck Chassis Custom IFS & 4-Link Install Instructions

Tech Line: 1-855-693-1259 - www.totalcostinvolved.com

Read and understand these instructions before starting any work!

USE THE PARTS LIST BELOW TO MAKE SURE YOUR KIT IS COMPLETE BEFORE INSTALLATION.
IF ANY PIECES ARE MISSING, PLEASE CONTACT: Total Cost Involved Engineering 1-855-693-1259

Installing the Custom IFS

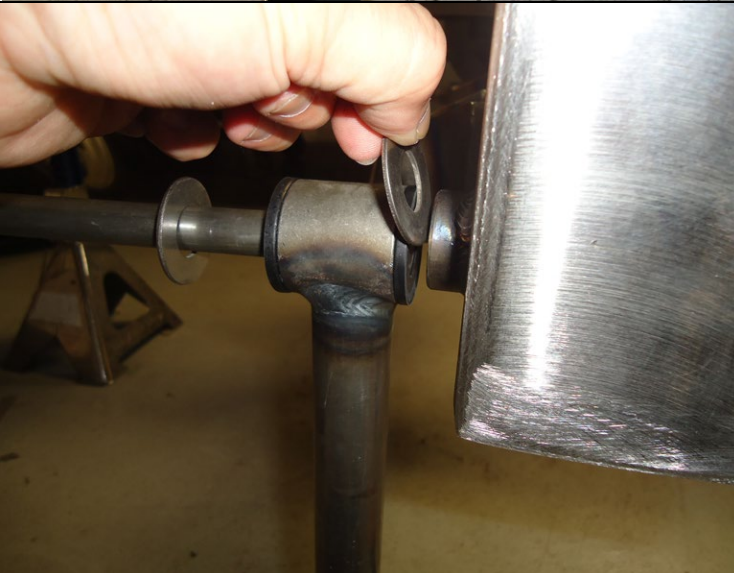


Installing the lower control arms:

NOTE The acorn side of the 5/8" shaft faces forward.

Place one washer onto the 5/8" control arm shaft and push it through the front bushing of the control arm. Place a 2nd washer behind the bushing and push the 5/8" shaft into the front of the cross member.

NOTE Driver side control arm is pictured





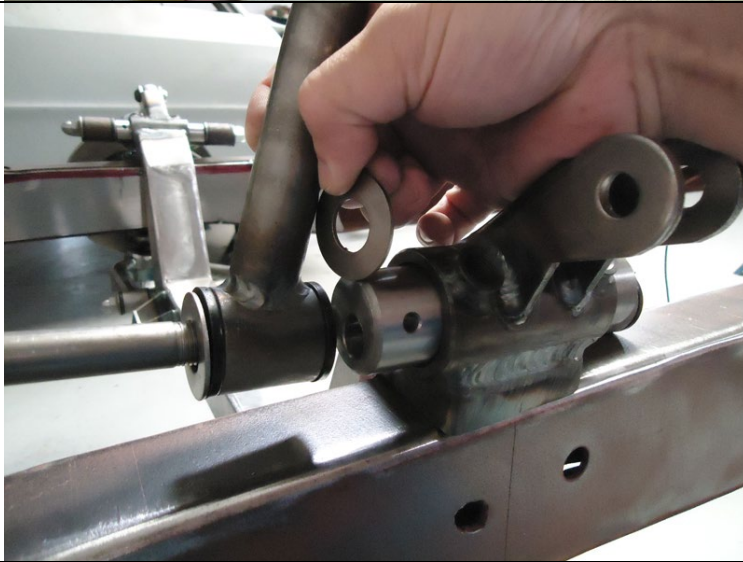
Place the 3rd washer in between the bushing and the pin as shown.

Push the 5/8" shaft all the way through the pin and bushing. You may need a little elbow grease to get the shaft all the way through.



The 4th and final washer can now be placed on the 5/8" shaft and the Nylock can be installed.

Torque to 75 ft lbs



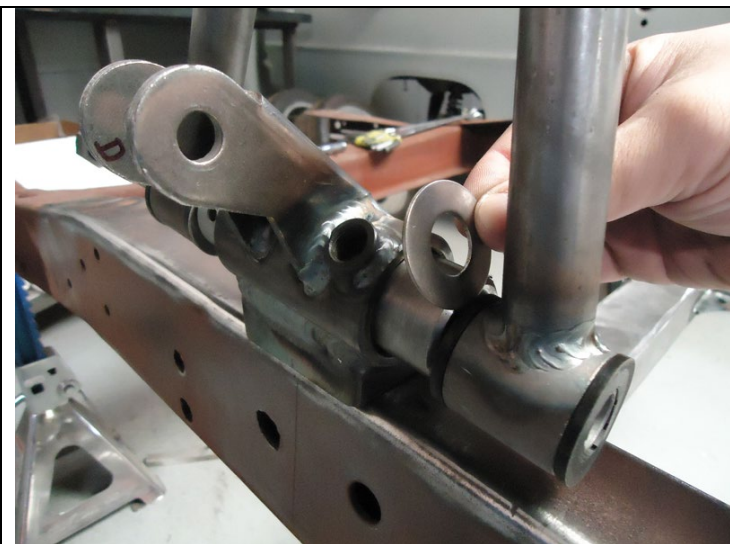
Installing the upper control arms:

NOTE The acorn side of the 5/8" shaft faces forward.

Place one washer onto the 5/8" control arm shaft and push it through the front bushing of the control arm.

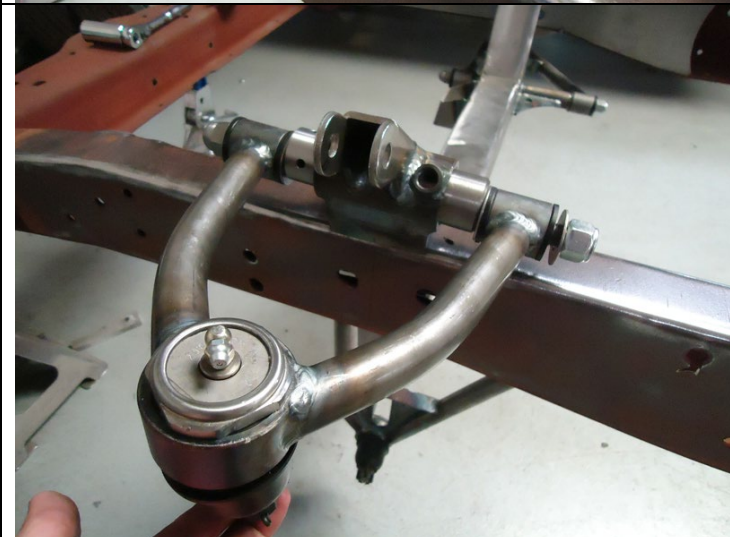
Place a 2nd washer behind the bushing and push the 5/8" shaft into the front of the eccentric housing.

NOTE Driver side control arm is pictured



Place the 3rd washer in between the bushing and the eccentric as shown.

Push the 5/8" shaft all the way through the eccentric and bushing. You may need a little elbow grease to get the shaft all the way through.



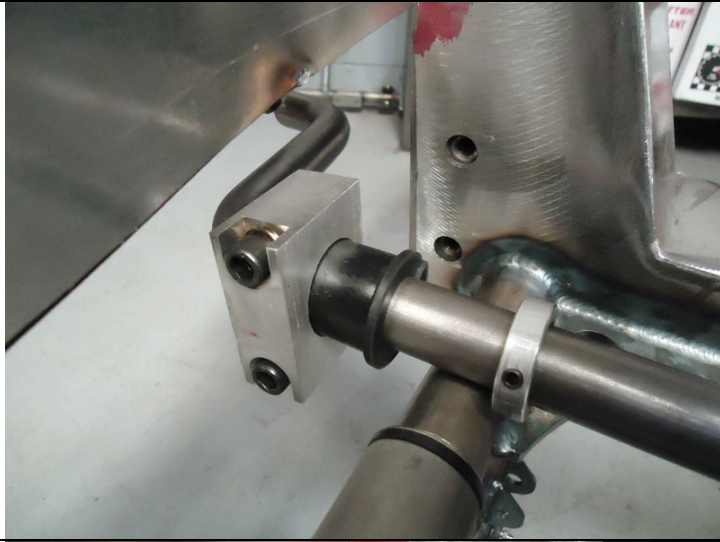
The 4th and final washer can now be placed on the 5/8" shaft and the Nylock can be installed.

Torque to 75 ft lbs



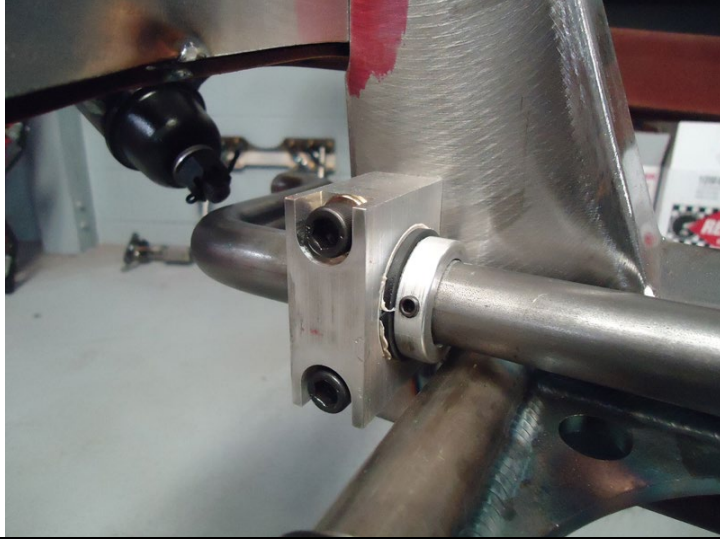
Install the 1/2-20 set screws into the Eccentric housing and tighten.

Final alignment will be done once vehicle is finished.



Installing the anti-sway bar:

Slide the lock ring collar over the bar on each side first. The split bushings go over the bar and then the aluminum blocks slide on over the bushings.



The anti-sway bar mounts to the rear of the cross member above the lower control arm pins. Use the supplied hardware to install the aluminum blocks onto the cross member. Torque to 35 ft lbs.

Center the anti-sway bar and lock down the set screws against the bushings.



Installing the Coil-overs:

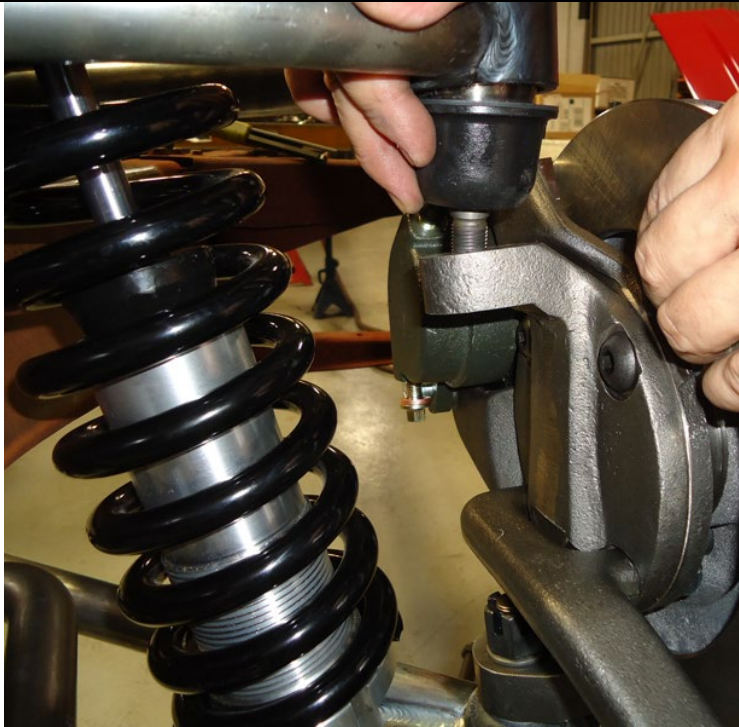
Place the top of the shock into the top mount on the cross member. The large spanner ring faces up and adjustment knob should be facing the spindle.

Use the ½" button head bolt and short nylock to attach the shock.

NOTE Threaded side of the shock body faces up.



The bottom bolt has a modified head that needs to be installed from the front to the back.



Installing the spindle assemblies:

Place the spindle onto the lower ball joint with the steering arm facing forward with the large I/D tie rod end taper facing down. (The tie rod end goes up into the steering arm)

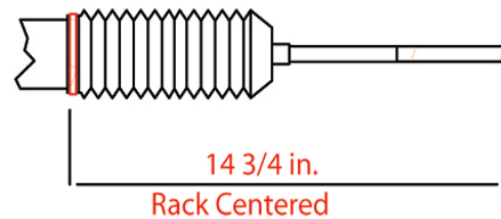
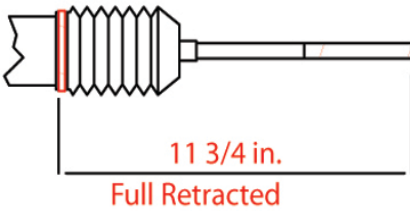
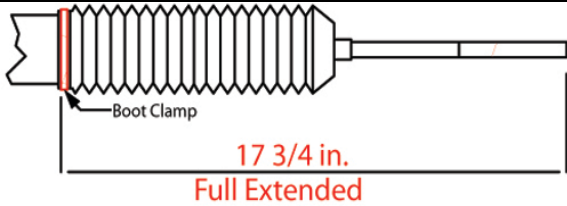
Place the ball joint washer first and then the castle nut. Torque the lower ball joint to 90 ft. lbs and install the cotter pin. The lower ball joint is a **MOOG K719**

Pull the upper control arm down onto the spindle. Place the ball joint washer first and then the castle nut. Torque the upper ball joint to 70 ft. lbs and install the cotter pin. The upper ball joint is a **MOOG K772**

***NOTE* Caliper Fittings:**

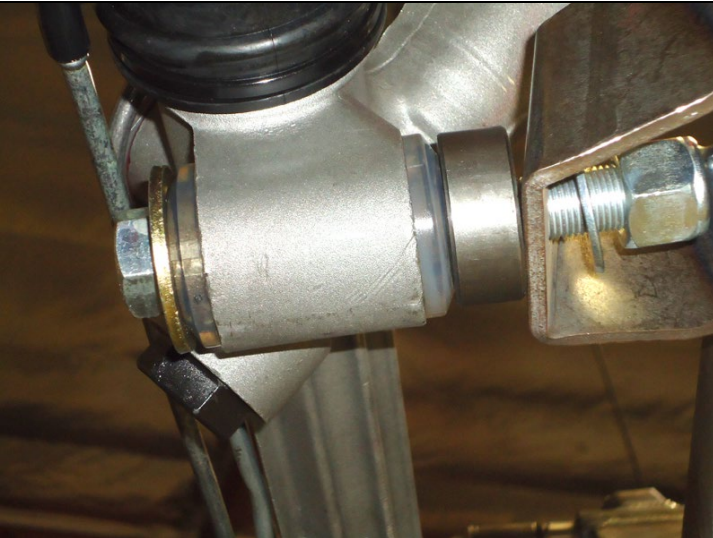
GM Calipers = 10mm x 1.5

Wilwood Calipers = 1/8" NPT



Centering the rack assembly:

The rack needs to be centered to allow equal steering left to right. On a bench, turn the pinion out to lock one way. Measure from a convenient point to the end of the inner tie rod. (This rack was 17 $\frac{3}{4}$). Turn the pinion of the opposite lock position and measure from the same point to the end of the same tie rod (11 $\frac{3}{4}$). 17 $\frac{3}{4}$ minus 11 $\frac{3}{4}$ = 6. Divided by 2 = 3 Add that number to the smallest measurement (11 $\frac{3}{4}$ + 3" = 14 $\frac{3}{4}$ ") and turn the pinion back till you get that measurement and your rack is centered.



Installing the rack and pinion:

Place the rack on the cross member brackets as shown. Use the supplied 5/8" hardware to fasten it into place. The picture shows a power rack that requires a 5/8" spacer between the rack and the mounting brackets. A manual rack bolts directly to the mounting brackets not needing these spacers.

Torque bolts to 90 ft. lbs

NOTE Power Rack & Pinion fittings:

9/16"-18 Pressure side & 5/8"-18 Return side



Install the jam nut and outer tie rod end onto both sides of the rack. With the rotors pointing straight ahead (0 toe) install the tie rod ends into the bottom of the steering arm. Torque the tie rod ends to 60 ft. lbs. and install the cotter pin.

NOTE Rack & Pinion output shaft:

Manual rack = 9/16"-26 spline

Power rack = $\frac{3}{4}$ "-36 Spline thru 4/2021

After 4/2021 $\frac{3}{4}$ " Ford V



The sway bar routes from behind the cross member above the lower control arms and hooks up to the front of the control arms. Use the supplied hardware to install the rod ends with the male on the bottom.

NOTE You can adjust the preload (or lack thereof) once the vehicle is ready to be driven. To do this, disconnect one bolt on any heim, place driver in the driver's seat, adjust the loose heim until the bolt goes onto the anti-sway bar with zero load.

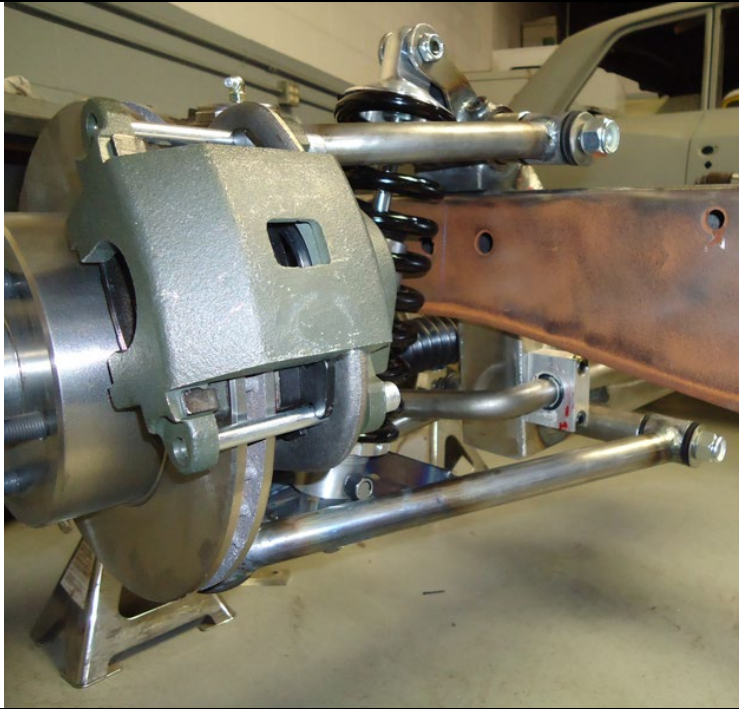


Setting up power steering

The rack ports are 9/16"-18 Pressure side & 5/8"-18 Return side

Unisteer 8026070 is a recommended fitting kit.

The recommended pump output is 800-1000psi and 2.0 gallons per minute. Exceeding this can cause the steering to feel "twitchy" and excess pressure can damage the rack.



Alignment specifications

Caster: Power rack 4-6 degrees positive
Manual rack 2-4 degrees positive

Camber: 0 Degree

Toe-in: 1/32 to 1/16 inch

The lower control arms should be level to the ground or within a degree or two once the vehicle is at full weight. You can then perform the final alignment.

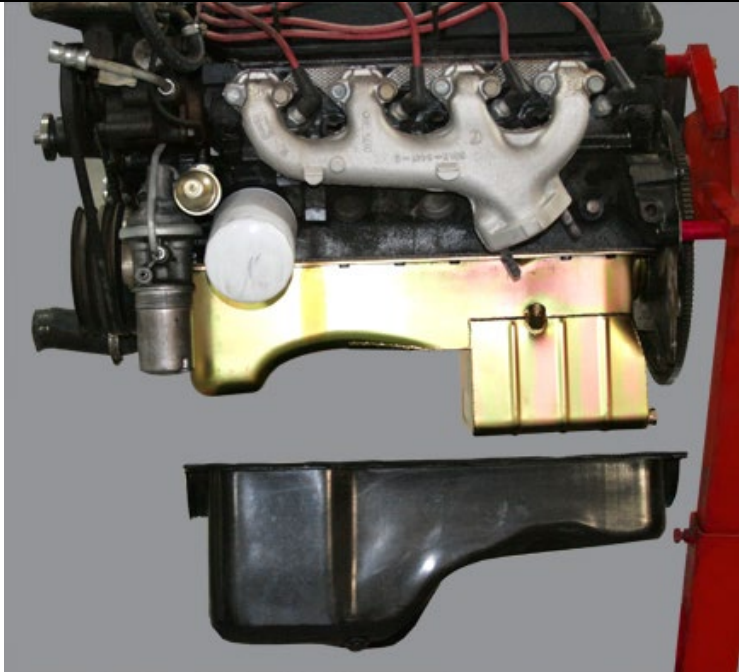
AXLE STUD SIZES:

4.5" Bolt circle rotors = 1/2"x20 ('75-'80 Ford Granada)

4.75" Bolt circle 10.5" rotors = 12mmx1.5 ('82-'87 Camaro)

4.75" Bolt circle 11" rotors = 7/16"x20 ('75-'80 Granada redrilled)

ALL Wilwood hubs = 1/2"x20



OIL PANS

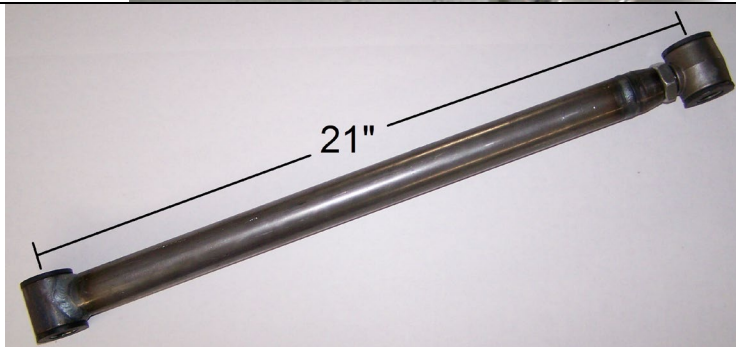
289-302 Small Block Ford Motor = fox body rear sump oil pan or Milodon rear sump pan holds 7 quarts plus the filter, Oil pan # 31125, Oil pump pickup #18380, CNC stainless dip stick #22040

352-428 FE Canton Racing Products
Road Race 7 Quart Part#: 15-874 / Oil Pump Pickup # 15-875

351 WINDSOR = MILODON OIL PAN # 31126, PICK-UP (OIL PUMP) 18385, OIL PUMP SHAFT 22560, GASKET 41004, WINDAGE TRAY 32217, TRAY INSTALLATION KIT 81167, DIP STICK COVER 22030, stainless dip stick 22040

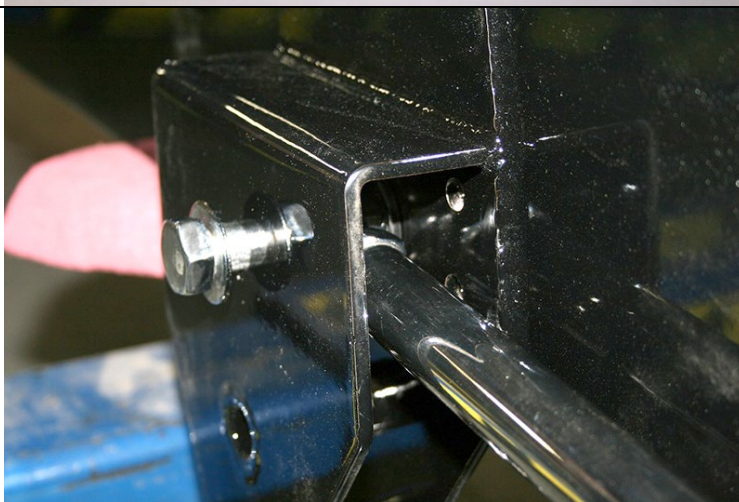
429-460 = Ford Racing # FMS-M-6675-A460

Installing the 4-Link



Adjust all the 4-link bars to 21" center to center and tighten the jam nuts.

NOTE It might be necessary to adjust the 4-link bars later to center the tires in the wheel wells.



Install the 4-link bars with the adjuster side onto the frame using the provided 5/8" hardware. The bolts go in from the outside of the frame which will place the nylock on the inboard side.

5.5" x 5/8" bolts (upper)

NOTE The frame is sleeved internally so the rail will not collapse once it is tightened.



NOTE The driver's side front lower link bar does not use a nylock nut, rather a clevis for attaching the track bar.

3.5" bolts (lower)



Install the clevis onto this bolt at this time.



Place the lower 4-link bars onto the lower hole of the axle bracket using the provided 5/8" hardware.

NOTE There are no washers used to connect the 4-link bars to the axle brackets.

NOTE Driver's side shown

3.5" bolts (lower)



NOTE The passenger side rear lower link bar does not use a nylock nut, rather a clevis for attaching the track bar. Install the clevis onto this bolt at this time.

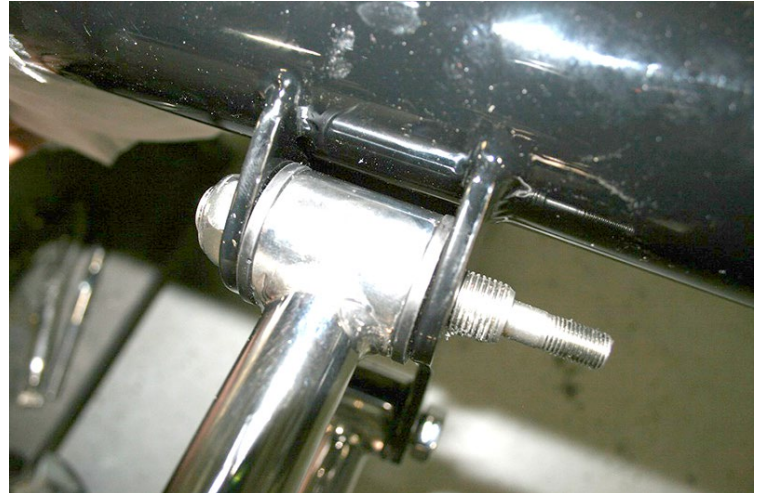
Leave bolts & the clevis hand tight for now

If you purchased a rear anti-sway bar proceed to the picture on the right →
If not, install the supplied hardware like in the picture below. 3.5" Bolts

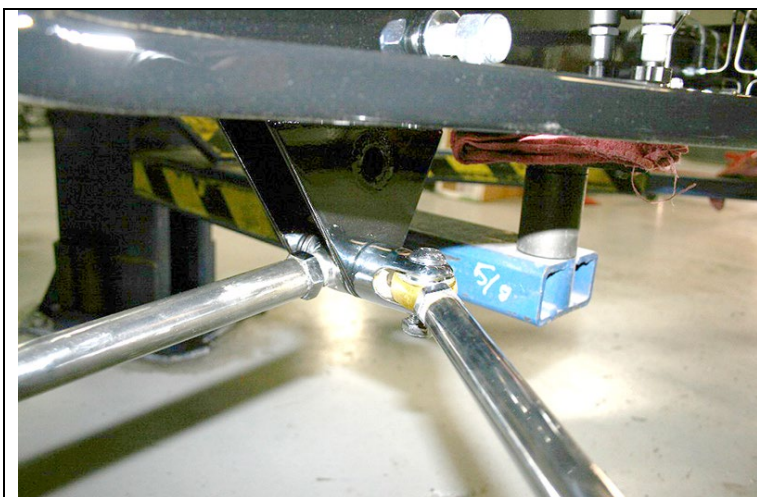


Install the shoulder bolt onto the upper link bar axle bracket with the 3/8" side facing outwards. You will end up with two extra 5/8" bolts from this step.

NOTE Driver's side shown



Install one rod end of the track bar onto either clevis and use it as leverage to tighten it down(125 ft lbs). Remove the rod end from that clevis and repeat this process on the other clevis.



You may need to rotate the clevis so that the 9/16" bolts holding the rod end are sitting vertical. Install the track bar completely onto the clevises. Make sure the rear end is centered in the frame and that the wheel base is correct by adjusting the Link & Track bars accordingly. Tighten down the jam nuts on the Track and 4-link bars.

Torque the 9/16" bolts to 75 ft lbs



This is what the track bar will look like once installed properly.

Torque all 5/8" hardware to 125 ft lbs



Install the offset axle brackets onto the axle brackets using the provided 5/8" hardware. These are designed to keep the coil-overs from making contact with the frame rail as the suspension compresses.

The flat area of the plate will sit parallel to the ground and the shock hole will sit inboard of the bracket when properly installed.

NOTE You may need to run a 5/8" bit through the holes

Torque to 125 ft lbs



You can now install the coil-overs using the provided 5/8" hardware. The threaded side goes down as per the picture.



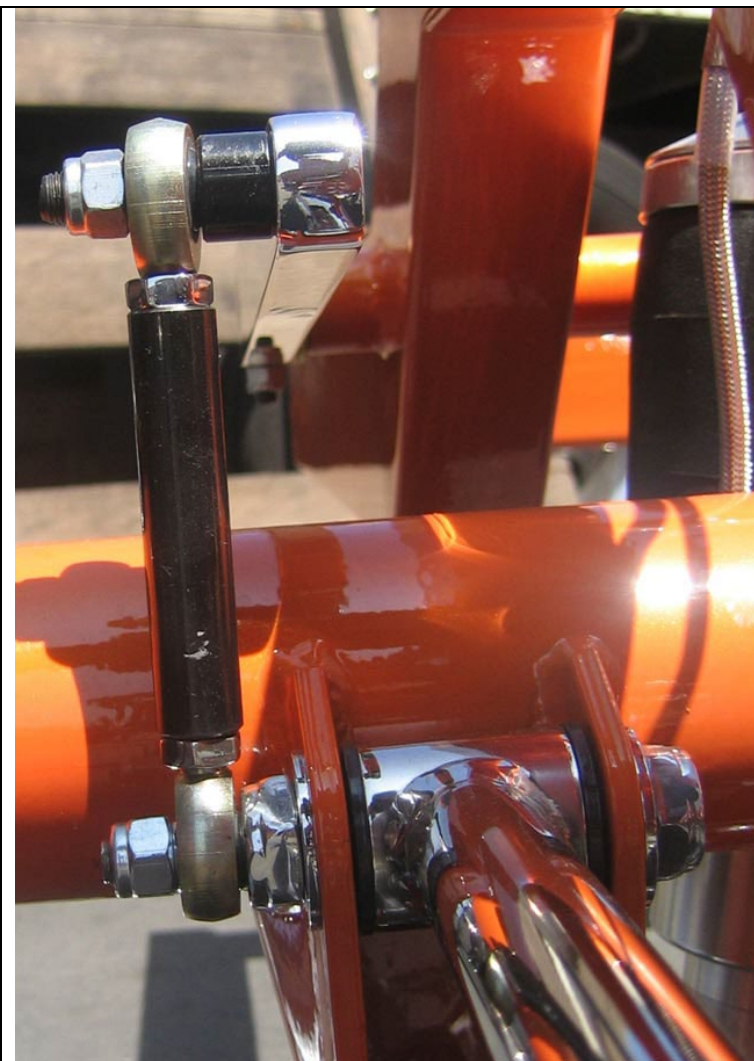
The coil-over mount will have a spacer. Use a washer up against the spacer and the bolt head.

Torque the 5/8" shock bolts to 125 ft lbs

Installing the optional Anti-Sway bar:



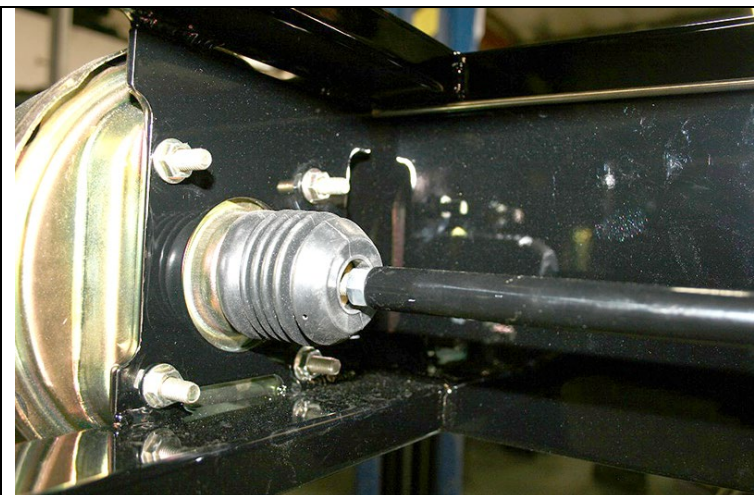
	<p>Place the splined bar into the housing.</p>
	<p>SEQUENCE OF INSTALLATION PER SIDE:</p> <ol style="list-style-type: none"> 1. Nyliner 2. Washer 3. Aluminum arm <p>Duplicate these steps for the other side of the vehicle making sure the aluminum arms are clocked the same. Tighten down the pinch bolts on the splined end of the bar.</p> <p>*NOTE* Make sure the countersunk side of the aluminum arm is facing the frame. *SEE BELOW</p>
	<p>Install flat head bolt and provided spacer.</p>
	<p>Install the 3/8" rod ends and extension rod onto the aluminum arm.</p> <p>The lower 3/8" rod end connects to the upper 4-link bolt. This is where the special shoulder bolt should be installed. If you haven't installed this bolt already during the 4-link process you will need to remove the upper link bolt and replace it with the provided shoulder bolt. The shoulder side should face out towards the wheel. Install the short 5/8" nylock and then tighten it down. The rod end goes on next and the 3/8" nylock onto the small end of shoulder bolt.</p> <p>Duplicate the process for the other side of the vehicle making sure the extension rods are sitting vertical. Adjust the extension rod as needed to have zero preload.</p>



Here is how the finalized installation will look.



Install the transmission mount as shown. Your crossmember may sit closer or farther away from the chassis cross bar depending on which transmission you are using.



Installing the Pedal assembly: Thread the R/H end of the provided rod into the back side of the booster.

Leave the jam nut loose



Insert the pivot pin into the bottom of the brake pedal arm



Install the provided hardware into the frame mount and through the pivot pin of the pedal arm.

You can tighten this bolt at this time.



Install the hardware with the heim joint on the outboard side of the pedal arm.

Leave the jam nut loose. Final adjustment will be done once the cab is installed and carpet is in place.

WARNING!!!!

The Currie 9" rear axle and master cylinder are void of fluids upon delivery. Make sure to install the provided fluids prior to usage.

No returns or exchanges without a RMA#.

Packages must be inspected upon receipt & be reported within 10 days.

If you are missing parts from your kit, TCI Engineering will send the missing parts via FedEx or U.S. mail ground.

Returned packages are subject to inspection before replacement/refund is given. (Some items will be subject to a 15% restocking fee)

Thank you for your business!

