'47-'54 Chevy Truck Chassis Custom IFS & 4-Link

Install Instructions
Tech line: 1-855-693-1259
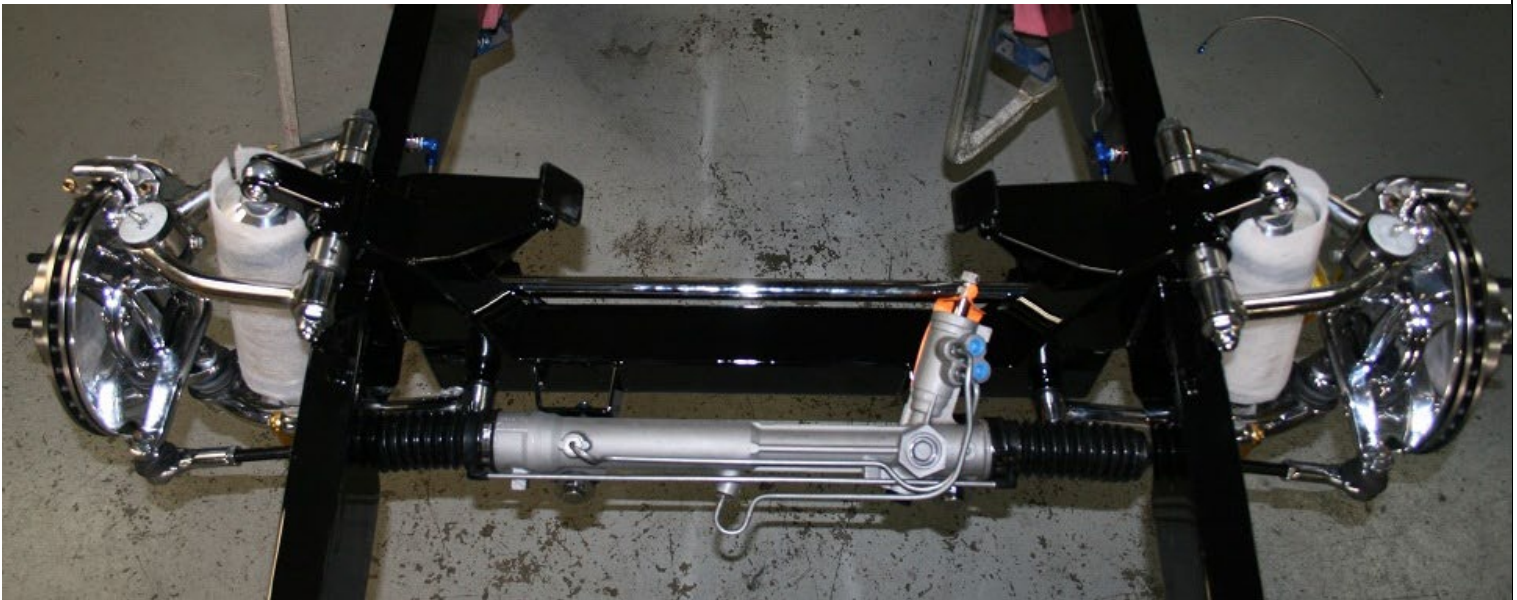www.totalcostinvolved.com
Read and understand these instructions before starting any work!
USE THE PARTS LIST BELOW TO MAKE SURE YOUR KIT IS COMPLETE BEFORE INSTALLATION.
IF ANY PIECES ARE MISSING, PLEASE CONTACT: Total Cost Involved Engineering 855-693-1259

Installing the Custom IFS

Installing the lower control arms:

NOTE Apply anti-seize to the A-arm bolt.
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 Apply anti-seize to the A-arm bolt and eccentric adjuster. 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
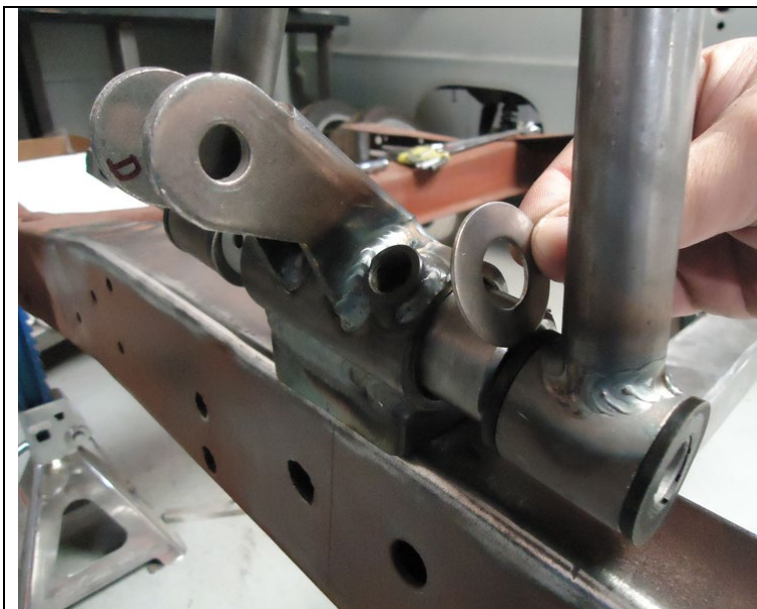
Place the 3rd washer in between the bushing and the eccentric as shown.

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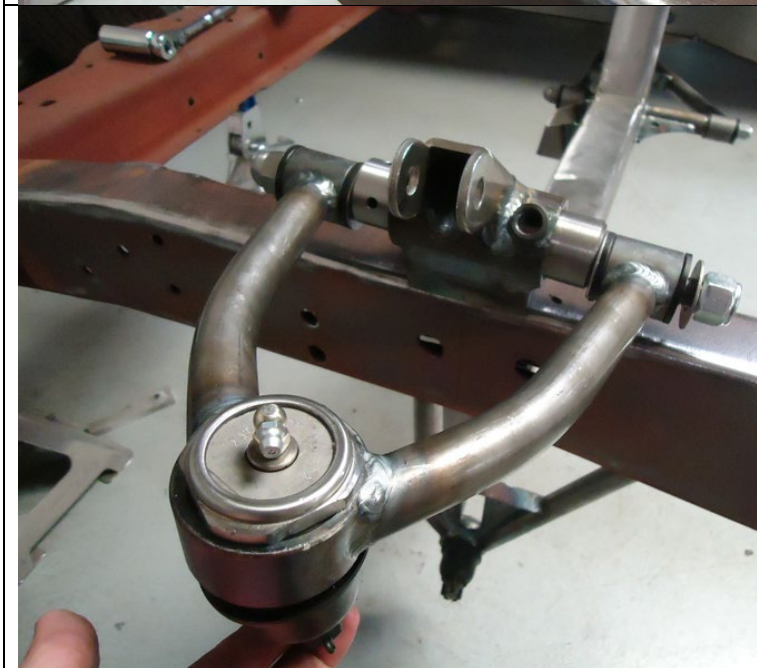
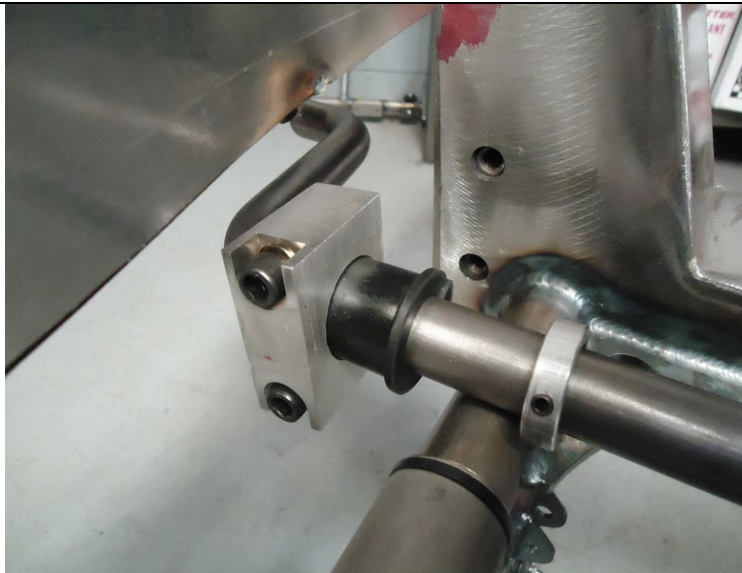The 4th and final washer can now be placed on the 5/8" shaft and the Nylock can be installed.

Torque to 75 ft lbs.

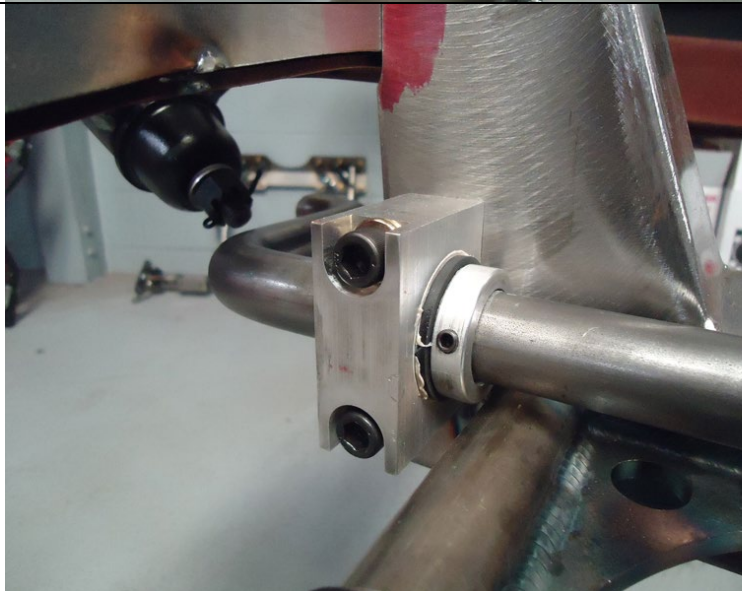Apply anti-seize and install the ½-20 set screws into the Eccentric housing and tighten.

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 adjustment knob should 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 of the shock uses 2 spacers and the bolt has a modified head for clearance.

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

17 3/4 in.
Full Extended

— Boot Clamp

11 3/4 in.
Full Retracted

14 3/4 in.
Rack Centered
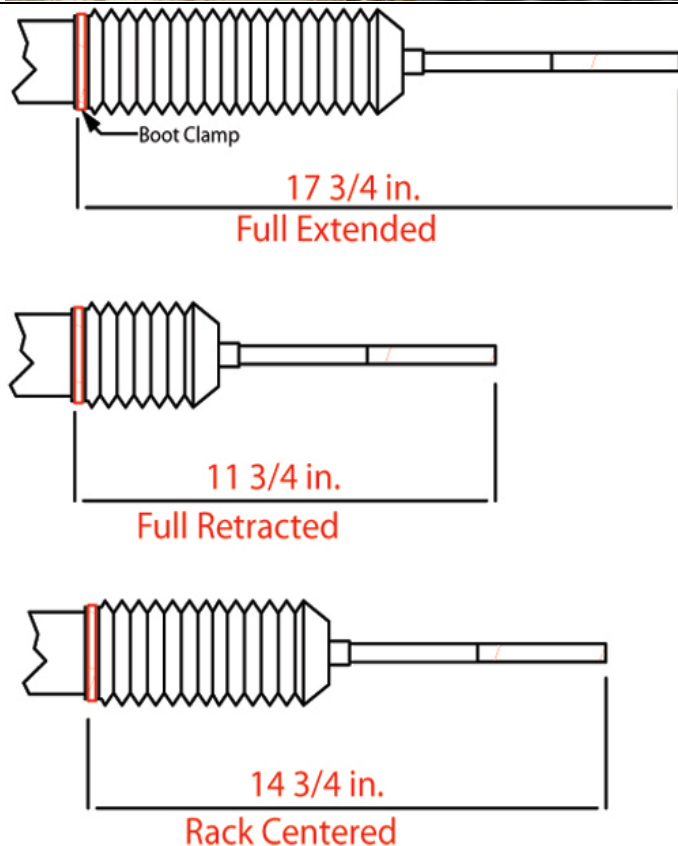
Centering the rack assembly:

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 ¾). Turn the pinion of the opposite lock position and measure from the same point to the end of the same tie rod (11 ¾). 17 ¾ minus 11 ¾ = 6. Divided by 2 = 3 Add that number to the smallest measurement (11 ¾" + 3" = 14 ¾") 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 Rack & Pinion output shaft:
Manual rack = 9/16"-26 spline
Power rack = ¾"-36 Spline prior to 4/2021
¾" Ford V After 4/2021

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.

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 the spacer used between the hiem joint and A arm tab.

NOTE You can adjust the preload (or lack thereof) once the vehicle is ready to be driven. To do this, disconnect one 3/8" bolt on either heim, place driver in the driver's seat, adjust the loose heim until the bolt goes onto the anti-sway bar with zero load.
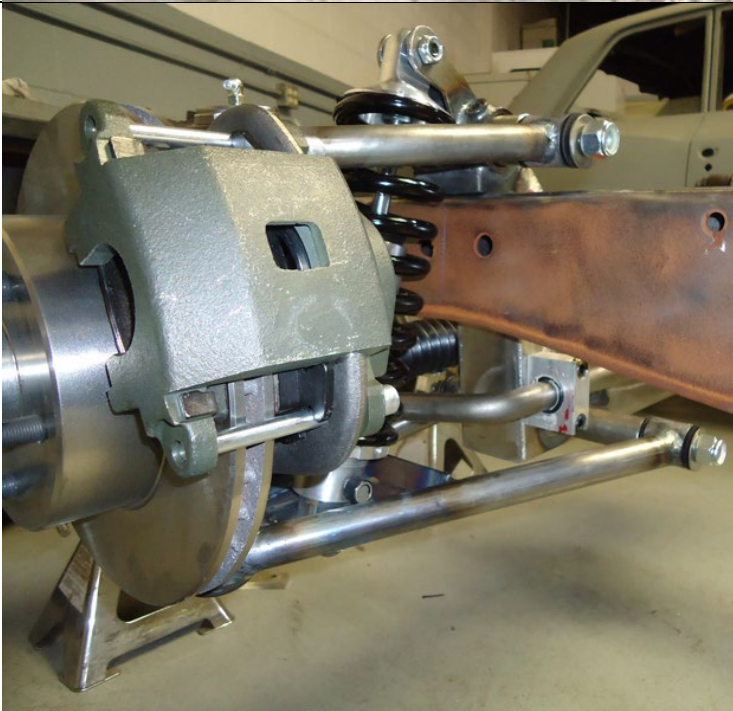
Alignment specifications
Caster: Power rack 4-6 degrees positive
   Manual rack 2-4 degrees positive
Camber: 0 Degree
Toe-in: 1/32 to 1/16 inch
The lower control arms should be level to the ground or within a degree or two once the vehicle is at full weight. You can then perform the final alignment.

AXLE STUD SIZES:
4.5" Bolt circle rotors = ½"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
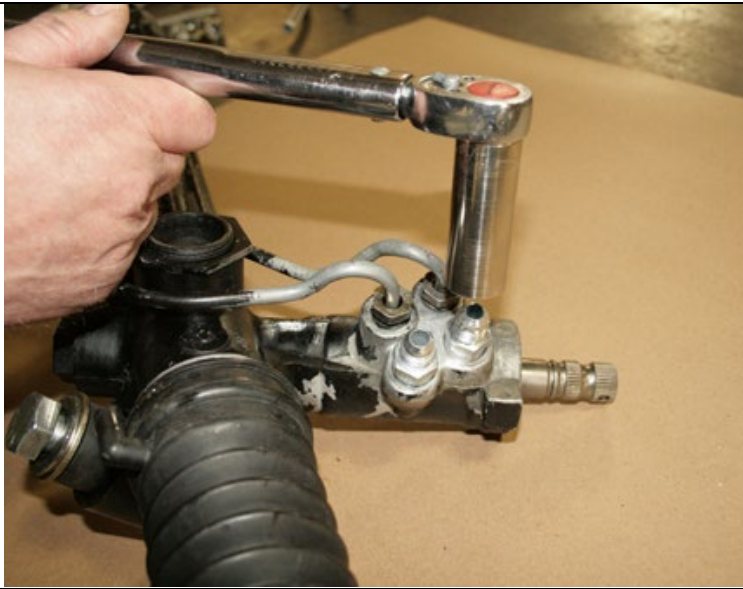
Setting up power steering

The rack ports are 9/16"-18 Pressure side & 5/8"-18 Return side
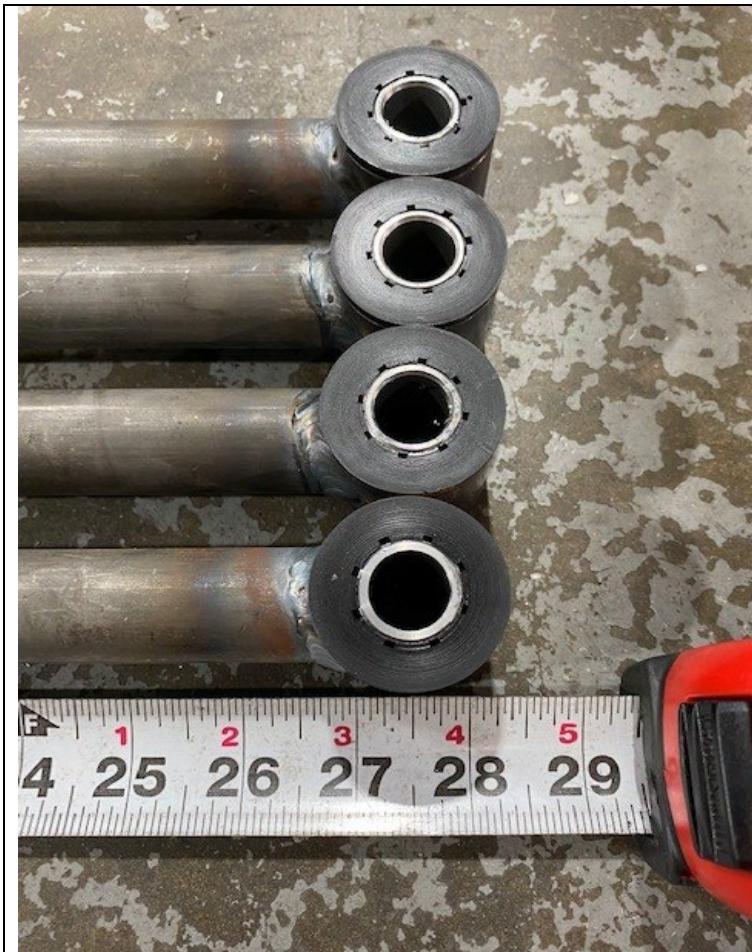Unisteer 8026070 is a recommended fitting kit.

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.

Installing the 4-Link

Adjust all the 4-link bars to 27.5" 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 upper bolts go in from the inside of the frame which will place the nylock between the bracket & inner frame rail.

Install all the 4-link hardware hand tight for now.

NOTE The driver's side front lower link bar does not use a nylock nut, rather a clevis for attaching the track bar. The clevis is on the track bar assembly for shipping. See picture below.

3.5" bolts (lower)

Next, install the rear of the 4-link bars.

The rear 4-link attaches with 2 shoulder bolts (upper) with the 3/8" stud facing outward. The right rear lower bar attaches with a bolt & clevis like the left front lower.
The left rear lower bar attaches with a standard 5/8" bolt & nylock.

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

Installing the shocks & rear sway bar

Place the sway bar into the housing and attach it to the shock cross member with the 5/8" hardware shown.

You can now install the coil-overs using the provided 5/8" hardware. The rebound faces up and the threaded adjuster faces down.

Install the lower bolt uses the spacer shown. There are 3 mounting positions for the rear shock. These can be used to adjust rear ride height later.

Installing the track bar

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

Install the track bar completely onto the clevises.

The rear end is centered in the frame by adjusting the track bar length.
The wheelbase and pinion angle are set by adjusting the 4-link bars accordingly.

These adjustments are made when the truck is complete and sitting at ride height.

Tighten all 4-link, track bar, jam nuts and shock hardware at this point.

Install the white ny-liners and gold washers on each end of the sway bar.

	Install the sway bar arms on each side. The 5/16" button head bolts, washers & nyloc nuts are used to attach the sway bar arms. Be sure the arms are parallel to each other and the countersunk holes are facing inward.
	This is how the sway bar assembly should look.

Assemble and install the sway bar links. There are right & left hand threads in the sleeves with matching hiem joints and jam nuts.

The upper ends attach with flat head allen bolts and the lower in slides on the shouldered 4-link bolts.

Tighten all the rear sway bar hardware at this point.

Install the transmission mount. Your crossmember may sit closer or farther away from the chassis cross bar depending on your engine/trans configuration. Crossmembers have multiple configurations, flat or stepped and can be mounted on top of or below the center section tubes.
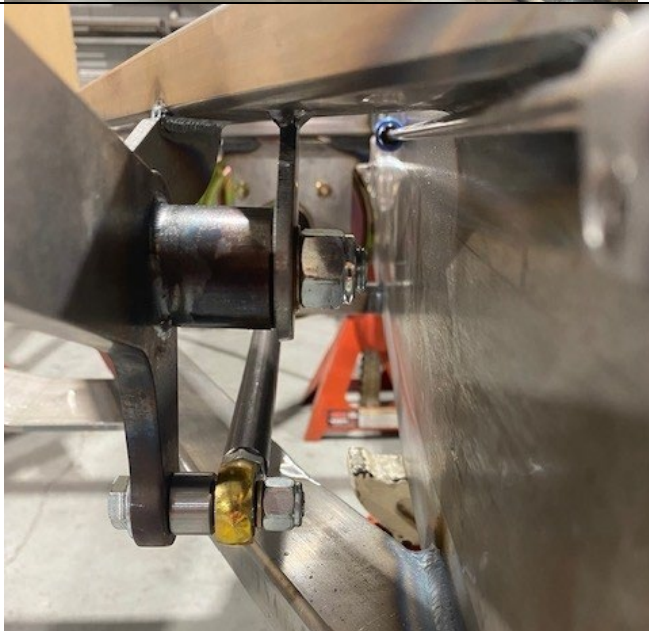
Installing the brake pedal assembly

Attach the pedal pad to the arm.

	Thread the R/H threaded jam nut and rod onto the brake booster. Leave the jam nut loose
	Install the pedal arm into the frame brackets and tighten the pivot bolt.
	Install the front end of the pedal pushrod to the pedal arm. Note the spacer between the hiem joint & arm. Tighten the bolt at this time. Leave the pushrod jam nuts loose. Final adjustment will be done once the cab is installed and carpet is in place.

Congratulations!
You have assembled your chassis.

When the truck is complete and sitting at ride height the final adjustments can be made.
Start by centering the rear end, next set the wheelbase & pinion angle.
The final adjustment will be wheel alignment.
At this point it's time to nut & bolt check the entire chassis.

WARNING!!!!

The Currie 9" rear axle and brake 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!