

A 1/4"-20 and 3/8"-24
tap are required.

13/64", 21/64", and
7/16" drill bits are
required

WELDING REQUIRED

Red Loctite is required



Version 1.5

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2017-2022 Ford F-250/350 4X4 6-8" Front Lift Kit Installation Instructions

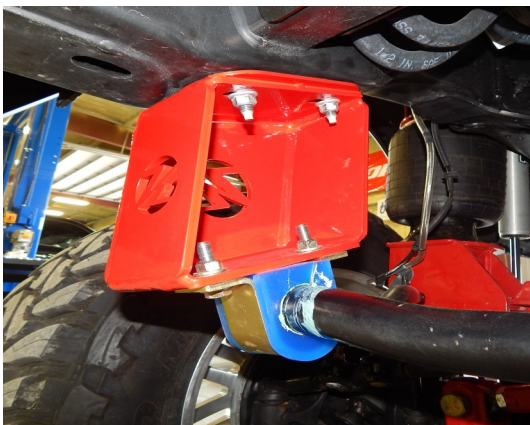


1. Measure the pinion angle on the bottom of the differential. Make sure to record the measurement here _____. Once the kit is installed, it is required to put the axle back to this measurement. This will keep the correct caster and camber.
2. Remove the transmission skid plate and remove the rear driveshaft. Disconnect the front sway bar end links and remove the front sway bar. Place a jack under the differential and lift the truck until the wheels are 4-5" off the ground. Place a jack stand on each side of the frame, right under the radiator support.
3. Remove the wheels, shocks, steering arm, pitman arm, track bar, panhard bar and factory steering stabilizer shock. *You will need an air hammer to press the passenger side ball joint up and out of the axle.* Lower the jack and remove the coil springs (they should have some tension on them). Remove the cup on top of the axle that held the bottom of the coil in place, as well as the 8mm bolts that hold the ABS wire in place. Remove the upper brake line bolt that holds the brake hose located by the rear side of upper coil bucket.



4. Remove the factory front radius arms. Remove the yellow bump stop and remove the bolt that held the mounting cup in place. These will not be reused.

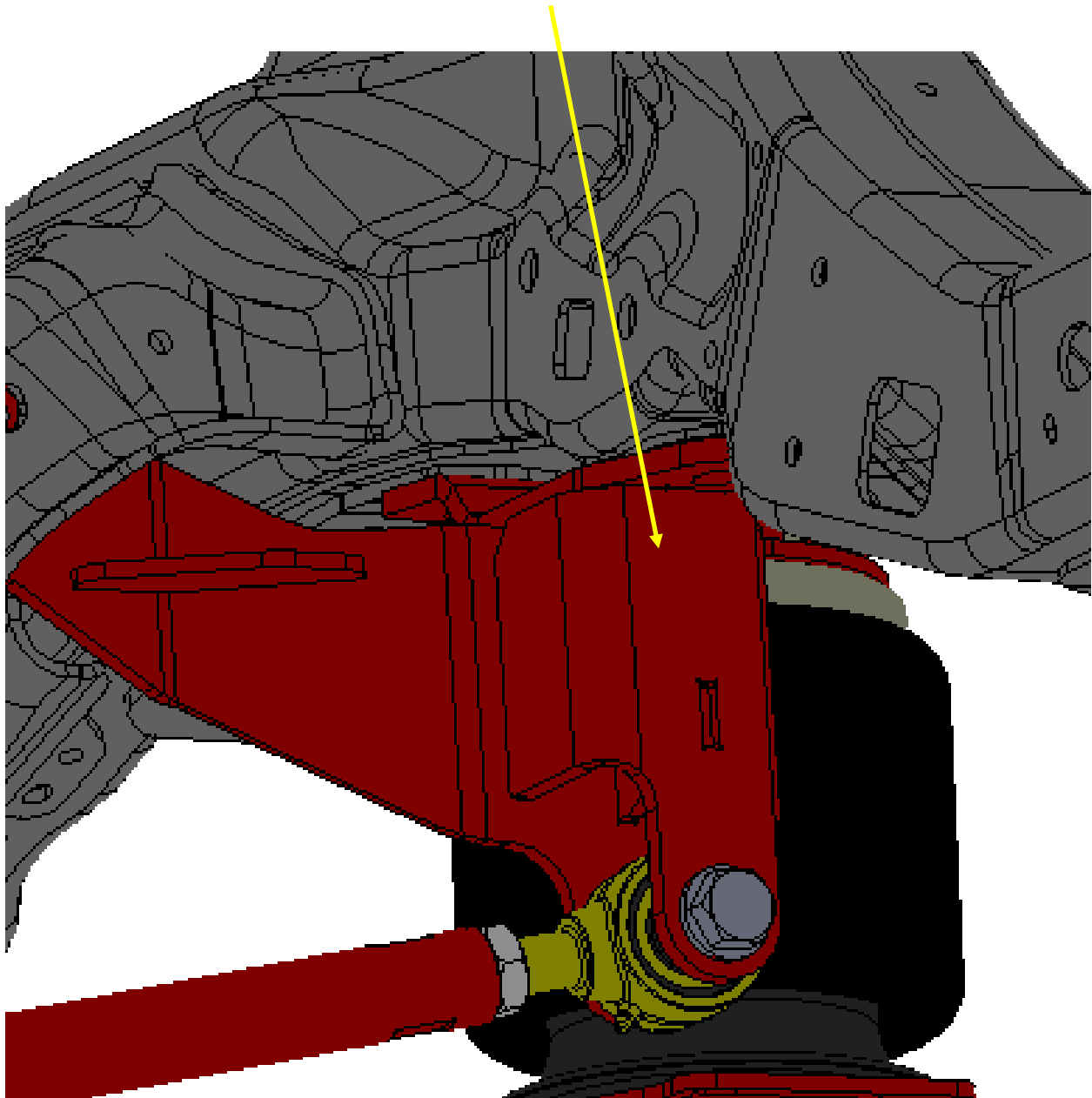
5. Install the sway bar drop brackets (Part # 69109-DS and 69110-PS). Use the factory bolts that go into the frame.



Do not install the sway bar yet. It will be installed in step 16.

6. Remove the factory pitman arm and install the FA450 dropped pitman arm (Part # 80072). Torque to 275 lb./ft. Reconnect the steering arm and make sure to re-install the cotter pin and nut cover. You will rotate the steering arm ball joint 180 degrees. You will use this adjustment to straighten the steering wheel before and during the test drive. **NOTE: Re-torque the pitman arm at 400 miles.**

7. Install the panhard bar drop bracket (Part # 10009447). Use the factory bolts and nut tabs to fasten into the bottom of the frame. Use the three bolt flange and factory nuts to fasten into the engine cross member. Torque these bolts to 135 ft./lbs. (You will install the track bar later on in step 15).



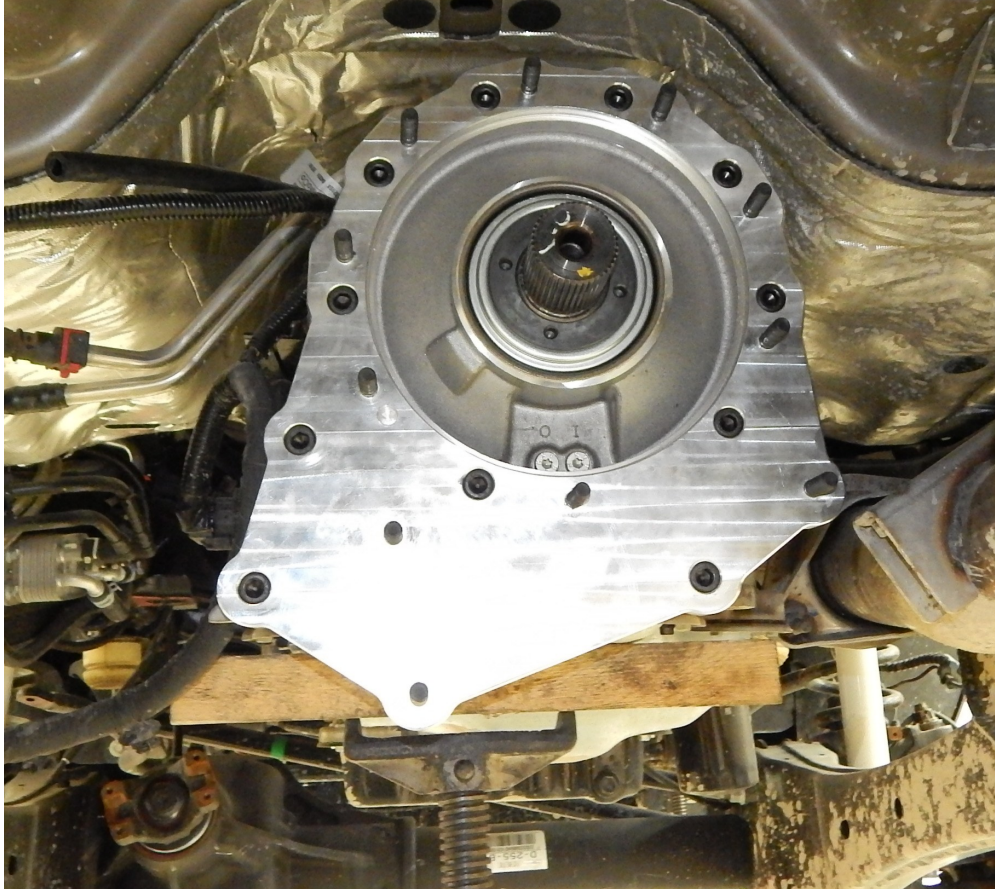
8. Locate the upper air bag mounts (Part # 69573-PS and 69572-DS) and shock reservoir mounts. The top will fasten to the upper coil mounting brackets with (2) 3/8" x 1-1/2" bolts. Drill (2) 7/16" holes in the upper part of the spring bucket. (If your upper has (3) holes in the top, do not drill the inner hole. Just do the outer (2) holes.) **NOTE: Make sure not to drill into any wires or modules that are located just above the spring perch!** The lower (2) bolts will fasten to the side wall of the frame. These (2) holes need to be drilled with a 21/64" drill bit and threaded with a 3/8"-24 tap. Slide the reservoir mounts between the upper coil mount and then install the upper air bag mount in place. Torque the 3/8" bolts to 45 ft./lbs. and the 7/16 bolts to 35 ft./lbs.



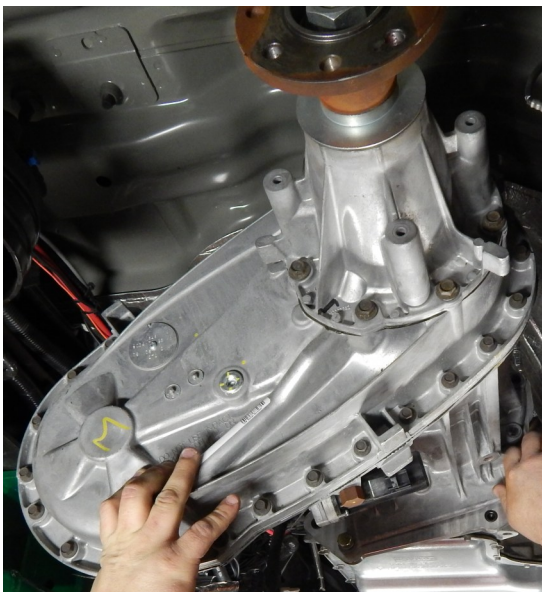
Drill these holes to 7/16"

Drill these holes to 21/64" and thread with a 3/8"-24 tap





9. Place a block of wood under the transmission. Remove the transfer case. Locate the indexing plate (Part #10006725) and fasten the indexing plate to the transmission with the eleven M10 x 40 bolts and lock washers. Use LOCTITE red 271 and torque to 35 ft./lbs. Fasten the transfer case to the indexing plate. Torque the studs on the transfer case to 55 ft./lbs. **Use red 271 Loctite on the studs.**

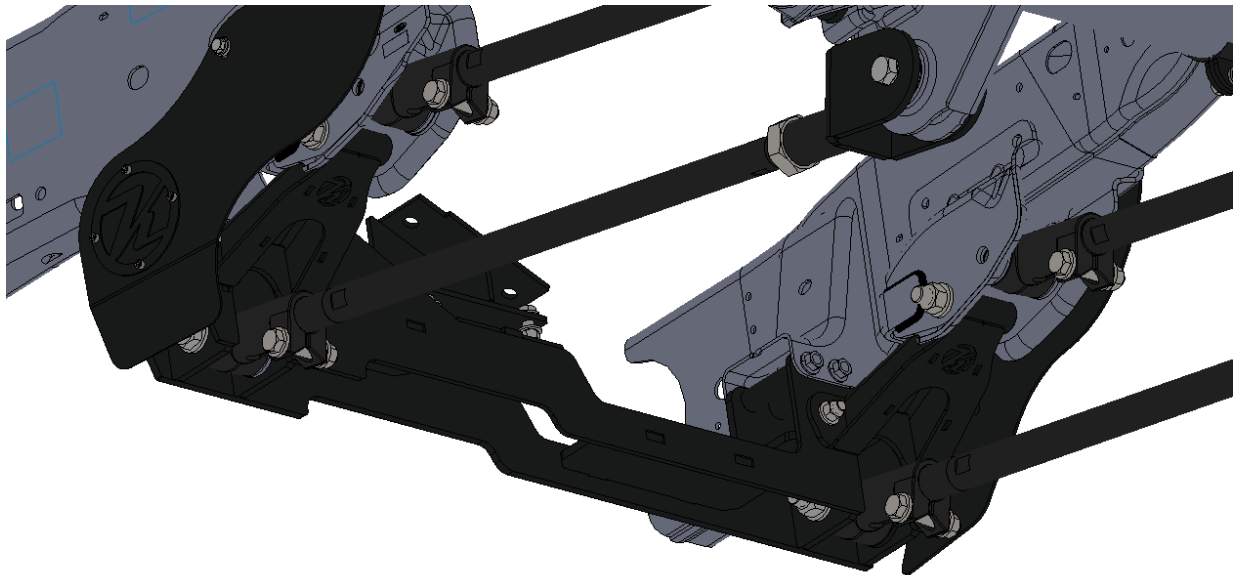


USE RED 271 LOCTITE ON ALL THE BOLTS AND STUDS.

10. Once the indexing plate is installed, remove the factory transmission crossmember. Locate the transmission wedge (Part # 69100) and install on the bottom of the transfer case with the factory bolts. Install the factory rubber mount to the bottom of the wedge. **NOTE: YOU MAY HAVE TO CUT THE LAST FEW THREADS OFF THE STUD THAT HITS THE WEDGE.**

11. Locate the crossmember (Part # 69265). The crossmember bolts into the original factory crossmember location with the factory bolts. You will need to drill (2) 1/2" holes in the bottom of the frame flange. Use the crossmember to mark your holes. Insert the (4) 1/2" x 1-1/2" bolts and torque to 85 ft./lbs. Torque the factory bolts to 85 ft./lbs.

NOTE: 5-6" kit crossmember pictured below The 6-8" crossmember installs the same way, it just has a drop for the driveshaft.



Factory crossmember bolts

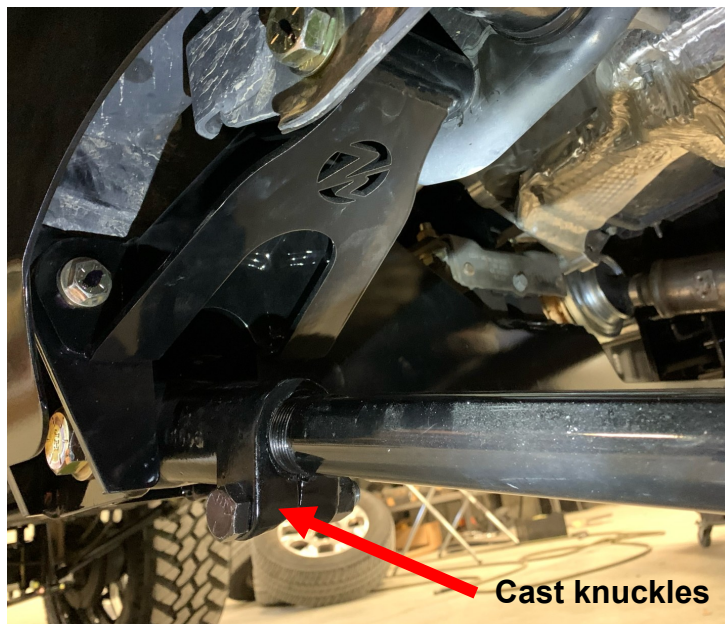


These holes need drilled



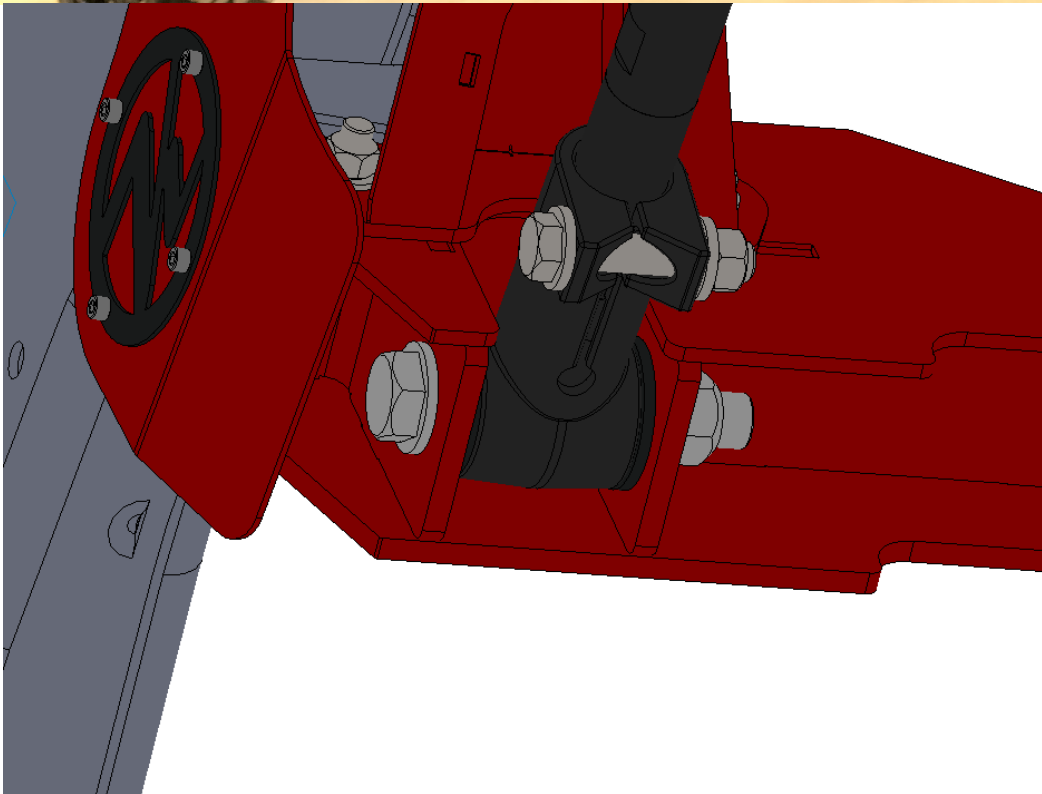
12. Locate the (4) trailing arms (Part # 52126 top and 52136 bottom) fabricated knuckles (Part # 11109) jam nuts and cast knuckles (Part # 18498). The fabricated knuckles attach to the factory axle with the M18 bolts. The jam nuts go against the fabricated knuckles. The cast knuckles go on the other end of the trailing arms. Adjust the shorter arms so there is 21-3/16" between the jam nut and rear knuckle and set the longer arms to 30 1/4" between the jam nut and cast knuckle. Use the 7/8" x 5" bolts to fasten the lower trailing arm into the crossmember. Use the factory bolt to fasten the upper trailing arm into the factory control arm mount. **USE THE REAR HOLE.** The upper knuckle needs uses a 3/16" spacer on the inside of the knuckle between the crossmember to take up the gap. Use the M18 x 130 bolts to fasten the fabricated knuckles into the axle.

NOTE: Make sure the gussets on the fabricated knuckles are facing each other (shown on Page 9). The measurements provided should get you very close to the measurement needed at final install. Final adjustments will likely be needed once installation is complete. See picture on next page.



**3/16" spacer
goes on the
inside**

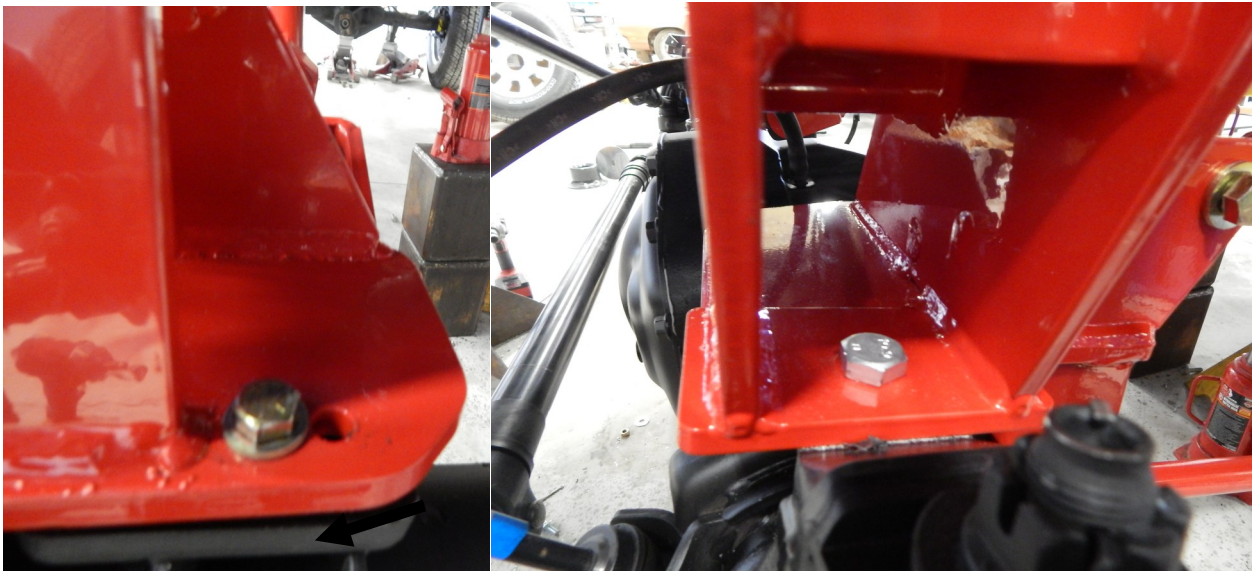






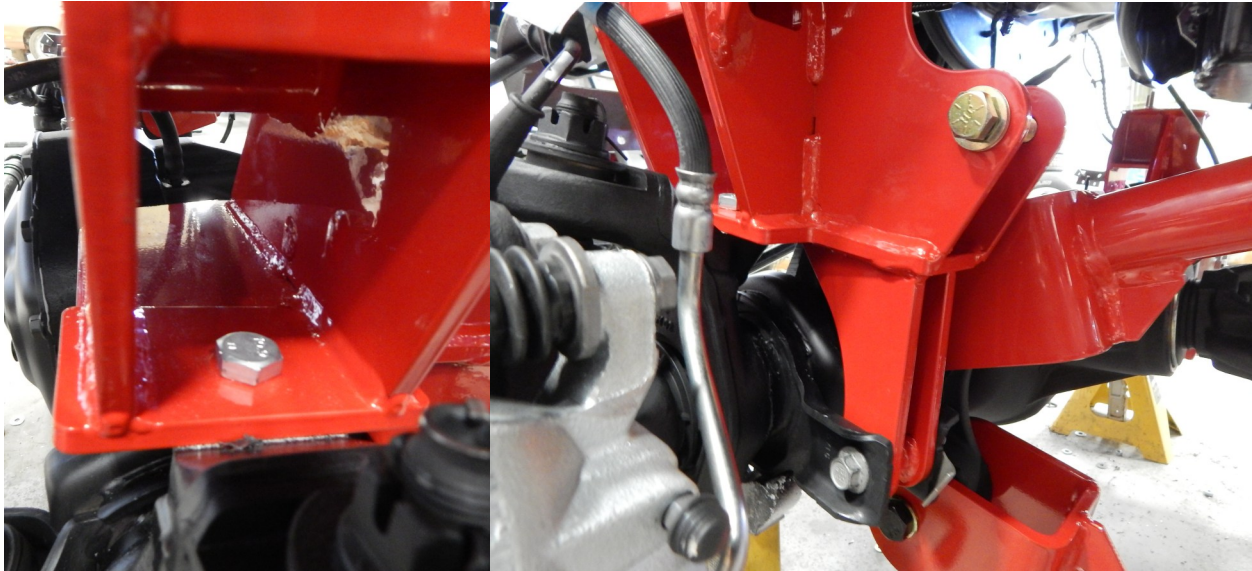
Fabricated knuckles shown w/ gussets shown facing each other.

13. Locate the lower bag mounts (Part # 69571-DS and 69571-PS). The lower bag mounts fasten to the axle with the M14 x 25 bolt and into the factory shock mount with the factory shock bolt. You will also have to drill the axle for a 3/8" bolt.



Passenger side uses hole closest to the tire. Opposite of the drivers side.

14. There are (2) holes in each lower air bag mount. You will use the hole closest to the tire on the passenger side and the hole furthest away from the tire on the drivers side. Torque the 3/8" bolt to 35 ft./lbs. and the 14mm to 55 ft./lbs. and the 1/2" bolts to 85 ft./lbs. Torque the OEM shock bolt to 115 ft./lbs.

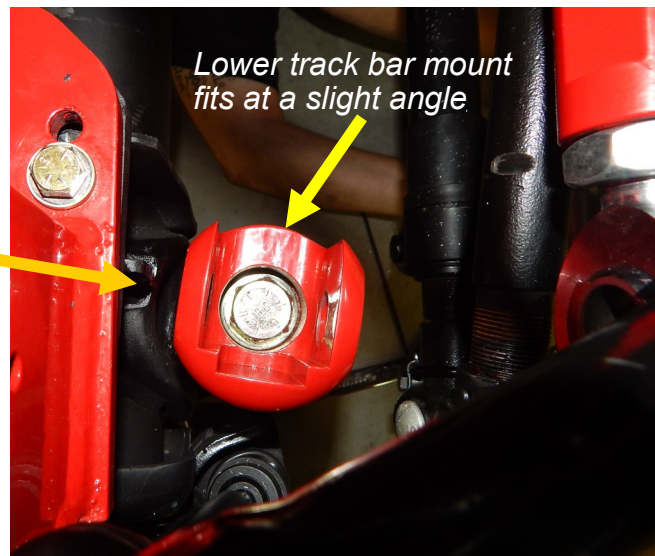


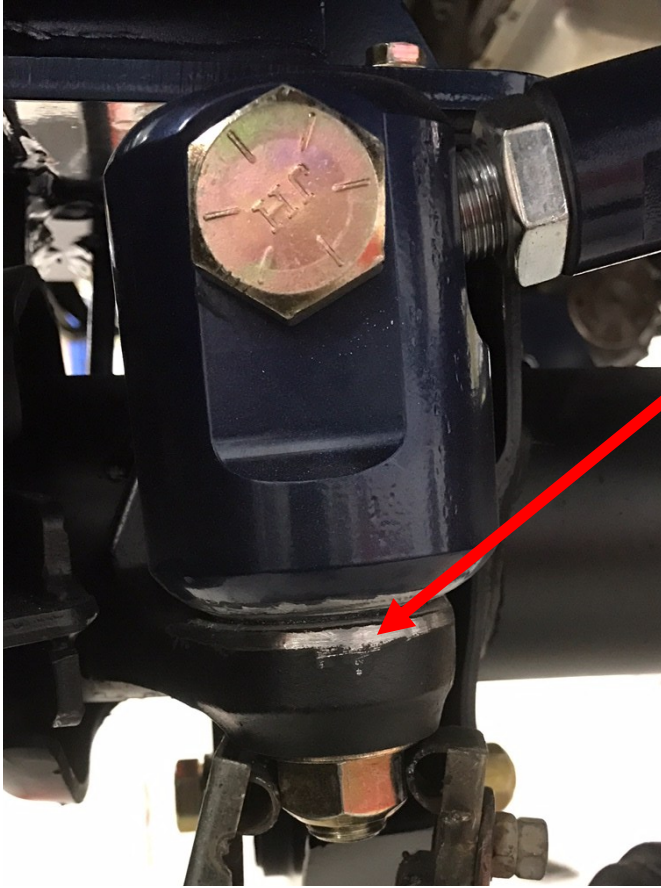
15. Locate the track bar (Part #19166) and the lower panhard bar mount (Part # 69537). The lower panhard bar mount fastens on the passenger side of the front axle where the factory track bar mounted. Use the 3/4" x 3-1/4" bolt to fasten the machined bracket into the axle. Make sure it has a slight twist to it. It needs to be about 3 degrees towards the front of the truck. It should face (line up) with the panhard bar drop. Torque to 175 ft./lbs. Once the install is complete and the panhard bar is lined up, you will need to weld the lower panhard bar to the axle.

16. Use the provided spacers to center up the heim ends in the track bar mounts. Torque the 7/8" x 3-1/4" bolts to 250 ft./lbs. Slight adjustments may be necessary after installation. The lower track bar mount must be welded. The next page shows where to weld. You can do the weld after the test drive to make sure the pan track bar is in line.

You will need to grind some of the axle brace for clearance for lock nut here. Make sure you grind before you insert the lower track bar mount.

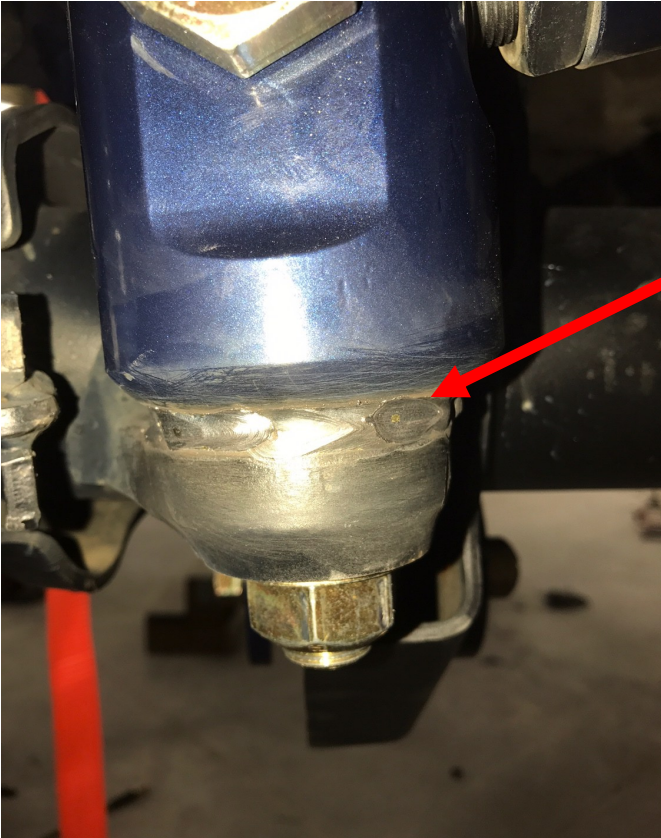
Make sure to grind a 1/8" extra away from the lock nut for clearance for a couple threads on the bolt.



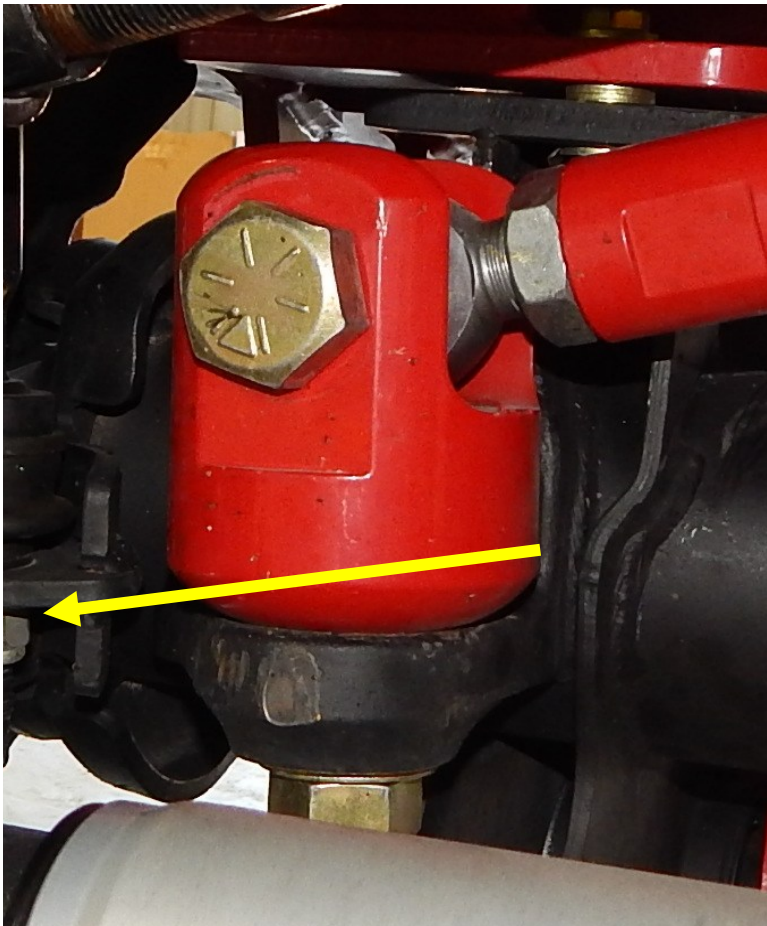
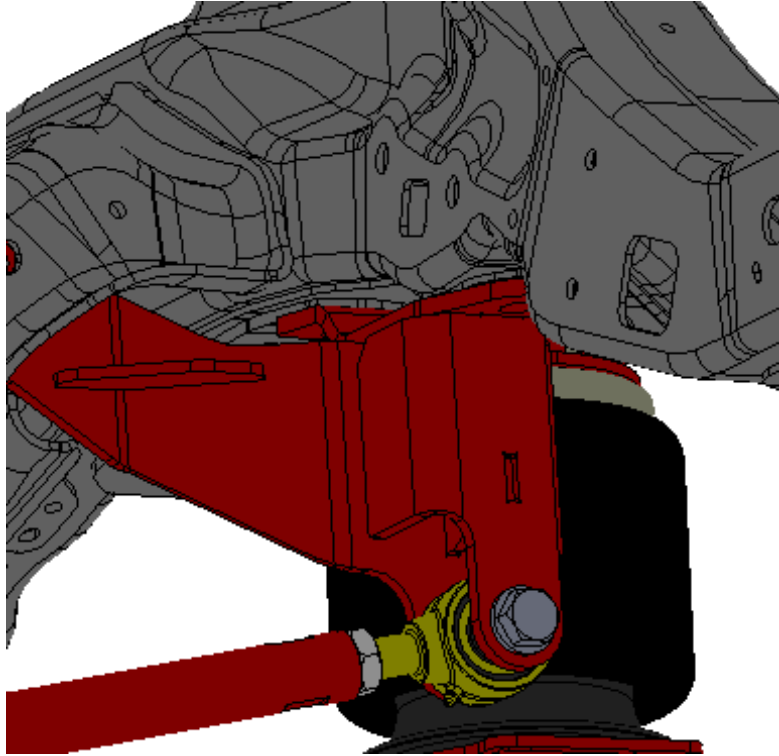


17. Grind the powder coat off the lower track bar mount where it meets the axle.

Grind the paint off the axle where the lower track bar mount meets.



Weld the lower track bar mount to the axle. You will not be able to reach the back side but welding 3/4 around the mount will be sufficient.



Lower panhard bar
mount still needs welded
(See previous page)

17. Locate the F5323 air bags (Part # 800012-5323). They fasten to the upper air bag mounts with the 1/2 and 3/4" washers and nuts. Torque these bolts to 35 ft./lbs. The bottom of the air bag fastens to the lower bag mount with the 1/2" x 3-1/2". Torque this bolt to 35 ft./lbs.

The 5323 air bag rides the best between 7.5-8.5".

Measure the air bag ride height between the air bag mounting brackets.



18. Locate the brake line extensions. They attach to the frame (shown below). The bottom attaches to the front of the lower air bag mount with the 1/4" x 1-1/4" bolt. Install and bleed the brake lines.

19. Locate the front shocks and install. You will want to make sure there is clearance between the shocks and airbag when the install is complete and running the system all the way up and down.

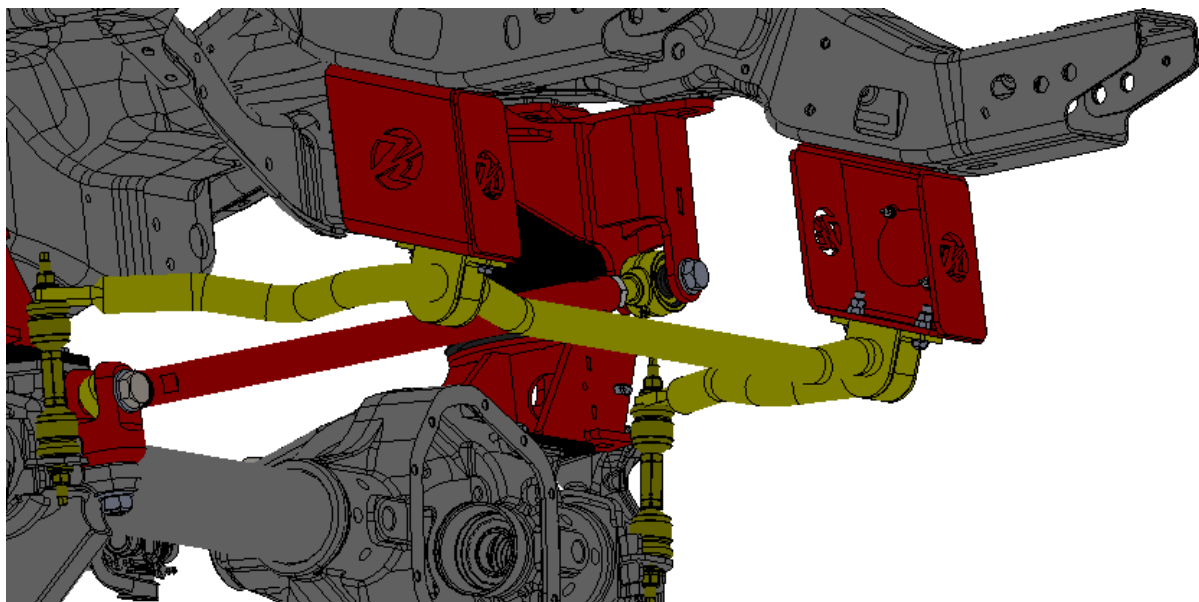
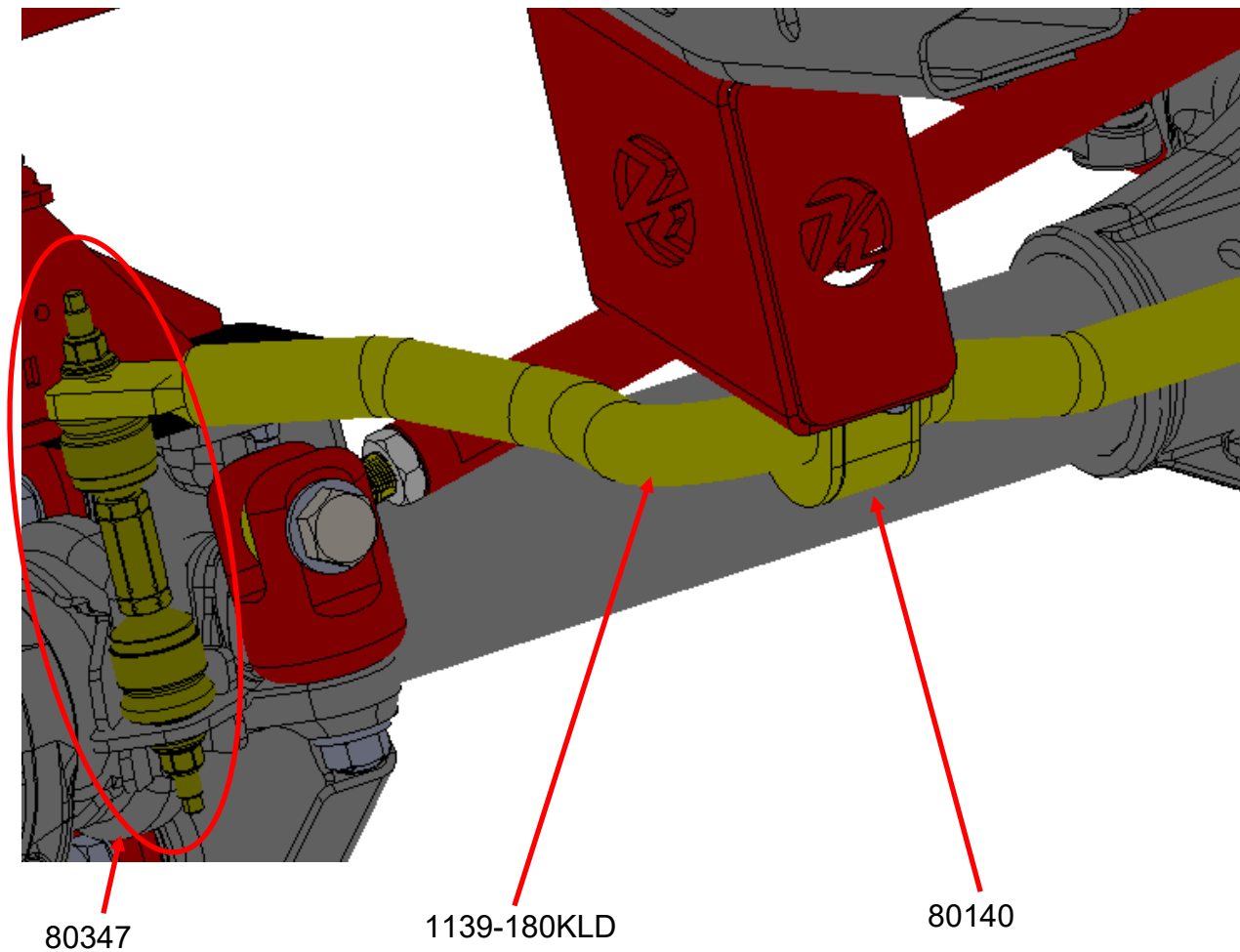
Upper brake line extension mount shown



Lower brake line extension mount shown

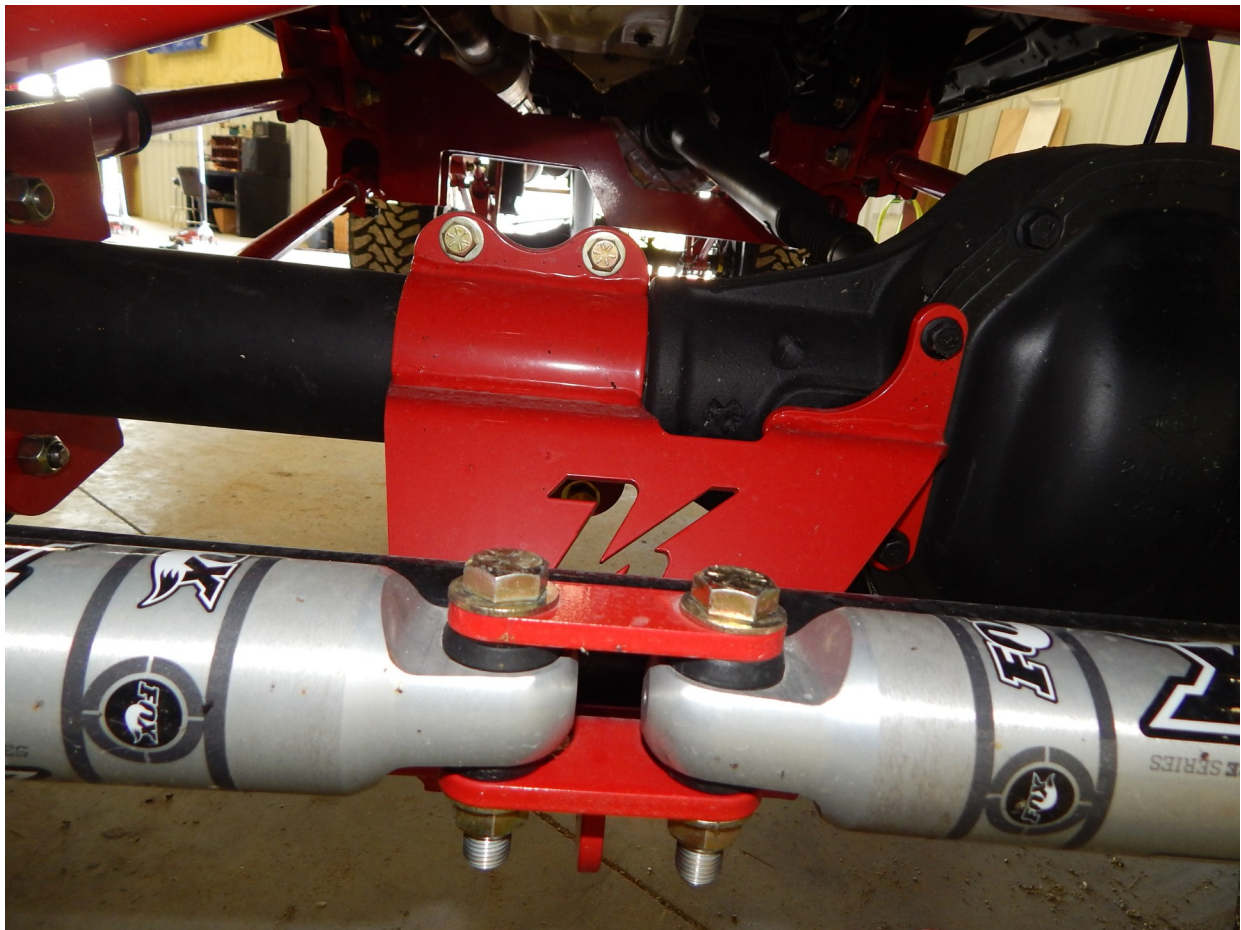


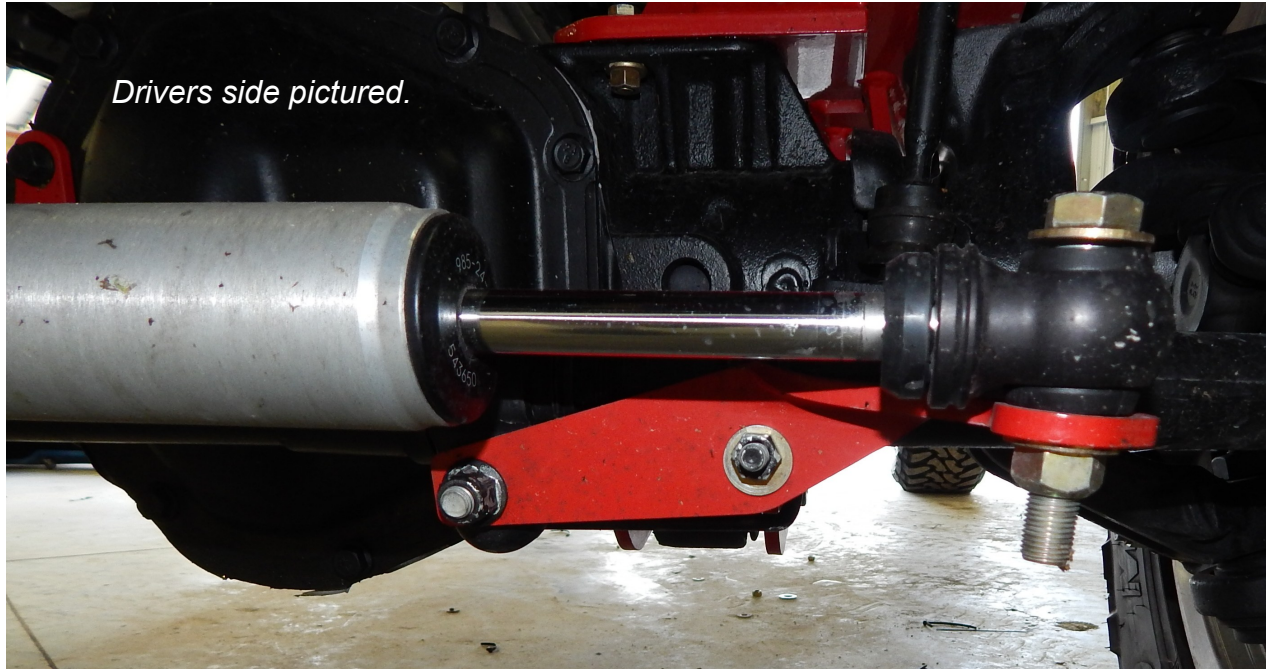
20. Locate the extended front sway bar end links (Part # 80347). Locate the front sway bar (Part # 1139-180KLD) and sway bar D-rings/bushing kit (Part # 80140) and install the sway bar to the previously installed sway bar drop brackets.



21. Locate the steering stabilizer kit. Remove the middle two bolts on the passenger side of the differential cover. Locate the K bracket (Part # 69171) and the backing clamp (Part # 16008) and place it on the axle. Use the bolts that you removed from the diff cover to fasten the right side of the bracket to the differential cover. Use (4) 7/16" x 1-1/2" bolts to fasten it to the backing clamp. Locate the shock end mounts (part number 69356-DS and #69355-PS) and fasten them to the pinch bolts on the drag link.

22. Locate the steering stabilizer shocks. Use the 1/2" x 3" bolts to fasten the shocks to the center bracket with the tie plate (Part # 20227). Use the 1/2" x 2-1/2" bolts to fasten the shock end mounts to the other end of the shocks.



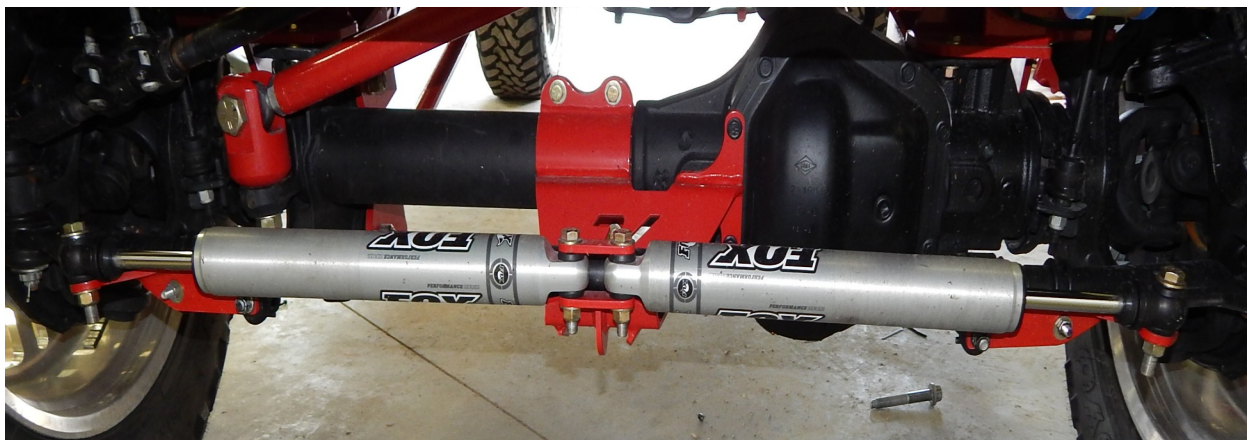


Drivers side pictured.

This lower panhard bar mount pictured has not been welded yet.



Passenger Side



23. If the trailing arms and panhard bar are set to the measurements provided earlier in the instructions, the axle should be good to go. If some fine tuning is needed to get the original pinion angle, adjust the axle until it is centered in the wheel well and squared up with the rear axle.

At ride height, the bag should measure around 8" tall. The airbag will be nearly straight up and down. Adjust the axle so it is centered in the wheel well while keeping the pinion angle correct. Once the rear kit has been installed, measure from the front side of the rear axle to the kingpin on the front axle. Make sure the measurement is within 1/8" on each side.



Fabricated knuckles shown w/ gussets shown facing each other.

24. Locate two of the Hadley ride height sensors (optional). They will mount to the side of the frame with the 1/4 x 1"bolts. You will need to drill two holes in the frame with a 13/64" drill bit and then tap the holes 1/4-20. Use the picture below for reference. Make sure the holes for the sensor are straight up and down from each other.

25. The sensor should have the arm straight out when the air bags are at ride height. Once the sensor holes are tapped, fasten the sensor to the frame. Locate the collars and place them on the upper trailing arm about 1/4" from the jam nut. Adjust the sensor linkage to fit. There is a little wire clip on the linkage end. Pull the retaining clip out, push over the ball and reinstall the retaining clip.

Before first test drive, make sure all the bolts have been rechecked and torqued.

Arm on sensor needs to be straight out when front air bags are at ride height. Adjust the sensor arm length as the arms sent may be to long.



Holes for the sensor need to be straight up and down from each other.

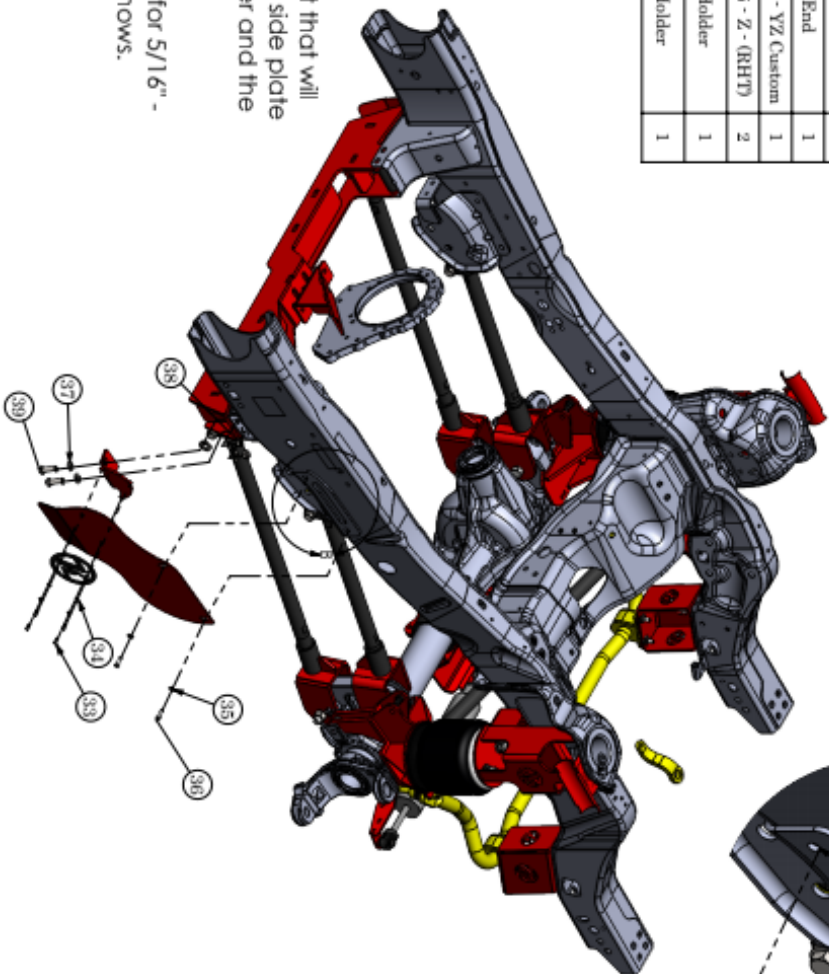
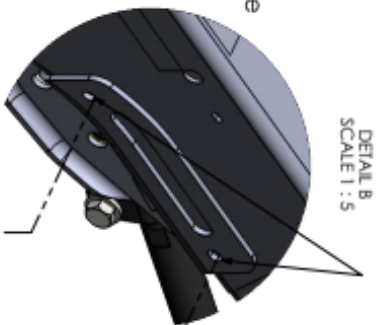
26. Certain versions of the front lift kit will include cover plates for the transmission crossmember. These parts are shown below for a 10-12" lift kit. Please view the next page for installation procedure for the covers.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
35	92196A537	1/4"-20 x 1/2" SS Socket Head Cap Screw	8
36	10003864	1/4" Flat Washer	8
37	13021	5/16" Flat Washer	4
38	13307	Bolt - 5/16"-24 x 1.00" Gr.8	4
39	13004	1/2" Flat Washer	8
40	13164	1/2"-20 Hex Nut Gr8	4
41	12007	Bolt - 1/2"-20 x 1.50" Gr.8	4
43	69537	Assembly - Lower Panhard Bar Mount	1
44	80051	(RH) 7/8" Heim-end	1
45	69554	33.5" Panhard Bar	1
46	18532	.890" I.D. Heim Spacer .440" wide	2
47	80052	(LH) 7/8" Heim-End	1
48	13979	Bolt - 7/8"-14 X 4" - Gr.8 - YZ Custom	1
49	13208	Jam Nut - 3/4"-16 - GR5 - Z - (RH/T)	2
50	69468	(DS) Shock Res. Holder	1
51	69469	(PS) Shock Res. Holder	1

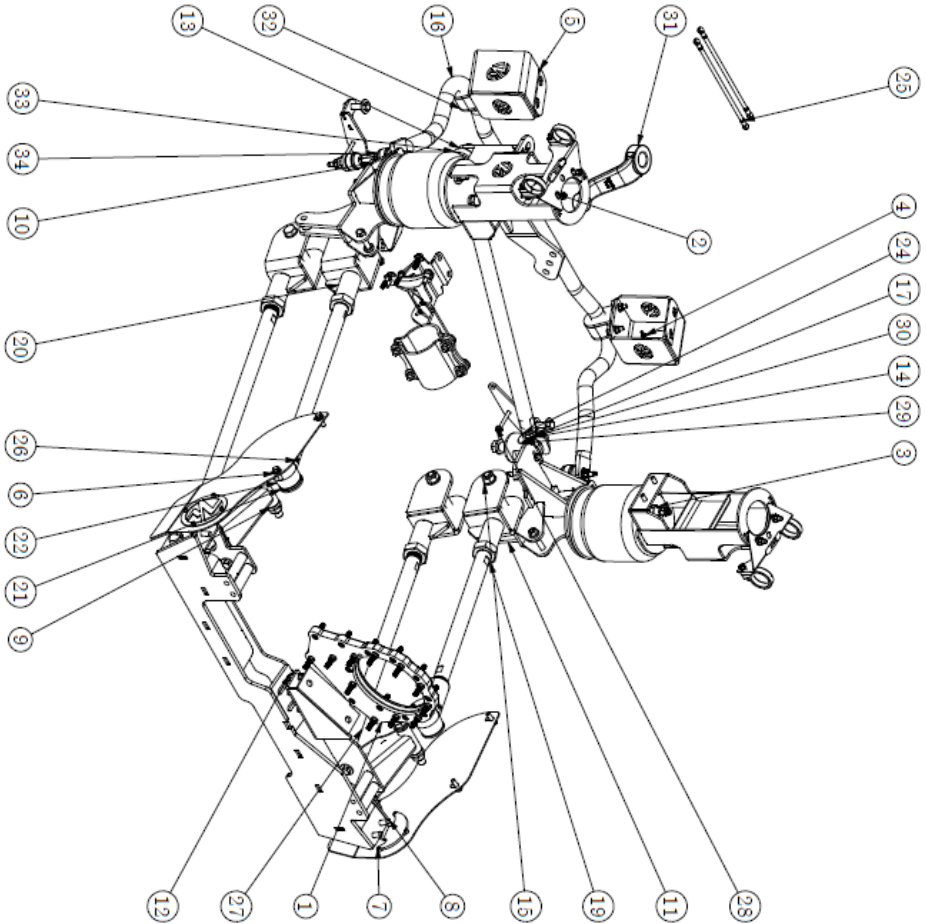
Side Plate Cover Installation/Hardware


Drill and tap should take place inside these pre-existing frame holes.



1. Mark for the two bolts on the top front that will be drilled and tapped, by fastening the side plate bracket to the transmission crossmember and the side plate to the side plate bracket.
2. Once holes are marked, drill and tap for 5/16"-18 bolts in frame as the above picture shows.
3. Repeat all steps for driver side.

ITEM #	PART NUMBER	DESCRIPTION	QTY.
1	1000727	Assembly - 25" Indexing Ring	1
2	1000839	Assembly - (D5) Upper Frame/Bag Mount	1
3	1000840	Assembly - (D5) Upper Frame/Bag Mount	1
4	1000417	Assembly - (P5) Sway Bar Drop Bracket	1
5	1000418	Assembly - (D5) Sway Bar Drop Bracket	1
6	1000419	Assembly - (D5) - Crossmember Drop SAI Panel "K" Logo	1
7	1000421	Assembly - (P5) - Crossmember Drop SAI Panel "K" Logo	1
8	1000422	Assembly - Transfer Case Drop Crossmember - (4x4)	1
9	1000424	Assembly - Crossmember Brace	2
10	1000442	Assembly - (D5) Lower Bag Plate	1
11	1000446	Assembly - (P5) - Lower Bag Plate	1
12	1000457	Assembly - 25" Translocate Wedge (4-8" & 8-10") Lift Kit	1
13	1000442	Assembly - 3.77" P/B Drop - 6-8" Lift Front	1
14	10012032	Assembly - Panhard Bar - 32.50" Bar Length - 3/4" Bolt	1
15	11109	Assembly - Trailing Arm Knuckle	2
16	1139-180KLD	Purchased Parts - 1139-180 Sway Bar	1
17	13210	Jam Nut RHT - 7/8"-14 - GR5 - Z	1
18	13211	Jam Nut LHT - 7/8"-14 - GR5 - Z	1
19	13219	Jam Nut RHT - 1-1/2"-12 - GR5 - Plain	4
20	14623	Assembly - Ford Knuckle D5 Upper and P5 Lower	2
21	15815	Plate - 790 - .781" ID X 2.50" OD X 1.17" THK	2
22	18498	Assembly - Trailing Arm Knuckle - 10006 (LHT) - 7/8" Bolt	4
23	18754	Reducer/Sleeve Bushing (1term)	2
24	19166	Round Bar - Panhard Bar (P/B) - 1.5" OD X 31.75" L X 7/8"-14 RHT	1
25	51750	Assembly - 12.00" CTC Height Control Ball End Linkage Rod	2
26	52126	Tube - Trailing Arm - 28" Long - Thread: External 1.5"-12	2
27	52136	Tube - Trailing Arm - 36" Long - Thread: External 1.5"-12	2
28	69170	Kit - Dual Shock Steering Stabilizer	1
29	69357	Assembly - Lower Panhard Bar Mount	1
30	60051	Purchased - (PH) Helm End - 7/8"-14 RHT X 7/8" ID X 1-7/8" L Thread	1
31	60072	Purchased - Rimon Arm - 2005-2017 Ford SO - 4.85" Lft - Skyjacker (FA450)	1
32	60140	Purchased Parts - 4139-180 Sway Bar Bushing Kit 1.5"	2
33	60281	Helm End - 2.5" Johnny Joint Narrow - 7/8"-14 RHT	1
34	60347	Kryptonite - Sway Bar End Links (0-2") (pair)	2



250 ANGLE	±	30
250 ANGLE	±	30
250 ANGLE	±	30
OTHERWISE SPEC		
DIMS. IN INCHES		
310 TOLERANCES		
XX 4.00		
XXX 4.00		
FRAC.DIM. 1/16"		
Dec 1 3/16"		
MATL SPEC:	A	DO NOT SCALE DRAWING
DESCRIPTION: 6-8" Lft - 4 Link Front		1:24
PROJECT: 2017-2022 Ford F250-350 Pickup - AWD		Approximate Weight = 756.00 lb
PART NUMBER: KUM-69013		
DATE: 6/8/2024		
DESIGN: BT/2817		
		
SHEET 1 OF 7		

