Version 1.3

Welding is required

17/32” Drill Bit required

Grinding/Cutting required

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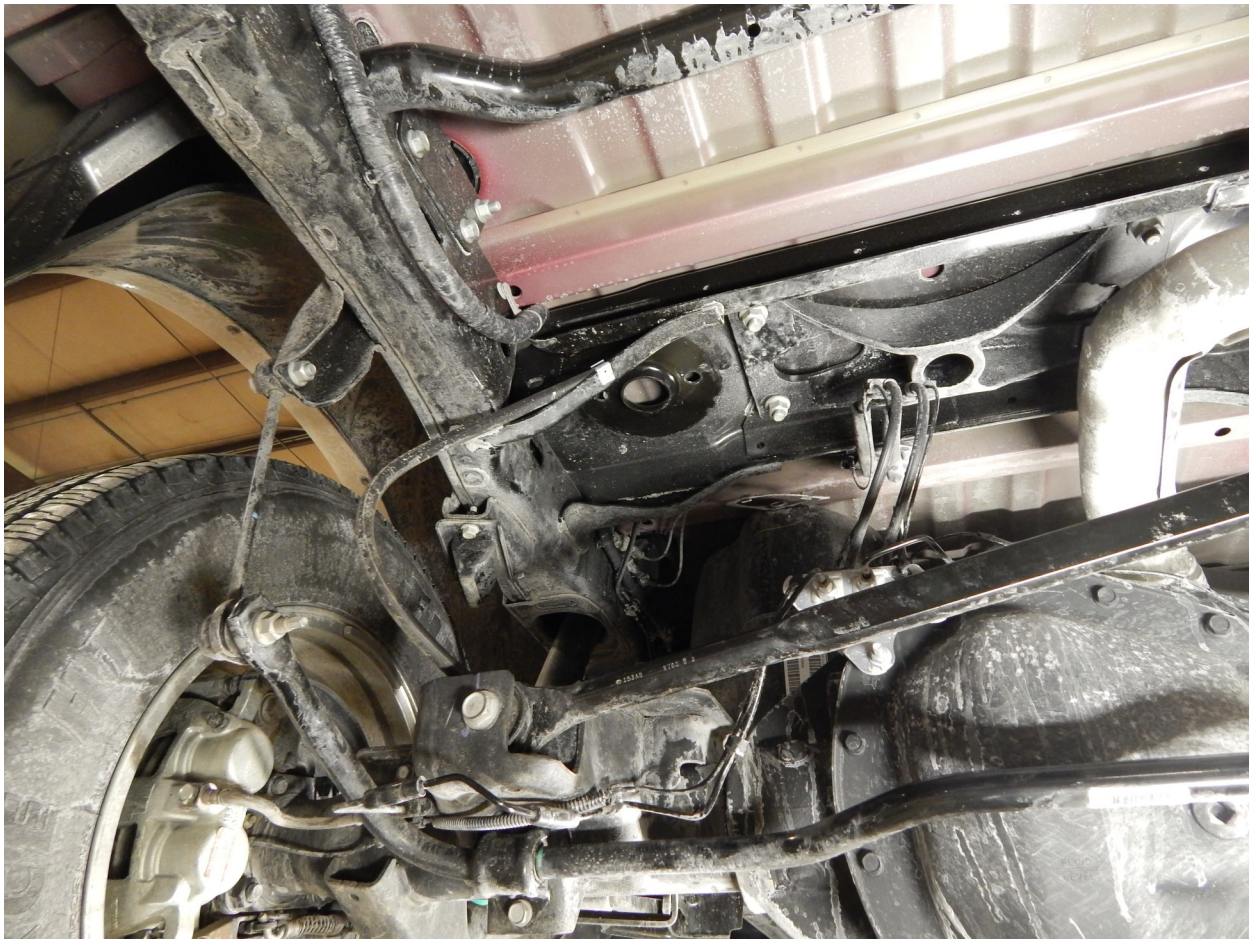
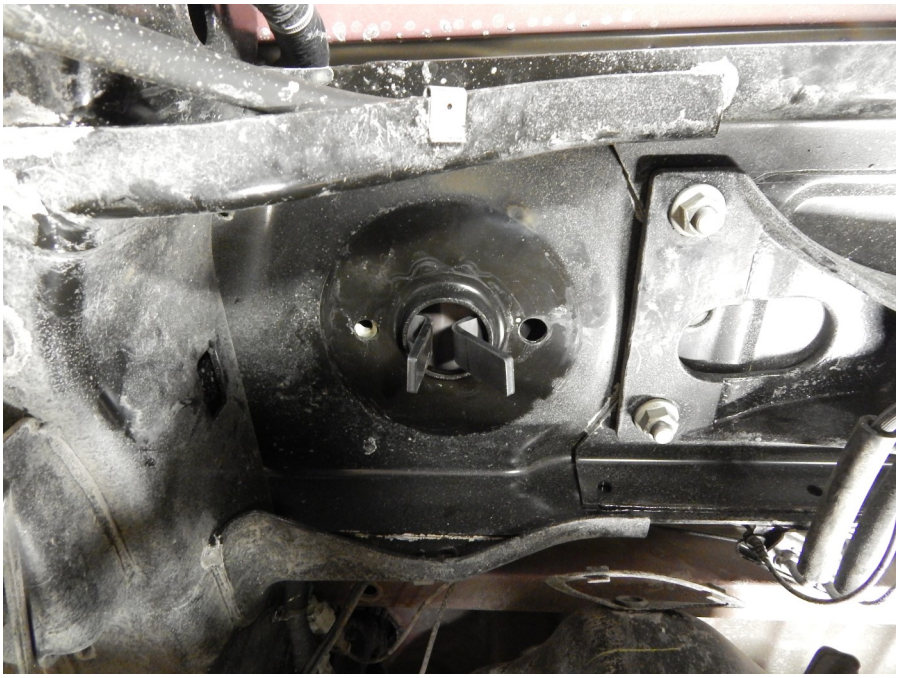
2014-2018 RAM 2500 Factory 4-Link Coil Replacement 8-10” Rear Lift Installation Instructions

1. Place the truck on a level surface and use an angle finder to measure the pinion angle. Write the measurement here _____. Jack the truck up from the frame. You will also need to put a floor jack under the rear axle. Place jack stands under the frame while you work. Try and get the truck up 10-12". The rear coil springs need to be removed. To do this, remove the bottom shock bolts and unhook the sway bar end links from the sway bar. Drop the axle down with the floor jack. NOTE: MAKE SURE TO WATCH THE BRAKE LINES AND NOT STRETCH AND DAMAMGE THEM. You will remove the rubber mounts that the springs sit in also. Go ahead and remove the top shock nuts. The shocks will not be reused. You will also be removing the factory track bar, as well as the 4 trailing arms, pan hard bar sway bar and sway bar end links. It works well to throw a strap over the front of the axle/driveshaft in order to keep the axle from rotating out of position.

2. Locate the upper air bag mounts (Part # 19106-DS and 19107-PS). They fasten into the upper coil mounts with the 1/2" and 3/4" nut mounts (Part # 19113 and 19114). Fasten the upper bag mounts in place and torque the 1/2" bolts to 85 ft./lbs. and the 3/4" bolts to 125 ft./lbs.



Lock Nut Tools Shown Installed

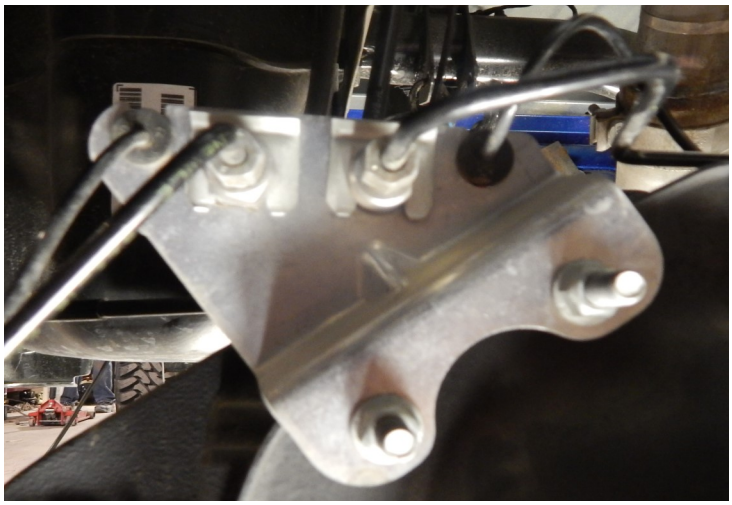


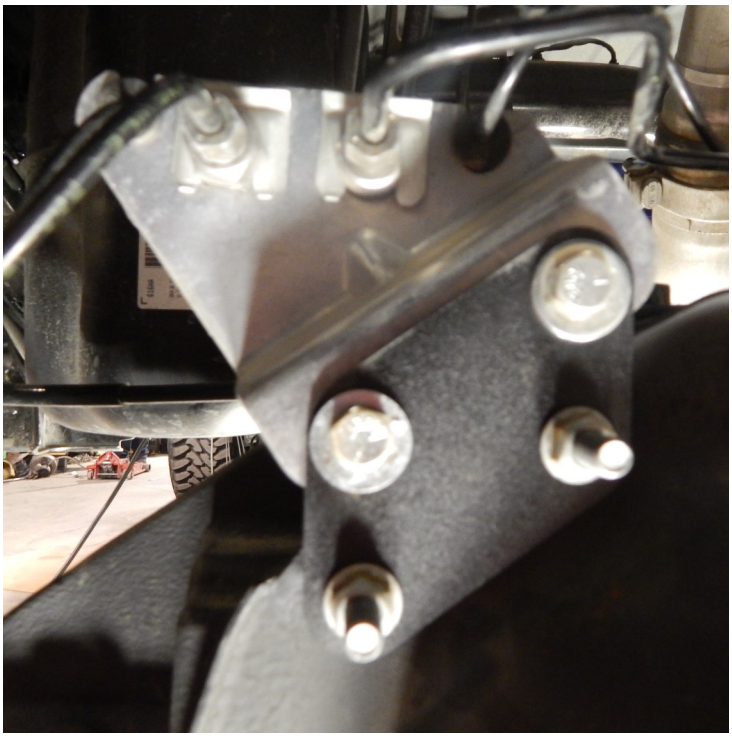
Upper Air Bag Mount Shown Installed

The thicker plate will be oriented towards the rear of the truck.

3. Locate the brake line relocation bracket (Part # 19046). Remove the (2) nuts off the mounting studs and slide the relocation bracket over the studs and fasten with the factory nuts. Torque to 20 ft./lbs. Fasten the brake line bracket to the relocation bracket with the 1/4” x 1” bolts. Torque to 25 ft./lbs. Examine the brake lines along the axle. Make sure they are not rubbing on anything.

Brake Line Relocation Bracket Installed





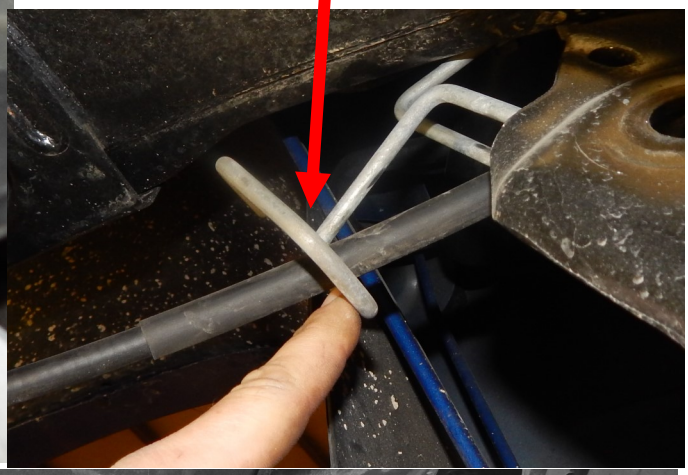
4. Locate the four trailing arms (Part # 19051 upper and 19052 lower). Set the longer arms so there is 14-1/4” between the knuckles. These will be the bottom arms. Set the shorter arms at 11-11/16” between the knuckles (top arms). Insert the top bars first. Use the pictures on page 7 to set the bolt orientation. The factory bolts and nuts will be reused. While the trailing arms are removed, unhook the emergency brake line on the passenger side. Use the pictures below and page 6 to see how to reroute it. It will fasten to the lower trailing arm forward pinch bolt with the supplied clamp. Once the trailing arms are installed, torque the bolts to 200 ft./lbs. *NOTE: These bar lengths are approximate and final adjustment will be required when install is completed.*

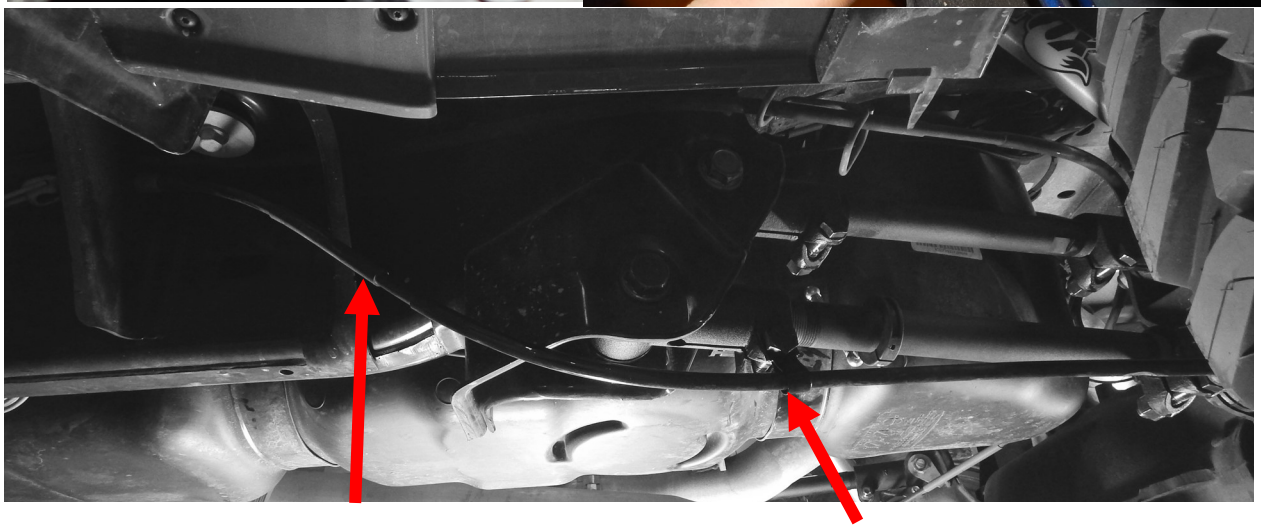
By setting the trailing arms at these measurements the pinion angle and axle centering should be close. Additional adjustment may be required.

Remove the emergency brake cable from this hole.

5. Remove the drivers side emergency brake cable from the metal loop that holds it in place. Unhook it from the connection on the side of the frame and push it back through the mounting brackets. It will now drop down and run up to the forward bracket. It will also tie into the lower forward trailing arm knuckle pinch bolt with the supplied clamp.

Remove drivers side e-brake cable from this loop



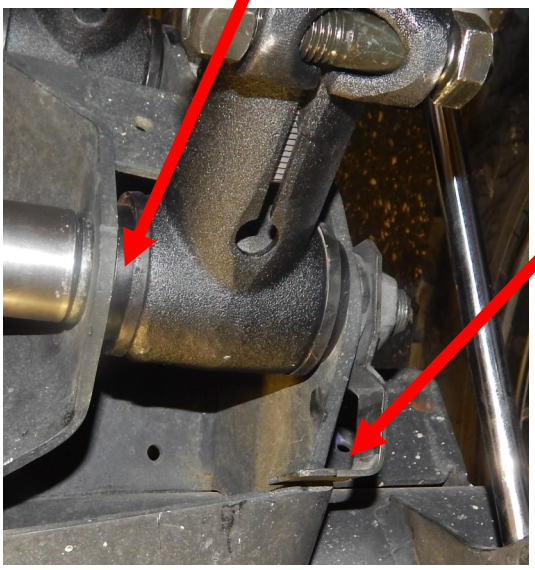


Brake cable now droops down below the rear mount that it originally was routed through

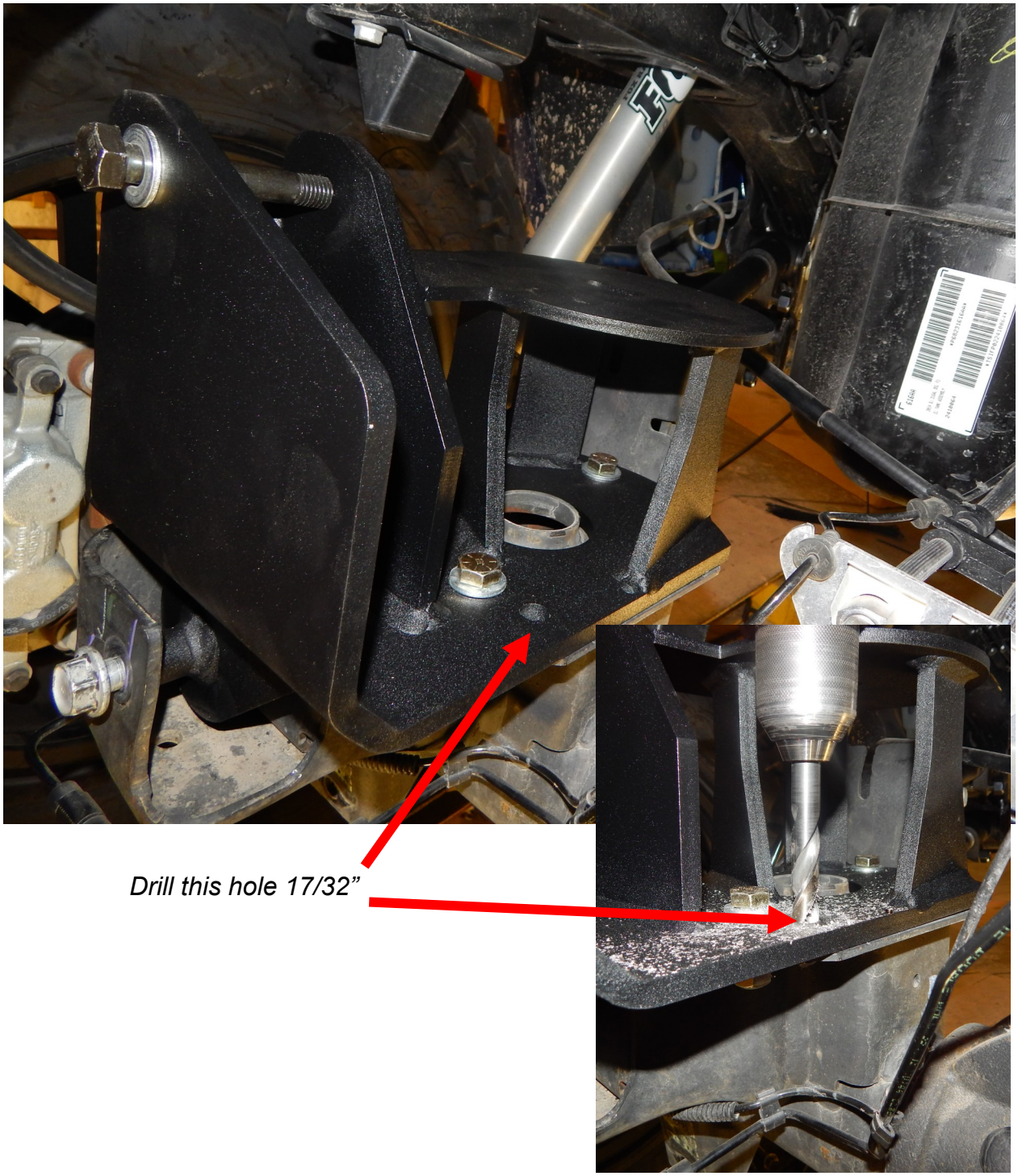
Clamp to the pinch bolt on the lower front knuckle

This tab needs to be bent so it will catch on the trailing arm mounting bracket.

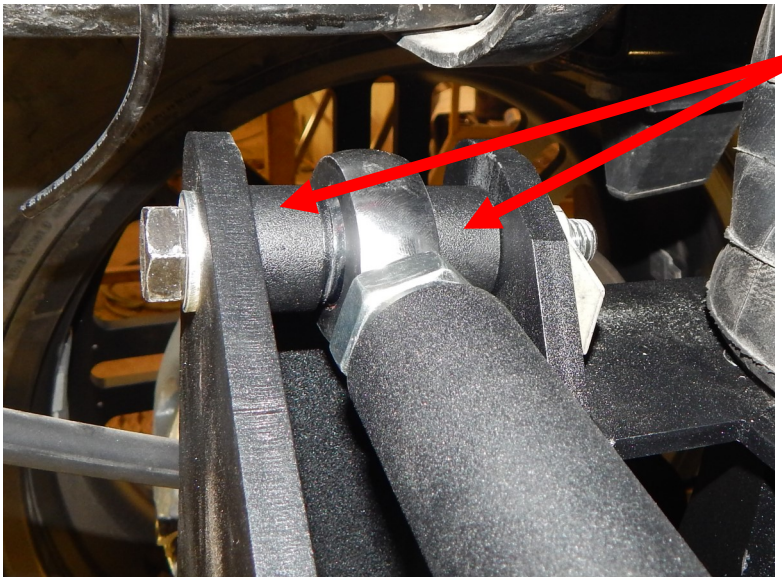
The lower trailing arms use the thicker walled bushings.



6. Locate the lower bag mounts (Part # 19155-DS and 19163-PS). Beginning with the drivers side, place the bag mount on the axle. It fastens with the three 1/2” x 1-1/2” bolts (1 hole gets drilled) and the factory pan hard bar mount. Once all the bolts are installed, torque the 1/2” bolts to 85 ft./lbs. and the pan hard bar to 120 ft./lbs.

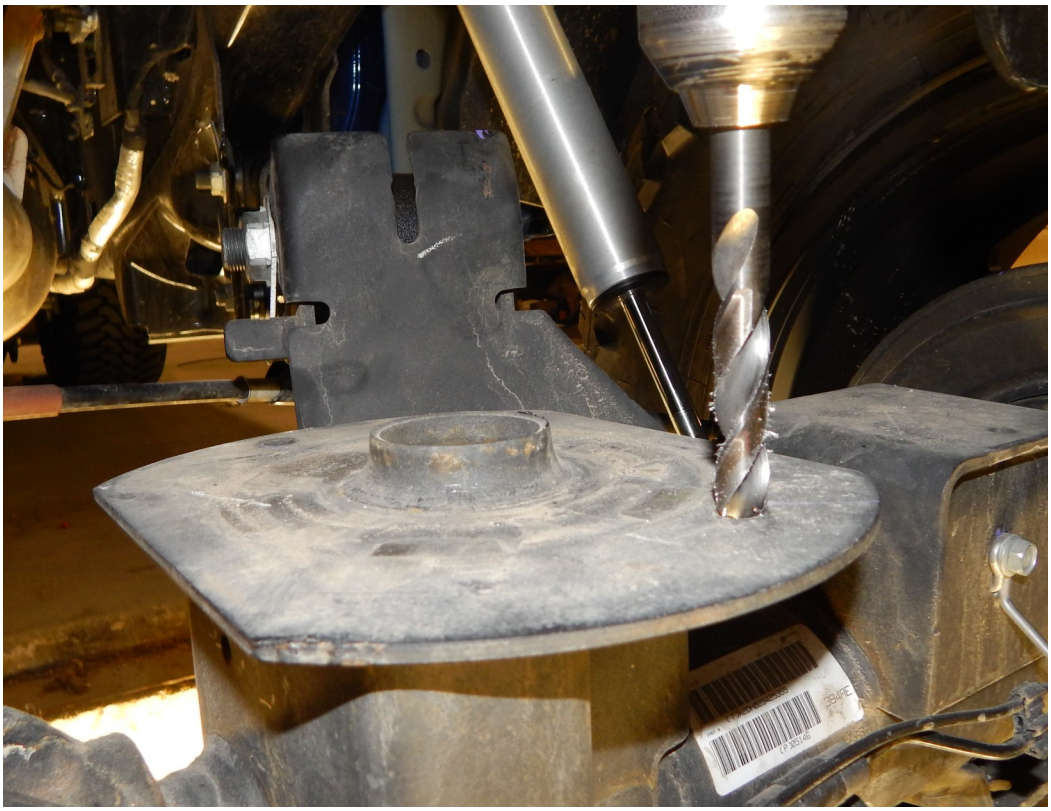


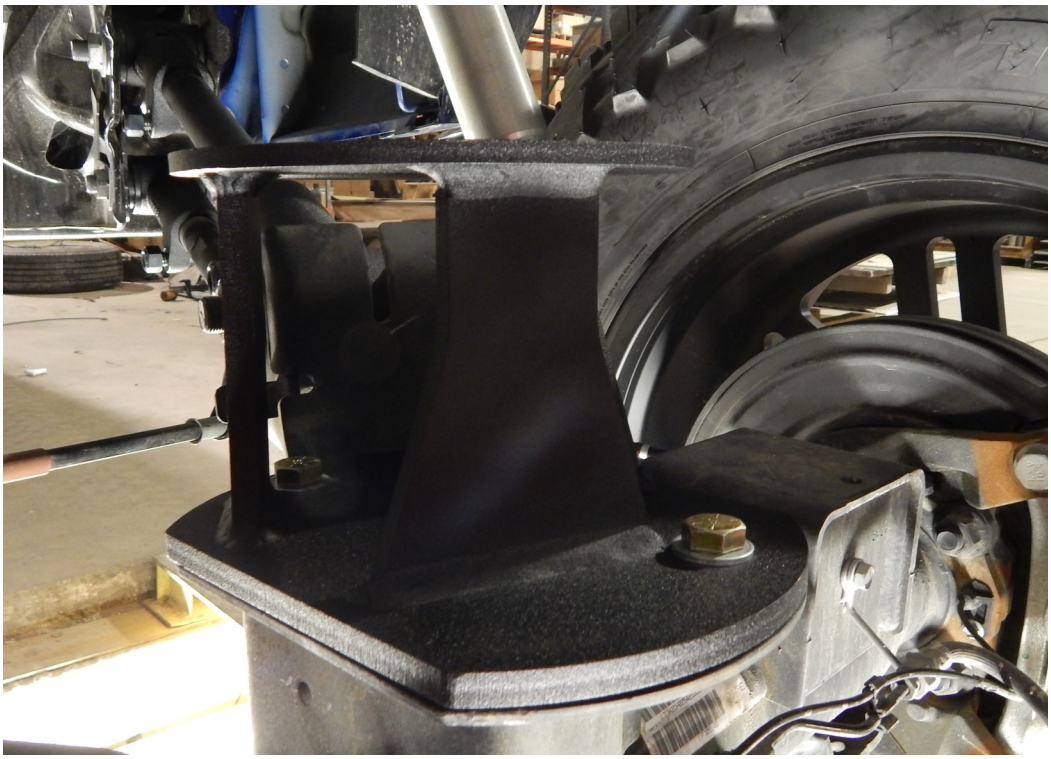
7. Locate the pan hard bar (Part # 19167). Set the heim ends so they are 35-13/16" center to center. Also locate the (4) spacers that go into each side of the heim ends. It fastens into the lower air bag mount in the drivers side with the 9/16" x 4" bolt and in the factory location with the factory bolt on the passenger side. Torque these bolts to 135 ft./lbs.



One spacer on each side of heim end

8. Locate the two holes in the top of the coil spring perch. Use the 17/32” drill bit to open up the holes. Locate the passenger side lower bag mount and fasten to the axle with the (2) 1/2” x 1-1/2” bolts. Torque to 85 ft./lbs.



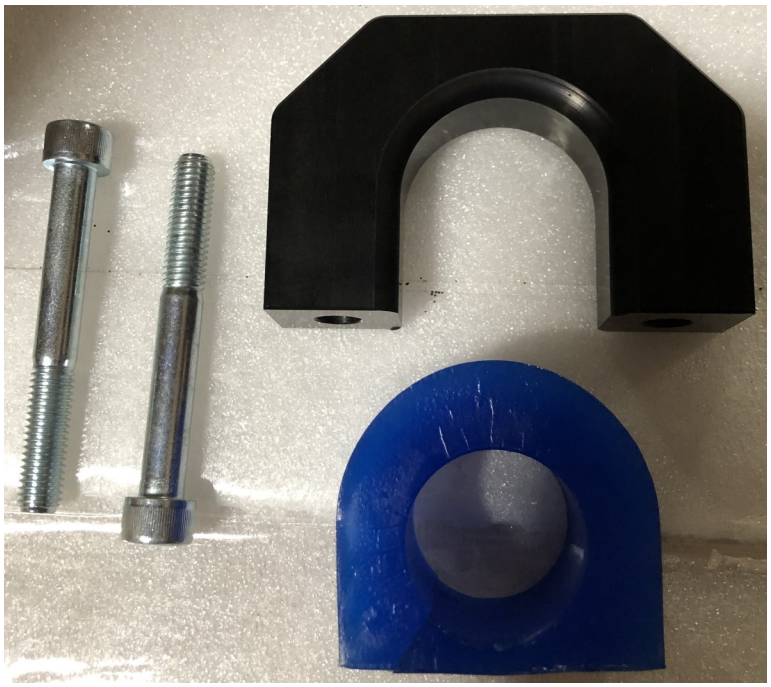


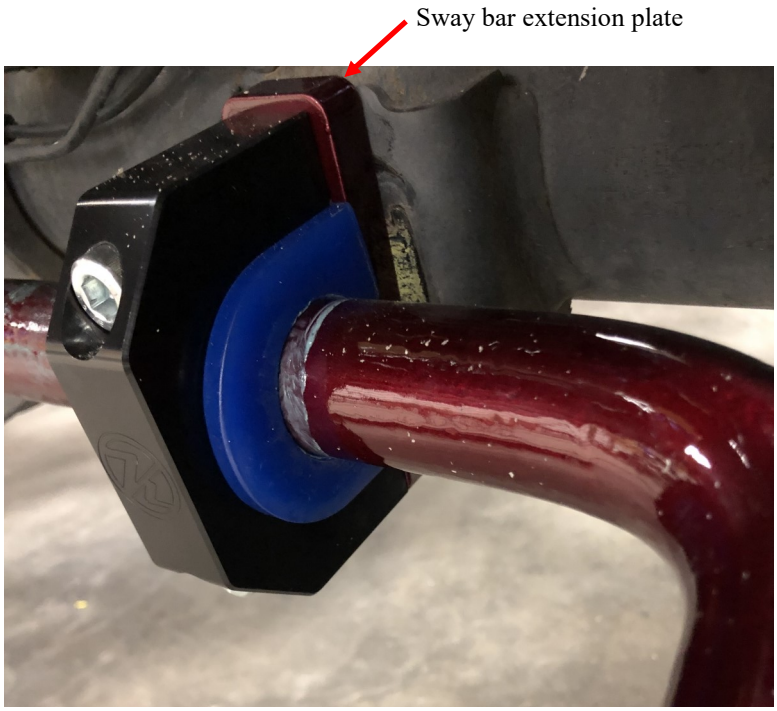
9. Locate the 8979 airbags. They fasten into the upper air bag mounts with the 1/2” and 3/4” nuts, flat washers and lock washers. The bottom of the airbag fastens to the lower airbag mounts with the 1/2” x 5” bolts. Torque the bolts and nuts to 35 ft./lbs. Locate the air fitting. Insert the fitting into the air bag and turn until it is finger tight. Use a wrench to turn it once complete turn.

10. Locate the upper shock brackets (Part # 19177). They weld into the frame where the OEM shocks originally went through. Grind the paint off the area where you will weld the bracket. Put the bracket in place so it sits flush all around the edges. Tack the bracket in place and inspect again to make sure it is sitting in the recessed area evenly all the way around. Weld the bracket in place. You can use four stiches on each side or weld the entire bracket all the way around.

11. Attach shocks to factory lower shock mount. Use 1/2”-20 x 3” bolts. Torque bolts to 85 ft./lbs.

12. Locate the sway bar (Part # 1129-139), the “D” rings (Part # 80320), Poly bushing, end links (Part # 19164), sway bar extension plate (Part # 18384). Use the provided grease to lube up the poly bushing before installing. Use plenty and then wipe the excess off once the install is complete. Failure to grease the poly bushing will result in a squeaking noise while driving. Fasten the sway bar to the axle with the factory sway bar bolts. Torque to 55 ft./lbs.





13. Locate the sway bar end links (Part # 19164) and the upper end link mount adapters (Part # 19161).The upper end link adapters fasten to the factory end link mounts with the 1/2” x 3” bolts and the 3/8 x 1-1/4” bolts. Fasten the bottom of the end link to the sway bar with the 1/2” x 3” bolt. Make sure to use the large flat washer on the outside of the end link (against the poly bushing). Torque the 1/2” bolt 85 ft./lbs. and the 3/8” to 45 ft./lbs.

Go heavy on the grease and clean it up after the install is complete

End link installed into the factory mount using 1/2” x 3” bolts and the 3/8” x 1-1/4” bolts

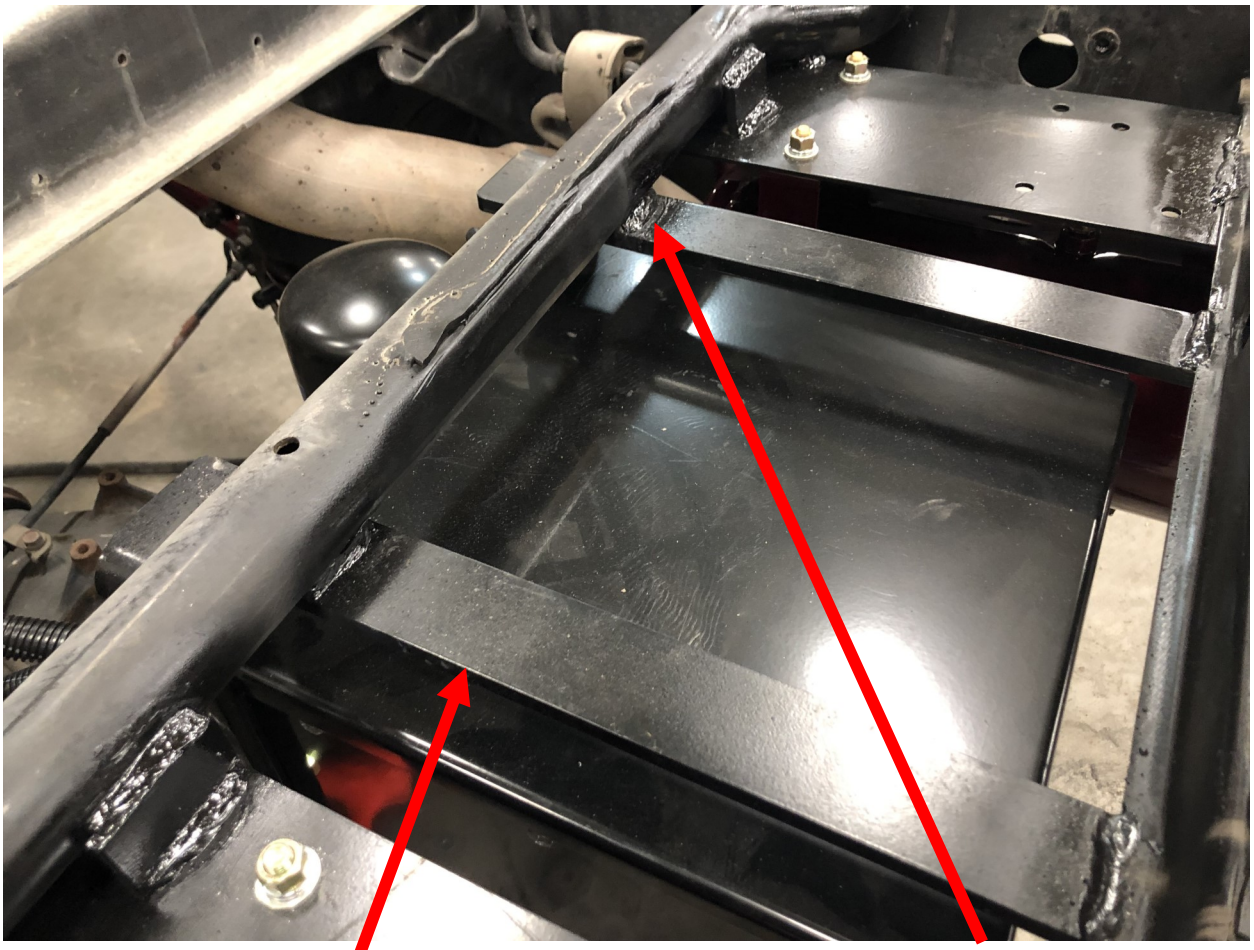
Large washer on the outside of the bottom end link

14. Locate the optional ride height sensors and sensor mounting tabs. A good spot to mount the sensors is right along the bottom edge of the frame with the sensor pointed towards the front of the truck. The sensor will work in either direction, forward facing or rearward facing. Weld the sensor tab to the frame or you can drill and tap into the frame and bolt the sensor to the frame. At ride height you will want the sensor straight out from the sensor body. You can rotate it in the slotted sensor mount if need be. Use the Air Lift 3H manual to help understand sensor sweep. The sensor linkage fastens to the ball at the end of the sensor and to the lower mount that fastens to the axle. You can either weld the lower tab to the axle or drill and tap the axle and bolt it.

15. Locate the air management box mounting brackets. You will mount these to the crossmember at the back of the truck where the spare tire was installed.

16. Cut the spare tire crank assembly out. Weld the compressor mounting brackets to the crossmembers. Center up the brackets weld them in place so there is 13-9/16” between the mounting tabs. Paint areas after welding.

See YouTube video for installation -
https://www.youtube.com/watch?v=s_963Fdfkvl&t=4s

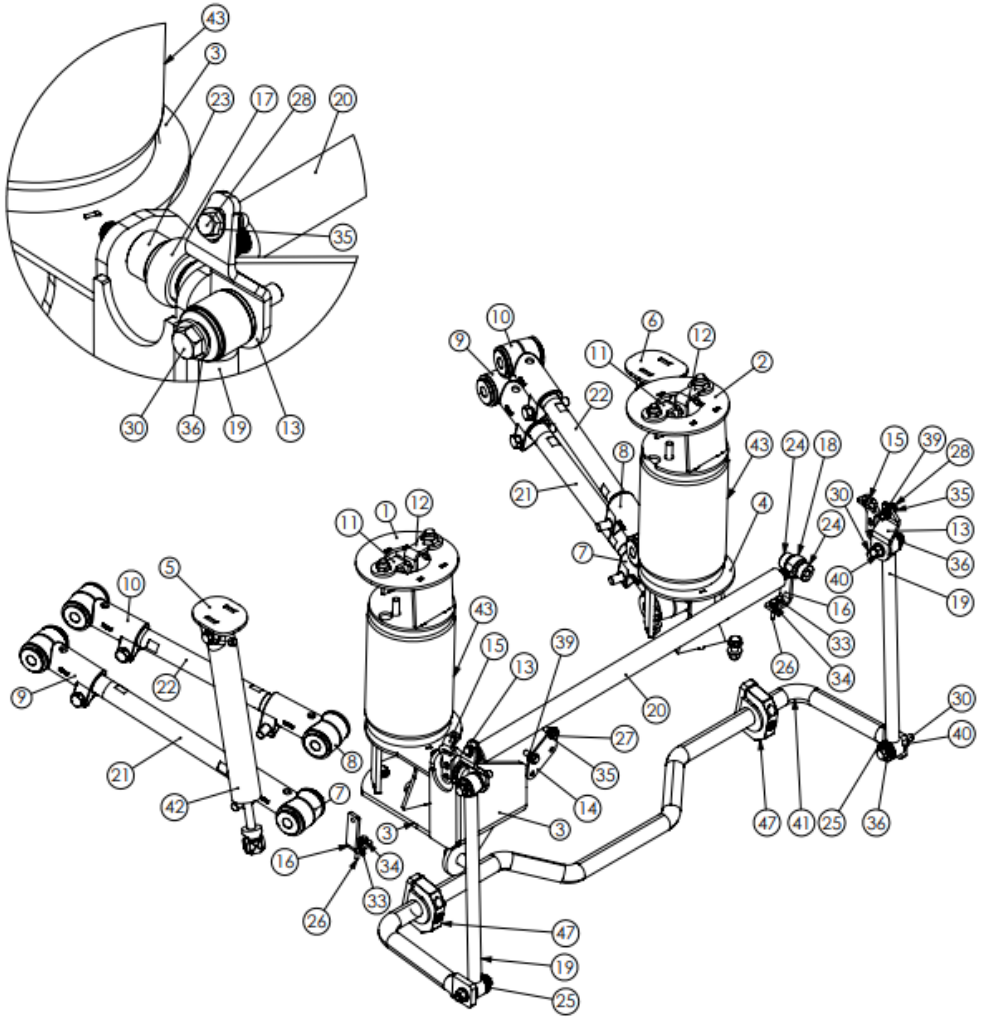


Set so there is 13-9/16” between the tabs

Grind off the powder coat paint before welding the mount bracket

17. Locate the air compressor mounting plates. They will be welded or bolted to the cross member on the frame on each side of the compressor box. Use the 3/8” x 1” bolts to fasten the tanks to the mounting brackets.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	19107	Weldment - (DS) Upper Bag Mount	1
2	19106	Weldment - (PS) Upper Bag Mount	1
3	19155	(DS) Lower Bag/PHB Mount	1
4	19163	(PS) Lower Bag Mount	1
5	19176	Weldment - (DS) Shock Relocation Bracket	1
6	19177	(PS) Shock Relocation Bracket	1
7	19182	Trailing Arm Knuckle 10006	2
8	19183	Trailing Arm Knuckle 10006	2
9	19180	Assembly - Trailing Arm Knuckle	2
10	19181	Trailing Arm Knuckle 10005	2
11	19083	Weldment - 5/8"-18 Lock Nut Tool	2
12	19084	Weldment - 3/4"-16 Lock Nut Tool	2
13	19161	Plate - 1/4" - End Link Mounting Ear w/ Bends	2
14	19046	Plate - 11ga - Brake Line Relocation Bracket	1
15	50089	Plate - 1/4" - Height Control Sensor Mount	2
16	50188	Linkage Mounting Bracket	2
17	80109	(RH) Ball Joint Rod End 3/4-16 x 3/4"	1
18	80110	(LH) Ball Joint Rod End 3/4-16 x 3/4"	1
19	19164	18.5" End Link	2
20	19166	Tube - Panhard Bar (PHB) - 1.5" OD x .8125" ID x 31.75" L - Tapped (Both Ends LHT/RHT) 7/8"-14	1
21	52120	Tube - 1.5" OD x 1" ID x 20.00"	2
22	52118.5	18.50" Trailing Arm Bar	2
23	18788	Heim Bushing Spacer - Fab Location	2
24	18789	Bushing - .872" OD x .551" ID x 1.175" L - Heim Stepped Bushing (M14 Bolt)	2
25	11551	Plate - 1/4" - 1.5"OD x .53" ID x 1/4"	2
26	12117	Bolt - 1/4"-28 x 1.50"- Gr.8	4
27	12211	Bolt - 3/8"-24 X 1" Gr.8	2
28	12213	Bolt - 3/8"-24 x 1.25" Gr.8	2
29	12007	Bolt - 1/2"-20 x 1.50" Gr.8	3
30	12021	Bolt - 1/2"-20 X 3" Gr.8	4
31	12405	Bolt - 5/8"-18 x 1.50" Gr.8	2
32	12507	Bolt - 3/4" x 1 1/2" Gr.8	2
33	13042	1/4" Lock Washer	4
34	13000	1/4" Flat Washer	4
35	13002	3/8" Flat Washer	8
36	13004	1/2" Flat Washer	14
37	13006	5/8" Flat Washer	2
38	13008	3/4" Flat Washer	2
39	13162	3/8"-20 Hex Nut	4
40	13164	Hex Nut - 1/2"-20 Gr.8	7
41	1129-141KLD	1129-141KLD Roadmaster	1
42	985-24-052	Fox Shock - 985-24-068	2
43	80012-8979	Firestone 8979	2
44	205214-10	Poly Bushing - 1-3/8"ID x 1"W	2
46	18384	Plate - 1/2" - Sway Bar Extensions	2
47	80320	Sway Bar D-Ring - 4" Wide - 2.5" Bolt Spacing	2



REV	ECN	CHANGE DESCRIPTION	CHANGE BY	DATE

3RD ANGLE PROJECTION

UNLESS OTHERWISE SPEC: DIMNS. IN INCHES
STD. TOLERANCES
X.X ±.060
X.XX ±.030
X.XXX ±.010
FRAC. DIM. ±1/32"
Deg. ± .5°

A | DO NOT SCALE DRAWING | 1:48 | Approximate Weight = **152.50 lbs**

MATL SPECS:

DESCRIPTION: **8-10" Lift (Rear) - Coil Replacement**

PROJECT: **2014+ Ram 2500 4x4 Pickup**

PART NUMBER: **D4R4-2-X-14-8**

DESIGN BY: **ZB18** DATE: **1/27/2022**

SHEET 1 OF 2