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AIR SUSPENSION SYSTEMS

2686 Highway 92 - Oskaloosa, IA 52577
phone: 641.673.0468 - fax: 641.673.4168
www.kelderman.com

2014+ Ram 2500 5-6" Rear Lift Kit Installation Instructions



D|W|S ●●●
PHOTOGRAPHY
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1. Place the truck on a level surface and use an angle finder to measure the pinion angle. Write the measurement here _____.
2. 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”.
3. 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: WATCH THE BRAKE LINES AND DO NOT STRETCH AND DAMAGE THEM.** You will remove the rubber mounts that the springs set in also.
4. Remove the top shock nuts. The shocks will not be reused. You will also be removing the 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.



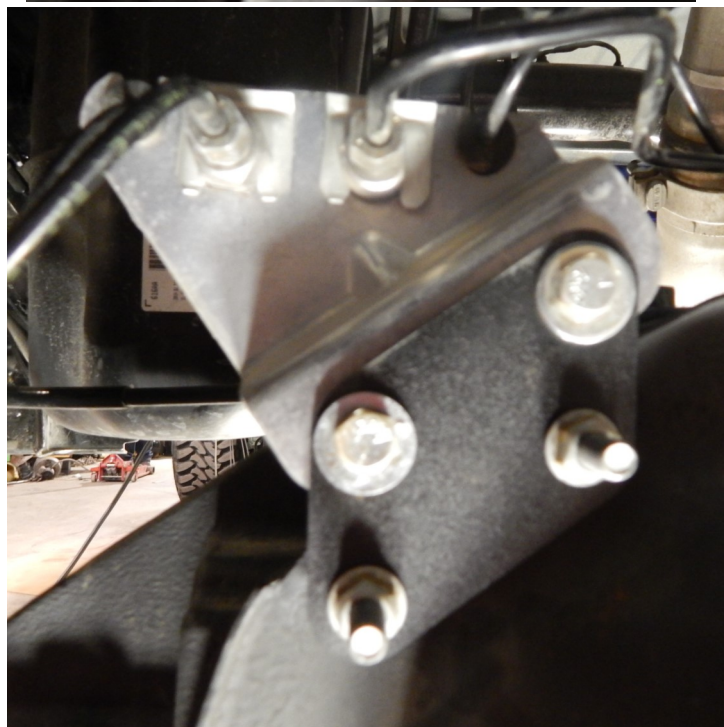
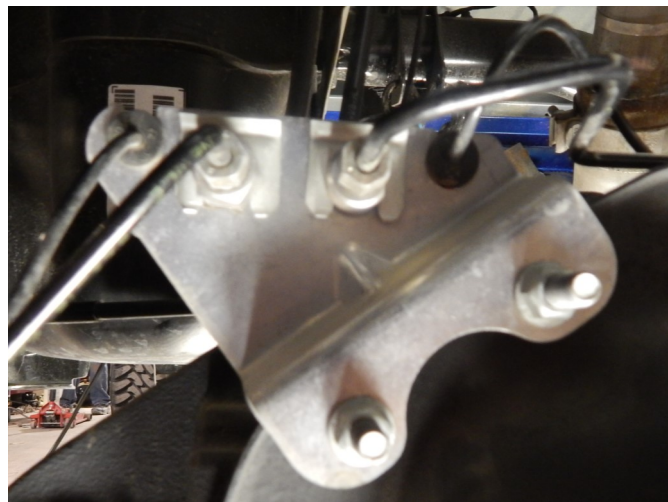
5. Locate the upper air bag mounts (Part # 19106DS and 19107PS). They fasten into the upper coil mounts with the 1/2" and 3/4" nut mounts (Part # 19113 and 19114). Fasten the upper bag mounts in place and torque the 1/2" bolts to 85 ft./lbs. and the 3/4" bolts to 125 ft./lbs.

NOTE: The wide plate on the upper bag mount goes towards the back of the truck.



6. 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.

7. 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 to make sure they are not rubbing on anything.



8. Locate the 4 trailing arms (Part # 19051 upper and 19052 lower). Set the longer arms so there is 13" between the knuckles. These are the bottom arms. Set the shorter arms at 10 3/4" between the knuckles. These measurements MAY change and are only approximations to get installation started
9. Insert the top bars first. Use the pictures on page 8 to set the bolt orientation. The factory bolts and nuts will be re-used. While the trailing arms are removed, unhook the emergency brake line on the passenger side. Use the pictures below and on page 6 to see how to re-route 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.



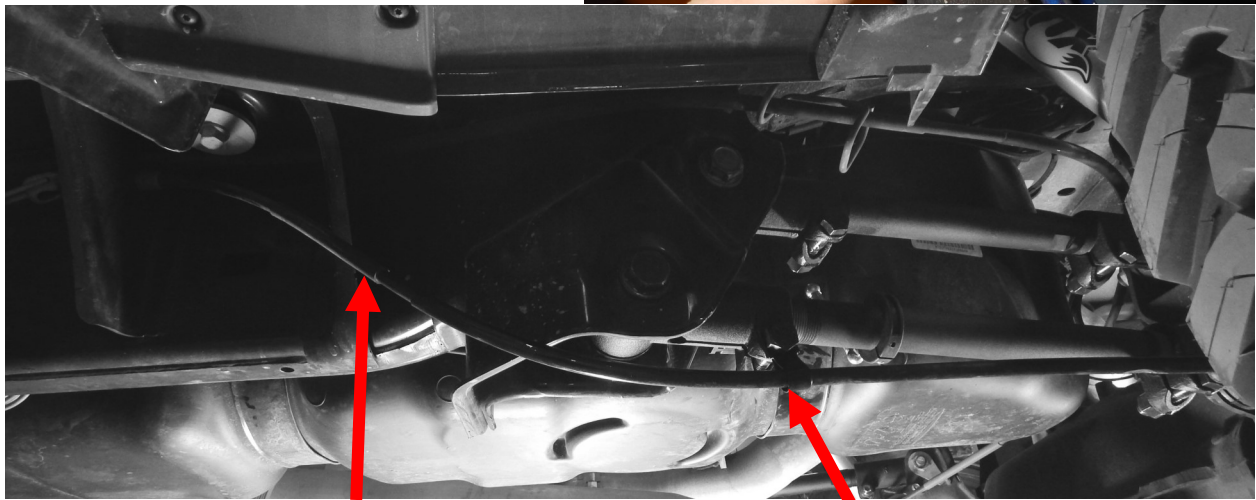
By setting the trailing arms at these measurements the pinion angle and axle centering should be close. Additional adjustments may be required upon test drive.

Remove the E-Brake cable from this hole.



10. Remove the drivers side E-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



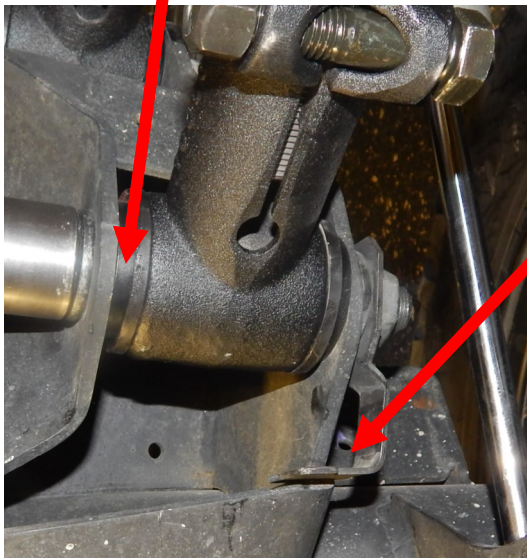
Brake cable now droops down below the rear mount that it originally was routed through

Clamp to the pinch bolt on the lower front knuckle



The lower trailing arms use the thicker walled bushings.

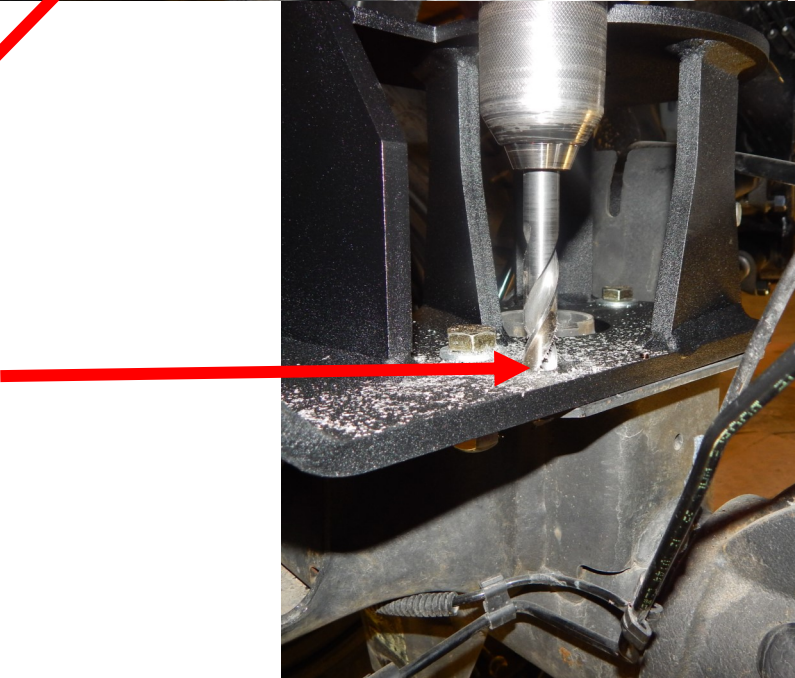
This tab needs to be bent so it will catch on the trailing arm mounting bracket.



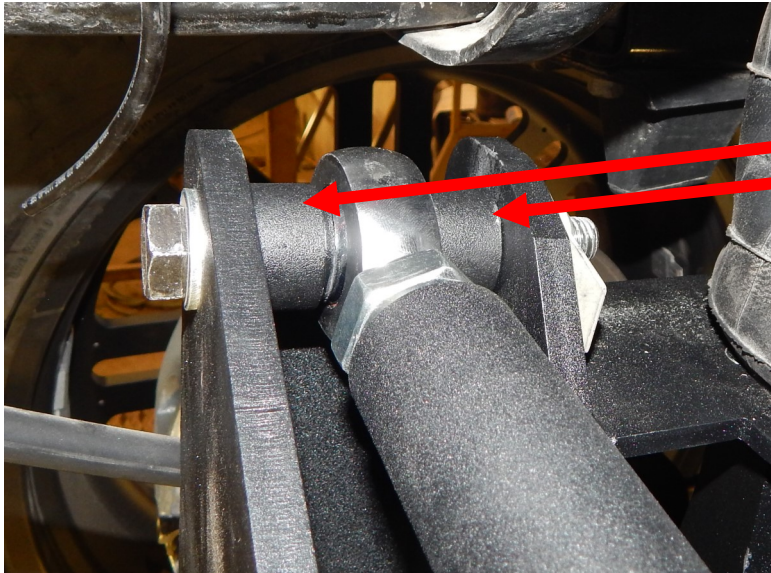
11. Locate the lower bag mounts (Part # 19124 DS and 1935PS). Beginning with the drivers side, place the bag mount on the axle. It fastens with the three 1/2 x 1 1/2" bolts (one hole gets drilled) and the factory pan hard bar mount. Once all the bolts are installed, torque the 1/2" bolts to 85 ft./lbs. and the pan hard bar to 120 ft./lbs.



Drill this hole 17/32"



12. If your kit has the optional pan hard bar (Part # 19167) locate it now. Set the heim ends so they are 35 13/16" center to center. Locate the 4 spacers that go into each side of the heim ends. Two of the spacers are wider and these go into the lower air bag mount. If not using the optional bar, locate the factory pan hard bar. 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 the wide spacers go on this end

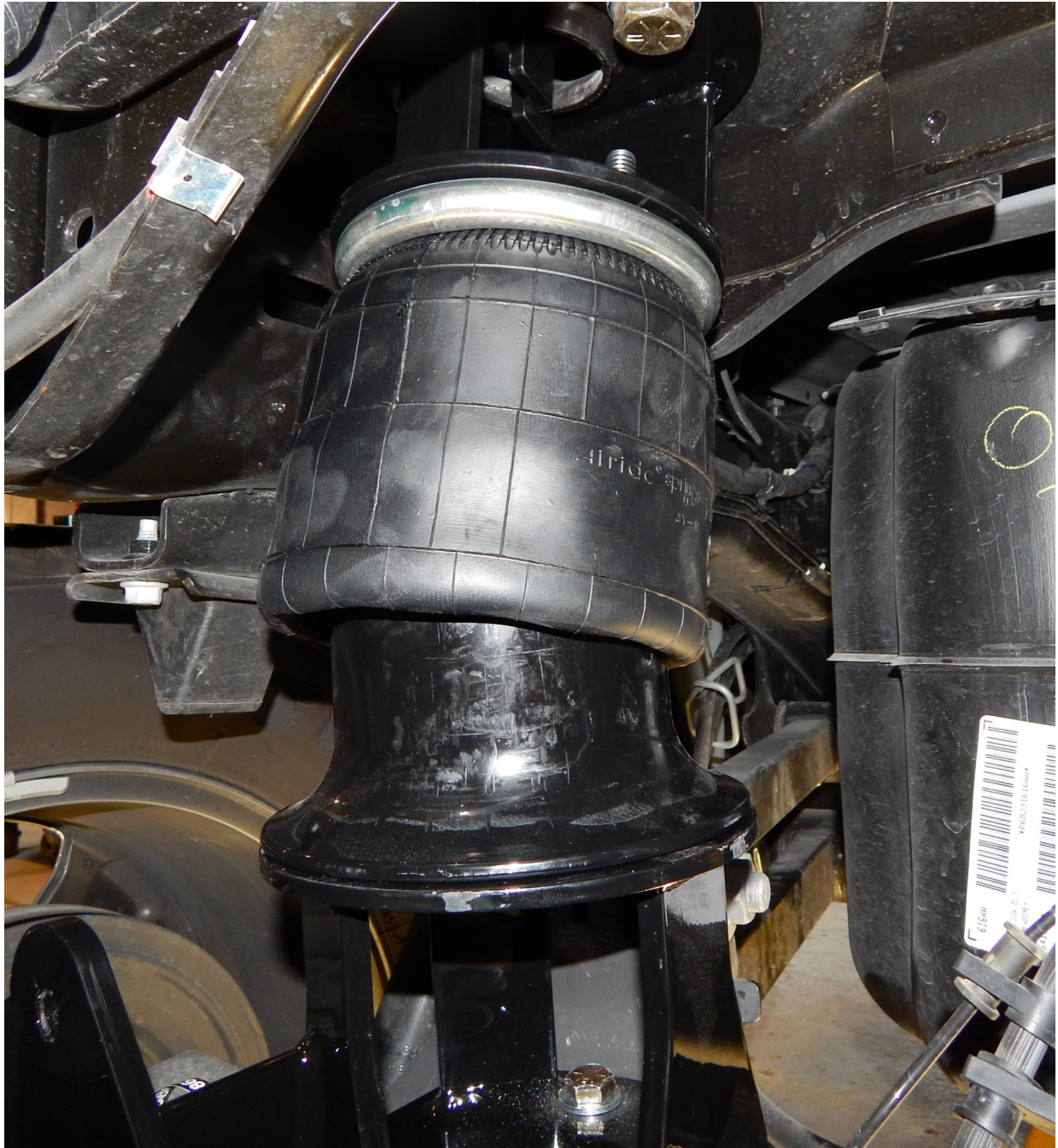


13. Locate the 2 holes in the top of the coil spring perch. Use the 17/32" drill bit to open up the holes.

14. Locate the passenger side lower bag mount and fasten to the axle with the two 1/2 x 1 1/2" bolts. Torque to 85 ft./lbs.



15. Locate the 5323 air bags. 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 bag fastens to the lower air bag mounts with the 1/2 x 5" bolts. Torque the bolts and nuts to 35 ft./lbs.
16. Locate the air fitting. Insert the fitting into the air bag and turn until it is finger tight. Use a wrench to turn it one complete turn.

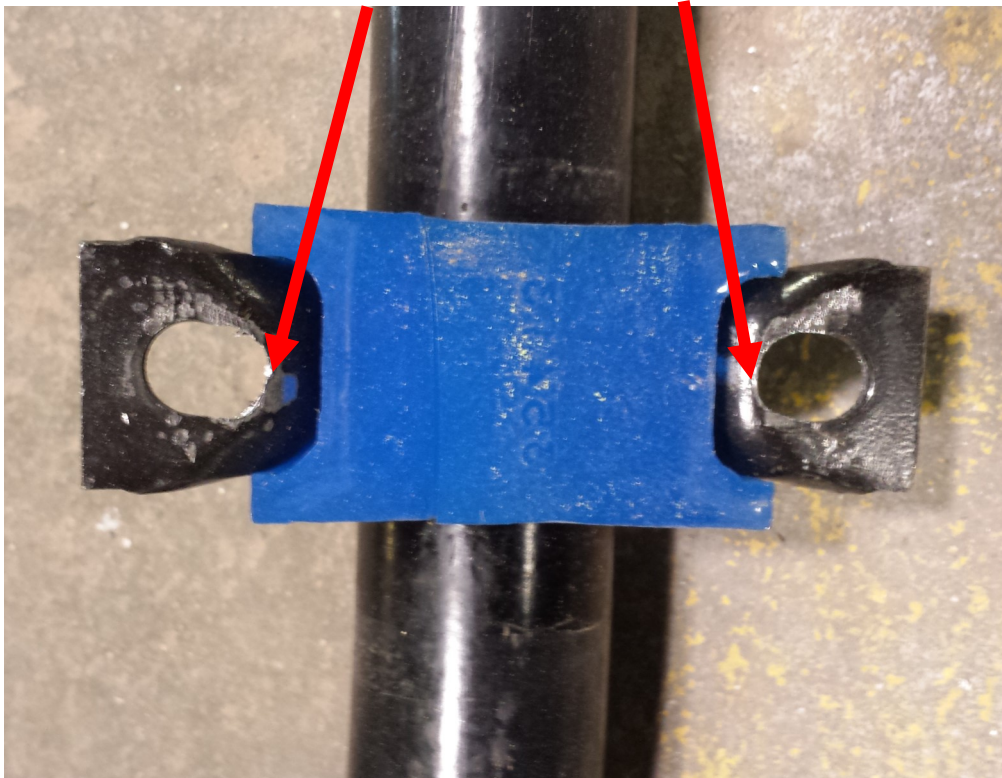


17. Locate the shock relocation brackets (Part # 19041). They fasten into the factory shock location with the 9/16 x 4" bolts and 3/8 x 1 1/4" bolts. Install the shocks at this time. Use the factory bolts on the bottom to connect the shocks to the shock adapters. You will torque the 9/16" bolts to 135 ft./lbs. and the 3/8 to 45 ft./lbs.

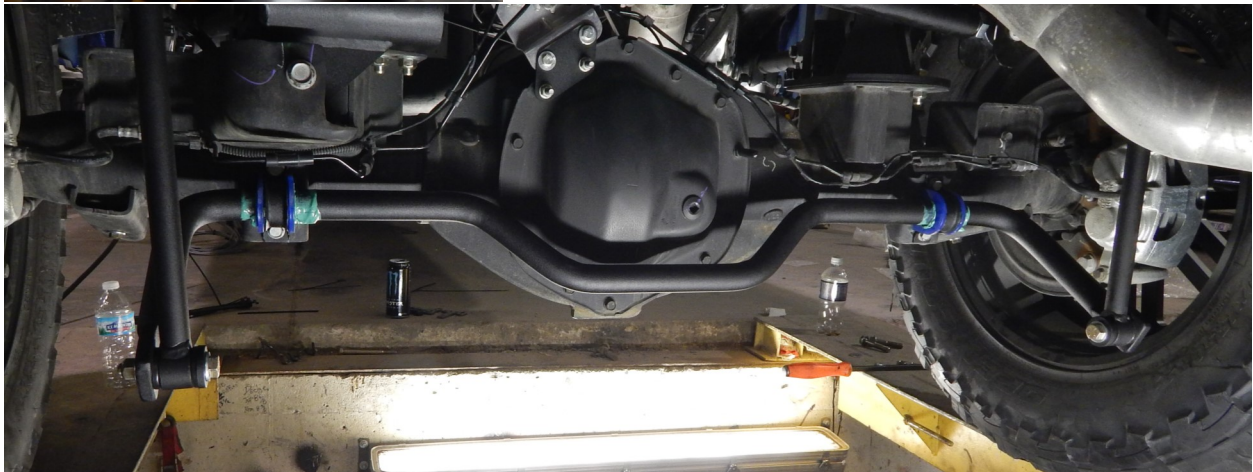


18. Locate the sway bar (Part # 140KLD), the “D” rings, end links and upper end link adapter mounts (Part # 12345). The “D” ring holes will have to be opened up just a touch with a die grinder. (Your kit may already have them opened up at the factory). The holes need to be opened up towards the center in order to fit the factory holes. 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.
19. Fasten the sway bar to the axle with the factory sway bar bolts. Torque to 55 ft./lbs.

Open the holes up here to fit up to the holes in the factory sway bar mounts



20. Locate the sway bar end links (Part # 19136) and the upper end link mounts 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. 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.



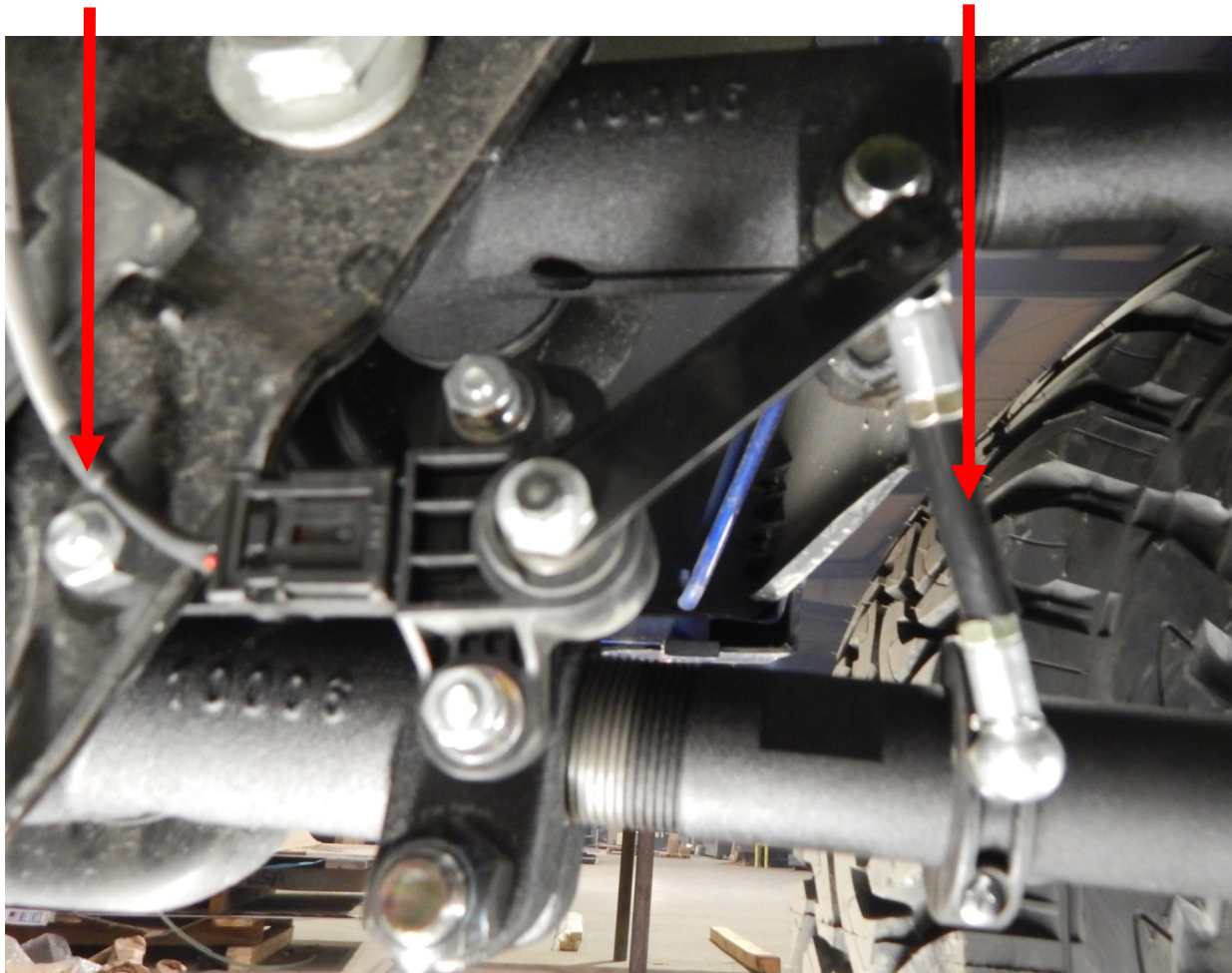
go heavy on the grease and clean it up after the install is complete

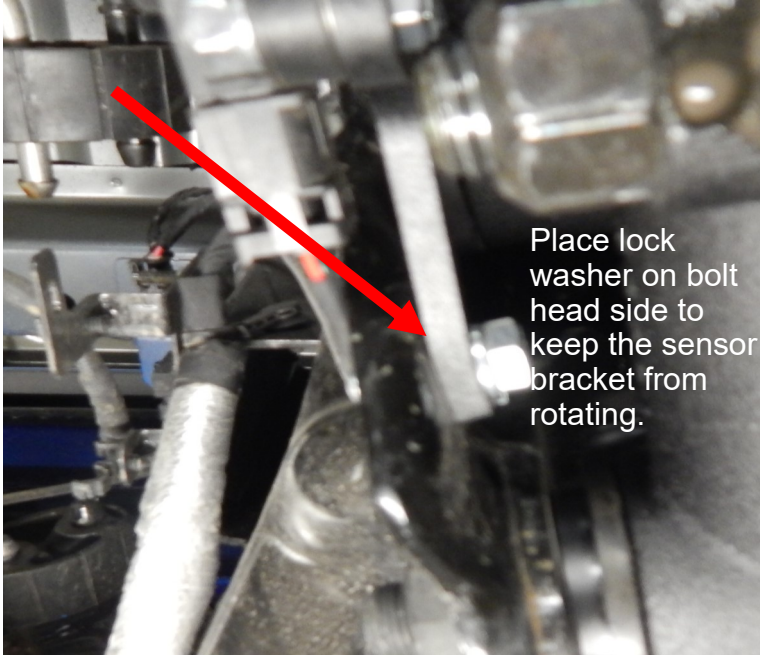


21. Locate the 2 (optional) ride height sensors and sensor mounting tabs. The tabs bolt to the hole in the trailing arm mounting brackets with the 1/2 x 1" bolt. Put the lock washer on the bolt head side when installing. This will keep the sensor mounting tab from rotating. The mounting tab should be straight out or slightly downward. Make sure the linkage doesn't hit on the pinch bolt when the air bags are deflated. The sensor linkage should be 3 1/2" (approx.) center of ball to center of ball. Make sure the collar that goes on the lower trailing arm does not turn/rotate. If it won't tighten up on the arm, remove it and use a file or grinder to take a little plastic off the mating surfaces. This will allow the 2 halves to clamp on the bar tighter.

This hole is already here

Linkage is 3 1/2"





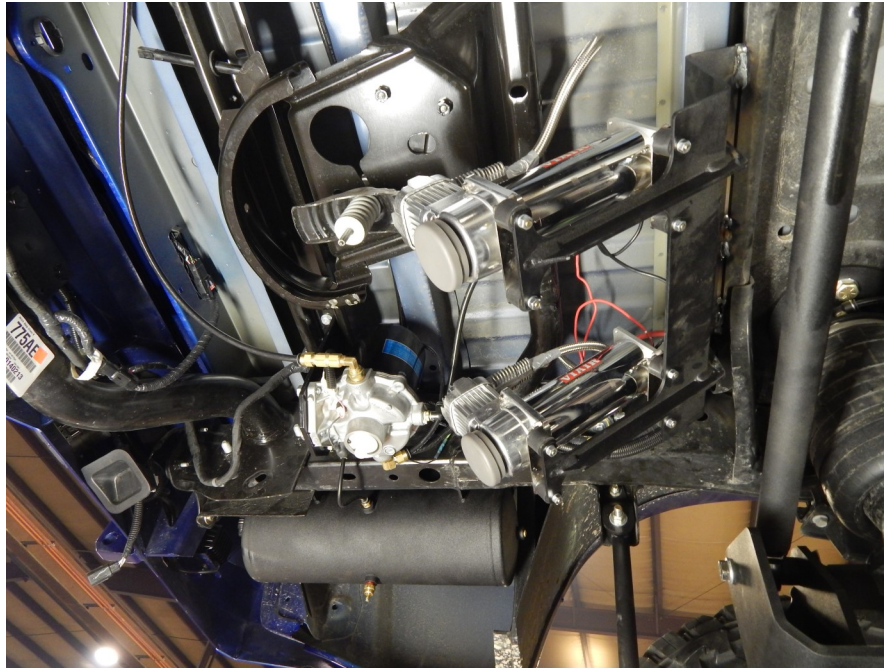
Place lock washer on bolt head side to keep the sensor bracket from rotating.

22. Locate the tanks for the air management system (part# 19049 PS and 19050 DS) They will bolt to the side of the frame where the rear leaf spring perches are normally located on the truck. The holes will need to be drilled and tapped into the side of the frame. 3/8" bolts work the best.

23. If using the Hadley SAMS Air Control System, the best place to mount the controls is in the spare tire area.

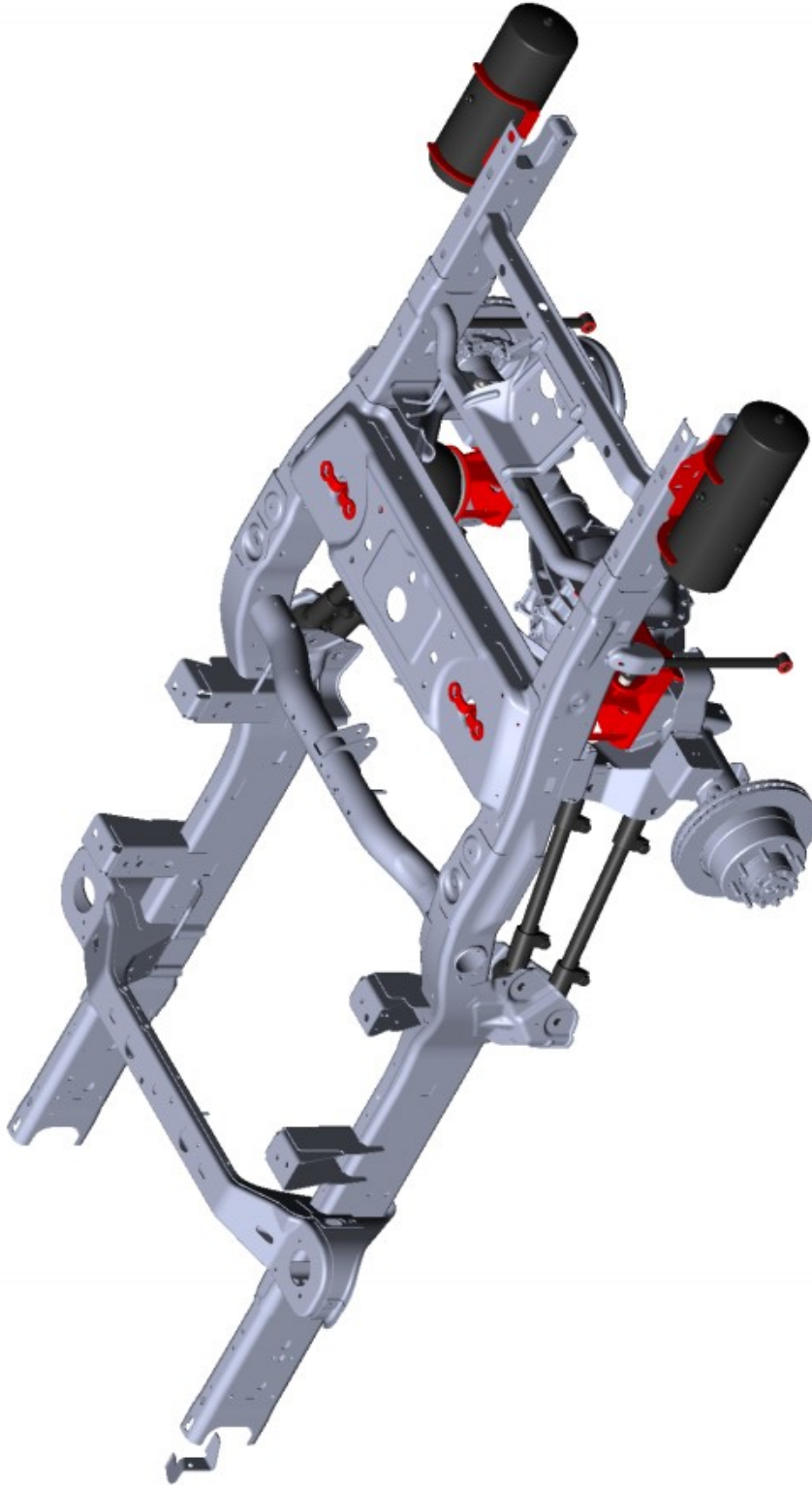


24. Locate the air compressor mount. It can be welded or bolted to the cross member on the frame. On this installation, the compressor system was crowded towards the drivers side in order to leave room for a larger aftermarket exhaust. The dryer was mounted to the drivers side frame rail.

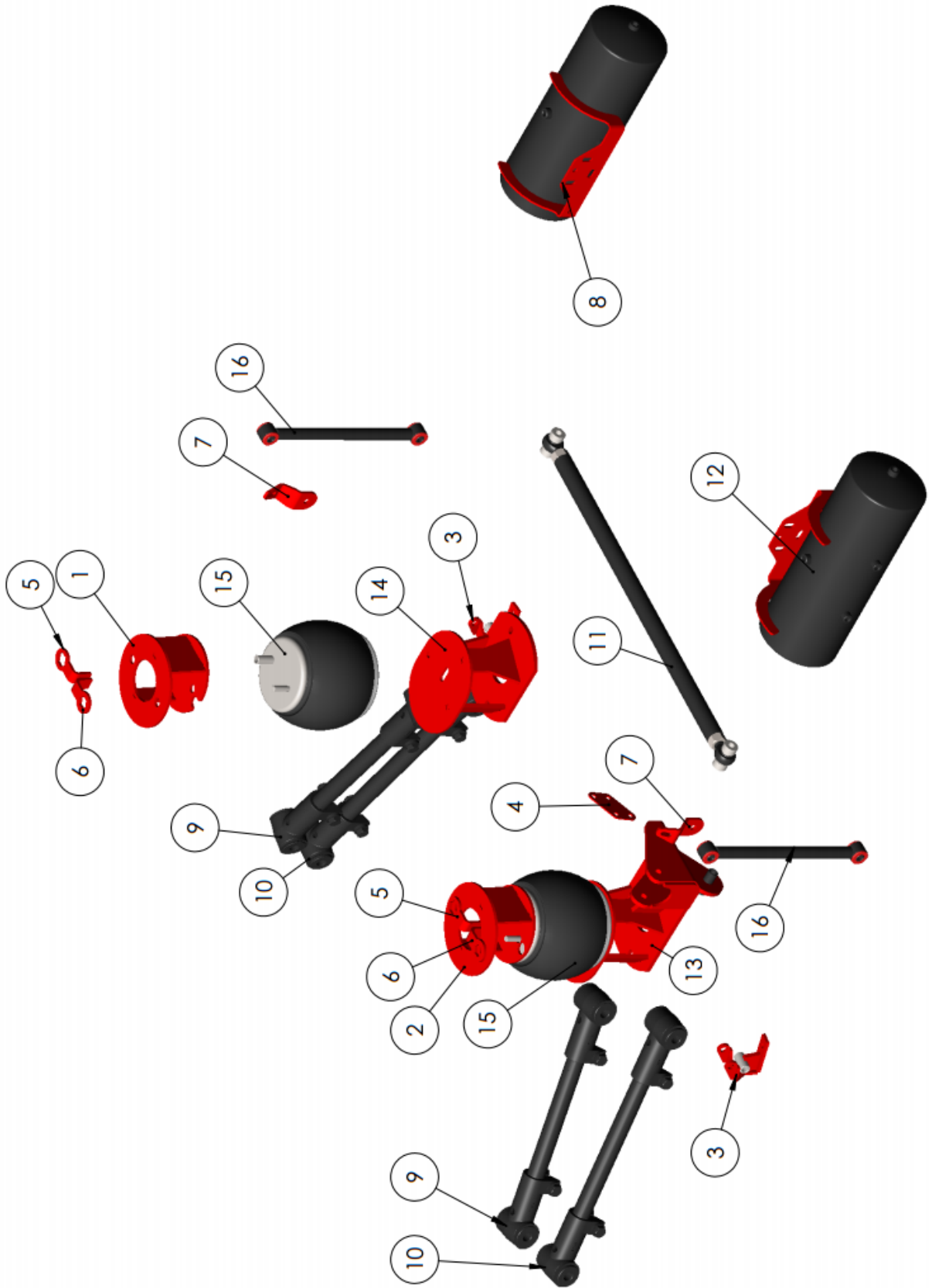


Passenger side front sensor installed. The sensor mount gets welded to the inside of the truck frame. Be sure to use a battery protection device (anti surge) before welding. The linkage is 10 3/4" long. The lower ball is drilled and tapped into the trailing arm 19 1/4" from the center of the rear trailing arm bolt.





UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES FRACTIONAL: 1/32" ANGULAR: MACH: 1 BEND: 1 TWO PLACE DECIMAL: ±.030 THREE PLACE DECIMAL: ±.010	Design By:	Zach Beltz 2014	Project: 2014 Dodge G5 2500 5-6" Lift (Rear) Coil Replacement
	Shelf # / Qty		
	Inventory		SIZE DWG. NO. A D4R4-2-X-14-6
	Run Qty:		SCALE: 1:50 DO NOT SCALE DRAWING SHEET 1 OF 3
MATERIAL	PROPRIETARY AND CONFIDENTIAL		
FINISH	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KELDERMAN MFG. INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KELDERMAN MFG. INC. IS PROHIBITED.		
WEIGHT	588.66		



ITEM NO.	PART NUMBER	DESCRIPTION	Kit/QTY.
1	19106	(PS) Upper Bag Mount	1
2	19107	(DS) Upper Bag Mount	1
3	19041	Shock Relocation Bracket	2
4	19046	Brake Line Relocation Bracket	1
5	19113	3/4" Bolt Tool	2
6	19114	5/8" Bolt Tool	2
7	19161	End Link Mounting Ear w/ Bends	2
8	19049	Air Tank w/ Mounting Bracket	1
9	19051	18.5" Trailing Arm	2
10	19052	20" Trailing Arm	2
11	19167	Pan Hard Bar	1
12	19050	Air Tank w/ Mounting Bracket	1
13	19124	(DS) Lower Bag Mount	1
14	19135	(PS) Lower Bag Mount	1
15	5323	FIRESTONE AIR BAG - 5323	2
16	19136	15" End Link	2

Please call 1.800-334-6150 for and install questions or technical assistance. Kelderman Air Suspension Systems is open M-F, 7:30-4:30 CST on weekdays.