

Version 1.1  
KLM51817



*kelderman*

**AIR SUSPENSION SYSTEMS**

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**2013+ RAM 3500**  
**2014+ RAM 2500**  
**Front 3" Lift Kit**  
**Installation Instructions**

A 1/2 x 20" and 5/16 x 18" tap is required for installation. A welder is also needed.

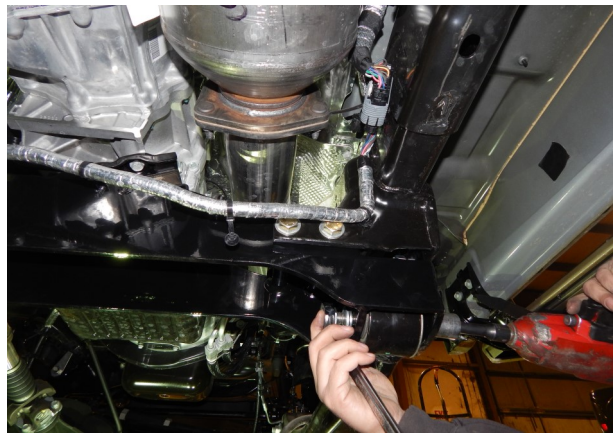
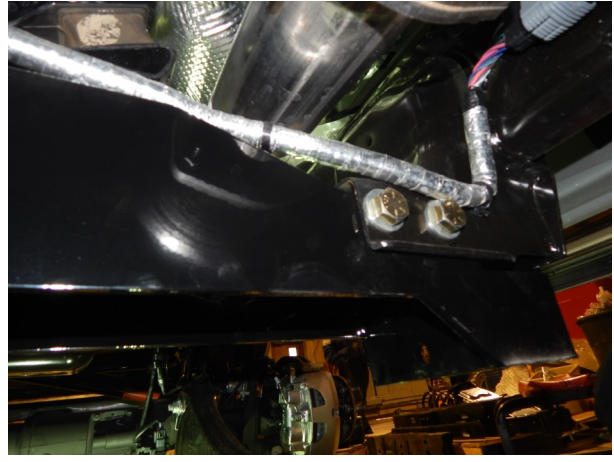




2. Place a jack under the transfer case. Remove the 3 nuts from the transmission mount where it fastens to the cross member. Remove the 4 bolts that hold the transmission cross member in place and remove the crossmember. Remove the 2 bolts that fasten the radius arms to the frame. Keep the nuts for the transmission mount, the other bolts will not be used.



3. Locate the crossmember (part # 18291). It fastens into the factory cross member holes with the four 5/8 x 6 1/2" bolts. Use the M18x40 bolts to fasten the side of the cross member into the original control arm mounts. Torque these bolts to 150 ft./ lbs. Locate the three factory transmission nuts and fasten them to the crossmember. Torque to 40 ft./lbs.

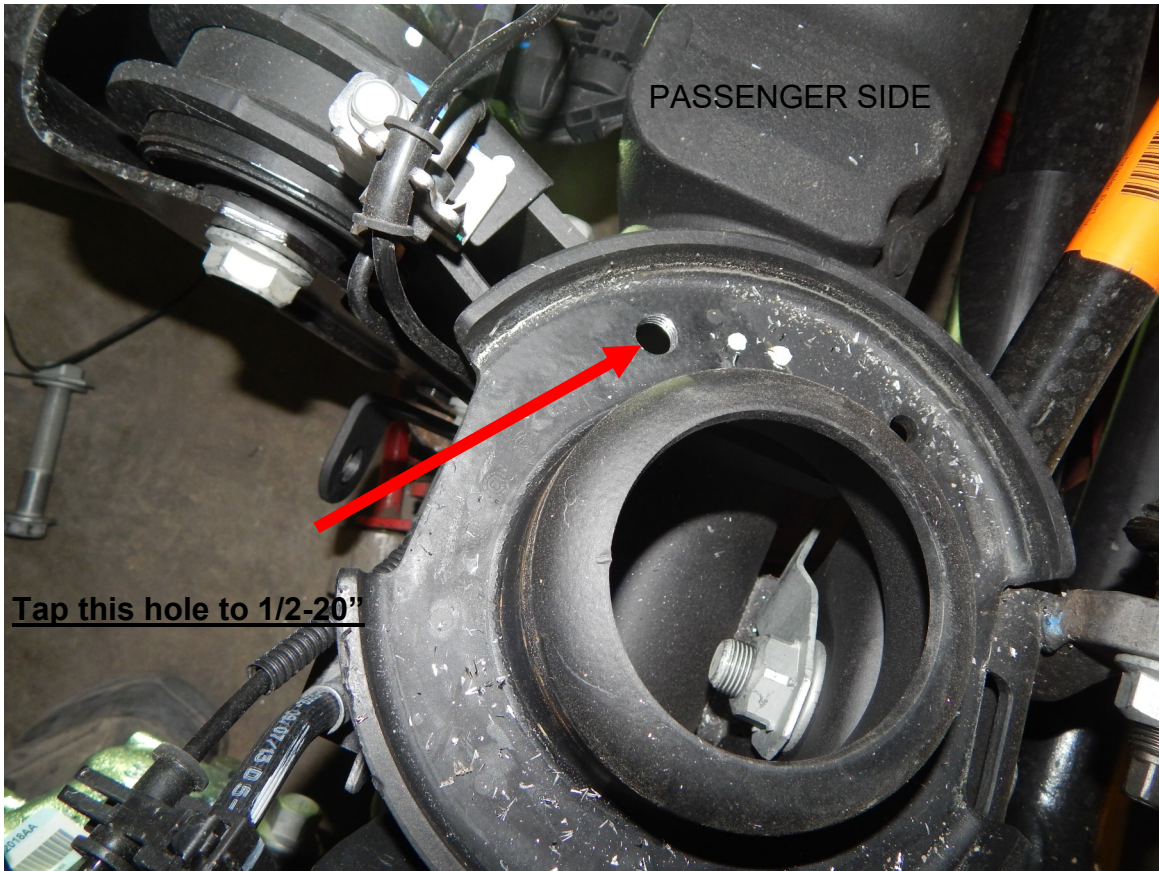


4. Fit the factory control arms into the new crossmember. Use the supplied M18x140 bolts. Insert them from outside in and torque to 150ft/lbs.

5. The 3" kit will retain the use of the factory pitman arm. To adjust for changes in the height, an adjustable track bar must be installed.



6. Locate lower bag mounts (part # 18269 DS and 18274 PS). Find the holes in the bottom of the spring bucket. The hole towards the rear of the truck will be tapped to 1/2-20". Once that hole is tapped, drop the lower bag mount in fasten with the 1/2 x 1" bolt. Drill a 13/32" hole into the raised center portion of the bucket. Once this is done insert the 3/8 x 1 1/2" bolt and torque both bolts to 35 ft./lbs.





This plate needs to be parallel with the ground at ride height.

Drill out this hole for a 3/8"



7. Locate the upper bag mounts (part # 18455 DS and 18456 PS). There are 2 holes in the upper coil spring bucket. The rear hole is big enough for a 3/8" bolt. Hold the upper bag mount in place, line up the rear hole and mark the other hole. Pull the upper bag mount, center punch the mark and drill 13/32". Fasten the upper bag mount in place with the two 3/8 x 1 1/2" bolts. Torque them to 35 ft./lbs.

8. Locate the 5323 (part # F5323) airbags. Fasten them into the upper and lower air bag mounts. Use the 3/4" and 1/2" nuts and lock washers on the top and the 1/2 x 3 1/2" bolt on the bottom (with flat washer and lock washer). Tighten all the nuts and bolt to 35 ft./lbs. Locate the air fitting and install into the air port on top of the bag. Tighten finger tight then one complete turn after that.



**NOTE:** The passenger side upper spring bucket has a gusset welded on from the factory. The drivers side does not have this bracket. A weld in bracket is supplied for the drivers side (Part # 18436). Once you have the air bag installed, wrap up the air bag and mounts and weld the gusset in place. Make sure not to put the gusset too close to the air bag or it will rub on it. Once you have this mount welded in, paint it black to match the chassis.

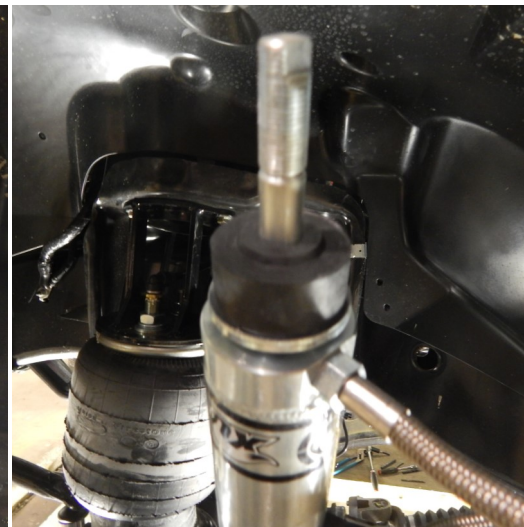
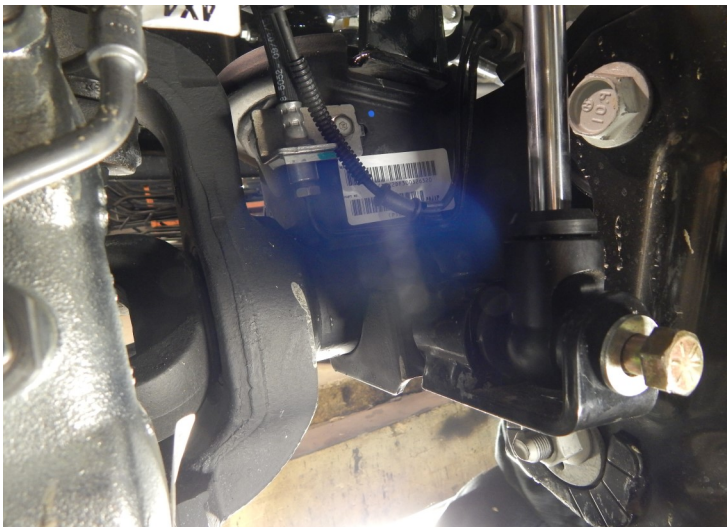


Weld the gusset into place to support the bucket.





9. Locate the shocks and lower shock mounts (part # 18378). Fasten the lower end of the shock into the shock mount with the 9/16 x 5 1/2" bolt and slide the round end of the mount in the factory shock location on the axle. Torque this bolt to 125 ft./lbs. Locate the rubber bushings and steel cups. Place a cup (dish side up) on the shock and then slide a bushing (large ring up) over the shock and slide into the factory shock mount.





10. Place a bushing over the shock shaft so the large ring is down. Put the washer dish down. Thread on the lock nut until it bottoms out.



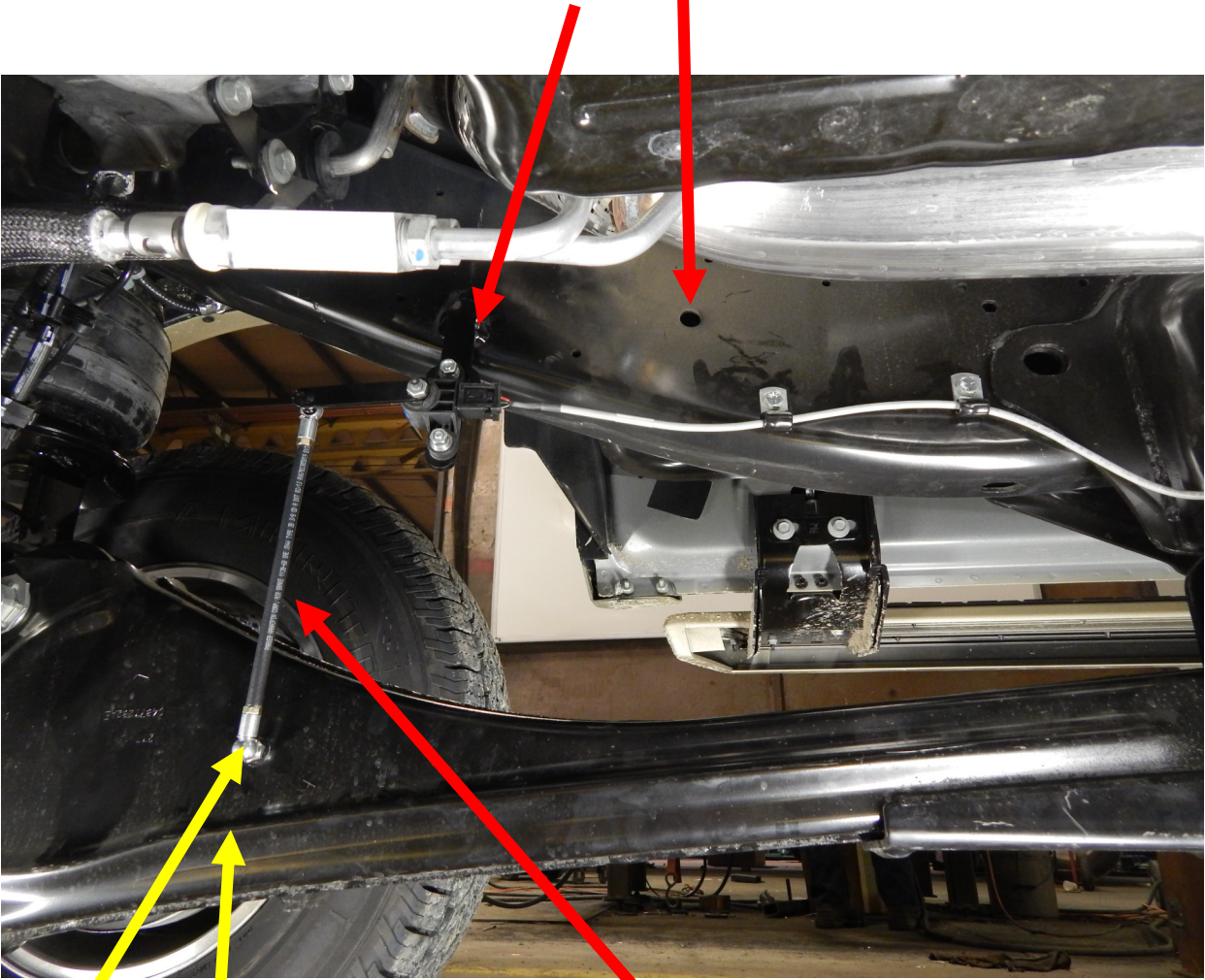
Large ring goes into factory shock mounting hole



Small ring goes towards the steel dished washer

11. Locate the sensor, sensor mounting bracket, ball stud and linkage. Use the information in the picture below to weld the sensor bracket to the inside of the frame and where to drill and tap the control arm for the ball stud.

Edge of sensor mount to edge of hole 6"



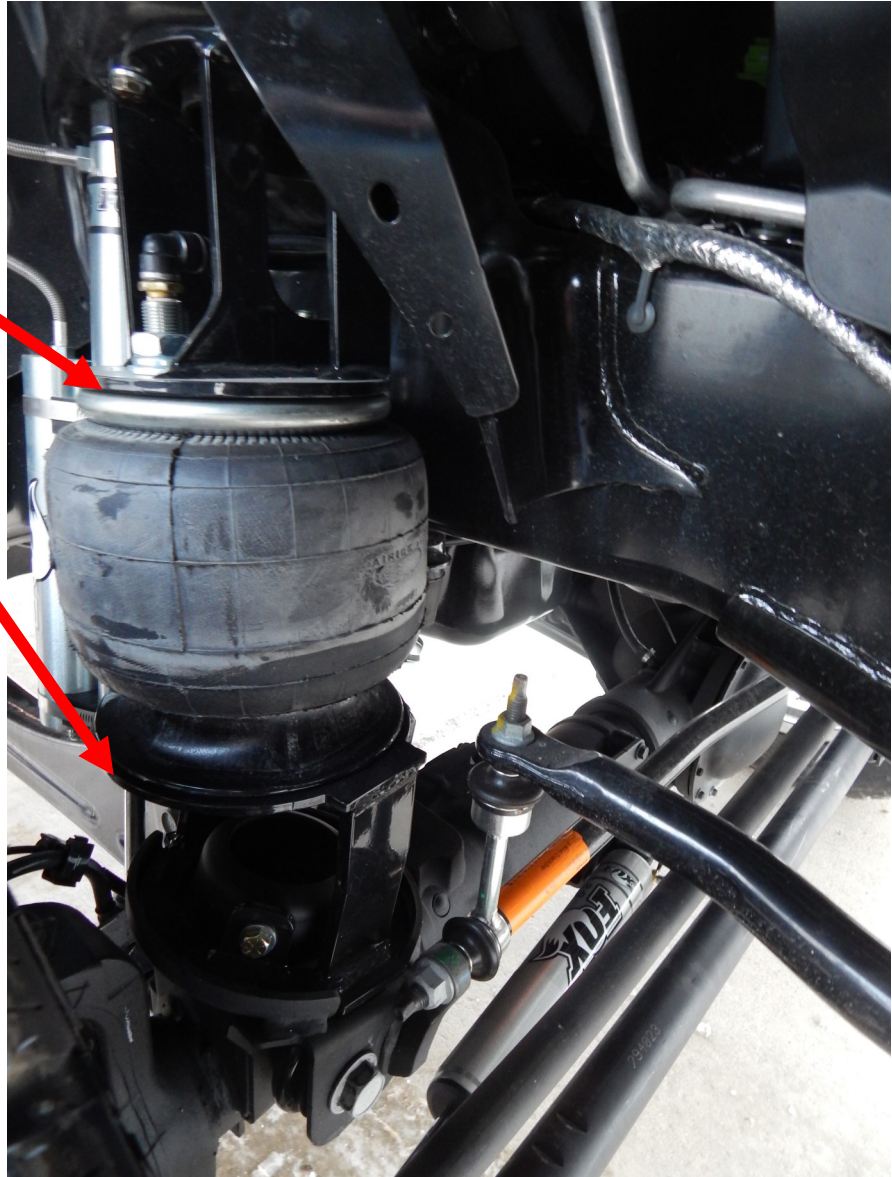
Linkage is 8 3/4" long

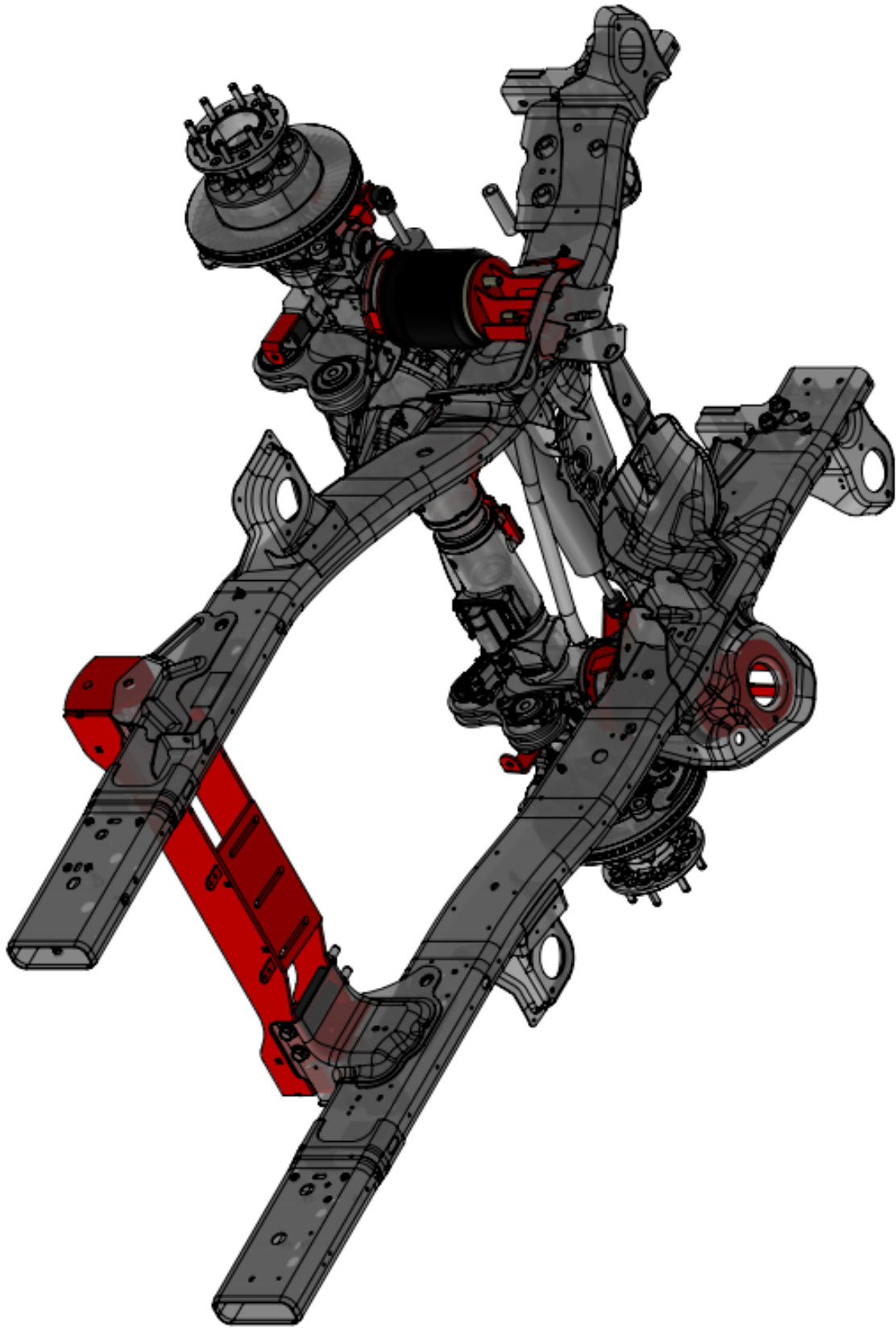
Center of ball stud to ridge on control arm 1 3/4"  
center of ball stud to trailing arm pivot bolt 27"

12. When programming the control system, the front air bag needs to run at a ride height of 7 1/2-8 1/2." When measuring the air bag, measure between the mounting brackets.

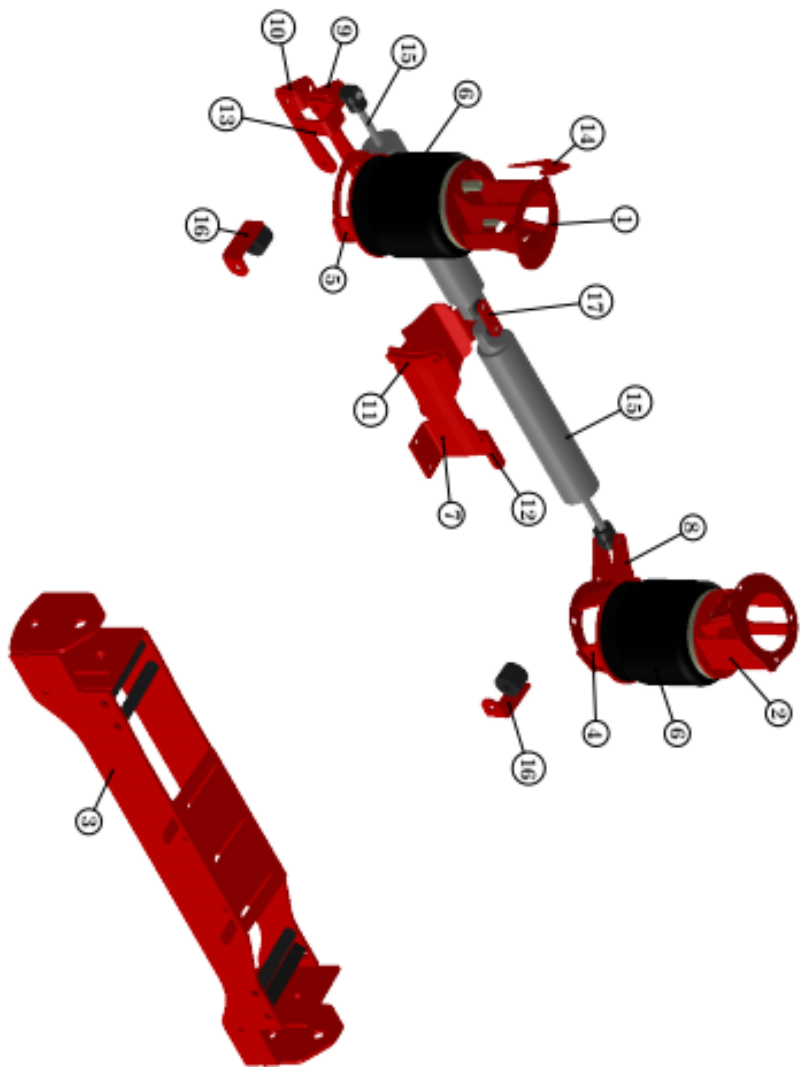
13. Once the truck has 300 miles on it re-torque all the bolts. Check the bolts at regular service (oil change) intervals after that.

Ride height of air bag is between 7 1/2-8 1/2" measure here





ITEM NUMBER	DESCRIPTION	QUANTITY
1	(DS) Front Upper Bag Mount	1
2	(PS) Front Upper Bag Mount	1
3	Front Transverse Crossmember	1
4	(PS) Front Lower Bag Mount 1" LHM	1
5	(DS) Lower Bag / Axle Mount	1
6	80012-5323 Frestone 5323	2
7	18443 Steering Stabilizer Bracket	1
8	18400 (PS) Shock Mount	1
9	18389 (DS) Shock Bracket	1
10	18409 (DS) Shock Bracket	1
11	18399 3/8" & 1/2" Spacer	1
12	18396 3/8" Spacer	1
13	18397 Axle Mounting Bracket w/ Bends	1
14	18436 (DS) Frame Support Gusset	1
15	985-24-068 Fox Shocks	2
16	18378 Fox Remote Shock Mount	2
17	20227 Shock Stop	1



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES, UNLESS SPECIFIED FRACTIONAL: ± 1/32" ANGULAR: MATCH ± .5° TWO PLACE DECIMAL: ± .03 THREE PLACE DECIMAL: ± .010		DESIGN BY ZPB	DATE Wednesday, June 7, 2017 10:38:31 AM
MATERIAL	PROPRIETARY AND CONFIDENTIAL	NEW DXF	Project: 2013+ Ram 2500/3500 Pickup
FINISH	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF KESLERMAN MFG. INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF KESLERMAN MFG. INC.	RUN QTY	TITLE: 3" LHM (Front)
		DWG. NO.	KLM-51817
		SCALE:	1:24
		DO NOT SCALE DRAWING	



Commercial Product Warranty, Disclaimers and Warnings  
Kelderman techs are available at 641-673-0468 M-F 7:00-4:00 CST

Kelderman Air Suspension Systems offer a 3 year/ 100,000 mile Limited Warranty, parts and labor, to the original retail purchaser who owns the vehicle on which the unit was installed, for defects in materials and workmanship related to the fabricated parts. Non fabricated parts such as air bags, air compressors, gauges, solenoid kits, and electronic or mechanical air ride control systems are covered for 1 year/ 50,000 miles for parts and labor. In cases where ride control systems manufactured by The Air Lift Company or Hadley Products are provided, the ride control warranty in this document will not apply. Instead, the warranty will be that of Hadley and Air Lift.

Kelderman Air Suspension Systems must be contacted for warranty authorization before any diagnostic work or repairs are performed. At that time, Kelderman will provide diagnostic assistance and authorization for the repairs if warrantable. Any unauthorized diagnostic work performed before contacting Kelderman will not be covered under the warranty program if deemed unreasonable.

Kelderman Air Suspension System does not warrant any product for finish, alterations, modifications and/or installation different from Kelderman's instructions. Alterations / modifications to the final product include, but are not limited to powder coating, plating, and/or welding which will void the warranty. Some damage may occur to the finish of the parts during shipping. This is considered normal and is not covered under warranty.

Kelderman tries to ensure that the suspension parts fit the vehicles they were designed for, but due to unknown vehicle manufacturer's production changes and/or inconsistencies by the vehicle manufacture, Kelderman cannot be responsible for 100% fitment.

Kelderman's obligation under this warranty is limited to the replacement of the defective parts only. Freight charges, incidental or consequential damages are expressly excluded from this warranty. Kelderman is not responsible for damages and/or warranty of other vehicle parts related or non-related to the installed Kelderman Air Suspension System. This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been subject to accident, negligence, alteration, abuse or misuse as determined by Kelderman.

Kelderman Air Suspension Systems are designed to be installed, and run at the recommended ride heights provided by Kelderman. All warranties will become void if Kelderman systems are run outside the recommended ride heights, or if the systems are combined/substituted with other suspension kits. Combination and/or substitution of other components may cause premature wear and inhibit the Kelderman Air Suspension from operating as designed, which may cause severe injury or death. Kelderman does not warrant parts not manufactured by Kelderman.

It is the installer and sellers reasonability to review all these warranties, warnings and disclaimers with the consumer prior to installation.

Kelderman reserves the right to supersede, discontinue, change designs, finishes, part numbers and/or applications of parts deemed necessary without written notice. Kelderman is not responsible for misprints, or typographical errors within the catalog or price sheets.