

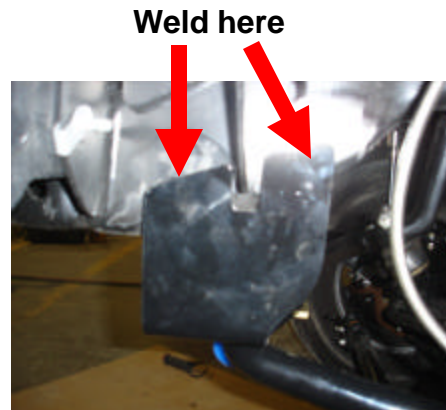
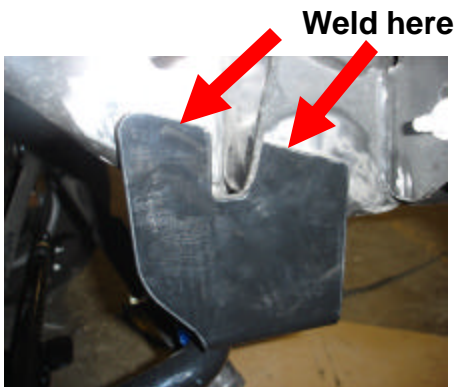


2686 Highway 92 - Oskaloosa, IA 52577
phone: 641.673.0468 - fax: 641.673.4168
www.kelderman.com

2008 Ford SD Front 6-8" Lift Kit Installation Instructions



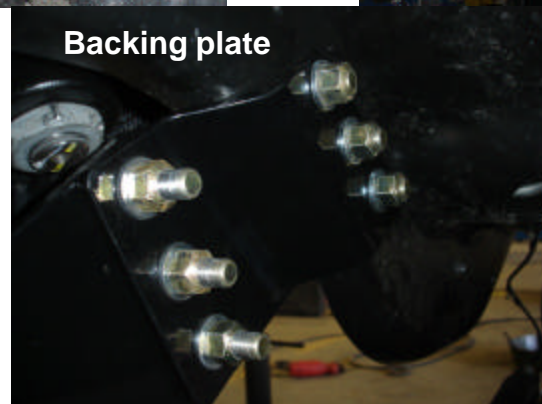
1. Before you remove anything off the truck, measure the pinion angle on the bottom of the differential. Make sure to record the measurement here _____. Once the kit is installed, it is required to put the axle back to this measurement. This will keep the correct caster and camber.
2. Remove the transmission skid plate and then remove the front driveshaft. Disconnect the sway bar end links and remove the 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. Remove the tires, shocks, steering arm, pitman arm and factory steering stabilizer shock. Let the jack down and remove the coil springs (they should have little tension left 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. Also, remove the upper brake line bolt that holds the brake hose located by the rear side of upper coil bucket.
3. Remove the factory trailing arms. Remove the yellow bump stop and remove the bolt that held the mounting cup in place. These will not be reused. Use a torch or grinder to remove the upper coil bucket and factory trailing arm mount. Grind the rivets down to the frame and use a punch and hammer to knock the punches out.
4. Install the sway bar drop brackets (part # 16441 DS and 16442 PS). Use the factory bolts that go into the frame. It will be required to weld the outside tabs to the side of the frame.



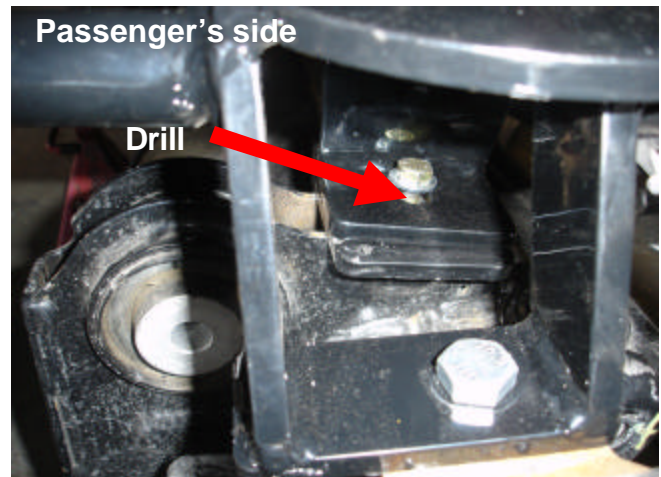
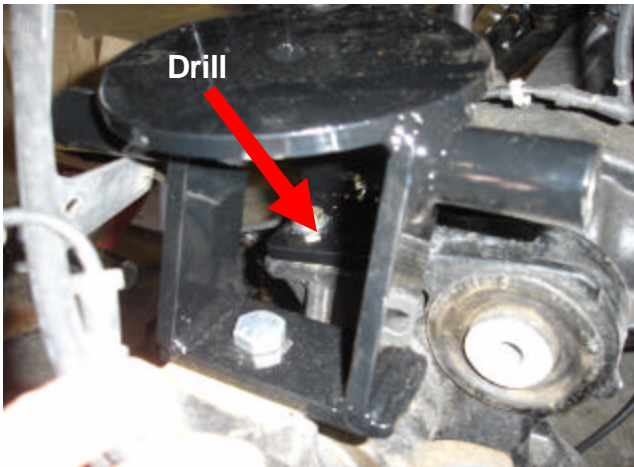
NOTE: When welding on a vehicle either disconnect the batteries or use a battery saver / anti-zapper to prevent damage to the electronics.



5. Remove the factory pitman arm and install the dropped pitman arm (FA 450). Tighten to a minimum of 275 lb/ft. Reconnect the steering arm and make sure to reinstall the cotter pin and nut cover. **NOTE: You will need to re-torque the pitman arm at 400 miles. This required the pan hard bar drop bracket to be removed.**
6. Install the pan hard bar drop bracket (part # 16636). You may need to grind on the front side of the factory engine cross member to get the support arm to sit flush with the three supplied spacers. Use six 1/2" x 1 1/2" bolts to fasten the pan hard bar drop bracket and backing plate to the engine cross member. Leave all the bolts loose and tighten after they are all started. Use the 20mm to fasten the factory pan hard bar to the drop bracket.



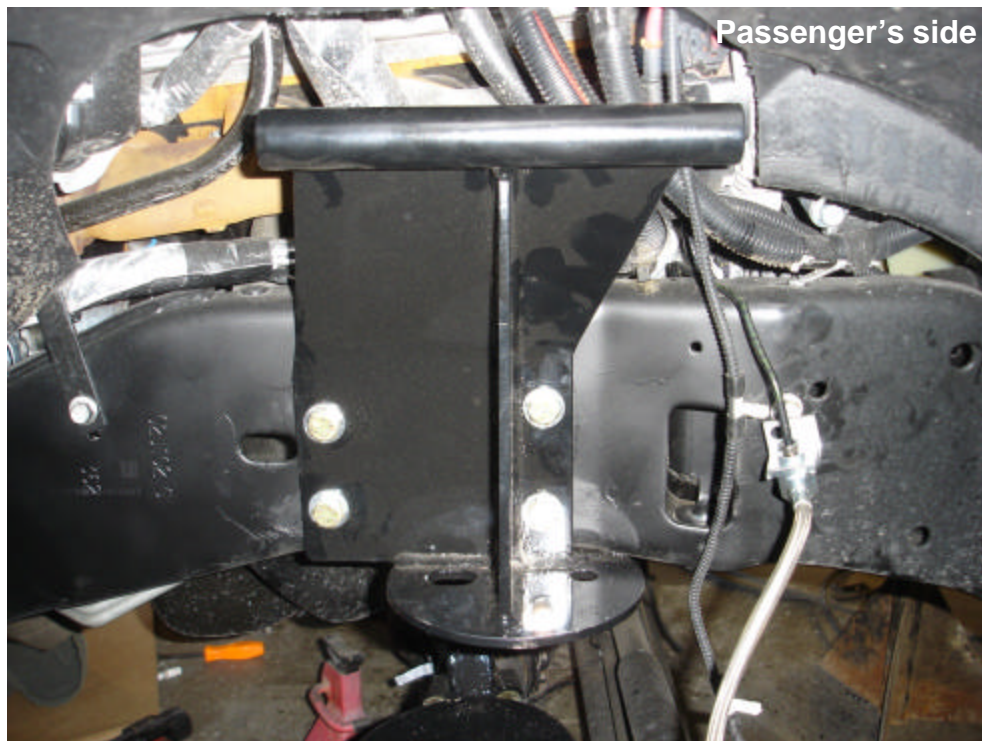
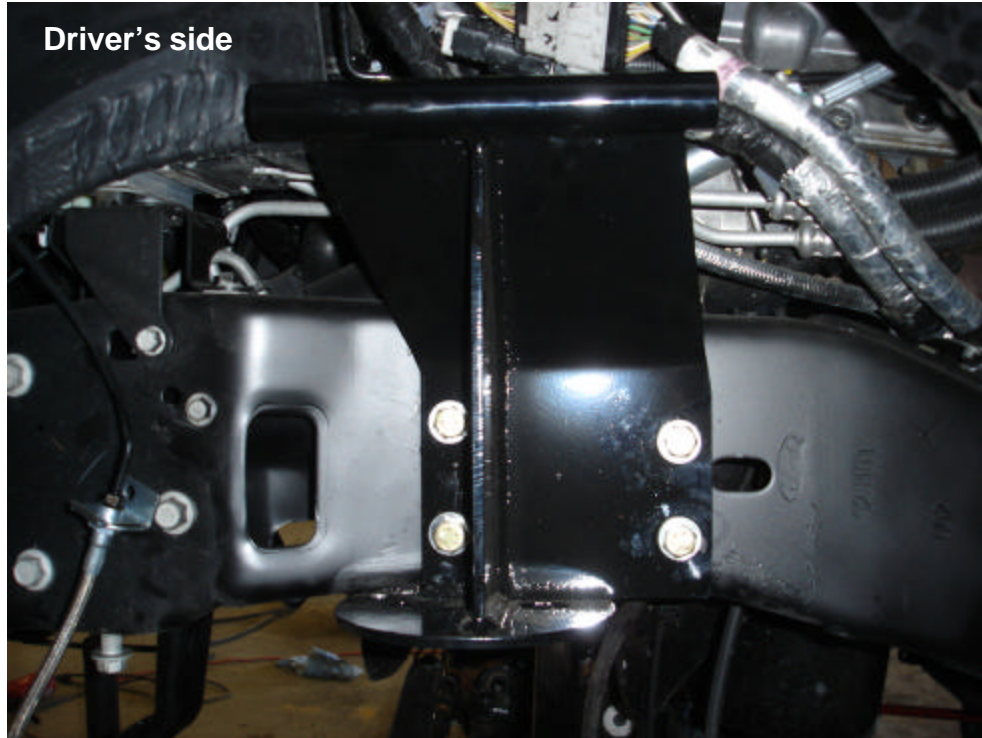
7. Locate the lower driver's side lower air bag bracket (part #11121 DS). Set in place and mark the hole on the of the axle casting where the factory rubber bump stop would normally come into contact with. Remove the bracket and drill a 1/2" hole in the center of the marked hole. Next, locate the passengers side lower air bag bracket (part #11120 PS) and position it on the axle. You will have to drill another hole in the axle just as you did on the drivers side.



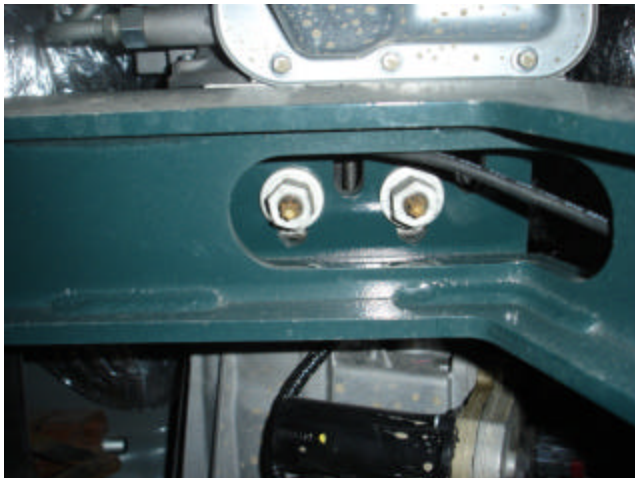
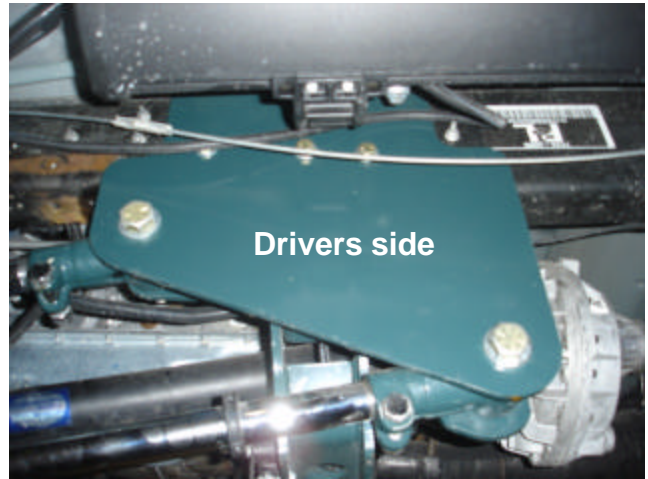
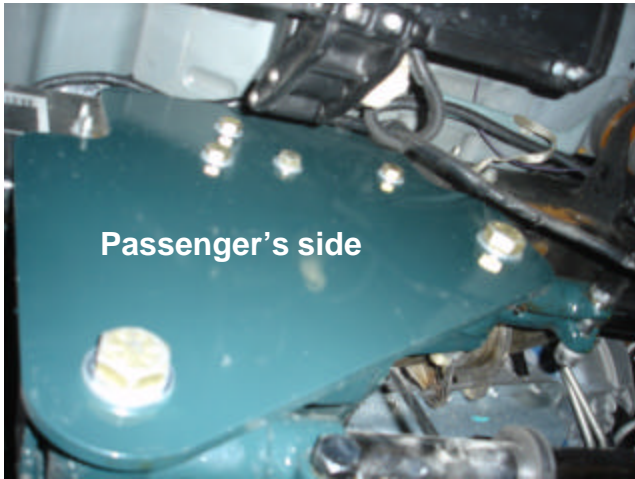
8. Start the 14mm bolts (do not tighten) that hold the lower air bag mount to the axle. Next, start the 7/16" x 2" bolts in the holes you drilled in the axle. Locate the cross member (part #10565) that connects the two bottom air bag brackets together. Use the four 1/2" x 1 1/2" to fasten everything together. Once all the bolts are started, go ahead and tighten starting with the 14mm and 7/16" bolts.



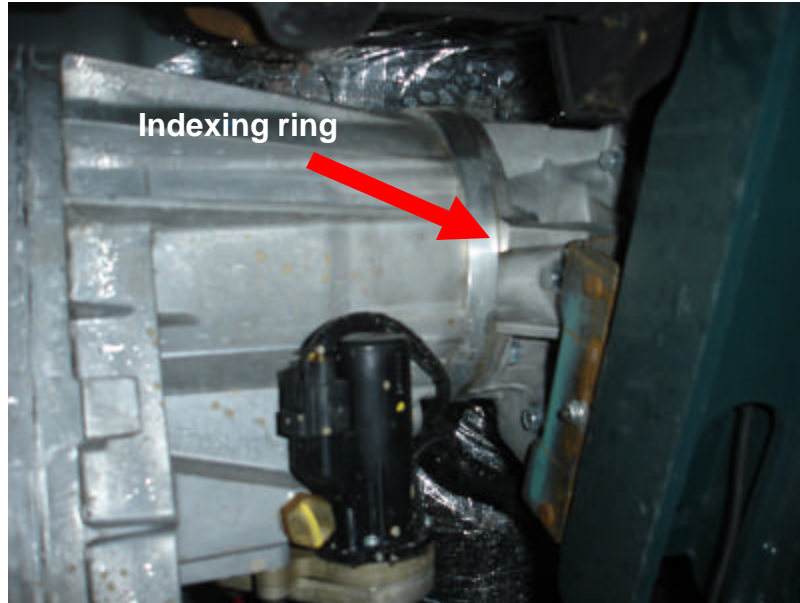
9. Locate the upper air bag brackets (part #10000 PS and #10482 DS) It will be required to drill out the four 3/8" holes in the frame out to 1/2". Once you drill out the holes, use the four 1/2" x 1 1/2" bolts to fasten the bracket in place.



10. Place a jack under the transmission / transfer case and remove the factory transmission cross member. Locate the trailing arm brackets (part #11100 DS & #10999 PS) and fasten them to the frame using the 1/2" x 1 1/2" bolts. You will have to drill two 1/2" holes in the side of the frame and enlarge the 2 holes in the bottom of the frame. Fasten the bracket to the frame and use a center punch to mark the location. Remove the bracket and drill the holes. Put the bracket back on, install the bolts, but do not tighten yet.



11. Locate the indexing ring. Start the installation of the indexing ring by removing the rear driveshaft, unhooking the wiring and vent line. Remove the six factory bolts that hold the transfer case in place. Refer to the instructions supplied with the indexing ring.



12. Once the right and left hand brackets are installed, transfer case is indexed, locate the transmission cross member (part #10288) Install in place using the four 5/8" x 5" bolts. Once the cross member is installed, tighten all the bolts for the trailing arm brackets, cross member, and transmission.

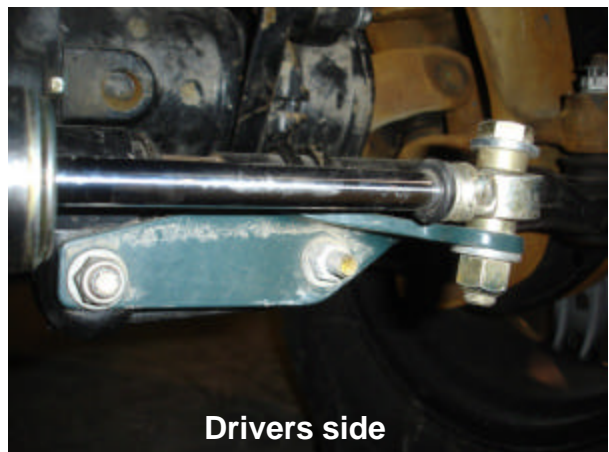
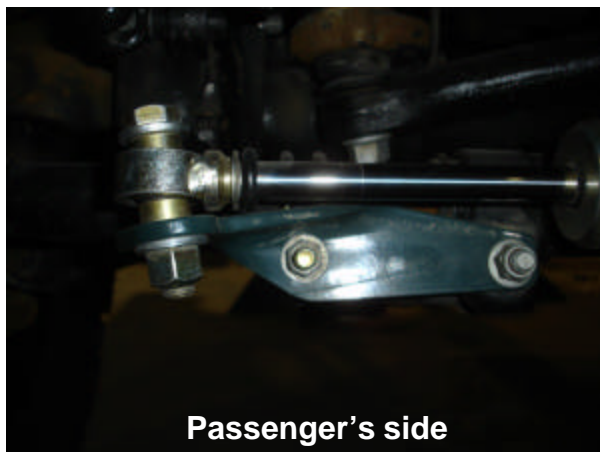
13. Locate the upper trailing arms (part #11107) and lower trailing arms (part #11108). The shorter arms go on top while the longer bolts go on bottom. Make sure that there are equal threads on each end. **MAKE SURE THE FRONT KNUCKLES ARE SPREAD APART.** Use the 7/8" x 5 1/2" bolts with flat washers on the rear and use the 18mm x 5 1/4" bolt on the front. Use the factory nuts with the 18mm bolts.



14. Locate the 5323 air bags (part #10580). Install in place using the 1/2" x 3 1/2" bolt, flat washer and lock washer in the bottom of the bag. Use the 1/2" and 3/4" nuts and 3/4" lock washers for the top of the bags.
15. Locate the 1 1/2" sway bar (part #16428). Fasten to the bottom of the sway bar drop brackets using the blue poly bushings and gold clamps with the 3/8" x 1 1/2" bolts. Hook up the end of the sway bar to the factory end links.
16. Locate the brake line extensions. Install and bleed the brakes.
17. Alignment. This can be done by manually filling the bags or after the control system is installed. Start by inflating the bags to 8". When measuring the bags, measure between the mounting brackets that hold the bag in place. Once the bags are at the correct height, put a pair of jack stands under the frame by the radiator and let air out of the bags. Locate the angle finder and use it to set the pinion angle back to the factory setting. This will put the caster and camber back to the factory setting. The next step of the alignment is to get the axle centered in the wheel well and squared up with the rear axle. At ride height, the bag should be 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 is installed and the rear axle is square, measure from the front side of the rear axle to the kingpin on the front axle. Make sure the measurement is within 1/8".

18. Shock installation. Once the front axle is aligned at ride height, locate the shocks. Use the 1/2" x 2" bolts to install the shocks. If using the 7100 series shocks, use the supplies spacers provided with the shocks. If using the 5150 series shocks, just use a flat washer on the end of the bolt. Once the shocks are installed and the truck is at ride height (bags at 8"), they should be straight up and down.
19. Locate the steering stabilizer kit (part #16429). Take out the middle two bolts on the passenger side of the diff cover. Locate part #16005 and place it on the front side of the axle. Use the bolts that you took out of the diff cover to fasten the right side of the bracket and use the four 1/2" x 1 1/2" bolts to fasten it to the backing clamp. Locate the shock end mounts (part #16007 DS & #16007 PS) and fasten them to the pinch bolts on the drag link. Next, locate the steering stabilizer shocks and install them with the 1/2" x 2" bolts, making sure to place a spacer on each of the heim end.

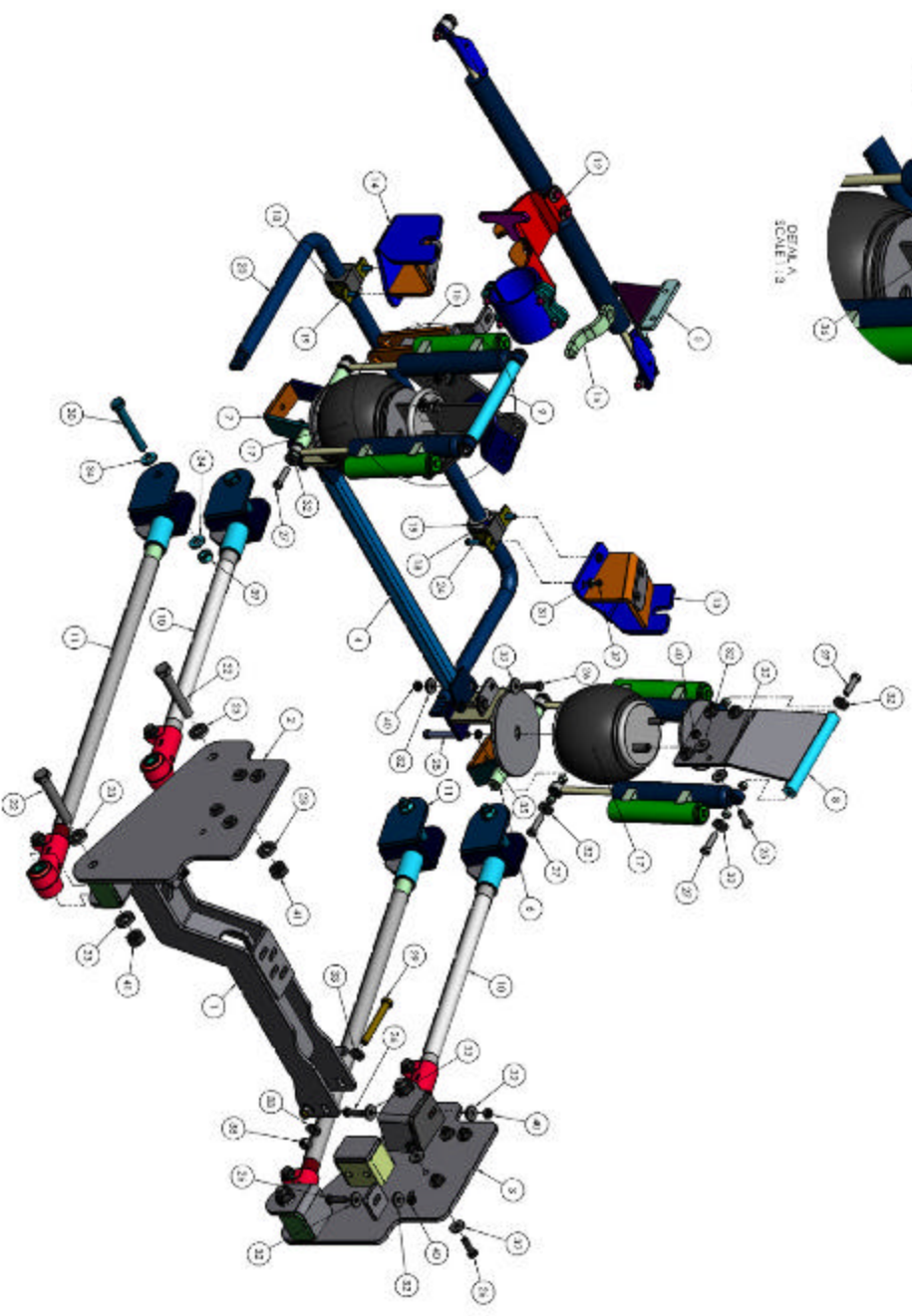
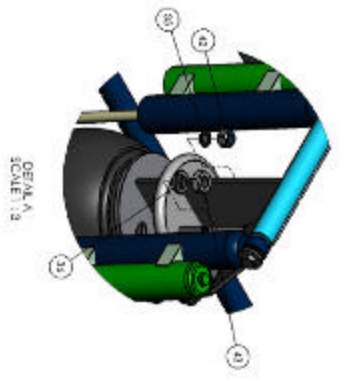


20. Install front driveshaft.

21. Test drive. Take the truck on a test drive. The truck should drive straight, but the steering will be off. If the truck pulls to the right, that means the right front needs to be pushed forward. If the truck pulls to the left, that means the left front needs to be pushed forward. Once the truck drives straight, adjust the steering wheel by turning the adjuster on the factory steering arm.

22. Final Check. Go over all the bolts to make sure they are torqued as recommended in the chart on page 2. It is recommended to check bolts every 5000 miles.

2008 - ~~SEAS~~
FORD F250/350 4X4
4-LINK - 6-8" FRONT LIFT
3 1/2" AXLE
KLM-15705-X



REVISIONS				
REV	DESCRIPTION	DATE	ENGINEER	APPROVED
—	CREATED	ISSUED	TI	TI

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1286	FRONT CROSSMEMBER	1
2	1110	WASHER - FRONT STEERING KNUCKLE	1
3	1248	WASHER - FRONT FERRIS P1	1
4	1246	CROSSMEMBER 2.16	1
5	1130	INSULATOR - UPPER CONTROL ARM	1
6	1120	UPPER FRONT END P1	1
7	1112	WASHER - FRONT END P1	1
8	1200	WASHER - LOWER CONTROL ARM	1
9	1108	TRAILING ARM - 25.00	2
10	1106	TRAILING ARM - 45.00	2
11	1442	SPRING STABILIZER ASSEMBLY - FRONT	1
12	1443	RIGHT SIDE SWAY BAR END CONNECTOR	1
13	1444	LEFT SIDE SWAY BAR END CONNECTOR	1
14	1445	SWAY BAR END CONNECTOR	1
15	1446	SWAY BAR END CONNECTOR	1
16	1274	INSULATOR - SWAY BAR END CONNECTOR	1
17	1275	INSULATOR - SWAY BAR END CONNECTOR	1
18	1447	INSULATOR - SWAY BAR END CONNECTOR	1
19	1448	INSULATOR - SWAY BAR END CONNECTOR	1
20	1276	INSULATOR - SWAY BAR END CONNECTOR	1
21	1277	INSULATOR - SWAY BAR END CONNECTOR	1
22	1278	INSULATOR - SWAY BAR END CONNECTOR	1
23	1279	INSULATOR - SWAY BAR END CONNECTOR	1
24	1280	INSULATOR - SWAY BAR END CONNECTOR	1
25	1281	INSULATOR - SWAY BAR END CONNECTOR	1
26	1282	INSULATOR - SWAY BAR END CONNECTOR	1
27	1283	INSULATOR - SWAY BAR END CONNECTOR	1
28	1284	INSULATOR - SWAY BAR END CONNECTOR	1
29	1285	INSULATOR - SWAY BAR END CONNECTOR	1
30	1286	INSULATOR - SWAY BAR END CONNECTOR	1
31	1287	INSULATOR - SWAY BAR END CONNECTOR	1
32	1288	INSULATOR - SWAY BAR END CONNECTOR	1
33	1289	INSULATOR - SWAY BAR END CONNECTOR	1
34	1290	INSULATOR - SWAY BAR END CONNECTOR	1
35	1291	INSULATOR - SWAY BAR END CONNECTOR	1
36	1292	INSULATOR - SWAY BAR END CONNECTOR	1
37	1293	INSULATOR - SWAY BAR END CONNECTOR	1
38	1294	INSULATOR - SWAY BAR END CONNECTOR	1
39	1295	INSULATOR - SWAY BAR END CONNECTOR	1
40	1296	INSULATOR - SWAY BAR END CONNECTOR	1
41	1297	INSULATOR - SWAY BAR END CONNECTOR	1
42	1298	INSULATOR - SWAY BAR END CONNECTOR	1
43	1299	INSULATOR - SWAY BAR END CONNECTOR	1
44	1300	INSULATOR - SWAY BAR END CONNECTOR	1