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2008 Ford SD Front 10-12" 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. Take it to a drive line shop and have it extended 1 1/8". 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 and 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 and 28 "cross member that goes between them. Use the factory bolts that go into the frame on top and use the 1/2" x 1 1/2" bolts on the cross member. 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. Install the dropped pitman arm (FA 650). Tighten to a minimum of 275 lb/ft. You will need to retighten at 400 miles.
6. Install the pan hard bar drop bracket. 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 spacers. 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. 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. Take the bracket and drill a 1/2" hole in the center of the marked

hole. You will need to repeat this step on the passengers side.

8. Fasten the lower air bag brackets in place using the 14mm bolt for the axle, 7/16" x 2" bolts in the holes you drilled in the axle, and (4) 1/2" x 1 1/2" bolts for the 28 3/4" cross member that connects the two lower air bag brackets together.
9. Locate the upper air bag brackets. 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 (4) 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 transmission cross member. Locate the trailing arm brackets 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. 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 and lower trailing arms. 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.** See fig. 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 front air bags. The 10-12" kit uses the 8979 bag. Install in place using the 1/2" x 4 1/2" bolt. Use the 1/2" and 3/4" nuts and 3/4" lock washers for the top of the bags.

15. Locate the new 1 1/2" sway bar. 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 11-12". 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 11-12"), they should be straight up and down.
19. Install front driveshaft. It should be 1 1/8" longer than stock.
20. 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.
21. 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.

