PERFORMANCE STEERING COMPONENTS

SK858

2014–2023 RAM 2500/3500 4WD CYLINDER ASSIST™ STEERING KIT

INSTALLATION GUIDE

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SK858 PARTS LIST

BOX 1

SG856R-Cylinder Assist™ Steering Gearbox

BOX 2

CAK858- Cylinder Assist™ Axle Kit

- **FL-SWE715 - Power Steering Fluid**
- **HK2062 - High Pressure Hoses**
- **SC2200K-RAM - Steering Cylinder Kit**

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1) **Center and secure steering wheel so that you can install new gearbox at the same alignment as the old one.**

   - Picture is from a previous build but still shows a similar process used.

2) **Remove bolt completely from lower steering shaft to gearbox connection. Slide shaft off and out of the way for gearbox removal.**

3) **Loosen and remove both factory steering lines from gearbox, drain what fluid you can into a pan, then move them out of the way for better access to the gearbox.**

4) **Remove the pitman arm nut and washer from the large threaded shaft. Then, using a pitman arm puller, remove the pitman arm from the gearbox completely.**

   - Note the direction that the pitman arm is pointing to make sure that when installed, the new gearbox will line up the same as the original.

5) **Remove the (3) bolts that go through the frame to secure the steering gear. We recommend having someone below the vehicle to hold the weight of the gear while someone else loosens and removes the bolts. Then pull the gear through the bottom of the vehicle.**

6) **Before installing the new PSC steering gear, remove the (2) cylinder assist port caps, and make sure that your mounting surfaces are cleaned and prepped.**

7) **Install new steering gear using the (3) factory frame bolts and tighten.**

- Torque to 115 ft-lbs

8) **Next, install factory pitman arm onto steering gear with lock-nut and washer.**

- Torque to 180 ft-lbs

9) **Re-Install the factory steering lines in the same ports that they were removed and tighten.**

10) **Slide the steering shaft onto steering gear - make sure the coupler slides on completely then secure with the factory shaft bolt.**

11) **Using an 11/16 drill bit, drill out the factory steering stabilizer bolt to fit the larger supplied mounting bolts.**

12) **Assemble the SC2200 cylinder kit with the supplied heim joints and locking nuts. The stationary side of the cylinder will be the side attached to the axle, the heim joint on this side will need to be threaded all the way in as well spacers on either side of the heim bearing.**

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13) **Using the (2) factory bolts, install the tie-rod mount bracket as shown above. Bolts need to be installed from the bottom up and secured with the factory nuts. The shaft side of the cylinder will be installed using this bracket and supplied hardware.**

- Torque tie-rod link bolts to 50 ft-lbs, and cylinder mount bolt to 70 ft-lbs

14) **Connect the cylinder assist high pressure lines to the gearbox and tighten. The longer hose will go to the top cylinder assist port on the gear. When tightening the connection try to angle the lines towards the front of the truck to clear the cross member and any sharp edges.**

15) **Next, connect the high pressure lines to the cylinder with the longer hose going to the passenger side and shorter hose to the driver side. For best hose routing, angle the fittings on the steering cylinder in towards each other.**

16) **Drill (2) 1/4” holes into the cross member to utilize the “P” style mounting clamps for securing the tops of the hoses. At full suspension droop secure the top half of the hoses to the cross member, then zip tie the lines together down towards the cylinder.**

17) **With the vehicle still in the air - check to make sure that you have the full steering stroke, smooth movement from the cylinder, and no binding issues with the steering or your hoses.**

18) **FINAL STEP: BLEEDING YOUR SYSTEM - Steps are lined out on the final page of this guide.**

NOTE: Bleeding is one of the most important steps of the whole process, make sure to take your time and follow the instructions to the best of your ability.

BLEEDING INSTRUCTIONS

With the kit installed, the last and most important step is adding the Swepco Power Seering fluid and bleeding the system of all air. Swepco is the Official Fluid Manufacturer for PSC. The kit includes four (4) quarts of Swepco 715 for use in the system. This part takes patience and diligence to do it properly - but it is critical to purge all the air out of the system to prevent damage to the pump.

Start by jacking up the front of the vehicle and put jack stands under the front axle. This allows it to be much easier to turn the steering wheel full right and left when there is no load resistance on the steering.

Next, start by adding the Swepco power steering fluid in the reservoir. Once it looks as though no more fluid is going into the system, turn the steering wheel from lock to lock (all the way right and all the way left) to pull more fluid through the system. Add fluid as necessary and repeat until the fluid level remains consistent. Then, put on the reservoir cap and start the engine for about 30 seconds - do not turn the steering wheel yet. The fluid will have disappeared in the fill tank and you can now add more fluid. Repeat this a couple of times, letting a few minutes pass between startups. The fluid gets very aerated during this procedure and sometimes you need to let it sit - giving it time to let the air bubbles work their way up and out of the system.

Now, start the engine and turn the steering wheel completely to the right and then left 10-15 times, shut the engine off for about 10 minutes and add fluid as necessary. Repeat this 3-4 times. This will really start pushing the air out, but again it takes time for the air bubbles to work their way out, so be patient and let the vehicle sit between each start for 10 minutes. Once you have done this a few times, the fluid level should stop dropping and no bubbles should be visible in the reservoir.

Remove the jack stands and lower the vehicle to put a full load on it. Drive the vehicle to build a little heat in the fluid (this helps bleed the remaining air out). Remember, if you hear the pump whine, it is aerating the fluid. Shut off the engine, let the fluid clear up and top off the reservoir to the factory line. Once the vehicle is shut off and the engine has cooled, take the cap off of the reservoir and have someone start the vehicle while you watch the fluid level in the reservoir. If the fluid level drops on start up then you will know that there is still air in the system. If it stays relatively close to the starting level then you should be good.

If you have any questions contact us Monday - Friday 9-5 CST at support@pscmotorsports.com

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