DATE: 5-19-17

APPLIES TO: This service bulletin applies to 2017 Model Year K2 motor home chassis built between August 22, 2016 and October 5, 2016.

CONDITION: Power steering pumps may be equipped with an incorrectly-sized orifice.

CORRECTION: Install new orifice.

LABOR ALLOCATION: 2 hrs.

CLASSIFICATION: V3

PARTS NEEDED:

QTY	Part Number	Description
1	S-2583-001	Kit-Pump, Fan/Strg. Orifice

Kit # S-2583-001 Contains:

QTY	Part Number	Description
1	2725-FF1-001	Orifice – Pump, Fan/Strg. 4mm
1	CSB17-260-001	Instruction Document

TOOLS NEEDED

- Torque wrench capable of 75 lbf-ft.
- Needle Nose Pliers
- 8mm Hex Socket
- 30mm Socket
- 18mm Socket
- Snap Ring Pliers

GENERAL INSTRUCTIONS:

Thoroughly review entire service bulletin before starting work. If there are questions or concerns with steps defined in this service bulletin, contact Spartan Motors USA, Inc. Customer & Product Support Group. 800-543-4277.

All applicable industry safety standards **must** be followed when performing work identified in this procedure.

STEP-BY-STEP INSTRUCTIONS:

WARNING

MAKE SURE ENGINE IS OFF, KEY IS OUT OF THE IGNITION, AND THE VEHICLE IS TAGGED NOT TO START/OPERATE, FOR YOUR SAFETY.

ALLOW HYDRAULIC SYSTEM TEMPERATURE TO COOL BEFORE STARTING WORK.

WHEN BREACHNG THE HYDRAULIC SYSTEM, BE SURE TO NOT LET ANY CONTAMINANTS SUCH AS DIRT, DEBRIS, ETC. TO ENTER THE SYSTEM. CONTAMINANTS MAY CAUSE FAILURE OF THE HYDRAULIC SYSTEM.

1. Remove the power steering pump support bracket from the pump & the engine block by removing bolts 1 & 2, allowing access to the hex head cover as viewed from bottom. Retain for re-use. Refer to FIG. 2-1

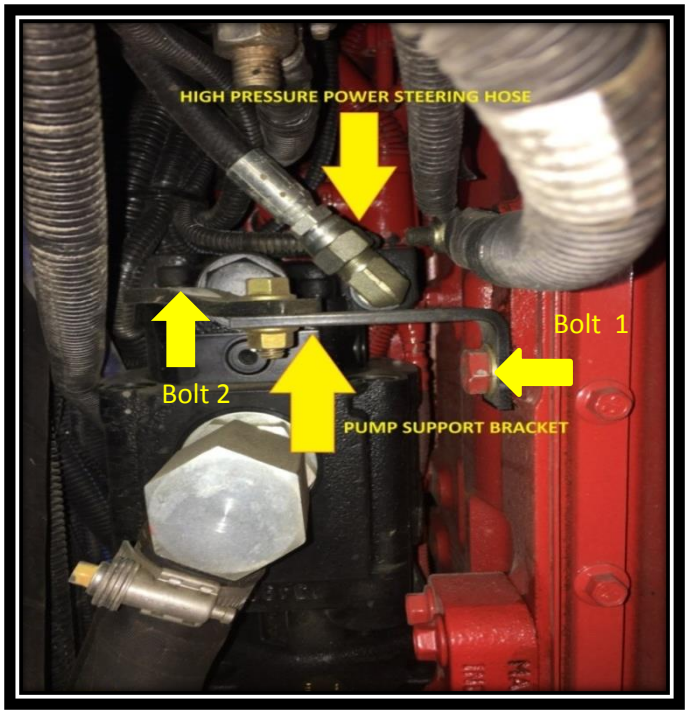

FIG. 2-1

2. Clean lower surface areas on pump with any available degreasing product to ensure that the pump is not susceptible to contamination once opened.

3. Install the 30mm socket on the hex head cover and remove the cover shown. NOTE: The cover will be under a slight spring pressure. Refer to FIG. 3-1.

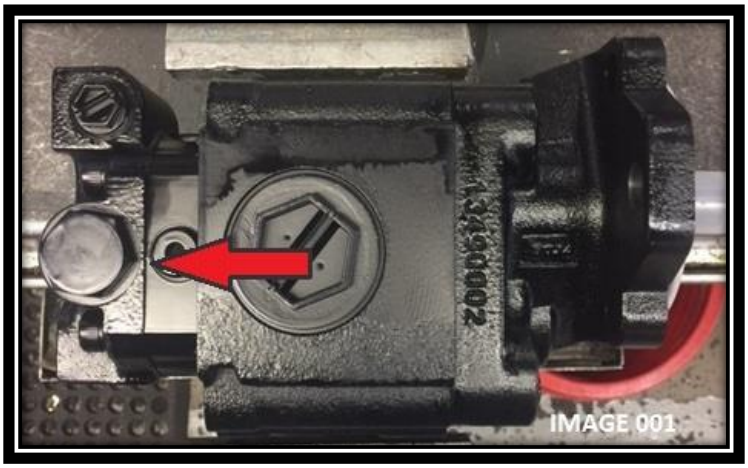

FIG. 3-1

4. Once the cover is removed you will have exposed both the spool and spring. Remove the spring and place in a clean, dry location. Retain for re-use. NOTE: Some oil will drain from this location upon removal of the cap. Be prepared as the spool may slide out on its' own due to gravity. Refer to FIG. 3-2.

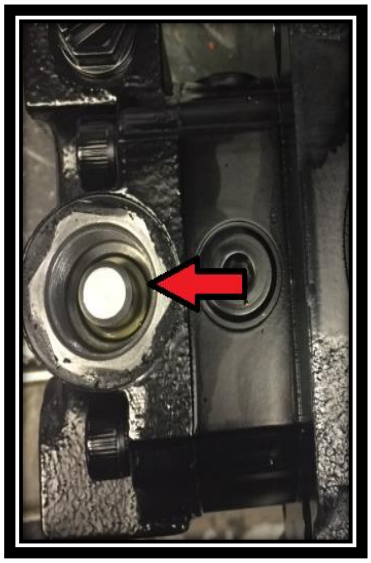

FIG. 3-2

5. Once the spring is removed, use the Needle Nose Pliers to remove the spool shown. **NOTE: It is important to reference that the position of the spool is with the orifice facing away from you.** Refer to FIG. 4-1.

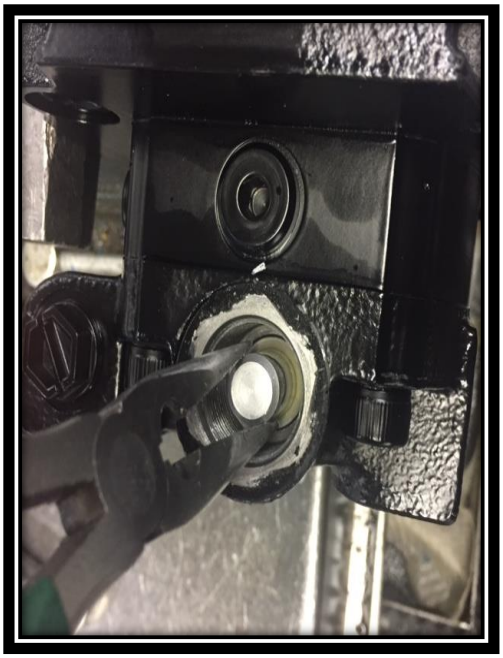

FIG. 4-1

6. Re-install retained hex head cover to minimize oil loss. This can be hand tightened.

7. Once the spool is removed, flip it over to expose the snap ring. Using the snap ring pliers remove the snap ring. Refer to FIG. 4-2 and FIG. 4-3.

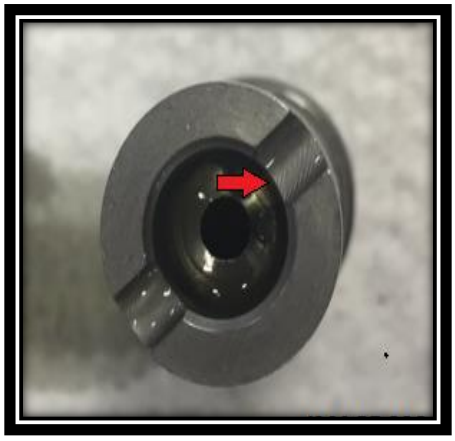

FIG. 4-2

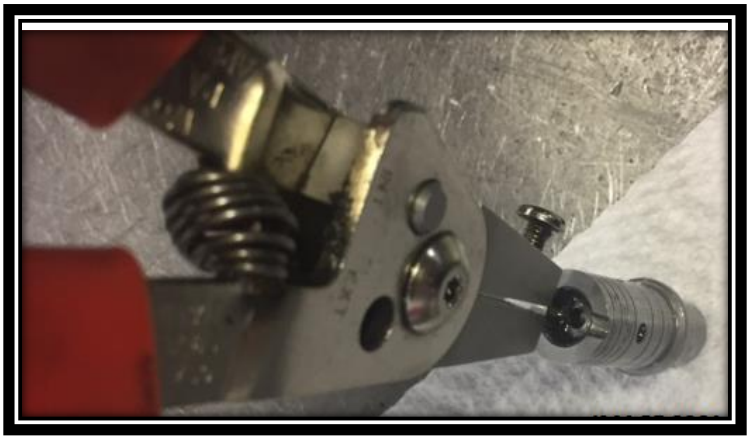

FIG. 4-3

8. With the snap ring removed, tap spool against palm of your hand to remove orifice disc. Note orientation of orifice in spool. Once removed, properly dispose of original orifice disc.

9. Remove certified orifice disc from packaging and install into the spool. Ensure that orientation is as per the original orifice disc.

10. Insert snap ring into the groove on the inside of the spool locking the orifice disc in place. **NOTE:** Use the snap ring pliers to spin the snap ring to ensure it is properly seated within the groove.

11. Remove hex head cover and insert spool into pump ensuring orifice disc is pointing away from you.

12. Replace the spring over top of the spool.

13. ReiInstall hex head cover and torque to 90 NM (66.4 lbf-ft). Refer to FIG. 6-1.

14. Re-install retained pump support bracket to following specifications.

NOTE: For the following instructions apply Loctite® 242® Thread locker to the bolt on the first five threads from end of bolt.

- Bolt #1 – Tighten to 47 lbf- ft torque with **Loctite® 242®.**
- Bolt #2 – Tighten to 52 lbf- ft torque.

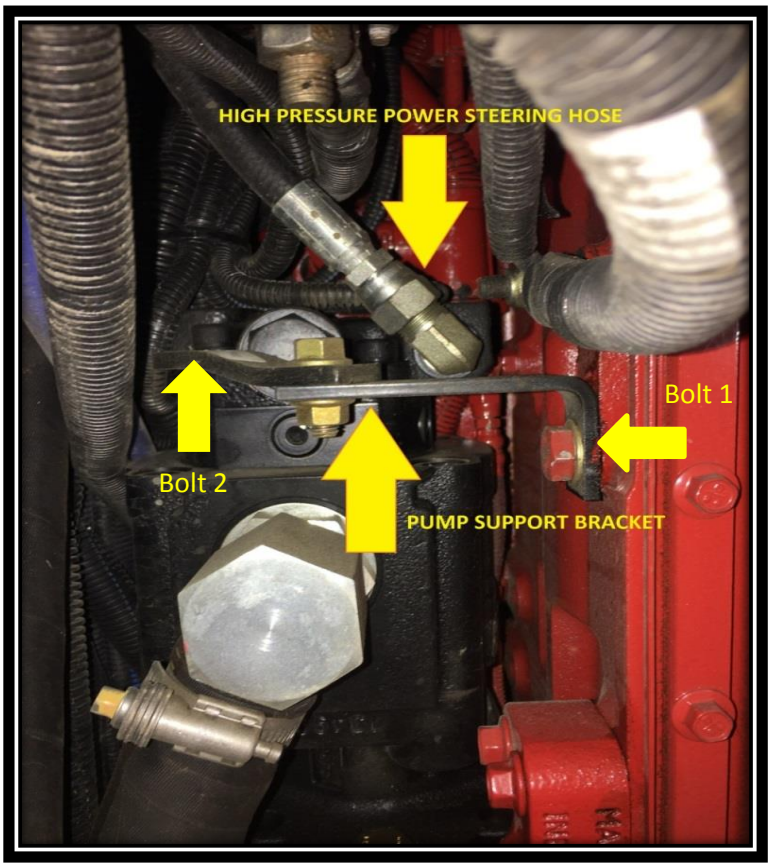

FIG. 6-1

15. Check oil level in the hydraulic reservoir and fill as needed per the dipstick. Use quality petroleum based ISO46 anti-wear hydraulic oil (AW-46).

16. Start the vehicle and bleed air out of hydraulic system by:

    A. Fill the reservoir nearly full, do not steer. Start and run engine for 10 seconds, then shut off. Check and refill the reservoir. Repeat at least three times, checking the reservoir each time.

⚠ CAUTION Do not allow the fluid level to drop significantly or run out of the reservoir. This may induce air into the system.

    B. Start the engine and let it idle for 2 minutes, do not steer. Shut off the engine and check the fluid level in the reservoir, refill as required.

C. Start the engine again. Steer the vehicle from full left to right several times. Add fluid as necessary to the full line on the dipstick. Automatic bleed systems should now be free from trapped air.

D. Run motorhome to verify power assist is present when turning the steering wheel and check for leaks.

17. After operation, check for any oil leaking from hex head cover. If a leak is present, verify hex head cover is seated properly.