Service Kit 753-05195

Date: 9/12/2005

Subject: 718-0684 Hydraulic Pump Service Replacement

Models Affected: N/A

Read through and understand these instructions completely before proceeding with repair.

PURPOSE: This service kit provides the new pump, coupler hardware, mounting hardware and instructions to replace the 718-0684 hydraulic pump which is no longer available.

NOTE: *These materials are prepared for use by trained technicians who are experienced in the service and repair of equipment of the kind described in this publication, and are not intended for use by untrained or inexperienced individuals. Such individuals should seek the assistance of an authorized service technician or dealer.*

NOTE: *Save this Instruction Sheet. Refer to it when ordering replacement parts.*

Service Kit Contents

(See Figure 1)

ITEM NO.	PART NUMBER	QTY	DESCRIPTION
1	718-04128	1	PUMP: HYDRAULIC: 15 GPM (W/KEY)
2	710-0376	4	SCREW: HEX: 5/16”-18 x 1.0:GR5:STD
3	712-04063	4	NUT: FLANGELOCK: 5/16”-18:GRF
4	718-04393	1	COUPLING HALF: 1.00” DIAMETER
5	718-04395	1	COUPLING HALF: .875 DIAMETER
6	718-04392	1	COUPLING HALF: .500 DIAMETER
7	735-04103	1	BUSHING: SPIDER: COUPLING
8	714-0114	1	KEY: SQ: 1/4” x 2.00”
9	714-0122	1	KEY: SQ: 3/16” x .75”
10	710-1842	2	SCREW: SOC: SET: 1/4”-20 x .38
11	*	1	THIS INSTRUCTION SHEET

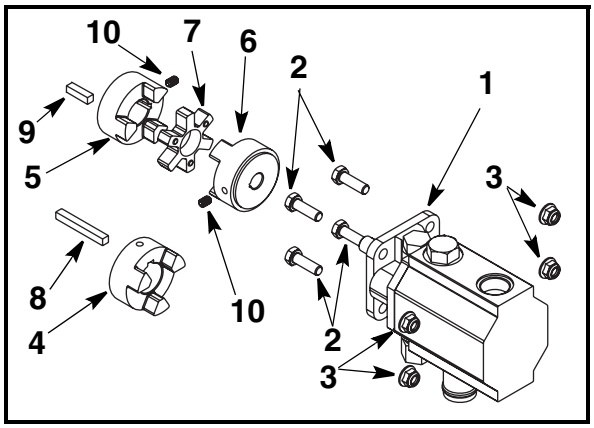

FIGURE 1

* - Not Available Separately

Pre-service Preparation:

1. Turn off the engine and allow the engine, muffler, pump and hydraulic oil to cool before proceeding.

2. Disconnect the spark plug wire from the spark plug and ground wire to the engine block.

3. Block both log splitter wheels in the front and rear so the log splitter cannot roll forward or backwards.

CAUTION! Operate the directional control lever to the EXTEND and RETRACT positions several times to relieve any pressure in the hydraulic system.

4. Drain the hydraulic oil reservoir tank into a suitable container.

5. Contaminants in the fluid can damage the hydraulic components. Flushing the reservoir tank and hoses with kerosene whenever service is performed on the tank, hydraulic pump or valve is recommended.

6. With the hydraulic oil reservoir tank empty, disconnect both hoses from the hydraulic pump. Drain the hoses into a suitable container and flush with kerosene. Remove and retain the pressure port adapter fitting from the old pump. See Figure 2.

NOTE: *Always dispose of used hydraulic oil and engine oil at approved recycling centers only.*

7. Change the hydraulic filter every 50 hours of operation or when service is performed on the tank, hydraulic pump or valve. Use only a 10 micron hydraulic filter.

Order filter part number 723-0405.

Pump Removal: (Refer to Figure 2)

8. Remove and retain the three nuts and lock washers (**A**) that secure the pump w/coupling half and pump support bracket subassembly to the coupling shield. Two nuts are at the bottom corners and one is at the top center.

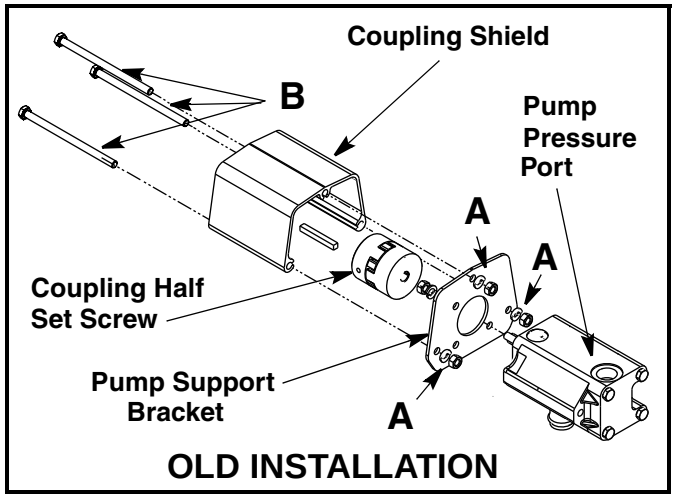

FIGURE 2

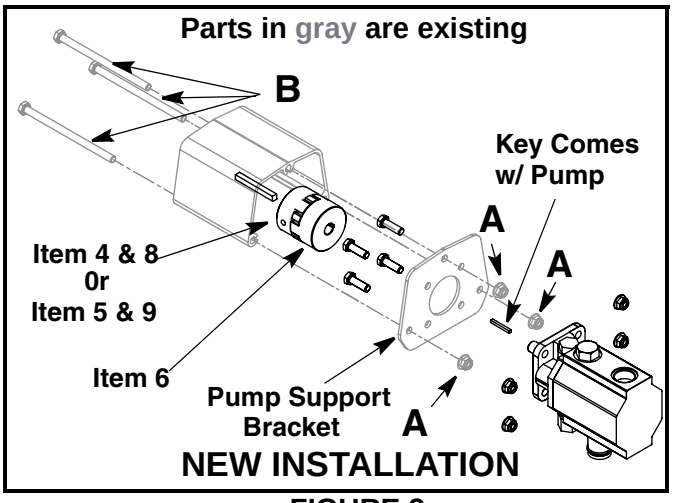

FIGURE 3

9. Remove the pump w/coupling half and pump support bracket subassembly.

10. Rotate the engine by slowly pulling the recoil starter handle until the engine coupling half set screw is visible.

11. Loosen the set screw using an allen wrench. Slide the engine coupling half off the engine crankshaft and discard. Proceed to Step 9.

12. Loosen the set screw on the pump coupling half. Remove and discard the pump coupling half and urethane spider insert.

NOTE: *Observe the position of the pump's pressure output port and the orientation of the pump support bracket for correct reassembly later.*

13. Remove and discard the two nuts and lock washers that secure the pump to the pump support bracket. Discard the old pump and key. Proceed to Step 20.

New Pump Subassembly Build: (Refer to Figure 3)

14. Attach new Pump w/ key, Item 1, to the pump support bracket using the four Hex Screws, Item 2, and four Flange Lock Nuts, Item 3. Tighten securely. Ensure that the new pump is orientated in the correct position on the pump support bracket to properly align with the hydraulic hoses. Install the pressure port fitting removed in Step 6.

15. Install the pump Coupling Half, Item 6, onto the pump shaft with it's new key. Install a new Set Screw, Item 10, into the new pump's coupling half. Do not tighten at this time.

16. Secure the coupling shield and pump subassembly with the three lock washers and nuts **(A)** removed in Step 11.

17. Select the appropriate new engine Coupling Half and key to match the crankshaft diameter, Items 4 and 8 for a 1" diameter crankshaft or Items 5 and 9 for a 7/8" diameter crankshaft. Discard the unused alternate coupling. See Figure 3.

18**.** Select the appropriate new engine Coupling Half and key to match the crankshaft diameter, Items 4 and 8 for a 1" diameter crankshaft or Items 5 and 9 for a 7/8" diameter crankshaft. Discard the unused alternate coupling. See Figure 3.

19. Install, by a few threads only, a new Set Screw, Item 10, into the selected engine coupling half.

20. Install the engine coupling half and key, selected in Step 31, fully onto the engine crankshaft. Do not tighten the set screw.

21. Slide the coupling shield onto the three mounting bolts **(B)**. Refer to Figure 3.

22. Place the urethane Spider Bushing, Item 7, onto the pump coupling half.

23. Install the new pump subassembly w/ spider onto the three mounting bolts **(B)**. Refer to Figure 3.

24. Align the engine coupling half and pump coupling half so that the spider bushing interlocks both halves.

25. Secure the coupling shield and pump subassembly with the three lock washers and nuts **(A)** removed in Step 14.

Proceed to "**Adjusting the Coupler Clearance:**" on Page 3.

Adjusting the Coupler Clearance:

26. Position the engine coupling half and key onto the engine crankshaft until the end of the crankshaft and key are flush with the inner portion of the engine coupling half. (Check to ensure that there is space between the end of the engine support bracket and coupling half). Tighten engine coupling half to the crankshaft. Torque set screw to 78 in-lbs. See Figure 4.

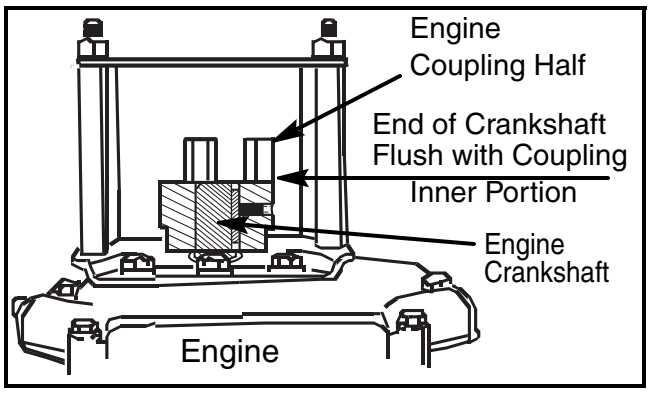

FIGURE 4

27. Slide the pump coupling half towards the engine coupling half until there is a .010" to .060" clearance/ gap between the spider bushing and the engine coupling half. Use a feeler gauge between the spider bushing and the engine coupling half. Tighten engine coupling half to the pump shaft. Torque set screw to 78 in-lbs. See Figure 5.

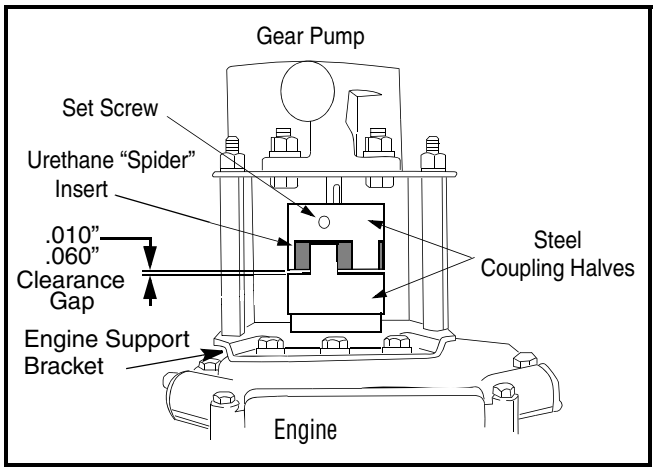

FIGURE 5

28. Re-install the suction hose and pressure output hoses to the new pump.

29. Lubricate the beam area with engine oil where the splitting wedge will slide. Do not use grease.

Priming the Pump and Purging the System:

30. Remove the vented reservoir dipstick. Refill the reservoir with the recommended fresh, clean hydraulic fluid. Refer to the Operator's Manual Set-up section for the recommended hydraulic fluid.

31. Check the fluid level using the dipstick.
Do not overfill.

32. Replace the dipstick securely.

33. Ensure that the spark plug wire is still disconnected from the spark plug.

34. Prime the pump by pulling the recoil starter as far as it will go. Repeat approximately 10 times.

35. Reconnect the spark plug wire to the spark plug. Start the engine following the instructions in the Operation Section of the Operator's Manual.

36. Using the control valve lever, cycle the wedge to full extended and then retracted position.

37. With the wedge in the retracted position, refill the reservoir within range marked on the dipstick.

38. Extend and retract the wedge 12 complete cycles to remove trapped air in the system.

WARNING! Much of the original fluid has been drawn into the cylinder and hoses. Make certain to check the reservoir fluid level (with the wedge in the retracted position) and refill as necessary to prevent damage to the hydraulic pump.

This completes the installation of the new pump.