

SERVICING PUMP PROCEDURES

Valve Replacement: All inlet and discharge valves can be serviced without disrupting the inlet or discharge plumbing. The inlet and discharge valves are identical in all 66 TSF series models.



To service the valve assemblies:

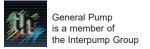
1) Remove valve cap (using 30 mm socket). Remove valve plug using 2, 4 mm x .7 mm threaded bolts.



2) Remove outlet valve assembly from plug.



3) Remove plug to spacer O-ring.







Ref 300937 Rev. D

TSP Series "66" Servicing Instructions

GENERAL PUMP A member of the Interpump Group



Servicing Valve Assemblies (continued):

4) Remove spacer using 12 mm x 1.75 mm threaded bolt.



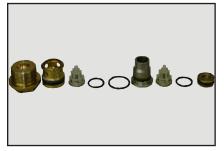
5) Remove inlet valve assembly.



6) Remove lower spacer using 12 mm by 1.75 mm threaded bolt.



7) Inspect all components for wear and replace as necessary.



8) Installation is the reverse of previous operations. Apply GP silicone grease to all orings for easier assembly.

9) Replace valve cap and torque to specification.











Removing/Installing Manifold:

- 1) Remove fasteners retaining manifold (using 8 mm hex driver).
- 2) Separate manifold from crankcase.

Note: it may be necessary to rotate the crankshaft, or tap the manifold lightly with rawhide mallet to loosen the manifold from crankcase. Caution: When sliding head from crankcase use caution not to damage plungers.

- 3) The seal assemblies may come off with the manifold. At this point examine the ceramic plungers. Plunger's surface should be smooth and free from scoring, pitting, or cracks; if not, replace.
- 4) Coat each plunger with grease.
- 5) Align outside pistons in the forward position.
- 6) Reinstall manifold and torque to specifications per sequence described below.

TORQUE SEQUENCE FOR TIGHTENING MANIFOLD:

- Install all manifold bolts finger tight.
- Torque to 10 foot pounds in sequence as shown.
- Next torque to specification; again, in sequence.

Replacing ceramic plungers:

- 1) Remove the plunger retaining bolts with O-ring (using 14 mm socket).
- 2) Remove the ceramic plunger from piston rod.
- 3) Inspect plunger bolt O-ring and replace as necessary.
- 4) Slide new plunger over the piston rod.
- 5) Apply a drop of removable anaerobic thread sealant to threads of plunger bolt.
- 7) Install plunger bolt and torque to specifications.









TSP Series "66" Servicing Instructions









Replacing Packings:

- 1) Remove manifold from crankcase.
- 2) Insert proper extractor collet through main seal retainer. Tighten collet and extract retainers, packings and head rings.
- 3) Apply grease to the packing assembly before installing in cylinders.
- 4) Place proper insertion tool in cylinder and install packing assembly, retainer and low pressure seal retainer using the proper insertion tool.
- 5) Repeat this sequence for each cylinder.
- 6) Align outside pistons in forward position.
- 7) Coat each plunger with grease.
- 8) Install manifold and torque retainers to specifications.

Changing Oil:

- 1) Remove drain plug (using 17 mm socket).
- 2) Drain oil.
- Replace plug.
- 8) Refill with new oil. Fill to middle of sight glass (33.8 oz).

Recommended Tools/Supplies:

- KINSTSP66 Packing Insertion Kit, 66 Series
- 100783 Complete Extraction Kit

Includes the following tools:

2530016	handle	2530020	15mm sleeve
2530017	bolt	2530021	18mm sleeve
2530018	pin	2530022	20 mm sleeve
		2530023	22 mm sleeve
		2530024	24 mm sleeve

- 190446 Oil Drain Kit
- 100295 General Pump Series 100 Oil (1-16 oz. bottle)

100214 General Pump Series 100 Oil (6-16oz. bottles)

100216 General Pump Series 100 Oil (24-16 oz. bottles)









TROUBLESHOOTING

Pulsation Valve stuck open. Check all valves, remove foreign matter.	PROBLEM	CAUSE	REMEDY	
Faulty pulsation damper. Check presharge; if low, recharget for install a new one. Petils slippage. Air leak in inlet plumbing. Tighten or replace; use correct belt. Disassemble, reseal and reassemble. Relief valves ucke, partially plugged or improperly adjusted valve seat worn. Inlet suction strainer clogged or improperly sized. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve, check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and dirty valve seats. Kit available. Clean, adjust relief valve; check for worn and for the valve. Clean intert and seats. Clean intert and seats for intertion of dirty belt of water or -8.5 PSI vacuum. Clean untertion of the seats and/or discharge valve assemblies. We place worn valve seats and/or discharge valve assemblies. Replace worn valve seats and/or discharge valve assemblies. Replace worn valve seats and/or discharge hose. Replace plumper(s). Worn packing. Translated in let of air entering the inter plumbing. Proper size intel plumbing; check for air light seat in let restrictions and or and pumping section. Worn crankshaft seat or improperly installed oil seat or-ing. Replace	Dulastia	Valve stuck open.	Check all valves, remove foreign matter.	
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