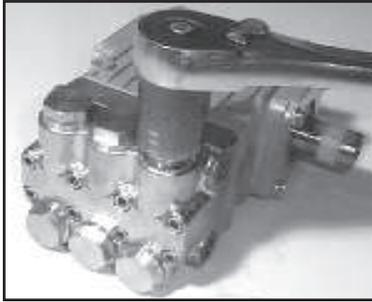
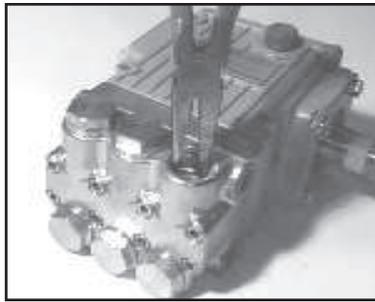


REPAIR INSTRUCTIONS - P200-5100/-5111/-5121-5180 PUMPS - 12mm Versions



1. With a 22mm socket wrench, remove the (3) discharge valve plugs and (3) inlet valve plugs (32) Inspect the o-ring (33) for wear and replace if damaged.



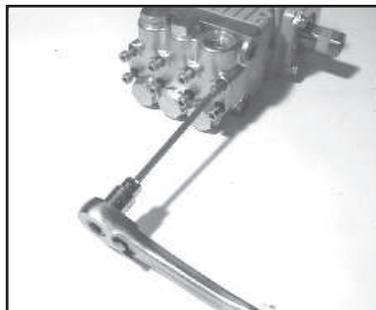
2. Using a needle nose pliers, remove the inlet and discharge valve assemblies (27-30) and o-ring (31). Inspect all parts for wear and replace as necessary.



3. By inserting a small screw driver between the valve seat (27) and the valve spring retainer (30), the valve assembly can be separated.



4. Remove the o-ring (31) Inspect all parts for wear. Apply one drop of Loctite 243 to the valve plugs (32) and tighten to 55 ft.-lbs. (75 NM).



5. Next, use a 5mm allen wrench to remove the eight (8) socket head cap screws (34).



6. Carefully slide the valve casing (26) out over the plungers.



7. Remove the weep return ring (25), pressure ring (24), and v-sleeve (23) from the valve casing (26). Remove the rear v-sleeve (23A) from the seal case (20). Inspect pressure ring (24) behind the seal case (20). Inspect all parts, including o-ring (21) for wear and replace as necessary.

8. Check surfaces of plunger (16). A damaged surface will cause accelerated wear on the seals. Deposits of any kind must be carefully removed from the plunger surface. A damaged plunger must be replaced!

10. If the ceramic plunger pipe (16B) is damaged, replace entire plunger assembly by removing crankshaft (13). Contact Giant for further details.

9. If the crankcase oil seals (19) are to be replaced, they can be removed by first removing the crankshaft (13), connecting rods (15) and plunger assembly (16) from the gear end. Then the oil seals can be pushed out from the rear. Please contact Giant for details.

NOTE: If there are deposits of any kind (i.e., lime deposits) in the valve casing, be certain that the weep holes in the weep return ring (25) and valve casing (26) have not been plugged.

REPAIR INSTRUCTIONS - P200-5100/-5111/-5121-5180 PUMPS - 12mm Versions

Reassembly sequence of the P200-5100/-5111/-5121/-5180 PUMP

- 1) If oil seals (19) were removed, replace with seal lip towards crankcase. Lubricate seals before replacing.

Contact Giant for assistance with the reassembly of the gear end.
- 2) Replace seal case (20) with o-rings (21) over plungers. Generously lubricate o-rings and oil seal before reassembly. Replace weep v-sleeve (23A) over plungers (16). For the P206/209 pumps, replace pressure ring (24) along with v-sleeve (23A).
- 3) Generously lubricate v-sleeve (23). Assemble v-sleeves (23) into sleeve (30B). Assemble weep return ring (25) and pressure ring (24) over plungers (16). Assemble o-ring (30C) over sleeve (30B) and place sleeve (30B) into valve casing (26). Slide valve casing over plungers and seat firmly. Replace the eight socket head cap screws (34) and tighten to 88 inch-pounds (10-12 NM) in a crossing pattern.
- 4) Replace the six o-rings (31) and the six valve assemblies (26A). Now replace the six valve plug o-rings (33). Apply one drop of Loctite 243 to the valve plugs (32) and tighten to 55 ft.-lbs. (75 NM).

For maintenance of the gear end of your pump contact Giant Industries or your local distributor. Phone: 419/531-4600

P200-5100 Lubrication Information/Torque Specification/Tool List				
Item #	Part #	Description	Lubrication	Torque
3A	07190-0100	Drain Plug w/Gasket		22 ft.-lbs. (30 Nm)
5	08185-0100	Oil Drain Plug w/Gasket		22 ft.-lbs. (30 Nm)
6	07188-0100	Screw, Short Cover		88 in.-lbs. (10 Nm)
10	07225-0100	Hexagon Screw		88 in.-lbs. (10 Nm)
32	07928-0100	Valve Plug	Pro Pack 550	55 ft.-lbs. (75 Nm)
34	08316-0100	Hexagon Screw		106 in.-lbs. (12 Nm)

Preventative Maintenance Check-List & Recommended Spare Parts List						
Check	Daily	Weekly	50hrs	Every 500 hrs	Every 1500 hrs	Every 3000 hrs
Oil Level/Quality	X					
Oil Leaks	X					
Water Leaks	X					
Belts, Pulley		X				
Plumbing		X				
Recommended Spare Parts						
Oil Change (1 Quart) p/n 1153			X	X		
Seal Spare Parts (1 kit/pump) (See page 7 for kit list)					X	
Oil Seal Kit (1 kit/pump) (See page 7 for kit list)					X	
Valve Spare Parts (1 kit/pump)						X

NOTE: Contact Giant Industries for Service School Information. Phone: (419)-531-4600