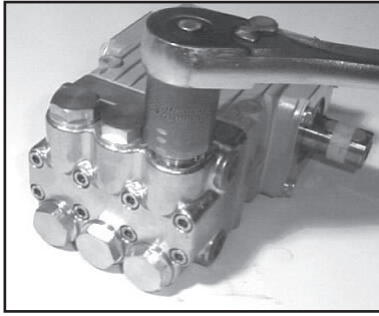
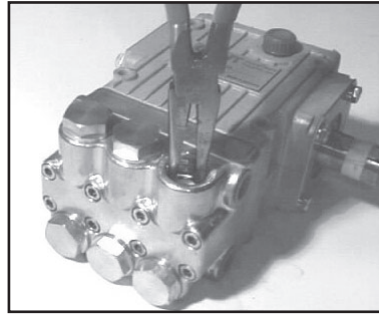


# REPAIR INSTRUCTIONS - P205/P206/P207/P208/P209/P210/P211 PUMPS

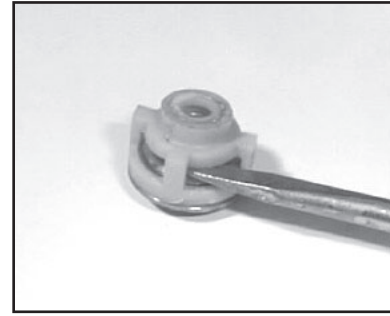
**NOTE:** Always take time to lubricate all metal and nonmetal parts with a light film of oil before reassembly. This step will ensure proper fit, at the same time protecting the pump nonmetal parts (i.e., the elastomers) from cutting and scoring.



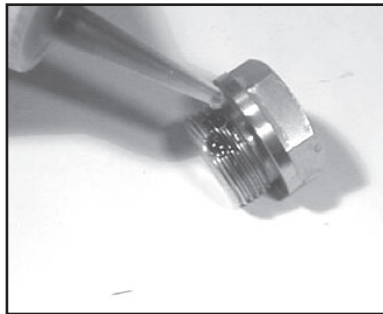
1. With a 22mm socket wrench, remove the (3) discharge valve plugs and (3) inlet valve plugs (32) Inspect the o-ring (33) for wear and replace if damaged.



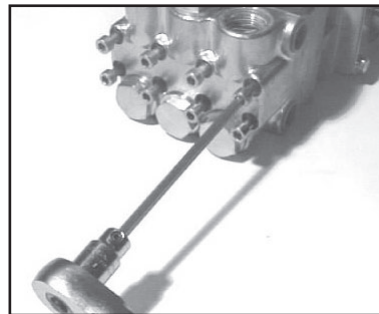
2. Using a needle nose pliers, remove the inlet and discharge valve assemblies (32X).



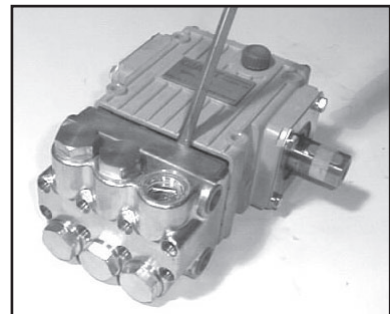
3. By inserting a small screw driver between the valve seat (27) and the valve spring retainer (30), the valve assembly can be separated.



4. Remove the o-ring (31). Inspect all parts for wear and replace as necessary. For pumps manufactured prior to 5/97, tighten plugs (32) to 33 ft.-lbs. otherwise, 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 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 weep v-sleeve (23A) from 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!

9. If the crankcase oil seals (19) are to be replaced, they can be removed by first removing the crankshaft (13), connecting rod (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.

# REPAIR INSTRUCTIONS - P205/P206/P207/P208/P209/P210/P211 PUMPS

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

## Reassembly sequence of the P205/P206/P207/P208/P209/P210/P211 PUMPS

- 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)..
- 3) Generously lubricate v-sleeve (23). Assemble v-sleeves (23) into valve casing (#26). Assemble weep return ring (25) and pressure ring (24) over plungers (16). Slide valve casing over plungers and seat firmly. Replace the eight socket head cap screws (34) and tighten to 106 inch-pounds (12 Nm) in a crossing pattern.
- 4) Replace the six o-rings (31) and the six valve assemblies (32X). 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**

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

Preventative Maintenance Check List & Recommended Spare Parts List						
Check	Daily	Weekly	50 Hrs.	Every 500 Hours	Every 1500 Hours	Every 3000 Hours
Oil Level/Quality	X					
Oil Leaks	X					
Water Leaks	X					
Belts, Puelly		X				
Plumbing		X				
Recommended Spare Parts						
Oil Change (1 quart) p/n 01153			X	X		
Seal Spare Parts (1 kit/pump) (See page 5 for kit list)					X	
Oil Seal Kit (1 kit/pump) (See page 5 for kit list)					X	
Valve Spare Parts (1 kit/pump) (See page 5 for kit list)						X