6DX Pumps
Service Sheet: Valve Repair

This sheet covers replacing the valves on a 6DX pump. Most of the information here was taken from the CAT Pumps Service Manual for this pump. We have included some helpful hints where we thought it would be appropriate.

Notes before beginning:

1.) This repair sheet assumes that the pump has been removed from the pressure washer.
2.) This should go without saying, but make sure everything is turned off on your pressure washer before working on it. Turn off the gas engine or unplug the electricity. Turn off the water supply. Disconnect both the garden hose and the high pressure hose.
3.) We highly suggest that you replace all the valves at the same time with new, complete valves. These are wear parts that are under a lot of stress while the pump is running; if one part has gone bad, the rest are probably on their way out as well. Besides, replacing the entire valve is a lot easier than trying to repair them!

Figure 1 – Pump head and valve pieces

Figure 2 – Valve kit with assembled valves

Disassembly

NOTE: Pump requires two (2) valve kits, part number IPF CT34260, to replace all valves in the pump.
NOTE: Valve assemblies may stay together or separate during removal (see figure 1 shows the valve parts in a line and the assembled valve above them). Just because the valve comes out in pieces does not necessarily mean it's broken.

1. Using an M24 hex tool, remove the top discharge and bottom inlet Valve Plugs.
2. Using a pliers, grasp the Spring Retainer by the tab at the top and remove from the valve chamber.

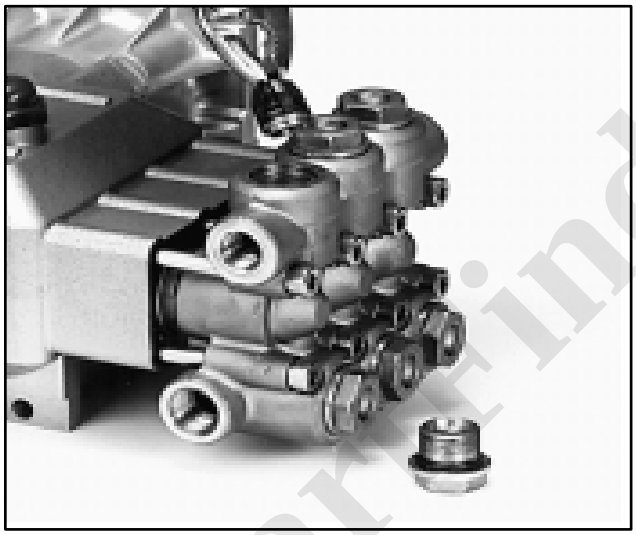

Figure 3: Valve assembly removal

3. If the Valve assembly separates during removal, remove the Spring and Valve with a needle nose pliers. Then with a reverse plier, remove the Valve Seat from the valve chamber. It is held in place by an o-ring.
4. If you are replacing the valves, go ahead and throw them away. If you are examining them to see if they are still good, go the Reassembly steps below.
5. Remove O-Ring from each Seat and Valve Plug and examine for wear. Replace the valve plug o-ring if you are replacing the valves, it's included in the kit.

NOTICE: Exercise caution as the reverse pliers may damage the threads in valve chamber.

Reassembly

NOTE: If you are replacing the complete valve assembly, go to step 10. If you are examining the valves for wear, follow steps as outlined below.

NOTE: Inlet and Discharge Valve Assemblies are interchangeable. Two Valve Kits are needed for a complete valve change.

1. Examine Spring Retainers for internal wear or breaks in the structure and replace as needed.
2. Examine Springs for fatigue or breaks and replace as needed.
3. Examine Valves and Seats for grooves, pitting or wear and replace as needed.
4. Examine Seat and Valve Plug O-Rings for cuts or wear and replace as needed.
5. Lubricate and install new O-Ring onto outside diameter of Seat.
6. Place Seat on work surface with small diameter side up.
7. Place Valve onto Seat with concave side down.
8. Place Spring on Valve.
9. Install Spring Retainer with deep stepped end over Spring and snap onto Seat.
10. Press complete Valve assembly into each valve chamber until completely seated.
11. Lubricate and install new O-Ring onto each Valve Plug.
12. Apply Loctite® 242® to threads of each Valve Plug and thread in hand tight. Torque to specifications (72.5 ft. lbs.)