How to Install K-Series Valve Kit

1. Remove the six (6) head bolts from the pump head.

2. If the head or the valve plate is difficult to remove by hand, use a rubber mallet and tap the edge of the valve plate or head in an upwards motion. Do not hit the side of the head in a side-to-side motion to remove it! Polish any gasket material off of the top of the cylinder, both sides of the valves plates and the head with Scotchbrite (green teflon scrubby) and on a flat surface.

3. Install the Cylinder Gasket (orange gasket, below) on the cylinder. Use Vaseline on the edges of the gasket to keep it in place while installing.
4. Install the first valve plate on top of the cylinder, with the valve recesses facing the air intake side of the pump (pictured below, valve recess is on intake side).

5. Install one valve in each recess, applying Vaseline on the edges of each valve to keep them in place. **NOTE:** Make absolutely sure the valves are installed in the center of each recess and **DO NOT** allow them to move. If they do not stay in place when installing, the pump will not pressurize like it should and could damage the valves.

6. Install the Inner Valve Plate Gasket (the thin gasket on the left side of the above photo, with the four rectangular valve cut-outs). Again, apply a small amount of Vaseline to the edges of the gasket to keep it in place when installing.
7. Install the valve in the recesses of the second valve plate, using Vaseline to keep them in place, making sure they do not move.

8. Install the second valve plate with the valves facing down, on the opposite side of the valves on the bottom valve plate (pictured below).

9. Install the Head Gasket (the top gasket in the photo with a rub in the center), again using Vaseline to keep it in place on top of the valve plate.
10. Install the pump head and insert head bolts, making sure not to nudge the valve plates or gaskets when doing so.

11. Torque down the head bolts to 243 in./lbs. (or 20 ft./lbs.), tightening them down in an “X-pattern” starting with the inside bolt, going out.