KNOWLEDGE BASE

Article Type: **Instructions**

Lube Pump Pressure Setting and Testing Procedures, all Block Machines using Vibrator Lube Pump Oil Injection.

Description:

Instruction sheet on how to make proper settings on the Vibrator Lube Pump used Block machines using oil injection for the vibrators. Block Machine models; 22HF, 16HF, 1600, 30, 40, 50, 60, CPM30, CPM40, CPM50, CPM60.

WARNING

Never work on, clean or service this unit, control panel or any machine or open or remove any protective cover, guard, grate, door, or maintenance panel until the power or energy sources has been turned off, locked out / tagged out, and all moving parts have come to a complete stop and or blocked to prevent movement. Machinery is dangerous – avoid personal injury and or death by following manufacture, Local, and OHSA safety procedures. Contact Columbia Machine for safety decals, guards, horns and beacons.

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LUBE PUMP PRESSURE SETTING AND TESTING PROCEDURES

The following procedures should be used for setting up the vibrator lube pumps on block machines with oil injection.

1. Completely assemble and plumb unit per assembly prints. Make sure there are no bound or kinked hoses and pump mount may be moved (for belt tensioning) without causing binding or kinking of hoses.
2. Attach testing hose assembly per instructions shown.
3. Completely open ball valve.
4. Completely back out the pressure relief valve (counter-clockwise) to the minimum setting.
5. Fill unit with filtered AW 46 hydraulic oil.
6. Check pump drive motor rotation and correct if needed.
7. With ball valve completely open run unit and check for leaks for approximately 3-5 minutes and verify pressure gauge is reading below 30 PSI.
8. Turn off pump unit.
9. Disconnect pressure hose just after the ball valve (between #4 and #5) This will allow you to control the flow of oil on the pressure pump with the ball valve. Suction pump/pumps will run dry (for testing ONLY) with hoses attached at #4 and #5 oil will flow to suction pump.
10. Put pressure line into a clean suitable container (5 Gallons or bigger) verify the ball valve is completely open.
11. Turn on the pump unit and verify oil is flowing on the pressure hose.
12. Close ball valve while watching the pressure relief gauge. If the gauge reading raises above 60 PSI immediately re-open the ball vale and repeat step 4, then continue step 10.
13. Turn the relief valve in until the following reading is obtained for the following lube pumps listed below.

NOTE: top two pumps units listed are current design as of 2013 on FLOOR and CPM Machines

Pump unit #	Deadhead Relief setting	Estimated Running Pressure reading
485.100.112 (50/60 Hz) Floor	**50 PSI**	**40 PSI**
675.700.113 (50/60 Hz) CPM	**50 PSI**	**40 PSI**
487.1.169 (50 Hz) Model 180	**60 PSI**	**50 PSI**
487.1.199 (60 Hz) Model 180	**60 PSI**	**50 PSI**

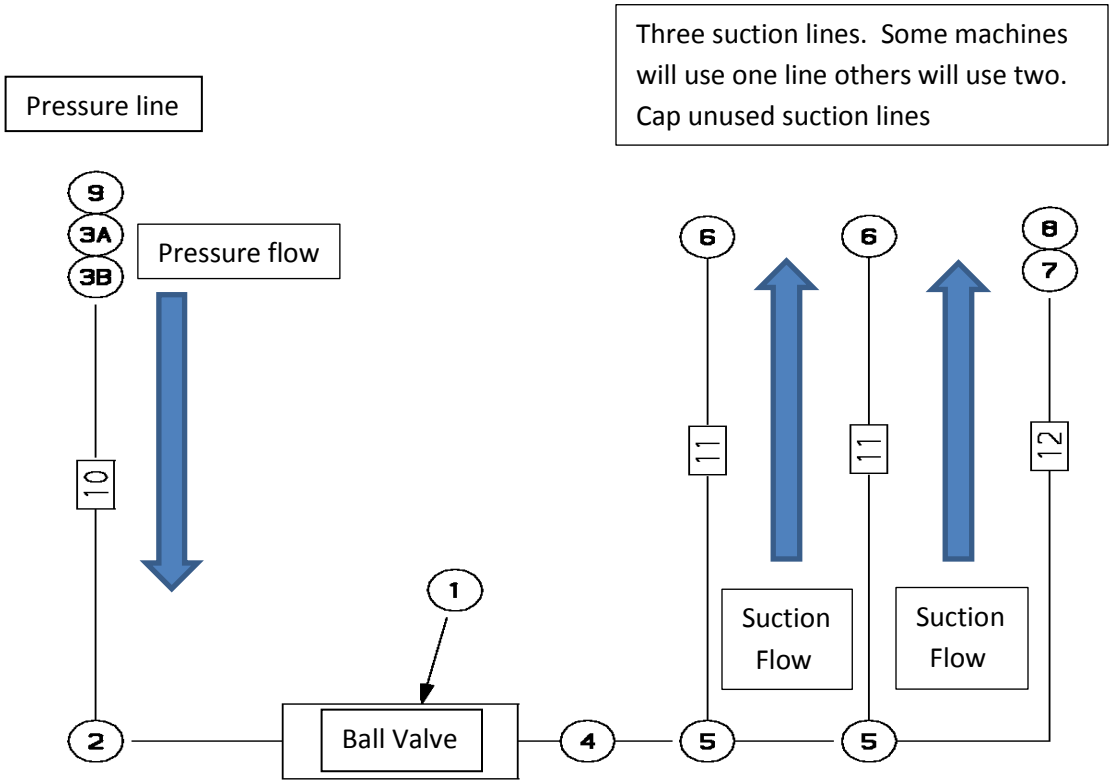
Other pumps using the same procedures listed below on page two

485.100.60	50 PSI	40 PSI
485.100.61	50 PSI	40 PSI

485.100.68	50 PSI	40 PSI
485.100.82	50 PSI	40 PSI
485.100.84	60 PSI	46 PSI
675.700.4	60 PSI	46 PSI
675.700.5	60 PSI	46 PSI
675.700.96	60 PSI	46 PSI
675.700.104	60 PSI	46 PSI
675.700.105	60 PSI	46 PSI

14. Tighten the locknut on the relief valve.
15. With about 6 inches of oil in a clean bucket use each return hose to return oil to reservoir. Make sure NOT to over flow reservoir, this will verify suction pumps are working correctly.
16. Stop pump and Lock and tag out.
17. Reconnect all hoses to vibration system.
18. Remove lock and Start pump, run for ten minutes checking for leaks and oil level in reservoir.

THIS HOSE AND BALL VALVE ASSEMBLY ARE USED DURING THE RUN-IN AND RELIEF VALVE SETUP ON THE LUBE PUMP UNITS.



If you have further question please contact the service department at Columbia machine 800-628-4065 or 360-694-1501