

**KNOWLEDGE BASE**Article Type: **Reference**

Hydraulic Pump Installation

Description:

Reference Information on; Hydraulic Pump Installation. Included in the shipping box, one pump, one oil Sample Kit, and sheets detailing the installation of the pump and correct start-up procedure.

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 OSHA safety procedures. Contact Columbia Machine for safety decals, guards, horns and beacons.

Hydraulic Pump Installation

When opening your pump box you will find enclosed 1 Pump, 1 Oil sample kit, and these sheets detailing the installation of the pump and the correct start up procedure.

If the pump has shipping damage, contact Columbia Machine Warranty Department for prompt warranty consideration at 1-800-628-4065.

1. The oil sample kit included with your new pump will be used to take an oil sample from main return line of the system. (Follow instructions included with kit for sampling and returning) This kit needs to be sent to par-test within 48 hrs. To activate your warranty.
2. Steam clean entire pump unit, or blow unit off with compressed air so it is very clean.
3. The oil reservoir needs to be drained completely. Discard old oil following EPA requirements. All inspection cover plates need to be removed so the reservoir can be cleaned and wipe out, removing any dirt, metal or other foreign materials. Inspect tank inside for any damage or peeling paint, repair if needed.
4. When changing a pump, it is very important to flush all hoses, tubes, suction tube, manifolds, valves and check valves and replace suction strainer prior to installation. All components should be cleaned in one or more of the following ways:
 - Soap and water
 - Acid cleaner
 - Alkaline cleaner
 - Solvent
 - Ultrasonic
 - Mechanical cleaning

Be sure to choose a method compatible with existing contemporary standards and your specific application.

5. Clean filter housings and install new filter elements and replace tank breather filter.
6. Refill the reservoir with the correct type of oil. Main pump units for Block machines, UL systems, Cubers, Splitters, or Pallet handling systems use AW 68 type oil. Pump units like the Vibrator lube, RTS, PTS, Trac-a-Rac cars, Hydrostatic drive, all use AW 46 type oil. Using *only* oil that has been filtered through a transfer pump with a 5-micron filter to help assure oil Cleanliness. Cleanliness Standards for oil should be 18/16/13 or better.
7. Before installing pump inspect both halves of the coupling and the coupling insert. Replace if warn.
8. Install new pump making sure shaft alignment is maintained and all bolts and setscrews are tight.
9. Make sure pump is primed before start-up. (all hoses and case of pump must be filled with filtered oil)
10. Follow all start-up instructions as out-lined in the Continental hydraulics sheets included in this packet.
11. Set pump pressure to specified pressure for your system. (Continental systems are set to 900 psi and older Racine pumps are set to 600 psi)
12. With pump turned off check accumulator pre-charge. Using dry nitrogen the accumulator pressure should be 2/3 or 65% of operating pressure of pump. (900 psi pump would have 600 psi accumulator pre-charge)
13. After running pump for 40 hours change all filters.

Recommended practices

1. Change all filters every 1500 hours of operation
2. Using a filtered transfer pump once a year to polish the oil will prolong the life of all components. This can be preformed while the machine is working