



PROFESSIONAL LIFTING EQUIPMENT

Instruction Sheet

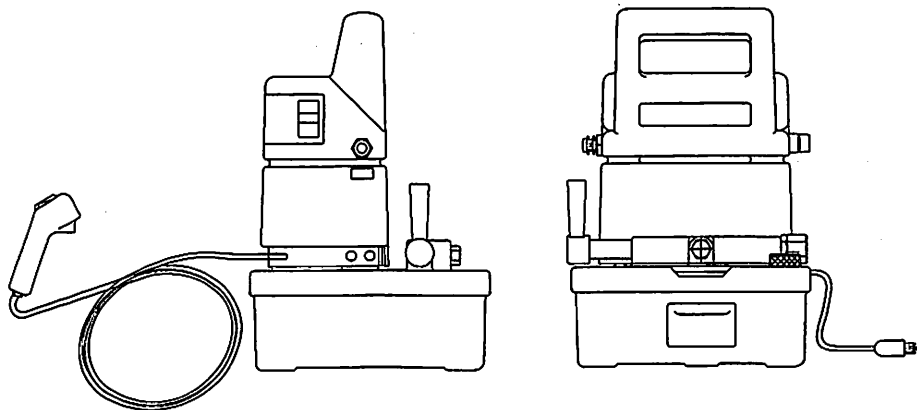
910052A Electric Pump

L1987 Rev. B 06/13

IMPORTANT RECEIVING INSTRUCTIONS

Visually inspect all components for shipping damage. If any shipping damage is found, notify carrier at once. Shipping damage is NOT covered by warranty. The carrier is responsible for all repair or replacement cost resulting from damage in shipment.

DESCRIPTION



The 910052A Electric Pump is highly portable, yet it's powerful enough to handle many maintenance, fabrication, construction, and lifting applications. The standard remote pendant makes any job easier and safer. See specifications below.

| SPECIFICATIONS | |
|-------------------------|---|
| Operating Pressure | 0 - 10,000 psi |
| Electrical Power Source | 15 Amp, 120 VAC grounded, single-phase, 50/60 Hz |
| Motor Rating | 1/2 HP Universal, 9 Amps @ 10,000 psi and 12,000 RPM operates at 85-125 VAC, 85 - 89 dBA |
| Flow Rating | 200 cubic inches/minute @ 0-200 psi 20 cubic inches/minute @ 200 - 10,000 psi |
| Operating Temperature | 150°F |
| Reservoir Capacity | 1 gallon |
| Shipping Weight | 39 lbs |

SAFETY INFORMATION

⚠ WARNING

Do not use electric pumps in an explosive atmosphere. Adhere to all local and national electrical codes.

⚠ WARNING

Do not use hoses, fittings or couplers with pressure ratings below 10,000 psi. Install pressure gauges in the system to monitor operating pressure.

⚠ WARNING

Electric pumps have relief valves installed under the pump cover. The relief valve is factory adjusted and must not be repaired or adjusted except by qualified hydraulic technicians.

⚠ CAUTION

To help prevent pump failure, check hydraulic reservoir fluid level prior to pump operation. Add oil to maintain level 1/2" below the vent plug opening. Always be sure cylinders are fully retracted before adding fluid to the reservoir. Use only high grade hydraulic oil. Use of any other oils or fluids may void the manufacturers warranty.

⚠ CAUTION

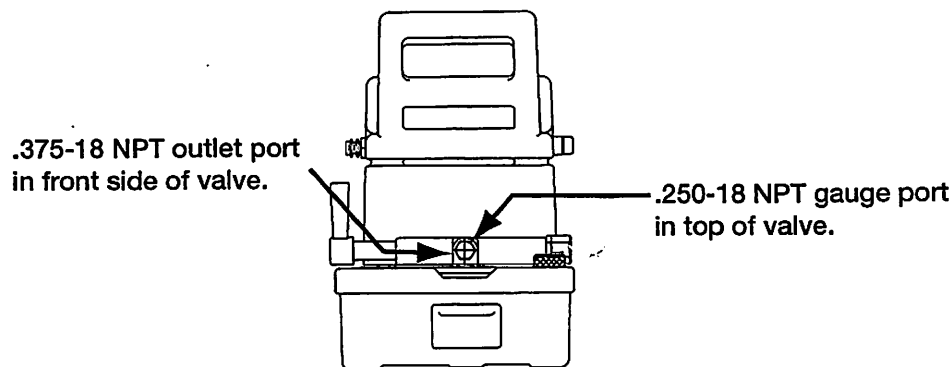
To prevent damage to pump electric motor, check specifications. Use of incorrect power source will damage the motor.

FAILURE TO COMPLY WITH THE WARNINGS AND CAUTIONS COULD CAUSE PERSONAL INJURY OR EQUIPMENT DAMAGE.

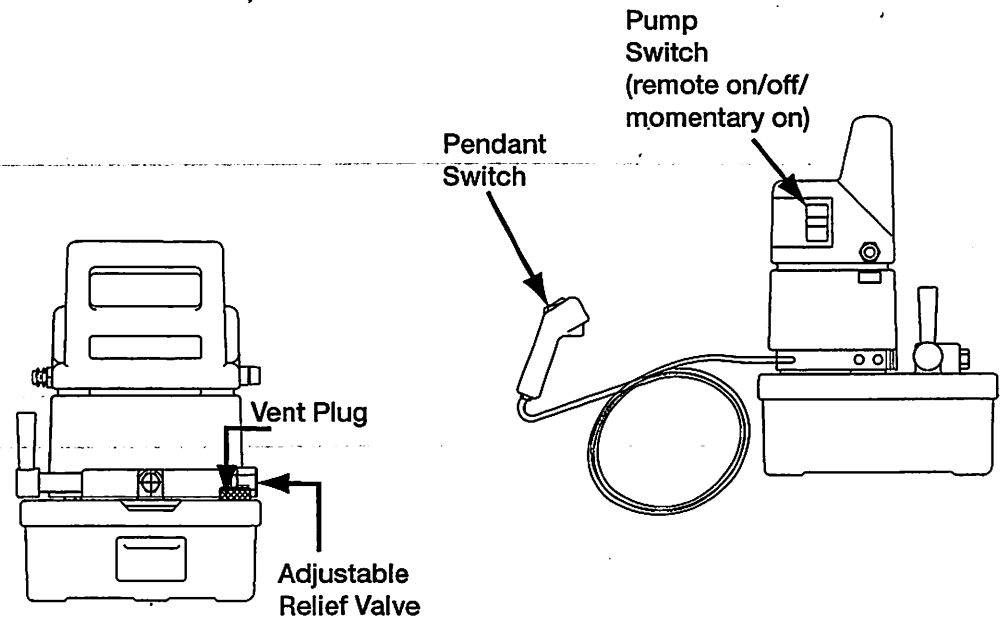
INSTALLING GAUGE AND HOSE

Use thread sealant on the gauge and hose fittings. Use 1-1/2 wraps of Teflon tape (or suitable thread sealant) on the fitting, leaving the first complete thread free of tape to ensure that tape does not shed into the hydraulic system, causing damage. Trim loose ends.

1. Remove the pipe plugs from the control valve ports that are shown below.
2. Install a 0-10,000 psi pressure gauge into the gauge port.
3. Install a hydraulic hose in the valve outlet port. Tighten hose firmly in the port.



OPERATION



1. Keep power cords reasonably short to avoid power losses between the power outlet and the pump. The pump will function at low voltage, but the speed and oil flow will be lower than normal. For peak performance, use the shortest possible power cords.
2. Check all system fittings and connections to be sure they are tight and leak free.
3. Open the pump vent plug 1 or 2 complete turns. The vent plug is located on the front right corner of the reservoir. The vent plug must be open whenever the pump is running.
4. The pump switch is located on the side of the shroud. It is a 3-position switch: top detent is "ON", middle is "OFF", and bottom is momentary "ON". Pressing the top "ON" position activates the electrical circuit, but does not turn the pump motor on. The pump motor is activated by the pendant switch. Pressing the lower portion of the pump switch will also activate the pump motor as long as it is held down. This momentary switch position can be used as an alternative to the pendant control.
5. The control valve is 3-way, 2-position valve. Moving the valve handle away from the pump (full forward) is the "Advance" position. When the pump is activated, the cylinder plunger advances until the pendant switch is released or the cylinder reaches maximum travel. Moving the valve handle toward the pump releases pressure from the cylinder and the plunger retracts, with or without the pump running.
6. When the hydraulic system is connected for the first time, air will be trapped in the components. To ensure smooth operation, remove the air by running the system through several complete cycles without a load on the cylinders. When the cylinders advance and retract without hesitation, the air is vented from the system.

CAUTION

Do not continue pressurizing cylinders after they reach maximum travel or maximum operating pressure.

7. Thermal Switch — To protect the pump from damage an internal thermal switch shuts off the motor when the oil temperature reaches 150°F. When the temperature drops to 130°F, the switch will automatically reset.

RELIEF VALVE ADJUSTMENT

1. The main pump relief valve is internal and non-adjustable, factory set for 10,000 psi maximum operating pressure. An additional external relief valve is located under a hex cap on the right side of the pump. The external relief valve is adjustable from 10,000 psi down to 2000 psi.
2. Before you can adjust the relief valve, you must install a gauge in the gauge port and plug the valve outlet port.
3. Remove the hex cap covering the relief valve adjustment screw. Using an Allen wrench, turn the adjustment screw counter-clockwise one full turn.
4. Turn the pump "ON" and run the pump motor, watching the gauge reading for the maximum pressure. Stop the pump, adjust the relief setting until the desired pressure is attained.
5. Check the setting by running the pump several times. If the gauge reading is the same each time, the valve setting is stable. Replace the hex cap to cover the adjusting screw.

NOTE: To get the most accurate relief valve setting, start at a lower pressure and adjust up to the desired relief valve setting.

MAINTENANCE

1. Check reservoir hydraulic oil level every 40 hours of operation. Add oil when necessary to bring the level to 1/2" below the fill opening (vent plug hole).

CAUTION

Be sure all hydraulic cylinders are retracted before adding oil. If oil is added when plungers are advanced, the oil in the hoses and cylinders will be returned to the reservoir as the retracts. Then the reservoir will be over-filled.

2. Change the oil after every 100 hours of operation. If the pump is operated in very dusty areas or at high temperatures, drain and refill more frequently. To drain the reservoir, remove the fill plug (vent) from the top right corner of the reservoir. Tip the pump until all old oil is drained. Refill with new oil through the same opening. Reservoir capacity is 1 gallon. Replace fill plug.
3. The pump reservoir can be removed for cleaning. If the pump is used in a dusty environment (ie: construction), the reservoir should be cleaned once a year.
 - a. Drain the reservoir as described in step 2.
 - b. Remove the six screws securing the shroud to the reservoir. Lift the shroud off the reservoir. A foam cushion wraps around the motor to keep electrical wires away from the motor. Use caution to avoid damaging or pulling wire connections off the terminals.
 - c. Remove the eight screws holding the pump to the reservoir. Lift the pump off the reservoir and remove the gasket. Thoroughly clean the reservoir with a suitable solvent. Use a soft bristle brush to clean the two pick-up screens.
 - d. Re-assemble the pump and reservoir. Install a new gasket using RTV sealant. Position the shroud over the motor with the shroud handle facing the valve side of the pump. Install the six mounting screws and internal/external lock washers.
4. Check the electric motor brushes at least once every two years. For pumps in heavy usage applications, check the brushes at least once every six months.

DANGER

To avoid possible electrocution, pump must be completely disconnected from electrical power before brush servicing is attempted.

TROUBLESHOOTING

The Troubleshooting Chart (see below) is intended as a guide to help you diagnose and correct various possible pump problems.

Only qualified hydraulic technicians should troubleshoot and service the pump. For repair service, contact the Norco Authorized Service Center in your area.

| TROUBLESHOOTING CHART | | |
|---|--|--|
| Pump will not start. | No power. Wrong voltage. | Check electrical power source. Check voltage specifications (see page 2). |
| Cylinder will not advance or retract. | Fluid level low. Intake screen clogged. Valve in wrong position. Valve failure. | Fill reservoir to proper level. Clean or replace intake screen. Shift valve to the pressure position. Have pump repaired by a qualified hydraulic technician. |
| Cylinder advances and retracts erratically. | Air in the system. External leak in system. Internal hydraulic leak. | Remove air from the system by opening and closing the tool until operation is smooth. Tighten leaky connections. Replace any damaged hoses and fittings. Have pump repaired by a qualified hydraulic technician. |
| Pump fails to maintain pressure. | External hydraulic leak. Internal hydraulic leak. | Tighten leaky connections. Replace any damaged hoses or fittings. Have pump repaired by a qualified hydraulic technician. |
| Low fluid output. | Fluid level low. Pump component parts are leaking. By-pass valve malfunction. Fluid intake screens on piston blocks may be clogged with debris. | Fill reservoir to the proper level. Test to isolate leaks. Have pump repaired by a qualified hydraulic technician. Inspect intake screens. Flush all components of contamination. Replace any damaged components. |

CIRCUIT BREAKER (Pumps with Date Code "F" and Later)

In the event of an electrical overload, the pump circuit breaker will trip. After investigating and correcting the source of the overload, push the circuit breaker button to reset.

FUSES (Pumps With Date Code "F" and Later)

Internal fuses protect the primary and secondary circuits of the control transformer. If a fuse blows, investigate and correct the source of the failure. Then, replace the blown fuse with a new fuse of the correct rating. For fuse ratings, refer to the Repair Parts Sheet for your pump model.



CAUTION

Always disconnect electrical power before replacing fuses.

TEST STANDARDS

Canadian Standards Association (CSA)

Where specified, pump assemblies meet the design assembly and test requirements of CSA, the Canadian Standards Association (Refer to CAN/CSA — C22.2 No. 68-92, Motor operated appliances).

Conformité Européene (CE)

Where specified, an EC Declaration of Conformity and CE marking of product is provided. These products conform to European Standards EN982:1996, EN1050:1998 and EN-ISO-12100-1&2:2003, and to EC Directives 2006/42/EC, 97/23/EC, 2004/108/EC, 2006/95/EC and 97/23/EC.

WARRANTY

This Norco product is covered by a Limited Lifetime Warranty.

For details see the back cover of Norco's product catalog.

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REPAIR SERVICE

If your Norco product requires service or repair, contact the Norco Customer Service Department for the location of the nearest Norco Authorized Service Center.

It will be necessary to provide the Norco Authorized Service Center with a copy of the bill of sale if requesting warranty repair. If the authorized service center determines your product is eligible for warranty repair, the repair will be made at no charge and returned freight prepaid. The cost of non-warrantable service, repair, and return freight is the customer's responsibility.