

# GENERAL PUMP & EQUIPMENT CO., INC.

MANUFACTURING QUALITY HYDROSTATIC TESTING EQUIPMENT FOR CONTRACTORS AND INDUSTRY SINCE 1969  
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## OPERATING INSTRUCTIONS FOR MODEL HT 1.5-1500

### OUTPUT:

1.5 GPM at pressure up to 1500 PSI

Your HYDRO-TEST unit has been fully assembled, tested, and is ready to operate. Before operating, please note the following:

1. Connect the outlet hose (3/8 ID, 2000 PSI rating) to the 1/2" SAE male connector located next to the gage.
2. The pump crankcase has been filled prior to shipping. Check the dipstick before operating to ensure no oil has been lost during shipping.
3. Be sure the power supply is adequate for motor. Power requirements are 19 amps, 110 volts, single phase 60 cycle current.
4. This HYDRO-TEST unit is designed to operate with standard water pressure. It is not recommended that water pressure over 60 PSI be used to feed the pump. Use only **CLEAN** water. **DO NOT** use water over 140 °F.

### TO OPERATE:

- A. Connect inlet water supply to the female garden hose swivel fitting on the pump.
- B. Connect the outlet hose to the item being tested. It is recommended that a bleed down fitting be installed at the connection to the system.
- C. Be sure you know what the maximum set pressure of your tester is (REFER TO THE RELIEF VALVE SECTION) before testing anything.
- D. Be certain that you have water to the pump before operating. **CAUTION!** Running the pump without water will greatly increase wear and will possibly cause major damage to the pump.
- E. When storing in freezing conditions, run a 50-50 mix of permanent type anti-freeze and water through the pump. If the pump freezes, serious damage will occur.

### THERMAL DUMP VALVE:

Your test pump is equipped with a high temperature thermal dump valve on the by-pass loop. The thermal dump valve will dump only if water in the by-pass loop reaches 145°F.

**NOTE: UNDER NORMAL OPERATION THE DUMP VALVE WILL NOT DUMP.**

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## RELIEF VALVE:

The maximum pressure your HYDRO-TEST unit can generate is controlled by the relief valve (large brass valve with black adjusting handle).

The relief valve on your unit has been preset at 1000 PSI. The relief valve is adjustable as follows:

1. Connect all the inlet and outlet hoses to the pump.
2. Attach a valve with sufficient pressure rating to the outlet end of the outlet hose.
3. With all valves open, and hoses open, turn water on and be sure you have flow.
4. Turn the pump motor on.
5. Slowly close the valve on the outlet end of the hose. Be sure to read pressure while closing the valve.
6. To change the set pressure, loosen lockout located on top of the black adjustment handle.
7. Turn the handle clockwise to increase pressure, counterclockwise to reduce pressure. NOTE: It may be necessary to open and shut outlet valve to show reduced pressure.
8. When desired pressure is achieved, tighten the locknut on the handle.

## PLEASE NOTE:

It is not recommended that your test unit be operated for more than five to ten minutes at full by-pass. When the test is operated at full by-pass, heat is generated by the water passing through the relief valve. When the by-pass water temperature reaches 140°F, the high temperature dump valve, piped into the by-pass, will allow hot water to escape the loop, thus leaving new cold water in to cool the pump and reduce wear to the pump.

If you desire to leave the pump running during testing to maintain pressure, it may be necessary to run the by-pass from the relief valve to a drain, thus keeping the pump cool at all times.

## LUBRICATION:

The pump crankcase has been filled prior to shipping. Check oil level with dip-stick before operating. Use 30 weight NON-DETERGENT oil in the crankcase.

OIL CHANGE: Change oil after initial run in period of fifty (50) working hours. Change oil every five hundred (500) working hours after this period.

NOTE: Crankcase capacity is twenty-six (26) fluid ounces.

## TO ISOLATE THE TEST PUMP:

1. Bring the system up to test pressure.
2. **TURN OFF** the test pump.
3. Close the stainless steel ball valve or brass needle valve on the outlet. The ball valve or needle valve is located on the outlet piping before the check valve and the 0—2000 PSI gage.
4. When the needle valve or ball valve is closed, NO WATER can leak back through the pump or relief valve.
5. If the pressure shown on the gage goes down after closing the needle valve or ball valve then pressure is being lost in the system NOT through the test pump.