GENERAL PUMP & EQUIPMENT CO., INC.

MANUFACTURING QUALITY HYDROSTATIC TESTING EQUIPMENT FOR CONTRACTORS AND INDUSTRY SINCE 1969 3276 BRUENING AVENUE SW CANTON, OHIO 44706 PHONE 330-455-2100 TOLL FREE 800-594-5178

INSTRUCTIONS FOR MODEL AR1.5-500TK - SALT WATER

SPECIFICATIONS:

EMAIL gentest@bright.net

Output at 3 GPM at pressure up to 500 PSI Air required 40 cfm at 60 PSI maximum Recommended air pressure for operation is 40-60 PSI.

Your HYDRO-TEST pump, as shipped to you, is ready to operate when connected as follows:

- 1. Connect air to the 3/8" inlet on the air controls at the side of the unit.
- 2. Connect the inlet water hose to the garden hose swivel fitting on the inlet side of the unit.
- 3. Connect the outlet hose to the SAE male fitting, located on the end of the outlet next to the gage.
- 4. If desired, set maximum pressure on the relief valve. As shipped to you the relief valve is not set.

CAUTION: Before testing....

- A. Be sure water is on to the unit.
- B. Back out relief valve handle to the minimum setting. Be sure to keep some pressure on the internal spring.
- C. Have all the valves and outlet hose open.
- D. Set relief valve for maximum pressure.

CAUTION: After testing with sea water...

- A. Clean pump and plumbing by running fresh water through pump.
- B. Purge by-pass hose by turning off outlet ball valve with pump running with fresh water.

TO SET MAXIMUM PRESSURE:

The maximum pressure you can test at is determined by the pressure setting on the relief valve!!

- A. With all the hoses connected to the unit, attach a valve to the outlet end of the outlet hose.
- B. Turn the water supply to the pump ON.
- C. WITH THE WATER ON AND THE OUTLET HOSE OPEN, turn the Hydro-Test unit on. Set air pressure regulator at 50 PSI.
- D. With the Hydro-Test unit running, SLOWLY TURN the valve on the outlet hose OFF. Caution: While turning this valve off, always watch the pressure shown on the gage on the outlet of the unit.
- E. Loosen the locknut on the relief valve (bronze valve with the tee handle on top). This nut is located on the stem under the tee handle.
- F. To increase pressure turn the tee handle clockwise, to reduce pressure turn the tee handle counterclockwise (to the left). NOTE: You may have to open and then close the outlet valve to show the new maximum set pressure.
- G. When you have reached the desired maximum test pressure set, tighten the locknut on the relief valve.

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MAINTENANCE:

Only one item on the pump requires regular maintenance. The cam bearing on the pump can be greased using the grease fitting located behind the opening in the end cover of the case. Every one hundred (100) working hours lubricate with a lithium based grease. If the unit has not been used for a long period of time, for a month or more, it is recommended the bearing be greased prior to use.

AIR MOTOR LUBRICATION..... WARNING...WARNING...WARNING

Use detergent SAE 10 automotive engine oil. **CAUTION!!! DO NOT USE SYNTHETIC OIL!!!** Synthetic oil will damage the poly bowls on the air regulator and lubricator. Damage will occur and bowls may fatigue and explode as a result.

Set the lubricator to feed one drop of oil for every fifty(50) to seventy-five(75) CFM of air going through the motor. At 60 PSI the motor should be consuming approximately 35 CFM, for example set to one drop oil per each 1-1/2 minutes running time.

WATER SOURCE:

Use only clean cold water. Standard water pressure feed from a city water source is recommended. The AR1.5-500TK unit is designed to work best with water pressure feed.

<u>IF USING WITH SALT WATER</u>, unit must be cleaned after use. There is no warranty expressed or implied for this unit when using sea water.

If water pressure feed is unavailable, the AR1.5-500TK will work with sufficient gravity feed. Be sure the water level in the supply tank is higher than the inlet of the pump so that water will not easily flow to the unit on its own. When the unit has not been used for some time, it may be necessary to run water pressure through the pump before it will pull water from a gravity feed. **PLEASE NOTE:** It is a good practice to check the unit before use when gravity feed is to be used. If the seals in the pump are not wet enough, the pump will not generate a sufficient vacuum to pull a static water source into the pump and because of this will not pump.

TO TEST:

- 1. Connect all hoses as noted in the first section of instructions.
- 2. Be sure the water supply to the pump is on.
- 3. Connect the outlet hose to the item or system being tested. It is recommended that a tee and a valve be installed at the system where the high pressure hose is connected and used as a bleed down valve. Some contractors prefer to install a second gage by this tee as well.
- 4. With all the connections made, start the unit. Turn the air control to 60 PSI.
- 5. Pressure on the system will be shown on the gage. When the test pressure needed is reached, turn off the test unit.