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# Master Manufacturing

# **200 GALLON FIRE UNIT**



Part Number FUS-Z1-200-K-MM | Rev 1 June. 2010

Note: Do not return product to the distributor/dealer for warranty work. Call Master Manufacturing at (800) 864-1649 for any warranty work or replacement parts.

## **OPERATION**

Service the engine with gas and oil according to the recommendations in the engine manual. Follow the engine manufacturer's instructions for starting and operating the engine.

Check the inside of the tank for any foreign objects or material that could cause damage to the pump. Fill the tank with clean water. If adding any type of chemical to the water, it is always better to have the tank at least half full before adding the chemical to avoid possible damage to the sprayer components by an undiluted chemical concentrate.

Before initially running the sprayer, loosen the tee handle of the relief valve. This adjustment should be checked while spraying because a pressure increase will be noted when the sprayer is shut off and the output of the pump is by-passed back to the tank through the relief valve.

Limit the pressure to 150 psi. Excessive pressures and/or operating speeds will reduce the life of the pump. If, when adjusting the relief valve for more pressure, no increase in pressure occurs, it is an indication that the maximum output of the pump is being used. When the sprayer is shut off the pump will have to overcome the excessive tightness of the relief valve in order to by-pass back to the tank. This will cause pump strain and possible damage and should be avoided.

Choose an operating pressure that provides a spray pattern suitable for the particular operation. Do not use your sprayer for pumping petroleum products, strong acids, paint or other thick materials with heavy viscosity.

### **General Sprayer Maintenance**

The most important aspect of long dependable service from the sprayer is a thorough cleaning immediately following each use if the sprayer has been used with chemical. In addition, the residue of one type of chemical could cause an undesirable effect when a different chemical is used for a different purpose.

The most effective cleaning method is to pump several rinses of clean water through the tank, pump, hose and spray nozzle. A neutralizing agent such as a solution of Nutra-Sol, detergent or household ammonia as recommended by the chemical manufacturer can assist in removal of a persistent chemical. Avoid getting chemical on the engine and other external parts of the unit in order to preserve the finish. Remove external spray material deposits when cleaning and flushing unit. A coat of wax applied to the exterior will protect the paint and make clean up easier.

When the unit is thoroughly cleaned, drain the tank by removing the tank plug and removing the tank filter bowl. Ensure the spray nozzle, pump and spray gun hose are drained as well.

### Troubleshooting

In the event of inefficient operation or malfunction, check the following:

- 1. Clean the line strainer after each use or more often, if necessary. A plugged strainer will restrict the flow of liquid to the pump and cause it to perform poorly. Always use clean water and keep the strainer screen in place. Sandy or gritty liquids will damage the components of the pump.
- 2. Check the hoses for any kings or leaks. Avoid letting a hose touch the engine muffler or be subjected to other objects that could cut or damage it. Be sure that suction hose is not collapsed or plugged.
- 3. Check the spray nozzle for any obstructions.
- 4. Ensure the relief valve is adjusted accordingly for proper pressure.

#### Storage

This sprayer should always be cleaned and drained before storage. If the unit will be subjected to freezing temperatures, it is imperative that the whole sprayer; pump, hoses, spray nozzle, gauge, etc., be completely

drained and dry. Any water left in the system could cause extensive damage when it freezes. Follow the recommendations of the pump instructions for preventing internal pump corrosion and protection against the rotor and rollers gumming and sticking during storage.

#### WARRANTY PARTS SERVICE

Products sold shall be warranted from defects in workmanship and material when used within the service and scope for which they were designed for a period of one year from date of purchase. Warranty covers replacement parts ONLY. Contact Master Manufacturing for warranty parts at (800) 864-1649. Do not return product to your distributor/dealer. Please have your original sales receipt or other proof of purchase date when requesting any warranty parts. To ensure the correct parts are acquired always provide the model number of your sprayer/attachment and the part number and description obtained from the illustrated parts breakdown in this manual.