

CARE AND MAINTENANCE OF BACK PACK PUMPS

To be effective on the fire line, the tool you are using has to be kept in good working condition. In the case of back pack pumps, efficiency and ease of operation will depend on how well they are maintained following use on the fire line and prior to each fire season. Delay in preparing back pack pumps for operation after use on a fire and following winter storage could result in out of service equipment. The next fire could occur sooner than you think.

TANK:

The first step in proper care and maintenance of a back pack pump unit is to thoroughly clean the exterior. A strong detergent, some hot water and a good scrub brush should be used. The tank interior should be rinsed and flushed out to remove any foreign objects that could damage the pump or plug the nozzle. Check tank cover to be sure vent hole is not plugged and gasket is in good condition – replace if necessary. Be sure strainer is clean and in good condition.

HOSE AND STRAPS:

The hose should be examined for cracks or splits. Pay particular attention to the areas near the ends where the hose is attached to the pump and tank. Check the entire length of hose. Replace it if it has been shortened or it shows any sign of deterioration. The hose clamps should be checked and tightened if necessary. Examine the straps carefully. Check for any breaks or deterioration, particularly if unit is an older model. Check the snaps at either end. Are they in good condition? Replace if necessary. Are the straps properly installed on the tank? Make sure they are not twisted and the strap with pump clip is installed so it will go on the left shoulder.

PUMP:

The pump unit should be completely dismantled and thoroughly cleaned. The captive ball in the valve at the end of the pump where the hose attaches should be free in its chamber. If not, a sharp blow with a block of wood should free it. This ball should be lubricated with a few drops of light machine oil.

The spring loaded valve at the base of the piston should be checked in the following manner:

- Remove the nozzle
- Fill piston with water at the nozzle end
- Hold piston in a vertical position with valve up

If the spring loaded valve does not hold the weight of the water, it should be replaced. Oil the spring loaded valve with light weight machine oil. The packing or O-Ring should be checked and replaced if they show any signs of wear or damage. Examine the piston and cylinder carefully. If they are not perfectly straight, or they show signs of any dents or creases, the damaged part should be replaced. If the pump is assembled with any defects in the cylinder or piston, it will bind and work very hard. The cylinder and piston should be lubricated with light weight machine oil before re-assembly. Clean the nozzle thoroughly and re-assemble the entire pump unit. Following re-assembly, the tank should be filled with water and checked for leaks. The entire unit should be tested for proper operation before being put back in service. Be sure to completely drain tank and pump if the unit is to be stored in below freezing temperatures.