MODEL S4/S4H POLLUTION PROOF YARD HYDRANT
TROUBLESHOOTING AND MAINTENANCE

Water leaks from under the casing cover when the hydrant is on.

Tighten the three nuts under casing cover. If leak persists, remove hydrant from the reservoir and inspect the rubber cup gasket for cracks or damage. Remove the rubber cup gasket and measure the distance from the top of the cast flange to the top of the reservoir pipe. This dimension should be ½". If necessary, adjust the flange. Reinstall the hydrant and check for leaks.

Water leaks from the diverter while the hydrant is on and the diverter is pulled down.

The O-ring seal in the diverter may be damaged or pulled loose from the groove. Use a pair of needle nose pliers, stuck into the outlet of the diverter, to remove the diverter. Inspect for damage or reinsert the O-ring into the groove. Replace the diverter if necessary.

Water leaks from the diverter, or fills reservoir, when the hydrant is off.

Check the linkage adjustment. With the head cover off, lift the handle and check if the linkage has a small amount of play and is not binding. Adjust the lock nut and swivel nut down to increase the play. If the hydrant continues to leak, the valve plug may be fouled or damaged. Follow instructions for replacing the valve plug.

Hydrant will not flow water through the backflow preventer when the hydrant is on.

If water will not flow through the backflow preventer with the diverter pulled down, the backflow preventer may be obstructed or damaged. Remove the backflow preventer and check to see if the hydrant flows water with the backflow preventer removed. Inspect the backflow preventer for obstruction or damage.

Hydrant will not drain when shut off.

The reservoir may be full. Operate the hydrant at full flow, through the diverter, for a minimum of 30 seconds to evacuate the reservoir.

Handle adjustment for maintained flow.

The Model S4 handle can be adjusted in the field so it will not automatically spring close when the handle is released and can be left in a full open position. Turn the stop screw under the handle in, clockwise, just enough so when the handle is pushed down in a full open position, the handle will stay and not spring closed. To close the hydrant, simply lift the handle and it will spring close.

Hydrant removal from the reservoir.

To remove the hydrant from the reservoir, shut off the water supply and remove the three nuts and washers under the casing cover. Pull the hydrant straight up and remove from the reservoir.

To reinstall the hydrant, clean and inspect the two venturi O-rings and the rubber cup gasket. Replace if damaged. Lubricate O-rings with silicone grease or other non-toxic lubricant that is safe for rubber. Insert the hydrant in the reservoir. Align the studs with the holes in the flange. Reinstall and tighten the washers and nuts.

INSTRUCTIONS FOR REPLACING OPERATING ROD EXTENSION AND/OR PACKING NUT

WOODFORD MODEL S4/S4H YARD HYDRANT

Using a 9/16" socket, remove the three nuts and washers under from under the casing cover (#25).

Pull the hydrant straight up and out of the reservoir. A pry bar may be helpful to break loose the hydrant from the reservoir seal.

Lay the hydrant on its side and hold or lock the handle down in an open position.

Remove the snap ring (#40), screen (#39) and valve plug guide (#38). Unscrew the valve plug (#37) with a screwdriver. If the rod turns, have someone secure the rod at the top of the hydrant, under the head cover.

Remove head cover (#12).

Remove handle pin, handle, linkage, washer swivel, locknuts and spring. (#1-5, 7, 8, 13-15 and 17).

Pull operating rod assembly out through the top of the head casting.

If needed, install new packing nut, with O-ring, (#18). Do not over tighten.

If needed, install new operating rod extension (#16) on the operating rod (#42).

Install operating rod assembly through the top of the head, only far enough to replace washer, swivel and locknuts, and spring (#13, 14, 15, and 17).

Using a Phillips head screwdriver to guide the rod through the venturi seat hole (#35), gently pry down on the rod, compressing the spring. Once the rod is through the hole, install the valve plug, valve plug guide, screen and snap ring. NOTE: Replace valve plug if damaged.

Install the operating link assembly (#1-5) and handle (#7) with handle pin (#8).

Adjust the swivel nut and lock nut (#14 & #15) so there is a small amount of clearance between the operating link assembly and the plastic washer (#13). Approximately 1/32" to 1/16". Try to keep the valve plug from turning, to prevent damage to the valve plug.

Before reinstalling the hydrant in the reservoir check the operation. Also make sure the venturi O-rings (#36) are clean.

Reinstall the hydrant in the reservoir.

Using a 9/16" socket, remove the three nuts and washers under from under the casing cover (#25).

1. Pull the hydrant straight up and out of the reservoir. A pry bar may be helpful to break loose the hydrant from the reservoir seal.

2. Lay the hydrant on its side and hold or lock the handle down in an open position.
3. Remove the snap ring (#40), screen (#39) and valve plug guide (#38). Unscrew the valve plug (#37) with a screwdriver. If the rod turns, have someone secure the rod at the top of the hydrant, under the head cover.
4. Inspect the valve seat inside the venturi (#35) to make sure it is smooth and free of debris.
5. Install new valve plug.
6. Reinstall the valve plug guide, screen and snap ring.
7. Before reinstalling the hydrant in the reservoir, unlock the handle and check the operation. Also make sure the venturi O-rings (#36) are clean.
8. Reinstall the hydrant in the reservoir.