

OAK SERVICES COMPANY

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PEPPERMINT TEST FOR FINDING AIR LEAKS IN VACUUM CONDENSATE RETURN LINES

Occasionally we get calls from customers saying that their vacuum pump runs continuously, discharging air, but not producing a vacuum on the system.

This advisory describes temporarily converting the vacuum condensate pump into a blower, and then blowing peppermint vapors into the return lines. Now, wherever peppermint is smelled in the building, the air leak is near-by.

- 1) Valve off or otherwise isolate the vacuum condensate pump from the rest of the return system.
- 2) Pipe the vacuum pump's air discharge pipe back to the condensate return line, upstream from the isolation valve. Rubber hose can be used for this connection. Usual installations have a condensate drain line just upstream of the system isolation valve. The temporary air discharge line can be connected to this drain pipe.
- 3) Remove the vacuum relief valve or otherwise provide a source of air from atmosphere to enter the vacuum condensate pump's tank.
- 4) Take a few ounces of essence of peppermint and pour this into the vacuum condensate pump's tank. If your particular unit has a separate seal or hurling water tank or chamber for the vacuum pumps, pour the peppermint into the hurling chamber.
- 5) Operate the vacuum pump. The peppermint will mix with the water in the vacuum pump and then be pumped out into the return lines. Peppermint vapors will discharge through the air leak to atmosphere where they can be readily detected.

This trick was told to me many years ago by Don Kenton, a service technician of the C. R. Swaney Company of Boston, Ma.

Page 2 is an illustration of this piping arrangement.

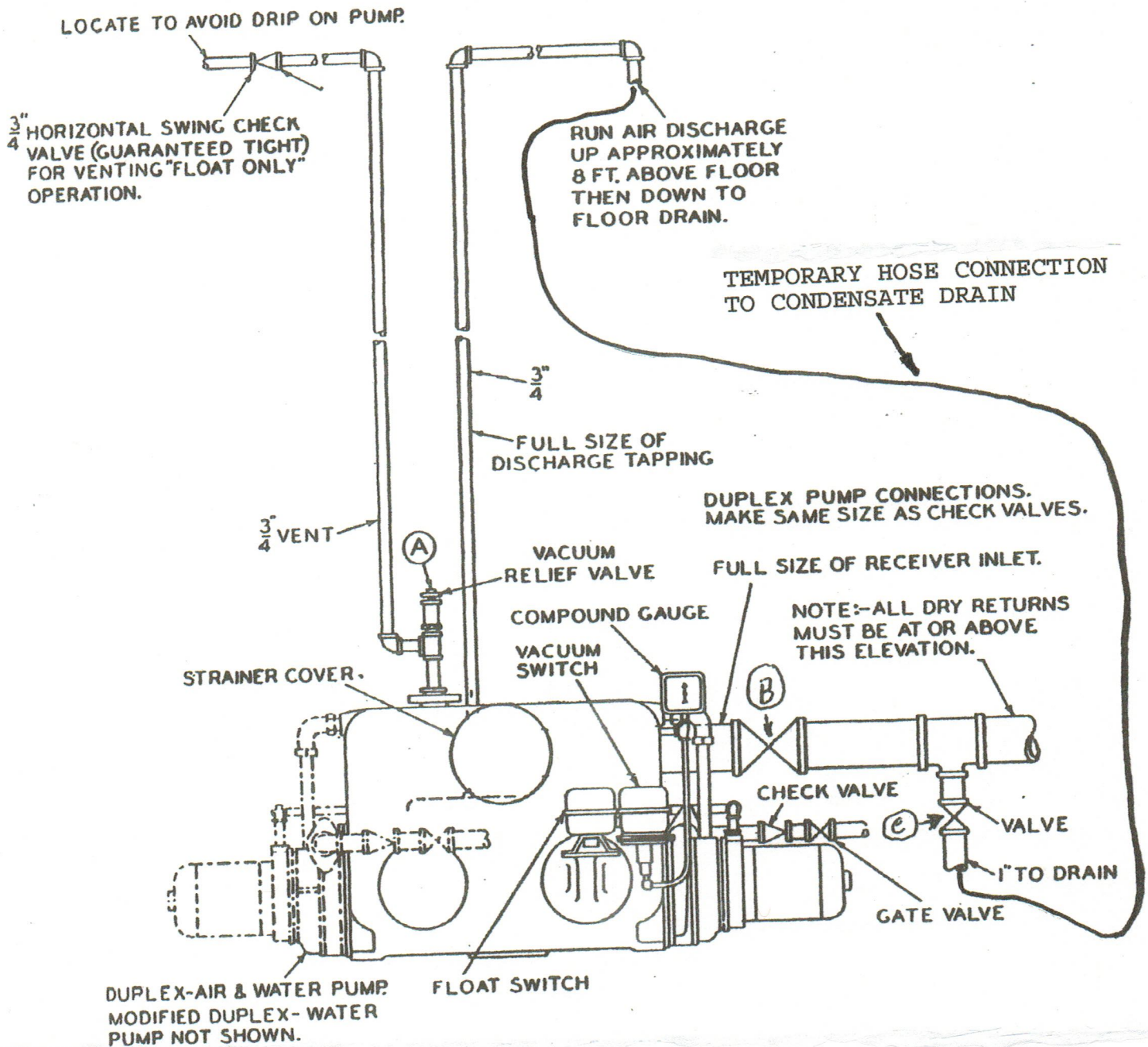
JDP 02/01/06

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PIPE AIR DISCHARGE TO RETURN LINE, UPSTREAM OF ISOLATION VALVE.

REMOVE VACUUM RELIEF VALVE (A) . POUR IN ESSENCE OF PEPPERMINT,

CLOSE ISOLATION VALVE (B) . OPEN DRAIN VALVE (C) .

OPERATE VACUUM PUMP TO PUMP PEPPERMINT VAPORS INTO RETURN LINES.