

HEAD, HOLDING TANK AND MACERATOR PUMP  
OPERATION INSTRUCTIONS AND TROUBLESHOOTING GUIDE

A. USING THE HEAD

1. Read the instructions for operation of the toilet supplied with the marine head. These instructions are also printed on the toilet pump housing. Be sure everyone who will be using the head is familiar with these instructions.
2. Immediately before using the head, the inlet valve, 'A' must be opened. This provides flushing water to the toilet. The valve should be kept closed when the head is not in use. This will prevent water from flooding the boat if the valve in the toilet pump should fail.
3. Waste will be pumped directly into the holding tank when the bowl is emptied. A minimum amount of water necessary for each flush should be used in order to take best advantage of the tanks capacity between pump-outs.

B. EMPTYING THE TANK THRU THE  
DECK DISCHARGE PLATE

1. The holding tank should be emptied via the deck discharge plate only at approved shore based pump-out stations.
2. Remove the cap from the deck discharge plate. The threads on the plate cap should be periodically coated with silicone spray or petroleum jelly to insure a good seal.
3. The pump-out station suction hose should form a seal at the deck plate.
4. Be sure inlet valve 'A' is closed when tank is being emptied.
5. After the tank is empty, you may choose to open valve 'A' and pump some water thru the toilet and into the tank to dilute residual sludge and rinse the tank and lines.

B. CONTINUED

6. Close all valves after the tank is emptied and re-cap the deck plate.

C. EMPTYING THE TANK USING THE MACERATOR PUMP

1. Read the macerator pump operating instructions supplied by the pump manufacturer.
2. Close the inlet valve 'A'.
3. Open the thru hull valve 'B'.
4. Turn on the pump with the switch on the 12 volt panel.
5. The pump will change tone after it becomes primed; it will resume the higher pitched tone after the tank is emptied.
6. You may wish to rinse the tank, hose lines, and macerator pump by pumping clear water through the head, then repeating the procedure for emptying the tank.
7. Close valve 'B' immediately after emptying the holding tank.

## TROUBLE-SHOOTING THE SYSTEM

PROBLEM 1: THE MACERATOR PUMP MOTOR STARTS THEN STOPS.

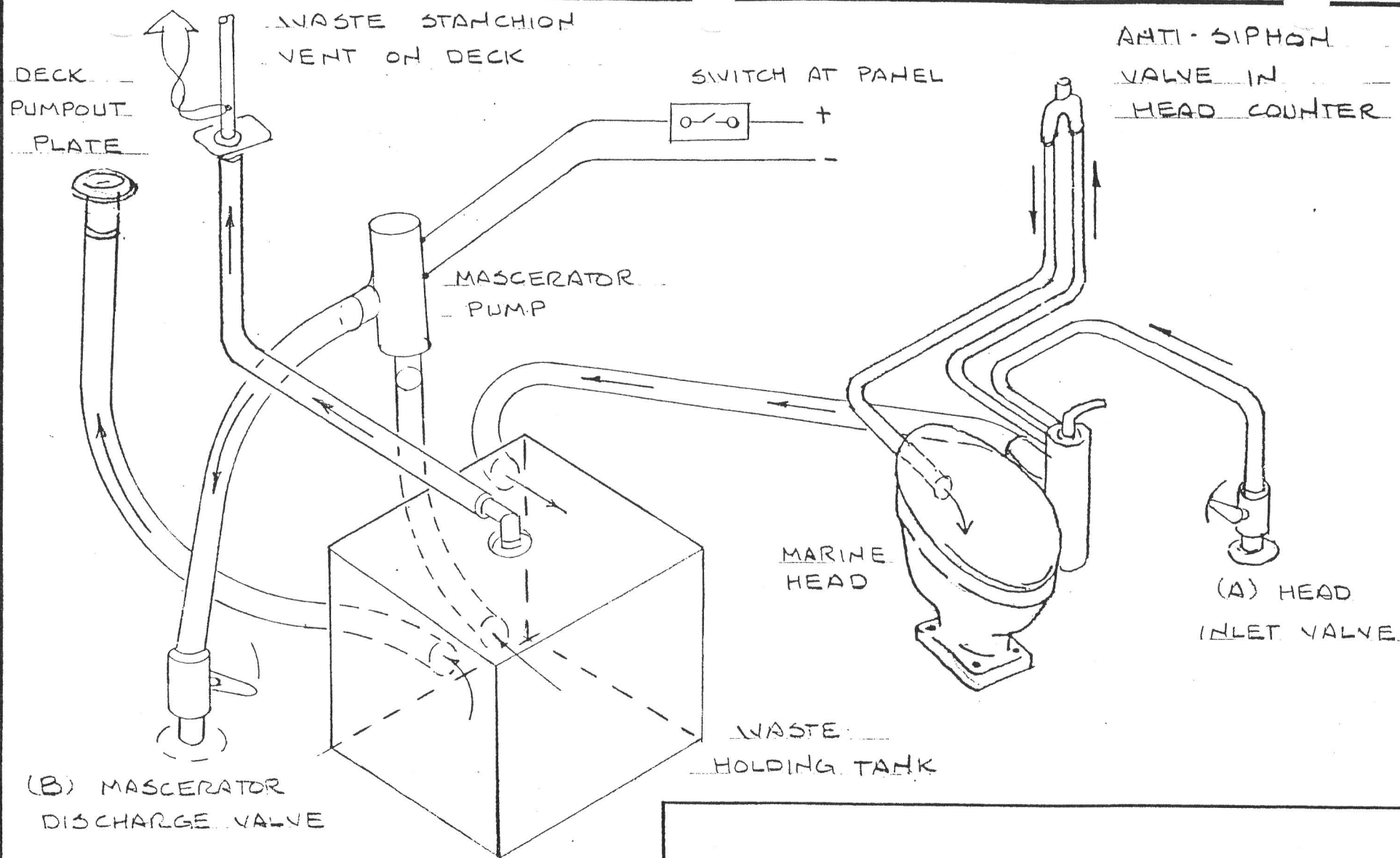
- A. Check the fuse; it should be 20 amp.
- B. Check the valves; 'B' valve must be open.
- C. Check the vent line; if the boat has been sailed at extreme angles of heel, fluid may be clogging the vent line. Disconnect the vent at the tank and empty the hose into a disposable container.
- D. Sludge may have formed in the bottom of the tank. This should be diluted as much as possible. The tank should be emptied regularly to prevent sludge build-up.

PROBLEM 2: THE HEAD TOILET PUMP HAS EXCESSIVE BACK PRESSURE AND WILL NOT EVACUATE THE BOWL.

- A. Refer to the toilet manufacturers specifications and operation instructions.
- B. Check the holding tank; if it appears to bulge each time the pump handle is depressed, the tank is overfilled, or the vent is clogged.

PROBLEM 3: THE MACERATOR PUMP, WHEN ON, MAKES A HIGH PITCHED SOUND BUT DOES NOT EMPTY THE TANK.

- A. Impeller in macerator pump is faulty and must be replaced.
- B. The vent is clogged and the pump cannot pull a prime against the vacuum in the tank.
- C. The hose into the pump may be clogged.
- D. The pump may be drawing air thru the deck plate preventing a prime, check seal at deck plate marked waste, lubricate threads.



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|---|--|--------------|-------------------------------|
| SCALE: <u>NONE</u>                                |  | APPROVED BY: | DRAWN BY <u>GB</u>            |
| DATE: <u>3-25-93</u>                              |  |              | REVISED                       |
| WASTE HOLDING TANK AND<br>MASCERATOR PUMP DIAGRAM |  |              |                               |
| CATALINA 320                                      |  |              | DRAWING NUMBER<br>320-60001-0 |