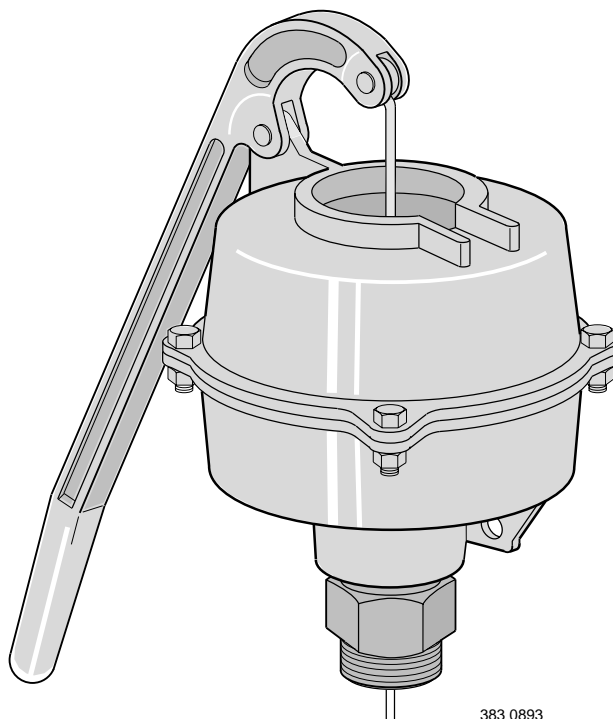




OWNERS MANUAL

INSTALLATION AND OPERATING INSTRUCTIONS
REPAIR PARTS LIST

Centrifugal Pump Primer



MODEL 6D, HAN-DEE PRIMER

IMPORTANT

**For best possible performance...continuous, satisfactory operation,
read these instructions before installing your new pump primer.**

Should service be required, this manual can be a valuable guide, it should be kept near the installation for ready reference.

Berkeley Pumps / 293 Wright Street / Delavan, WI 53115

The 6D "Han-Dee primer is a positive displacement air pump designed specifically for priming centrifugal pumps.

Material

Body-Aluminum Alloy
Diaphragm-Molded synthetic rubber

Performance

Primer Model	Suction Pipe Size						
	2-1/2	3	4	5	6	8	10
	Strokes per Foot of Suction Pipe						
6D	1	2	3	4	6	10	17

Installation

Install the Han-Dee primer on the suction or discharge of any style centrifugal pump. A discharge priming valve or similar air tight valve must be used on the pump discharge to prevent air from being drawn into the pump from the discharge while priming.

Primer location:

There are several tapped holes in the pump case that can be used for priming. Choose one that is at or above the centerline of the impeller eye, which is the minimum level of water required for proper start-up of a centrifugal pump. (Refer to Figure 1).

Notice: Possible damage to primer diaphragm. Install globe valve or equivalent between the primer and pump case when primer is connected to the discharge and pressure developed by the pump exceeds 75 PSI. Refer to Figure 1.

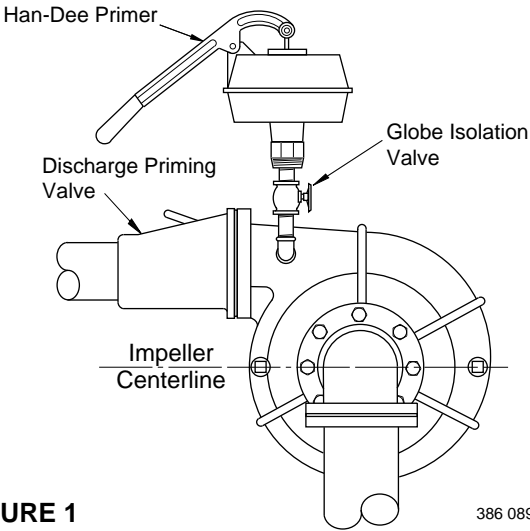


FIGURE 1

Special Instructions

1. Inlet on Model 6D primer has a spring loaded check valve for use when installed on pump suctions. When installing primer on the discharge or pressure side of pump, **remove spring** from the valve assembly as shown in Figure 2.
2. Reinstall check valve (inlet fitting) along with rod and ball assembly.

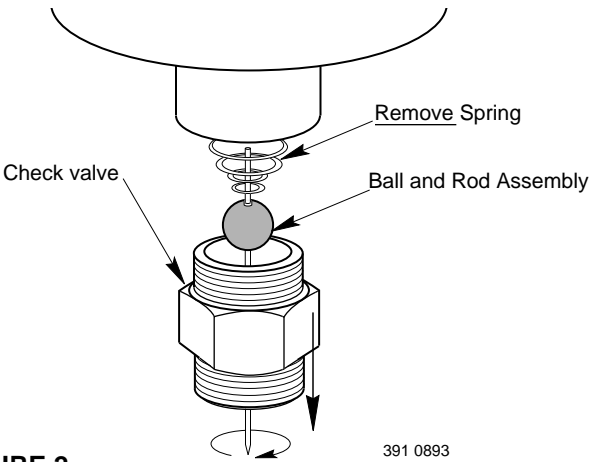


FIGURE 2

3. Primer is shipped with handle off. Attach handle to primer using the clevis and cotter pins provided. This is best achieved after primer mounting is complete. Refer to parts drawing for proper connection.

Mounting

Pump installation will determine the most convenient primer mounting location and fittings required.

- A. Mount directly on pump case using standard pipe fittings. A bracket (not furnished) may be needed to support the primer and prevent damage to piping when operating primer. Refer to Figure 7 on page 4 for primer mounting dimensions.

Figures 3A and 3B show typical primer installations using standard pipe fittings.

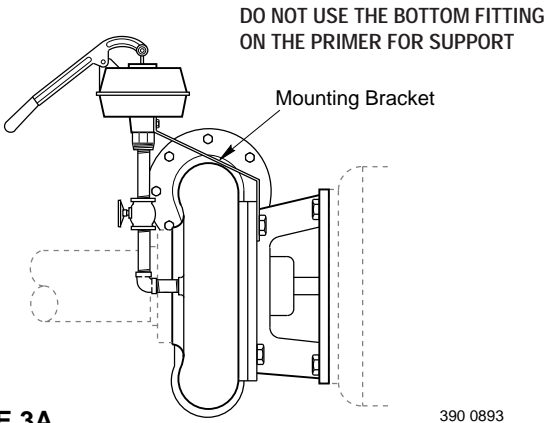


FIGURE 3A

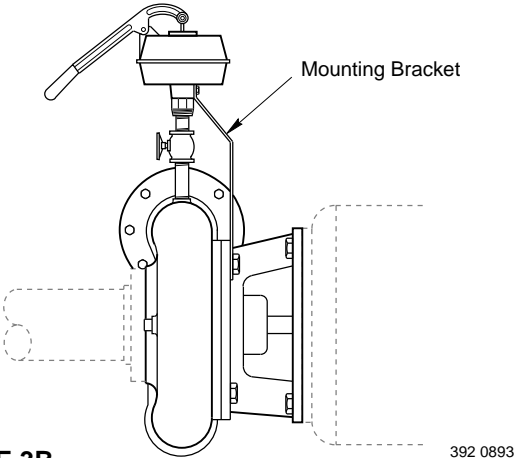


FIGURE 3B

- B. Use **remote mounting kit**, part number B50001 when installing Han-Dee primer on PTO driven pumps or wherever rigid installation is not convenient. Model 6D primer is tapped 1/2" NPT to receive this kit.
1. Assemble remote mounting kit components (see Figure 4). Make sure all connections are tight. Use pipe joint compound sparingly on metal to metal thread connections.

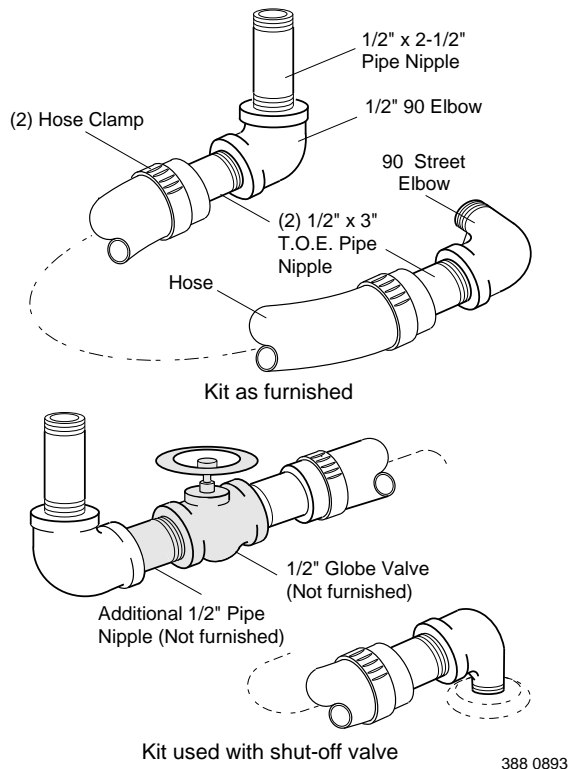


FIGURE 4

2. Attach remote mounting kit to pump and primer as shown in Figure 5.

Notice: Possible damage to primer diaphragm. Install globe valve or equivalent between the primer and the pump case when primer is connected to the discharge and pressure developed by the pump exceeds 75 PSI.

3. Attach primer to trailer or remote bracket using hardware provided in kit. Refer to Figure 5.

Operation

The centrifugal pump case must be filled with water to the level described in the Installation section of this manual before it will start pumping.

Notice: Pump must be primed before start-up. Do not run dry.

As the Han-Dee primer evacuates air from the pump case, atmospheric pressure forces water up through the suction pipe and into the pump case. Any air leaking into the pump will increase the effort and time required to prime the pump. Inspect the suction piping, discharge valve, packing gland, and any drains or vent valves in the pump case to be sure that no air leaks exist.

Proceed as follows:

1. Close pump discharge valve tightly.
2. Open shut-off valve (if used) in primer piping.
3. Work handle of Han-Dee primer up and down. Refer to performance chart at the top of page 2 to determine the approximate number of strokes required for your installation. To maximize primer performance, work handle at the start and finish of priming cycle as shown in Figures 6A and 6B, Page 4.

Notice: If the Han-Dee primer is installed using a shut-off valve, do not attempt to work handle with this valve closed. Damage to diaphragm may result.

FIGURE 5

Pickup photographs for these two figures

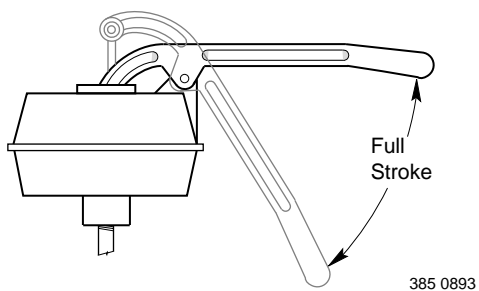


FIGURE 6A – Start of priming cycle, pumping air only

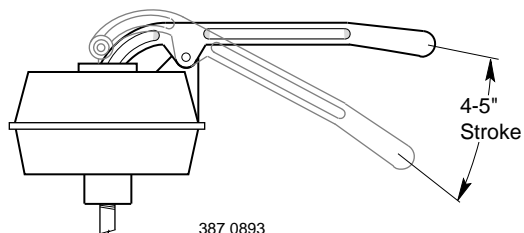


FIGURE 6B – Finish of priming cycle, pumping air/water mixture

4. When water flows freely from opening in top of primer, pump should be primed.
5. Close shut-off valve (if used).
6. Start pump and open discharge valve slowly to allow any air remaining in the pump case to escape.
7. If unit fails to prime, refer to trouble shooting guide at right.

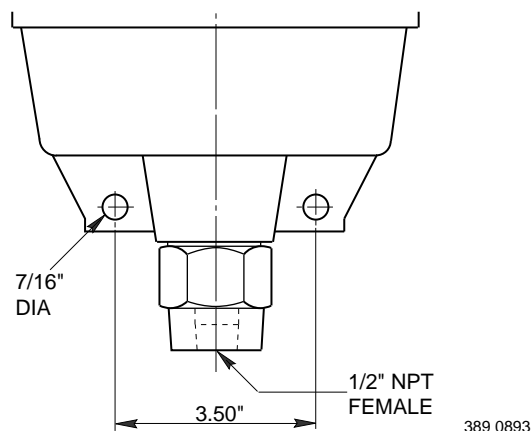


FIGURE 7 – Primer mounting dimensions

Trouble - Cause and Remedy

Water continues to flow from pump into primer after priming is complete:

Primer check valve did not close.

To close, bring primer handle to mid-stroke. Give sharp downward stroke.

Pump fails to prime:

Air leak.

Check all primer connections. Check all pump suction connections. Check all pump discharge connections.

Insufficient water level in pump case.

Check primer connection to pump case. Piping must be at or above centerline of impeller eye.

Pump loses initial prime:

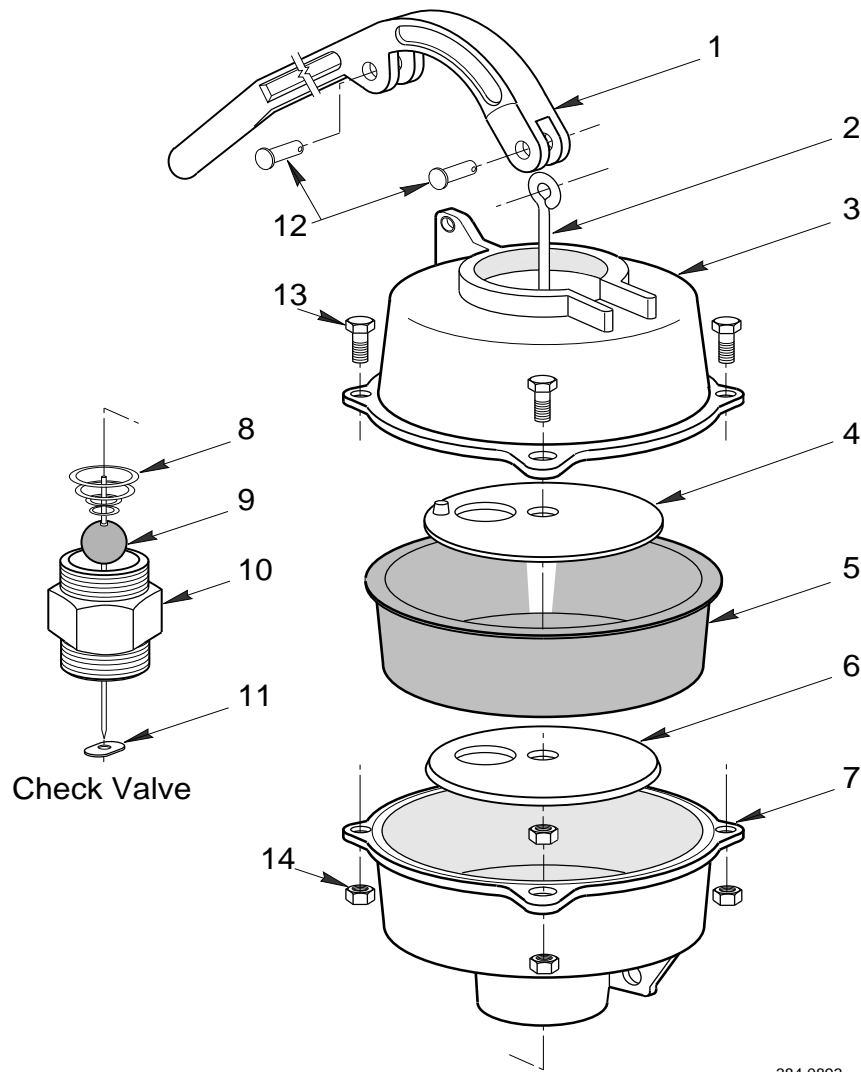
Air trapped in suction piping.

Check for high spots in suction line, refer to centrifugal pump owner's manual for recommended/not recommended suction connections.

Air leaking through packing.

Check packing lantern ring for sufficient grease to prevent air from being drawn in during pressure drop.

EXPLODED VIEW



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REPAIR PARTS LIST

Key	Part Description	Qty.	Part No.
1	Handle	1	L01221
2	Diaphragm rod	1	S08561
3	Upper Housing	1	M03258
4	Diaphragm retainer plate-top	1	S08816
5	Diaphragm	1	S05467
6	Diaphragm retainer plate-bottom	1	S05470
7	Lower housing	1	M03259
8	Spring-check valve	1	S10893
9	Rod and ball assembly	1	S08789
10	Check valve seat	1	S08788
11	Guide-check valve	1	S08813
12	Clevis Pin 3/8"	2	S28333
•	Cotter Pin	2	S14923
13	Capscrew 3/8-16	4	S24893
14	Hex Nut 3/8-16	4	S26456

• Not shown.

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Berkeley/Wicor Canada, Inc. ("Wicor") warrants to the original consumer purchaser ("Purchaser") of its products that they are free from defects in material or workmanship.

If within twelve (12) months from the date of installation or twenty-four (24) months from the date of manufacture any such product shall prove to be defective, it shall be repaired or replaced at Berkeley's/Wicor's option, subject to the terms and conditions set forth below.

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Purchaser must pay all labor and shipping charges necessary to replace product covered by this warranty. This warranty shall not apply to products which, in the sole judgement of Berkeley/Wicor, have been subject to negligence, abuse, accident, misapplication, tampering, alteration; nor due to improper installation, operation, maintenance or storage; nor to other than normal application, use or service, including but not limited to, operational failures caused by corrosion, rust or other foreign materials in the system, or operation at pressures in excess of recommended maximums.

Requests for service under this warranty shall be made by contacting the installing Berkeley/Wicor dealer as soon as possible after the discovery of any alleged defect. Berkeley/Wicor will subsequently take corrective action as promptly as reasonably possible. No requests for service under this warranty will be accepted if received more than 30 days after the term of the warranty.

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