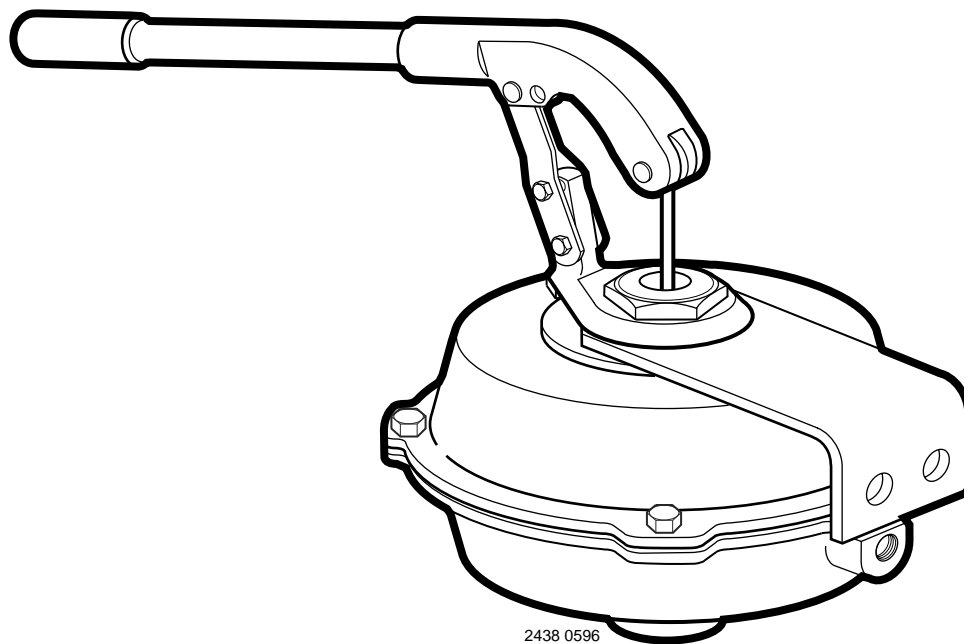




OWNERS MANUAL

INSTALLATION AND OPERATING INSTRUCTIONS
REPAIR PARTS LIST

Centrifugal Pump Primer



2438 0596

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 9A "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						
9A	1/2	3/4	1	1-1/2	2	3-1/2	5

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.

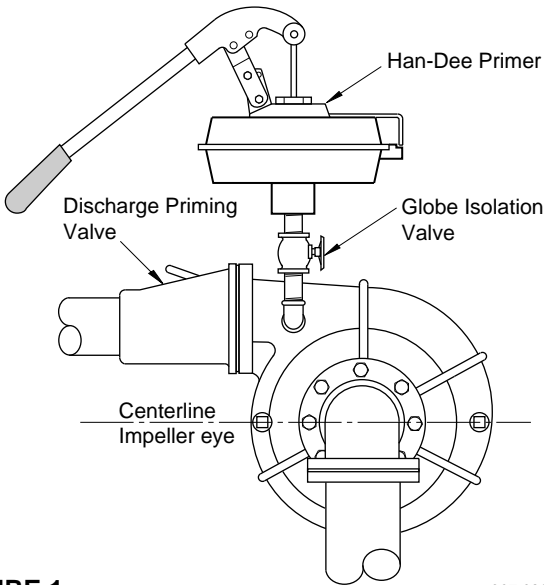


FIGURE 1

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Notice: 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 2A and 2B show typical primer installations using standard pipe fittings.

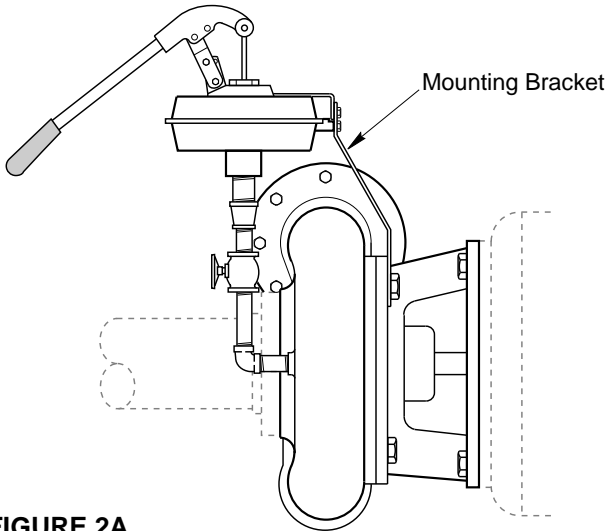


FIGURE 2A

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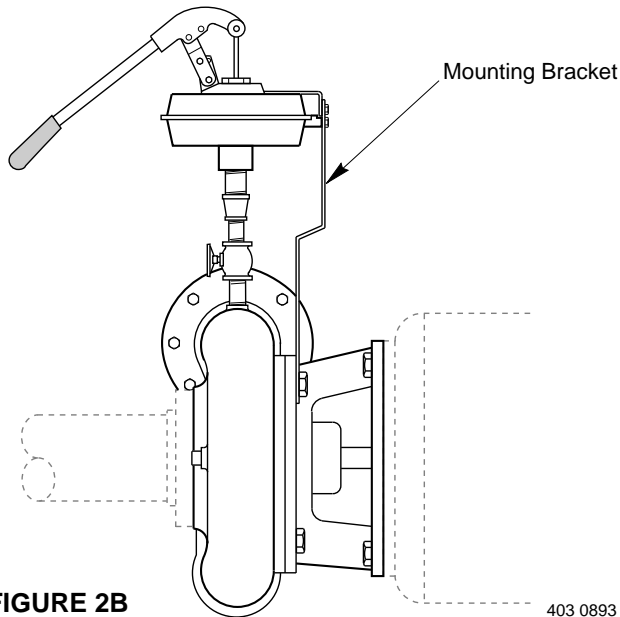


FIGURE 2B

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- B. Use remote mounting kit, Berkeley part number B50001 when installing Han-Dee primer on PTO driven pumps, or wherever rigid installation is not convenient. Kit is supplied with 1/2" NPT fittings. The Model 9A primer has a 3/4"NPT inlet which will require the use of a 3/4" NPT x 1/2" NPT reducer bushing (not furnished) to adapt to this kit.

1. Assemble remote mounting kit components (See Figure 3). Make sure all connections are tight. Use pipe joint compound sparingly on metal to metal thread connections.

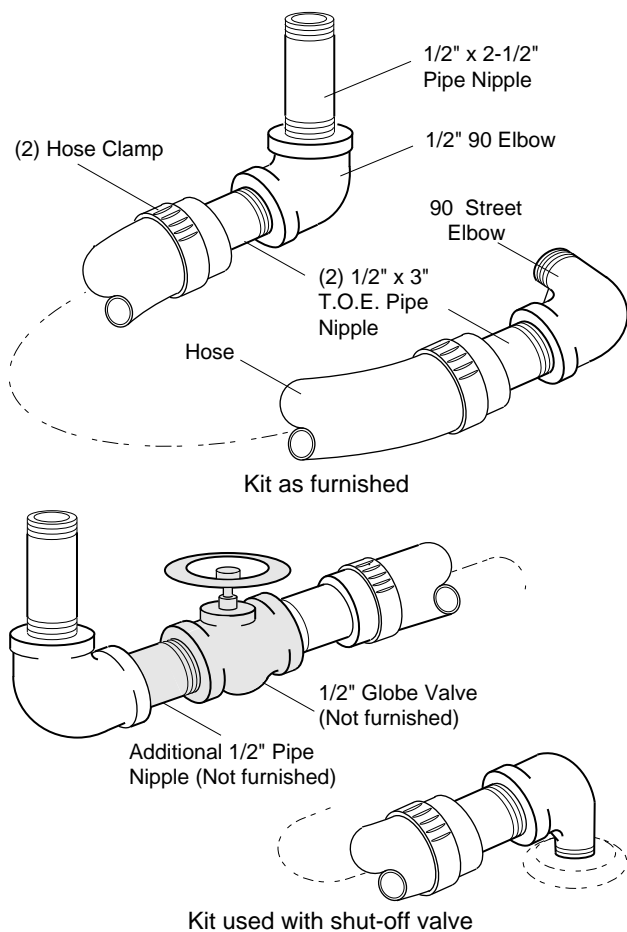


FIGURE 3

2. Attach remote mounting kit to pump and primer as shown in Figure 4.

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.

Notice: Mounting the 9A primer to the PTO trailer bracket may require drilling additional holes in bracket.

See figure 7 on page 4 for primer mounting dimensions.

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.

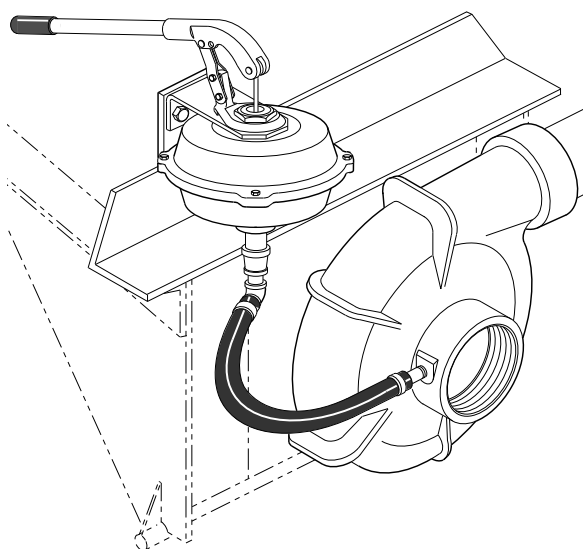
As the Han-Dee primer evacuates air from the pump case, atmospheric pressure forces water up through the suction pipe and into the pump case. Any air leaking into the pump will increase the effort and time required to prime the pump. Inspect the suction piping, discharge valve, packing gland, and any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

Proceed as follows:

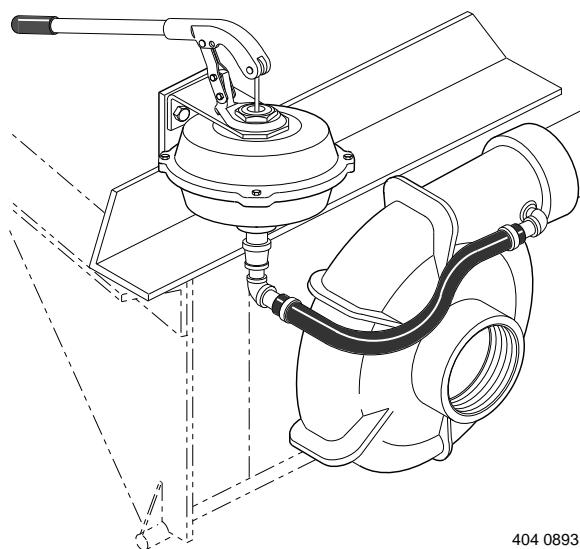
1. Close pump discharge valve tightly.
2. Open shut-off valve (if used) in primer piping.
3. Work handle of Han-Dee primer up and down. Refer to performance chart at the top of page 2 to determine the approximate number of strokes required for your installation. To maximize primer performance, work handle at the start and finish of priming cycle as shown in figures 5A and 5B.

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 4



Primer mounted on trailer into pump case suction



Primer mounted on trailer into pump case discharge

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. Open drain cock at the bottom of primer to drain water from the primer suction chamber after each use. **Close drain when using primer.**

The model 9A primer has an adjustable stroke to

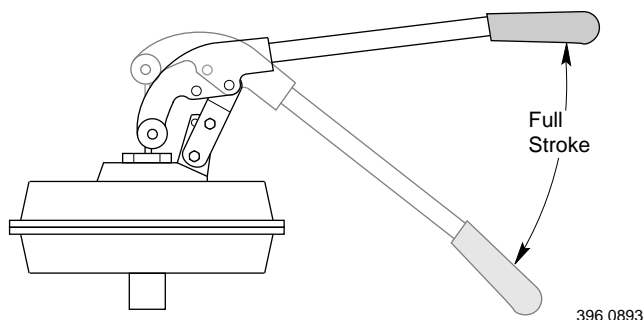


FIGURE 5A – Start of priming cycle, pumping air only

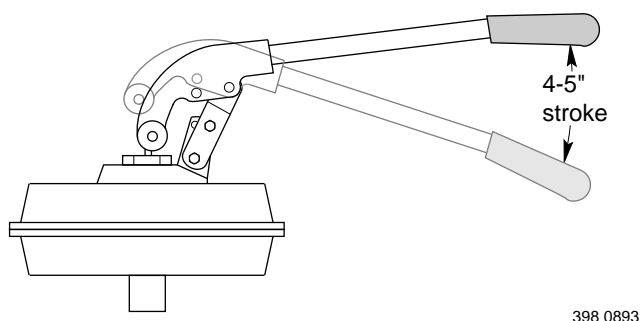


FIGURE 5B – Finish of priming cycle, pumping air/water mixture

maximize either suction lift or capacity. A 3-1/2" stroke gives maximum suction lift and a 4-1/2" stroke gives maximum capacity. Refer to Figure 6 for proper adjustment.

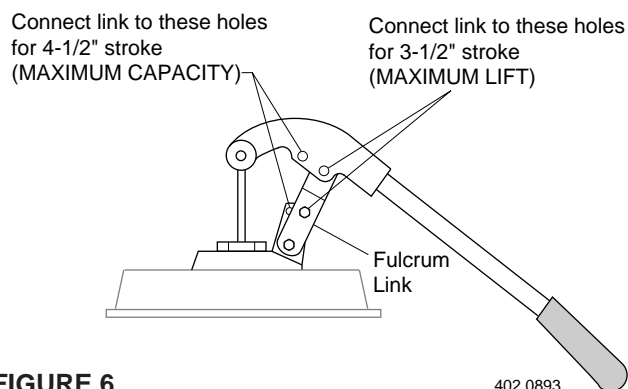


FIGURE 6

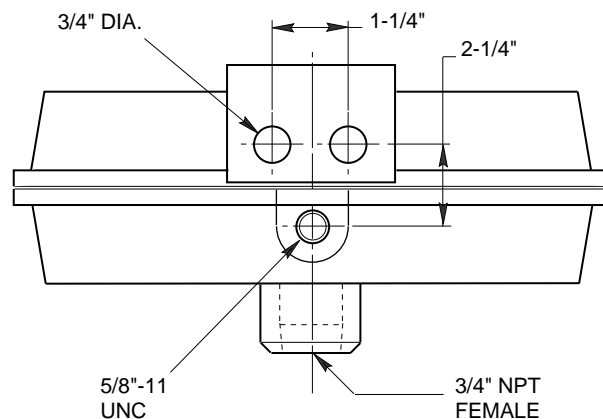


FIGURE 7 – Primer Mounting Dimensions

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:

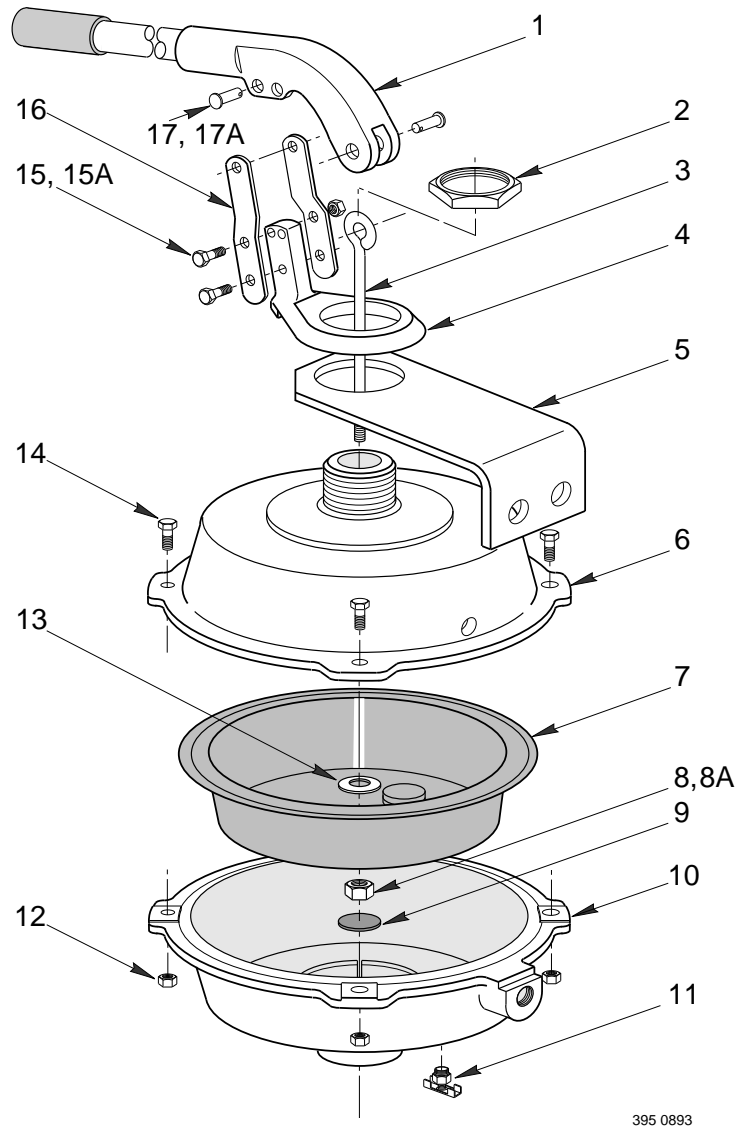
Air trapped in suction piping.

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.	Key	Part Description	Qty.	Part No.
1	Handle (A343/A344)	1	S19347	10	Lower Housing (B62)	1	L05271
2	Lock Nut 1-1/2 NPT	1	S19071	11	Drain Cock (A340)	1	S23708
3	Eye Bolt (A127)	1	S19070	12	Hex Nut 1/4-20	4	S26452
4	Fulcrum Brkt (A131)	1	S19064	13	Flat Washer 3/8"	1	S23050
5	Mounting Brkt (B104)	1	M06660	14	Capscrew 1/4-20	4	S24839
6	Upper Housing (B63)	1	L05270	15	Capscrew 5/16-18	2	S24869
7	Diaphragm (B61)	1	M06653	15A	Hex Nut 5/16-18	2	S26454
8	Hex Nut 3/8"	1	S26456	16	Fulcrum Link (A129)	2	S19074
8A•	Lock Washer 3/8"	1	S23036	17	Clevis Pin	2	S28333
9	Check Valve (A4)	1	S19067	17A•	Cotter Pin	2	S14923

• Not shown.

LIMITED WARRANTY

Berkeley Pumps warrants to the original consumer of the products it manufactures that the products will be free from defects in material and workmanship for the warranty period of twelve (12) months from date of installation or twenty-four (24) months from date of manufacture, whichever occurs first.

Our warranty will not apply to any product that has been subject to negligence, misapplication, improper installation or maintenance.

Buyer's only remedy and Berkeley's only duty is to repair or replace defective products (at Berkeley's choice). Buyer agrees to pay all labor and shipping charges associated with this warranty and to request warranty service through the installing dealer as soon as a problem is discovered. If warranty service is requested more than 30 days after the warranty period has ended, it will not be honored.

BERKELEY SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR CONTINGENT DAMAGES WHATSOEVER.

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Supersedes all previous publications.

**Berkeley Pumps
293 Wright Street / Delavan, Wisconsin 53115**