



Whale Gusher® 10 Mk3 Pump

BP3708 / BP3740

INSTALLATION & USER INSTRUCTIONS

Thank you for purchasing this Whale® product.

For over 60 years Whale® has led the way in the design and manufacturer of water and waste systems including:- plumbing, faucets, showers and pumps for low voltage applications.

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Read the following carefully before installation

To the Fitter:

Check that the product is suitable for the intended application. Follow these installation instructions and ensure all relevant personnel read the points listed below. Also ensure that these operating instructions are passed on to the end user. The manufacturer cannot be held responsible for claims arising from incorrect installation, unauthorised modification or misuse of the product.

To the User:

Read the following instructions carefully.

1. PRINCIPLES OF OPERATION

This bilge pump is designed to exhaust standing water only. Manufactured from durable diecast alloy to withstand tough marine conditions.


2. SPECIFICATION

Model	On Deck / Bulkhead	Thru Deck / Bulkhead (includes deck plate)
Product Code	BP3708	BP3740
Hose Connections	38 mm (1 1/2") Smooth Hose Connections	
Weight	2.3 kg (5 lbs)	
Materials	Pump Body: Marine Grade LM6 Aluminium Alloy (epoxy coated). Diaphragm: Neoprene (Nitrile® option available) Fasteners: Stainless Steel	
Materials In Contact With Fluid	Marine Grade LM6 Aluminium Alloy (epoxy coated). Neoprene, Nitrile®, Stainless Steel	
Service Kit	AK3706 - Neoprene Parts AK3714 - Nitrile® Parts for Oil & Diesel Contains: Diaphragms, Valves, Gasket	
Maximum Suction Lift	4 m (13.5ft)	
Maximum Discharge Head	4 m (13.5ft)	
Performance Data	BP3708 / BP3740	BP3708 / BP3740
Suction Lift	1 m (3 ft)	2 m (6 ft)
Discharge Head	0.5 m (1.5 ft)	0.5 m (1.5 ft)
45 Strokes per Minute	41 ltrs (11 US gals)	41 ltrs (11 US gals)
70 Strokes per Minute	65 ltrs (17 US gals)	65 ltrs (17 US gals)

3. APPLICATION

This bilge pump is suitable as a primary bilge pump on boats equal to or greater than 12m (40ft). Output capacity depends on installation, conditions during use and pumping rate. Users should be aware that capacity may not be sufficient to cope with rapid influx of water. If it is intended for any other purpose or with any other liquid, it is the users responsibility to ensure that the pump is suitable for the intended use and, in particular, that the materials are fully compatible with the liquids to be used.

4. WARNINGS

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- The pump is designed to evacuate standing bilge water only. Bilge pump capacities may not be sufficient to prevent flooding from rapid accumulation of water due to storms, rough weather and/ or rapid leaks created by hull damage and or unsafe navigational conditions.
 - Fitting an inlet strainer will ensure the maximum efficiency of the pump.
 - This pump is not for use in systems evacuating water through a skin fitting or seacock below the waterline. All pipework must contain a correctly installed anti-syphon valve/loop (next page see Fig 3 - Typical installation diagram).
 - **Not** suitable for pumping flammable liquids, diesel, chemicals etc. Suitable for bilge water only.
 - With all applications, it is important that a system of safe working practice is applied to installation, use and maintenance. Ensure the waste water system is drained before installation. In order to securely fasten the unit, ensure that the mounting surface is a minimum thickness of 18mm (45/64") as shown in Fig. 4
 - **NOTE Do not** screw directly to the hull - must be mounted on a bulkhead or on an additional board.

5. PARTS LIST

1 x Mk3 Gusher® 10 pump
 1 x Stainless steel handle
 (BP3740 includes deckplate)
 1 x Mounting hole template

6. OPTIONAL EXTRAS

AS4405 - Spare handle
 DP3804 - Metal deckplate & lid
 DP8904 - Plastic deck plate
 SB5865 - Strum box (top entry)
 SB4222 - Strum box (side entry)

7. INSTALLATION

Fig. 1 Through deck installation



Fig. 2 Incorrect installation

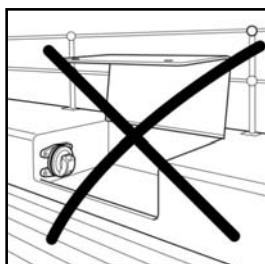
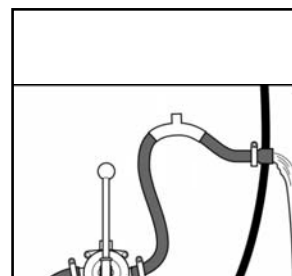


Fig 3 - Typical installation diagram



Please note that incorrect installation may invalidate the warranty.

LOCATION

Choose a position to mount the pump that is dry and away from standing water and is free from obstacles, where the pump can be operated efficiently and comfortably. Ensure that the pump is installed to allow easy access for servicing.

Avoid installation locations which require a cockpit locker to be opened in order to operate the pump.

To ensure good priming and flow:

- Avoid sharp bends in pipework.
- Fit a Whale strumbox / strainer part number SB4222 / SB5865 which prevents the end of the hose sucking against a flat surface and allows the water level to be reduced to a minimum.
- To minimise pumping effort, site the pump halfway (in height) between the strumbox / strainer and hull outlet.
- Mount in a position with the shortest run lengths possible.
- Use a reinforced hose on inlet to prevent collapsing during suction.

The Gusher® 10 is designed for mounting on deck / bulkhead (BP3708), or through deck / bulkhead (BP3740). The handle can be fixed on four different positions relative to the inlet and outlet (see Fig. 4).

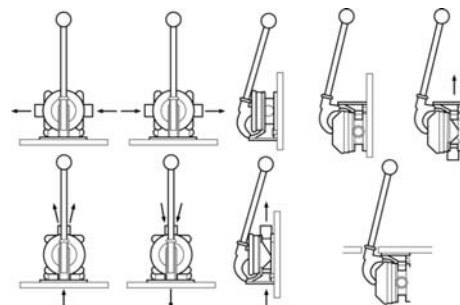


Fig. 4 Mounting arrangements for a standard model

To Reposition Handle:

- Slacken wormdrive clip and remove diaphragm
- Undo the bolts from bracket and rotate body to new position relative to the fork and diaphragm. **Note:** Inlet and outlet are always at 180 degrees to each other
- Reassemble bolts, washers and securing brushes in bracket and tighten

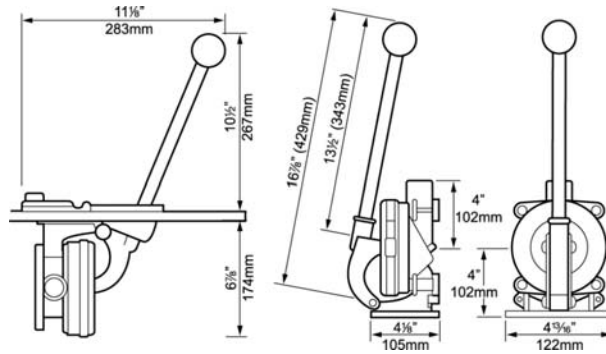


Fig. 5 Dimensions

For Mounting On Deck/Bulkhead:

1. Use pump as a template, mark off and drill four 1/4" (6mm) holes.
2. Check flow direction and secure the pump with 1/4" (6mm) bolts.
3. Attach 1 1/2" (38mm) smooth bore reinforced hose with stainless steel worm drive hose clips. Tighten to prevent air leaks.
4. With thru-hull discharge, make sure that the discharge point is above the maximum heeled water line.
5. Check the installation for air leaks, correct priming and discharge.

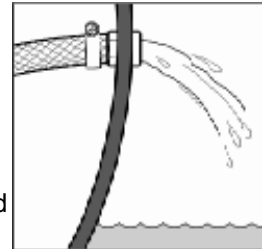


Fig. 6 Discharge point

For Mounting Underdeck or Thru Deck/Bulkhead

Two deckplates available - see accessories

1. Using template mark off the 6 holes for the mounting and cut out the hole for the pump handle. To preserve the gaiter, ensure the top edge of this hole has no sharp edges.

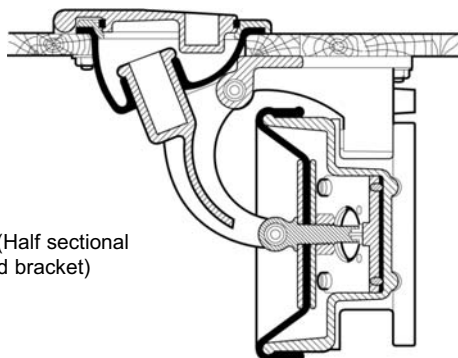


Fig. 7 Deck fitting for Gusher Pumps (Half sectional elevation of deck fitting, pump and bracket)

2. Minimum deck thickness required is 1/4" (6mm). For thinner decks use a backing plate of suitable thickness so that the backing plate plus the deck is at least the minimum thickness and no greater than 1" (25mm). Bond the backing plate to the deck. If using Deck plate DP3804 the minimum deck thickness is 1/2" (13mm).
3. Position the pump under deck and check flow direction. Work the rubber gaiter up through the hole until its flange rests on the deck. Secure the 6 1/4" (6mm) countersunk mounting screws provided.
4. As points 3 - 5 of previous instructions.

OPERATION

The Gusher® 10 ensures efficient throughput with an easy pumping action. Full even strokes will obtain the best results. The detachable handle is fitted with a lanyard and should be safely secured close to the pump.

Performance data is based on factory tests and is typical of what may reasonably be achieved. Actual performance may vary depending on installation and operating conditions.

8. MAINTENANCE

This Whale Gusher® 10 is designed to only require minimal maintenance.

WARNING: Before servicing pump, drain water from system.

Inspection:

The diaphragms and inlet valves are held in place by the groove in the pump body and cover. Following inspection, ensure that they are seated properly in the grooves before tightening the covers in place. Regular inspection of the pump is recommended. Access to the pump chamber is quick and easy, requiring no tools. Rubber components should be replaced if worn or every three years regardless of condition.

During periodic shipboard inspections, the bilge pump should be visually inspected to confirm parts are in good condition, especially rubber parts and mounting arrangements. The pump should be operated to show that it pumps water efficiently.

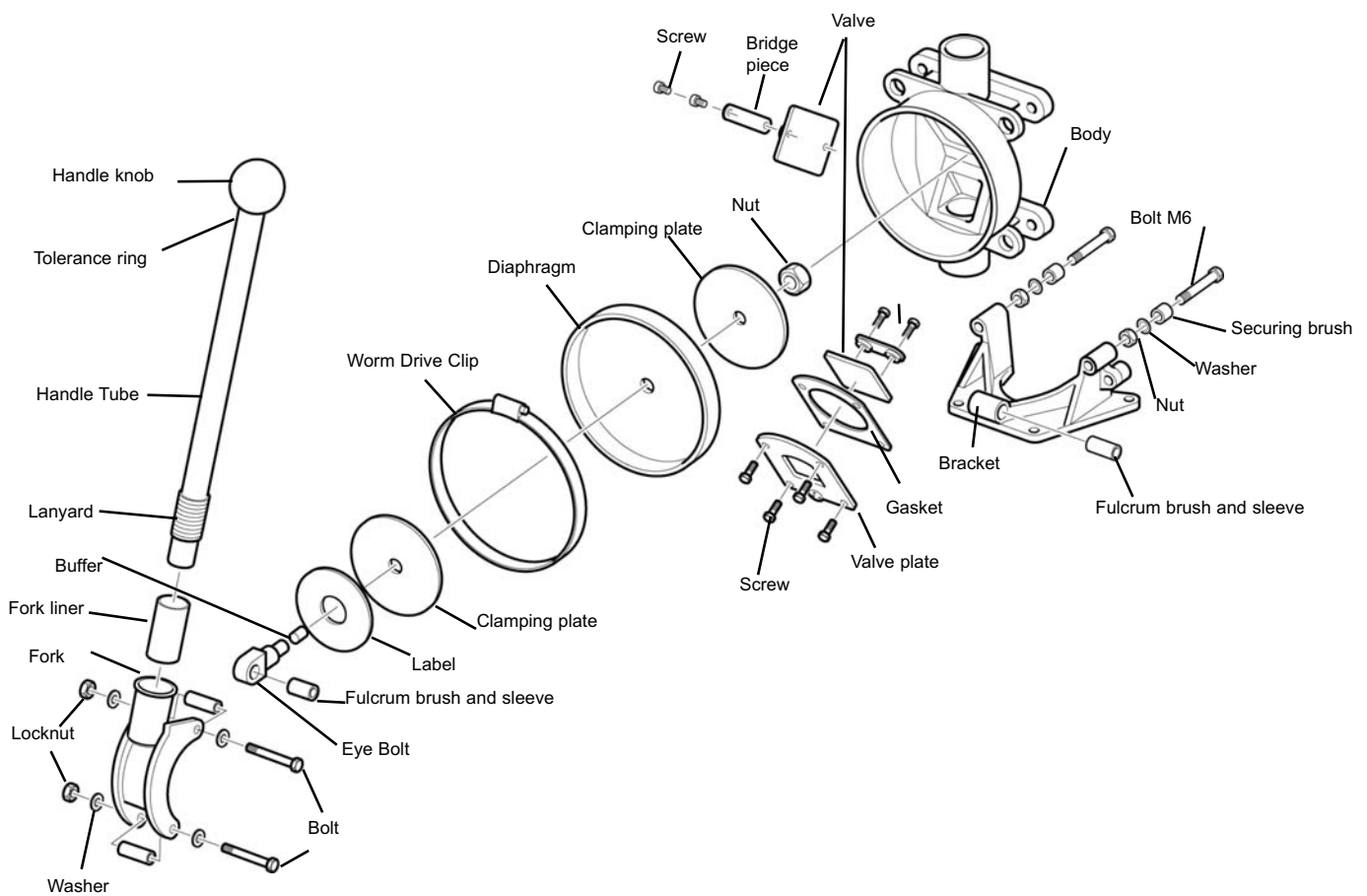


Fig. 8 Exploded diagram

Annual Checks

- Whale advise that the boat's plumbing system is checked annually for leaks and obstructions.

Optimal Performance

- Ensure this product is clear of debris

It is recommended a service kit is kept on board. These are available from your local chandlery.

Changing the Diaphragm and Valves

1. Slacken and remove the wormdrive clip to release the diaphragm.
2. Release diaphragm nut and remove diaphragm plates and diaphragm.
3. Replace old inlet and outlet valves. Note: both inlet and outlet valves are same shape. The service kits contain two sets of valves - round ones for the MK 2 pump and square valves for the MK 3 pump. DO NOT mix the valve types!
4. Replace diaphragm and tighten wormclip in position and test for correct priming and discharge.

9. TROUBLE SHOOTING

Fails to prime	Inlet hose fault	Check inlet hose connection is airtight, free from blockages and does not collapse during suction stroke
	Diaphragm failure	If damaged replace all rubber parts (see Service kits)
	Debris in the body of the pump	May not prevent its operation but should be removed to prevent damage
	Inlet and/or outlet valve failure	Inspect and remove any debris. If damaged replace (see Service kits)

10. WINTERISING

Note: Annually at the end of the season, fully drain all water in the pipework and pump chamber. Whale® cannot guarantee warranty if the system is not fully drained for winterising.