



Whale Gusher® Urchin® Bilge Pumps

READ CAREFULLY BEFORE INSTALLATION AND USE

To the Fitter: Check that the product is suitable for the intended application, follow installation instructions and ensure operating instructions are passed on to the end user.

To the User: Read the instructions carefully. (See parts diagram)

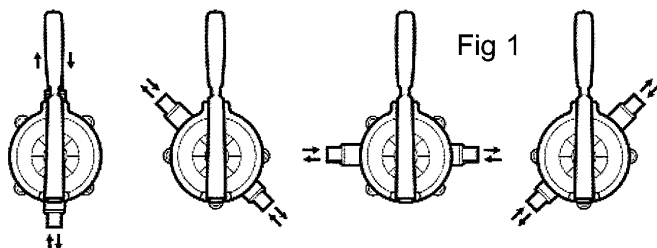
APPLICATION

This bilge pump is designed discharge normal bilge water. Output capacity depends on installation conditions and pumping rate. (see fig. 2)

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. With all applications it is important that a system of safe working practice is applied to installation, use and maintenance.

Regular inspection is recommended replacing components as necessary. Service kits and replacement components are available from dealers or direct from the manufacturer. The manufacturer cannot be held responsible for claims arising from incorrect installation, unauthorised modification or misuse of the product.



INSTALLATION

Fixed and removable handle models (BP9005 AND BP9021) allow considerable flexibility in the choice of handle position in relation to the direction of flow (Fig 1).

This is achieved by releasing the pinching screw, removing the clamping ring easing the diaphragm off and rotating the body to the required position. Re-secure the diaphragm, clamping ring, pinching screw and nut. Inlet is always 180 degrees opposite outlet.

Select a suitable position for installation where the pump can be operated comfortably with the full movement of the handle available.

A lanyard is supplied with the removable handle models. Ensure this is used to secure the handle convenient to the pump. Complete the installation using 6mm (1/4") bolts to secure the pump. Stepped inlet/outlet nipples allow for the use of either 25mm or 38mm (1" or 1 1/2") hose. If the larger diameter is required, saw off the 25mm portion. Male and female elbows EB3364(25mm/1") EB3488 (38mm/ 1 1/2") are also available to fit directly to both sizes of nipple to facilitate installation in tight corners. Ensure airtight seals with good quality s/s wormdrive hose clips.

For underdeck installation (model BP9013), the deck thickness must be a minimum of 13mm (1/2") and a maximum of 25mm (1"). (See template supplied with underdeck model). With the underdeck model, the flow direction can be reversed by following the instructions above.

MAINTENANCE

Regular inspection of the pump is recommended. Rubber components should be replaced if worn or every three years regardless of condition.

Replacement components and service kits (AK9003 for Neoprene (clean bilge water) and AK9011 for Nitrile (oily bilge water)) are available from your local chandlery. It is recommended a service kit is kept on board.

Replacing rubber components

To change the diaphragm and valves, release the pinching screw and slacken the clamping ring securing the diaphragm. Release the circlips at both sides of the fulcrum pin to expose the clamping bolt. Remove and replace inlet and outlet valves and diaphragm.

Replace the clamping bolt and tighten. Secure to operating lever, replace the diaphragm on the pump body and secure

the lever to the clamping plate using the fulcrum pin and circlips. Finally reposition and secure the clamping ring. Check for leaks and ensure correct priming and discharge.

FAULT FINDING

If pump fails to prime or chokes check for:

1. Blockages in inlet hose or air leaks at connection to pump - clear blockage.
2. A torn diaphragm - use service kit
3. Dirt under valves or distorted valves - use service kit
4. Collapse of inlet hose on inlet stroke - use reinforced hose.

WARRANTY

Whale Pumps are guaranteed for 5 years (1 year on rubber parts) from date of purchase against defects in materials and workmanship. If the unit proves faulty return it to your supplier with proof of purchase and purchase date.

The manufacturer retains the right to repair or replace the unit.

The manufacturer cannot be held responsible for claims arising from the incorrect installation, unauthorised modification or misuse of the product.

The above does not affect your statutory rights.

**Fig 2 - Gusher Urchin 1" (25mm) Hose Bore
Output in Gallons (Litres) per minute**

Lift in metres	Head in metres	At 60 strokes/min	At 70 strokes/min	At 80 strokes/min	At 90 strokes/min
1	0.5	8.00	8.10	9.40	10.40
		36.37	38.81	42.73	47.28
2	0.5	7.30	8.30	10.10	9.70
		33.19	37.73	45.92	44.10
3	0.5	6.90	7.90	7.90	8.90
		31.73	35.91	35.91	40.46

**Fig 3 - Gusher Urchin 1 1/2" (38mm) Hose Bore
Output in Gallons (Litres) per minute**

Lift in metres	Head in metres	At 60 strokes/min	At 70 strokes/min	At 80 strokes/min	At 90 strokes/min
1	0.5	10.90	11.60	12.60	15.00
		49.55	52.73	57.28	68.19
2	0.5	10.10	11.60	13.70	14.21
		45.92	52.73	62.28	64.60
3	0.5	9.50	10.80	11.20	12.10
		43.19	49.10	50.92	55.00