

Gusher® Urchin

The ideal pump for confined space

Manufactured by hand using high grade materials based on more than 60 years experience



Product code: BP9005



A Design That Has Been Tried Tested And Trusted By Sailors For Decades

- Ease of operation - Smooth action
- Clamp ring easily removed for pump head rotation and quick maintenance
- Versatility of design
 - Dual size nozzles for 25 mm (1") or 38 mm (1½") hose to suit your plumbing
- Efficient performance
 - up to 55 ltrs (14.5 US gals) per minute
- Three different mounting options (deck, bulkhead and thru deck models)

5 Year Warranty

Tips It is important to ensure that a vented anti-syphon loop is incorporated in the system

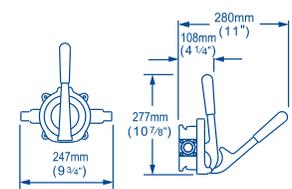
Awards and Accreditations

- 25mm (1") Hose connection - Suitable as a primary bilge pump on boats up to 12m (40ft) in accordance with ISO15083
- 38mm (1½") Hose connection - Suitable as a primary bilge pump on boats equal to or greater than 12m (40ft) in accordance with ISO15083

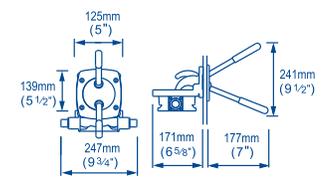
i Product Information

Model Specifications			
Model	On Deck Fixed Handle	Thru Deck / Bulkhead	On Deck Removable Handle
Product Code	BP9005	BP9013	BP9021
Weight	0.6 kg (1.3 lbs)	0.96 kg (2 lbs)	0.7 kg (1.5 lbs)
Hose Connections	25 mm (1") or 38 mm (1½") Smooth Hose Connections		
Materials	Pump Body: Glass-filled Polypropylene, Clamp Ring: Acetal Diaphragm: Neoprene, (Nitrile® option available) Operating Lever BP9005: Glass-filled Nylon Handle (BP9021 and BP9013 only), Springs, Fasteners: Stainless Steel		
Materials In Contact With Fluid	Glass-filled Polypropylene, Nitrile®, Neoprene, Stainless Steel		
Service Kits	AK9003 - Neoprene Parts AK9011 - Nitrile® Parts for Oil and Diesel Contains: Diaphragms, Valves and Circlips AS9061 - Whale Gusher Urchin - Fork Assembly Under deck + Rh AS9062 - Whale Gusher Urchin - Clamp Ring Kit Std+Rh AS9066 - Whale Gusher Urchin - Clamping Plate Kit AS9064 - Gusher Urchin Thru Deck or Bulkhead Service Kit		
Accessories	AS8680 - Spare Handle (for BP9013 & BP9021 only) AS9060 Service Kit - Whale Gusher Urchin - Std Operating Lever Kit		
Maximum Suction Lift	4 m (13.5 ft)		
Maximum Discharge Head	3 m (10 ft)		

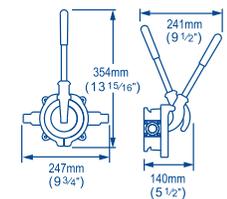
Performance Data		
25 mm (1") Hose	BP9005 / BP9013 / BP9021	BP9005 / BP9013 / BP9021
Suction Lift	1 m (3 ft)	2 m (6 ft)
Discharge Head	0.5 m (1.5 ft)	0.5 m (1.5 ft)
45 Strokes per Minute	25 ltrs (7 US gals)	25 ltrs (7 US gals)
70 Strokes per Minute	43 ltrs (11.4 US gals)	40 ltrs (10.6 US gals)
38 mm (1½") Hose		
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	37.5 ltrs (9.9 US gals)	36 ltrs (9.5 US gals)
70 Strokes per Minute	55 ltrs (14.5 US gals)	53 ltrs (14 US gals)



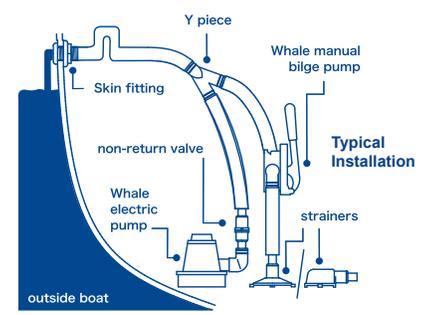
On Deck/Fixed Handle BP9005
Plan View Side View



Thru Deck/Bulkhead BP9013
Plan View Side View



Bulkhead/Removable Handle BP9021
Plan View Side View



Note: These specifications are retail items only. For details of our bulk pack range for boat builders and wholesalers - contact Whale Support.



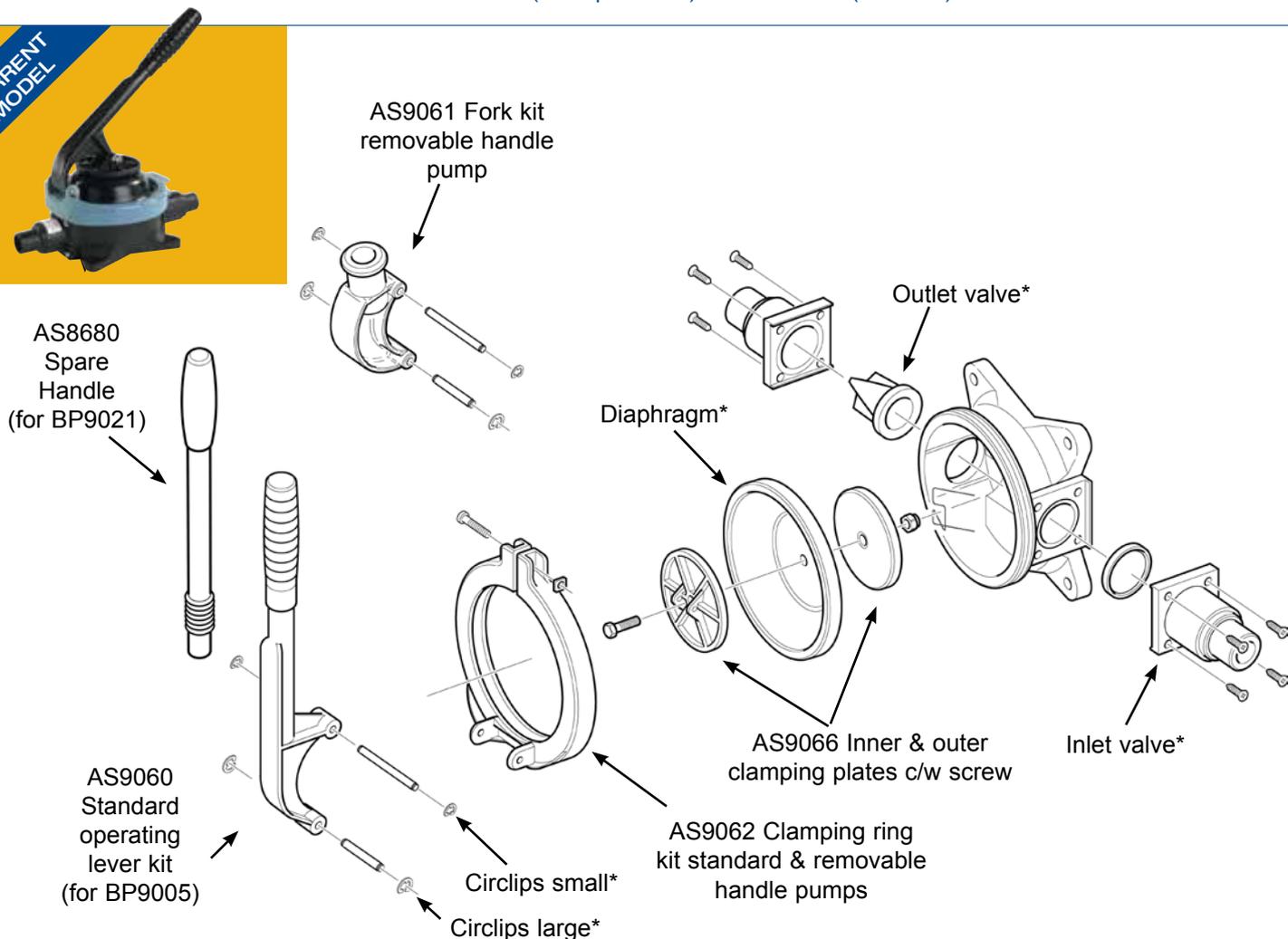
Manual Bilge Pumps

Gusher® Urchin Compact Bilge and Waste Pump

On Deck/Bulkhead: BP9005 - Fixed Handle Compact Bilge & Waste Pump

On Deck/Bulkhead: BP9021 - Removable Handle Compact Bilge & Waste Pump

Note* Contained in Service Kit AK9003 (Neoprene™) or AK9011 (Nitrile®)



Accessories

- AS8680 Spare Handle (for BP9021 only)
- SB4222 Side Entry Strainer
- SB5865 Top Entry Strainer
- SF5204 1" Skin Fitting
- SF5425 1 1/2" Skin Fitting
- YP6114 1 1/2" Y Piece
- YP6130 1/2" Y Piece
- LV1215 1" / 1 1/2" Non Return Valve
- LV1219 3/4" / 1" Non Return Valve
- EB3364 1" Elbow
- EB3488 1 1/2" Elbow

Service Kits

AK9003 Service Kit with Complete Set of Serviceable Parts for Urchin (Neoprene™)
AK9011 Service Kit with Complete Set of Serviceable Parts for Urchin (Nitrile®)

Qty	Containing
1	Diaphragm
1	Inlet valve
1	Outlet valve
2	Circlip small
2	Circlip large

AS9060 Standard Operating Lever Kit

Qty	Containing
1	Lever sleeve (black)
1	Lever
1	Short fulcrum pin
2	Circlip large

2	Circlip small
1	Fulcrum pin

AS9061 Fork Assembly for Underdeck & Removable Handle Pumps

Qty	Containing
1	Short fulcrum pin
1	Fork
2	Circlip small
2	Circlip large
1	Long fulcrum pin (underdeck)
1	Fulcrum pin (removable handle)

AS9062 Clamping Ring Kit for Standard & Removable Handle Pumps

Qty	Containing
1	Clamping ring
1	Pinching screw
1	Nut
2	Circlip small
2	Circlip large



Manual Bilge Pumps

Gusher® Urchin Compact Bilge and Waste Pump

On Deck/Bulkhead: BP9005 - Fixed Handle Compact Bilge & Waste Pump

On Deck/Bulkhead: BP9021 - Removable Handle Compact Bilge & Waste Pump



AK9003



AK9011



AS9060 - BP9005



AS9061 - BP9021



AS9062



AS8680 for BP9021 only



AS9066



SB4222 / SB5865



SF5204/SF5425



EB3363/EB3488



YP6114



LV1215

Service Kits (Continued)

AS9066 Inner & Outer Clamping Plate Kit

Qty	Containing
1	Clamping nut nylon
1	Inner clamping plate
1	Outer clamping plate
1	Clamping screw
2	Circlip small
2	Circlip large

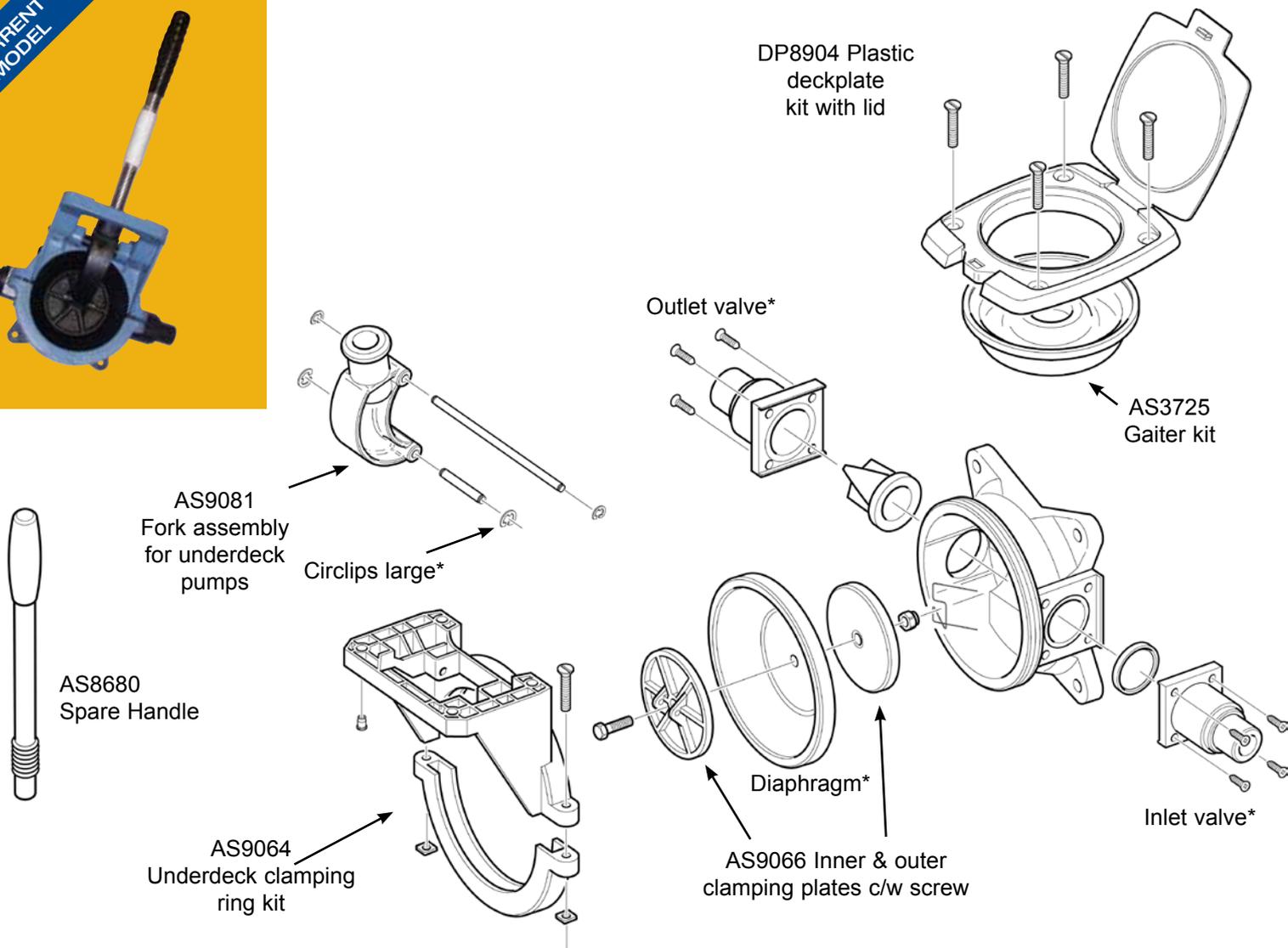


Manual Bilge Pumps

Gusher® Urchin Underdeck

Underdeck: BP9013 - Compact Bilge & Waste Water Transfer Pump

Note* Contained in Service Kit AK9003 (Neoprene™) or AK9011 (Nitrile®)



Accessories

- AS8680 Spare Handle
- SB4222 Side Entry Strainer
- SB5865 Top Entry Strainer
- SF5204 1" Skin Fitting
- SF5425 1 1/2" Skin Fitting
- YP6114 1 1/2" Y Piece
- LV1215 1" / 1 1/2" Non Return Valve
- EB3364 1" Elbow
- EB3488 1 1/2" Elbow

Service Kits

AK9003 Service Kit with Complete Set of Parts for Gusher® Urchin (Neoprene™) (See list below)

AK9011 Service Kit with Complete Set of Parts for Gusher® Urchin (Nitrile®)

Qty	Containing
1	Diaphragm
1	Inlet valve
1	Outlet valve
2	Circlip small
2	Circlip large

AS9064 Underdeck Clamping Ring Kit

Qty	Containing
1	U/D clamping ring
1	Pinching screw
4	Insert
1	Nut
4	Circlip

AS3725 Gaiter Kit for Deckplates

Qty	Containing
1	Gaiter (for plastic or metal deckplate)
1	O-ring (for metal deckplate Whale Gusher® 10 & Whale Gusher® 30 only)

Underdeck: BP9013 - Compact Bilge & Waste Water Transfer Pump



AK9003



AK9011



AS3725



AS8680



AS9061



AS9064



AS9066



DP8904



SB4222



SB5865



SF5204



SF5425



YP6114



LV1215



EB3364/EB3488

Service Kits (Continued)

AS9066 Inner & Outer Clamping Plate Kit

Qty	Containing
1	Clamping nut nyloc
1	Inner clamping plate
1	Outer clamping plate
1	Clamping screw
2	Circlip (small)
2	Circlip (large)

AS9061 Fork Assembly

Qty	Containing
1	Short fulcrum pin
1	Fork
2	Circlip large
2	Circlip small
1	Long fulcrum pin (underdeck)
1	Fulcrum pin (removable handle)

DP8904 Plastic Deckplate with Lid

Qty	Containing
1	Deckplate & lid
1	Gaiter
6	Screws M6x40
6	Nuts M6
6	Washers M6



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)

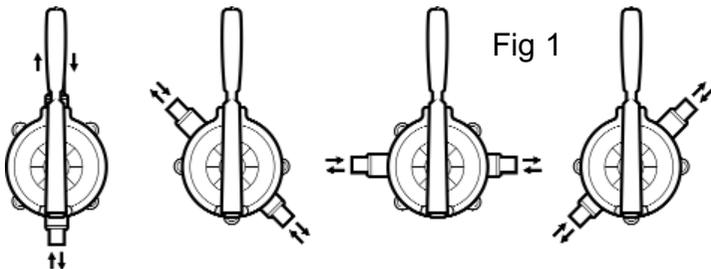
APPLICATION

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

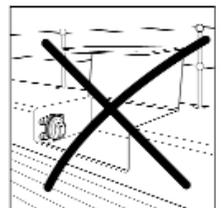
Fig 3 - Gusher Urchin 1 1/2" (38mm) Hose Bore
Output in Gallons (Litres) per minute

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

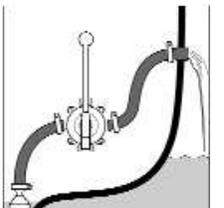
HELPFUL HINTS



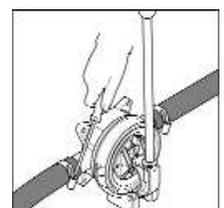
1. Install your pump where you can pump comfortably - particularly important in an emergency when prolonged periods of pumping may be necessary.



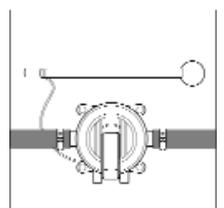
2. Avoid installations which require you to open a cockpit locker to operate the pump



3. Ideally, for minimum pumping effort you should site the pump halfway in height between strainer box and hull outlet



4. Install the pump so that you have easy access to the pump for servicing



5. If the pump handle is detachable, it is recommended that you secure the handle in a position convenient to the pump.

6. Carry a service kit for each pump on board

7. Even though you may have a dry bilge please test your pumps regularly.

8. If fitting a strumbox/strainer, you should have easy access to it for cleaning. It is preferable to fit a strainer with a non-return valve.

9. Suction inlet should be at the deepest point

10. Check that all fittings are of uniform bore - restricted outlet can cause choking and difficult pumping.

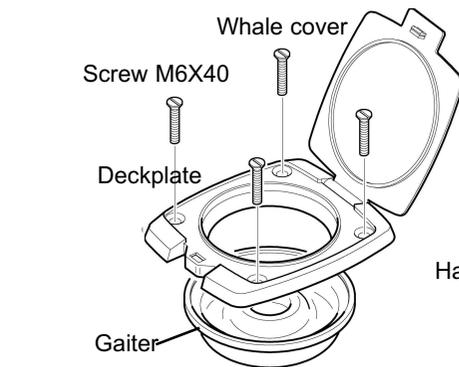
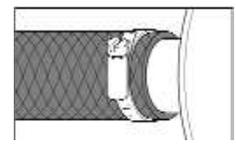
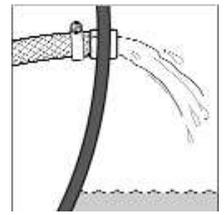
11. Sometimes two smaller pumps are better than one larger one. If using two pumps make sure they are identical

12. Ensure pipes are kept as straight as possible. Use elbows where bends are unavailable.

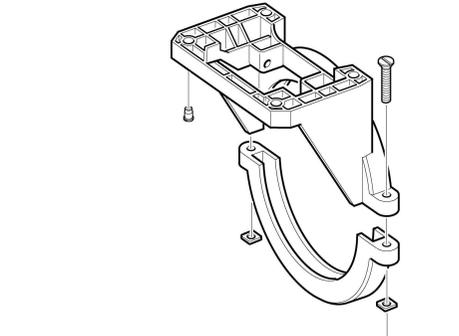
13. A Whale in line non-return valve will prevent drainback.

14. Use a good quality smooth bore reinforced hose - and stainless steel clamps firmly fitted at all connections. Avoid sharp bends in suction hose

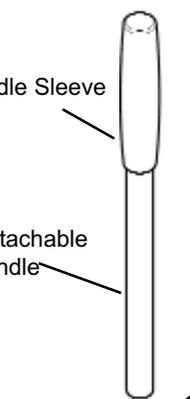
15. If you are to have through hull discharge, make sure good quality thru-hull/skinfittings are fitted and that the discharge point is well above the water line



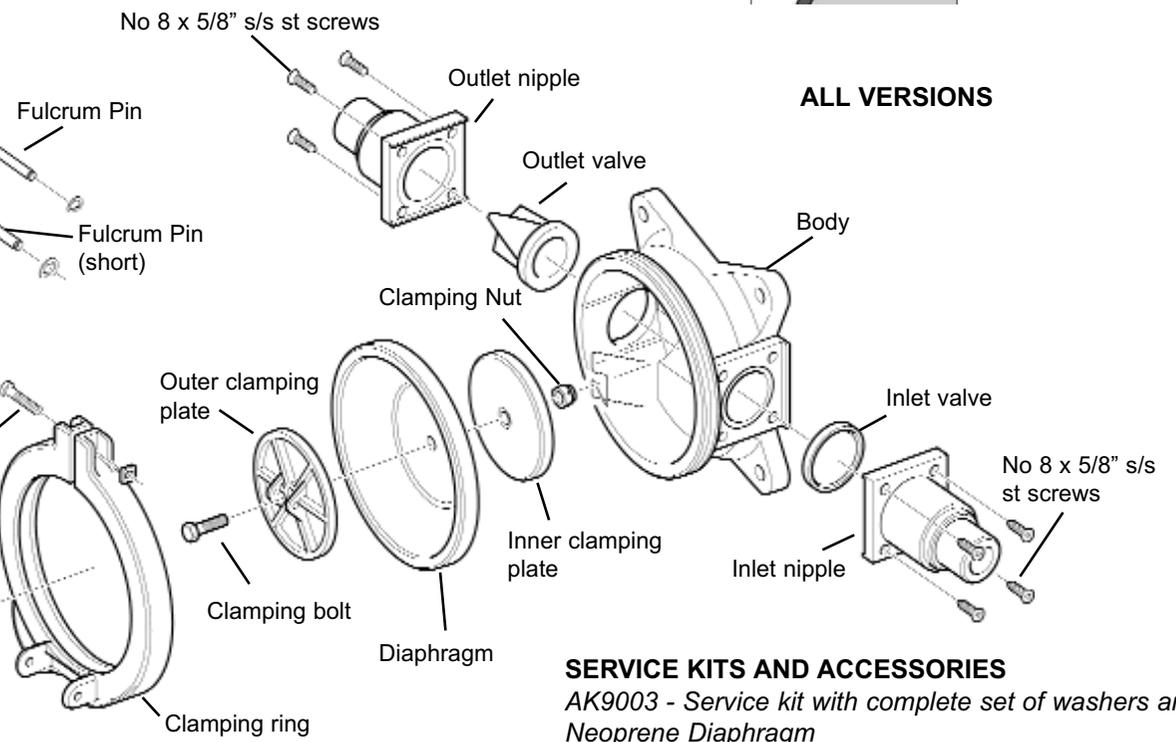
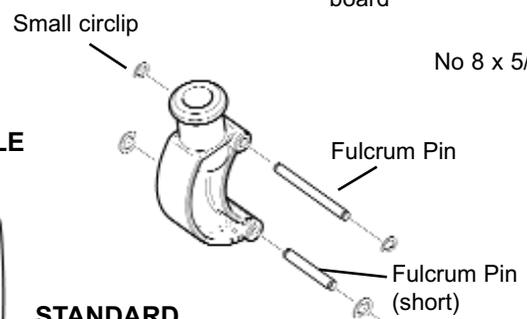
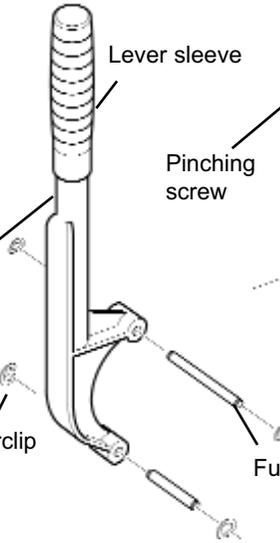
UNDERDECK VERSION



REMOVABLE HANDLE



STANDARD HANDLE



ALL VERSIONS

SERVICE KITS AND ACCESSORIES

- AK9003 - Service kit with complete set of washers and Neoprene Diaphragm
- AK9011 - Service kit with complete set of washers and Nitrile Diaphragm
- AS8680 - S/S Handle assembly