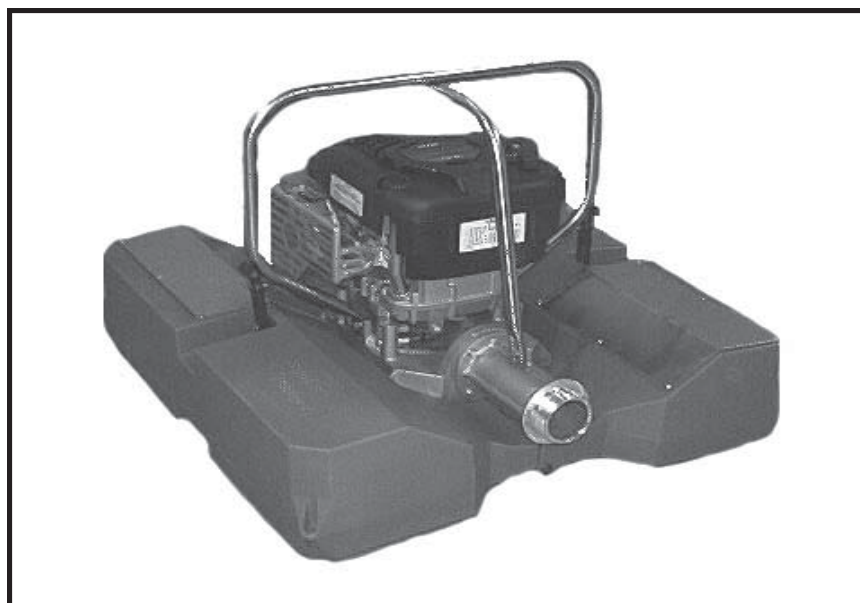


Owner's Manual

Otterbine® Bunker-Pumper 3



CUSTOMER CHECK LIST:

Please do the following immediately upon receipt of your pump:

- Inspect pump for shipping damage.
(Report any damage to freight company.)
- Check to see that any/all accessories that you ordered are included.
- Record the pump serial number. This can be found stamped on the top housing, and on the yellow sticker located on the side of the engine.
- Fill out and return warranty card.
NOTE: Warranty is validated upon the receipt of the completed Warrantly Registration Card.
- Read all operating and maintenance instructions.



Otterbine® Barebo, Inc.
3840 Main Road East
Emmaus, PA 18049 USA
Phone (610) 965-6018 Fax (610) 965-6050
800-AER8TER (237-8837)
www.otterbine.com

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Revised 3/29/04

INTRODUCTION

CONGRATULATIONS! You have just purchased the best pump on the market. At Otterbine®/Barebo, Inc. we are committed to quality products and service. If you have any problems or questions regarding your new pump, please contact your qualified Otterbine distributor or call us at 610-965-6018.

Your new pump is a rugged well-tested tool, but it requires some routine care and maintenance. Please read this manual before operation.

WARRANTY

The Otterbine® pump is covered by a one-year limited warranty. The engine is warranted by Briggs & Stratton. Both warranties are enclosed, see inside and outside back cover. **The enclosed warranty card must be filled out and returned for your warranty to be valid.**

NOTE: Bunker Pumper₃ is shipped with transport bolts (2 total) to secure the pump to the float. To detach the pump from the float remove these bolts. Use the flexible draw latches to hold the pump to the float when in operation.

APPLICATIONS

The Otterbine® pump is used by

- Golf Courses
- Construction Firms
- Landscaping Firms
- Airports
- Marinas
- Homeowners
- US Forest Service
- Fish Farmers
- Firefighters

Otterbine pumps work in many applications such as:

- water removal & transfer
(e.g. emptying swimming pools and sand traps)
- emergency aeration
- irrigation
- cleaning
- disaster relief
- firefighting --- on site & water refilling

Pump Operation

1. Important: Fill crankcase with oil (*There is no oil in the crankcase when you receive the pump*).

Approx. 22 ounces / 0.65 liters (Figure 1)

- Summer: use SAE 30 Oil.
- Winter (under 40°F or 4°C): use SAE 5W-20 Oil.

2. Fill gas tank. Briggs & Stratton recommends using a lead-free gasoline (minimum of 85 octane). Allow 1/4" or 5 mm of tank space for fuel expansion (Figure 1).

3. To Start Engine

- A. Open fuel valve. Turn fuel shut off valve to "ON" position. It is located underneath the gas tank.
 B. Move choke to "CLOSE" position. The choke lever is white in color and located below the carburetor (Figure 1) Move the lever to the left.

C. Move throttle to "FAST" position. The throttle is located (Figure 1) above the choke lever and has a red cover on it. Move the lever to the full left position.

D. Grasprope handle (Figure 1) and pull slowly until resistance is felt. Then pull cord rapidly to overcome compression, prevent kickback and start engine. Repeat if necessary with choke open.

E. When engine starts, move choke to mid position and then, to full right "OPEN" position when warm.

NOTE: Minor adjustments to the carburetor and governor may be necessary to get pump running to specs. Please refer to Briggs & Stratton engine Owner's Manual which was enclosed with this document.

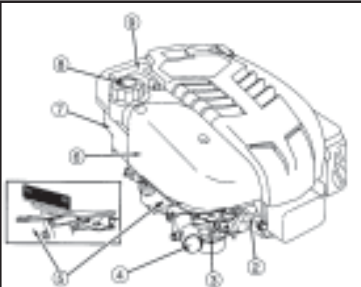
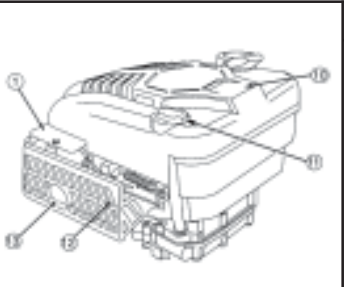
4. Place pump in water and start for fastest prime.

A. Pump may fail to prime properly if started in fast idle position on shore first. For one person operation, start on shore at a low idle and then place it in the water.

5. To Stop Engine

A. Move throttle control to full right "Stop" position. **Do not use Choke control to stop engine.**

- Operating Notes:**
- **Do not submerge the muffler in water.** May cause damage to the engine.
 - **Use a 2.5" dia. discharge hose.** BP₃ pumps are low pressure/high volume. Any thing less than 2.5" dia. will restrict flow and reduce GPM output.
 - **When using on grass** remove the intake screen to prevent clogging.

 <p style="text-align: center;">Figure 1</p>	 <p style="text-align: center;">Figure 2</p>	<p style="text-align: center;">Engine Part Locations (Figure 1 and Figure 2)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;"> <ol style="list-style-type: none"> 1. Engine 2. Spark Plug 3. Carburetor 4. Primer Bulb *** 5. Choke Lever *** 6. Air Cleaner 7. Fuel Tank 8. Fuel Fill 9. Rope Handle </td> <td style="width: 50%; padding: 5px;"> <ol style="list-style-type: none"> 10. Finger Guard 11. Oil Fill/Dip Stick 12. Muffler Guard 13. Muffler/Spark Arrestor *** <p style="text-align: center; margin-top: 10px;">*** Option, may not be equipped</p> </td> </tr> </table>	<ol style="list-style-type: none"> 1. Engine 2. Spark Plug 3. Carburetor 4. Primer Bulb *** 5. Choke Lever *** 6. Air Cleaner 7. Fuel Tank 8. Fuel Fill 9. Rope Handle 	<ol style="list-style-type: none"> 10. Finger Guard 11. Oil Fill/Dip Stick 12. Muffler Guard 13. Muffler/Spark Arrestor *** <p style="text-align: center; margin-top: 10px;">*** Option, may not be equipped</p>
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ENGINE MAINTENANCE

CAUTION: Always remove spark plug first. (This prevents accidental starting during servicing.)

MAINTENANCE SCHEDULE

TIME	ACTION
After first 5 hours	•Change Oil
After every 5 hours	•Check Oil Level •Remove dirt & debris from air cleaner with a cloth or brush. Cleaning with a forceful spray is not recommended as water can contaminate the fuel system
Every 25 hours/season	• Clean & re-oil foam element in air cleaner. * Change Oil *service air cleaner cartridge
Every 50 hours/ Each season:	• Change oil * Inspect Spark plug
Every 100 hours/yearly	• Service air cleaner cartridge • Change oil filter • Clean cooling system * Replace spark plug

Change Oil: Drain oil from bottom of the engine. Change oil while engine is warm, after first 5 hours & every 50 hours/season thereafter. Change every 25 hours if operated under heavy load, or in high ambient temperatures.

Clean & re-oil foam air cleaner:

(Every 25hours/ season of use)

Replace if very dirty or damaged

Wash pre-cleaner in liquid detergent and water. Allow to dry thoroughly before using. Do not oil pre-cleaner. Clean cartridge by tapping gently on a flat surface. Do not use petroleum solvents, e.g., kerosene, which will cause cartridge to deteriorate. Do not use pressurized air, which can damage cartridge. Do not oil cartridge.

1. Loosen screws on lift cover
2. Carefully remove pre-cleaner (if equipped) and cartridge assembly
3. Service pre-cleaner, cartridge and reassemble
4. Install cartridge/pre-cleaner into base
5. Place cover on air cleaner and tighten screws securely to base.

SALT WATER MAINTENANCE

Otterbine floating pumps may be used in salt water applications providing the pump is immediately flushed with fresh water after use for **7-10 minutes at full throttle**. The exterior hardware must be rinsed and wiped dry. Note, salt water is very corrosive, pump parts will wear faster under these conditions.

STORAGE INSTRUCTIONS

If the Otterbine pump is to be stored for 30+days, do the following:

1. To prevent dirt or gum deposits in the fuel system, drain engine of fuel. Run the engine until it stops from lack of fuel.
2. Float assembly should be removed for easier maintenance. To remove the float assembly, disengage the hold-down straps (see parts breakdown pg. 8-11). Lift engine/pump assembly up and away from the floats.
3. While engine is still warm, drain oil from crankcase. Refill with oil.
4. Remove spark plug. Pour approximately .5 ounce/15ml of engine oil into cylinder and crank slowly to distribute oil. Replace spark plug.
5. Clean dirt and chaff from cylinder, blower housing, rotating screen, and muffler area.
6. Store the pump in a clean and dry area.

Pump Maintenance

1. Debris screen should be cleaned after every use.

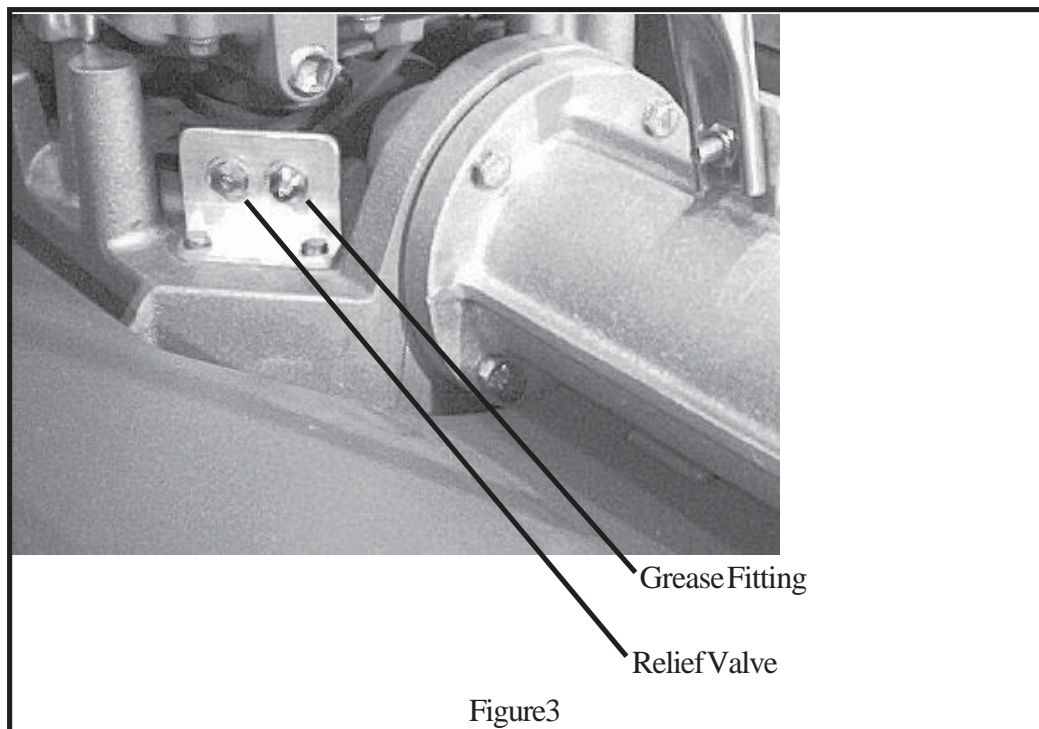
2. Pump should be greased after every use.

A) Use purple marine grade grease (available in 14oz cartridge from Otterbine, P/N 48-0006).

B) Place the tip of the grease gun on the grease fitting (Figure 3) located on the pump housing.

C) Fill with grease until all of the old grease has been pushed out of the relief valve (Figure 3) below the grease fitting.

D) You should see the new (purple) grease come out. Once this has happened, you are done.



Important Warnings and Safeguards

WARNING:

Do Not Touch Hot Muffler: Contact may cause burns.

CAUTION:

Do Not Submerge Engine and/or Muffler: This may allow water to enter to engine and damage the pump.

CAUTION:

Do Not Fill Fuel Tank While The Engine is Hot: Potential fire Hazard.

WARNING:

Engine Exhaust From This Product Contains Chemicals Known, In Certain Quantities, To Cause; cancer, birth defects, or other reproductive harm.

CAUTION:

The engine's muffler must face the heat shield on the float.

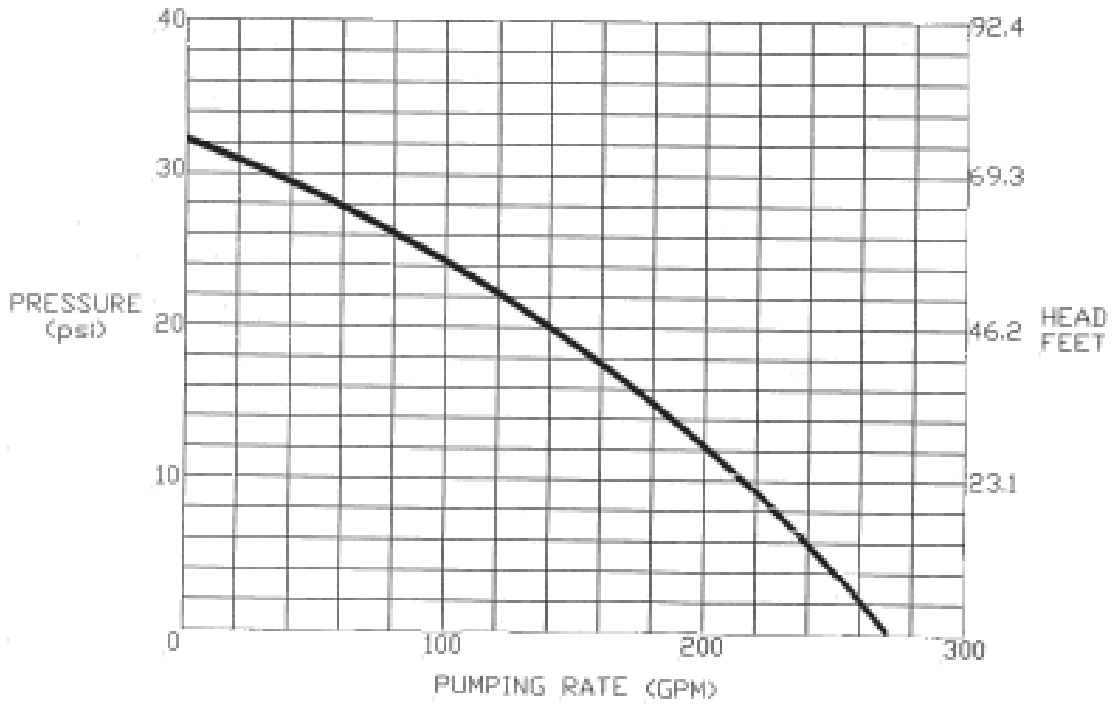
TROUBLESHOOTING

Symptom	Systematic order of Repair
Pump will not prime:	<ul style="list-style-type: none"> a. Check that hose is not kinked b. Hose may have some flat, compressed area's. Squeeze these area's to open the hose and alleviate back pressure.
Unit will not pump properly:	<ul style="list-style-type: none"> a. Check the intake for debris. b. Check oil; if there is water in the oil. change it. c. Using hose smaller than 2.5" (63mm) diameter will reduce output. Verify hose diameter. d. If starting pump on shore,make sure idle is set low when placed in water. e. If pump does not prime while starting on shore, place pump in water prior to starting engine. f. Check engine speed. Throttle should be fully open. Engine speed should be 3700 rpm with no load.
Pump will not start:	<ul style="list-style-type: none"> a. Check spark plug wire. b. Check gas level.
Too much oil or grey colored oil:	<ul style="list-style-type: none"> a. Drain oil. Refill and run engine for about 5 min. Drain oil and refill. Continue procedure until oil is no longer discolored. b. Next time pump is operated, check oil for greyish color, if this persists, take pump to an authorized Briggs & Stratton repair center to have engine seal changed.
Pump no longer achieves manufactureres performance spec.s	<ul style="list-style-type: none"> a. Remove discharge flanges and or end plug. Remove bottom housing bolts and seperate bottom housing from top housing. (you will need to pry apart silicone seal) b. Inspect impeller, bottom and top housing for wear or damage. Replace as needed. Note: Be sure to inspect top housing for significant wear.

Pump Specifications

UNIT SIZE	30" x 30" x 22"/76cm x 76cm x 56cm
Shipping Weight	In box fully assembled w/ 25' of hose: 118 Lbs 53.1 Kilograms Broken down (2 boxes): Pump 62 Lbs / 40.5 Kg (dimensional wt. 75 dom., 87 Intl.) Float 35 Lbs / 15.75 Kg (dimensional wt. 44 dom., 37 Intl.)
Net Weight	Unit 90 Lbs / 40.5 Kilograms (assembled on float, no hose) Pump 58 Lbs / 26 Kilograms (less float and hose) Float 32 Lbs / 14.4 Kilograms (less pump and hose)
Engine Capacities	Gas tank 1.6 Quart / 1.4 Liters Oil 22 Ounces / .65 Liters
Engine Specifications	Briggs & Stratton Intek 121600 6hp @ 3600 RPM 11.5 cubic inch / 189 cc Single cylinder 4 cycle air cooled with positive type rewind starter and high tension magnetic ignition system.
Pump Body	.5" / 1.2cm cast aluminum alloy. Built-in suction guard and skids
Discharge	2.5" NST male / ISO 228/1-G21/2A Parallel Pipe 2.5" / 6.5mm diameter hose standard
Float	High density polyethylene shell filled with closed-cell polyurethane foam.
Pump Performance	Max head pressure 32 psi / 2.1 Bars Max. output 240 GPM / 908 LPM @ 6 psi Max. Head 74 ft / 22.6 meters
Lubricant and Fuel	Above 40°F / 4°C SAE 30 Below 40°F / 4°C SAE 5W-30, 10W-30 Lead-free, minimum of 85 Octane Note: Use detergent oil classified for service, SC, SC, SE, SF, SG.

Pump Curve



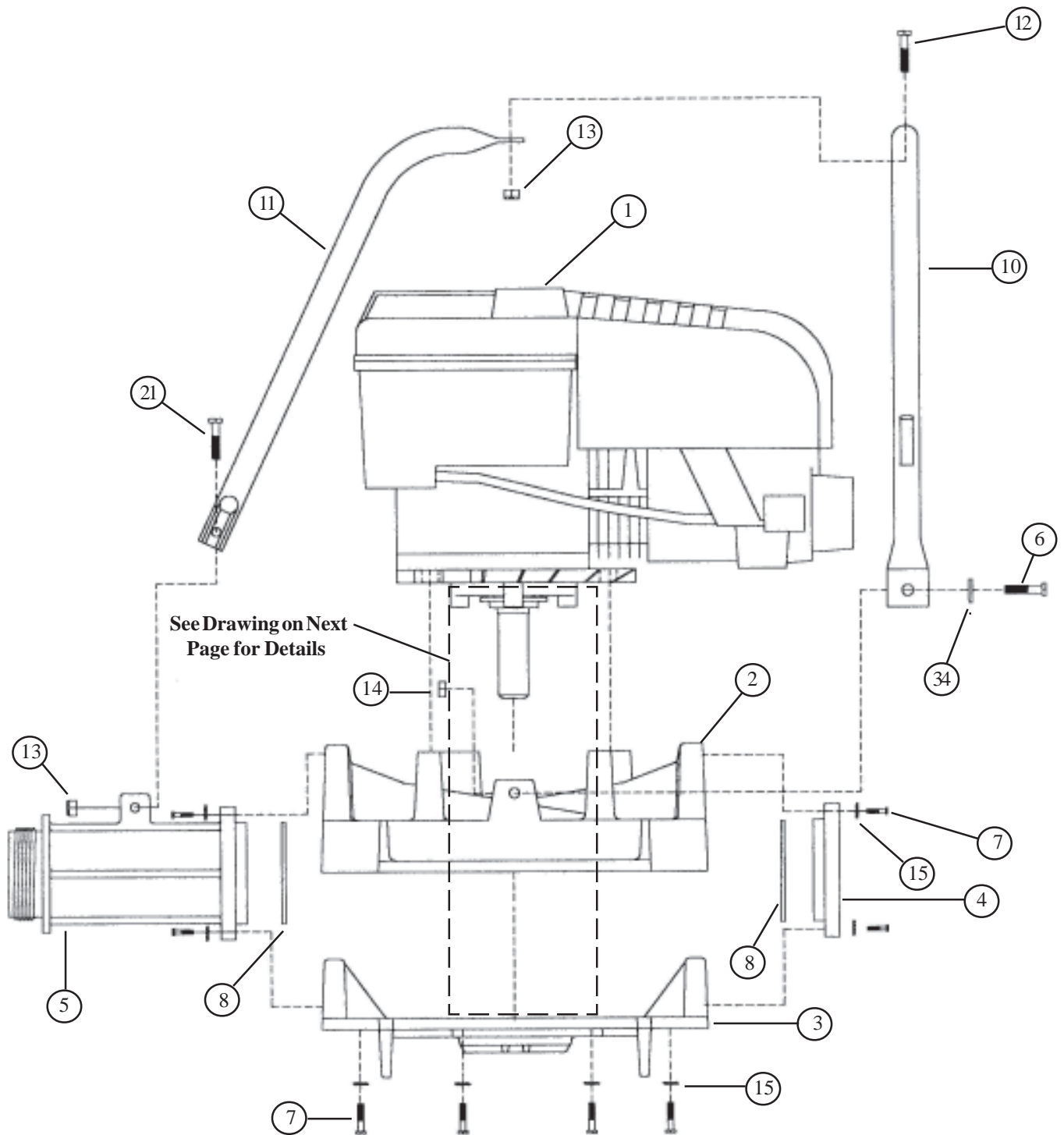
Optional Accesories

#	Description	Part #
1	Intake screen for stopping small debris: 1/8" dia. openings in screen (standard)	12-0025
2	25', (7.62 m), Hose assembly	F-203-H25
3	50', (15.24 m), Hose assembly	F-203-H50
4	100', (30.48 m), Hose assembly	F-203-H100
5	2.5" NST to 3" NPSH Adaptor	46-0021

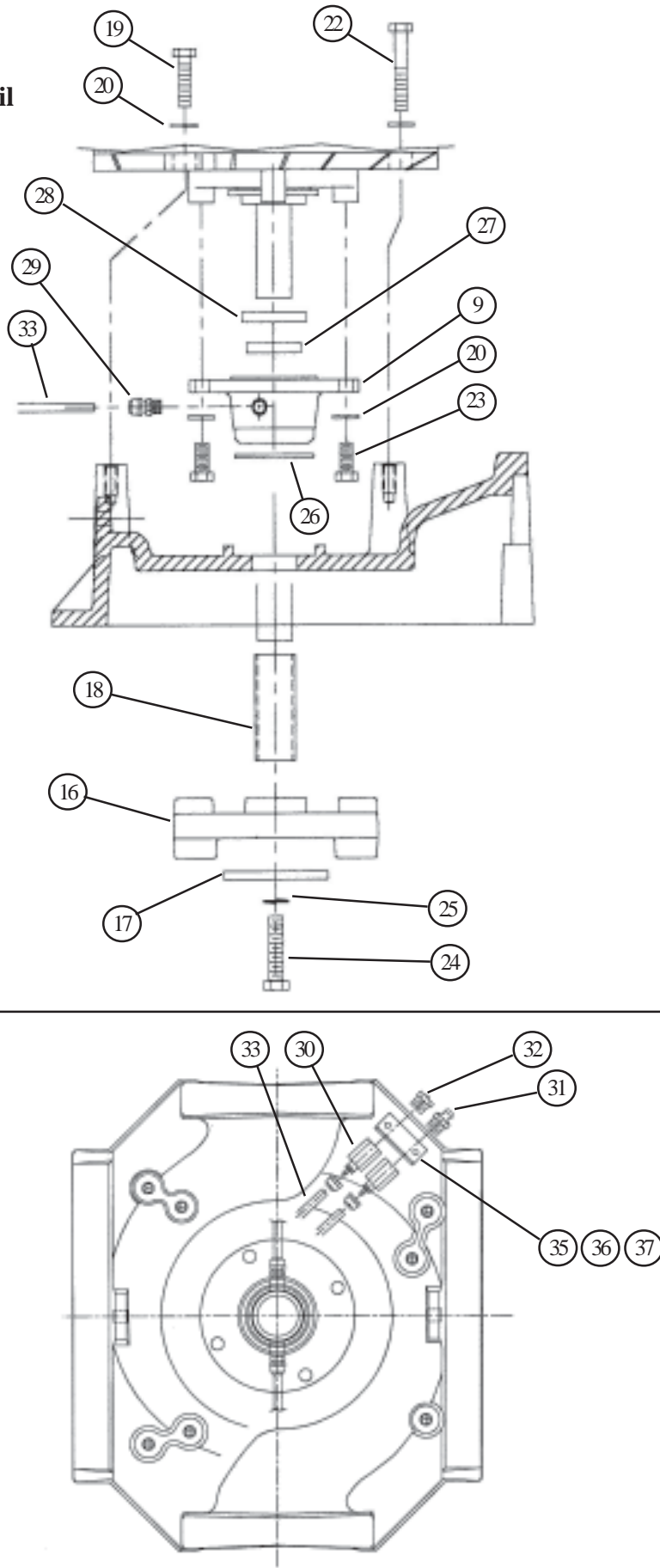
OTTERBINE® PORTABLE FLOATING PUMP
REPLACEMENT PARTS LIST

DIAGRAM NUMBER	PART DESCRIPTION	QTY	OTTERBINE PART NUMBER
1	Engine, Briggs & Stratton "6HP Intek"	1	30-0026-006
2	Upper Housing	1	41-0074
3	Lower Housing	1	41-0008
4	End Cap/Plug	1	41-0010
5	Discharge Flange	1	41-0009
6	Hex Bolt, S/S, 5/16" - 18 x 1"	2	MP2008
7	Hex Bolt, S/S, 1/4" - 20 x 1"	16	EP5100
8	Discharge/Plug Gasket	2	EP2503
9	Seal Hub	1	41-0073
10	Handle (with keepers)	1	60-0009
11	Handle Brace	1	60-0010
12	Hex Bolt, S/S, 1/4" - 20 x 1.25"	1	101-001
13	Nylon Lock Nut, S/S, 1/4" - 20	2	C2-112
14	Square Nut, S/S, 5/16" - 18	2	26-0002
15	Internal Star Washer, S/S, 1/4"	16	927-001
16	Impeller Assembly	1	10-0059
17	Impeller Washer Plate	1	40-0085
18	Shaft Sleeve, S/S	1	40-0084
19	Hex Bolt, S/S, 5/16" - 18 x 1.25"	2	22-0007
20	Internal Star Washer, S/S, 5/16"	7	927-005
21	Hex Bolt, S/S, 1/4" - 20 x 7/8"	1	101-016
22	Low Head Socket Cap Screw, S/S, 5/16" - 18 x 2.125"	1	22-0017
23	Hex Bolt, S/S, 5/16" - 24 x 3/4"	4	22-0014
24	Hex Bolt, S/S, 3/8" - 24 x 1.25"	1	22-0016
25	Split Lock Washer, S/S, 3/8"	1	EP6301
26	Seal Hub O-ring	1	49-0003
27	Lip Seal, #9814	1	49-0004
28	Lip Seal, #9934	1	49-0005
29	Male Connector, 1/8" MNPT x 1/4" Tube	2	46-0095
30	Female Connector, 1/8" FNPT x 1/4" Tube	2	46-0096
31	Grease Fitting, S/S, 1/8" MNPT	1	46-0097
32	Pressure Relief Vent, 1/8" MNPT	1	46-0098
33	Polyethylene Tube, .25 OD x .17 ID	16"	46-0099
34	Fender Washer, S/S, 5/16"	2	28-0008
35	Grease Fittings Bracket, Aluminum	1	41-0102
36	Hex Screw, S/S, #10-24 x 3/4"	2	24-0004
37	Internal Star Washer, S/S, #10	2	MP2006

Bunker Pumper 3 Parts Breakdown Pumping Assembly

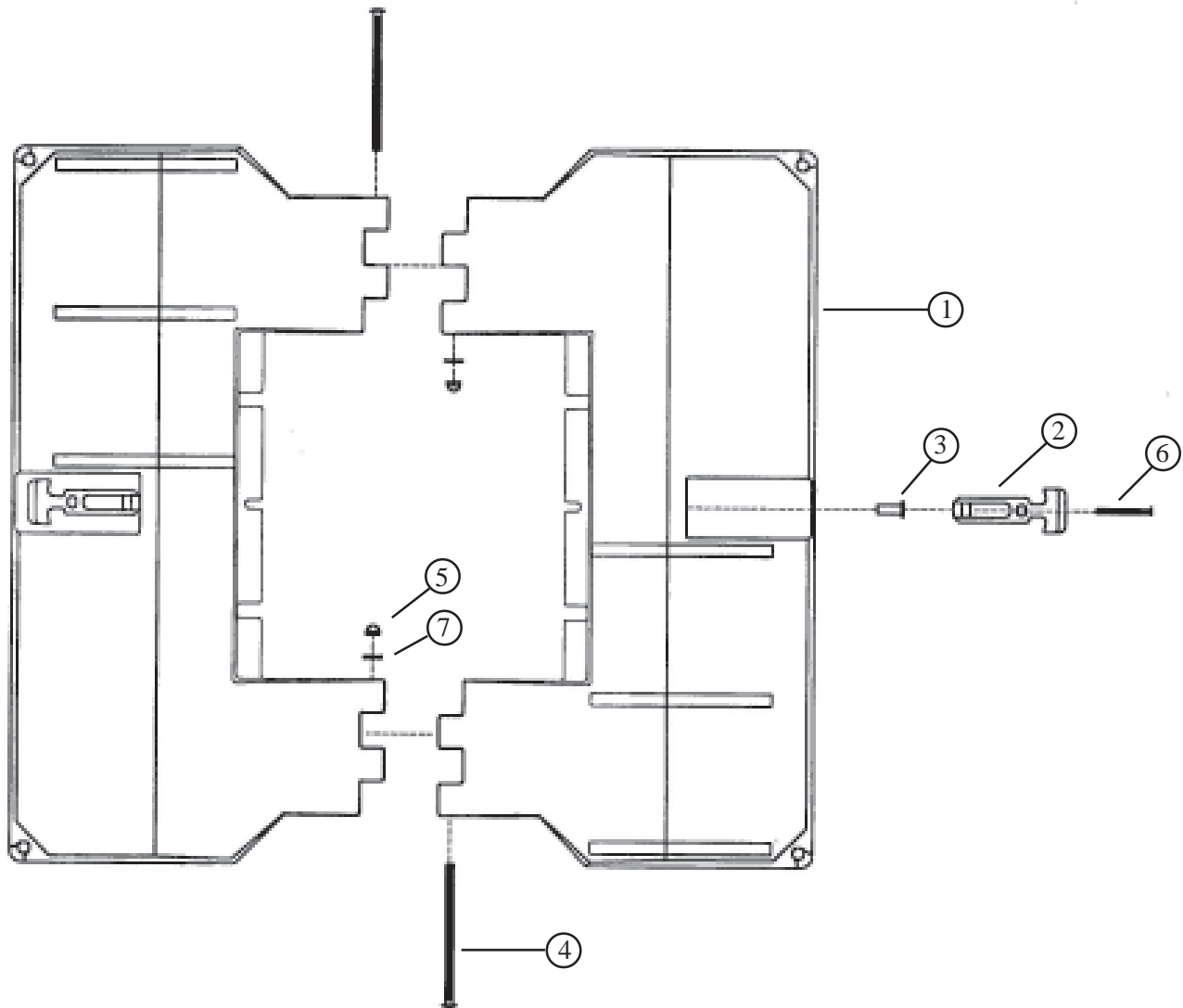


**Bunker Pumper 3
Parts Breakdown
Seal Hub/Impeller Detail**



Bunker Pumper 3 Parts Breakdown Float Assembly (P/N 01-0003)

Item Number	Description	Qty	Part Number
1	Float, 2 sections (Green)	2	42-0003
2	Flex Draw Latch	2	46-0015
3	Well Nut, 10 - 32	4	21-0010
4	Carriage Bolt, S/S, 5/16" - 18 x 5 3/4"	2	22-0008
5	Cap Nut, Brass, 5/16" - 18	2	BP2811
6	Phillips Screw, S/S, 10 - 32 x 3/4"	4	24-0003
7	Flat Washer, S/S, 5/16"	2	927-004



BRIGGS & STRATTON ENGINE OWNER WARRANTY POLICY
effective July 1, 2001

Replaces all undated Warranties and all Warranties
dated before July 1, 2001

LIMITED WARRANTY

Briggs & Stratton Corporation will repair or replace, free of charge, any part, or parts of the engine that are defective in material or workmanship or both. Transportation charges on parts submitted for repair or replacement under this Warranty must be borne by purchaser. This warranty is effective for the time periods and subject to the conditions stated herein. For warranty service, find the nearest Authorized Service Dealer in our dealer locator map at www.briggsandstratton.com or as listed in the "Yellow Pages™" under "Engines, Gasoline," "Gasoline Engines," "Lawn Mowers" or similar category.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM PURCHASE, OR TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some countries or states do not allow limitations on how long an implied warranty lasts, and some countries or states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from country to country and state to state.

WARRANTY PERIOD*

PRODUCTS	WITHIN U.S.A. AND CANADA		OUTSIDE U.S.A. AND CANADA	
	CONSUMER USE	COMMERCIAL USE	CONSUMER USE	COMMERCIAL USE
Vanguard™ engines.	2 years			
Diamond Plus®, Industrial Plus™, VC®, ELS™ and Sleeve Bore Intek™ engines	2 years	1 year	2 years	1 year
Quantum®, Diamond Power®, Power Built™ OHV and Kool Bore Intek™ engines	2 years	90 days	2 years	90 days
Standard engines installed on lawn mowers, riders, edgers, chippers, shredders, string trimmers, tillers and Sno/Gard engines	2 years	90 days	1 year	90 days
Classic™ engines and all other standard engines and products	1 year	90 days	1 year	90 days
Etek™ electric motors	1 year			

Note the following special warranty periods: 5 years for consumer use, 90 days for commercial use of Touch-N-Mow™ starter on Quantum® and Intek™ engines; 2 years for emission control systems on engines certified by EPA and CARB; 1 year for consumer use of all engines and products in India, commercial use of Vanguard™ engines in India, and consumer use of Quantum Diamond Power® and Kool Bore Intek™ engines in Australia, New Zealand, the Middle East, and Africa.

The warranty period begins on the date of purchase by the first retail consumer or commercial end user, and continues for the period of time stated in the table above. "Consumer use" means personal residential household use by a retail consumer. "Commercial use" means all other uses, including use for commercial, income producing or rental purposes. Once an engine has experienced commercial use, it shall thereafter be considered as a commercial use engine for purposes of this warranty. *Engines used in competitive racing or on commercial or rental tracks are not warranted.*

NO WARRANTY REGISTRATION IS NECESSARY TO OBTAIN WARRANTY ON BRIGGS & STRATTON PRODUCTS. SAVE YOUR PROOF OF PURCHASE RECEIPT. IF YOU DO NOT PROVIDE PROOF OF THE INITIAL PURCHASE DATE AT THE TIME WARRANTY SERVICE IS REQUESTED, THE MANUFACTURING DATE OF THE PRODUCT WILL BE USED TO DETERMINE THE WARRANTY PERIOD.

OTTERBINE® PORTABLE PUMP LIMITED ONE YEAR WARRANTY

Otterbine Portable Pump Serial # _____

Please note that this limited one year warranty applies to all components of the OTTERBINE PORTABLE PUMP except for the gasoline engine, which is warranted separately and exclusively by the manufacturer, Briggs & Stratton Company. See accompanying warranty information provided by Briggs & Stratton.

WARRANTY: BAREBO, INC. located at 3840 Main Road East, Emmaus, PA 18049 USA, hereby warrants, subject to the conditions hereinbelow set forth, that should this OTTERBINE PORTABLE PUMP prove defective by reason of improper workmanship or materials at any time during one (1) year of date of delivery to the Purchaser at retail only that BAREBO will repair or replace the said OTTERBINE PORTABLE PUMP as may be necessary to restore it to satisfactory operating condition, without any charge for materials or labor necessarily incident to such repair or replacement, provided that:

- (a) The enclosed Warranty Registration Card must be mailed to BAREBO within fifteen (15) days of original receipt by the Purchaser at retail.
- (b) The OTTERBINE PORTABLE PUMP must be delivered or shipped, prepaid, in its original container or a container offering an equal degree of protection, to BAREBO or a facility authorized by BAREBO to render the said repair or replacement services, or, if purchased from an authorized OTTERBINE dealer, to such dealer:
- (c) The OTTERBINE PORTABLE PUMP must not have been altered, repaired, or serviced, by anyone other than BAREBO, a service facility authorized by BAREBO to render such service, or by an authorized OTTERBINE dealer, and the serial number of the OTTERBINE PORTABLE PUMP must not have been removed or altered; and
- (d) The OTTERBINE PORTABLE PUMP must not have been subjected to lightning strikes, vandalism, freezing-in, accident, misuse or abuse, and also installed, operated, and maintained in accordance with guidelines in the Owner's Manual shipped with this OTTERBINE PORTABLE PUMP.

No implied warranties of any kind by BAREBO in connection with this OTTERBINE PORTABLE PUMP and no other warranties, whether expressed or implied, including implied warranties of merchantability and fitness for a particular purpose, shall apply to this OTTERBINE PORTABLE PUMP.

Should this OTTERBINE PORTABLE PUMP prove defective in workmanship or material, the retail Purchaser's sole remedy shall be repair or replacement as is hereinabove expressly provided and, under no circumstances, shall BAREBO be liable for any loss, damage or injury, direct or consequential, arising out of the use of, or inability to use, this OTTERBINE PORTABLE PUMP, including but not limited to retail Purchaser's cost, loss of profits, goodwill, damages due to loss of product or interruption of service, or personal injuries to Purchaser or any person.