# Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

REV 15i

# PACIFICHYDROSTAR. PORTABLE UTILITY PUMP



Visit our website at: http://www.harborfreight.com Email our technical support at: productsupport@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.

Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein.

Tools required for assembly and service may not be included.

# **AWARNING**

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

# Before start-up, note the following:

The pump can be connected to any shock-proof plug which has been installed according to regulations. The plug must have a supply voltage of 120 VAC at 60 Hz.

### CAUTION

This pump has been evaluated for use with water only.

### **AWARNING**

IMPORTANT! For your own safety – before starting to run the pump, please have the following items checked by an expert:

- Risk of electric shock This pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.
- Risk of electric shock This pump has not been investigated for use in swimming pool areas.
- The electrical connections must be protected from moisture.
- Circulation of caustic fluids, as well as the circulation of abrasive materials, must be avoided at all costs.
- 5. The pump must be protected from frost.
- 6. The pump must be protected from running dry.

- 7. Access by children should also be prevented with appropriate measures.
- WARNING: The cord of this product contains lead and/or di (2-ethylhexyl) phthalate (DEHP), chemicals known to the State of California to cause cancer, and birth defects or other reproductive harm.
   Wash hands after handling. (California Health & Safety Code § 25249.5, et seg.)
- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
- 10. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

# Fluid Type

The Pump is designed for use with water with a maximum temperature of  $77^{\circ}$  F ( $25^{\circ}$ C). Do not use the pump for other fluids, especially not fuels, cleaning fluids, or other chemical products.

### **Specifications**

Electrical Requirements	120VAC / 60Hz / 8.4A
Pumping Capacity	1500 GPH Max.

Inlet & Outlet Size	1" x 11.5 TPI (Standard Hose Size)
Pump Lift Capacity	120 Feet

### Installation

### Please note!

The pump must be installed with an automatic float switch (not included) to prevent running dry.

# **Power Supply**

- The pump is equipped with a shock-proof plug according to regulations. The pump is designed to be connected to 120 VAC, 60 Hz safety socket.
- Make sure that the socket is sufficiently secured and is in excellent condition.

<u>WARNING!</u> If the power cord or plug is damaged, do not use the pump. The power cord or plug may only be repaired by a certified electrician.

### Areas of use

- 1. This pump is designed for use as a utility pump.
- This pump can also be used to transfer water. Do not use for water containing particles.

# **Assembly**

- Inlet and outlet hoses (not included) must be attached to pump prior to use.
- Attach inlet and outlet hoses to Hose Fittings. Standard garden hose fittings will work. Inlet hose must be non-collapsible.
- Attach the Strainer included with the Pump to the inlet end of the inlet hose. The Strainer will limit foreign material from entering the pump and help prevent or minimize damage.

# Mounting

 Pump should be firmly mounted on a stable base prior to use. The pump and its electrical connections should be mounted so that they remain dry. Water may damage the pump if it enters any electrical component.

### Operation

After reading these instructions, consider the following points before starting the pump:

- 1. Verify that the delivery pipe is properly connected, and is not collapsible.
- 2. Verify that the electrical connection is 120 VAC, 60 Hz.
- 3. Verify that the electrical socket is in good condition.
- Verify that water and moisture cannot get near the power supply socket.
- 5. Verify that the pump is installed so as to prevent running dry.
- Remove Priming Plug (4) by turning counterclockwise. Fill pump with clean water. Replace Priming Plug by turning clockwise.

- This pump operates immediately when plugged in. Do not plug in this pump when dry. Fill pump with water before plugging in.
- Plug in Power Cord. Pump will operate immediately. It will take a few minutes for pump to prime and remove air from inlet hose. Water will then flow through the hoses and pump.

**NOTICE:** Do not allow the Strainer to become clogged. Check it periodically to be sure that clear water can enter the inlet hose.

**NOTICE:** Do not allow the pump to run dry. Running dry, the pump will overheat, and impeller and seals will be damaged.

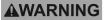
To prevent accidents, disconnect the pump's power supply after use. Clean, then store the pump indoors out of children's reach.

# To Prevent Pump Damage and Allow Proper Operation:

- 1. Use with water or antifreeze only.
  - Do not use for potable water or for any other liquids.
- 2. Do not use continuously.
  - Use for a temporary function only, not in a permanent installation.
- 3. Do not use garden hose on inlet.

Inlet hose must be rigid pipe or a coil-reinforced, non-collapsible suction hose.

### Maintenance



TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Unplug the Pump from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

- 1. Flush the pump out with clean water after every use.
- 2. Clean sludge and debris from near the inlet.
- 3. Rinse the housing off with clean water.

# **Carbon Brush Maintenance**

The carbon brushes may require maintenance when the motor performance of the pump decreases or stops working completely. To maintain the brushes:

- 1. Remove the Brush Cap on each side of the motor housing.
- 2. Remove the carbon brushes from the housing. Keep track of which orientation the old carbon brushes were in to prevent needless wear if they will be reinstalled.
- 3. If either carbon brush is worn down by more than 1/2, replace both carbon brushes.
- 4. To clean old carbon brushes before reusing them, rub the contact areas with a pencil eraser.
- 5. Reinsert the old carbon brushes in the same orientation to reduce wear.

- 6. When installing the carbon brushes, make sure the carbon portions of the carbon brushes contact the motor armature, and that the springs face away from the motor. Also, make sure the springs operate freely.
- 7. Replace the brush caps. Do not overtighten.

Note: New carbon brushes tend to spark when first used until they wear and conform to the motor's armature.

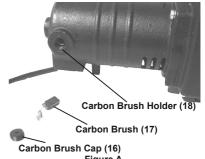


Figure A

# **Troubleshooting**

Problem	Possible Causes	Likely Solutions
Pump will not start	No power at outlet.	Check power at outlet.
	2. Cord not connected.	2. Check that cord is plugged in.
	Worn out or damaged     Carbon Brushes.	3. Replace Carbon Brushes.
Pump operates	Pump is not primed.	Fill pump with clean water before use.
but does not	2. Strainer is clogged.	2. Check and clean Strainer.
pump water	All water has been pumped out to below the intake level.	Turn off pump and complete mop up by hand.
	4. Impeller is worn out or jammed	4. Repair or replace Impeller as needed.
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Follow all safety precautions whenever diagnosing or servicing the pump. Disconnect power supply before service.

### PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO. OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

### **Parts List**

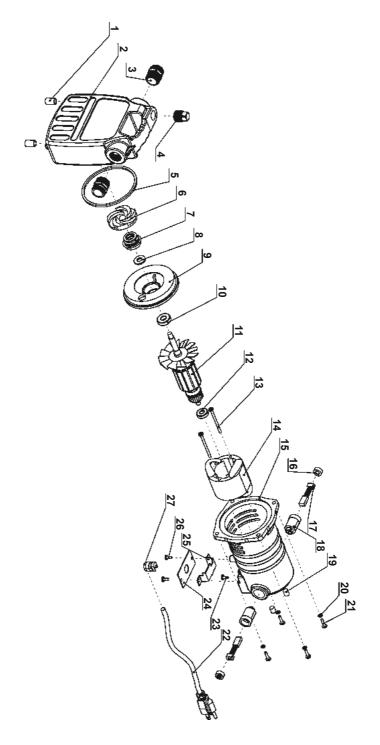
Part	Description	Qty.
1	Rubber Foot	3
2	Pump Facing	1
3	Hose Fitting	2
4	Priming Plug	1
5	Pump Gasket	1
6	Impeller	1
7	Pump Impeller Fitting	1
8	Pump Seal Gasket	1
9	Pump Back Wall	1
10	Bearing 600	1
11	Armature	1
12	Bearing 608	1
13	Screw m 4 x 60	2
14	Stator	1

Part	Description	Qty.
15	Pump Housing	1
16	Carbon Brush Cap	2
17	Carbon Brush	2
18	Carbon Brush Holder	2
19	Screw	2
20	Spring Washer m6	4
21	Screw m6 x 20	6
22	Power Cord	1
23	Grounding Screw	1
24	Cable Clamp	1
25	Cable Box	1
26	Screw m4 x 10	2
27	Cable Clip	1
28	Strainer (not shown)	1

Record Product's Serial Number Here:\_

**Note:** If product has no serial number, record month and year of purchase instead.

**Note:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.



## Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

