



1 HP CAST IRON SEWAGE PUMP

Model 66351

SET UP, OPERATING, AND MAINTENANCE INSTRUCTIONS



Visit our website at: <http://www.harborfreight.com>



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

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For technical questions or replacement parts, please call 1-800-444-3353.

Revised Manual 09i

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.

IMPORTANT SAFETY INSTRUCTIONS

In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

CAUTION

CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.

⚠ WARNING

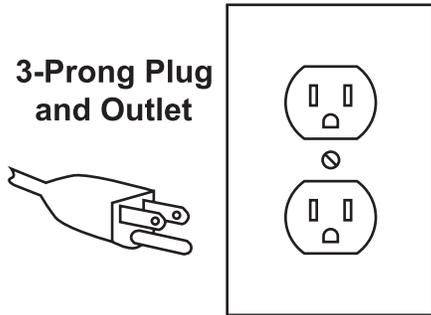
When using electric products, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

POWER CORD SAFETY

1. DO NOT use this Sewage Pump with an extension cord.
2. Ground Fault Circuit Interrupter (GFCI) protection should be provided on the circuit(s) or outlet(s) to be used for the Sewage Pump. Receptacles are available having built-in GFCI protection and may be used for this measure of safety.
3. Do not Abuse Cord - Do not carry by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
4. This 1 HP Cast Iron Sewage Pump should be grounded while in use to reduce the risk of electric shock to the operator. **The Sewage Pump is equipped with a 3-conductor cord and 3-prong grounding plug to fit the proper grounding receptacle.** The green or green and yellow con-

ductor in the cord is the grounding wire. Do not connect the green or green and yellow wire to a live terminal.

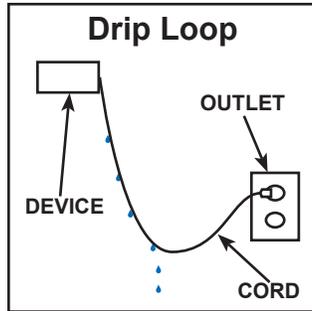


Your unit has a plug as illustrated above. The outlet used should look like the outlet illustrated above. **Do not remove the grounding prong from the plug. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.**

5. **WARNING:** Handling the cord on this product will expose you to lead, a chemical 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 seq.)

General and Specific Safety

1. **WARNING: To prevent serious personal injury and/or death to yourself and/or others:**
 - a. **DO NOT use this Sewage Pump to pump any flammable, or explosive fluids, such as gasoline, fuel oil, kerosene, etc.**
 - b. **DO NOT use in flammable, and/or explosive atmosphere.**
 - c. **Use this Sewage Pump only with liquids compatible with pump component materials.**
 2. **Keep Children Away when assembling, setting up, inspecting and/or servicing this Sewage Pump.**
 3.  **Wear ANSI-approved safety goggles, heavy-duty insulated rubber work gloves and rubber boots while working with or around this Sewage Pump.**
 4. **Do not Overreach - Keep proper footing and balance at all times.**
 5. **Stay Alert - Watch what you are doing. Use common sense.**
- d. **DO NOT operate this Sewage Pump if either the Power Cord (1), Power Plug (29), Housing (10), or Base (27), appear cracked or damaged in any way.**
 - e. **WARNING! DO NOT repair a damaged power cord. Always replace the cord before further use of this Sewage Pump.**
 - f. **DO NOT place this Sewage Pump in water with bare hands. Always wear heavy-duty, insulated rubber gloves.**
 - g. **DO NOT attach the power plug to electrical outlet until the Sewage Pump is placed where it will remain during operation.**
 - h. **Always unplug the Sewage Pump before touching, moving, inspecting, or servicing.**



- Use Drip-Loop to prevent water from accidentally entering the electrical power outlet. Use only with a GFCI outlet. **See second paragraph in “Power Cord Safety” section of this manual.**

Use and Care

- When servicing use only identical replacement parts.
- Do not use this Sewage Pump for any job except that for which it is intended.
- Disconnect the Sewage Pump from the power supply when not in use, or before inspection and/or service/storage.**
- Store Idle Sewage Pump Indoors when not in use out of reach of children.
- Maintain labels and nameplates on the appliance. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- 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.

 **SAVE THESE INSTRUCTIONS.**

SPECIFICATIONS

Electrical Information	120 V, 60 Hz, 10.5 AMPS
Gallons Per Minute	110
Pump Motor	1 HP, 3450 RPM

UNPACKING

When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

SET UP INSTRUCTIONS



Read the **ENTIRE IMPORTANT SAFETY INSTRUCTIONS** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

⚠ WARNING **TO PREVENT SERIOUS**

INJURY FROM ACCIDENTAL OPERATION:

Unplug the Sewage Pump from its electrical outlet before assembling, inspecting, making any adjustments, or servicing.

Note: For additional information regarding the parts listed in the following pages,

refer to the Assembly Diagram near the end of this manual.

ASSEMBLY

1. Thread a discharge hose, or pipe (not supplied) to the orifice on side of Base (27).
2. If you use a check-valve (not supplied), mount the check valve horizontally or at 45°. The valve pivot should be on top. NOTE: If the check valve should be mounted in a vertical position, solid waste will tend to lodge on top of the valve flapper preventing it from opening.
3. If using a check-valve, drill a 1/16" hole in the discharge hose, or pipe 1" to 2" above the Base (27). The hole will prevent an air lock in the Motor (18) both at start up and/or if the Sewage Pump should lose its prime.
4. After the check-valve, a (full-port) gate-valve (not supplied), which will pass 2" solid waste should be installed in the system. The gate-valve allows removal of the Sewage Pump for cleaning and service.

NOTE: If you do not feel qualified to completely (and safely) install this Sewage Pump, it is recommended that you have it installed by a qualified plumber, or service technician.

OPERATING INSTRUCTIONS



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

1. Before operating the Sewage Pump, put on ANSI-approved safety goggles and other safety gear including heavy-duty, insulated rubber gloves. Safety goggles and other safety gear are sold separately.
2. Install the Sewage Pump firmly on it's Legs and supported by rigid hose, or pipe discharge fixtures to eliminate twisting and damage from motor torque during operation.
3. After installation, allow the Sewage Pump to flood with water before plugging Power Cord (1) into outlet. This will help prevent over heating from running the Motor (18) with no water resistance moving through the Sewage Pump. Once this Sewage Pump is plugged into a 120 Volt GFCI outlet, the Motor (18) will start automatically.
4. This Sewage Pump is designed to transfer waste water in cycles.

MAINTENANCE AND SERVICING



Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠️ WARNING

TO PREVENT SERIOUS INJURY

FROM ACCIDENTAL OPERATION OR ELECTRIC SHOCK:

Unplug the Sewage Pump from its electrical outlet before performing any accessory change, inspection, maintenance, and/or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

1. **BEFORE USE and PERIODICALLY THEREAFTER**, inspect the general condition of the Sewage Pump. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation.
2. **⚠️ WARNING! If the supply cord of this appliance is damaged, it must be replaced only by a qualified service technician.**

WARNING: This Sewage Pump contains dielectric motor oil for both lubrication and heat transfer. It may be under pressure because of heat collection. Let the Sewage Pump cool for at least 2 hours before inspecting, or servicing. This oil may be dangerous to the environment. Always dispose of used oil in compliance with all local, State and Federal rules and regulations.

Unclogging the Impeller (24).

1. Unplug the Sewage Pump, put on heavy-duty insulated rubber gloves and ANSI-approved safety goggles.
2. Remove the discharge hose, or pipe.
3. Lift Sewage Pump out of water using the Handle (5).
4. To unclog the Impeller (24), remove 5 Screws (28) on the Sewage Pump bottom and remove Base (27).
5. Flush the Impeller (24) with clean, lukewarm water.
6. Reinstall the Impeller (24) and replace the Base (27) using the 5 Screws (28).
7. Using the Handle (5), replace the Sewage Pump into water in original position.
8. Re-thread the discharge pipe, or hose.
9. Plug the Sewage Pump back into the 120 Volt, GFCI power outlet.
10. The Sewage Pump will start automatically.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Sewage Pump will not start.	<ol style="list-style-type: none"> 1. No power at outlet. 2. Circuit breaker tripped. 3. Cord not connected. 4. Water level too low. 	<ol style="list-style-type: none"> 1. Check power at outlet. 2. Check circuit breaker for outlet. 3. Check that cord is plugged in. 4. Check water level.
Low flow from discharge outlets.	<ol style="list-style-type: none"> 1. Possible excess solid debris lodged in Impeller. 	<ol style="list-style-type: none"> 1. Check and clean debris from Impeller per instructions on Page 6.
Sewage Pump starts and stops too often.	<ol style="list-style-type: none"> 1. Possible back flow from discharge pipe and/or hoses. 2. Check-valve either not installed, or if installed, it is leaking. 	<ol style="list-style-type: none"> 1. Install a check-valve. 2. Remove and examine check-valve for proper installation and operation. Replace if necessary.
Sewage Pump operates but delivers little or no water.	<ol style="list-style-type: none"> 1. Low line voltage. 2. Debris caught in Impeller or discharge hoses or pipes. 3. Check-valve stuck closed or installed backwards. 	<ol style="list-style-type: none"> 1. If voltage is under recommended minimum, check wiring size from the main switch on property. If not OK, contact local power company. 2. Remove and check Impeller and discharge hoses or pipes. Clean if needed. 3. Remove and examine check-valve and reinstall correctly or replace.



Follow all safety precautions whenever diagnosing or servicing the appliance. 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.

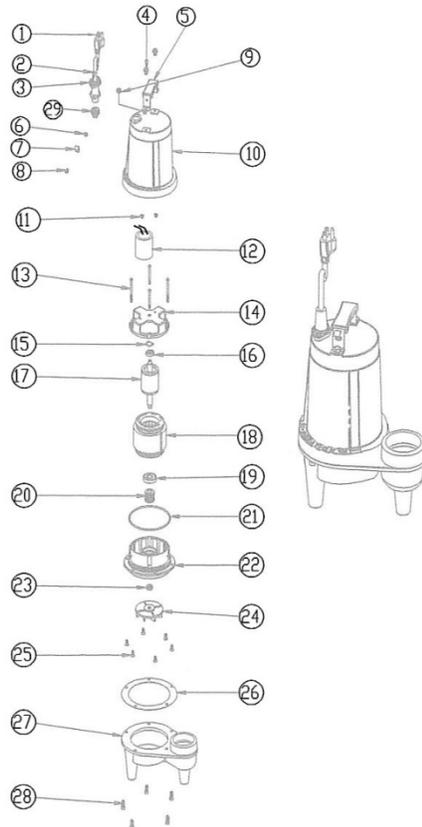
PARTS LIST

Part	Description	Q'ty
1	Power Cord	1
2	Screw 3/16 - 24 X 1/4	2
3	Cord Cover (Protector)	1
4	Screw 1/4 - 20 X 1/4	2
5	Handle	1
6	Washer 3/16	1
7	Strain Relief	1
8	Screw 3/16 24 X 308	1
9	1/4" NPT Oil Plug	1
10	Pump Motor Housing	1
11	Washer 3/16 X 1/4	2
12	Capacitor 40uf/350 V Vac	1
13	Screw M4 X 130	4
14	Rear Cover	1
15	Washer	2
16	Washer 608zz	1

PARTS LIST

Part	Description	Q'ty
17	Motor Shaft	1
18	Motor	1
19	Washer 6202zz - 12.7	1
20	Mechanic Seal Typ 21	1
21	O-Ring	1
22	Motor Seat	1
23	V-Seal	1
24	Impeller	1
25	Flat Screw 3/16 - 24 X 5/8	6
26	Packing Gasket	1
27	Base	1
28	Screw 1/4 - 20 X 3/4	5
29	Power Plug	1

ASSEMBLY DIAGRAM



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.

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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.