

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# WAYNE®

# Engine Driven Semi-Trash Pump

## DESCRIPTION

The WAYNE pumps are general use centrifugal water pumps.

## SAFETY GUIDELINES

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

- ⚠ DANGER** Indicates an imminently hazardous situation which, if NOT avoided, WILL result in death or serious injury.
- ⚠ WARNING** Indicates a potentially hazardous situation which, if NOT avoided, COULD result in death or serious injury.
- ⚠ CAUTION** Indicates a potentially hazardous situation which, if NOT avoided, MAY result in minor or moderate injury.
- NOTICE** Indicates important information, that if NOT followed, MAY cause damage to equipment.

## GENERAL SAFETY INFORMATION

1. Know the pump application, limitations, and potential hazards. Read these rules and instructions carefully. Failure to follow them COULD cause serious injury and/or property damage.

**⚠ DANGER** NEVER run engine in an enclosed area. Exhaust gases contain deadly poisonous carbon monoxide, which has no odor or taste.



**⚠ WARNING** Do NOT use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do NOT use in flammable and/or explosive atmospheres. Pump SHOULD only be used with liquids compatible with pump component materials. Failure to follow this warning CAN result in personal injury and/or property damage.



2. Observe all safety precautions for the handling of the fuel.

**⚠ WARNING** Do NOT refuel a hot engine. Fuel spilled on a hot engine COULD result in a fire or explosion Do NOT refuel a running engine.



3. Pump SHOULD be located and SHOULD rest on a level solid foundation. Do NOT suspend pump by means of the discharge pipe.

**NOTICE** Be sure pump is on secure footing so it doesn't fall over.

4. Do NOT use torches or apply excessive heat, fire or flames to this pump as an explosion may result.

5. Before working on the unit, insulate the wire from the spark plug, disconnect the spark plug wire and mount it on the grounding clip.

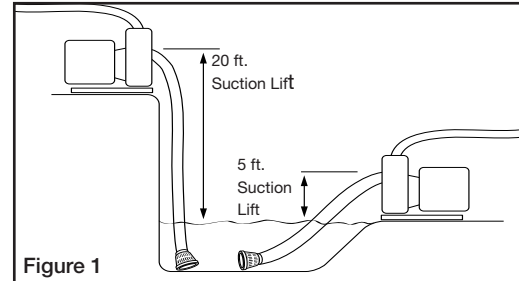
**NOTICE** Complete pump and piping system MUST be protected against below freezing temperatures. Failure to do so COULD cause serious damage and voids the warranty.

6. Do NOT run pump dry. Water is required to lubricate the shaft seal.
7. Pumping chemicals or corrosive liquids with this pump may shorten the life of the pump and be hazardous to the operator.
8. Personal Safety:
  - a. Wear safety glasses at all times when working with pumps.
  - b. Keep work area clean, uncluttered and properly lighted; replace all unused tools and equipment.
  - c. Keep visitors at a safe distance from the work area.
  - d. Make workshop child-proof with padlocks, master switches, and by removing starter keys.
9. ALWAYS use a suction strainer with this pump to filter large material.

## APPLICATION

This pump is designed to be self-priming when installed and operated as specified below.

1. The pump SHOULD be placed as close as possible to the liquid being pumped. A pump with 20 foot suction lift will NOT remove water as quickly as a pump with 5 foot suction lift (Figure 1).

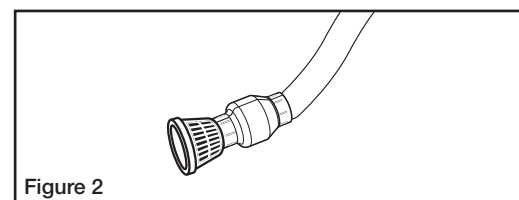


2. Suction hose and fitting must be airtight.

**NOTICE** An air leak in the suction line MAY prevent priming of the pump. Use of thread sealant is recommended.

Suction lines must be reinforced hose or rigid pipe. Non-reinforced hose will collapse due to the suction created by the pump and prevent pump from operating.

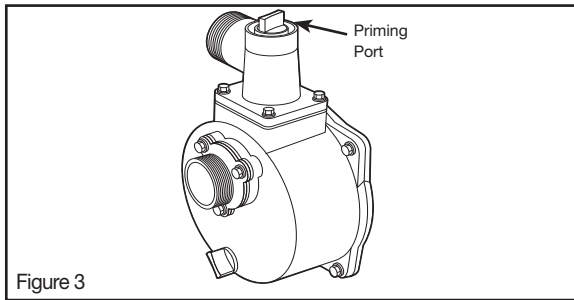
3. A check valve MUST be used in the suction line to maintain the self-priming capability. If no check valve is used the pump will need to be primed at the start of each operation. For best operation, the check valve should be installed at the intake of the section line. (Figure 2)



# Operating Instructions and Replacement Parts List

## APPLICATION (CONTINUED)

4. A suction strainer is required to filter abrasive material
5. The discharge hose and fitting should be leak-tight. A leak in the discharge hose will allow water to spray around the worksite, making the site hazardous.
6. Keep all pipes and hose lines as short and straight as possible. Long lengths and curves in the pipes and hose lines will reduce the pressure the pump develops.
7. Fill the engine crankcase with oil. Refer to the engine operating manual for the specific grade of oil and amount required.
8. Fill the engine fuel tank with gasoline. Refer to the engine operating manual for specific gasoline type that is most efficient for this engine.
9. Add water to the priming port on the pump (See Figure 3). Continue adding water until the water level is approximately 3 inches from the top. Install the priming plug. The water in the pump will create the suction that primes the pump.



10. Turn fuel valve to "ON" position.
11. Move choke lever to "CHOKE" position.
12. Move throttle lever to "START" position.
13. Pull on engine crank until engine starts, move choke lever to "RUN" position.
14. The pump will take several minutes to prime.

### PIPING

Always place the pump as close as possible to the liquid being pumped. Keep all pipe hose lines as short and straight as possible.

**WARNING** Support pump and piping when assembling and after installation. Failure to do so MAY cause piping to break, pump to fail, etc; all of which CAN result in property damage and/or personal injury.

All suction connections must be airtight. If the pump won't prime, check for leaks in the suction piping or fittings. If flexible suction hose is used instead of pipe, use reinforced hose with a two inch inner diameter. Non-reinforced flexible hose may collapse from the vacuum created as the pump primes.

Always use a strainer at the end of the suction pipe or hose. Position strainer so it doesn't become clogged with stones or debris. A suction line check valve is recommended. Do NOT use this pump for suction lifts over twenty-five feet.

## MAINTENANCE

Always shut off the engine, allow the engine to cool, and remove the spark plug before performing any maintenance.

During freezing weather, open the drain port and allow the water in the pump to drain. This will prevent damage to the pump when the water freezes. If the pump will be stored for a month or more, drain the water from the pump and

follow the engine manufacturer's recommendations for long-term storage.

The Honda engine is equipped with a low oil shut off sensor. The SP CK will shut down and will not restart if the oil level becomes low.

## PERFORMANCE INFORMATION

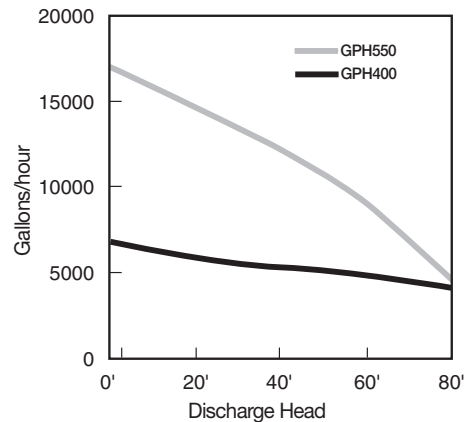
### Semi-Trash Pump Performance GAS PERFORMANCE

Model	Discharge Head	HP	0'	20'	40'	60'
GPH400	Gallons/Hour		9600	9000	7800	5300
GPH550	Gallons/Hour	5-1/2				9000

### FEET FRICTION LOSS IN 100 FEET OF PLASTIC PIPE Gallons Per Minute

Pipe Size	20	25	30	40	50	60	80	100	120
1 1/4	5.6	8.5	11.9	20.2	30.5				
1 1/2	2.6	4.0	5.5	9.4	14.3	19.9	34.2		
2		1.2	1.6	2.8	4.2	5.8	9.9	15.0	21.2
2 1/2				1.2	1.8	2.5	4.2	6.3	8.8

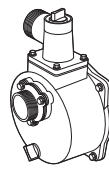
### Gas Performance



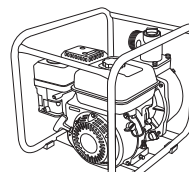
## For Pump Accessories, call 1-800-237-0987

Please provide following information:  
 - Model number  
 - Serial number (if any)  
 - Part description and number as shown

Address parts correspondence to:  
 WAYNE Water Systems  
 101 Production Drive  
 Harrison, OH 45030



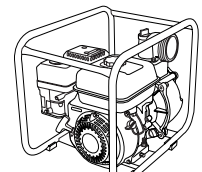
400 PUMP



4HP HONDA  
OHV GPH400



550 PUMP



5.5 HP HONDA  
OHV GPH550

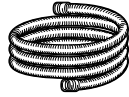


3" HOSE KIT 62025-WYN1  
 2" HOSE KIT 62005-WYN1

# Operating Instructions and Replacement Parts List

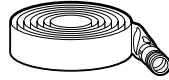
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 - Serial number (if any)                            101 Production Drive  
 - Part description and number as shown      Harrison, OH 45030



**SUCTION HOSE**  
Part #16510-002

Reinforced to prevent collapse under suction. Hose coupled both ends with 2" hose thread. One 20 ft. hose per carton.



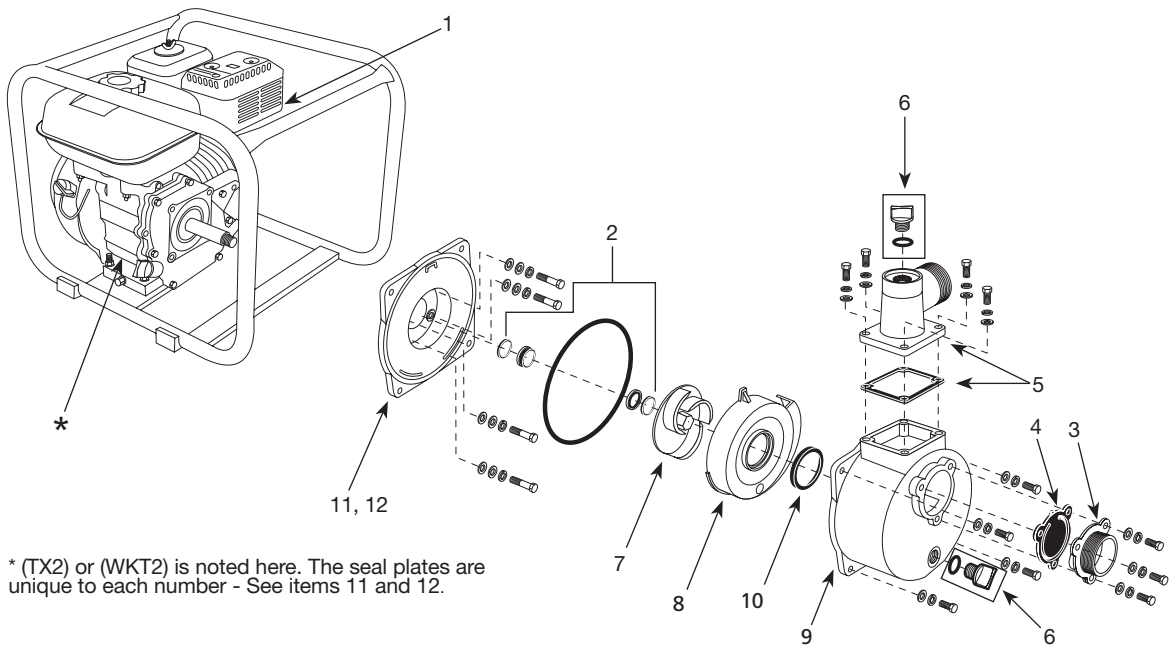
**LAY FLAT DISCHARGE HOSE**  
PART # 16511

Economical, lightweight and resistant to oils, light chemicals, abrasion and sunlight. Will not rot, mildew or absorb water. Hose couples one end with 2" hose thread. One 25 ft. hose per carton.



**2" SUCTION STRAINER**  
PART # 66036

Prevents stones, leaves and other debris from clogging pump.



\* (TX2) or (WKT2) is noted here. The seal plates are unique to each number - See items 11 and 12.

Item No.	Part Description	GPH400	GPH550	Qty
1	Honda Engine	57813-001	57812-001	1
2	Shaft Seal Kit	66048-WYN1	66047-WYN1	1
3	Suction Flange	42008-001	42007-001	1
4	Flapper Check Valve	37307-001	37306-001	1
5	Discharge Flange Kit	66050-WYN1	66049-WYN1	1
6	Drain/Fill Plug	28444-001	28444-001	2
7	Impeller	41021-001	41020-001	1
8	Wear Plate	72030-001	72031-001	1
9	Volute	72032-001	72033-001	1
10	Volute Seal	19051-001	19052-001	1
*11	Seal Plate (TX2)	72027-001	72029-001	1
*12	Seal Plate (WKT2)	72028-001	72034-001	1

