

# HP Pump Stations (High Pressure)





## **Owner's Manual**

Sonny's Enterprises LLC 5605 Hiatus Road Tamarac, Florida 33321



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#### WARNING \*SAFETY REQUIREMENTS\* WARNING

- 1. All employees must be thoroughly trained in safe operation and standard maintenance practices. All employees must review this entire manual monthly.
- 2. Do not enter the wash tunnel when the equipment is operating. Death or dismemberment may occur.
- 3. Do not wear loose fitting clothing or jewelry around moving equipment. Do not allow any part of your body or other objects (including ladders, hoses, or tools) to come in contact with moving equipment. Entanglement may result causing death or dismemberment.
- 4. Do not leave a ladder or any other items such as wash down hoses or tools in the wash tunnel while equipment is running. Vehicle damage and injury, including death, can occur.
- 5. Always exercise caution when walking (never run) through the wash tunnel as there may be slippery conditions. Be careful so you do not bump into or trip over equipment.
- 6. Only those employees specifically instructed and trained by the location management are permitted to enter the wash tunnel to perform inspections or maintenance. At least two qualified maintenance people must be present when performing equipment repairs or preventive maintenance.
- 7. Do not perform any maintenance or work on equipment unless you first perform Lock-Out Safety Precautions. All electrically powered equipment must have manually operated disconnects capable of being locked in the "OFF" position. Equipment that has been "locked out" for any reason must be restarted only by the person who performed the "lock out" operation.
- 8. When working on any equipment that is higher than your shoulders, always use a fiberglass ladder that is in good condition.
- 9. Do not attempt to repair or adjust any pressurized liquid or pneumatic part, hose, pipe or fitting while that equipment is in operation.
- 10. Electrical connections and repairs must be performed by a Licensed Electrician Only.
- 11. Emergency "STOP" buttons must be well marked and their location and proper use reviewed with all personnel. Any activated "STOP" button must be reset only by the person who activated it. Clear the wash tunnel of any people, ladders, hoses, tools, and other loose items before restarting the equipment. An audible device must sound to warn people that the equipment is starting.
- 12. Do not operate any piece of equipment that requires safety covers with those covers removed or improperly installed. Do not operate any piece of equipment if any component of that piece is suspected to be defective or malfunctioning.



- 13. Store all cleaning and washing solutions and oils in a well-ventilated area. Clean up fluid spills immediately to prevent hazardous safety conditions. Be certain to follow all safety procedures on MSDS Sheets for each chemical product used.
- 14. All hydraulic and electric systems in the wash tunnel equipped with a torque relief or overload should be checked and set at the minimum amount that will allow for proper functionality under normal washing conditions.
- 15. No unauthorized people should ever be permitted in the wash tunnel or near the equipment at any time.

\* \* \*

#### !! CAUTION!!

When a piece of equipment must be in operation during inspection or maintenance, one qualified technician must stay at the power disconnect switch while another qualified technician performs the inspection or maintenance.



### \*INTRODUCTION\*

This Owner's Manual contains information that is vital to the successful installation, operation and maintenance of your SONNY'S vehicle washing equipment.

Please read, and understand, the full contents of this manual before installation and operation of the equipment. Keep this booklet in a location where it may be used for ongoing reference.

Should you have any questions on the operation or servicing of this equipment please contact

TECHNICAL SERVICES DEPT. SONNY'S ENTERPRISES INC.

5605 Hiatus Road
TAMARAC, FLORIDA 33321

TELEPHONE: 800-327-8723 FAX: 800-495-4049

THANK YOU FOR YOUR CONFIDENCE IN SONNY'S !!!!!



**Designed** here. **Built** here. **Backed** here.™



## **Product Specifications**

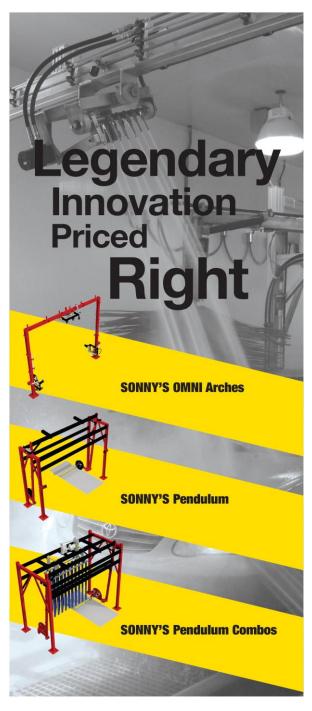
- Galvanized steel pump/motor mounting frame
- Aluminum liquid storage tank mounting frame
- Plastic liquid storage tank with lid
- Wanner pump with unloader/regulator assembled
- 15HP H25, or 20HP D35 electric motor, 3-phase, 230VAC/460VAC, 60Hz
- Pulleys/sheaves, drive belts and belt safety cover
- Pump inlet hose assembled from storage tank
- Pump bypass hose assembled to storage tank
- Maximum pump ratings are 25 or 36GPM @1000PSI
- Storage tank automatic liquid fill
- Storage tank overflow piping assembled to unit
- Ball type shutoff valve assembled to pump inlet from liquid storage tank
- In-line strainer to protect pump and prevent nozzle clogging
- Overflow manifold to keep motor dry in case of overflow
- Oversized pumps ensure long life span













# \*INSTALLATION\* Utilities Requirements

UTILITIES INTERCONNECTION AND THE MATERIALS REQUIRED FOR INTERCONNECTION TO SONNY'S EQUIPMENT ARE THE RESPONSIBILITY OF THE CUSTOMER!

PERFORM ALL TRADES WORK TO ALL APPLICABLE LOCAL AND NATIONAL CODES!

#### Water

 The Customer's Plumber is to provide materials and install 1" water line @ 60PSI to the float valve inlet on the liquid storage tank from city water line or a re-pressurization system.

#### **Electrical**

- The Customer's Electrician is to provide materials and install 208VAC or 230VAC or 460VAC, 3-phase, 60Hz power to the electric motor on the pump station from a properly sized three pole circuit breaker and motor starter with three thermal overloads.
- The Customer's Electrician is to provide materials and install single phase power (24VAC or 110VAC) from the supplied start/stop system to the motor starter coil for the pump station.



## **Equipment Installation**

#### **HP Pump Station Installation**

#### Tools

- 1. Safety Glasses
- 2. ½" Drive Ratchet Set
- 3. Standard Combo Wrenches
- 4. Standard Screwdriver
- 5. 1" Hammer Drill
- 6. Sledgehammer
- 7. Tape Measure

#### **Work Force**

Two (2) persons

#### **Consumables**

- 1. Stainless Shims
- 2. PTFE Tape
- 3. PTFE Paste

Time (assuming no problems)

1.00 - 2.00 hours

#### **Installation Steps**

- 1. Determine where the Pump Station is to be installed. It should be in an area not subjected to direct water spray or freezing.
- 2. Sweep any debris from where the pump will sit.
- 3. Bring the Pump Station into the building set it in place.
- 4. Lag the Pump Station down and shim as needed.
- 5. Connect 1" line to liquid storage tank float valve inlet port with a ball valve shut-off and minimum 18" long flexible hose.
- 6. Connect 1" line from the discharge side of the pump unloader/regulator to the equipment to be operated by this pump. Be certain that all pipe and fittings used are capable of safely handling the maximum operating pressure of the pump. Minimize plumbing elbows to reduce friction loss and install 3 feet of high pressure hose at each end of this system (pump discharge and equipment) to reduce potential vibration and hammer effect.



## **Adjustments and Testing**

#### **BEFORE START-UP**

- 1. Check pump and motor mounting hardware for tightness.
- 2. Check that belt safety cover is on and secured.
- 3. Check for proper level on pump oil dipstick.
- 4. Is the liquid storage tank filled?
- 5. Are all shut-off valves open?
- 6. Confirm that the spray nozzles being fed by EACH pump do not exceed a total of 20GPM @1000PSI !!!

#### **INITIAL START-UP**

- 1. With the pump motor power ON listen for erratic noise and look for inconsistent discharge flow.
- 2. Adjust the regulator/unloader to the desired operating and bypass pressures (not to exceed 1000PSI).
- 3. If the pump fails to prime itself perform the following:
  - a. Turn the pump motor power OFF.
  - b. Remove the drain plug directly below the pump liquid suction line.
  - c. Restart the pump motor and operate it until fluid runs from the open drain plug port.
  - d. Turn the pump motor power OFF and reinstall the drain plug.



## \*GENERAL OPERATION\*

#### **HP PUMP OPERATION**

Starting and stopping of the electric motor is controlled by the motor starter coil for the designated function of the pump station.

The water pressure of the pump may be changed by the regulator/unloader on the discharge of the pump.



### \*PREVENTIVE MAINTENANCE\*

#### **DAILY**

- 1. Check all lines and fittings for leaks. Repair, or replace, as needed.
- 2. Check for proper operation, listening for any unusual noise.

#### **WEEKLY**

- 1. Inspect all hardware and fittings for tightness.
- 2. Check and if necessary clean the in-line strainer.

#### MONTHLY

- 1. Check the drive belts for wear and abrasions, always replace as a set.
- 2. Clean sediment and dirt from the liquid storage tank.

#### **SEMI-ANNUALLY**

- 1. Measure and Record Full Load Amp Readings.
  - a. Measure and record, full load current readings from each of the three legs of each of the three phase electric motors.
  - b. If the differential of current load exceeds 10% between the legs, or the balanced load current of all three legs has increased over 10% since the most recent measurements, order a replacement motor.
  - c. Record readings in the semi-annual log.

#### **ANNUALLY**

1. Drain and refill the pump with new Wanner Hydra Oil (Sonny's # A011143430).



## \*WARRANTY\*

# SONNY'S ENTERPRISES, INC. FACTORY LIMITED LIFETIME WARRANTY

Equipment manufactured by SONNY'S ENTERPRISES, INC. is warranted to be free from defect in material and workmanship. Welded metal framework and other non-moving, non-wearable fabricated metal components manufactured by SONNY'S are warranted for the life of the equipment to the original purchaser. Fabricated metal wearable surface and moving components manufactured by SONNY'S are warranted for a period of one (1) year to the original purchaser of the equipment.

All components assembled to SONNY'S equipment that are manufactured by others are warranted by the appropriate manufacturer and subject to that manufacturer's limited warranty. Contact SONNY'S for the specific information on other component manufacturer's warranty terms. All new cloth shipped with new SONNY'S equipment is warranted for a period of one (1) year or 80,000, whichever occurs first.

This warranty is not assignable or transferable. The warranty period begins the first day following installation or 30 days from the original invoice date, whichever occurs first. The Seller's liability shall be limited to repair or replacement of materials found to be defective within the warranty period. In the event of repair or replacement this limited warranty is noncumulative. The Purchaser must supply the Seller with immediate written notice when any defects are found. The Seller shall have the option of requiring the return of defective material to establish the Purchaser's claim. Neither labor nor transportation charges are included in this warranty. Transportation damage claims are to be submitted to the carrier of the damaged materials.

This warranty is based upon the Purchaser's reasonable care and maintenance of the warranted equipment. It does not apply to any equipment which has been subject to misuse, including neglect, accident or exposure to harsh chemicals or chemicals that react violently with water, organic acids (e.g. acetic acid), inorganic acids (e.g. hydrofluoric acid), oxidizing agents (e.g. peroxides), and metals (e.g. aluminum). Chemicals corrosive to aluminum alloys, carbon steel, and other metals. Nor does it apply to any equipment which has been repaired or altered by anyone not so authorized by SONNY'S. Further, the equipment must be properly installed with proper accuracy of all specified plumbing, electrical, and mechanical requirements. This warranty does not apply to normal wear and tear or routine maintenance components.

EXCEPT AS EXPRESSLY STATED HEREIN, SONNY'S SHALL NOT BE LIABLE FOR DAMAGES OF ANY KIND IN CONNECTION WITH THE PURCHASE, MAINTENANCE, OR USE OF THIS EQUIPMENT INCLUDING LOSS OF PROFITS AND ALL CLAIMS FOR CONSEQUENTIAL DAMAGES. THE LIMITED WARRANTY EXPRESSED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. SONNY'S NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION HEREWITH.



## \*CUSTOMER SERVICE\*

Please contact SONNY'S Equipment Department for installation and/or operational questions regarding this piece of equipment.

Please refer to the Parts Catalog and contact SONNY'S Customer Service Order Entry Department for any replacement parts for this piece of equipment.

You can also visit the web at www.SonnysDirect.com.

DEPARTMENT
Toll Free Main Line
Equipment Department

**PHONE NUMBERS** 800-327-8723 954-720-4100

FAX NUMBERS 800-495-4049 954-720-9292

Or you can email Sales at sales@SonnysDirect.com

Thank you for being a SONNY'S car wash equipment owner!

From all of us here at

