



# **OPERATOR'S MANUAL**

■ EP-2010

■ EP-3010

■ EP-3015

■ EP-3520



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Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

The model and social numbers will be found on a decal attack

The model and serial numbers will be found on a decal attached to the pressure washer. You should record both serial number and date of purchase and keep in a safe place for future reference.

#### **INTRODUCTION & IMPORTANT SAFETY INFORMATION**

Thank you for purchasing this Pressure Washer.

We reserve the right to make changes at any time without incurring any obligation.

#### Owner/User Responsibility:

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this pressure washer. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

The operator must know how to stop the machine quickly and understand the operation of all controls. Never permit anyone to operate the engine without proper instructions.

#### SAVE THESE INSTRUCTIONS

This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number. Use only identical replacement parts. This machine is to be used only by trained operators.

# IMPORTANT SAFETY INFORMATION



READ OPERATOR'S MANUAL THOROUGHLY PRIOR TO USE. WARNING: To reduce the risk of injury, read operating instructions carefully before using.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage.

2. Know how to stop the machine and bleed pressure quickly. Be thoroughly familiar with the controls.

- 3. Stay alert watch what you are doing.
- 4. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details. If your machine is rated 250 volts or less, single phase will be provided with a ground fault circuit interrupter (GFCI). If rated more than 250 volts, or more than single phase this product should only be connected to a power supply receptacle protected by a GFCI.

DANGER: Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service personnel if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use any type of adaptor with this product



WARNING: Keep wand, hose, and water spray away from electric wiring or fatal electric shock may result.

 To protect the operator from electrical shock, the machine must be electrically grounded. It is the responsibility of the owner to connect this machine

to a UL grounded receptacle of proper voltage and amperage ratings. Do not spray water on or near electrical components. Do not touch machine with wet hands or while standing in water. Always disconnect power before servicing.



WARNING: Flammable liquids can create fumes which can ignite, causing property damage or severe injury.

WARNING: Risk of explosion — Do not spray flammable liquids.

- 6. Do not allow acids, caustic or abrasive fluids to pass through the pump.
- 7. Never run pump dry or leave spray gun closed longer than 1-2 minutes.
- 8. Keep operating area clear of all persons.



WARNING: High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds. To avoid personal injury, eye, hand and foot safety devices must be worn.

9. Eye, hand, and foot protection must be worn when using this equipment.

#### IMPORTANT SAFETY INFORMATION



WARNING: Grip cleaning wand securely with both hands before starting. Failure to do this could result in injury from a whipping wand.



WARNING: Be extremely careful when using a ladder, scaffolding or any other relatively unstable location. The cleaning area should have adequate slopes and drainage to reduce the possibility of a fall due to slippery surfaces.



OR SEVERE INJURY

TO PERSONS. KEEP CLEAR OF NOZZLE.

WARNING: High pressure developed by these machines will cause personal injury or equipment damage. Keep clear of nozzle. Use caution when operating. Do not direct discharge stream at people, or severe injury or death will result.

- 10. To reduce the risk of injury, close supervision is necessary when a machine is used near children. Do not allow children to operate the pressure washer. This machine must be attended during operation.
- Never make adjustments on machine while in operation.
- 12. Be certain all quick coupler fittings are secured before using pressure washer.

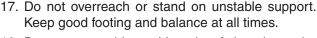


WARNING: Protect machine from freezing.

 To keep machine in best operating conditions, it is important you protect machine from freezing. Failure to protect machine from freezing could cause malfunction of the machine and result in death,

serious bodily injury, and/or property damage. Follow storage instructions specified in this manual.

- 14. Inlet water must be clean fresh water and no hotter then 90°F.
- 15. Manufacturer will not be liable for any changes made to our standard machines or any components not purchased from us.
- 16. The best insurance against an accident is precaution and knowledge of the machine.



 Do not operate this machine when fatigued or under the influence of alcohol, prescription medications, or drugs.

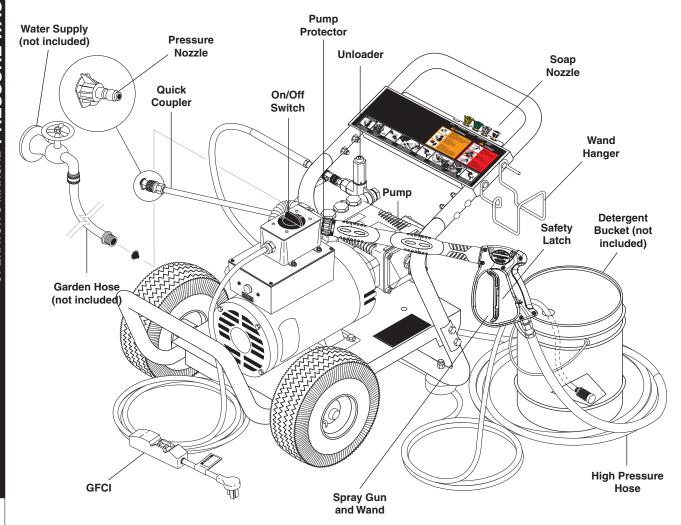


WARNING: Do not spray machine or any people, animals or electrical parts.



Follow the maintenance instructions specified in the manual.

### **COMPONENT IDENTIFICATION**



**Pump** — Develops high pressure.

**Spray Gun** — Controls the application of water and detergent onto cleaning surface with trigger device. Includes safety latch.

Wand — Must be connected to the spray gun.

**Unloader** — Safety device that relieves pressure when spray gun trigger is closed.

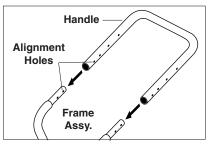
**High Pressure Hose** — Connect one end to water pump discharge nipple and the other end to spray gun.

**Pump Protector** — Cycles fresh cool water through pump when recirculating water reaches 140°F.

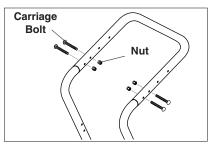
**GFCI** — Ground fault circuit interrupter trips when voltage leaks to ground.

Note: If trigger on spray gun is released for more than 1-2 minutes, water will leak from valve. Warm water will discharge from pump protector onto floor. This system prevents internal pump damage.

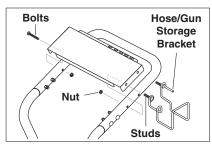
#### **ASSEMBLY INSTRUCTIONS**



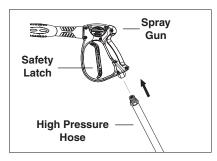
**STEP 1:** Attach the handle to the frame of the pressure washer. **Note:** It may be necessary to move the handle supports from side to side in order to align the handle so it will slide over the frame supports.



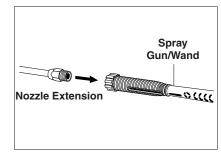
**STEP 2:** Insert the carriage bolt through the holes from the outside of the unit and attach a nut from the inside of the machine. Tighten nuts.



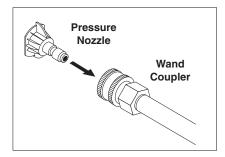
**STEP 3:** Attach the spray gun/hose storage handle, and bracket to handle. Tighten nuts.



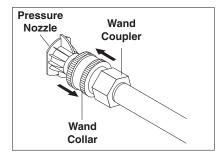
**STEP 4:** Attach the high pressure hose to the spray gun using teflon tape on hose threads.



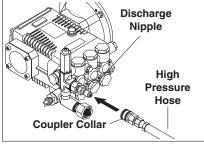
**STEP 5:** Attach nozzle extension to spray gun/wand. Tighten both by hand.



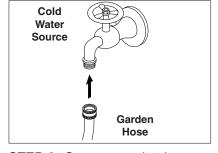
**STEP 6:** Pull the spring-loaded collar of the wand coupler back to insert your choice of pressure nozzle.



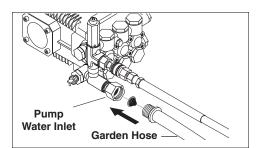
**STEP 7:** Release the coupler collar and push the nozzle until the collar clicks. Pull the nozzle to make sure it is seated properly.



**STEP 8:** Connect the high pressure hose to the pumps discharge nipple. Push coupler collar forward until secure.

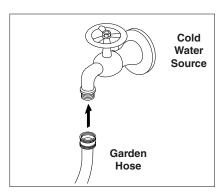


**STEP 9:** Connect garden hose to the cold water source.

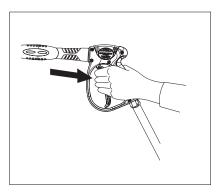


STEP 10: Connect the garden hose to pump water inlet. Inspect inlets. CAUTION: Do not run the pump without water or pump damage will result.

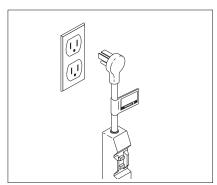
### **OPERATING INSTRUCTIONS**



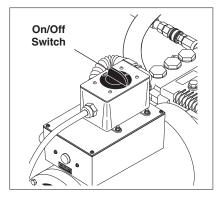
**STEP 1:** Connect garden hose to the cold water source and turn water on completely. Never use hot water.



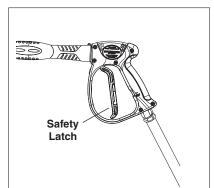
**STEP 2:** Trigger the spray gun to eliminate trapped air then wait for a steady flow of water to emerge from the spray nozzle.



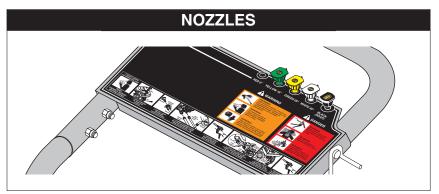
**STEP 3:** Connect to appropriate power supply. Push reset button on GFCI.



**STEP 4:** Turn machine on by turning switch at top of motor.



WARNING! Never replace nozzles without engaging the safety latch on the spray gun trigger.



The four color-coded quick connect nozzles provide a wide array of spray widths from 15° to 40° and are easily accessible when placed in the convenient rubber nozzle holder, which is provided on the front of the machine.

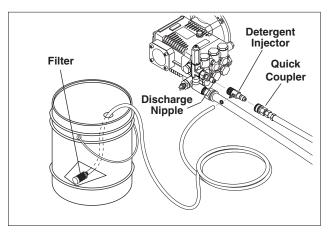
**NOTE:** For a more gentle rinse, select the white 40° or green 25° nozzle. To scour the surface, select the yellow 15° nozzle. To apply detergent select the black nozzle.

#### **DETERGENTS AND GENERAL OPERATING TECHNIQUES**



WARNING: Some detergents may be harmful if inhaled or ingested, causing severe nausea, fainting or poisoning. The harmful elements may cause property damage or severe injury.

**STEP 1:** Connect detergent injector to discharge nipple on machine. Connect high pressure hose to injector with quick coupler. (Check to make sure locking coupler sleeves are in proper position before applying water pressure).





STEP 2: Use detergent designed specifically for pressure washers. Household detergents could damage the pump. Prepare detergent solution as required by the manufacturer. Fill a container with pressure washer detergent. Place the filter end of detergent suction tube into the detergent container.



**STEP 3:** With safety latch on spray gun engaged, secure black detergent nozzle into quick coupler. **NOTE:** Detergent cannot be applied using a pressure nozzle.

**STEP 4:** With the motor running, pull trigger to operate machine.

Liquid detergent is drawn into the machine and mixed with water. Apply detergent to work area. Do not allow detergent to dry on surface.

IMPORTANT: You must flush the detergent injection system after each use by placing the suction tube into a bucket of clean water, then run the pressure washer in low pressure for 1-2 minutes.

#### THERMAL PUMP PROTECTION

If you run the motor on your pressure washer for 1-2 minutes without pressing the trigger on the spray gun, circulating water in the pump can reach high temperatures. When the water reaches this temperature, the pump protector engages and cools the pump by discharging the warm water onto the ground. This thermal device prevents internal damage to the pump.

#### **CLEANING TIPS**

Pre-rinse cleaning surface with fresh water. Place detergent suction tube directly into cleaning solution and apply to surface at low pressure (for best results, limit your work area to sections approximately 6 feet square and always apply detergent from bottom to top). Allow detergent to remain on surface 1-3 minutes. Do not allow detergent to dry on surface. If surface appears to be drying, simply wet down surface with fresh water. If needed, use brush to remove stubborn dirt. Rinse at high pressure from top to bottom in an even sweeping motion keeping the spray nozzle approximately 1 foot from cleaning surface. Use overlapping strokes as you clean and rinse any surface. For best surface cleaning action spray at a slight angle.

#### **Recommendations:**

- Before cleaning any surface, an inconspicuous area should be cleaned to test spray pattern and distance for maximum cleaning results.
- If painted surfaces are peeling or chipping, use extreme caution as pressure washer may remove the loose paint from the surface.
- Keep the spray nozzle a safe distance from the surface you plan to clean. High pressure wash a small area, then check the surface for damage. If no damage is found, continue to pressure washing.

#### A CAUTION - Never use:

- Bleach, chlorine products, other corrosive chemicals
- Liquids containing solvents (i.e., paint thinners, gasoline, oils)
- Tri-sodium phosphate products
- · Ammonia products
- Acid-based products

These chemicals will harm the machine and will damage the surface being cleaned.

#### RINSING

It will take a few seconds for the detergent to clear. Apply safety latch to spray gun. Remove black soap nozzle from the quick coupler. Select and install the desired high pressure nozzle. **NOTE:** You can also stop detergent from flowing by simply removing detergent siphon tube from bottle.

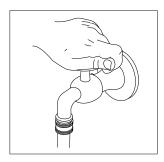
#### SHUTTING DOWN AND CLEAN-UP



STEP 1: Remove detergent suction tube from container and insert into one gallon of fresh water. Slide nozzle forward for low pressure or use black detergent nozzle. Pull trigger on spray gun and siphon fresh clean water for one minute.



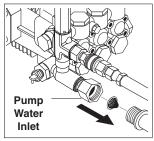
**STEP 2:** Turn off machine by turning switch to "OFF" switch.



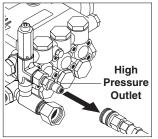
**STEP 3:** Turn off water supply.



**STEP 4:** Press trigger to release water pressure.



**STEP 5:** Disconnect the garden hose from the water inlet on the machine.



**STEP 6:** Disconnect the high pressure hose from the discharge nipple.



**STEP 7:** Engage the spray gun safety lock.

### **STORAGE**

#### **Pump Storage**



CAUTION: Always store your pressure washer in a location where the temperature will not fall below 32°F (0°C). The pump in this machine is susceptible to permanent damage if frozen.

# FREEZE DAMAGE IS NOT COVERED BY WAR-RANTY.

If you must store your pressure washer in a location where the temperature is below 32°F, you can minimize the chance of damage to your machine by draining your machine as follows:

- Stop the pressure washer and detach supply hose and high pressure hose. Squeeze trigger of spray gun to drain all water from the wand and hose.
- 2. Restart pressure washer and let it run briefly (about 5 seconds) until water no longer discharges from the high pressure outlet.

# **TROUBLESHOOTING**

| PROBLEM   | POSSIBLE CAUSE  | SOLUTION  |
|---|---|---|
| PUMP RUNNING                                    | Pump sucking air  | Check water supply and possibility of air seepage.  |
| NORMALLY BUT<br>PRESSURE LOW ON                 | Check valves sticking   | Check and clean or replace if necessary.  |
| INSTALLATION                                    | Unloader valve seat faulty                                    | Check and replace if necessary.   |
|   | Nozzle incorrectly sized                                      | Check and replace if necessary.   |
|   | Worn piston packing   | Check and replace if necessary.   |
| FLUCTUATING                                     | Valves worn   | Check and replace if necessary.   |
| PRESSURE  | Blockage in valve   | Check and replace if necessary.   |
|   | Pump sucking air  | Check water supply connections.   |
|   | Worn piston packing   | Check and replace if necessary.   |
|   | Insufficient water  | Check filter and hose for breakage.   |
| PRESSURE LOW AFTER                              | Nozzle worn   | Check and replace if necessary.   |
| PERIOD OF NORMAL USE                            | Suction or delivery valves worn                               | Check and replace if necessary.   |
| 002   | Suction or delivery lines blocked                             | Check and clean if necessary.   |
|   | Unloader valve seat worn                                      | Check and replace if necessary.   |
|   | Worn piston packing   | Check and replace if necessary.   |
|   | Water temperature excessive                                   | Reduce to below 160° F.   |
| PUMP NOISY                                      | Air in suction line   | Check water supply and connections on suction line.   |
|   | Broken or weak suction or delivery valve spring               | Check and replace if necessary.   |
|   | Foreign matter in valves                                      | Check and clean if necessary.   |
|   | Worn bearings   | Check and replace if necessary.   |
|   | Excessive temperature of water                                | Reduce to below 160° F.   |
| PRESENCE OF WATER                               | Oil seal worn   | Check and replace if necessary.   |
| IN PUMP OIL                                     | High humidity in air  | Check and replace if necessary.   |
|   | Piston packing worn   | Check and replace if necessary.   |
| WATER DRIPPING FROM                             | Piston packing worn   | Check and replace if necessary.   |
| UNDER PUMP                                      | O-ring plunger retainer worn                                  | Check and replace if necessary.   |
| WATER DRIPPING FROM PUMP PROTECTOR              | Water supply pressure too high (over 90 PSI)                  | Lower water supply pressure using a regulator.  |
|   | Spray gun is in the off position for over 5 minutes           | Turn machine off if not in use for over 1-2 minutes.  |
| OIL DRIPPING                                    | Oil seal worn   | Check and replace if necessary.   |
| EXCESSIVE VIBRATION<br>IN HIGH PRESSURE<br>HOSE | Irregular functioning of the pump valves                      | Check and replace if necessary.   |
| MOTOR DOES NOT<br>START WHEN SWITCHED<br>ON     | Plug not well connected or lack of power supply               | Check plug, cable and switch.   |
| WHEN SWITCHING ON THE MACHINE, MOTOR            | Main voltage is insufficient, lower than the minimum required | Check to make sure main power supply is adequate.   |
| HUMS BUT DOES NOT<br>RUN                        | The pump is stuck or frozen                                   | Check by turning the motor manually.  |
| MOTOR STOPS                                     | Tripped thermal overload due to over-<br>heating              | Check that main voltage corresponds to the speci-<br>fications. Wait a few minutes before turning on the<br>machine again by resetting the GFCI cord. |

### PREVENTATIVE MAINTENANCE

#### **PREVENTATIVE MAINTENANCE**

This pressure washer was produced with the best available materials and quality craftsmanship. However, you as the owner have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your dealer for maintenance. Regular preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions.

|                              | MAINTENANCE SCHEDULE |  |  |  |  |
|------------------------------|----------------------|--|--|--|--|
| Pump Oil                     | Inspect              | Daily inspect the oil level                            |  |  |  |
| (Non foaming)<br>SAE 10W-40  | Change               | After first 50 hours, then every 500 hours or annually |  |  |  |
| Replace High Pressure Nozzle |                      | Every 6 months   |  |  |  |
| Replace Quick Connects       |                      | Annually   |  |  |  |
| Clean Water Screen/Filter    |                      | Weekly   |  |  |  |
| Replace HP Hose              |                      | Annually if there is any sign of wear                  |  |  |  |
| Grease Motor                 |                      | Every 10,000 hours                                     |  |  |  |

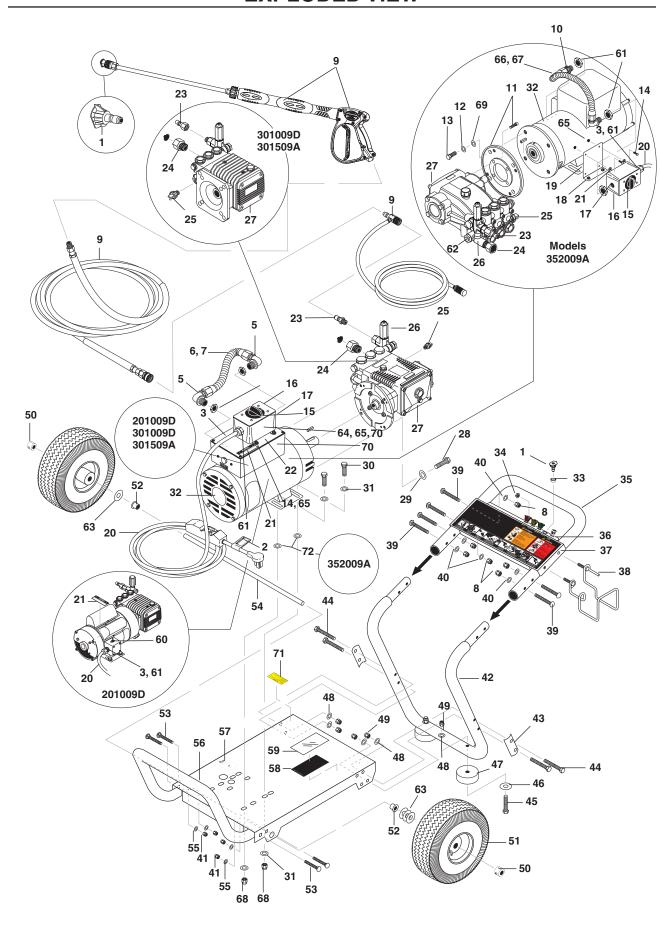
#### **OIL CHANGE RECORD**

Check pump oil and engine oil level before first use of your new pressure washer.

| Date Oil Changed<br>Month/Day/Year | Estimated Operating<br>Hours Since Last<br>Oil Change |
|------------------------------------|---|
|                                    |   |
|                                    |   |
|                                    |   |
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| Date Oil Changed<br>Month/Day/Year | Estimated Operating<br>Hours Since Last<br>Oil Change |
|------------------------------------|---|
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### **EXPLODED VIEW**



### **EXPLODED VIEW PARTS LIST**

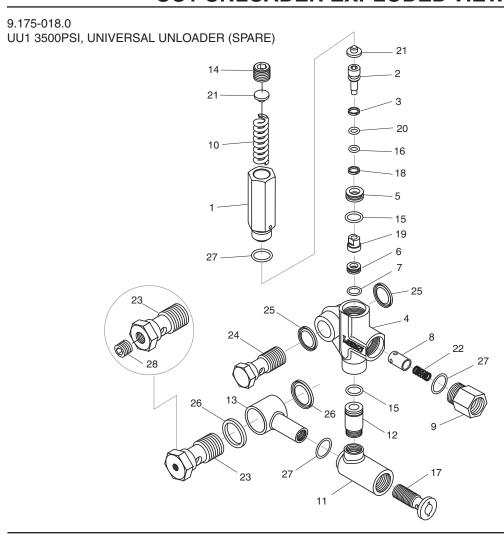
| ITEM | PART NO.                   | DESCRIPTION  | QTY    | ITEM | PART NO.    | DESCRIPTION   | QTY      |
|------|----------------------------|--|--------|------|-------------|---|----------|
| 1    |                            | ons Page For Nozzle Size                                   |        | 18   | 9.803-551.0 | Screw, 5/16" x 3/4" Whiz  | _        |
|      | 8.712-338.0<br>8.712-339.0 | Nozzle, 1503.5, Yellow<br>Nozzle, 2503.5, Green            | 1<br>1 |      | 9.802-778.0 | (352009A)   | 2        |
|      | 8.712-340.0                | Nozzle, 4003.5, White                                      | 1      |      | 9.602-776.0 | ▲ Nut, 5/16" Whiz Loc<br>Flage                                  | 2        |
|      | 8.712-354.0                | Nozzle, 1505, Yellow                                       | 1      | 19   | 8.913-355.0 | Bracket, Switch Box   |          |
|      | 8.712-355.0                | Nozzle, 2505, Green  | 1      |      |             | (352009A)   | 1        |
|      | 8.712-356.0                | Nozzle, 4005, White  |        | 20   | 9.802-433.0 | GFCI, 240V 1Ph 20A, 36'   |          |
|      | 8.712-358.0<br>8.712-359.0 | Nozzle, 1555, Yellow<br>Nozzle, 2555, Green                | 1      |      | 0.000.400.0 | 12-3 Cord (301509A)   | 1        |
|      | 8.712-360.0                | Nozzle, 2005, White  | 1      |      | 9.802-430.0 | GFCI, 240V 1Ph 30A, 36' 1<br>Cord (352009A)                     | 0-3<br>1 |
|      | 8.712-350.0                | Nozzle, 1545, Yellow                                       | 1      |      | 9.802-431.0 | GFCI, 120V 20A, w/36' 12-3                                      | 3        |
|      | 8.712-351.0                | Nozzle, 2545, Green  | 1      |      | 0.000.400.0 | Cord (301009D)  | 1        |
|      | 8.712-352.0                | Nozzle, 4045, White  | 1      |      | 9.802-432.0 | GFCI, 120V 15A, w/36'<br>12-3 Cord (201009D)                    | 1        |
|      | 8.712-398.0                | Nozzle, Compl. QCME 6540                                   |        | 21   | 9.800-016.0 | Label, Disconnect Power   |          |
|      | 0.000.000.0                | Brass, All   | 1      | 21   | 0.000 010.0 | Supply  | 1        |
| 2    | 8.932-969.0                | Label Service Cord   |        | 22   | 9.803-833.0 | Cover, Motor (301009D,  |          |
| 3    | 8.752-969.0                | Strain Relief 1/2"<br>(201009D)                            | 1      |      |             | 301509A)  | 1        |
|      | 9.802-518.0                | Strain Relief, 3/4 NPT                                     | •      | 23   | 9.802-170.0 | Nipple, 3/8" x 3/8" NPT, ST                                     |          |
|      |                            | (301009D, 301509A,   |        |      | 0.707.150.0 | Female (201009D, 352009A  | 4) 1     |
|      |                            | 352009A)   |        |      | 8.707-152.0 | Nipple, 3/8", Male, Ssteel (301009D,                            |          |
| 4    | Hose, See Spec             | <u> </u>   |        |      |             | 301509A,)   | 1        |
| 5    | 9.802-517.0                | Connector, 1/2" L/T, 90°,<br>Black (301009D, 301509A)      | 2      | 24   | 9.802-147.0 | Swivel, 3/8" MP x 3/4" GHF<br>Strainer (352009A)                | w/<br>1  |
| 6    | 9.802-427.0                | Cord, Service, SOWA 12/3,<br>Coleman (301009D,<br>301509A) | 21"    |      | 8.757-203.0 | Swivel, 1/2" M-NPTF x 3/4"<br>GHF (201009D,<br>301009D,301509A) | 1        |
| 7    | 9.802-448.0                | Conduit, Watertight, Flex, 1/2 (301009D, 301509A)          | 8"     | 25   | 8.757-549.0 | Pump protector 1/2 140° (352009A)                               | 1        |
| 8    | 9.802-773.0                | Nut, 1/4" ESNA, NC   | 6      |      | 9.804-025.0 | Protector, Pump 1/4" PTP  |          |
| 9    | See Hose, Spra             |  | 1      |      |             | (201009D, 301009D,  |          |
| 10   | 9.803-831.0                | Connector, 3/4" L/T, 90°, Bla                              | ack    |      |             | 301509A)  | 1        |
|      |                            | (352009A)  | 2      | 26   |             | Specifications Page   |          |
| 11   | 8.751-347.0                | Plate, Pump Mount, 184TC                                   |        | 27   |             | ecifications Page   |          |
|      | 9.802-742.0                | Hawk (352009A) Bolt, 8mm x 20mm, HH                        | 1      | 28   |             | Bolt, 3/8" x 1" NC<br>(All except 352009A)                      | 4        |
|      | 0.000.547.0                | (352009A)  | 4      | 29   | 9.802-807.0 | Washer, 3/8" SAE, Flat  | 4        |
| 12   | 9.803-517.0                | Washer, 1/2" Lock (352009)                                 | 4) 4   |      | 0.710.610.0 | (All except 352009A)  | 4        |
| 13   | 8.718-690.0                | Bolt, 1/2" x 1" Hex, NC HH<br>(352009A)                    | 4      | 30   | 8.718-618.0 | Bolt, 5/16" x 3/4" NC<br>(All except 352009A)                   | 4        |
| 14   | 9.802-759.0                | Screw, 10/32" x 1/2" BHSO                                  |        |      | 9.802-722.0 | Bolt, 3/8 X 1-1/4", NC HH                                       | -        |
| 14   | 3.002-733.0                | Black (301009D, 301509A,                                   | 0      |      |             | (352009A)   | 4        |
|      |                            | 352009A)   | 4      | 31   | 8.718-980.0 | Washer, 5/16" Flat  | _        |
| 15   | 9.802-450.0                | Switch, 2 Pos. 120V-600V,                                  |        |      | 9.198-004.0 | (All except 352009A)<br>Washer, 3/8" SAE, Flat                  | 8        |
|      |                            | 1-3 PH Bremas (301009D,                                    | 4      |      | 3.130-004.0 | 352009A)  | 8        |
| 16   | 0.000.470.0                | 301509A, 352009A)<br>Lid, Plastic, Carlon E9801            |        | 32   | Motor,      | See Specifications Page   |          |
| 16   | 9.802-478.0                | Box (301009D, 301509A,                                     |        | 33   | 9.802-064.0 | Grommet, Rubber, Nozzle   |          |
|      |                            | 352009A)   | 1      |      |             | Holder  | 5        |
| 17   | 9.802-477.0                | Box, Plastic, Carlon E9801, w/o Lid (301009D, 301509A      |        | 34   | 9.802-778.0 | ▲ Nut, 5/16" Whiz Loc Flage                                     | 2        |
|      |                            | 352009A)   | 1      | 35   | 8.719-938.0 | Handle, Grab, Red   | 1        |
|      |                            |  |        | 36   | 8.900-913.0 | Label Cold Water  | 1        |
|      |                            |  |        | 37   | 8.912-081.0 | Plate, Warning/Instr. Red                                       | 1        |
|      |                            |  |        |      |             |   |          |

# **EXPLODED VIEW PARTS LIST**

| ITEM | PART NO.     | DESCRIPTION   | QTY      |
|------|--------------|---|----------|
| 38   | 9.803-098.0  | Hanger, Hose/Wand   | 1        |
| 39   | 9.802-706.0  | Bolt, Carriage,<br>1/4"-20 x 1-3/4"   | 6        |
| 40   | 9.802-802.0  | Washer, 1/4" Flat   | 6        |
| 41   | 9.802-776.0  | Nut, 5/16" ESNA, NC   | 4        |
| 42   | 8.719-937.0  | Handle, Lower Grab, Red   | 1        |
| 43   | 8.912-061.0  | Retainer Bracket, Handle,<br>Red  | 2        |
| 44   | 9.802-728.0  | Bolt, 3/8" x 2"   | 4        |
| 45   | 9.802-730.0  | Bolt, 3/8" x 2-1/2"   | 2        |
| 46   | 9.802-817.0  | Washer, 3/8" x 1"   | 2        |
| 47   | 9.802-066.0  | Pad, Soft Rubber, 50 Duro   |          |
| 48   | 9.802-807.0  | Washer, 3/8" SAE, Flat  | 6        |
| 49   | 9.197-003.0  | Nut, 3/8" ESNA, NC  | 6        |
| 50   | 9.802-782.0  | Collar, 5/8" Bore Shaft, 3010   |          |
| 51   | 8.754-186.0  | Qh Wheel Assy, 10" Gray Steel Rim W/Tube  | 2        |
| 52   | 9.802-103.0  | Bushing, Snap, 5/8"   | 2        |
| 53   | 9.802-712.0  | Belt, Carriage 5/16" x 1-3/4'   |          |
| 54   | 9.803-097.0  | Axle, 5/8" x 19.625" Long   | 1        |
| 55   | 8.718-980.01 | Washer, 5/16" Flat, SAE   | 4        |
|      |              |   |          |
| 56   | 8.719-939.0  | Handle, Bumper, Red   | 1        |
| 57   | 8.912-065.0  | Base, CW Direct, Red  |          |
| 58   | 9.800-013.0  | Label, Intend. For Indoor Us  | e i      |
| 59   | 9.800-034.0  | Label, Clear Lexan<br>2-1/4" x 4-1/2"   | 1        |
| 60   | 9.802-454.0  | Switch Assembly (201009D  | ) 1      |
| 62   | 8.757-192.0  | Pump protector 1/2 140°   | 1        |
| 63   | 9.802-810.0  | Washer, 5/8" Flat   | 4        |
| 64   | 9.802-699.0  | ▲ Screw, 10/32" x 3/4" Slot<br>Pan, MS, SS (301009D,<br>301509A,<br>353009A) Ground | 1        |
| 65   | 9.802-695.0  | Nut, 10/32" Keps (301009D, 301509A, 352009A)  | 7        |
| 66   | 9.803-832.0  | Conduit, Water Tite, Flex 3/4 (352009A)   | 1"<br>20 |
| 67   | 9.802-436.0  | Cord, Service, 10/3<br>(352009A)  | 33       |
| 68   | 9.802-776.0  | Nut, 5/16" ESNA<br>(All except 352009A)   | 4        |
|      | 9.197-003.0  | Nut, 3/8" ESNA (352009A)  | 4        |
| 69   | 9.802-809.0  | Washer, 1/2" Flat (352009A  | ) 4      |
| 70   | 9.800-040.0  | ▲ Label, Ground (Motor)   | 1        |
| 71   | 9.800-049.0  | Label, Manufacturer's<br>Cleaning Solution  | 1        |
| 72   | 8.719-047.0  | Washer, nylon, .281ID<br>X 1 OD X .25 THK(352009A                                   | 4        |
|      |              |   |          |

<sup>▲</sup> Not Shown

### **UU1 UNLOADER EXPLODED VIEW**



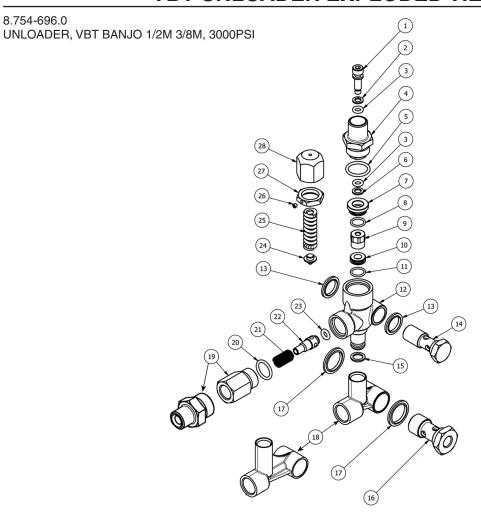
### **UU1 UNLOADER EXPLODED VIEW PARTS LIST**

| ITEM | PART #      | DESCRIPTION              | KIT   | QTY |
|------|-------------|--------------------------|-------|-----|
| 1    | 8.751-394.0 | Piston Housing           | D     | 1   |
| 2    |             | Piston                   | C, D  | 1   |
| 3    |             | Piston O-Ring Back Up    | A, D  | 1   |
| 4    | 8.749-796.0 | Main Block               |       | 1   |
| 5    | 9.152-372.0 | Piston Ring              | D     | 1   |
| 6    |             | Ball Seat                | C, D  | 1   |
| _ 7  |             | O-Ring 10.5 ID x 1.5 CS  | A,C,D | 1   |
| 8    |             | Plunger                  | В     | 1   |
| 9    | 9.152-016.0 | Plunger Housing          |       | 1   |
| 10   |             | Bypass Spring            | C, D  | 1   |
| _11  | 9.149-001.0 | Low Pressure Port        |       | 1   |
| 12   | 9.152-017.0 | Sliding Connector, 30mm  |       | 1   |
|      | 8.762-005.0 | Sliding Connector, 40mm, | Long  | 1   |
| 13   | 9.149-002.0 | Sliding Connector H 1/2" |       | 1   |
|      | 9.149-005.0 | Sliding Connector H 3/8" |       | 1   |
| 14   | 9.196-011.0 | Plug 5/8 -18 UNF         | D     | 1_  |
| 15   |             | O-Ring 12 ID x 2 CS      | A, D  | 2   |
| 16   |             | O-Ring 6 ID X 2 CS       | A, D  | 1   |

| ITEM  | PART #      | DESCRIPTION                      | KIT   | QTY |
|-------|-------------|----------------------------------|-------|-----|
| 17    | 9.149-006.0 | Sliding Connector Guide          |       | 1_  |
| 18    |             | O-Ring Backup<br>6 x 1.45 x 1.68 | A, D  | 1   |
| 19    |             | Ball Housing Assy                | C, D  | 1   |
| 20    |             | O-Ring 6.75 x 1.78 BN80          | A, D  | 1   |
| 21    |             | Spring Seat                      | C, D  | 2   |
| 22    |             | Plunger Spring                   | В     | 1   |
| 23    | 8.917-699.0 | Banjo Bolt 1/2" Short            |       | 1   |
| -     | 8.917-700.0 | Banjo Bolt 1/2"-1/4" NPT         | Short | 1   |
| 24    | 8.917-698.0 | Banjo Bolt 3/8" Short            |       | 1_  |
| 25    | 9.802-893.0 | Seal Washer 3/8"                 |       | 2   |
| 26    | 9.803-921.0 | Seal Washer 1/2"                 |       | 2   |
|       | 9.802-893.0 | Seal Washer 3/8"                 |       | 2   |
| 27    |             | O-Ring 15 ID x 2CS               | A,B,D | 3   |
| 28    | 8.706-865.0 | Plug, 1/4" Countersunk           |       | 1   |
| Kit A | 9.104-038.0 | O-Ring Repair Kit                |       |     |
| Kit B | 9.104-039.0 | Outlet Kit                       |       |     |
| Kit C | 9.104-040.0 | Stem Basic Kit                   |       |     |

Kit D 8.920-045.0 UU1 Complete Stem Kit

### **VBT UNLOADER EXPLODED VIEW**



### **UU1 UNLOADER EXPLODED VIEW PARTS LIST**

| ITEM | PART #      | DESCRIPTION                 | KIT | QTY |
|------|-------------|-----------------------------|-----|-----|
| 1    | 8.754-929.0 | Stem                        | С   | 1   |
| 2    | 9.803-912.0 | Backup Ring                 | Α   | 1   |
| 3    | 8.754-930.0 | O-ring, Ø2.62 x 6.02        | Α   | 2   |
| 4    | 8.730-882.0 | Stem Connector              |     | 1   |
| 5    | 9.803-193.0 | O-ring, Ø2.62 x 20.24       | Α   | 1   |
| 6    | 9.803-908.0 | Backup Ring                 | Α   | 1   |
| 7    | 9.803-907.0 | Guide Bushing               |     | 1   |
| 8    | 9.803-906.0 | O-ring, Ø1.78 x 14          | Α   | 1   |
| 9    | 8.754-959.0 | Ball SubAssembly            | С   | 1   |
| 10   | 8.754-933.0 | Seat                        | С   | 1   |
| 11   | 8.754-934.0 | O-ring, Ø1.78 x 12.42       | A,C | 1   |
| 12   | 8.754-935.0 | Valve Body                  |     | 1   |
| 13   | 9.802-893.0 | Seal Washer 3/8             |     | 1   |
| 14   | 9.803-919.0 | Banjo Bolt 3/8              |     | 1   |
| 15   | 8.754-936.0 | O-ring, Ø2.62 x 10.78       | Α   | 1   |
| 16   | 9.803-920.0 | Banjo Bolt, 1/2, w/1/4" Por | t   | 1   |
| 17   | 9.803-914.0 | Seal Washer 1/2             |     | 1   |

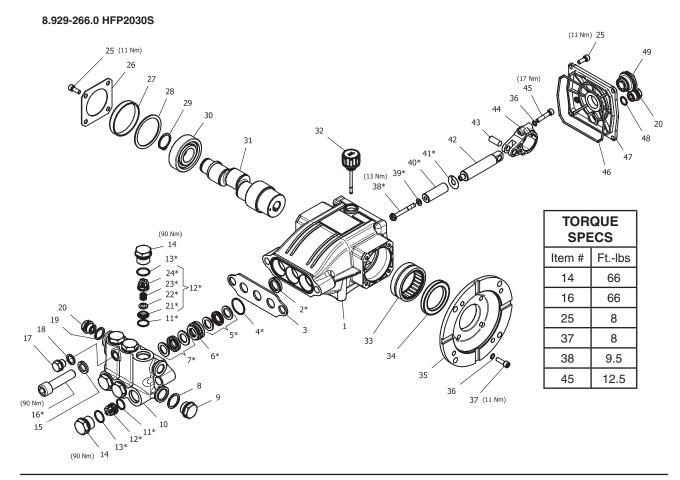
| ITEM  | PART #      | DESCRIPTION              | KIT  | QTY |
|-------|-------------|--------------------------|------|-----|
| _18   | 8.754-937.0 | Bypass Manifold          |      | 1   |
| _19   | 9.802-892.0 | Outlet Connector 3/8 MPT |      | 1   |
| 20    | 9.803-191.0 | O-ring, Ø2.62 X 17.13    | A, B | 1   |
| 21    | 8.933-017.0 | Poppet Spring            | В    | 1   |
| 22    | 8.754-939.0 | Poppet                   | В    | 1   |
| 23    | 8.754-940.0 | O-ring, Ø3 x 6           | A, B | 1   |
| 24    | 8.754-961.0 | Plate                    | С    | 1   |
| 25    | 8.730-870.0 | Spring 1500-3000 PSI     | С    | 1   |
| 26    | 8.933-021.0 | Set Screw                |      | 1   |
| 27    | 9.803-925.0 | Nut                      |      | 1   |
| 28    | 9.803-926.0 | Knob, Brass, Unloader    |      | 1   |
| Kit A | 8.754-941.0 | O-Ring Repair Kit        |      |     |

**Kit A** 8.754-941.0 O-Ring Repair Kit **Kit B** 8.754-942.0 Outlet Repair Kit **Kit C** 8.754-957.0 Stem Repair Kit

# **SPECIFICATIONS**

| Machine    |     | Pessure | Nozzle |             | Pump        | Pump      | Unloader    | Motor | Motor       |
|------------|-----|---------|--------|-------------|-------------|-----------|-------------|-------|-------------|
| Model      | GPM | (PSI)   | Size   | Hose p/n    | Part #      | Model     | Part #      | Нр    | Part #      |
| EP-201009D | 2.0 | 1000    | 3.5    | 8.739-107.0 | 8.929-266.0 | HF2030S   | 9.175-018.0 | 1-1/2 | 9.804-516.0 |
| EP-301009D | 3.0 | 1000    | 5.5    | 8.739-107.0 | 8.929-274.0 | HFP2830S  | 8.754-696.0 | 2     | 8.754-709.0 |
| EP-301509A | 3.0 | 1500    | 4.5    | 8.739-107.0 | 8.929-274.0 | HFP2830S  | 8.754-696.0 | 3     | 8.715-090.0 |
| EP-352009A | 3.5 | 2000    | 5.0    | 8.739-107.0 | 8.751-179.0 | HM3540R.3 | 9.175-018.0 | 5     | 8.751-366.0 |

### HFP SERIES PUMP EXPLODED VIEW



### HFP SERIES PUMP PARTS LIST

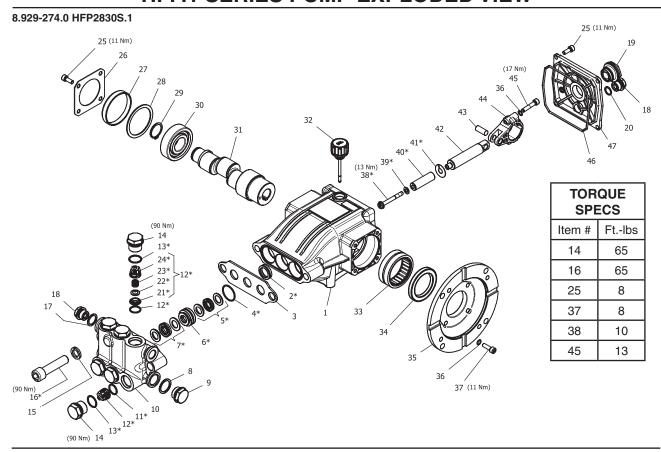
| ITEM | PART NO.       | DESCRIPTION                        | QTY |
|------|----------------|------------------------------------|-----|
| 1    | 8.754-841.0    | Crankcase                          | 1   |
| 2*   | See Kits Below | Plunger Oil Seal                   | 1   |
| 3    | 8.758-216.0    | Spacer                             | 1   |
| 4*   | See Kits Below | "O" Ring Ø1.78X26.7                | 3   |
| 5*   | See Kits Below | U Seal                             | 3   |
| 6*   | See Kits Below | Pressure Ring                      | 3   |
| 7*   | See Kits Below | U-Seal                             | 3   |
| 8    | 9.803-199.0    | Washer, Copper G1/2                | 1   |
| 9    | 9.802-926.0    | Plug, Brass G1/2                   | 1   |
| 10   | 8.754-852.0    | Manifold (16mm Models)             | 1   |
| 11*  | 8.717-233.0    | "O" Ring Ø1.78x15.6                | 6   |
| 12*  | See Kits Below | Valve Assembly                     | 6   |
| 13*  | 9.803-948.0    | "O" Ring Ø1.78x18.77               | 6   |
| 14   | 9.803-949.0    | Valve Plug                         | 6   |
| 15   | 8.754-850.0    | Washer, Lock                       | 2   |
| 16*  | 8.929-349.0    | Bolt Manifold 16MM                 | 2   |
| 17   | 8.754-851.0    | Plug, Brass G1/4 (16mm)            | 1   |
| 18   | 8.754-845.0    | Washer, Copper G1/4 (16 mm Models) | 1   |
| 19   | 9.803-198.0    | Washer, Copper G3/8                | 1   |

|      |                | HFP SERIES PUMP PARTS LIST |     |
|------|----------------|----------------------------|-----|
| ITEM | PART NO.       | DESCRIPTION                | QTY |
| 20   | 8.707-262.0    | Plug, Brass G3/8           | 2   |
| 21*  | See Kits Below | Valve Seat                 | 6   |
| 22*  | See Kits Below | Valve Plate                | 6   |
| 23*  | See Kits Below | Valve Spring               | 6   |
| 24*  | See Kits Below | Valve Cage                 | 6   |
| 25   | 9.802-939.0    | Screw, Hex M6M 16mm        | 8   |
| 26   | 8.717-137.0    | Bearing Cover              | 2   |
| 27   | 9.803-954.0    | Bearing Seal               | 1   |
| 28   | 8.754-843.0    | Seal Spacer, Crankshaft    | 1   |
| 29   | 9.802-914.0    | Snap Ring, 25 mm           | 1   |
| 30   | 9.803-955.0    | Bearing, Ball              | 1   |
| 31   | 8.754-836.0    | Shaft, 5/8" Hollow         | 1   |
| 32   | 8.754-219.0    | Oil Dipstick               | 1   |
| 33   | 8.754-840.0    | Bearing Needle             | 1   |
| 34   | 8.754-826.0    | Seal, Crankshaft           | 1   |
| 35   | 8.754-844.0    | Flange, Motor              | 1   |
| 36   | 9.803-218.0    | Washer 6mm                 | 10  |
| 37   | 8.752-824.0    | Screw, M6 x 20             | 4   |
| 38*  | 8.754-855.0    | Bolt, Plunger              | 3   |
| 39*  | 8.754-092.0    | Washer, Copper             | 3   |
| 40*  | 8.754-848.0    | Plunger, 16mm              | 3   |
| 41*  | 9.803-962.0    | Spacer, Copper             | 3   |
| 42   | 8.759-032.0    | Plunger Rod                | 3   |
| 43   | 9.803-965.0    | Connecting Rod Pin         | 3   |
| 44   | 9.803-966.0    | Connecting Rod             | 3   |
| 45   | 8.933-020.0    | Screw, Connecting Rod      | 6   |
| 46   | 8.754-847.0    | O-ring Ø2.62 X 111.62      | 1   |
| 47   | 8.754-842.0    | Cover, Crankcase           | 1   |
| 48   | 9.803-906.0    | O-ring Ø1.78 X 14          | 1   |
| 49   | 9.803-202.0    | Sight Glass, G3/4          | 1   |

<sup>\*</sup> Available in kit (See below)

| REPAIR KIT<br>NUMBER                    | 8.759-015.0                 | 8.929-348.0             | 8.754-858.0        | 8.754-859.0       | 9.803-937.0       |
|---|-----------------------------|-------------------------|--------------------|-------------------|-------------------|
| KIT DESCRIPTION                         | Plunger<br>Seals<br>16 mm** | Seal Packing<br>16 mm** | Plunger<br>16 mm** | Complete<br>Valve | Plunger Oil Seals |
| ITEM NUMBERS<br>INCLUDED                | 4, 5, 7, 16                 | 4, 5, 6, 7, 16          | 38, 39, 40, 41     | 11, 12, 13        | 2                 |
| NO. OF<br>CYLINDERS KIT<br>WILL SERVICE | 3                           | 1                       | 1                  | 6                 | 3                 |

### **HFP.1 SERIES PUMP EXPLODED VIEW**



### HFP.1 SERIES PUMP EXPLODED VIEW PARTS LIST

| ITEM | PART NO.      | DESCRIPTION         | QTY              |   | ITEM | PART NO.                   | DESCRIPTION  | QTY    |
|------|---------------|---------------------|------------------|---|------|----------------------------|--|--------|
| 1    | 8.754-841.0   | Crankcase           | 1                |   | 28   | 8.754-843.0                | Seal Spacer, Crankshaf                             | t 1    |
| 2*   | 9.850-005.0   | Plunger Oil Seal    | 3                |   | 29   | 9.802-914.0                | Snap Ring, 25 mm                                   | 1      |
| 3    | 9.853-555.0   | Spacer              | 1                |   | 30   | 9.803-955.0                | Bearing, Ball                                      | 1      |
| 4*   | 9.850-780.0   | O-ring Ø1.78 X 26.  | 7 3              |   | 31   | 8.754-835.0                | Shaft, 5/8" Hollow 2030                            |        |
| 5*   | See Kits Belo | w                   | "U" Seal kit     | 3 |      | 8.754-836.0                | Shaft, 5/8" Hollow 2030                            | -      |
| 6*   | See Kits Belo | w P                 | ressure Ring Kit | 3 |      | 8.754-837.0<br>8.754-838.0 | Shaft, 5/8" Hollow 2830<br>Shaft, 5/8" Hollow 2830 |        |
| 7*   | See Kits Belo | w                   | "U" Seal kit     | 3 |      | 8.754-839.0                | Shaft, 5/8" Hollow 3530                            |        |
| 8    | 9.803-199.0   | Washer, Copper G    | 1/2 1            |   | 32   | 8.754-219.0                | Oil Dipstick                                       | 1      |
| 9    | 8.929-348.0   | Plug, Brass G1/2    | 1                |   | 33   | 8.754-840.0                | Bearing Needle                                     | 1      |
| 10   | 8.759-027.0   | Manifold 14mm       | 1                |   | 34   | 8.754-826.0                | Seal, Crankshaft                                   | 1      |
|      | 8.759-028.0   | Manifold 16mm       | 1                |   | 35   | 8.754-844.0                | Flange, Motor                                      | 1      |
| 11*  | 8.717-233.0   | O-ring Ø1.78 X 15.  |                  |   | item | Part no.                   | Description  | QTY    |
| 12*  |               | w Valve Assembly    | 6                |   | 36   | 9.803-210.0                | Washer   | 10     |
| 13*  | 9.803-948.0   | O-ring Ø1.78 X 18.  |                  |   | 37   | 8.752-824.0                | Screw, 6 mm  | 4      |
| 14   | 9.803-949.0   | Valve Plug          | 6                |   | 38*  | 8.754-855.0                | Bolt, Plunger                                      | 3      |
| 15   | 8.754-850.0   | Washer, Lock        | 2                |   | 39*  | 8.754-092.0                | Spacer, Copper                                     | 3      |
| 16*  | 8.929-349.0   | Bolt, Manifoild M14 |                  |   | 40*  | 8.754-848.0                | Plunger, 16mm (2030S,                              |        |
| 17   | 9.803-198.0   | Washer, Copper G    |                  |   |      | 0.754.040.0                | 2830S)   | 3      |
| 18   | 8.707-262.0   | Plug, Brass G3/8    | 2                |   |      | 8.754-849.0                | Plunger, 14mm (2030F, 2830F, 3530F)                | 3      |
| 19   | 9.803-202.0   | Sight Glass, G3/4   | 1                |   | 41*  | 9.803-962.0                | Spacer, Copper                                     | 3      |
| 20   | 9.803-906.0   | O-ring Ø1.78 X 14   | 1                |   | 42   | 8.759-032.0                | Plunger Rod  | 3      |
| 21*  | See Kits Belo | w Valve Seat        | 6                |   | 43   | 9.803-965.0                | Connecting Rod Pin                                 | 3      |
| 22*  | See Kits Belo | w Valve Plate       | 6                |   | 44   | 9.803-966.0                | Connecting Rod                                     | 3      |
| 23*  | See Kits Belo | w Valve Spring      | 6                |   | 45   | 8.933-020.0                | Screw, Connecting Rod                              |        |
| 24*  | See Kits Belo | w Valve Cage        | 6                |   | 46   | 8.754-847.0                | O-ring Ø2.62 X 111.62                              | 1      |
| 25   | 9.802-939.0   | Screw, M6 X 16      | 8                |   | 47   | 8.754-842.0                | Cover, Crankcase                                   | 1      |
| 26   | 8.717-137.0   | Bearing Cover       | 1                |   |      | 0.734-042.0                | ,  |        |
| 27   | 9.803-954.0   | Bearing Seal        | 1                |   |      |                            | * Available in kit (See b                          | pelow) |

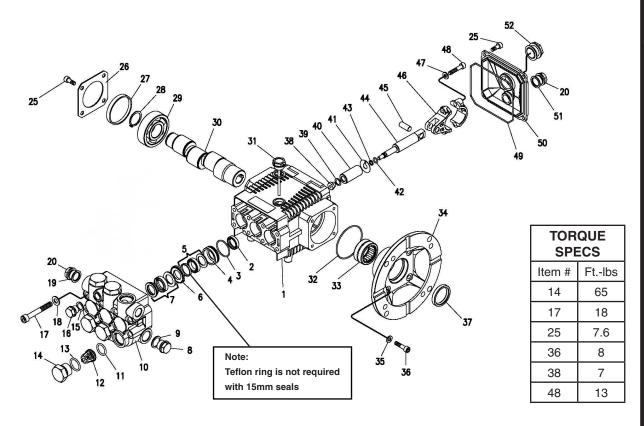
### HFP.1 SERIES PUMP EXPLODED VIEW PARTS LIST

#### REPAIR KITS

| KIT NUMBERS                             | 8.759-031.0            | 8.759-015.0            | 8.758-218.0           | 8.929-348.0           | 8.754-862.0      | 8.754-858.0      | 8.754-859.0       | 9.803-937.0          |
|---|------------------------|------------------------|-----------------------|-----------------------|------------------|------------------|-------------------|----------------------|
| KIT DESCRIPTION                         | Plunger Seals<br>14 mm | Plunger Seals<br>16 mm | Seal Packing<br>14 mm | Seal Packing<br>16 mm | Plunger<br>14 mm | Plunger<br>16 mm | Complete<br>Valve | Plunger Oil<br>Seals |
| ITEM NUMBERS INCLUDED                   | 4, 5, 7, 16            | 4, 5, 7, 16            | 4, 5, 6, 7,16         | 4, 5, 6, 7,16         | 38, 39, 40, 41   | 38, 39, 40, 41   | 11,12,13          | 2                    |
| NUMBER OF CYLINDERS<br>KIT WILL SERVICE | 3                      | 3                      | 3                     | 3                     | 1                | 1                | 6                 | 3                    |

### **HE.1 SERIES PUMP EXPLODED VIEW**

8.725-167.0 HE 3525F.1



### **HE.1 SERIES PUMP EXPLODED VIEW PARTS LIST**

| ITEM | PART NO.      | DESCRIPTION            | QTY |
|------|---------------|------------------------|-----|
| 1    | 9.803-938.0   | Crankcase              | 1   |
| 2*   | 9.804-586.0   | Plunger Oil Seal       | 3   |
| 3*   | See Kit Below | O-Ring Ø 1.78 x 28.30  | 3   |
| 4*   | See Kit Below | Pressure Ring 15mm     | 3   |
|      | See Kit Below | Pressure Ring 18mm     | 3   |
| 5*   | See Kit Below | U-Seal, dia 15mm       | 6   |
|      | See Kit Below | U-Seal, dia 18mm       | 6   |
| 6*   | See Kit Below | Intermediate Ring 15mm | 6   |
|      | See Kit Below | Intermediate Ring 18mm | 6   |
| 7*   | See Kit Below | U-Seal, 15mm           | 3   |
|      | See Kit Below | U-Seal, 18mm           | 3   |
| 8    | 9.802-926.0   | Brass Plug G1/2        | 1   |
| 9    | 9.803-199.0   | Copper Washer 1/2"     | 1   |
| 10   | 9.803-946.0   | Manifold Housing       | 1   |
| 11   | 9.803-947.0   | O-Ring Ø1.78 x 15.54   | 6   |
| 12*  | See Kit Below | Valve Assembly         | 6   |
| 13*  | 9.803-948.0   | O-Ring Ø2.62 x 18.77   | 6   |
| 14   | 9.803-949.0   | Valve Plug             | 6   |
| 15   | 9.803-950.0   | Copper Washer 1/4      | 1   |

| ITEM | PART NO.    | DESCRIPTION          | QTY |
|------|-------------|----------------------|-----|
| 16   | 9.803-951.0 | Brass Plug G1/4      | 1   |
| 17   | 9.803-952.0 | Manifold Stud Bolt   | 8   |
| 18   | 9.802-884.0 | Washer               | 8   |
| 19   | 9.803-198.0 | Copper Washer 3/8    | 1   |
| 20   | 9.802-925.0 | Brass Plug G3/8      | 2   |
| 25   | 9.802-939.0 | Screw                | 12  |
| 26   | 9.803-953.0 | Bearing Cover        | 2   |
| 27   | 9.803-954.0 | Bearing Seal         | 1   |
| 28   | 9.802-914.0 | Snap Ring            | 1   |
| 29   | 9.803-955.0 | Ball Bearing         | 2   |
| 30   | 9.804-576.0 | Crankshaft (2020F)   | 1   |
|      | 9.804-577.0 | Crankshaft (2020S)   | 1   |
|      | 9.804-578.0 | Crankshaft (2825F)   | 1   |
|      | 9.804-579.0 | Crankshaft (2825S)   | 1   |
|      | 9.804-580.0 | Crankshaft (3525F)   | 11  |
| 31   | 9.803-957.0 | Oil Dipstick         | 1   |
| 32   | 9.804-581.0 | O-Ring Ø3.53 x 55.56 | 1   |
| 33   | 9.804-582.0 | Needle Bearing       | 1   |
| 34   | 9.804-583.0 | Motor Flange 56C     | 1   |
| 35   | 9.803-210.0 | Washer               | 4   |

### **HE.1 SERIES PUMP EXPLODED VIEW PARTS LIST**

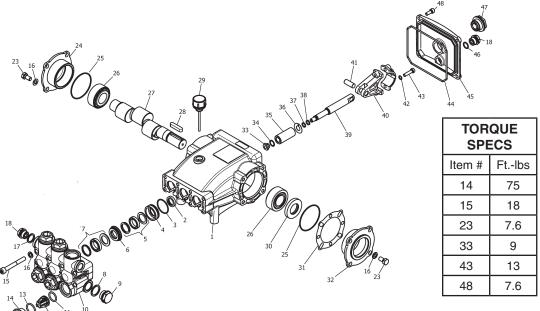
| ITEM | PART NO.      | DESCRIPTION                        | QTY |
|------|---------------|------------------------------------|-----|
| 36   | 9.804-584.0   | Flange Screw                       | 4   |
| 37   | 9.804-585.0   | Crankshaft Seal                    | 1   |
| 38*  | See Kit Below | Plunger Nut                        | 3   |
| 39*  | See Kit Below | Copper Spacer                      | 3   |
| 40*  | See Kit Below | Plunger 15mm (2020F, 2825F, 3525F) | 3   |
|      | See Kit Below | Plunger 18mm<br>(2020S, 2825S)     | 3   |
| 41*  | See Kit Below | Copper Spacer                      | 3   |
| 42*  | See Kit Below | O-Ring Ø1.78 x 5.28                | 3   |
| 43*  | See Kit Below | Teflon Ring                        | 3   |
| 44   | 9.803-964.0   | Plunger Rod                        | 3   |
| 45   | 70-1502.04    | Connecting Rod Pin                 | 3   |
| 46   | 9.803-966.0   | Connecting Rod                     | 3   |
| 47   | 9.803-218.0   | Spring Washer                      | 6   |
| 48   | 8.933-020.0   | Connecting Rod Screw               | 6   |
| 49   | 9.803-969.0   | O-Ring Ø2.62 x 107.62              | 1   |
| 50   | 9.803-968.0   | Crankcase Cover                    | 1   |
| 51   | 9.803-197.0   | Gasket                             | 1   |
| 52   | 9.803-202.0   | Sight Glass 1                      |     |

#### REPAIR KITS **■**

| REPAIR KIT<br>NUMBER                      | 8.725-354.0   | 8.725-356.0 | 8.725-355.0  | 8.725-357.0   | 9.803-934.0                                      | 9.803-935.0                           | 9.803-936.0       | 9.803-937.0          |
|---|---|-------------|--|---------------|--|---------------------------------------|-------------------|----------------------|
| KIT DESCRIP-<br>TION                      | Plunger Seal<br>15mm<br>2020F.1<br>2825F.1<br>3525F.1 |             | Complete Seal<br>Packing 15mm<br>2020F.1<br>2825F.1<br>3525F.1 |               | Plunger<br>15mm<br>2020F.1<br>2825F.1<br>3525F.1 | Plunger<br>18mm<br>2020S.1<br>2825S.1 | Complete<br>Valve | Plunger Oil<br>Seals |
| ITEM NUMBERS<br>INCLUDED                  | 3, 5, 7   | 3, 5, 7     | 3, 4, 5,<br>6, 7   | 3, 4, 5, 6, 7 | 38, 39, 40,<br>41, 42, 43                        | 38, 39, 40,<br>41, 42, 43             | 11, 12, 13        | 2                    |
| NO. OF CYLIN-<br>DERS KIT WILL<br>SERVICE | 3   | 1           | 1  | 1             | 1  | 1                                     | 6                 | 3                    |

### HM PUMP EXPLODED VIEW - PUMP PARTS LIST

8.751-180.0 HM4035.3 8.751-179.0 HM3540.3 8.923-100.0 HM4031.3 8.923-165.0 HM4030.3



| ITEM | PART NO.       | DESCRIPTION              | QTY |
|------|----------------|--------------------------|-----|
| 1    | 8.751-216.0    | Crankcase                | 1   |
| 2*   | See Kits Below | Seal, Oil, Plunger       | 3   |
| 3*   | See Kits Below | O-Ring, 1.78 X 31.47     | 3   |
| 4*   | See Kits Below | Ring, Pressure, 20mm     | 3   |
| 5*   | See Kits Below | "U" Seal, 20mm           | 6   |
| 6*   | See Kits Below | Ring, Intermediate 20mm  | 3   |
| 7*   | See Kits Below | "U" Seal, 20mm           | 3   |
| 8    | 9.803-199.0    | Washer, Copper           | 1   |
| 9    | 9.802-926.0    | Plug, Brass 1/2          | 1   |
| 10   | 8.751-219.0    | Manifold Housing         | 1   |
| 11*  | See Kits Below | O-Ring, 2.62 X 17.13     | 6   |
| 12*  | See Kits Below | Valve Assembly           | 6   |
| 13*  | See Kits Below | O-Ring, 2.62 X 20.29     | 6   |
| 14   | 9.802-928.0    | Valve Cap                | 6   |
| 15   | 9.802-938.0    | Stud, Bolt Manifold      | 8   |
| 16   | 9.802-884.0    | Washer                   | 8   |
| 17   | 9.803-198.0    | Washer, Copper           | 1   |
| 18   | 9.802-925.0    | Plug, 3/8                | 2   |
| 23   | 9.802-944.0    | Hexagonal Screw          | 8   |
| 24   | 8.717-210.0    | Closed Bearing Housing   | 1   |
| 25   | 9.803-192.0    | O-Ring, 2.62 X 60.05     | 2   |
| 26   | 8.933-011.0    | Bearing, Roller          | 2   |
| 27   | 8.751-223.0    | Crankshaft, (4030, 4035) | 1   |
|      | 8.751-222.0    | Crankshaft, (3540)       | 1   |
|      | 8.717-063.0    | Crankshaft (4031)        |     |
| 28   | 9.803-167.0    | Key, Crankshaft          | 1   |

| ITEM | PART NO.           | DESCRIPTION                  | QTY   |
|------|--------------------|------------------------------|-------|
| 29   | 9.802-921.0        | Dipstick                     | 1     |
| 30   | 9.803-140.0        | Crankshaft Seal              | 1     |
| 31   | 9.803-178.0        | Shim                         | 1     |
| 32   | 8.717-209.0        | Bearing Housing              | 1     |
| 33*  | See Kits Below     | Plunger Nut, M8              | 3     |
| 34*  | See Kits Below     | Spacer, Copper               | 3     |
| 35*  | See Kits Below     | Plunger                      | 3     |
| 36*  | See Kits Below     | Spacer, Copper               | 3     |
| 37*  | See Kits Below     | O-Ring,                      | 3     |
| 38*  | See Kits Below     | Ring, Teflon                 | 3     |
| 39   | 8.751-225.0        | Rod, Plunger (4030,4031,     | 4035) |
|      |                    | <b>5</b> . <b>5</b> . (5-10) | 3     |
|      | 8.751-225.0        | Plunger Rod (3540)           | 3     |
| 40   | 9.803-158.0        | Connecting Rod               | 3     |
| 41   | 8.751-228.0        | Pin, Connecting Rod          | 3     |
| 42   | 9.803-218.0        | Washer, Spring               | 6     |
| 43   | 9.803-238.0        | Screw,                       | 6     |
| 44   | 8.933-016.0        | O-Ring, 2.62 X 126.67        | 1     |
| 45   | 8.751-229.0        | Crankcase Cover              | 1     |
| 46   | 9.803-197.0        | O-Ring, 1.78 X 14            | 1     |
| 47   | 9.803-202.0        | Sight Glass, G3/4            | 1     |
| 48   | 9.802-939.0        | Screw, Cover                 | 5     |
|      | * Available In Kit | (See Below)                  |       |

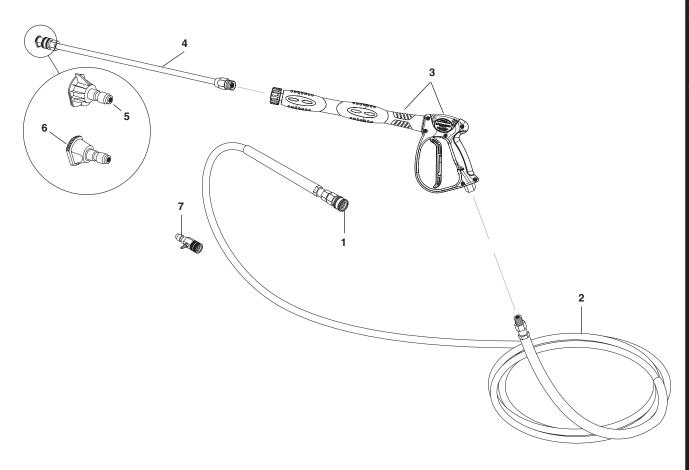
### HM PUMP EXPLODED VIEW - PUMP PARTS LIST CONT.

#### REPAIR KITS **■**

| REPAIR KIT NUM-                           |                                 |                                     |                              |   |   |   |                           |                           |
|---|---------------------------------|-------------------------------------|------------------------------|---|---|---|---------------------------|---------------------------|
| BER                                       | 8.725-360.0                     | 8.725-362.0                         | 8.725-358.0                  | 8.725-361.0                                 | 8.725-363.0                                       | 8.725-359.0                                 | 8.751-237.0               | 8.751-238.0               |
| KIT DESCRIPTION                           | Plunger<br>Seal<br>4035<br>18mm | Plunger Seal<br>4030, 4031<br>20mml | Plunger Seal<br>3540<br>15mm | Complete<br>Seal<br>Packing<br>4035<br>18mm | Complete<br>Seal<br>Packing<br>4030, 4031<br>20mm | Complete<br>Seal<br>Packing<br>3540<br>15mm | Plunger<br>4035<br>18mm   | Kit, Plunger,<br>20 mm    |
| ITEM NUMBERS<br>INCLUDED                  | 3, 5, 7                         | 3, 5, 7                             | 3, 5, 7                      | 3, 4, 5, 6, 7                               | 3, 4, 5, 6, 7                                     | 3, 4, 5, 6, 7                               | 33, 34, 35,<br>36, 37, 38 | 33, 34, 35,<br>36, 37, 38 |
| NO. OF CYLIN-<br>DERS KIT<br>WILL SERVICE | 3                               | 3                                   | 1                            | 1   | 1   | 1   | 1                         |                           |

| REPAIR KIT NUM-                           |                           |                   |                      |
|---|---------------------------|-------------------|----------------------|
| BER                                       | 8.933-023.0               | 9.802-603.0       | 9.802-609.0          |
| KIT DESCRIPTION                           | Plunger<br>3540<br>15mm   | Complete<br>Valve | Plunger Oil<br>Seals |
| ITEM NUMBERS<br>INCLUDED                  | 33, 34, 35,<br>36, 37, 38 | 11, 12, 13        | 2                    |
| NO. OF CYLIN-<br>DERS KIT<br>WILL SERVICE | 1                         | 6                 | 2                    |

### **HOSE AND SPRAY GUN ASSEMBLY**



# HOSE AND SPRAY GUN ASSEMBLY PARTS LIST

| ITEM | PART NO.                        | DESCRIPTION             | QTY  |  |
|------|---------------------------------|-------------------------|------|--|
| 1    | 9.802-166.0                     | Coupler, 3/8" Female    | 1    |  |
|      | 9.802-100.0                     | ▲ Quick Coupler O-Ring  | 1    |  |
| 2    | 8.925-130.0                     | Hose, 3/8" X 50' 1W     |      |  |
|      |                                 | 4000PSI SW/SO/CPL       | 1    |  |
| 3    | 8.754-769.0                     | Spray Gun, Shut-Off     | 1    |  |
| 4    | 9.112-533.0                     | Lance-AL Quick Connect- | Male |  |
|      |                                 | 3000 PSI                | 1    |  |
| 5    | Nozzle, See Specifications Page |                         |      |  |

| ITEM | PART NO.                                | DESCRIPTION        | QTY |
|------|---|--------------------|-----|
| 6    | 8.712-398.0                             | Nozzle, Brass Soap | 1   |
| 7    | 8.756-797.0 Injector, Chemical, NON ADJ |                    |     |
|      |   | 0.083(2.1MM)       | 11  |
|      |   | ▲ Not Shown        |     |

If you need **SERVICE** on your pressure washer, contact your local Hotsy dealer or visit www.Hotsy.com. Smart phone users scan the code below to link directly to the Service Request page.



To **REGISTER** your pressure washer, please visit our Warranty Registration page at www.hotsy.com/WarrantyRegistration.aspx or scan the code below with your smart phone.



