OPERATOR'S MANUAL
JETTER TRAILER/PRESSURE WASHER COMBO
Gas & Diesel Engine Models

READ THIS MANUAL
This manual contains important information for the use and safe operation of your AMAZING MACHINERY™ machine. FAILURE TO READ THIS MANUAL AND FOLLOW ITS INSTRUCTIONS PRIOR TO OPERATING OR ATTEMPTING ANY SERVICE OR MAINTENANCE PROCEDURE COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU OR OTHER PERSONS; ALSO DAMAGE TO THE MACHINE OR TO OTHER PROPERTY.
SECTION 1 OPERATOR’S MANUAL

- Unpacking..........................................................2
- Safety Instructions and Warnings......................3
- Maintenance Instructions.................................4

SECTION 2 PARTS AND SERVICE MANUAL

- Operating Instructions........................................5
- Important Information........................................6
- Jetter Setup......................................................7
- Pressure Washer Setup......................................8
- Winterizing Machinery......................................9
- Plumbing Diagrams...........................................10
- Hose, Wand, & Gun...........................................11
- Belt Driven Pump.............................................11
- Wiring Diagram................................................12
- Troubleshooting..............................................13
- Warranty.........................................................14

Unpacking Instructions

INSPECTION
Carefully unpack your new AMAZING MACHINERY equipment by removing the shrink wrap & banding from pallet. Remove the pressure washer from the pallet and check for any physical damages that may have occurred during shipment. Check for all parts specified and shown in figure 1.

INCLUDED PARTS
- Pallet
- Packing Material
  - Outer Crate
- JETTER/PRESSURE WASHER COMBO
  - Trailer Unit
- Jetter & PW Accessories
- Certificate of Origin
- Operator’s Manual

Figure 1

NOTICE
Information in this operator’s manual is subject to change without notice.

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DO NOT operate this machine in areas where open flames are not permitted. DO NOT store or use combustible materials on or near this machine. Use this equipment only in well ventilated areas. Failure to follow this warning may cause carbon monoxide build up, fire or explosion, and possible injury or death.

DO NOT fill gasoline tank while engine is running. Allow engine to cool before refueling. Should gasoline be spilled, move the machine away from the area of the spill. Do not attempt to restart the machine until the gasoline has fully evaporated.

DO NOT operate engine if air cleaner or cover directly over the carburetor air intake is removed.

DO NOT touch hot mufflers, cylinders or fins, as contact may cause burns

DO NOT operate this machine while under the influence of alcohol, drugs or while fatigued.

DO NOT direct discharge stream at yourself or others. Risk of injection or injury may occur. Never put your hand or fingers over the spray tip. Do not try to stop or deflect leaks with your hand or body. Always face nozzle and wand to the ground when testing.

DO NOT operate this machine WITHOUT wearing protective Eye Wear. Gloves, Hard Hat, Mask, Ear Plugs & Steel Toe Work Boots are also recommended, DO NOT wear loose clothing. Keep your body and clothing clear of the engine and discharge stream when the machine is running.

DO NOT tie back or block trigger gun in OPEN position. Never leave the pressure washer unattended once you have started it. If you leave, shut down machine completely.

DO NOT overreach or stand on an unstable support while operating this machine. Maintain good footing and balance.

DO NOT permit this machine to run while unattended or for extended periods of time with trigger gun closed. Damage to pump may occur.

DO NOT operate this machine in an unsafe manner or around unsupervised children. Keep all other personnel clear while operating this machine. This product should only be operated by trained personnel.

DO NOT alter original factory settings prior to operating this machine. Risk of injury to yourself or other persons may occur.

DO NOT remove hoses, guns, nozzles or any components while this machine is still hot or while it is running.

DO NOT attempt to service this machine before reading the service manual.

DO NOT use water with a temperature over 140 degrees Farenheit

DO NOT operate this machine without knowing how to stop and bleed water pressures. Know all controls before using this machine.

DO NOT spray caustic, acids or abrasive fluids through this machine. 

DO NOT permit water to freeze inside this machine. Pump and plumbing damage may occur.

Use only recommended AMAZING MACHINERY™ parts when servicing this machine.

AMAZING MACHINERY™ will not be held liable for any unauthorized modifications made to this machine. Any such action will void the warranty.

Although the trailer has been engineered to carry the full weight of the equipment plus a full water tank, AMAZING MACHINERY™ recommends that the trailer only be towed with an empty tank. Failure do so may violate state and local law; AMAZING MACHINERY is not liable for any accidental damage or fines incurred in such a situation.

When connecting battery, ensure that the RED battery cable is connected to the POSITIVE pole on the battery and the BLACK is connected to the NEGATIVE pole on the battery.
MOVING, STORAGE
- Place machine in covered area when not in use to protect from elements. Protect machine from freezing in cold temperatures by storing in a heated location.

TRAILER MAINTENANCE
- Daily: Check wheel bearings. Add grease if necessary.
- Daily: Check tires for proper inflation.
- Daily: Check trailer for loose equipment. Tighten if necessary.

ENGINE MAINTENANCE
- Every time (before start): Check oil level.
- First 8 hours: Change oil with SAE 30W High-Detergent Oil.
- Every 25 hours: Change oil if operating under heavy load or high ambient temperature. Service air cleaner pre-cleaner.
- Every 50 hours: Change oil. Clean and inspect spark arrester if equipped.
- Every 100 hours: Service air cleaner cartridge, replace oil filter (if equipped), Clean oil cooler (if equipped), Clean cooling system.

PUMP MAINTENANCE
- Fill crankcase to dot on oil gauge window per specifications with the specific oil created by the pump manufacturer (i.e. General Pump Oil). Ensure the right oil for specific pump as it may vary.
- Change oil after 25 Hour Break-in Period.
- Change oil every Three Months or at 100 Hour Intervals thereafter.

UNLOADER ADJUSTMENT
- Changing Operating Pressure: This unit is equipped with a black knob on the side of the pump. By turning the black knob clockwise, you can raise the operating pressure up to the maximum output. By turning the knob counterclockwise, you can reduce the operating pressure as low as 500 PSI.
- It is recommended that the black knob should not be removed in an attempt to permanently set the unloader pressure.
LOCATION GUIDELINES
- Locate the machine on a solid and level surface so that engine and pump crankcase oil lubricate components properly. Avoid areas where water can build up in the working area. Possible injury can occur caused by the surface becoming slippery from water build up.
- Locate the machine in a well-ventilated area and away from flammable materials or fumes. Be sure ventilation warnings are observed. Keep pressure washer at least 18” away from flammable materials.
- Locate the machine so the operator has easy access to the jetter/pressure washer and its controls. Locate the machine so that it is protected from external damage.
- To prevent damage and excessive hose wear, locate the unit so that the hose does not cross traffic areas.

STARTING THE MACHINE
Following the steps below will insure successful operation:
- Read this manual completely before attempting to start the machine.
- Check the fuel tank and fill with a good grade of gasoline (87 octane minimum) for gas engines and a high quality diesel fuel for diesel engines.
- Check the engine oil level and fill with SAE 30 weight high-detergent oil.
- Check the pump oil level and fill with SAE 30w non-detergent oil if needed.
- Check water tank to ensure adequate level of water required for the job.

For Jetting, proceed to page #7: Jetting Setup Page.
For Pressure Washing, proceed to page #8: Pressure Washing Setup Page.

- Pull trigger on gun until a steady stream of water comes out the nozzle. This purges any air in the system.
- Slide fuel switch to the RIGHT and slide choke switch to the LEFT (closed position).
- Turn ON/OFF switch (on engine) to “ON”.
- Open water flow to reduce back pressure in pump. Back pressure can overpower electric starter, preventing ignition.
- Turn key to start gas engine and allow RPM to develop.
- Let engine warm up for approximately 30 seconds and slide choke to “OPEN” position.
- Check for leaks in the system and cycle trigger gun to insure bypass is adjusted correctly. Repair any leaks and correct unloader adjustment if needed. Turn off machine before attempting any repairs.
- WARNING - Do not operate machine with less than 6" of water in the tank. Doing so may cause pump damage!

STOPPING THE MACHINE
- Turn engine to “OFF”.
- Pull gun trigger to release water pressure from system.
- Disconnect wand & gun assembly.
- Wind up pressure hose on hose reel.

CAUTION
- Always wear protective safety gear, such as, but not limited to, rain coat or coveralls, rubber boots, face shield or goggles, gloves and hearing protection.
- Never start the machine with the jetter nozzle outside the drain.
- Do not remove the jetter nozzle from the drain while the unit is under pressure.
- Do not run the machine for more than two minutes with the jeter water flow shut off (by-pass mode). This will over heat the jetter pump and could cause injury to you.
- To start the water flow, step on the foot valve easily or open the ball valve slowly for a smooth start up.
- This machine is not designed to be used with hot water. Jetting with hot water is very dangerous.
Special Techniques

- The jetter nozzles are designed to draw the sewer hose into the line. However in some cases you will need to rotate or move the hose in and out to get it through and around clogs or around corners. There is a little art to this, you will understand after jetting a few times.

- It is best to jetter from the low end of the line so the water can drain out as you go. If you are jetting from the high end of the line you may have to stop occasionally to allow the accumulated water to drain past the jetter nozzle.

Pulse Control

- The pulse control handle is located on the face of the pump, by turning the handle to the left you get a steady stream of water to be used with the pressure washer gun and tips or the Laser sewer nozzle.

- By turning the handle to the right, you get a pulse water flow to be used with the Ram sewer nozzle.

- Sewer hose to line size is important. Use the proper size hose in relationship to size of the line you are cleaning so that the hose will feed and go around corners properly without doubling back on you.

- 3/8” hose should be used with 4” to 16” lines

Sewer Nozzles – What They Do

It’s important to use the correct nozzle to get the job done properly.

- Ram Nozzle – used with pulse water to beat out blockage.
- Laser Nozzle – used with constant water to cut out blockage.

Septic tank and Man Hole Entrances

To help reach line entrances in septic tanks and man holes, you can use a piece of 2” PVC pipe with a 45 angle on the end. Make it long enough to put the 45 into the line entrance while you stand on top. Then run the jetter hose through the PVC and into the clogged line.
STARTING THE MACHINE
Following the steps below will insure successful operation:

- Turn the optional tank dump ball valve (BV#3) to the "CLOSED" position.
- Connect customer supplied garden hose to water supply and fill tank.
- Turn the pressure washer hose reel ball valve (LV#2) to the "CLOSED" position.
- Make sure antifreeze ball valve (BV#1) is in the "CLOSED" position.
- Turn the main water supply ball valve (BV#2) into the "OPEN" position.
- Turn pulsation valve to pulse or constant position.
- For ball valve water flow jetting operation: connect high pressure hose from machine to jetter hose reel. Use jetter ball valve open/close to control jetter water flow.
- (Optional) Foot valve water flow jetting operation: disconnect high pressure hose at jetter hose reel quick connect. Attach foot valve using quick connects into high pressure line. Open lever valve and use foot valve to control water flow.
- Roll jetter hose onto electric jetter hose reel. Hose should be installed to roll off top of reel.
- Install desired jetter tip.
- Put at least 4 feet of jetter hose into drain line to be cleaned.
- Start engine (see earlier instructions).
- Hold jetter hose with a firm grip.
- Start water flow and set desired pressure.
- Start jetting.

Diagram #1: Jetter Settings
STARTING THE MACHINE

Following the steps below will insure successful operation:

- Turn the (optional) tank dump ball valve (BV#3) to the "CLOSED" position.
- Connect customer supplied garden hose to water supply and fill tank.
- Turn the pressure washer to hose reel lever valve (LV#3) to the "OPEN" position.
- Make sure antifreeze ball valve (BV#1) is in the "CLOSED" position.
- Turn the pulsation valve lever to the constant flow position.
- Turn the jetter hose reel lever valve (LV#1) to the "CLOSED" position.
- Turn the main water supply ball valve (BV#2) into the "OPEN" position.
- Connect gun/ wand/ tip to end of pressure washer hose at pressure washer hose reel.
- (Optional) Chemical injector can be quick coupled into high pressure line at outport of unloader valve.
  Use black chemical tip to activate chemical injector.
- Start engine (see earlier instructions).
- Pull trigger gun to start water flow.
- Set desired pressure with black unloader knob located on pump.
- Start pressure washing.

Diagram #2: Pressure Washer Settings

Optional Chemical Injector Hook-up
WINTERIZING WITHOUT OPTIONAL ANTIFREEZE KIT

- Run the machine to run all the water out of the tank.
- Ensure tank is empty.
- Pour antifreeze mixture into water tank.
- Make sure all other valves are open.
- Start engine.
- Flow antifreeze thru pump, all lines, and all hose reels, ensuring there is no water left in the system.

WINTERIZING WITH OPTIONAL ANTIFREEZE KIT

- Turn the tank dump ball valve (BV#3) to the "OPEN" position and drain tank.
- After draining, turn ball valves water supply ball valve (BV#2) to the "CLOSED" position.
- Ensure there is antifreeze mixture in antifreeze tank.
- Turn the tank antifreeze tank ball valve (BV#1) to the "OPEN" position.
- Start engine.
- Flow antifreeze thru pump, all lines, and all hose reels, ensuring there is no water left in the system.
### Hose, Wand & Gun

<table>
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<tr>
<th>Ref.#</th>
<th>Part #</th>
<th>Description</th>
<th>Qty.</th>
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<td>1a</td>
<td>270-00011-01</td>
<td>Nozzle, Water #5.5 0°</td>
<td>1</td>
</tr>
<tr>
<td>1b</td>
<td>270-00011-02</td>
<td>Nozzle, Water #5.5 15°</td>
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</tr>
<tr>
<td>1c</td>
<td>270-00011-03</td>
<td>Nozzle, Water #5.5 25°</td>
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<td>1d</td>
<td>270-00011-04</td>
<td>Nozzle, Water #5.5 40°</td>
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<tr>
<td>2</td>
<td>265-00001-01</td>
<td>36” Wand, Insulated</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>275-00001-01</td>
<td>ST1500 Trigger Gun</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>552-00003-03</td>
<td>3/8” Quick Connect, Male</td>
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<tr>
<td>5</td>
<td>284-00001-01</td>
<td>Hose 3/8” X 50” R-1 Swivel Ends</td>
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### Belt Drive Pump

**General Pump TSF2219-L Triplex Plunger Pump**

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<td>220-00102-01</td>
<td>TSF2219-L Triplex Plunger Pump Complete (BV500,600)</td>
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<td>2</td>
<td>221-00001-02</td>
<td>Manifold, Brass Head</td>
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**Pump Repair Kits (Not Shown)**

<table>
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<th>Part #</th>
<th>Description</th>
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<tr>
<td>221-00002-01</td>
<td>Check Valve Assembly Kit #1</td>
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<tr>
<td>221-00018-01</td>
<td>Oil Seal Kit #2</td>
<td>3</td>
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<tr>
<td>221-00026-01</td>
<td>Oil Ring and Valve Cap Kit #5</td>
<td>6</td>
</tr>
<tr>
<td>221-00010-01</td>
<td>Head Packing Complete Kit #28</td>
<td>1</td>
</tr>
<tr>
<td><strong>Problem</strong></td>
<td><strong>Cause</strong></td>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Low Water Pressure       | Insufficient water source  
Old or incorrect nozzle  
Plumbing or hose leak  
Obstruction in spray nozzle  
Chemical valve open  
Unloader valve worn  
Pump valves dirty or worn | Check hose size/water source  
Replace nozzle  
Tighten, repair or replace leak  
Clean or replace nozzle  
Close valve or submerge hose  
Replace unloader  
Clean or replace packing/valves |
| No Chemical Flow         | Detergent valve closed  
Low detergent level  
Chemical screen dirty | Open detergent valve  
Fill detergent container  
Clean detergent screen |
| Pressure Relief Valve Leaks | Nozzle is dirty  
Defective relief valve  
Unloader adjusted incorrectly  
Restriction on discharge hose  
Scale restricting flow in coil | Clean or replace nozzle  
Replace relief valve  
Adjust unloader valve  
Remove nozzle and flush line  
Clean coil |
| Pump Motor Not Running   | Pump motor switch off  
GFCI tripped  
No voltage to machine  
Clogged water nozzle  
Insufficient voltage/amperage | Turn on pump motor switch  
Reset and test GFCI  
Check power source  
Clean water nozzle  
Use proper drop cord |
| Pump Noisy               | Air in suction line  
Pump valves dirty  
Check valve springs worn  
Low pump oil  
Pump bearings are worn  
Incoming water too hot | Check inlet water fittings  
Clean/replace pump valves  
Replace check valves  
Add SEA 30wt. non-detergent  
Replace/rebuild pump  
Reduce temperature/ambient |
| Water In Oil             | High humidity environment  
Oil seal worn  
Plunger packing worn | Change oil frequently  
Check and replace oil seal  
Check and replace packing |
| Water Dripping/Pump      | Plunger packing is worn  
Plunger retainer oil ring worn  
Cracked ceramics | Install new packing kit  
Replace oil ring  
Replace ceramics |
| Oil Dripping             | Oil seal worn  
Cracked manifold | Check and replace oil seals  
Replace manifold |
| Fluctuating Pressure     | Unloader not adjusted  
Valves worn  
Dirt or blockage in valve  
Pump sucking air  
Worn plunger packing | Adjust to specifications  
Replace with valve kit  
Clean or replace valve  
Check water/detergent supply  
Replace packing kit |
| Pump Head Overheating    | Extended period in bypass | Pull trigger gun for water flow |
WARRANTY

MANUFACTURER LIMITED WARRANTY

ENGINES
Honda GC Series Engines; ONE Year from date of purchase Honda will repair or replace any manufacturer defect at their expense. To be handled directly by Honda Service Centers. See owners manual for details.

Honda GX Series Engines; TWO years from date of purchase Honda will repair or replace any manufacturer defect at their expense. To be handled by Honda Service Centers. See owners Manual for details.

Vanguard Series Engines; TWO years from date of purchase Briggs and Stratton will repair or replace any manufacturer defect at their expense. To be handled by Briggs and Stratton Service Centers. See owners Manual for details.

Robin Series Engines; TWO years from date of purchase Robin/Subaru will repair or replace any manufacturer defect at their expense. To be handled by Robin/Subaru Service Centers. See owners Manual for details.

Yanmar Diesel Engines; TWO years from date of purchase Yanmar will repair or replace any manufacturer defect at their expense. To be handled by Yanmar Service Centers. See owners Manual for details.

ELECTRIC MOTORS
Marathon and Baldor brand electric motors have a manufacture limited warranty of one year from purchase date to repair or replace the motor, at their options, any manufacturing defects. The limited warranty does not include damage from low voltage or amperage use, high voltage or amperage use, water, or any other operator incurred damage.

PUMPS
Pump manufacturers offer a "one and five" limited warranty on tri-plex ceramic plunger type pumps, from date of purchase. The body, head and power train of the pump is warranted for 5 years from date of purchase against manufacturer defects. See owners manual for details. The valves, packings and "o"rings are warranted for one year from date of purchase against manufacturer defects. See owners manual for details. Pump manufacturers offer a one year limited warranty on Axial Type pumps from date of purchase. See owners manual for details. NOTE - Over Heated Pumps void all warranties.

ACCESSORY PARTS
Including, but not limited to; unloader valve, thermal relief valve, reels, easy start valve, chemical injector, rotating nozzles, spray tips, spray guns, wand extensions, telescoping wands, ball valves, sand injectors, quick couplers, high pressure hose, ground fault interrupter; all burner electronics and wiring, flow switches, diesel fuel injectors are warranted for repair or replacement by Equipment Manufacturer for a period of 90 days from date of purchase. Including, but not limited to; Surface Cleaners, Becket or Wayne Burners, Burner Fans and Heater Coils warranted against manufacture defects for repair or replacement by Equipment Manufacturer for a period of one (1) year from date of purchase. Including, but not limited to; Cart or Frame warranted against manufacture defects for repair or replacement by Equipment Manufacturer for a period of one (1) year from date of purchase.

LIMITATION OF LIABILITY
Amazing Machinery and Equipment Manufacturer liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall any liability exceed the purchase price of the product in question. The warranty contained herein is in lieu of all other warranties express or implied, including any implied warranty of fitness for particular purpose.

NOTE - It is understood that a manufacturers limited warranty pertains to equipment used in it's prescribed manner, without abuse, and does not include wear and tear.

NOTE - All freight charges incurred on warranty situations are the responsibility of the customer.

Specifications, Warranties and Pricing are subject to change without notice.

*Refund does not include shipping/handling fees. No refund will be given for installation kits. Customer is responsible for lost or misdirected packages. It is recommended that the customer insure the package for its full retail value. This warranty does not cover or include any damage as a result of acts of God, improper installation, alteration, negligence or abuse.