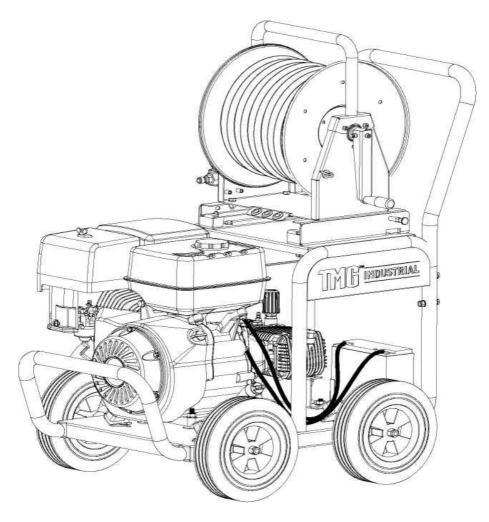


PRODUCT MANUAL

High Pressure Sewer Jetting Machine

3600PSI,4.0GPM, 14HP KOHLER Engine

MODEL: TMG-GWJ36





- Please read the product manual completely before assembly
- · Check against the parts list to make sure all parts are received
- Wear proper safety goggles or other protective gears while in assembly

Missing parts or questions on assembly?

Please call: 1-877-761-2819 or email: cs@tmgindustrial.com

Do not return the product to dealer, they are not equipped to handle your requests

Toll Free: 1-877-761-2819

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Disclaimer:

The information in this document is to the best of our knowledge true and accurate, but all recommendations or suggestions are made without guarantee. Since the conditions of use are beyond their control, the factory disclaim any liability for loss or damage suffered from the use of this data or suggestions. Furthermore, no liability is accepted if use of any product in accordance with this data or suggestions infringes any patent. The factory reserve the right to change product specifications and warranty statements without further notification. All images are for illustration purposes only.

1. Introduction

Thank you for purchasing this **Professional Power Equipment Product.**

Please read the following instructions carefully to help to ensure your personal safety and the correct assembly, use and maintenance of this equipment. Please ensure that you have read and understand the information contained in the manual before attempting to use the equipment. This equipment should only be used by trained and fully competent individuals, in a safe working environment. Please ensure that the appropriate safety equipment is worn at all times and that the product is not adapted or modified in anyway.

Please note that the contents of this instruction manual are based on the latest product information available at the time of publication and that the manufacturer reserves the right to make changes at any time without notice.

Products Identification

RECORD IDENTIFICATION NUMBERS

If you need to contact an Authorized Dealer for information on servicing, always provide the product model and identification numbers. You will need to locate the model, revision and serial number for the machine and record the information in the places provided below. You will also need the model and serial number for the engine on your machine.

1.	Date of Purchase:
	Dealer Name:
	Dealer Phone:
	Unit Model Name:
	Pump Model & Serial Number:
	Engine Model & Serial Number:

NOTE: Check page 7 for the location of the pump model & serial no. on the pump. Check the engine operators manual for the location of these numbers.

3. Safety Guidelines



WARNING- READ AND FOLLOW ALL INSTRUCTIONS

• Failure to follow all instructions in this manual may result in severe personal injury or death. Keep this manual and refer to it for Safety Instructions, Operating Procedures, and Warranty.



This manual contains information that is important for you to know and understand. This information relates to protecting **YOUR SAFETY** and **PREVENTING EQUIPMENT PROBLEMS.** To help you recognize this information, we use the symbols below. Please read the manual and pay attention to these sections.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious



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



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate



CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Improper maintenance and operation are responsible for the majority of accidents involving gas pressure washers. The largest portion of these could be prevented by recognizing the basic safety rules and precautions. Most accidents can be avoided if the operator recognizes a potentially hazardous situation before it h pens and by observing appropriate safety rules and procedures as outlined in this manual. Basic safety precautions are outlined in the **SAFETY** portion of this manual and throughout the text in this manual where a potential hazard might occur. Hazards that MUST be avoided to prevent serious injury follow headers marked **DANGER** or **WARNING**. These same precautions are placed as labels on the tool itself. **NEVER** use this pressure washer for applications that are **NOT** specified in this manual.

Safety Guidelines (Continued)



DANGER- RISK TO BREATHING

- Running engine gives off carbon monoxide, an odorless, colorless, poison gas.
- Breathing carbon monoxide can cause nausea, fainting or death.
- Some chemicals or detergents may be harmful if inhaled or ingested, causing severe nausea, fainting or poisoning.



- ALWAYS Operate pressure washer in a well ventilated area. Avoid enclosed areas such as garages, basements ,etc.
- ALWAYS Keep exhaust gas from entering a confined area through windows, doors, ventilation intakes, or other openings.
- ALWAYS follow manufacturers recommendations, use a respirator or mask whenever there is a chance that vapors may be inhaled.
- ALWAYS use the only fluids specifically recommended for high pressure washers.
- **NEVER** operate unit in a location occupied by humans or animals.
- **NEVER** use chlorine bleach or any other corrosive compound.



DANGER-RISK OF EXPLOSION OR FIRE

- Fuel and its vapors are extremely flammable and explosive.
- Fire or explosion can cause severe burns or death.





ALWAYS shut off engine and allow it to cool a least 2minutes before adding fuel to the tank.

ALWAYS use care in filling tank to avoid spilling fuel. Move pressure washer away from fueling area before starting engine.

ALWAYS Keep maximum fuel level below top of tank to allow for expansion.

ALWAYS operate and fuel equipment in well ventilated areas free from obstructions. Equip areas with fire extinguishers suitable for gasoline fires.

ALWAYS keep pressure washer a minimum of four feet away from surfaces (such as houses, automobiles, or live plants) that could be damaged from muffler exhaust heat.

ALWAYS store fuel in an OSHA approved container, in a secure location away from work area.

NEVER spray flammable liquids

NEVER operate pressure washer in an area containing dry brush or weeds.



WARNING-RISK OF FALL HAZARD

- Use of pressure washer can create puddles and slippery surfaces.
- Kickback from spray gun can cause you to fall.



- Keep the area of operation clear of all persons, particularly small children, pets and obstacles.
- Do not operate the product when fatigued or under the influence of alcohol or drugs. Stay alert at all times.
- If engine does not start after two pulls, squeeze trigger of gun to relieve pump pressure. Pull starter cord slowly until resistance is felt Then pull cord rapidly to avoid kickback and prevent hand or arm injury.
- Do not overreach or stand on an unstable support.
- The cleaning area should have adequate slopes and drainage to reduce the possibility of a fall due to slippery surfaces.
- Be extremely careful if you must use the pressure washer from a ladder, scaffolding, or any other similar location.
- Beware of kick-back force and the sudden torque on the spray gun assembly when operating the trigger. Firmly grasp spray gun with both hands to avoid injury when spray gun kicks back.



Safety Guidelines (Continued)



WARNING-RISK TO FLUID INJECTION

 The high pressure stream of water that this equipment produces can cut through skin and its underlying tissues, leading to serious injury and possible amputation. Spray gun traps high water pressure, even when engine is stopped and water is disconnected, which can cause injury.





- ALWAYS point spray gun in safe direction and squeeze trigger, to release high pressure, every time you stop engine.
- **NEVER** place hands in front of nozzle.
- MAKE SURE hose and fittings are tightened and in good condition. Never hold onto the hose or fittings during operation.
- DO NOT allow hose to contact muffler.
- **NEVER** attach or remove wand or hose fittings while system is pressurized.
- **NEVER** use a spray gun which does not have a trigger lock or trigger guard in place and in working order.
- ONLY USE hose and high pressure accessories rated for pressure higher than your pressure washer's p.s.i.
 To relieve system pressure, shut off engine, turn off water simply, and pull gun trigger until water stops flowing.
- DO NOT allow CHILDREN to operate pressure washer.
- **NEVER** repair leaking connections with sealant of any kind. Replace o-ring or seal.
- NEVER connect high pressure hose to nozzle extension.
- DO NOT secure spray gun in open position.
- **DO NOT** leave spray gun unattended while machine is running.
- ALWAYS be certain spray gun, nozzles and accessories are correctly attached.
- NEVER aim spray gun at people, animals, or any electrical device and the machine itself.





DANGER- RISK OF CHEMICAL BRUN

Use of acids, toxic or corrosive chemicals, poisons, insecticides, or any kind of flammable solvent with this product could result in serious injury or death.



- DO NOT use acids, gasoline, kerosene, or any other flammable materials in this product. Use only household detergents, cleaners and detergents recommended for use in pressure washers.
- Wear protective clothing to protect eyes and skin from contact with sprayed materials.
- DO NOT use chlorine bleach or any other corrosive compound.



WARNING-RISK OF ELECTRICAL SHOCK

- Risk of electrocution.
- Contact with power source can cause electric shock or bum.



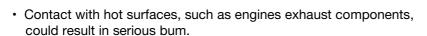
- Unplug any electrically operated product before attempting to clean it.
- Direct spray away from electric outlets and switches.
- NEVER spray near power source.
- DO NOT touch the plug with wet hands.
- WHEN SERVICING THE PRESSURE WASHER: Disconnect the spark plug wire and place it where it cannot contact the plug. DO NOT check for spark with the plug removed. Use only approved spark plug testers.



Safety Guidelines (Continued)



DANGER-- RISK OF HOT SURFACES





- During operation, touch only the control surfaces of the pressure washer.
- Keep children away from the pressure washer at all times. They may not be able to recognize the hazards of this product.
- **DO NOT** let hoses come in contact with very hot engine muffler during or immediately after use of your pressure washer.
- AVOID hot exhaust gases.



DANGER- RISK OF MOVING PARTS

 Starter and other rotating parts can entangle hands, hair, clothing, or accessories.



- NEVER operate pressure washer without protective housing or covers.
- **DO NOT** wear loose clothing jewelry or anything that may be caught in the starter or other rotating parts.
- Tie up long hair and remove jewelry.



DANGER- RISK OF EYE INJURY

· Spray can splash back or propel objects.



- ALWAYS wear safety goggles when using this equipment or in vicinity of where equipment is in use.
- Before starting the pressure washer, be sure you are wearing adequate safety goggles.
- NEVER substitute safety glasses for safety goggles.



CAUTION-IMPROPER TREATMENT OF PRESSURE WASHER CAN DAMAGE IT AND SHORTEN ITS LIFE AND VOID YOUR WARRANTY

- **NEVER** pull water supply hose to move pressure washer. This could damage hose and/or pump inlet.
- DO NOT use hot water, use cold water only.
- NEVER turn water supply off while pressure washer engine is running or damage to pump will result.
- **DO NOT** stop spraying water for more than two minutes at a time. Pump operates in bypass mode when spray gun trigger is not pressed. If pump is left in bypass mode for more than two minutes internal components of the pump can be damaged.
- Before starting pressure washer in cold weather, check all parts of the equipment to be sure ice has not formed there.
- DO NOT use the pressure washer if excessive noise or vibration is present. Have it repaired immediately.

PLEASE WEAR PROPER APPAREL AND PROTECTORS



Proper Apparel



Electrically
Non-conductive Gloves



Ear Protection



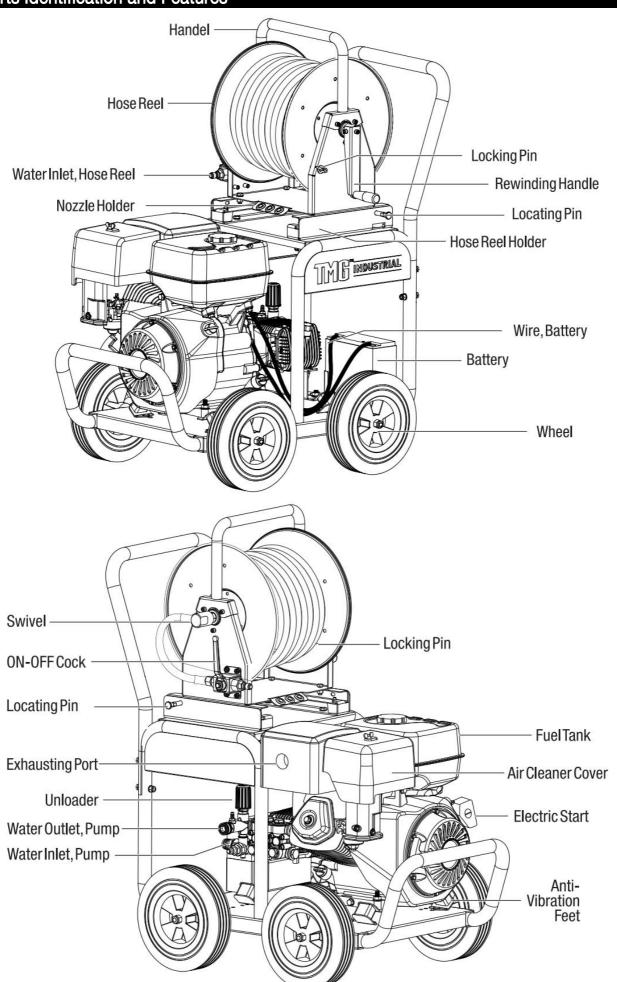
Nonskid Footwear



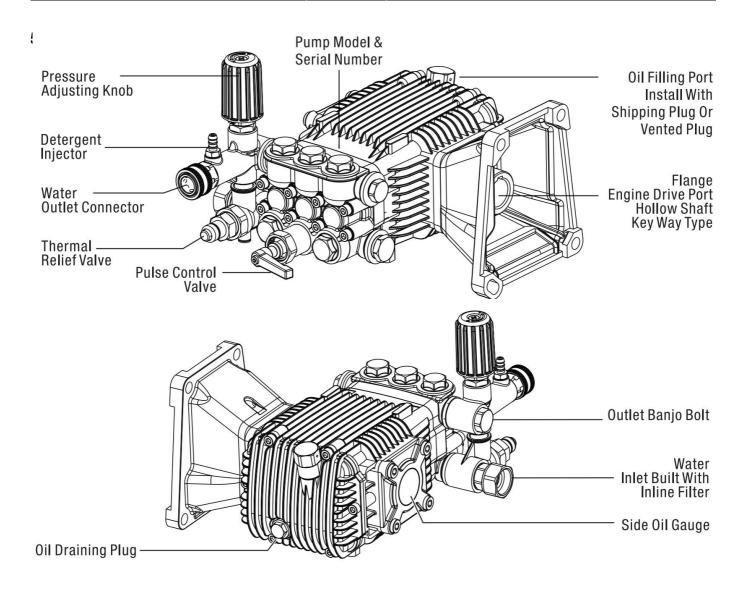
4. Products Specifications

Model No.	TMG-SJM36	
Max Pressure	3600PSI	
Max Flow	4.0GPM	
Pump Model	TMG-PMP48, Triplex, Engine Direct Drive	
Power and Type	KOHLER CH440, Electric Start	
Battery	12V, 20AH	
High Pressure Hose	ID1/4" x 200FT Lightweight Flexible Sewer Jetting Hose	
Nozzle	1pc Cleaning Nozzle,2pcs Penetrating Nozzle	
Hose Reel	Removable, Hand Rewinding ON-OFF Cockvalve	
Wheel	4 X 10" Non-flat Wheel	
Shipping Weight	275 lb	
Shipping Size	44.5"x20"x25"	

5. Parts Identification and Features



Parts Identification and Features (Continued)



5.2 KOHLER Engine



Parts Identification and Features (Continued)

5.3 General Technology

PSI: Pounds per square inch -common unit measure used for water pressure, air pressure, hydraulic pressure and pounds of force.

GPM: Gallons per minute (liters per minute [metric]) -common unit measure used for flow rate of water.

Bypass Mode: In bypass mode, high pressure pump recirculates water because spray gun trigger is not pulled.

High Pressure Washer Pump

- 1. Pump Model & Serial Number: It contains the year, month and day of production, and can track the batch of materials assembler and tester. Please provide the serial no. along with the pump model and version when ordering spare parts and reporting any issues of concern.
- 2. Pressure Adjusting Knob: To raising or reduce the pressure by turn the knob.
- 3. Detergent Injector: Use to siphon detergent or other pressure washer chemicals into the low pressure stream.
- 4. Water Outlet Connector: To connect high pressure hose.
- 5. Water Inlet With Filter Screen: Connect garden hose here, and always have the filter screen present in it.
- 6. Red Shipping Plug Attached With Vent Plug: the pump is ship with red shipping plug to prevent oil leaking during transportation.
 - Replace with the attached vent plug before using.
- 7. Thermal Relief Valve: Cycles water through pump when water reaches 125-155°F (50-68°C). Warm water will discharge from pump onto ground. This valve can prevent internal pump damage.
- 8. Pulse Control Valve: Pulsation makes the hose vibrate, helping the jet go longer distances and around tight bends easier. The pulse control valve is located on the front of the pump. Simply turn the valve on to engage the pulse.

Gas Engine

- 1. Air Cleaner/Filter: Protects engine by filtering dust and debris out of intake air.
- 2. Fuel Tank: Fill tank with regular unleaded fuel. Always leave room for fuel expansion.
- 3. Throttle Lever: Sets engine in starting mode for recoil starter.
- 4. Choke Lever: Prepares a cold engine for starting.
- 5. Fuel Valve Lever: Used to turn fuel on and off to engine.
- 6. Recoil Starter: Use for starting the engine manually.
- 7. Ignition Switch (if equipped): Set this switch to "On" before using recoil starter. Set switch to "Off" to switch off engine.
- 8. Oil Fill Cap: Fill engine with oil here.
- 9. Electric Start: Start the engine by turning the key.

Toll Free:1-877-761-2819

6. Unpacking & Assembly

6.1 Unpacking

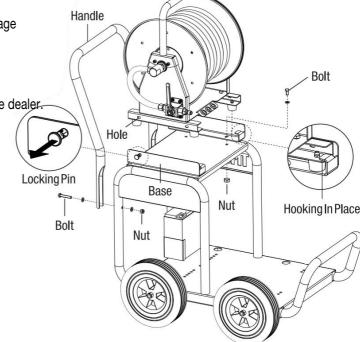
1. Carefully cut the box down the sides then remove the tool and any accessories from the box. Make sure than all items are included



Unit is heavy. Do not attempt to lift and remove the pressure washer unit from the carton.



- 2. Remove and discard the clear cap securing the operator's manual bag to the pump breather tube.
- 3. Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- 4. Do not discard the packing material unit you have carefully inspected satisfactorily operated the tool.
- 5. If any parts are damaged or missing, please contact with the dealer-
- Assembly the Handle
 Place the handle onto the frame, insert the bolt
 through the tube, put the nut and tighten.
- Assembly the Mounting Base
 Put the two base onto the plate as shown,insert the bolt, put the nut on and tighten,
- 8. Put the Hose Reel Onto the Frame
 Pull the Locking Pin out, put the hose reel inside the base
 and place under the hooker, alignment the locking hole and
 put back the locking pin to lock the hose reel in place.



6.2 Assembly the Handle

- 1. Unscrew the Knob Bolt and Lift the handle up, alignment the hole, put through the Knob Bolt and fix with the nut.
- 2. Put the Hose Reel Onto the Frame (If Applicable)

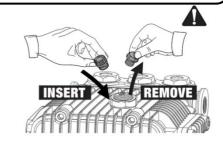
Pull the Locking Pin out, put the hose reel inside the base and place under the hooker, alignment the locking hole and put back the locking pin to lock the hose reel in place.

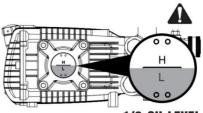
6.3 Adding Oil to Triplex Pump



Operating the pump with low oil or no oil can cause permanent damage and VOIDS THE WARRANTY. Check the pump oil level to make sure it is correct.

- 1. Using an 17mm open-end wrench or socket wrench, remove shipping plug from pressure pump. Discard shipping plug.
- 2. Remove pump breather plug from parts bag and insert it into pressure pump.
- 3. Tighten pump breather plug securely by hand. Do not use open-end wrench or socket wrench to tighten.
- 4. Check the sight glass to ensure pump oil is at 1/2 of the sight glass level.
- 5. Add oil to pressure pump if level is below indicator on oil gauge.
- 6. Oil type API SFSAE10W-30 or 15W/40.
- 7. Change after the first 30 hours, then subsequently 100 hours.
- We recommend the use high-quality NON-DETERGENT oils, if classified for service SF, SG, SH, SJ or higher. DO NOT use special additives. Outdoor temperatures determine the proper oil viscosity.
 - ** Below 40°F (4°C) the use of **SAE 30** will result in hard starting.
 - ** Above 80°F (27°C) the use of 10W30 may cause increased oil consumption. Check oil level more frequently.





1/2 OIL LEVEL

7. Setting Up Before Use

7.1 Attaching One Side Of The Connection Hose To Pump

- 1. Pull back the slip ring on quick-disconnect fitting of the pump outlet.
- 2. Insert quick-disconnect plug on the connection hose into female quick-disconnect on the pump outlet.
- Release slip ring on female quick-disconnect and twist. Listen for "CLICK" to ensure both quick-disconnects are coupled.

7.2 Attaching The Other Side Of The Connection Hose To Reel

1. Similarly, attach other end of connection hose to water inlet on the hose reel. Pull down on collar of quick connect, slide onto hose reel inlet and let go of collar. Pull on hose to be sure of tight connection.

7.3 Connect Water Supply to Pump

- Before connecting garden hose to water inlet, inspect inlet screen. Clean screen if it contains debris or have it replaced if damaged. DO NOT run pressure jetter if inlet screen is damaged.
- 2. Run water through your garden hose for 30 seconds to clean out any debris.

IMPORTANT: DO NOT siphon standing water for the water supply. Use ONLY cold water (less than 104°F/40°C).

- 3. Connect the garden hose (not to exceed 50 feet in length and with the ID no less than 1/2") to the water inlet. Tighten by hand.
- 4. Turn **ON** the water, hold the jetting hose and turn on the cocker of the hose reel to purge the pump system of air and impurities about 30seconds.

7. 4 Connect The Nozzle Onto The Hose Fitting

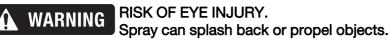
Make sure the nozzle you are using matches the pump size. Check nozzles before and after each use for clogged holes which can cause pressure to increase to dangerously high levels and damage the pump.



 DO NOT attempt to crank or start the engine before it has been

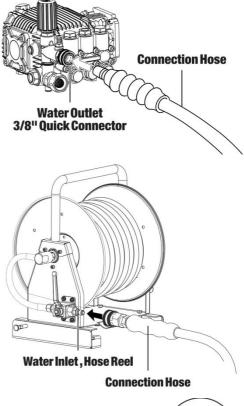
properly serviced with the recommended oil. This may result in an engine failure.

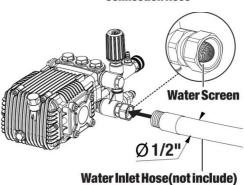
- There MUST be at least ten feet (3 M) of unrestricted Garden hose between the pressure washer inlet and any device, such as a vacuum breaker or check valve.
- Damage to equipment resulting from failure to follow this instruction will VOID WARRANTY.

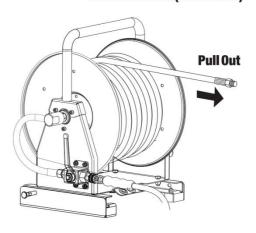


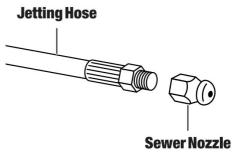
- Always wear safety goggles when using this equipment or in vicinity of where equipment is in use.
- Before starting the pressure washer, be sure you are wearing adequate safety goggles.
- NEVER substitute safety glasses for safety goggles











7. Setting Up Before Use (Continued)

7.5 Add Oil To The Engine

- 1. Place pressure washer on a flat, level surface.
- 2. Clean area around oil fill and remove yellow oil fill cap.
- 3. Using oil funnel (optional), slowly pour contents of provided oil bottle into oil fill opening.
- 5. Replace oil fill cap and fully tighten.



Improper treatment of pressure washer can damage it and shorten its life.

DO NOT attempt to crank or start the engine before it has been properly serviced with the recommended oil. This may result in an engine failure.

7.6 Add Fuel To the Engine



Failure to use fuel as recommended in this manual will void the warranty.

DO NOT use unapproved gasoline such as E85 (85% ethanol/15% gasoline). **DO NOT** mix oil with gasoline.

DO NOT modify engine to run on alternate fuels.

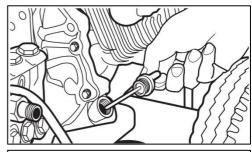
Mix in a fuel stabilizer when adding fuel to pressure washer to protect fuel system from forming gum deposits. If engine doesn't run properly after fueling, switch fuel brands. The engine is certified to run on gasoline. The emission control system for this engine is EM (Engine Modifications).

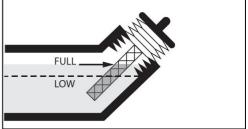


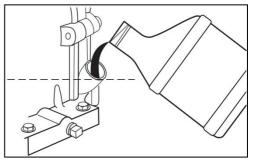
Fuel and fuel vapor are extremely flammable and explosive. Fire or explosion from misuse of fuel can cause severe burns and even death.

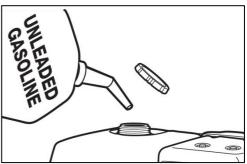
WHEN ADDING FUEL TO PRESSURE WASHER, OBSERVE THE FOLLOWING STEPS:

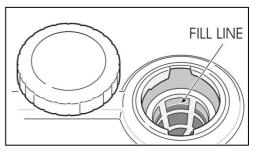
- 1. Turn pressure washer **OFF** and let it cool for at least two minutes before removing fuel cap. Loosen fuel cap slowly to release pressure.
- 2. Fill fuel tank outdoors.
- 3. **DO NOT** overfill fuel tank. Leave room for fuel to expand.
- 4. Wait for spilled fuel to evaporate before cranking engine.
- 5. Keep fuel away from sparks, open flames, pilot lights, heat and other ignition sources.
- 6. **DO NOT** light a cigarette or smoke near open fuel tank or container.
- 7. Clean area around fuel fill cap and slowly remove cap to allow any pressure to escape.
- 8. Slowly add unleaded gasoline (A) to fuel tank (B). Use extreme caution not to fill fuel above baffle (C). This allow appropriate space for fuel expansion.
- 9. Install fuel cap and allow any spilled fuel to evaporate before starting engine.

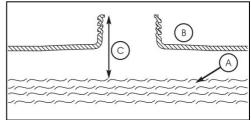






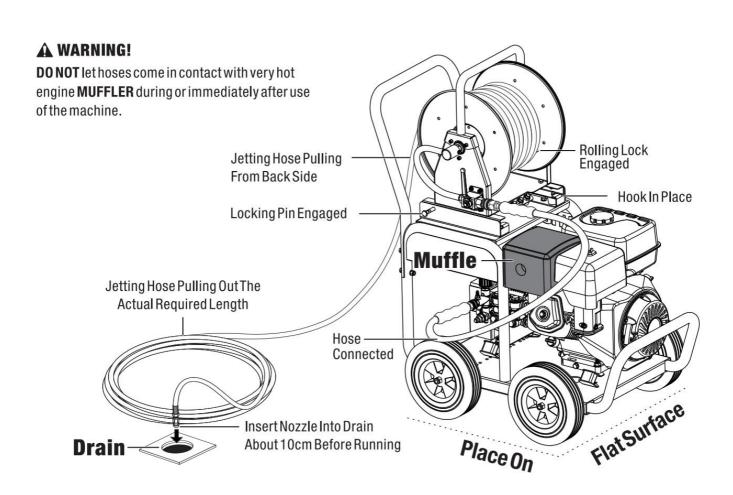






7. Setting Up Before Use (Continued)

A NOTICE! • Be sure you can control the ON/OFF action of the cock valve. • You must be able to place one hand on the jetter hose at all times to control and support the hose. • You must be able to reach the reel for coiling the hose. Put Hose Reel On the Floor Rolling Lock Engaged Jetting Hose Pulling Out The Actual Required Length Flat Surface Place On ON-OFF CockValve Insert Nozzle Into Drain Drain About 10cm Before Running Hose Connected



8. Safe Working Environment

Pressure Jetter Location

Clearances and Air Movement



• Exhaust heat/gases can ignite combustibles, structures or damage fuel tank causing a fire.

Keep at least 5 ft. (1.5 m) clearance on all sides of pressure jetter including overhead.



Place pressure jetter in a well ventilated area, which will allow for removal of deadly exhaust gas. Do not place pressure jetter where exhaust gas could accumulate and enter inside or be drawn into a potentially occupied building. Ensure exhaust gas (A) is kept away from any windows, doors, ventilation intakes, or other openings that can allow exhaust gas to collect in a confined area. Prevailing winds and air currents should be taken in

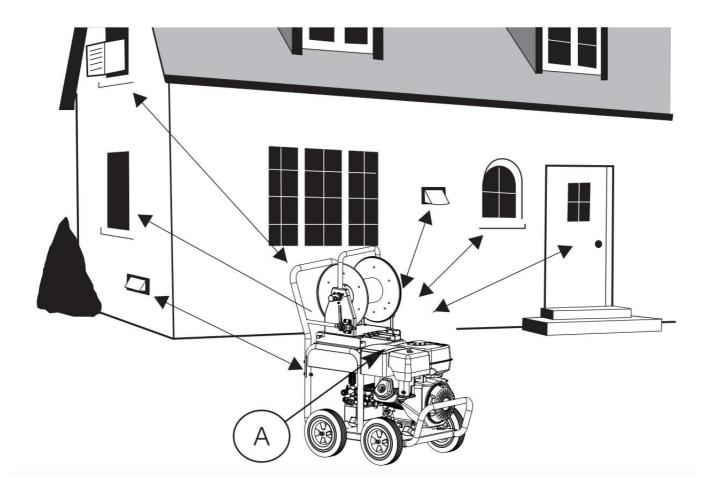


- Running engine gives off carbon monoxide, an odorless, colorless, poison gas.
- Breathing carbon monoxide can cause headache, fatigue, dizziness, vomiting, confusion, seizures, nausea, fainting or death.

Operate pressure washer ONLY outdoors.

Keep exhaust gas from entering a confined area through windows, doors, ventilation intakes, or other openings.

DO NOT start or run engine indoors or in an enclosed area, even if windows and doors are open



9.Startup and Stopping Procedure

9.1 How to Start Your Pressure Washer

To start your pressure jetter for the first time, follow these instructions step-by-step. This starting information also applies if you have let the pressure washer sit idle for at least a day.

- 1. Place pressure jetter near an outside water source capable of supplying water at a flow rate at least 5GPM/19LPM and no less than 20PSI/1.3BAR at pressure washer end of garden hose.
- 2. Check that high pressure hose is tightly connected to spray gun and pump.
- 3. Make sure unit is in a level position.
- 4. Uncoil high pressure hose completely before using pressure washer.
- 5. Connect garden hose to water inlet on pressure washer pump.
- 6. Turn **ON** water, point gun in a safe direction and squeeze trigger to purge pump system of air and impurities.

NOTE: DO NOT run the pump without the water supply connected and turned on. Damage resulting from failure to follow this instruction will **VOID WARRANTY.**

- 7. Pulling out the high pressure jetting hose from the hose reel.
- 8. Choose the right size and type of nozzle you want to use, warp appropriate seal tape on the fitting of jetting hose, tighten the nozzle
- 9. Make sure the BATTERY is good condition and well connected.
- 10. Turn fuel shut-off valve to **ON** position (if equipped).
- 11. Move Turn engine on/off switch to ON position (if equipped).
- 12. Start engine as follows:

Cold engine: Place throttle control midway between **SLOW** and **FAST** positions. Place choke control into ON position.

Warm engine: Place throttle control midway between **SLOW** and **FAST** positions. Return choke to **OFF** position as soon as engine starts. A warm engine usually does not require choke on.

13. **Retractable Start:** Slowly pull starter handle until just past compression-STOP! Return starter handle; firmly pull straight out to avoid excessive rope wear from starter rope guide.

Electric Start: Activate starter switch. Release switch as soon as engine starts. If starter does not turn engine over, shut off starter immediately. **DO NOT** make further attempts to start engine until condition is corrected. **DO NOT** jump start. See your Kohler authorized dealer for trouble analysis.

NOTE: Using the electric starter for more than 5 seconds at a time will overheat the starter motor and can damage it.

14. Gradually return choke control to OFF position after engine starts and warms up.

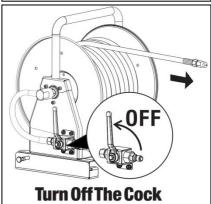
IMPORTANT: Allow the Engine to run at no load, low pressure for five minutes after each start-up so Engine can stabilize.

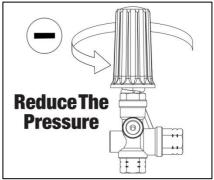
9.2 How to Stop Your Pressure Jetter

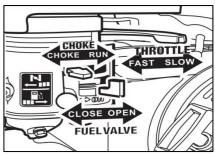
- 1. To stop the engine method 1: Turn engine switch to OFF, close the fuel valve.
- 2. To stop the engine method 2: Close the Fuel Valve and wait for the engine to stop.

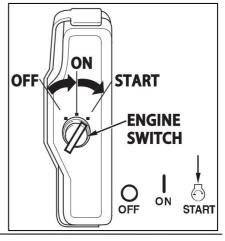
NOTE: Avoid letting fuel remain in the carburetor for lone periods as this can clog carburetor passages with impurities











10. Operation

10.1 Jet Nozzle Selection

- 1. Penetrating nozzle have an orifice in the front to cut through the stoppage, and a tight/narrow jetting angle (15°) has more driving power for long runs.
- 2. Flushing nozzle features with no front orifice and a wide spray pattern (40°) does a better job of cutting the grease off of the walls of the pipe.
- 3. A combination of nozzles may be required to clear a line. Always turn off the machine and turn off output valve before changing nozzles.
- 4. Check nozzles before and after each use for clogged holes which can cause pressure to increase to dangerously high levels and damage the pump.

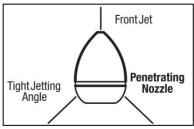
10.2 Jetting the Drain

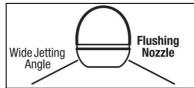
- 1. Release the locking pin on the hose reel, pull the hose out and Insert the jetter nozzle into the drain about 10cm in the direction of the clog. Hand hold the hose to control its movement, turn on the cock of the hose real, adjusting the pressure as needed. The reverse jet thrusters on the nozzle will help pull the hose into the drain.
- 2. When jetting a drain, typically the hose is fed into the drain the full distance to be cleaned and slowly pulled back. This allows the high pressure water directed at the drain walls to remove build-up.
- 3. Feed the hose in the as far as needs to be cleaned. If the hose stops, it has encountered some type of obstruction. If the nozzle cannot pass through an obstruction, such as a change in direction (trap, turn, etc.) or a blockage. Rotate the hose a quarter to half turn to orient the set of the hose to the direction change (If the hose is rotated, once through the obstruction, turn the hose back to help prevent kinks). Use the pulse mode.
- 4. Once past a blockage, take the time to clean that section of drain prior to moving forward. Move several feet past the area of the obstruction and slowly pull the nozzle back through the area of the obstruction. Do this several times and then move further into the drain. Watch the drain water level. If the water level gets too high, you may need to turn the jetter OFF and allow the water to drain prior to continuing.
- 5. Jetting when the line is full of water is less effective than when the line is empty.
- 6. Do not allow the jetter to run for extended period of time with the COCK VALVE OFF. When it is OFF, water recirculates in the pump and cause the water to heat up. This can cause the pump thermal overload to open.
- 7. Once the nozzle is the desired distance into the drain, slowly (1 ft/30 cm/min for heavy drain accumulations) pull the nozzle back through the drain. Use one hand to control the hose and the other to wind the hose onto the reel. Watch as the nozzle gets closer to the drain opening that the nozzle does not come out of the drain while water is flowing. This could allow the hose to whip around and cause striking and high pressure fluid injuries. Always control the hose. Look for the mark on the hose near the nozzle. Turn off the cock to shut off the water flow.

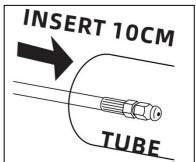
10.3 Using the Pulse Mode

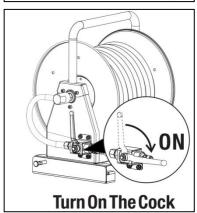
When manipulating the hose is not enough to pass through a direction change or obstruction, the pulse mode should be used. The pulse mode induces large variation in water pressure that causes the hose to vibrate, easing hose advancement.

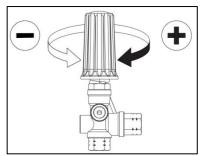
- 1. Turn the pulse actuator lever clockwise to the °PulseH position. In pulse mode, the pressure gauge will read less than full pressure. This is normal.
- 2. If needed, use sharp thrusts of the hose and hose rotation to help the nozzle through the obstruction.
- 3. Once through the obstruction, turn the pulse actuator lever counter-clockwise to the "Pressure" position. Do not leave the jetter in pulse mode any longer than needed to pass through an obstruction. Excessive use of the pulse feature can cause premature wear on hoses and system.

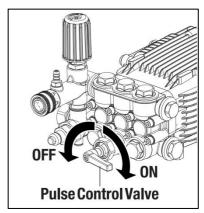












10. Operation (Continued)

10.4-1 Slowly fed and pull back

At times, it will be necessary to move the hose slightly in and out of the drain line to assist the Jetting nozzle in clearing stubborn clogs, Obstructions, or tight corners



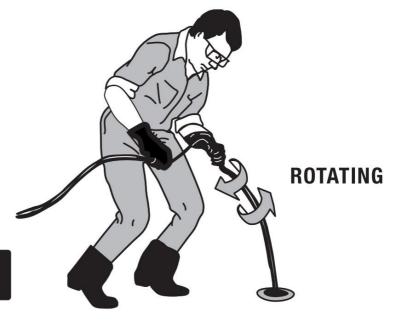
ALWAYS wear gloves during the operation



10.4-2 When the hose stucks

Rotate the hose a quarter to half turn on orient the set of the hose to the direction change.

If the hose is rotated, once through the Obstruction, turn the hose back to help prevent Kinks.





DO NOT Rotate The Hose Only In One Direction

10.4-2 Rotate the hose

When the hose is stuck in the line, try pulling hard on the hose and releasing it quickly, that creates a shock and loosens it up. Try to rotating the hose, or turn off the jetter and pulling back the hose then Turn on the jetter, or trun on the pulse and repeat These operation several times.



ALWAYS hand control the hose movement to prevent stuck.



11. Maintenance

To ensure efficient operation and longer life of your pressure jetter a routine maintenance schedule should be prepared and followed. If the equipment is used in unusual conditions such as high-temperature or dusty conditions more frequent maintenance checks will be required.



WARNING

Before performing any maintenance be aware that the equipment should be completely shutdown, depressurized and allowed to cool down. This will ensure that no injuries can be sustained by moving parts, water pressure or hot surfaces.

Engine contains flammable fuel do not smoke near or work near naked flames while maintaining this equipment. Please note: All repairs should be carried out by Dealer approved engineers. All replacement parts should be supplied or recommended by the Dealer. Any unapproved repairs or modifications will invalidate the warranty.

11.1 Engine:

Check the engine regularly, replace oil, clean spark plugs and maintain parts as required.

11.2 Pump Oil:

Change the pump oil regularly. Change the pump oil after the first 50 hours of work and successively every 200 hours. In either case ensure that the oil is changed at least once a year. Check with your nearest Dealer for advice on the best Pump Oil to use with this equipment if you are unsure.



NOTICE

Avoid prolonged or repeated skin contact with used motor oil.

Used motor oil has been shown to cause skin cancer in certain laboratory animals. Thoroughly wash exposed areas with soap and water.



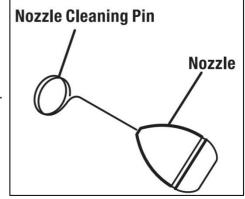
KEEP OUT OF REACH OF CHILDREN. DON'T POLLUTE. CONSERVE RESOURCES. RETURN USED OIL TO COLLECTION CENTERS.

11.3 Nozzle Unclogging:

If the nozzle becomes clogged with dirt and debris excessive pressure can build up. If the nozzle becomes partially clogged or restricted the pump pressure will fluctuate and can become harmful and dangerous.

Clean the nozzle immediately and follow these instructions:

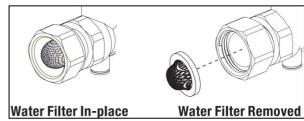
- 1. Shut-off the engine and turn off the hose reel cock, disconnect the water supply.
- 2. Remove the nozzle from the hose, remove any obstructions with the nozzle cleaning tool and back flush with clean water.
- 3. Reassemble the nozzle onto the jetting hose.
- 4. Turn on the water supply, start the pressure jetter, and turn on the hose reel cock.
- 5. Set the pressure jetter into the high pressure setting to test.



11.4 Cleaning The Water Filter:

The water filter should be checked regularly and cleaned if necessary:

- 1. Remove the filter by grasping the end and removing it from the water inlet on the pump.
- 2. Clean the filter by flushing it with water on both sides.
- 3. Re-insert the filter in the water inlet on the pump.



11. Maintenance (Continued)

11.5 High Pressure Hose:

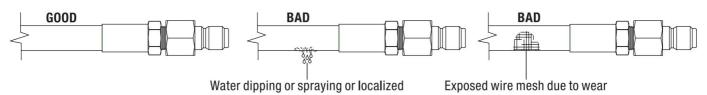
Replace the high pressure hose when the hose have any of the below circumstance:

- 1. Cover damaged.
- 2. Burst.
- 3. Bubbles/blisters.
- 4. Kinked/collapsed.



The high pressure stream of water can cut through skin and its underlying tissues, leading to serious injury and possible amputation.

- Never repair high pressure hose. Replace it.
- Replacement hose rating MUST exceed maximum pressure rating of the unit



NOTE: BE CAREFUL with jetter hose against sharp edges Sharp edges can scrap, slice and generally damage hose quickly. While hose is easily replaced, it pays to take care by buffering sharp edges with tape, cardboard, etc., to maximize its useful life.

11.6 Cleaning the Fuel Tank Filter:

The fuel tank filter should be removed and cleaned after every 150 hours of running or every 3 months using an environmentally -friendly water-based de-greasing agent. Refit when clean.

11.7 Maintenance Schedule

Item	Task Description	Each Use	1st Month (20Hrs)	Frequency Each Season (50Hrs)	Every 6 MONTHS (100Hrs)	Every YEAR (300Hrs)
Engine Oil	Oil Level Check	•				
	Replace		•		•	
Reduction Gear Oil (If	Oil Level Check	•				
applicable)	Replace		•		•	
	Check	•				
Air Cleaner/filter	Clean			,х	•X	
	Replace					
Deposit Cup	Clean				•	
Spark Plug	Clean.Adjust				•	
	Replace					•
Spark Eliminator	Clean				•	
Idling	Check.Adjust					
Valve Clearance	Check,Adjust					
Fuel Tank&Filter	Clean					
Fuel Supply Line	Check	Check with your Dealer for advice if any problem are detected				

Key:

- * = Only for inside ventilating double core carburetors
- ** = Only for paper core cleaners
- x = Repeat task more often than scheduled if equipment is used in dusty working environments
- \triangle = Maintenance to be carried out by Dealer approved technician

12. Storage

1. After General / Regular Use

- 1. When completing pass through drain, watch for tape marker on hose as you pull the hose out.
- 2. Reduce pressure gradually with pressure regulator knob until pressure gauge is at zero.
- 3. Stop the jetter engine
- **4.** Continue to run water through pump and hose for 30 to 60 seconds.
- **5.** Close water faucet and disconnect garden hose from spigot.
- 6. Close water inlet valve. Disconnect garden hose from jetter
- 7. Pull remaining jetter hose from drain line.
- **8.** Remove nozzle if you chose.
- **9.** Store jetter hose properly on reel or in a coil to avoid damage to hose.

2. Preparation for Winter and Long-term Storage

Note: It is recommended that you follow these steps to protect the internal seals of the pump when storing the equipment for more than 30 days and or when, freezing temperatures are expected.

- 1. Obtain a funnel, 200ml of antifreeze and approximately 1M of garden hose with a male hose connector attached to one end.
- 2. Disconnect the spark plug wire.
- 3. Connect the hose to water inlet on the pump.
- 4. Pour the antifreeze into the hose via the funnel.
- 5. Pull the engine starter cord slowly several times until antifreeze comes out of the high pressure water hose connection on the pump.
- 6. Remove the short hose from the water inlet on the pump.
- 7. Reconnect the spark plug wire.

3 Service After Storage

Before reusing the equipment after storage, you should carry out the following to keep the equipment in good condition.

Storage Time	Service Tank			
Within one month	No service required			
One-two months	Drain out the existing fuel out of the fuel tank and fresh fuel			
Two months - one year	Drain out the existing fuel out of the fuel tank and fresh fuel Drain the fuel out of carburetor Empty the deposit cup			
Over a year	Drain out the existing fuel out of the fuel tank and fresh fuel Drain the fuel out of carburetor Empty the deposit cup Close the FUEL VALVE and wait engine to stop			

Key:

Note: Do not dump oil vessels or discarded engine oil onto the ground. Take all discarded engine oil in a closed container to your nearest recycling station.

^{* =} Unscrew the drain plug and drain out the fuel in the carburetor

^{** =} Turn engine switch to the off position, disconnect the deposit cup and empty contents safely

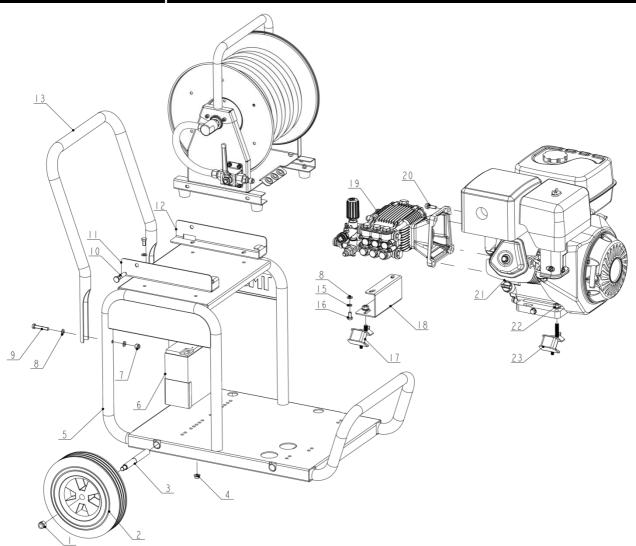
13. Troubleshooting

PROBLEM	PROBABLE CAUSE	SOLUTION
Engine shuts down when running.	Out of fuel. Low Engine Oil	1. Fill fuel tank. 2. Add oil.
Engine will not start; or starts and runs rough.	 Rocker switch set to "OFF" position. Fuel valve is in "OFF" position. Dirty air cleaner Out of fuel. Stale fuel Spark plug wire not connected to spark plug. Bad spark plug. Water in fuel Flooded. Excessively rich fuel/air mixture. In take valve stuck open or closed. Engine has lost compression. Low engine oil. Wrong Fuel. Engine is too hot. Chock is in wrong position. 	1. Set switch to "ON" position. 2. Turn fuel valve to "ON" position. 3. Clean or replace air cleaner 4. Fill fuel tank. 5. Drain fuel tank and carburetor; fill with fresh fuel. 6. Connect wire to spark plug. 7. Replace spark plug. 8. Drain fuel tank and carburetor; fill with fresh fuel. 9. Wait 5 minutes and re-crank engine. 10. Contact authorized service facility. 11. Contact authorized service facility. 12. Contact authorized service facility. 13. Add oil 14. Use recommended fuel. 15. Allow engine to cool. 16. Change chock position.
Engine "Hunts" or falters.	Carburetor Is running too rich or too lean.	Contact authorized service facility.
Engine lacks power.	Cylinder pressure is low. Dirty air cleaner	Contact authorized service facility. Replace air filter.
No pressure or Low pressure.	 The cock on the hose reel in OFF position. Lower water supply. Hose fitting leaks during high pressure. Nozzle obstructed. Water filter screen obstructed. Defective thermal relief valve. Air in hose. 8. Choke lever in choke position. 9. Throttle control lever is hot in fast position. High pressure jetting hose is too long. Pressure regulator wide open 	 Turn on the cock. Water simply must be 5 GPM @ 20 psi. Tighten hose fitting. Use thread sealant tape if necessary. Replace the nozzle Remove and clean filter. Call Customer Service: Stop engine and water source. Disconnect water source from pump inlet and turn water source to ON to remove all air from hose. When steady stream of water is present, turn water source to OFF. Re-connect water source to pump inlet and turn on water source, turn on the reel cock to remove remaining air. Move choke to NO CHOKE position. Move throttle control lever from fast position. Use the right size and length of the hose. Turn the regulator to increase pressure.

13. Troubleshooting (Continued)

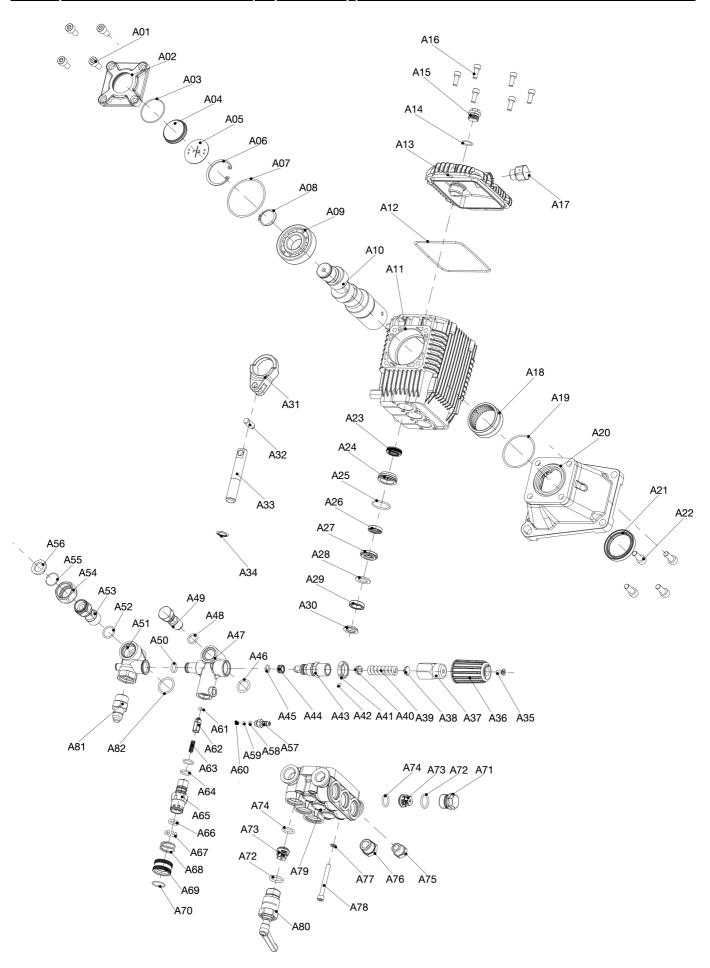
PROBLEM	PROBABLE CAUSE	SOLUTION
No Water Flow.	 Kinked or collapsed garden hose. Water supply not turned on. Clogged nozzle. The hose reel cock in OFF position. 	 Remove kink or replace worn hose. Turn water supply on. Remove nozzle & clean orifices. Make sure valves are open.
No or low pressure (after period of normal use).	 Worn seal or packing. Worn or obstructed valves. Worn unloader piston. Worn E-Z start valve. 	Have parts cleaned or replaced by authorized dealer.
Water in crankcase.	 Humid air condensing into water in crankcase. Worn packing and/or plunger. Water retaining ring on plunger worn. 	 Change oil. Use only high grade automotive 30 weight non detergent oil. Replace packing. Replace O-rings.
Water leaking at pump.	 Loose connections. Piston packings worn. Worn or broken O-rings. Pump head or tubes damaged from freezing. 	 Tighten connections. Have parts cleaned or replaced by authorized dealer. Have parts cleaned or replaced by authorized dealer. Have parts cleaned or replaced by authorized dealer.
Oil leaking at pump	 Oil seals worn. Loose drain plug. Worn drain plug O-ring. Worn fill plug O-ring. Pump overfilled. Incorrect oil used. Vent plug clogged. 	 Have parts cleaned or replaced by authorized dealer. Tighten drain plug. Inspect and replace O-ring. Inspect and replace O-ring. Check for correct amount. Drain and refill with correct type and amount of oil. Cleanvent plug. Use air hose to free it of blockage. If problem persists, replace vent plug.
Pump pulsates	1. Nozzle obstructed.	See "Using Spray Wand" section.

14. Pressure Jetter Exploded View & Parts List



REF NO.	DESCRIPTION	Q'TY	REF NO.	DESCRIPTION	Q'TY
1	Nut,Axle	4	13	Handle	1
2	Wheel	4	14	Hose reel assy	1
3	Axle	4	15	Washer D8	2
4	Nut M8	8	16	Bolt M8 x 16	6
5	Frame	1	17	Anti-vibration feet M10 x 20	2
6	Battery 12V/20AH	1	18	Pump bracket	1
7	Nut M8	41	19	High pressure pump	1
8	Washer D8	14	20	Bolt M8 x 25	4
9	Bolt M8 x 45	4	21	Engine	1
10	Locking pin M10 x 25	2	22	Nut M10	4
11	Mounting base right	1	23	Anti-vibration feet M10 x45	2
12	Mounting base left	1			

15. Exploded View & Parts List (Triplex Pump)



15. Exploded View & Parts List (Triplex Pump)

REF NO.	DESCRIPTION	Q'TY	REF NO.	DESCRIPTION	Q'TY
A01	Screw	4	A42	Jam nut	1
A02	Cover,crankshaft	1	A43	Unloader valve assy	1
A03	O-ring, oil sight glass	1	A44	Seat,valve body	1
A04	Oil side glass	1	A45	O-ring, valve seat	1
A05	Oil level plate	1	A46	Gasket, unloader valve housing	1
A06	Retain ring	1	A47	Unloader valve housing	1
A07	O-ring	1	A48	O-ring, outlet banjo bolt	1
A08	Clip	1	A49	Water outlet banjo bolt	1
A09	Ball bearing	1	A50	O-ring, unloader valve housing	1
A10	Crankshaft	1	A51	Bypass housing BRASS	1
A11	Crankcase	1	A52	O-ring	1
A12	O-ring	1	A53	Inlet Bolt, side inlet	1
A13	Crankcase cover	1	A54	Swivel nut, side inlet	1
A`14	Gasket,drain plug	1	A55	Clip pin	1
A15	Drain plug	1	A56	Washer	1
A16	Screw	6	A57	Detergent injector fitting	1
A17	Venting plug	1	A58	O-ring, injector fitting	1
A18	Needle bearing	1	A59	Ball, injector fitting	1
A19	O-ring	1	A60	Spring, injector fitting	1
A20	Flange	1	A61	O-ring, outlet checking valve	1
A21	Oil seal,crankshaft	1	A62	Outlet checking valve	1
A22	Screw	4	A63	Spring, outlet checking valve	1
A23	Oil seal,plunger	3	A64	O-ring, outlet fitting	2
A24	Locating ring	3	A65	Outlet connector	1
A25	O-ring	3	A66	O-ring	1
A26	Low pressure seal	3	A67	Ball	8
A27	Compaction ring	3	A68	Spring	1
A28	Compaction flake	3	A69	Outlet connector cap	1
A29	High-pressure seal	3	A70	Clip pin	1
A30	Supporting ring	3	A71	Valve Plug	6
A31	Connecting rod	3	A72	O-ring	6
A32	Fix pin	3	A73	Valve assy	6
A33	Plunger	3	A74	O-ring	6
A34	O-ring plunger	3	A75	Outlet plug	1
A35	Screw	1	A76	Inlet plug	1
A36	Plastic cap,knob	1	A77	Washer, bolt, manifold	8
A37	Knob	1	A78	Maniflod fix bolt	8
A38	Uper spring seat	1	A79	Maniflod head	1
A39	Spring	1	A80	Jetter pulse valve	1
A40	Spring seat	1	A81	Thermal release valve	1
A41	Fix screw	1	A82	O-ring	1