PETROL WATER BLASTER 3200PSI

TSPWB2

www.thetoolshed.co.nz

PRODUCT DETAILS

PRODUCT	ToolShed Petrol Water Blaster 3200PSI 14.5L/Min
MODEL NO.	TSPWB2

DISTRIBUTED BY

NOTE:
This manual is only for your reference. Due to the continuous improvement of the ToolShed products, changes may be made at any time without obligation or notice.

WARRANTY
This product may be covered under the ToolShed warranty. For more information see our Terms & Conditions at www.thetoolshed.co.nz

C O N T E N T S:

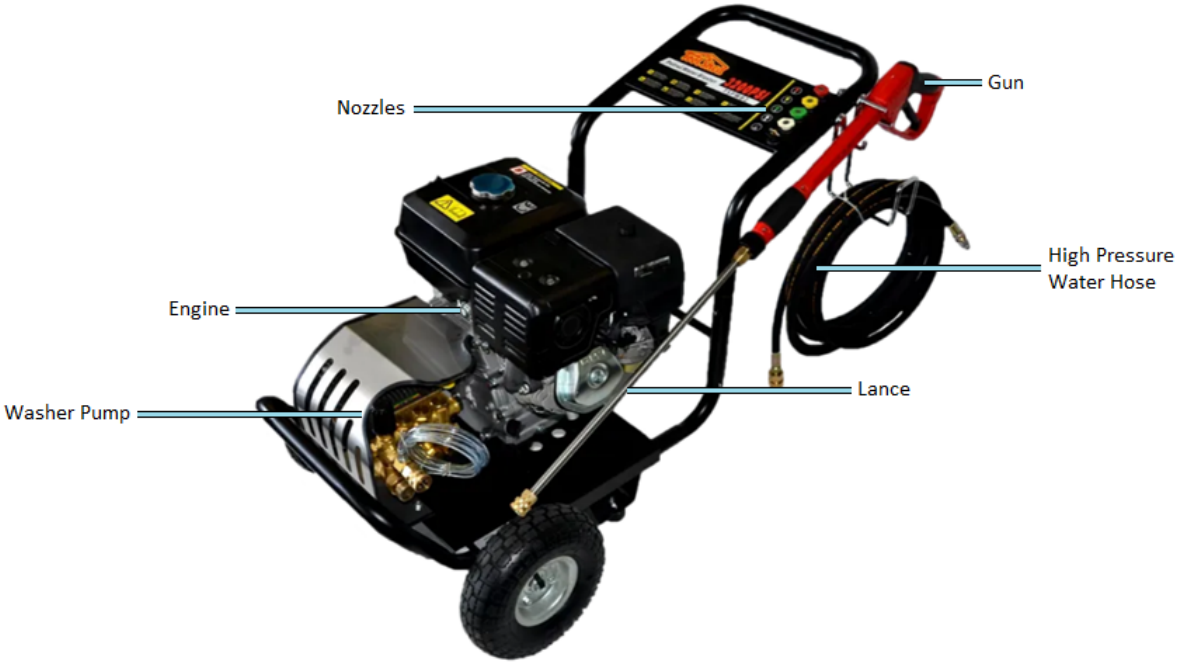
SPECIFICATIONS

Engine Size	9HP 4-stroke petrol
Maximum Pressure	3200PSI
Maximum Water Flow	14.5LPM
Hose Length	8m
Weight	56kg
Dimensions	600 x 1100 x 800 mm

SERVICE

- **Have your tools and machinery serviced at The ToolShed with ToolShed replacement parts.** This will ensure that the safety of the power tool or machine is maintained.

IDENTIFICATION



IMPORTANT INFORMATION

GENERAL SAFETY GUIDELINES

⚠ WARNING READ ALL SAFETY WARNINGS AND ALL INSTRUCTIONS. Failure to follow instructions and warnings could lead to serious injury, electric shock, or fire. Save ALL warnings and instructions for future reference.

WORK AREA SAFETY

- **Ensure that your work area is kept well-lit and clean.** Lack of visibility and clutter greatly increase the risk of accident.
- **Keep bystanders and children clear when operating a power tool or machine.** They can cause distraction or risk injury themselves.
- **Ensure you are not operating the power tool or machinery in the presence of flammable gases, dust, liquids, or anything that creates an explosive atmosphere.** Power tools and machinery can create sparks which can lead to ignition in these environments.

PERSONAL SAFETY

- **Always wear personal protective equipment.** Eye protection, ear protection, dust masks and other protective equipment will help to reduce the risk of personal injury.
- **Dress appropriately. Do NOT wear jewellery or loose clothing that can get caught in moving parts.** Keep hair, loose clothing, jewellery, and anything else that could be of risk away from moving parts or they could be caught.
- **Always remain alert and do NOT operate the power tool or machinery under the influences of any substances (drugs, medication, alcohol).** Losing focus could lead to injury while operating power tools and machinery.
- **Always keep proper footing and balance.** Overreaching can lead to slipping and falling which can result in injury.
- **Ensure the power switch is in the off position before connecting any battery or power source to the power tool or machinery.** This can lead to accidents as tools and machinery can fire suddenly when it is not expected and lead to accident.
- **Use all provided dust collection and extraction attachments if included.** This with the use of dust masks can help keep you safe from dust and keep your work site clear while working.
- **Ensure loose parts such as a wrench or adjusting key are removed before starting the power tool or machinery.** Failure to remove these can result in serious injury.

POWER TOOL AND MACHINERY USE AND CARE

- **Use the correct tool for the job.** Forcing a tool to do a job it was not designed for increases the risk of accident or injury.
- **Disconnect power tools and machinery from power or remove batteries before storing tools and machinery or making any changes or adjustments to them.** This reduces or removes the risk of the power tool or machinery accidentally firing which can help prevent injury or accident.
- **Check the power tool for damage or any condition that could affect the way the tool or machine works.** An unrepaired tool or machine can lead to accident and injury. Only have your tool or machine repaired with genuine parts from **The ToolShed**.

- **Only use the power tool and machinery with genuine parts or accessories that are designed to be used with the power tool and machinery.** Failure to do so could result in accident, injury, or damage to your tool or machinery.
- **Store your tool or machinery out of reach of children and away from untrained personnel when not in use.** Use by somebody untrained or a child could lead to accident or serious injury.

WARNING: Your washer operates at fluid pressures and velocities high enough to penetrate human and animal skin, which could result in serious injury. Leaks caused by loose fittings or damaged hoses can result in injection injuries. DO NOT treat fluid injections as a simple cut. See a physician immediately.

- Never place hands in front of nozzle.
- Direct the spray away from yourself and others.
- Make sure the hose and fittings are tightened and in good condition. Never hold onto the hose or fittings during operation.
- Do not allow the hose to come in contact with the muffler.
- Never attach or remove lance or hose fittings while the system is pressurized.
- Use only hose and accessories rated for pressure higher than your water blasters PSI.

WARNING: High velocity fluid spray can cause objects to break, propelling particles at high speed. Light or unsecured objects can become hazardous projectiles.

- Always wear approved safety glasses.
- Wear protective clothing to protect against accidental spraying.
- Never point the lance at people or animals.
- Always secure the trigger lock when the lance is not in service to prevent accidental operation.
- Never permanently secure the trigger in the open position.

WARNING: Use of acids, toxic or corrosive chemicals, poisons, insecticides, or any other 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 degreasers recommended for use in a washer pump.
- Wear protective clothing to protect eyes and skin from contact with sprayed materials.

WARNING: Unsafe operation of your washer pump could lead to serious injury or death to you or others.

- Do not use chlorine, bleach, or any other corrosive compound.
- Become familiar with the operation and controls of the washer pump.
- Keep the operating area clear of all persons, pets, and obstacles.
- Do not operate this machine with missing, broken, or unauthorized parts.
- Never leave the machine unattended while it is running.

WARNING: Spray directed at electrical outlets, switches, or objects connected to an electrical circuit could result in a fatal electric shock.

FUEL & ENGINE SAFETY

Petrol engine exhaust contains carbon monoxide, a colorless, odorless, poison gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death. If you start to feel dizzy or weak, get fresh air immediately.

OPERATE THE WATER BLASTER OUTDOORS ONLY IN A WELL-VENTILATED AREA AND POINT EXHAUST AWAY.

- DO NOT operate the water blaster inside any building, including garages, basements, crawlspaces and sheds, enclosure, or compartment, including the storage compartment of a recreational vehicle.
- DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents, or other openings.

Using an engine indoors CAN KILL YOU IN MINUTES. Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell.

NEVER use inside a home or garage, EVEN IF doors and windows are open. ONLY use OUTSIDE and far away from windows, doors, and vents.

Spark from removed spark plug wire can result in fire or electrical shock. When servicing the water blaster:

- Disconnect the spark plug wire and place it where it cannot contact the plug or any other metal object.
- DO NOT check for spark with the plug removed.
- Use only approved spark plug testers.

DANGER: GASOLINE AND GASOLINE VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE. Fire or explosion can cause severe burns or death.

Gasoline and Gasoline Vapors

- Gasoline is highly flammable and explosive.
- Gasoline can cause a fire or explosion if ignited.
- Gasoline is a liquid fuel, but its vapors can ignite.
- Gasoline is a skin irritant and needs to be cleaned up immediately if spilled on skin or clothes.
- Gasoline has a distinctive odor; this will help detect potential leaks quickly.
- In any petroleum gas fire, flames should not be extinguished unless by doing so the fuel supply valve can be turned OFF. This is because if a fire is extinguished and a supply of fuel is not turned OFF, then an explosion hazard could be created.
- Never fill gas tank to capacity as gasoline needs room to expand if temperature rises.

- **When Adding or Removing Gasoline**

- DO NOT light or smoke cigarettes.
- Turn the engine off and let it cool for at least two minutes before removing the gasoline cap. Loosen the cap slowly to relieve pressure in the tank.
- Only fill or drain gasoline outdoors in a well-ventilated area.
- DO NOT pump gasoline directly into the engine at the gas station. Use an approved container to transfer fuel to the engine.
- DO NOT overfill the gasoline tank.
- Always keep gasoline away from sparks, open flames, pilot lights, heat, and other sources of ignition.

When Starting the Engine

- DO NOT attempt to start a damaged engine.
- Make certain that the gasoline cap, air filter, spark plug, fuel lines, and exhaust system are properly in place.
- Allow spilled gasoline to evaporate fully before attempting to start the engine.
- Make certain that the water blaster is resting firmly on level ground.

When Operating the Water Blaster

- DO NOT move or tip the water blaster during operation.
- DO NOT tip the water blaster or allow fuel or oil to spill.

ADD ENGINE OIL

WARNING: DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the water pump as a result of failing to follow these instructions will void your warranty.

Check oil often during the break-in period. Refer to the Maintenance section for recommended service intervals.

1. Place the water blaster on a flat, level surface.
2. Remove oil fill cap/dipstick to add oil.
3. Using a funnel, add oil and replace oil full cap/dipstick. DO NOT OVERFILL.
4. Check engine oil level before every use and add as needed.

ADD FUEL

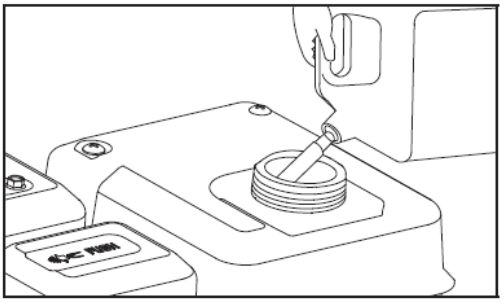
WARNING: Gasoline vapors are highly flammable and extremely explosive.

- DO NOT light or smoke cigarettes. Fire or explosion can cause severe burns or death.
- Only fill or drain fuel outdoors in a well-ventilated area. DO NOT pump gasoline directly into the engine. Use an approved container to transfer the fuel to the engine.
- Never use a gasoline container, gasoline tank, or any other fuel item that is broken, cut, torn, or damaged.
- DO NOT overfill the gasoline tank. Always keep fuel away from sparks, open flames, pilot lights, heat, and other sources of ignition.

Use clean, fresh, regular unleaded gasoline with a minimum octane rating of 87 and an ethanol content of less than 10% by volume.

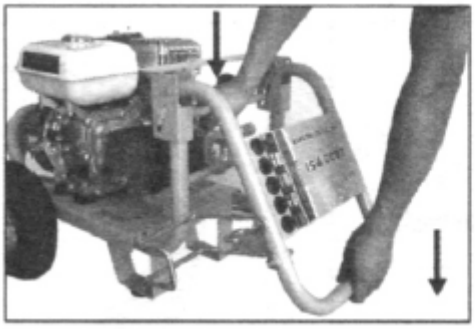
DO NOT mix oil with gasoline.

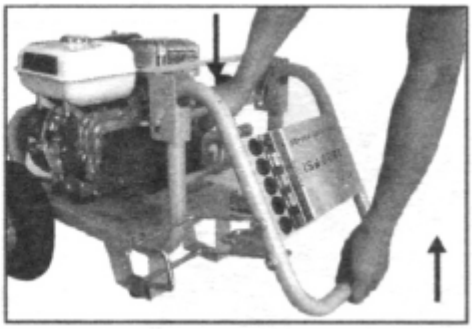
1. Place the water blaster on a flat, level surface.
2. Remove the gasoline cap.
3. Slowly add gasoline to the tank. DO NOT OVERFILL. Gasoline can expand after filling. A minimum of 6.4mm (1/4in.) if space left in the tank is required for gasoline expansion, although more than 6.4mm (1/4in.) is recommended. Gasoline can be forced out of the tank as a result of expansion if overfilled and can affect the stable running condition of the water blaster.
4. Screw on the gasoline cap and wipe away any spilled fuel.



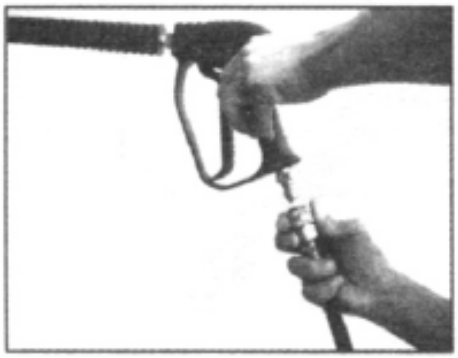
ASSEMBLY

1. Take the wheels that come with your water blaster and attach them to the frame with supplied bolts.
2. Place the handle assembly onto the water blaster frame.





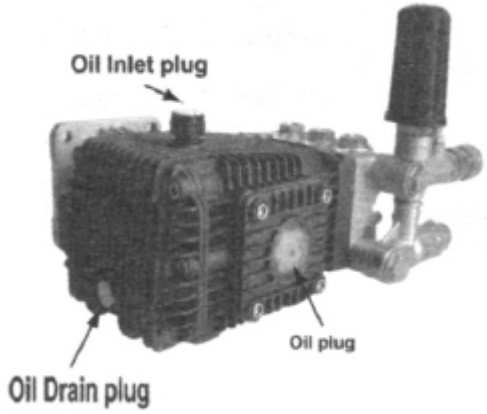
3. Attach the high-pressure water hose to the gun and tighten it securely.



4. Connect the lance to the gun and tighten it securely.

5. Assemble the grommet kit and quick-connect nozzles.
6. Add engine oil to the engine.
7. Remove the oil inlet travel bung and replace with the breather supplied.
8. The pump should come pre-filled with lubricating oil. Check it's at the correct level through the oil plug site glass.

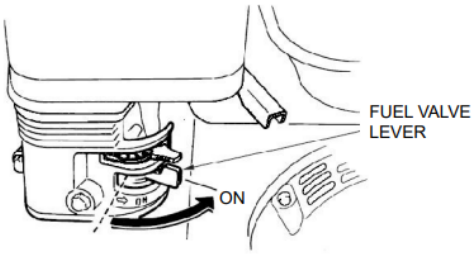
NOTE: There will be a slight amount of oil in the engine from factory testing.



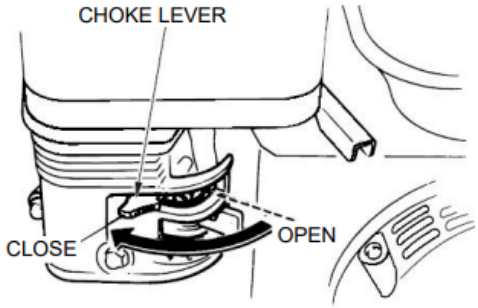
OPERATION

Starting

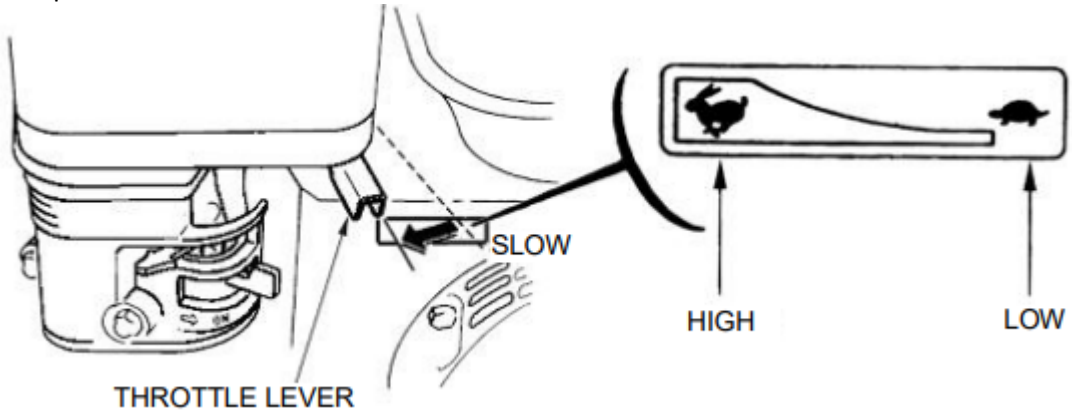
1. In a well-ventilated outdoor area, add fresh, high quality, unleaded gasoline with a pump octane rating of 86 or higher. Do not overfill. Wipe up any spilled fuel before starting the engine.
2. Check the engine oil level.
3. Verify that the filter screen is in the water inlet of the pump.
4. Connect your water source to the pump. (Water source must provide a minimum of 19 liters per minute).
5. Connect your high-pressure hose to the water pump outlet.
6. If applying a chemical or cleaning solution, see the 'Chemicals & Cleaning Solvents' in the operation section of this manual.
7. Turn your water source on.
8. Move the fuel valve lever to the ON position.



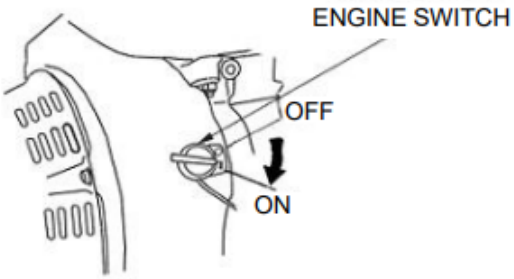
9. To start a cold engine, move the choke lever to the CLOSE position. To restart a warm engine, leave the choke lever in the OPEN position.



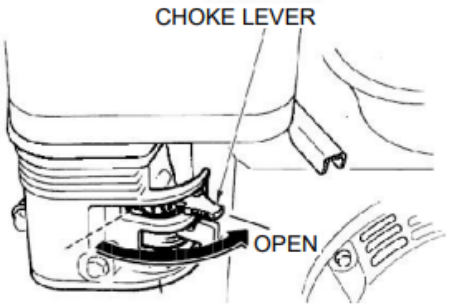
10. Move the throttle lever away from the SLOW position, about 1/3 of the way toward the FAST position.



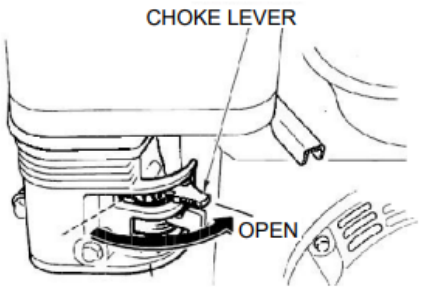
11. Turn the engine switch to the ON position.



12. Pull the starter grip lightly until you feel resistance, then pull briskly. Return the starter grip gently.

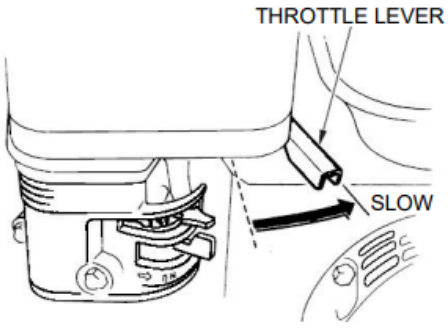


13. If the choke lever has been moved to the CLOSE position to start the engine, gradually move it to the OPEN position as the engine warms up.
14. Depress the trigger on the gun to start the water flow. (Keep stable footing and expect the gun to kick when triggered).
15. Release the trigger to stop water flow.



Shutting Down

1. After each use, if you have applied chemicals, place the chemical hose into a container of clean water and draw clean water through the chemical injection system to rinse the system thoroughly.
2. Move the throttle lever to the SLOW position.
3. Turn the engine switch to the OFF position.
4. Turn the fuel valve lever to the OFF position.
5. Pull the trigger on your spray gun to relieve any water pressure in the hose or gun.



Using The Lance

Your washer pump is equipped with up to five spray nozzles. Each nozzle is colour coded for easy identification and delivers a specific spray pattern for a particular cleaning purpose. The size of the nozzle determines the size if the fan spray and the pressure out of the nozzle. The 0°, 15°, 25°, and 40° nozzles are high pressure, and the 84° chemical nozzle is a low-pressure nozzle.

The nozzles are housed in receptacles on the panel of the washer pump handle. Colours on the panel identify the nozzle's location and spray pattern.

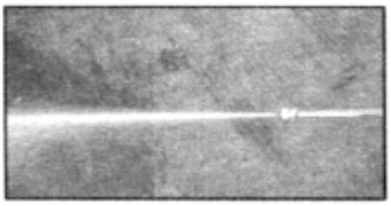
OPERATION

Changing Nozzles

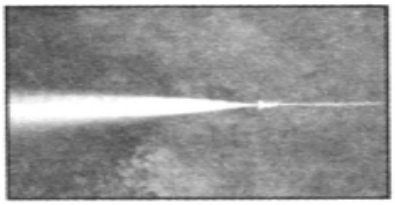
CAUTION: Do not attempt to change nozzles while the washer pump is running. Turn the engine and gun off before changing nozzles.

1. Pull quick fix-up back and insert the nozzle.
2. Release quick fix-up and twist the nozzle to make sure that it is secure.

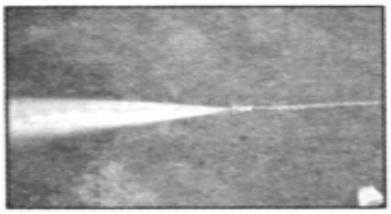
0° Nozzle – Red
This nozzle delivers a pinpoint stream and is extremely powerful. It covers a very small area of cleaning. This nozzle should only be used on a surface that can withstand this high of a pressure such as metal or concrete. Do not use on wood.



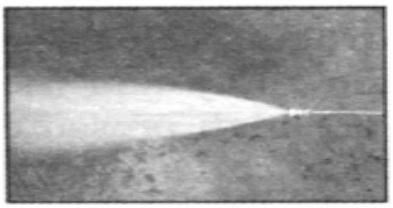
15° Nozzle – Yellow
This nozzle delivers a powerful 15° spray pattern for intense cleaning of small areas. This nozzle should only be used on areas that can withstand the high pressure from this nozzle.



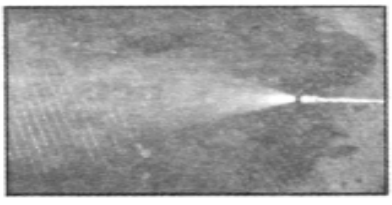
25° Nozzle – Green
This nozzle delivers a 25° spray pattern for intense cleaning of larger areas. This nozzle should only be used on areas that can withstand the pressure from this nozzle.



40° Nozzle – White
This nozzle delivers a 40° spray pattern and a less powerful stream of water. It covers a wide area if cleaning. This nozzle should be used for most general cleaning jobs.



Chemical Nozzle – Black
This nozzle is used to apply chemicals or cleaning solutions. It has the least pressure of the nozzles.



OPERATION

Chemicals & Cleaning Solvents

WARNING: Applying chemicals or cleaning solvents is a low-pressure operation. Use only soaps and chemicals designed for washer pump use. DO NOT USE BLEACH.

To apply chemicals:

1. Press the chemical hose onto the barbed fitting located near the high-pressure water hose connection of pump.
2. Place the other end of the chemical hose with the filter on it into a container holding your chemical/cleaning solution. **The chemical to water ratio is 1:7.**
3. Fit the low pressure (black) nozzle.

After use of chemicals:

Place chemical hose into a container of clean water and draw clean water through the chemical injection system to rinse the system thoroughly. If chemicals remain in the pump, it could be damaged.

NOTE: Chemicals and soaps will not siphon when the lance is in the high pressure setting.

STORAGE

Pump

1. Drain all the water from the high-pressure hose, coil it, and store it in the cradle of the washer pump handle.
2. Drain all water from the gun and lance by holding the gun in a vertical position with the nozzle end pointing down and squeezing the trigger. Store in gun/hose holder.
3. Store the chemical and high pressure water hose so that they are protected form damage such as being run over.

MAINTENANCE

Before performing any maintenance or repair, disconnect the spark plug wire, let the engine cool, and release all water pressure. The engine contains flammable fuel. DO NOT smoke or work near open flames while performing maintenance.

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

Engine

To Check Oil

1. Remove the oil inlet plug from the pump and wipe clean.
2. Insert the oil inlet plug fully into the pump, then remove it.
3. The oil level is correct when oil covers the lower ½ inch of the end of the oil inlet plug.

How to Change Pump Oil

1. Loosen the oil inlet plug.
2. Place a container under the oil drain plug.
3. Remove the oil drain plug.
4. After the oil is drained, replace the oil drain plug and tighten it securely.
5. Remove the oil inlet plug and fill with SAE30 oil.
6. Replace the oil inlet plug and tighten it securely.

Spray Wand

If the nozzle becomes clogged with foreign materials such as dirt, excessive pressure may develop. If the nozzle becomes partially clogged or restricted, the pump pressure will pulsate. Clean the nozzle immediately using then nozzle kit supplied and the following instructions:

1. Shut off the washer pump and turn off the water supply.
2. Pull trigger on the gun to relieve any water pressure.
3. Disconnect the lance from the gun.
4. Remove the nozzle from the lance. Remove any obstructions with the nozzle cleaning tool provided and backflush with clean water.
5. Direct water supply into the spray wand end to backflush loosened particles for 30 seconds.
6. Reassemble the nozzle to the lance.
7. Reconnect the lance to the gun and turn on the water supply.
8. Start the washer pump and place the lance into a high pressure setting to test.

Clean the Water Inlet Filter

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

NOTE: Cone side faces out.

NOTE: Do not operate the pressure washer without the filter properly installed.

TROUBLESHOOTING

Problem	Cause	Correction
No or low pressure (initial use).	Choke lever in the “choke” position.	Move choke to the “no choke” position.
	Throttle control lever is hot in the “fast” position.	Move throttle control lever to the “fast” position.
	High pressure water hose is too long.	Use high pressure water hose under 50 feet.
Will not draw chemicals.	Lance not in low pressure.	See Lance section under Operation.
	Chemical filter clogged.	Clean filter.
	Chemical screen not in chemical.	Ensure end of chemical hose is fully submerged into chemical.
	Chemical too thick.	Dilute chemical. It should be the same consistency as water.
	Pressure hose is too long.	Lengthen water supply hose instead of high-pressure water hose.
	Chemical build up in chemical injector.	Have parts cleaned or replaced.
No or low pressure (after period of normal use).	Worn seal or packing.	Check and replace.
	Worn or obstructed valves.	
	Worn unloader piston.	
Water leaking at gun/lance connection.	Worn or broken O-ring.	Check and replace.
	Loose hose connection.	Tighten.
Oil leaking at pump.	Oil seals worn.	Check and replace.
	Loose oil drain plug.	Tighten.
	Worn oil drain plug O-ring.	Check and replace.
	Pump overfilled.	Check for correct amount.
	Incorrect oil used.	Drain and fill with correct amount and type of oil.
	Vent plug is clogged.	Clean vent plug: blow air through it to remove any blockage. If the problem persists, replace the plug.
Pump pulsates.	Nozzle obstructed.	See Lance section under Maintenance.
Engine will not start.	No fuel.	Add fuel.
	Low oil.	Add required amount of oil.
	Pressure builds up after two pulls on the recoil starter or after initial use.	Squeeze gun trigger to relieve pressure.
	Choke lever in the “no choke” position.	Move choke to the “choke” position.
	Spark plug wire not connected.	Attach spark plug wire.
	Engine ON/OFF switch in OFF position.	Place switch in ON position.
	Fuel valve closed.	Move to open position.