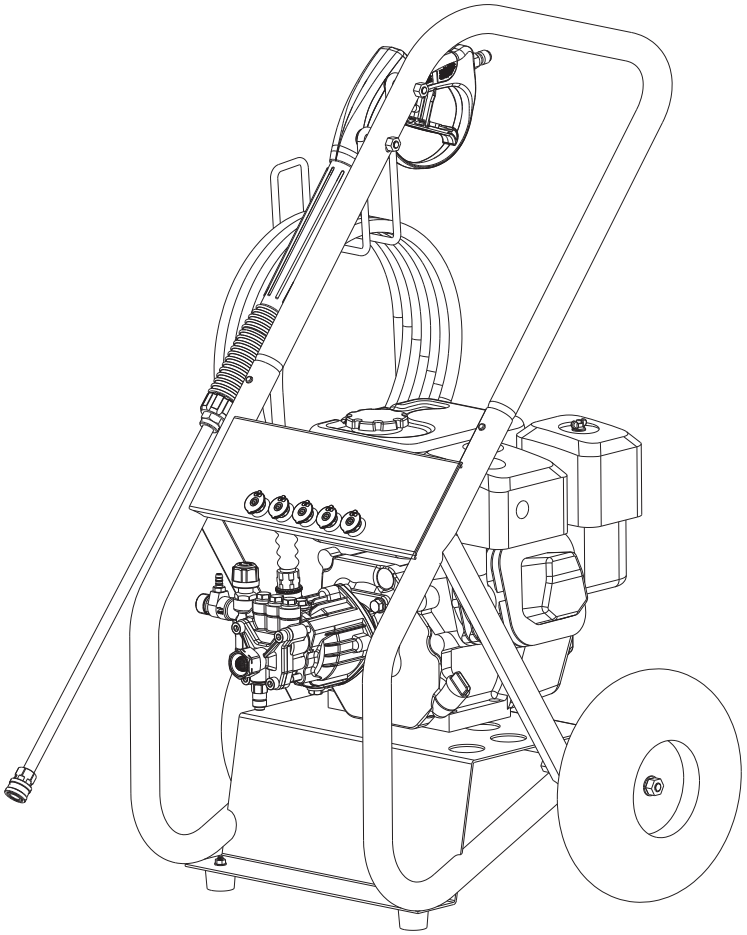
HIGH PRESSURE WASHER
PROFESSIONAL POWER EQUIPMENT

OPERATION AND PARTS LIST MANUAL

For General Direct Drive Axial Pump Gas Pressure Washer



This manual contains:
IMPORTANT WARNINGS and **INSTRUCTIONS**. READ AND RETAIN FOR REFERENCE

WARNING: To reduce the risk of injury, the user must read and understand the operators manual before using this product.

SAVE THIS MANUAL FOR FUTURE REFERENCE

Contents

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.

2. 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: _____
2. Dealer Name: _____
3. Dealer Phone: _____
4. Unit Model Name: _____
6. Pump Model & Serial Number: _____
5. Engine Model & Serial Number: _____

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

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

CAUTION

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

WARNING

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

CAUTION

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 happens and by observing appropriate safety rules and procedures as outlined in this manual. Basic safety precautions are outlined in the **SAFET**Y 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.

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.

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.

WARNING--RISK OF ELECTRICAL SHOCK

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

- Unplug any electrically operated product before attempting to clean it.
- Direct spray away from electric outlets and switches.
- **NEVER** spray near power source.

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 supply, 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.

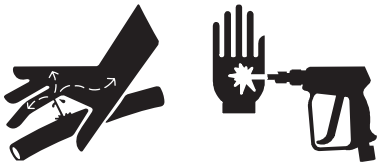
3. Safety Guidelines (continued)

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.

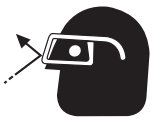
WARNING--RISK TO FLUID INJECTION



- **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 supply, 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 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.

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.

WARNING--RISK OF ELECTRICAL SHOCK

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

- Unplug any electrically operated product before attempting to clean it.
- Direct spray away from electric outlets and switches.
- **NEVER** spray near power source.

DANGER-- RISK OF CHEMICAL BURN

- **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 degreasers 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

DANGER-- RISK OF HOT SURFACES

- **Contact with hot surfaces, such as engines exhaust components, could result in serious burn.**

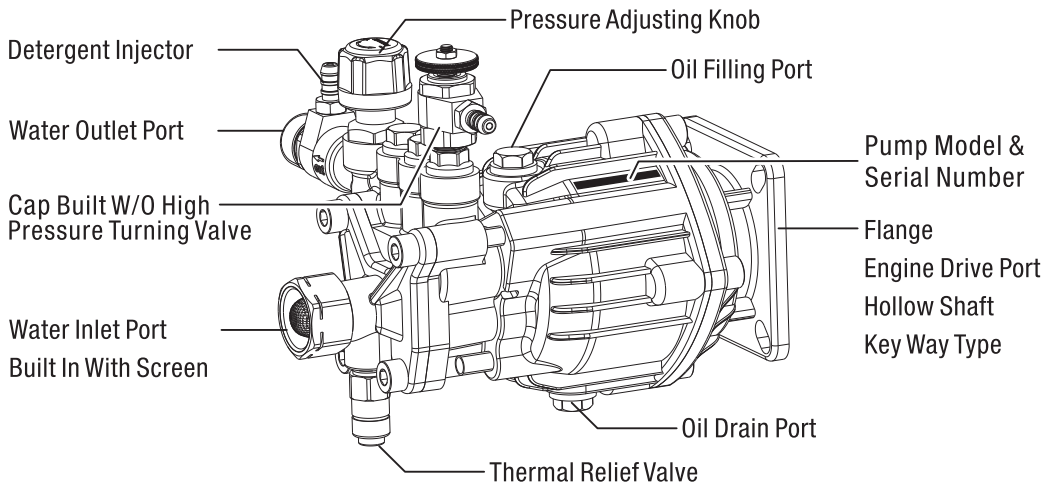
- During operation, touch only the control surfaces of the pressure washer.
- Keep children away from the pressure washer at all times. They may not be able to recognize the hazards of this product.
- **DO NOT** let hoses come in contact with very hot engine muffler during or immediately after use of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

4. Products Specifications

Model Name	3WA-2800B
Max Head Pressure	2800PSI/193BAR(+/-6%)
Flow rate (Pump full capacity)	2.8GPM/10.6LPM(+/-6%)
Pump Lubrication Oil Capacity	120ML
Engine Power/Displacement	6.5HP/196cc
Lubrication Oil Capacity	1.1L
Lubrication Oil Type	SAE10W-30 or 15W-40
Max. Feed Temperature	45°C
Min. Feed Volume	5allons per minute @ 20 psi

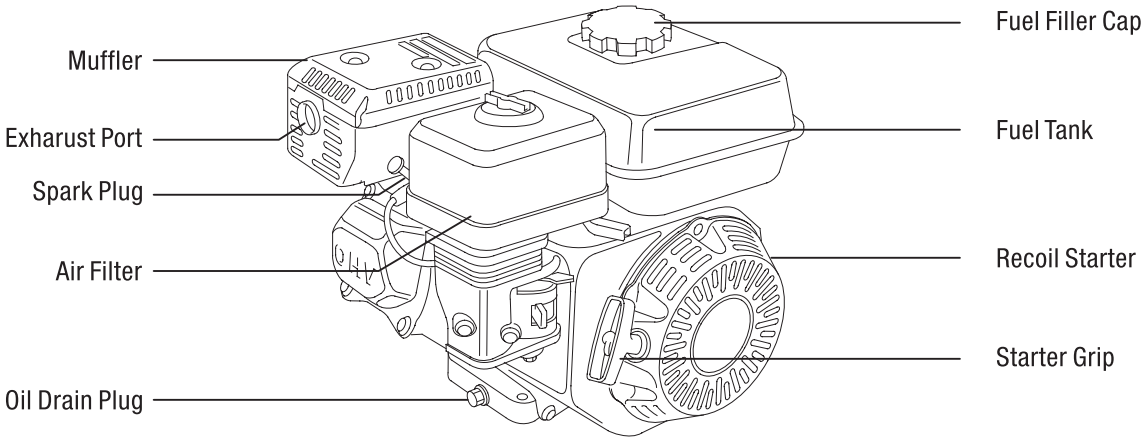
5. Parts Identification and Features

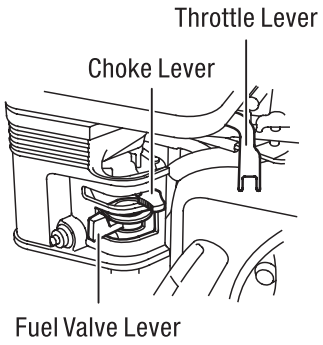
5.1 Axial Pump

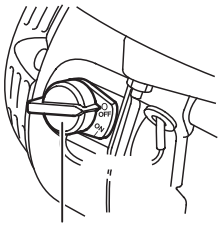


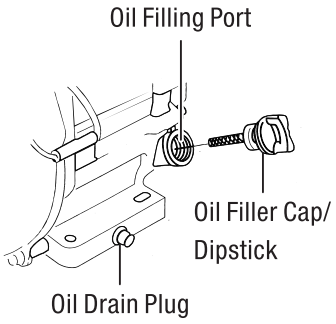
5. Parts Identification and Features (Continued)

5.3 Engine

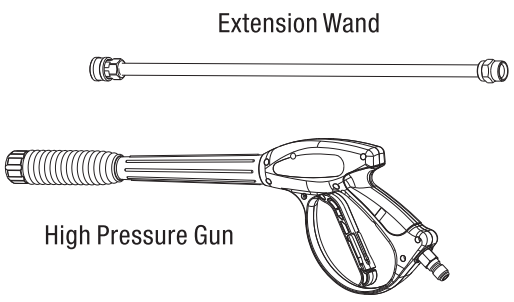


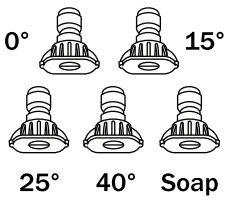




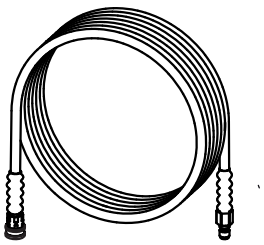


5.4 Standard Accessories





Colored High Pressure Nozzle
& Black Soap Nozzle



High Pressure Hose

5. Parts Identification and Features (Continued)

5.5 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.

5.6 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. High Pressure Turning Valve (If applicable): This is a valve can discharges the air in the pump and water in-taking pipe line, enhance pump sucking ability, and allow to suck from the barrel and 1M deep.

5.7 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: 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.

5.8 Accessories

1. Extension wand: To attach the spray tips on it.
2. High Pressure Hose: Connect one end to the water pump and the other end to the spray gun.
3. Spray Gun: Controls the application of water onto cleaning surface with trigger device. Includes safety latch.
4. Spray Tips: 0/15/25/40 degree and soap nozzle for various high pressure cleaning applications.

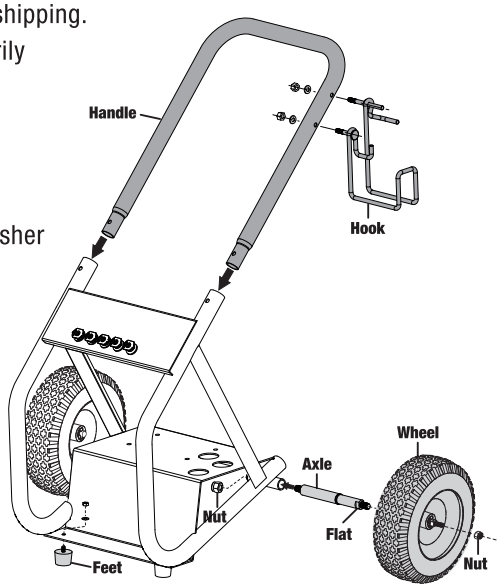
6. Unpacking & Assembly

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

> **⚠ CAUTION** **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.
4. If any parts are damaged or missing, please contact with the dealer.



6.2 Assembly the Wheel

1. Fit the axles into the axle ports as shown, secure with nut, spring washer and washer
2. Fit the wheels to the axles and secure with the nut and washer.

NOTE: Do not over tighten the nuts, the wheels must be able to rotate freely.

6.3 Assembly the Rubber Feet.

Fit the rubber feet to the legs as shown.

6.4 Assembly the Gun/Hose Hook

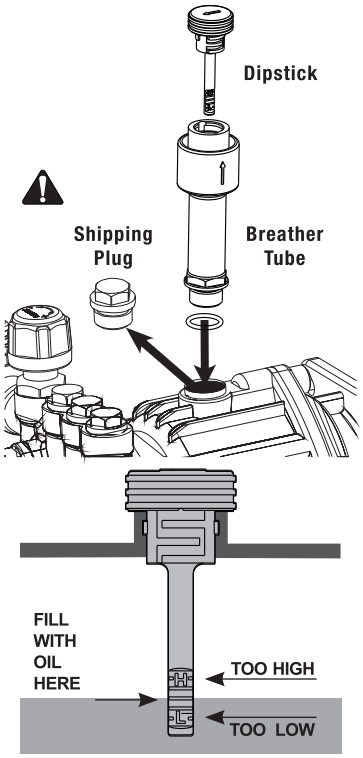
Fit the hook into the position shown and secure using the washers and nuts on the bracket

7. Setting Up Before Use

> **⚠ WARNING** **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.**

7.1 Adding Oil to Axial Pump

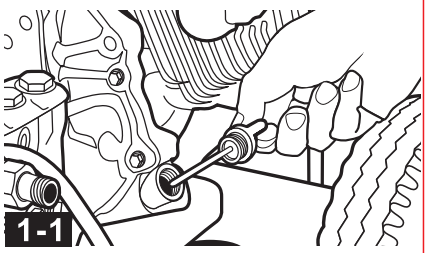
1. Using an 10mm open-end wrench or socket wrench, remove the oil plug from pressure pump. Save the plug.
2. Take out the oil dipstick form parts bag.
3. Insert the oil dipstick into the oil filling hole, and check the oil level, and add the oil if the level is lower than recommend, and do not over fill.
4. Reinsert the plug and tighten, make sure the O-ring is present on it, without O-ring or O-ring wear will leaking oil.
5. Oil type API SF **SAE 10W-30** or **15W/40**.
6. Change after the first 30 hours, then subsequently 100 hours.
6. 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.



7. Setting Up Before Use (Continued)

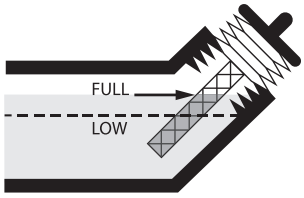
7.2. Add Oil To The Engine

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 oil bottle (not included) into oil fill opening.
4. Replace oil fill cap and fully tighten.


1-1

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

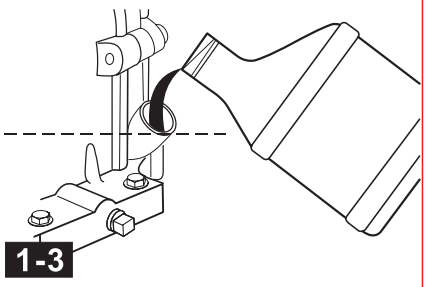
DO NOT attempt to crank or start the engine before it has been properly serviced with the recommended oil. This may result in an engine failure.



1-2

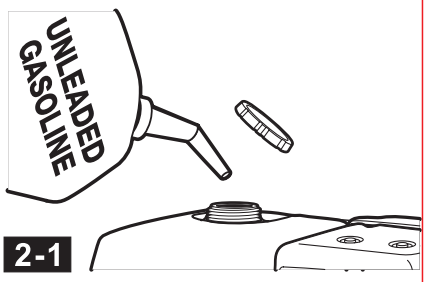
7.3 Add Fuel To the Engine

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


1-3

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).

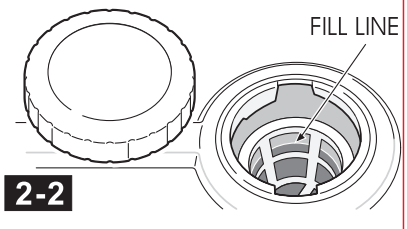
WARNING **Fuel and fuel vapor are extremely flammable and explosive. Fire or explosion from misuse of fuel can cause severe burns and even death.**



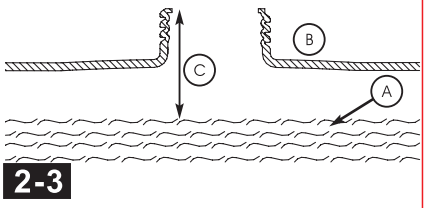
2-1

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.



2-2

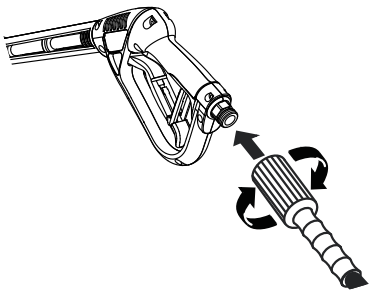


2-3

7. Setting Up Before Use (Continued)

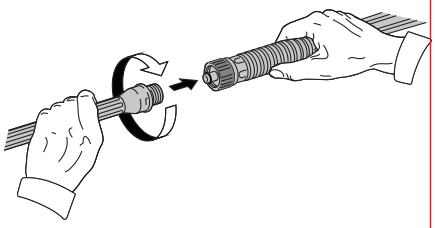
7.4 Attaching High Pressure Hose to Spray Gun

1. Insert the hose fitting pin into the gun fitting port.
2. Turn the swivel nut clockwise tightly on the gun male fitting.



7.5 Connecting Spray Wand to Spray Gun

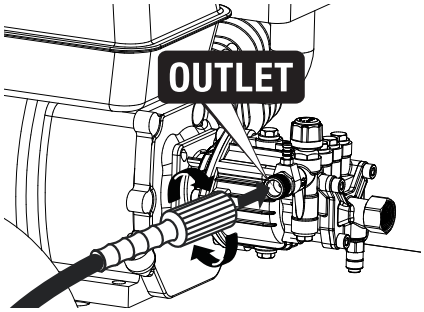
1.Thread spray wand onto spray gun.



7.6 Connect Hose and Water Supply to Pump

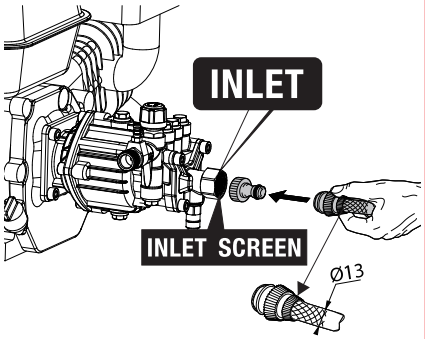
1. Similarly, attach other end of high pressure hose to high pressure outlet on pump. Pull down on collar of quick connect, slide onto pump and let go of collar. Pull on hose to be sure of tight connection.
2. Before connecting garden hose to water inlet, inspect inlet screen. Clean screen if it contains debris or have it replaced if damaged. DO NOT run pressure washer if inlet screen is damaged.
3. 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 than104°F /40°C).



4. Connect the garden hose (not to exceed 50 feet in length and with the ID no less than 13mm) to the water inlet. Tighten by hand.

5. Turn ON the water, squeeze the trigger to purge the pump system of air and impurities.



NOTICE

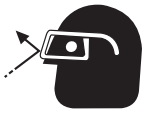
- **DO NOT** attempt to crank or start the engine before it has been properly serviced with the recommended oil.

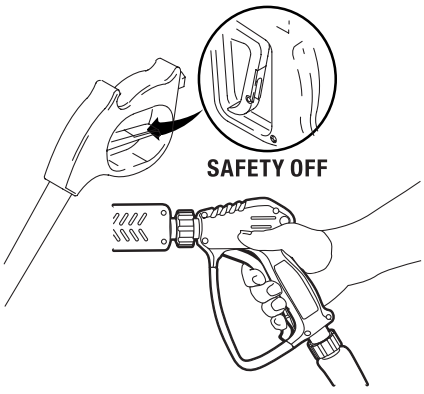
This may result in an engine failure. ● There **MUST** be at least ten feet (3 m) of unrestricted garden hose between the inlet and any device, such as a vacuum breaker or check valve. ● Damage to equipment resulting from failure to follow this instruction will **VOID WARRANTY.**

WARNING

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.





8. Safe Working Environment

Pressure Washer Location

Clearances and Air Movement

⚠ WARNING

- **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 washer including overhead.

Place pressure washer in a well ventilated area, which will allow for removal of deadly exhaust gas. Do not place pressure washer 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

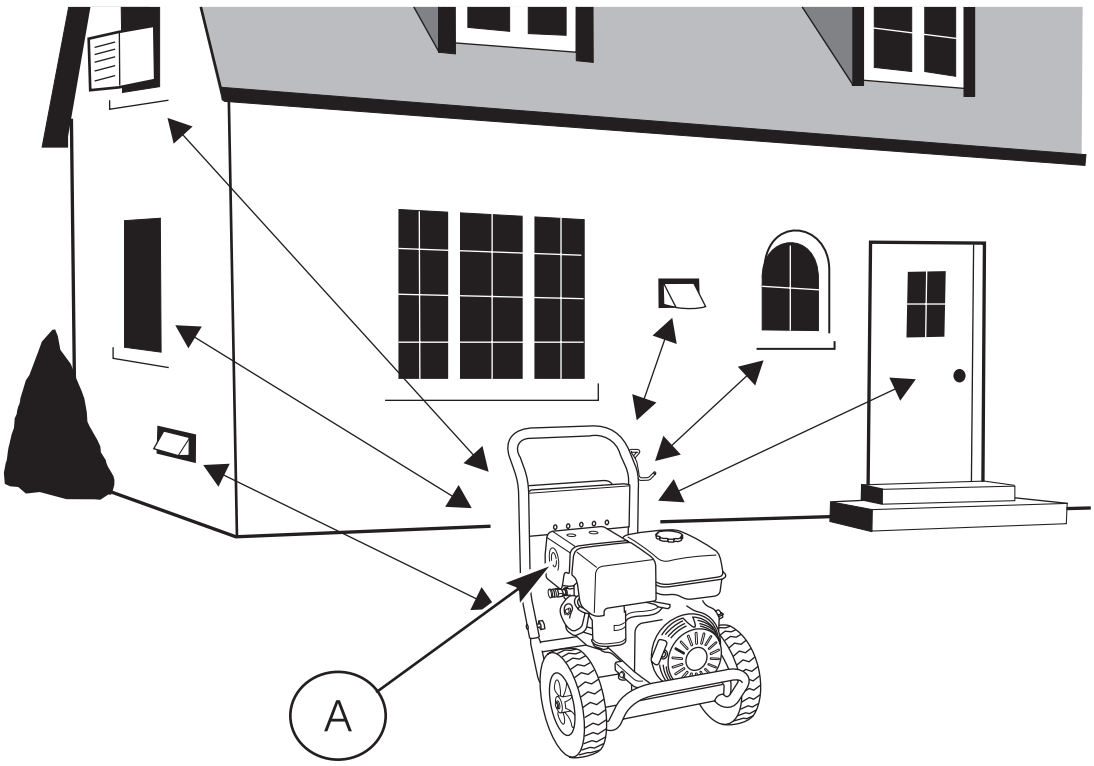
⚠ WARNING

- **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.

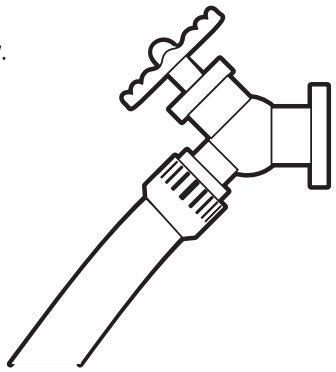
DO NOT start or run engine indoors or in an enclosed area, even if windows and doors are open.



9. Startup Procedure

9.1 How to Start Your Pressure Washer

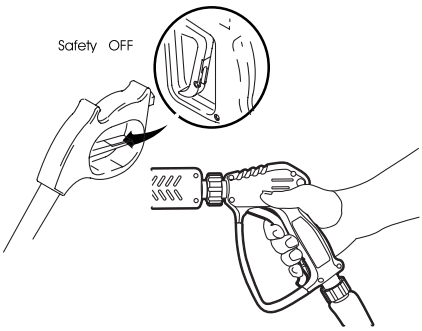
To start your pressure washer for the first time, follow these instructions step-by-step.
This starting information also applies if you have let the pressure washer sit idle for at least a day.



1. Place pressure washer 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.

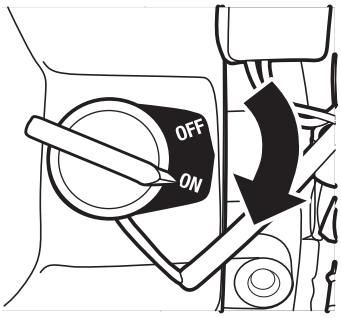
⚠ NOTICE **DO NOT run the pump without the water supply connected and turned on.**

Damage to equipment resulting from failure to follow this instruction will VOID WARRANTY.



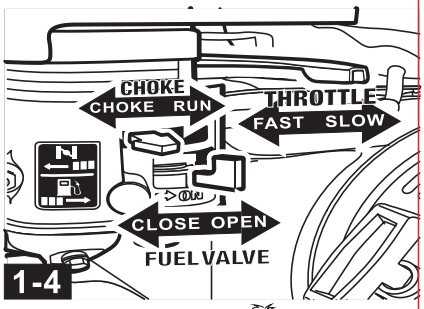
7. Attach wand to spray gun. Tighten by hand.
8. Choose the nozzle you want to use, pull back on collar of quick connector, insert nozzle and release collar. Tug on nozzle to make sure it is securely in place.
9. Rotate fuel shut-off valve to **"OPEN"** position.
10. Move throttle control lever 1/3 toward **"FAST"** Position.
11. Move choke lever to **"CHOKE"** position.

NOTE: For a warm engine, be sure the choke lever is in the **"RUN"** position.



IMPORTANT: Before starting the pressure washer, be sure you are wearing adequate safety goggles.

12. When starting engine, position yourself as recommended below and grasp starter grip handle and pull slowly until you feel some resistance. Then pull rapidly to start engine.
13. Return starter grip handle slowly. **DO NOT** let rope "snap back" against starter.
14. When engine starts, slowly move choke lever to **"RUN"** position, as engine warms. If engine falters, move choke lever to **"CHOKE"** position, then to **"RUN"** position.
15. After each starting attempt, where engine fails to run, always point gun in safe direction and squeeze spray gun trigger to release high pressure.
16. If engine fails to start after six pulls, move choke lever to **"RUN"** position, and repeat steps 13 through 15.

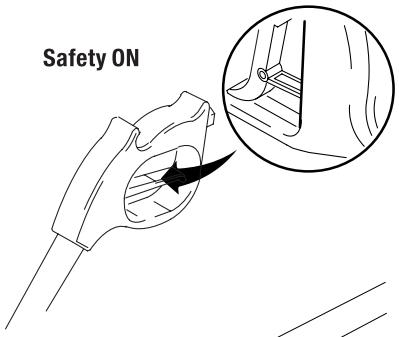


IMPORTANT: Allow the Engine to run at no load, low pressure for five minutes after each start-up so Engine can stabilize.

10. Using Nozzles

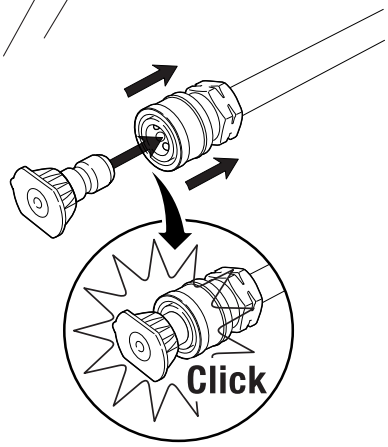
10.1 Attaching Pressure Nozzles to Spray Wand

1. Engage trigger lock on spray gun.
2. Pull slip ring on female quick-disconnect fitting of spray wand back.
3. Insert nozzle into female quick-disconnect socket on spray wand.
4. Release slip ring on female quick-disconnect and twist. Listen for **"LICK"** to ensure both quick-disconnects are coupled.
5. Pull the nozzle and spray wand in opposite direction to ensure they do not separate.

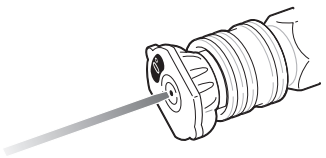


10.2 Nozzle Size Guide

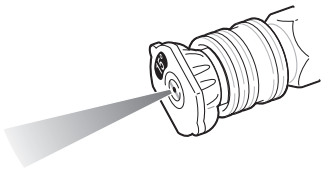
The pressure washer comes with five spray nozzles. Each nozzle is color coded and delivers a specific spray pattern and pressure for a particular cleaning job. The size of the nozzle determines the size of the fan spray and the pressure out of the nozzle. The are stored in receptacles on a panel mounted to the handle of the washer. Colors on the panel identify nozzle location and spray panel.



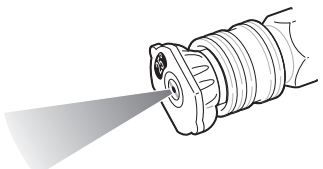
⚠ WARNING ● Pressure washer produces fluid pressures and velocities high enough to penetrate human and animal flesh which could result in serious injury or amputation. ● Do not point pressure washer in direction of people or animals. ● High velocity fluid spray can cause objects to break, propelling particles at high speeds.



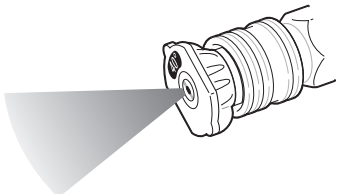
0°Nozzle - Red: This nozzle delivers a pinpoint stream of pressurized water and is extremely powerful. It covers only a small area of cleaning. This nozzle should only be directed at surfaces that can withstand high pressure such as metal or concrete. Do not use this nozzle to clean wood.



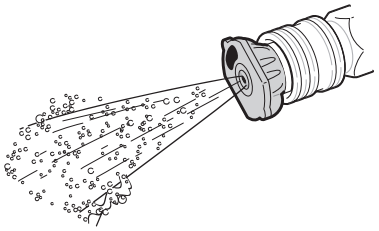
15°Nozzle - Yellow: This nozzle delivers a powerful 15 degree spray pattern for intense cleaning of small areas. This nozzle should only be used on areas and materials that can withstand high pressure.



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



40°Nozzle - White: This nozzle delivers a 40 degree spray pattern and a less powerful stream of water. This nozzle can cover a wide area and should be used for most general cleaning jobs.



Chemical Nozzle - Black: This nozzle is used to apply special chemicals and cleaning solutions. This nozzle produces the weakest pressure stream of the five nozzles.

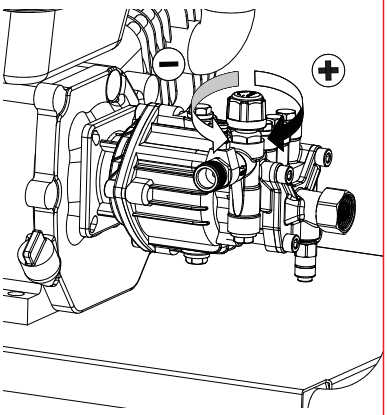
10.3 Interchanging Pressure Nozzles

Turn off pressure washer before attempting to change nozzles. Follow the steps below:

1. Pull slip ring of quick-disconnect back and remove pressure nozzle.
2. Flow the 13.1.3-5 process to insert the nozzle.

⚠ WARNING Never place hands in front of nozzle. Never grasp hose or fittings during pressure washer operation. Never attempt to attach or remove spray wand or hose fittings while pressure washer system is pressurized.

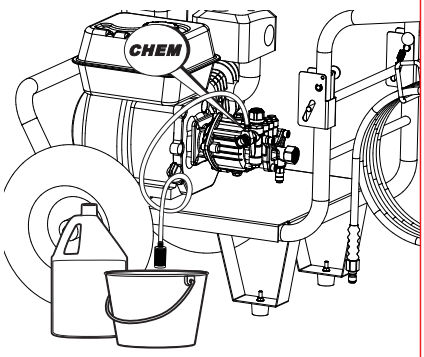
11. Adjusting Spray Pressure



Pressure Washer Rinsing

1. Remove black spray tip from nozzle extension.
2. Select and install desired high pressure spray tip following instructions How to Use Spray Tips.
3. Keep spray gun a safe distance from area you plan to spray.
4. Increase (decrease) spray pressure by turning pressure control knob clockwise (counterclockwise). Use lower pressure to wash items such as a car or boat. Use higher pressure to strip paint and degrease driveways.
5. Apply a high pressure spray to a small area and then check surface for damage. If no damage is found, you can assume it is okay to continue rinsing.
6. Start at top of area to be rinsed, working down with same overlapping strokes as you used for cleaning.

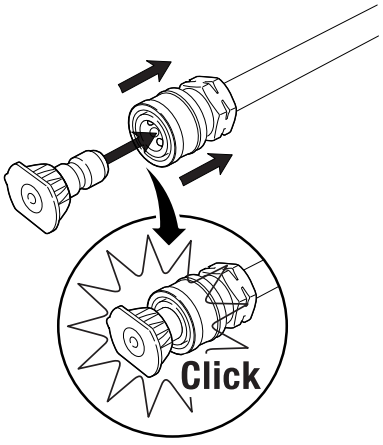
12. Using Chemicals & Detergents



NOTE: Use only detergents designed for pressure washers; household detergents, acids, alkalines, bleaches, solvents, flammable material, or industrial grade solutions can damage the pump. Many detergents may require mixing prior to use. Prepare cleaning solution as instructed on the solution bottle.

12.1 Set Up Procedure:

1. Attach the chemical hose onto the barbed fitting situated near the back of the high pressure hose connection.
2. Press the other end of the chemical hose (with the filter attached) into the container holding the chemicals or detergents you are using.
3. Attach the chemical nozzle onto the lance as shown previously .



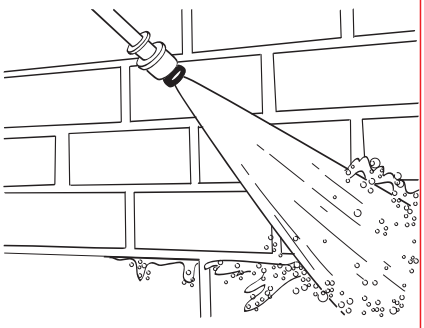
12.2 Chemical Cleaning

1. Spray the chemicals onto a dry surface using the procedures outlined in previous sections. Start at the lower portion of the cleaning area and working upwards, using long, even, overlapping strokes.
2. Always ensure that the filter is fully submerged in the cleaning solution at all times.
3. Allow the detergent to soak in for 3-5 minutes before washing and rinsing.
4. Re-apply as needed to prevent the surface from drying. Do not allow the detergent to dry on to the cleaning surface to prevent streaking.

NOTE: Detergent cannot be applied with the high pressure spray tips (white, green, yellow or red)

12.3 After Chemical Cleaning

IMPORTANT: You will need to flush the detergent siphoning system after each use by placing the filter into a bucket of clean water then run the pressure washer in low pressure for 1-2 minutes.



1. After using chemicals, soaps and detergents it is necessary to thoroughly clean the pressure washer.
2. Place the chemical hose in a container of clean water.
3. Turn on the pressure washer and hold the trigger on the spray gun top draw clean water through the system to clean it thoroughly.

13. Maintenance

To ensure efficient operation and longer life of your pressure washer 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.

13.1 Engine:

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

13.2 Pump Oil:

Change the pump oil regularly. Change the pump oil after the first 30 hours of work and successively every 100 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.**

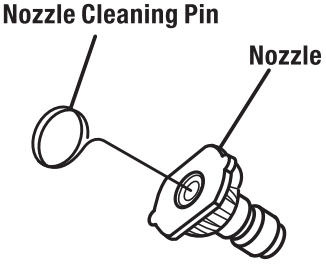
Used motor oil has been shown to cause skin cancer in certain laboratory animals. Thoroughly wash exposed areas with soap and water.

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

13.3 Nozzle Tips:

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 / disconnect the water supply.
2. Pull the 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 and back flush with clean water.
5. Direct the water supply into the spray wand end to back flush loosened particles for 30 seconds.
6. Reassemble the nozzle onto 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 the high pressure setting to test.

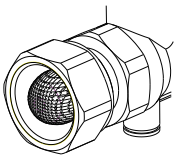


13. Maintenance (Continued)

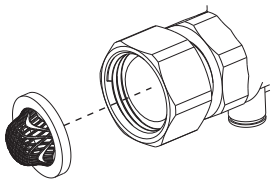
13.4 Cleaning The Water Filter:

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.



Water Filter In-place



Water Filter Removed

13.5 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.

⚠ WARNING

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.

13.6 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.

13.7 Maintenance Schedule

Item	Task Description	Each Use	1st Month (20Hrs)	Frequency Each Season (50Hrs)	EVERY 6 Months (100Hrs)	Every YEAY (300Hrs)
Engine Oil	Oil Level Check	•				
	Replace		•		•	
Reduction Gear Oil (If applicable)	Oil Level Check	•				
	Replace		•		•	
Air Cleaner/filter	Check	•				
	Clean			•x	•x	
	Replace					•
Deposit Cup	Clean				•	
Spark Plug	Clean,Adjust				•	
	Replace					•
Spark Eliminator	Clean				•	
Idling	Check,Adjust					•Δ
Valve Clearance	Check,Adjust					•Δ
Fuel Tank & Filter	Clean					•Δ
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

Δ= Maintenance to be carried out by Dealer approved technician

14. Storage

14.1 After General / Regular Use

1. Drain all water from the high pressure hose, coil it and hang on the cradle on the petrol washer frame. If chemicals where used ensure the pump and chemical hose are thoroughly cleaned out.
2. Drain all the water from the gun and lance by holding the gun in a vertical position with the nozzle end pointing down and squeeze the trigger. Store in the gun/hose holder.

14.2 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.

14.3 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:

* = 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

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.

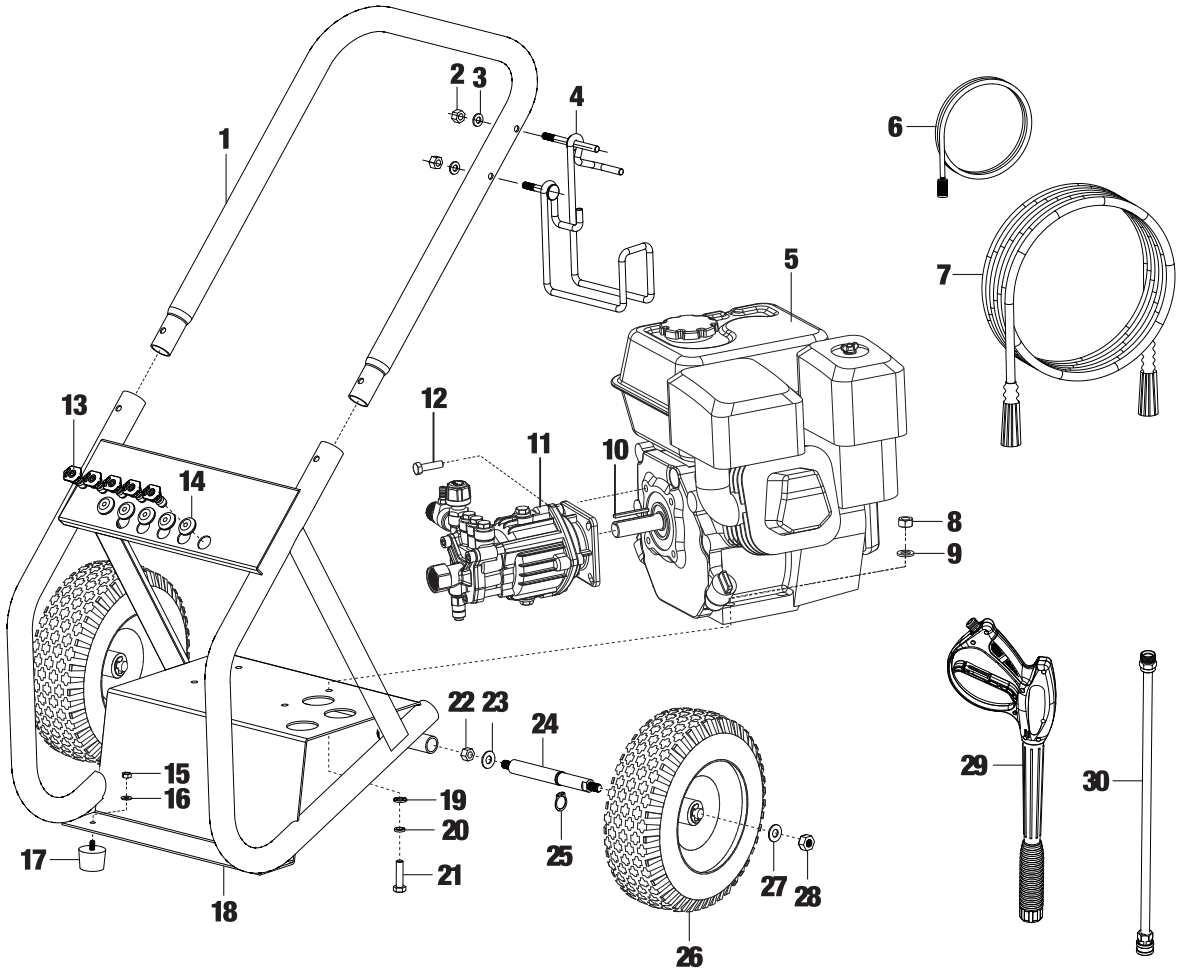
15. Troubleshooting

PROBLEM	PROBABLE CAUSE	SOLUTION
Engine shuts down when running.	1.Out of fuel. 2.Low Engine Oil	1.Fill fuel tank. 2. Add oil.
Engine will not start; or starts and runs rough.	1.Rocker switch set to "OFF" position. 2.Fuel valve is in "OFF" position. 3.Dirty air cleaner 4.Out of fuel. 5.Stale fuel. 6.Spark plug wire not connected to spark plug. 7.Bad spark plug. 8.Water in fuel. 9.Flooded. 10.Excessively rich fuel/air mixture. 11.Intake valve stuck open or closed. 12.Engine has lost compression. 13.Low engine oil. 14.Wrong Fuel. 15.Engine is too hot 16.Chock is in wrong position 17.Pressure Builds up after 2 pulls on recoil starter or after initial use.	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 17.Squeeze gun trigger to relieve pressure.
Engine "Hunts" or falters.	1.Carburetor Is running too rich or too lean.	1.Contact authorized service facility.
Engine lacks power.	1.Cylinder pressure is low. 2.Dirty air cleaner	1.Contact authorized service facility. 2.Replace air filter.
No pressure or Low pressure.	1.Spray wand not set to high pressure. 2.Lower water supply. 3.Hose fitting leaks during high pressure. 4.Nozzle obstructed. 5.Water filter screen obstructed. 6.Defective thermal relief valve. 7.Air in hose. 8.Choke lever in choke position. 9.Throttle control lever is hot in fast position. 10.High pressure too long.	1.See "Using Spray Wand" section. 2.Water supply must be 5 GPM @ 20 psi. 3.Tighten hose fitting. Use thread sealant tape if necessary. 5.Remove and clean filter. 6.Call Customer Service: 7.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. Squeeze trigger to remove remaining air. 8.Move choke to NO CHOKE position. 9.Move throttle control lever from fast position. 10.Use High pressure hose under 100 ft (30M).

15. Troubleshooting (Continued)

PROBLEM	PROBABLE CAUSE	SOLUTION
Pump will not draw Chemicals	1.Spray wand not set to low pressure.. 2.Chemical filter clogged. 3.Chemical screen not in chemical. 4.Chemical solution too thick. 5.Pressure hose too long 6.Chemical build-up in chemical injector.	1.See "Using Spray Wand" section. 2.Clean Filter. 3.Ensure end of chemical hose is fully submerged into chemicals. 4.Dilute chemical. Chemical solutions should have same consistency as water. 5.Lengthen water supply hose instead of pressure hose. 6.Have parts cleaned or replaced by authorized dealer.
No or low pressure (after period of normal use).	1.Worn seal or packing. 2.Worn or obstructed valves. 3.Worn unloader piston. 4.Worn E-Z start valve.	Have parts cleaned or replaced by authorized dealer.
Water leaking at spray gun/spray wand connection.	1.Worn or broken O-ring. 2.Loose hose connection.	1. Check and replace O-ring. 2. Tighten hose connection.
Water leaking at pump.	1.Loose connections. 2.Piston packings worn. 3.Worn or broken O-rings. 4.Pump head or tubes damaged from freezing.	1.Check and replace O-ring 2.Tighten hose connection. 1.Tighten connections. 2.Have parts cleaned or replaced by authorized dealer. 3.Have parts cleaned or replaced by authorized dealer. 4.Have parts cleaned or replaced by authorized dealer.
Oil leaking at pump	1.Oil seals worn. 2.Loose drain plug. 3.Worn drain plug O-ring. 4.Worn fill plug O-ring. 5.Pump overfilled. 6.Incorrect oil used. 7.Vent plug clogged.	1. Have parts cleaned or replaced by authorized dealer. 2.Tighten drain plug. 3.Inspect and replace O-ring. 4.Inspect and replace O-ring. 5.Check for correct amount. 6.Drain and refill with correct type and amount of oil. 7.Cleanvent plug. Use air hose to free it of blockage. If problem persists, replace vent plug.
Pump pulsates	Nozzle obstructed.	See "Using Spray Wand" section.

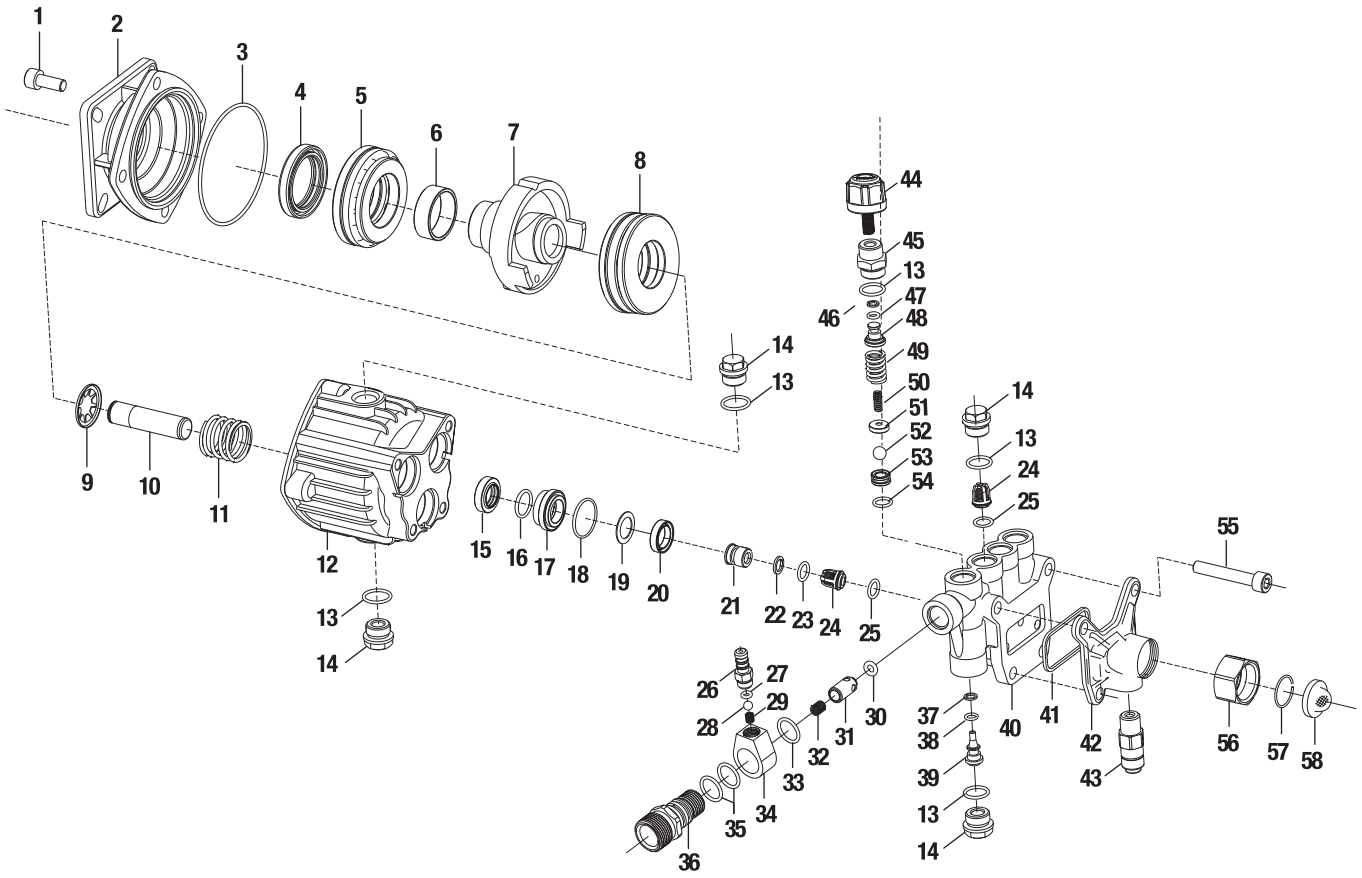
16. Pressure Washer Exploded View & Parts List



Parts List

REF NO.	DESCRIPTION	REF NO.	DESCRIPTION	REF NO.	DESCRIPTION
1	Handle	11	Pump assy	21	Bolt
2	Nut	12	Bolt	22	Nut
3	Washer	13	Nozzle	23	Washer
4	Gun holder	14	Rubber grommet	24	Axle
5	Engine	15	Nut	25	Clip ring
6	Detergent hose kit	16	Washer	26	Wheel
7	High pressure hose	17	Rubber feet	27	Washer
8	Nut	18	Frame assy	28	Nut
9	Washer	19	Plan washer	29	Gun
10	Key	20	Spring washer	30	Wand

16. Pump Exploded View & Parts List

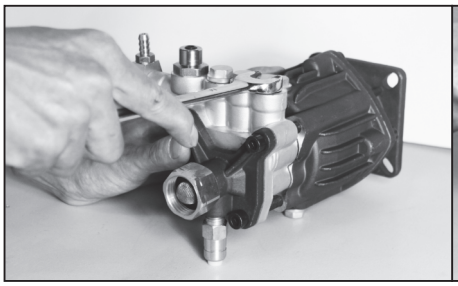


Parts List

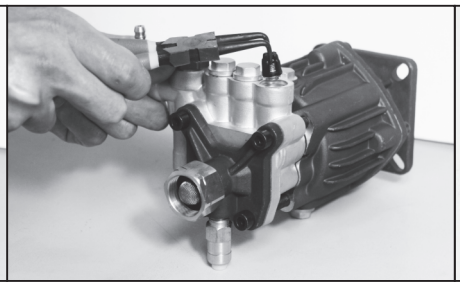
NO.	DESCRIPTION
1	Socket Head Screw M8X16
2	Pump Basal Flange
3	O-Ring(80X2.2)
4	Radial Shaft Seal
5	Rear Bearing
6	Wearable Sheath
7	Wobble Plate
8	Front Bearing
9	Spring Disk
10	15mm Plunger
11	Plunger Spring
12	Crankcase
13	O-Ring(14.2X1.9)
14	Plug
15	15mm Oil Seal
16	O-Ring(15X2.2)
17	Spacer
18	O-Ring(21.8X1.9)
19	Compaction flake
20	15mm Water Seal
21	Inlet Valve Plug
22	Backup Ring
23	O-Ring(9.8X1.9)
24	Checking Valve
25	O-ring (9.8X1.9)
26	Chemical Hose Barb
27	O-Ring
28	Ball
29	Small Cone Spring
30	O-Ring(5.3X2.65)
31	Outlet Cone Valve
32	Cone Valve Spring
33	O-Ring(12.2X2.6)
34	Soap Siphon Body
35	O-ring
36	Outlet connector
37	Backup Ring
38	O-Ring (9.25X1.78)
39	Backwater Valve Core
40	Pump Manifold
41	Seal Gasket
42	Water Inlet Body
43	Thermal Relief Valve
44	Adjusting Screw
45	Adjusting Screw Plug
46	Backup Ring
47	O-Ring
48	Spring Holder
49	Big Pressure Spring
50	Small Pressure Spring
51	Ball Holder
52	Steel Ball 8.7
53	Backwater Valve Port
54	O-Ring 9.25X1.78
55	Manifold Hold Bolt
56	Water Inlet Swivel Nut
57	Clip Ring 21.4
58	Water Inlet Filter

17. Pump Maintain Instruction

17.1 Outlet Checking Valve Maintain

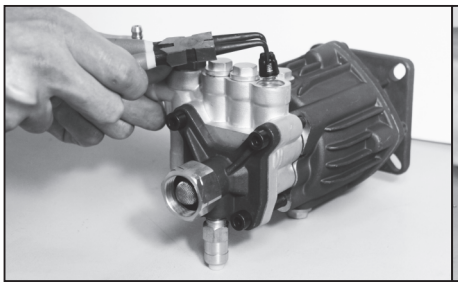


01. Hold the pump firmly, use the open-end wrench (size 14) to open the valve cap.

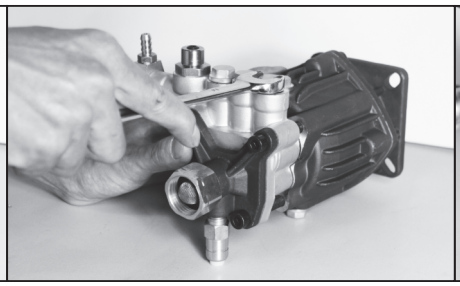


02. Use the internal circlip pliers to take out the checking valve.

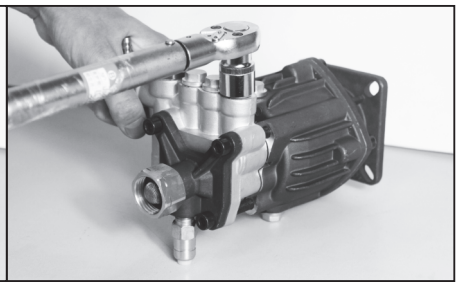
03. Check and clean the valve, change if there is any damage



01. Put back the valve, and make sure the valve is in place.



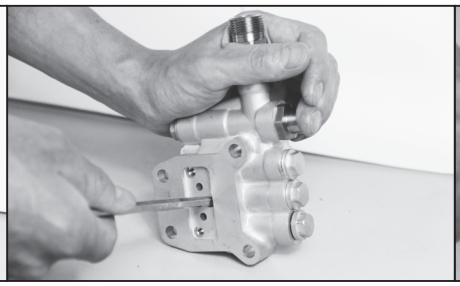
02. Hold the pump firmly, use the open-end wrench(14mm) to tighten the valve cap, do not over tighten.



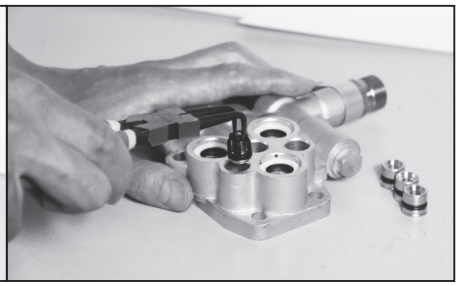
03. Hold the pump firmly, use the torque wrench to tighten the valve cap with the torque 25N/m.

17.2 Inlet Checking Valve Maintain

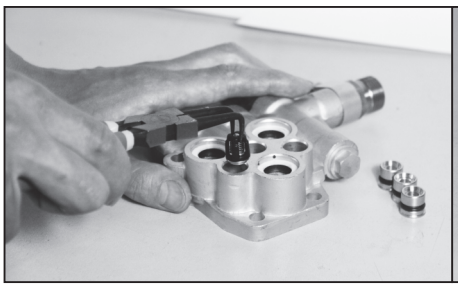
01. Hold the pump firmly, use the Inner Hexagon spanner to loose the four bolts (M8).



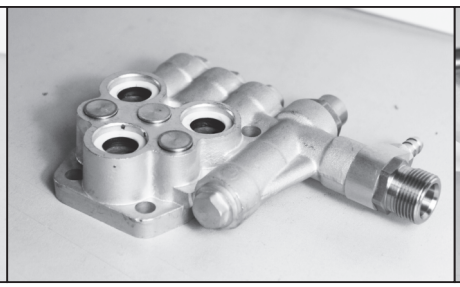
02. Use a small bar tool to put through the valve hole and poked the valve plug.



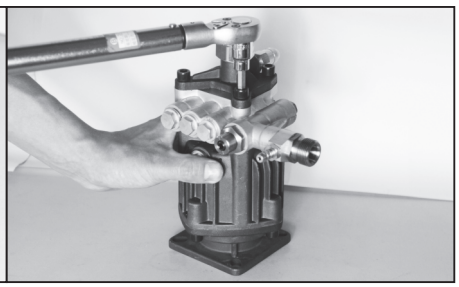
03. Take out the valve, check and clean the valve, change if there is any damage



01. Put back the valve, and make sure the valve is in place.

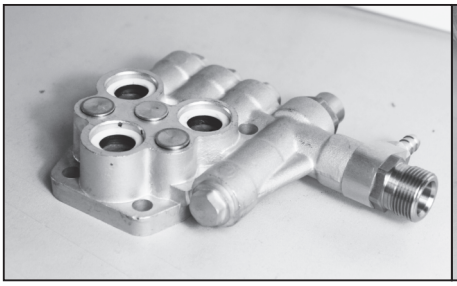


01. Put back the valve cap, and push the cap in to the hole completely

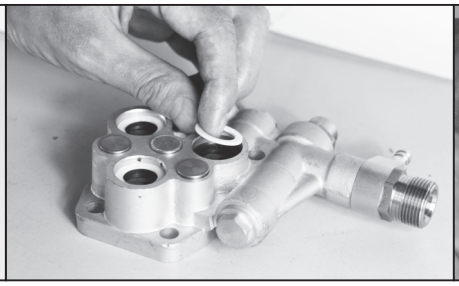


03. Hold the pump firmly, use the hexagon head torque wrench to tighten the holding bolts with the torque 25N/m.

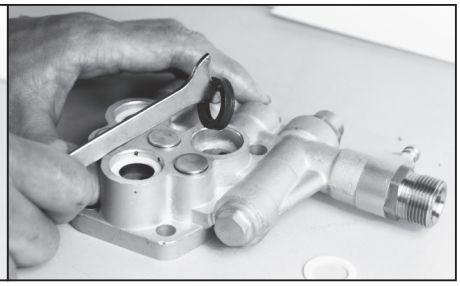
17.3 Water Seal Maintain



01. Disassembly the pump, and take the head assembly and put flat.



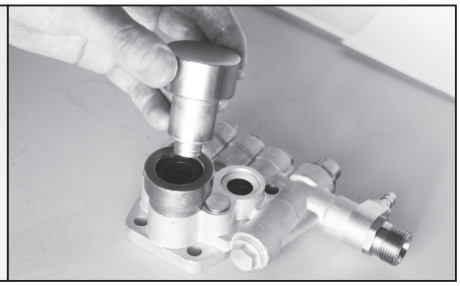
02. Use the finger to take out the seal compression ring .



03. Use the special tool to take out the water seal. Check and change if there is any damage

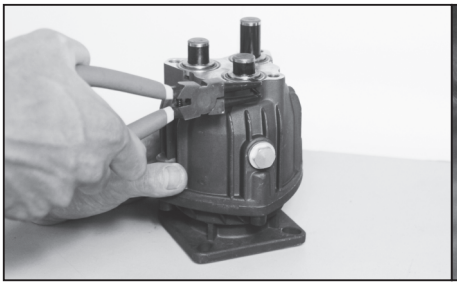
01. To put back water it is better to use the special tooling, contains one guiding tube and one plug.

02. Put the seal in to the guiding tube, put in place.



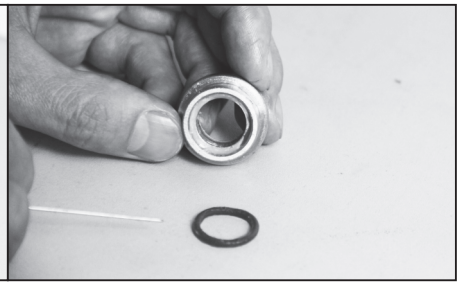
03. Put the plug to push done the seal completely, take out the guiding tube and check if the seal is put in place. Put back the head on pump.

17.4 Water Checking O-ring Maintain

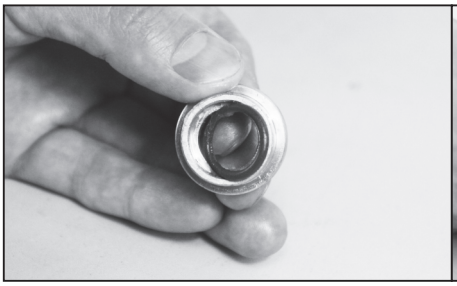


01. Use the circlip pliers to take spacer which holding the checking ring.

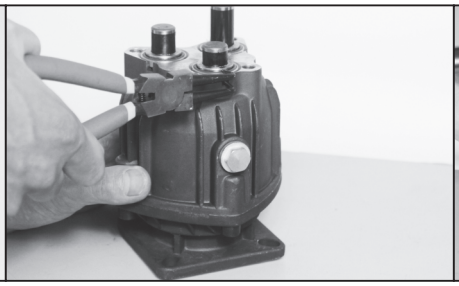
02. Use a small pin or paper clip to take out the o-ring which place inside the spacer.



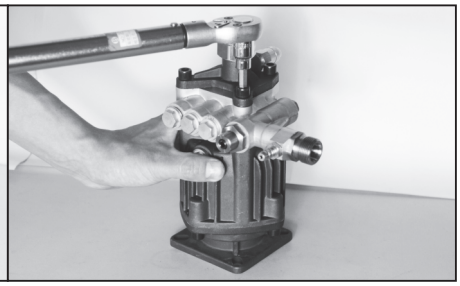
03. Check the water checking ring, change if there is any damage



01. Hand put back the checking ring, and make sure it is put in place.



02. Use the circlip pliers to put back the spacer, make sure it is put in place.



03. Hold the pump firmly, use the hexagon head torque wrench to tighten the holding bolts with the torque 25N/m.

IMPORTANT! SAFETY FIRST!

Before attempting to use this product(s) please read all of the safety precautions and operating instructions outlined in this manual to reduce the risk of damage to the products and personal injury.