

#### **ORIGINAL INSTRUCTIONS**

#### **HP SERIES**

# GASOLINE PRESSURE WASHER

# **OPERATOR'S MANUAL**



Read this manual carefully before operation. This manual includes important guidance for safety operation.

This Manual contains important safety information and instructions for operating this pressure washer. PLEASE READ THIS MANUAL CAREFULLY. Failure to do so could result in property damage and/or personal INJURY/DEATH.

Provide this manual to any operator of this pressure washer. This manual should be considered as a permanent part of your washer and should remain with it when you sell it.

The pictures and figures provided herein are only for typical expression of the series of production. The pictures and figures may differ from the material object and are only used for reference. (The engine reference GB200)

All information in this publication is based on the latest product information available at the time of printing. We reserve the right to change, alter and/or improve the product and this document at any time without notice and without incurring any obligation.

No part of this publication shall be copied or reproduced without any written permission. Write down the engine's serial number and purchase information. Keep this manual and the receipt for future reference.

Model:	
Serial number:	
Date of purchase:	

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# I. Operator safety

#### 1.Safety rules



Pay attention to this safety alert symbol. Obey all safety messages that follow this symbol to avoid possible property damage, INJURY or DEATH.

Each safety message is preceded by a safety alert symbol and one of three words, DANGER, WARNING, or CAUTION.

#### **△** DANGER

Indicates a hazardous situation which, if not strictly complied with, will result in substantial property damage, serious injury or DEATH.

#### **△** WARNING

Indicates a hazardous situation which, if not strictly complied with, may result in property damage, serious injury or DEATH.

#### **△** CAUTION

Indicates a hazardous situation which, if not strictly complied with, could result in property damage or injury.



**⚠ WARNING** 

# READ THIS MANUAL COMPLETELY BEFORE OPERATING.

DO NOT operate this washer until you have read ALL safety, operation, and maintenance Instructions listed in this manual.

Failure to follow the instructions may result in property damage, INJURY or DEATH.

The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be possessed by the operator.

# **△WARNING**

Unauthorized modified any part of the generator or for any unsuitable usage is allowed.

# **△** WARNING

Before each use, check for loose or damaged parts, signs of oil or fuel leaks, and any other condition that may affect proper operation. Repair or replace all damaged or defective parts immediately.

Locate all operating controls and safety labels.

Keep all safety guards in place and in proper working order at all times.

DO NOT allow any material to block the cooling slots.

DO NOT allow children or untrained persons to operate the engine.

DO NOT run the washer unattended. Turn off the washer before leaving.



# **⚠ WARNING**

#### **KICKBACK**

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.

Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains could result.

# **⚠ WARNING**

Read the instructions provided with the equipment that powered by this engine for any additional safety rules that should be observed in conjunction with washer startup, shutdown, operation, or protective apparel that may be needed to operate the equipment.

- ◆Use caution when positioning the pressure washer for use. Warm air from engine could cause discolored spots on grass.
- ◆ Never direct a water stream toward people or pets, or any electrical device.
- ◆Before starting any cleaning operation, close doors and windows. Clear the area to be cleaned of debris, toys, outdoor furniture, or other objects that could create a hazard.
- ◆Never pick up or carry a machine while the engine is running.
- ◆Never starting the machine if ice has formed in any part of the equipment.
- ◆Do not use acids, alkalines, solvents, flammable materials, bleaches, or industrial grade

solutions in this product. These products can cause physical injuries to operator an irreversible damage to the machine.

- ◆ Always operate the machine on a level surface, if the engine is on an incline, it could seize due to improper lubrication (even at the maximum lubricant level).
- ◆WARNING: High pressure jets can be dangerous if subject to misuse. The jet must not be directed to persons, animals, electrical devices, or the machine itself.
- ◆Hold the trigger handle securely with both hands. Except the trigger handle to move when the trigger is pulled due to reaction forces. Failure to do so could cause loss of control and injury to yourself and others.
- ◆ Never attempt to make any adjustments while the engine (motor) is running (except where specially recommended by the manufacturer).
- ◆ Protective covers must always cover rotating parts when the engine is running.
- ◆Keep cooling air intake (starter grip and rope area) and muffler side of the engine at least 3 feet away from buildings, obstructions, and other

combustible objects.

- ◆Keep the engine away from flammables and other hazardous materials.
- ◆Keep away from hot parts. The muffler, exhaust gases, and other engine parts become very hot. Do not touch muffler or place any body parts in the path of hot exhaust gases, which can cause burns and other serious personal injuries.
- ◆Do not touch the spark plug and ignition cable when starting and operating the engine.
- ◆Check fuel hoses and joints for looseness and fuel leakage before each use.
- ◆Always refuel outdoors. Never refuel indoors or in a poorly ventilated area.
- ◆ Never store the machine with fuel in fuel tank inside a building where ignition sources are present, such as hot water and space heaters, clothes dryers, and the like.
- ◆ If the fuel tank has to be drained, do this outdoors into a container approved for gasoline and away from all ignition sources.
- ◆To reduce the risk of fire and injury, handle fuel with care. It is highly flammable.

- ◆Do not smoke while handling fuel.
- ◆Add fuel before starting the engine. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot.
- ◆Loose fuel cap slowly to release pressure and to keep fuel from escaping around the cap.
- ◆ Replace all fuel tank and container caps securely.
- ◆Wipe spilled fuel from the unit. Move 30 feet away from refueling site before starting engine.
- ◆If fuel is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.
- ◆ Never attempt to burn off spilled fuel under any circumstances.
- ◆Before storing, allow the pressure washer to cool for 30 minutes and drain the fuel from the unit.
- ◆Store fuel in a cool, well-ventilated area, safely away from spark and/or flame-producing equipment.

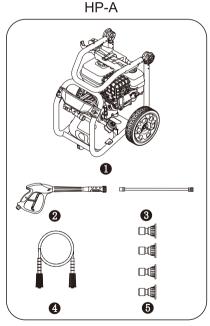
- ◆ Store fuel in containers specifically designed for this purpose.
- ◆Empty fuel tank and restrain the unit from moving before transporting in a vehicle.
- ◆When servicing use only recommended or equivalent replacement parts. Use of any other parts may create a hazard or cause product damage.
- ◆ONLY use cold water.
- ◆ Make sure minimum clearance of 3 feet is maintained from combustible materials.
- ◆ Never spray close to the surface to be cleaned as you can damage the surface.
- ◆ After stopping the engine, always pull the trigger on the trigger handle to relieve the stored pressure in the high pressure hose. Failure to do so could result in serious personal injury.
- ◆Ensure the high-pressure hose is properly connected before using the product.
- ◆For outdoor use only.

# **II. Before Operating**

#### 1. Unpacking

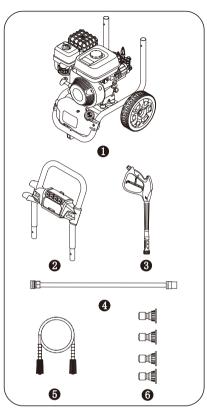
# Remove the high pressure washer from the Shipping Carton

- a. Place the shipping carton on a solid, flat surface.
- b. Carefully cut each corner of the carton box from top to bottom. Fold each side flat on the ground.
- c. Remove everything from the carton except the high pressure washer.



- HP-A pressure washer
- 2 Pistol grip 4 Pressure pipe
- 3 Gun barrel 5 Pressure jet

#### HP-B



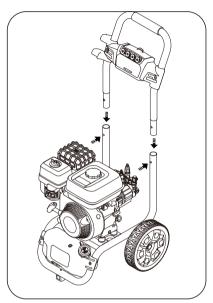
- HP-B pressure washer
- Handrail
- 3 Pistol grip 5 Pressure pipe
- 4 Gun barrel 6 Pressure jet

#### 2. Assembly

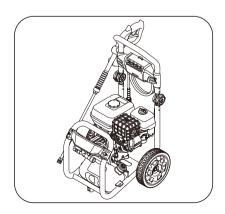
Your pressure washer requires some assembly. If you have any questions regarding the assembly of your washer, please have your model number and serial number ready and consult your local dealer for help.

# 1 Mounting handrail

Press the clamp besides each end of handrail, and then insert the handrail onto rack till "peng" sound happens.

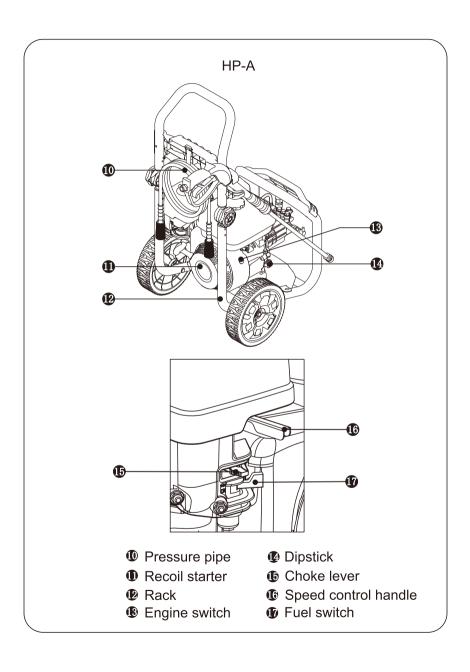


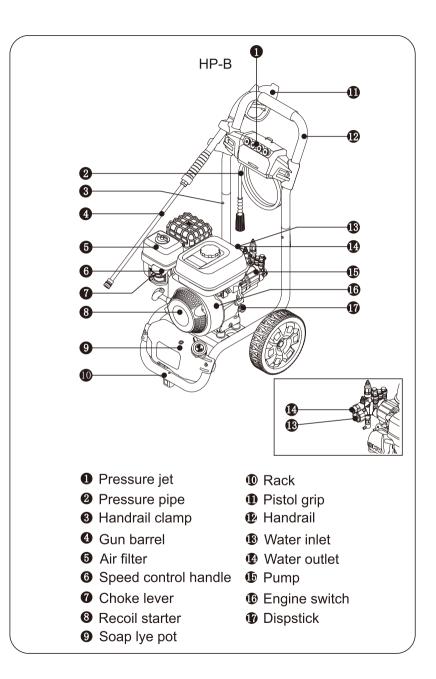
# Put water pipe and pressure jet



#### 3. Features and Controls

# HP-A Pressure jetHandrail Fuel cap 2 Gun barrel 8 Connecting nut Water outlet Air filter Soap lye pot **6** Pistol grip





# III. Operating

#### 1. Operating checklist

# 1

#### **Operating Location**

Only use OUTSIDE and place the washer in a well-ventilated area and only operating washer in a suitable usage, consult your local authorized dealer if you have any question about engine usage.

Place the washer on a stable and flat surface, and keep surroundings clean and dry.

Additional rules may be comply if washer is used in some specific area and condition, consult your local authorized dealer for more information.



# **△** DANGER

#### **TOXIC FUMES**

The exhaust of the engine contains carbon monoxide, an odorless, colorless, poison gas. Using engine indoors CAN KILL YOU!

NEVER use inside any building or any kind of enclosure, EVEN IF doors and windows are open.

Place the engine in a well-ventilated area and carefully consider wind and air currents when positioning the engine.

# 2

#### **Operating Condition**

Check for loose or damaged parts, signs of oil or fuel leaks, and any other condition that may affect proper operation. Repair or replace all damaged or defective parts immediately.

# **△** WARNING

Failing to correct problem(s) before operation could result in property damage, serious injury or DEATH.

Remove any excessive dirt or debris, especially around the muffler and recoil starter.

Do not move or turn over the washer when engine operating.

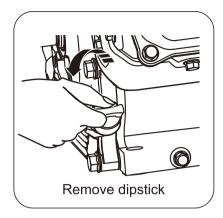
# 3

#### Engine oil

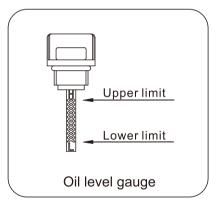
Place the engine on a level surface with engine stopped.

Remove the dipstick and wipe it clean.

Reinstall dipstick into tube; rest on oil fill neck, DO NOT thread cap into tube.



Remove the dipstick again and check oil level. Level should be at top of indicator on dipstick.



Fill to the upper limit of the dipstick with the recommended oil if the oil level is low. SAE 10W-30 is recommended.

Reinstall and fully tighten the dipstick.

Refer to **add oil** instruction in **MAINTENANCE** section for more information.

Oil capacity (rated): See parameters.

# **⚠ WARNING**

This engine is not filled with oil at the factory. Any attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil may result in engine damage and void your warranty.

#### **⚠** CAUTION

Operate the washer in a flat surface only.

Engine with low oil sensor will be automatic shut down when oil is lower than the lowest limited level.

Please add oil to the upper limit level in case of any accident, check the oil level frequently.

#### **△** WARNING

Oil is a major factor affecting performance and service life. Use 4-stroke automotive detergent oil recommended in the **MAINTENANCE** section of this manual.

# 4 Engine fuel

With the engine stopped, check the fuel level gauge. Refill the fuel tank if necessary.

# **△** CAUTION

Pressure can build up in the fuel tank. Allow the engine to cool for at least two minutes before removing fuel cap.

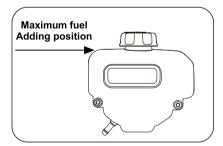
Loosen the fuel cap slowly to relieve any pressure in the tank,

Use clean, fresh, regular unleaded gasoline.

DO NOT mix oil with gasoline.

Be sure not to fill above the upper limit mark. Always allow room for fuel expansion.

# Fuel capacity (rated): See parameters.



# **△** DANGER

Do not fill the fuel tank above the upper limit. Over fill will results in engine die or damage the carbon canister (if equipped) and void your warranty.



#### FIRE OR EXPLOSION

Gasoline is highly flammable and extremely explosive.

Do not fill fuel when washer is operating or in a high temperature.

Keep flammable items away while handling gasoline.

Fill fuel tank outdoors and in a well-ventilated area with the washer stopped.

Always wipe off spilled fuel and wait until the fuel has dried before starting the washer.

DO NOT operate the washer with known leaks in the fuel system.

Use proper fuel storage and handling procedures. DO NOT store fuel or other flammable materials nearby.

Keep fire extinguisher handy and be prepared if a fire starts.

NEVER use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

It is important to prevent gum deposits from forming in essential fuel system parts, such as the carburetor, fuel filter, fuel hose or tank during storage. Also, experience indicates that alcohol—blended fuels (called gasohol, ethanol or methanol) can attract moisture, which leads to separation and formation of acids during storage.

Acidic fuel can damage the fuel system of the washer while in storage. Be sure to review the instructions given in "Storage" on page 26.

Gasoline/Alcohol Blends: up to 10% alcohol, 90% unleaded gasoline by volume is approved as a fuel. Other gasoline/alcohol blends are not approved. Effects of old, stale or contaminated fuel are not warrantable.

# **⚠** CAUTION

To minimize gum deposits in your fuel system and to insure easy starting, add fuel if needed. do not use gasoline left over from the previous season.

# Soap lye adding (If applicable)



Open the pot cap to add soap lye.

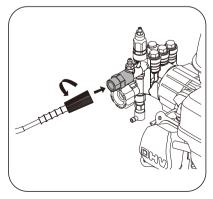
Maximize: 1gal(3.79L)

# **△** CAUTION

Do not use any detergent with function of bleaching or solution.

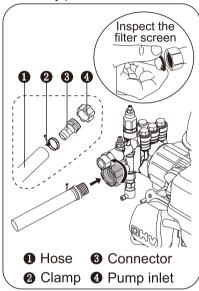
# 6 Accessory assembling

a. Connect high pressure pipe with pump outlet.

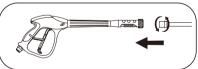


b. Verify the filter screen is in water inlet of pump. Connect water outlet pipe with pump water inlet.

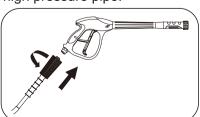
(The thread specification of the water inlet is 3/4-11.5NH(GHA), and the user needs to purchase an appropriate connector for assembly.)



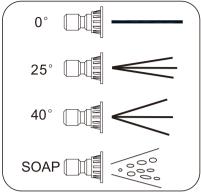
c. Connect the gun barrel with pistol grip.



d. Connect the pistol grip with high pressure pipe.



#### e. Select jet



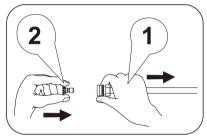
No.	0°jet	25°jet	40°jet in	jet in
	in red	in green	white	black
	High	High	High	Low
	pressure	pressure	pressure	pressure
Descri	Cutting jet	Suction	Cleaning	Washin
-ption		jet	jet	g jet
Opera -tion	Jet water in a straight line with high pressure, it could wash from point to point.	Jet water in a 25° sector with high pressure , it is the common jet.	Jet water in a wide sector with high pressure, it is used for a large area cleaning.	Jet water in a wide sector with low pressur e, meanwh ile self- suction produce d in pump suction.
Washi -ng item	Dirty on concreti on surface or other stuff that hard to wash	Washing house surround ings, sidewalk, off-house furniture and back yard.	Cleaning the car, the window, aluminum house body and some other non-high pressure suffering surface.	Deterge nt jets in a style of soap also for rinse.

# **△** CAUTION

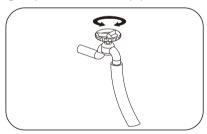
Siphon only work in low pressure jet operation, choose black low pressure jet if washer(not high pressure) should be used.

Choose a suitable jet for certain washing, damage on washing surface will happen if choose a wrong one.

#### f. Install the jet



g. Open water inlet pipe faucet.



h. Actuate the spray gun for inspection. Disengage the safety latch and pull the trigger of branch holder for 30s to eliminate the air in pipe, and switch the spray gun on and off repeatedly to check the spray gun for normal switching.



**Note:** Engage the safety latch to the spray gun trigger after use.

#### 2. Starting the engine



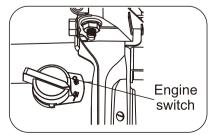
Perform operating checklist.

# **⚠** CAUTION

Operate the washer when inlet pipe leak or without water will result in washer damage.

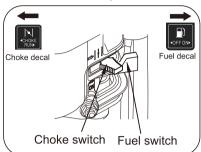
2

Turn the engine switch to "\_" position, which means turn washer "**ON**".



3

Turn the choke switch to the **OFF** position and turn the fuel switch to the **ON** position.



**⚠ CAUTION** 

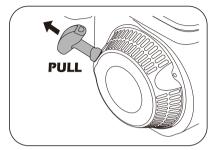
Different openings of the choke shall be set due to the effects of the temperature or other factors when the engine is started. If the engine is restarted in heat engine condition, the choke shall be in **ON** position when the temperature is above 20°C and in **OFF** position when below 20°C.



#### **Manual starting**

#### **⚠ WARNING**

Check starter cord conditions before operating. Have it replaced immediately by local authorized dealer if cord is frayed. When starting engine, grasp the recoil starter handle and pull slowly until resistance is felt. Then pull rapidly to avoid kickback.





# **⚠ WARNING**

#### **KICKBACK**

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.

Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains could result.

# **△** CAUTION

If engine still can not start after 3 attempt starts or stalls after starting, check and make sure high pressure washer is stay in flat surface within enough oil.

# **△** CAUTION

Check oil level when engine is in break-in process, see maintenance chapter for recommended maintenance schedule.

Electric start (for applicable model)

Connect the negative pole ("-") to battery before use.

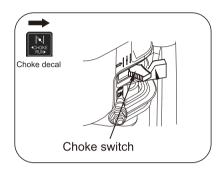
Turn the key to the "START" position and keep moving up until engine starts. After engine starts, release the key and return it to the "ON" position. If engine can not rotate by the electric starter, turn off the starter. Do not attempt to restart engine before trouble shooting. Do not restart engine with any battery replaced.

# **⚠ WARNING**

Do not continuously start the engine for more than 15 seconds at a time. If engine fails to start, cool the starter for 1 minute before re-start. Otherwise, it may cause damage to the starting motor.

5

Move choke lever slowly to "RUN" position and check if engine running stable and any other noise.



6

Choose a suitable jet, and handle jet tightly, start the washer aiming at washer item.

# **△** WARNING

Avoid gun keep "OFF" position for long time, it may result in pump damage or personal injury.

# **⚠ CAUTION**

Wear eye protection to protect you eyes when operate the washer.

Strong kickback will produce when high pressure water jet out. do not operate the washer on wet slide surface in case of any accident happen, make sure handle jet tightly when operating the washer.

Different jet has different function water jet, choose a suitable one for better washing effect and protect washing surface.

# **△DANGER**

High pressure jet water performance like a cutter, which could penetrate skin or clothes easily, so do not running washer aim at yourself /others or pet.

#### 3. Stopping the Engine

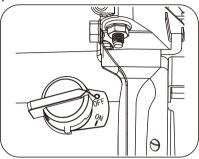
1

Release the pistol grip to stop the jet and let engine run 10s.



2

Keep engine stop lever on "O" position.



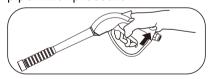
3

Turn off the faucet.



4

Turn on the jet to release the pipe inner pressure.

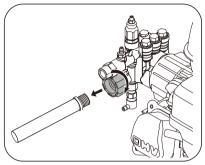


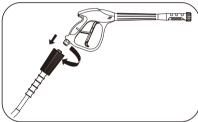
# **△** DANGER

High pressure water may remain in pressure pipe, which could penetrate skin and cause injury. please pay attention to release jet pressure after engine stopping or when water supplying.

5

Remove the water pipe.





6

The way to stop engine on emergence: remove the spark plug or turn the stop lever to "O" position.

# **△** DANGER

Do not stop engine with load unless any emergence happens.

#### IV. Maintenance

It is the owner's/operator's responsibility to complete all scheduled maintenance in a timely manner. Correct any

issue before operating the washer. Always follow the inspection and maintenance recommendations and schedules in this manual.

Before servicing the washer, release pressure in the jet and allow the engine to cool down.



Accidental starts can cause severe injury or death. Remove and ground spark plug wire before performing any service.

# **⚠ WARNING**

Improper maintenance or failure to correct a problem before operation can cause a malfunction and result in property damage, serious injury or DEATH.

Improper maintenance will void your warranty.

# **△** CAUTION

The filter element may contains PAHs, PAHs are harmful for your health. Please wear gloves for protection during air filter maintenance.

#### 1. Maintenance schedule

Service the washer in a clean, dry and flat area. Follow the service intervals indicated in the chart below. Service your washer more frequently when operating in adverse conditions.

Contact your local service dealer for your washer maintenance needs.

		Each time before use	The first month or 5 hours <sup>Note2</sup>	three months	Every six months or 50 hours <sup>Note2</sup>	Every year or 100 hours <sup>Note2</sup>
Engine oil	Inspection	<b>V</b>				
	Replacement		√			
Air filter	Inspection	<b>√</b>				
	Cleaning			√ <sup>Note3</sup>		
Spark plug	Inspection and adjustment				√	
	Replacement					$\sqrt{}$
Jet	Cleaning					
Gun	Inspection and adjustment					√ Note4
Valve clearance	Inspection and adjustment					√ Note4
High pressure pipe	Inspection	Every two years Note4				
Oil tube	Inspection	Every two years Noted				

Note1:Applicable types.

Note2:Before each season and after then (whichever comes first).

Note3: Service more frequently under severe, dusty, dirty conditions.

Note4: To be performed by knowledgeable, experienced owners or the authorized dealer.

#### 2. General maintenance

Use a wet cloth to clean surface of the washer.

Use soft brusher to remove the dirty and oil on surface.

Use compressed air(25PSI) to clean all remained dirty on the washer

Check all ventilation and cooling paths to keep them unblock and clean.

#### **△** WARNING

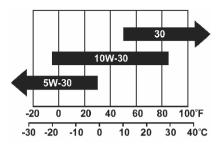
Using water to clean the washer is forbidden since water may go in washer through cooling path and result in parts rust.

Tampering with any set of washer is forbidden.

Do not modify the engine speed in any way. do not tamper with governed speed. supplier correct rated frequency and voltage when running at factory set. Tempering with the factory set will void your warranty.

#### Engine oil

SAE 10W-30 is recommended for general, all-temperature use. Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.



#### **AMBIENT TEMPERATURE**

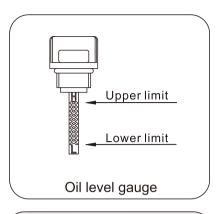
Fuel capacity (rated): See parameters.

#### Add oil

- 1.Place the washer on a level surface.
- 2.Remove the dipstick and wipe it clean.



3.Add recommended oil to the upper limit.



#### **∧** CAUTION

#### Oil level check

Reinstall dipstick into tube; rest on oil fill neck, DO NOT thread cap into tube.

4. Fully tighten the dipstick.

#### Change oil

#### **△** CAUTION

Change oil when the engine is warm from operation.

- 1.Place the washer on a level surface.
- 2.Remove oil dipstick.
- 3. Remove the oil drain plug and allow the oil to drain completely.
- 4.Replace and fully tighten the drain plug.
- 5.Add recommended oil to the upper limit (see add oil instruction above).

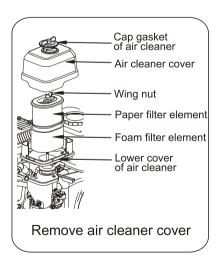
- 6. Reinstall and fully tighten the dipstick.
- 7.Dispose of used oil at an approved waste management facility.

# **⚠ WARNING**

The engine is not filled with oil at the factory. Any operation before it has been properly filled with the recommended type and amount of oil may result in engine damage and void your warranty.

#### Air filter

1. Unscrew the nut and remove the cover of the air cleaner.



2. Unscrew the wing nut and remove the filter element.

Foam filter element:

Place and wash the foam filter element in liquid detergent and warm water, wrap it in a clean cloth and squeeze it to dry it completely. Then soak it in clean engine oil, take it out wrapping with a clean absorbent cloth and squeeze redundant engine oil.

#### Paper filter element:

Tap the hard surface of the filter element for several times to make the dirt fall off. Do not brush off the dirt with a brush as doing so will make the dirt fall into the filter paper. Replace the filter element if it is too dirty.

- 3. Put back the filter element in its assembly.
- 4. Put the air cleaner cover in place and fix it with nuts.

# **⚠ WARNING**

DO NOT run the engine without the air filter, serious danger can result.

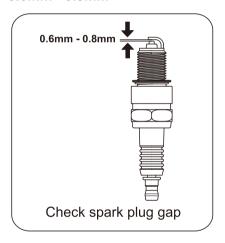
#### Spark plug

- 1.Clean any dirt from the spark plug cap and spark plug base.
- 2.Remove the spark plug cap.
- 3.Using socket wrench to loose and remove the spark plug.

- 4.Inspect the spark plug and spark plug washer, if it's damaged or worn, replace with new one. Clean the spark plug with wire brush if reuse it.
- 5.Check spark plug gap. Carefully bend side electrode to adjust the gap if necessary.

#### Spark plug gap:

0.6mm - 0.8mm



- 6.Carefully thread the plug into the engine **by hand.**
- 7. After the spark plug is seated, use spark plug wrench to tighten the plug.

# Spark Plug tighten Torque: 20-25 N.m

8.Attach the spark plug wire to the plug.

# **⚠ WARNING**

Only use recommended spark plug or equivalent. DO NOT use spark plugs that have improper heat range.

#### Valve lash adjustment

Each gasoline engine is debugged and inspected strictly by the company in the factory. generally, the machine can work properly without any adjustments. After use for sometime you may need adjust the gap as follows:

# Note: gap standard intake gap (0.10-0.15), exhausted gap (0.15-0.20)

- 1.Hold the valve gap adjusting nut, and release the valve locking nut.
- 2. Rotate the valve gap adjusting nut to a predetermined gap.
- 3. Hold the valve gap adjusting nut and tighten the valve locking nut according to the predetermined torque.
- 4. Tighten the valve locking nut and then check the valve gap again until it is in the line with the standard.

#### Pressure jet

Water jetting deformed or being not uniform shows some block in the jet. use fine pin to insert the nozzle to remove the blocking.

#### Pressure gun

Check gun barrel when engine is in low speed or stop, and connect water, then continue to on/off jet to see if pistol is flexible and then check leakage.

#### Water inlet and filter

Check if there is any fracture on water inlet pipe and if there as any block on pump filter.

#### High pressure water pipe

Check if high pressure water pipe is leakage by visual.

# **△** DANGER

High pressure water may be rush out from pipe when high pressure washer operating if pipe is leakage, this water rush could penetrate skin and cause injury. please check pipe before every usage.

# V. Trouble analysis and trouble-shooting

Phenomenon	Problem	Solutions
No pressure or little water when jet; Vibration and pressure unstable	1.Mount with low pressure jet. 2.Block in inlet pipe. 3.Little water supply. 4.Inlet pipe leak or twist . 5.Block in inlet filter. 6.High tem. On inlet water. 7.High pressure outlet block or leak. 8.Jet gun leak. 9.Jet block.	1.Replace a high pressure jet. 2.Clean inlet pipe. 3.Increase water supply. 4.Straight pipe to remove leakage. 5.Check and clean inlet filter. 6.Replace with room temperature water. 7.Check outlet pipe to remove block or change a new one. 8.Replace a new jet gun. 9.Clean the jet.
Failure to mix detergent	1.Suction pipe opening not merge in water.     2.Used high pressure jet.	1.Merge the suction opening in to detergent water.     2.Replace a low pressure jet.
Engine cannot start or hunting after start	1.No fuel. 2.Inferior or bad fuel is used. 3.High pressure wire and spark plug connected flexible. 4.Damage on spark plug. 5.Mixed water in fuel. 6.Stop button short cut or not work. 7.Engine switch is not open.	1.Add more fuel. 2.Drain of inferior fuel and add with recommended one. 3.Connect then tightly. 4.Replace spark plug. 5.Drain of fuel and add with recommended one. 6.Check and remove the causes. 7.Open the switch.
Engine stall automatically	No fuel.	Add fuel.
Engine low power	1.Air filter. 2.Worn on the moving parts. 3.Low power on ignition. 4.Spark plug and ignition gap large or small. 5.Carbon store in spark plug.	1.Open choke. 2.Check and replace 3.Replace ignition or flywheel. 4.Adjust the gap to standard value. 5.Remove the carbon accumul

# VI. Storage and transportation

#### Storage

DO NOT mix oil with gasoline. The engine should be started at least once every 2 weeks and allowed to run for at least 20 minutes. Follow the instructions below for longer term storage if the engine will be out of service for 2 months or more.



#### Fire or explosion

Gasoline is highly flammable and extremely explosive. Empty the fuel tank and take back the brake before storing or transporting this engine.

- 1.Allow washer completely cool before storage.
- 2.Service the washer according to the instructions in the Maintenance section.
- 3.Drain all fuel completely from the fuel tank, fuel hose and carburetor.
- 4.Replace oil.
- 5.Drain of water in outlet pipe and pump.

- 6.Remove spark plug and pour about 1 oz. of engine oil into cylinder. Reinstall spark plug. Crank engine slowly to distribute oil and lubricate cylinder.
- 7. Mount the spark plug.
- 8.Use dust-proof or carton to protect machine when storage.
- 9.Store the unit in a clean, dry area out of direct sunlight.

#### **Transportation**

To prevent fuel spillage when transporting or during temporary storage, the pressure washer should be secured upright in its normal operating position, with the switches OFF.

# **△** WARNING

#### When transporting:

Do not over fill the tank.

Avoid a place exposed to direct sunlight when putting the pressure washer on a vehicle. If the pump is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.

Do not drive on a rough road for an extended period with the engine on board. If you must transport the engine on a rough road, drain the fuel from the engine beforehand.

# VII. Specification

	Model	HP2600-2-A	HP3000-1-A
Parameter		HP2600-2-B	HP3000-1-B
	Model	GH210(A)	GB200
	Rated power (kW/min <sup>-1</sup> )	4.0/3600	4.2/3600
	Air cylinder diameter (mm)	70	68
	Piston stroke (mm)	54	54
Engine	Total displacement (cm <sup>3</sup> )	208	196
	Compression ratio	8.8:1	8.1:1
	Start style	Hand recoil	Hand recoil
	Lubricating oil brand	SAE 10W-30	SAE 10W-30
	Fuel capacity (L)	2.5	2.6
	Oil capacity (L)	0.6	0.6
Pressure washer	Rated flow	2.2GPM (8.3L/min)	2.5GPM (8.3L/min)
	Outlet pressure	2200PSI (15Mpa)	2700PSI (18.4Mpa)
	Head pressure	2600PSI (17.7Mpa)	3000PSI (20.4Mpa)
	Kickback	2700PSI	3300PSI
	pressure	(18.4Mpa)	(22.4Mpa)
	Engage speed	3400-3550 (r/min)	3450-3550 (r/min)

	Model	HP3200-2-A	HP3300-1-A
Parameter		HP3200-2-B	HP3300(E)-1-B
	Model	GH210A	GB200(E)
	Rated power (kW/min <sup>-1</sup> )	4.0/3600	4.2/3600
	Air cylinder diameter (mm)	70	68
	Piston stroke (mm)	54	54
Engine	Total displacement (cm <sup>3</sup> )	208	196
	Compression ratio	8.8:1	8.1:1
	Start style	Hand recoil	Hand recoil or electric starting
	Lubricating oil brand	SAE 10W-30	SAE 10W-30
	Fuel capacity (L)	2.5	2.6
	Oil capacity (L)	0.6	0.6
	Rated flow	2.7GPM	2.6GPM
		(10.2L/min)	(9.8L/min)
	Outlet pressure	2700PSI	2800PSI
		(18.4Mpa)	(19Mpa)
	Head pressure	3200PSI	3300PSI
Pressure washer		(21.8Mpa)	(22.4Mpa)
	Kickback	3300PSI	3420PSI
	pressure	(22.4Mpa)	(23.3Mpa)
	Engage speed	3400-3550 (r/min)	HP3300-1-A HP3300-1-B: 3450-3550 (r/min) HP3300E-1-B: 3400-3500 (r/min)

NOTE: The pressure washer with different specification and configurations may have different parameters and may change at any time without notice. Please consult the local dealer for detailed information.

# VIII. Warranty

Thank you for purchasing this brand high pressure washer. All the parts belong to our company when you get them warranty service for quality issue. According to the related stipulation in Consumer Protection Act in People's Republic of China, Please reserve the warranty cards and invoice in case of warranty needed, and we will service you with sincerely faith.

1.For pump of farm-oriented, engine and main parts are warranty for 12 months, easy damage parts are warranty for 3 months, and plastic parts are not in warranty.

Main parts: crankcase and cover, crankcase shaft, flywheel, the washer body and the rack. Easy damage parts: spark plug, oil sealing, gasket, rubber seal, O-ring seal

- 2.All damage caused by quality issue can service freely maintaining during warranty.
- 3. Certain charges will happen when repairing or maintaining with no invoice or expired warranty.
- 4.According to country's warranty law, if any exchange or return caused by quality issue happened in 7-day's purchase, it must keep all follows done, such as packed well, completed enclosed parts and completed styling without any artificially damages. Or the customer will respond for the warranty.
- 5.Please show your purchase invoice and the warranty cards when warranty happens, and fill the warranty card at the Special Maintenance Station. Please reserve the card well in case of warranty and it will never re-get when it lost.
- 6.All conditions below are not in warranty but can be repaired by certain charge or lifetime service:
- A. Warranty card or purchase invoice cannot be provided, except any condition that can show engine is in the warranty.
- B. Damages caused by wrong operation, maintenance or storage that is not comply with manual
- C. Damages caused by those conditions where personal damage or Special Maintenance Station service without authorized, as well as using the poor quality substitution.
- D. Damages caused by over work condition when operate the engine.

- E. Damage caused by changes without authorized or beyond any rules and law.
- F. Damages caused by using non-service parts provided by our company.
- G. Damages caused by not using recommended oil or fuel.
- H. Defect caused by time goes, such as color faded or paint surface rusted.
- I. Damages caused by un-resistant nature disasters, like earthquake, typhoon, fire hazard and flood
- J. Damages caused by smudging, medicine, chemical production or corrosion production.
- K. Any un-accordance between engine and warranty cards or invoice, even changing marks on the warranty or invoice are not in warranty.
- L. Phenomenon caused by feelings but has no impact on engine performance, like voice, vibration, oil leak)
- M. Damages caused by storage, transportation, or long-term no operation.
- N. Engines from abnormal purchase
- O. Engines that can operate after repairing with warranty expired.
- 7.Engines that are not operating in the range of visiting service will be charged by Special Maintenance Station according to service distance. Please consult the Special Maintenance Station for more details.



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