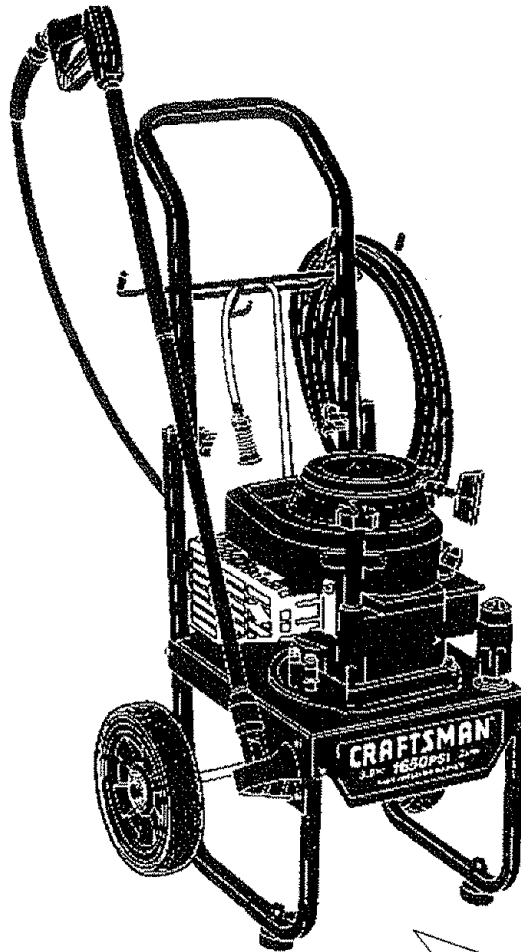


# SEARS Owner's Manual

## CRAFTSMAN®

3.8 HORSEPOWER  
1650 PSI 2 GPM  
HIGH PRESSURE WASHER

Model No.  
580.761652



**CAUTION:** Before using this product, read this manual and follow all Safety Rules and Operating Instructions.

**PRESSURE WASHER  
CUSTOMER  
HELPLINE  
1-800-222-3136**

HOURS: Mon. - Fri. 8 a.m. to 5 p.m. (CST)

SEARS, ROEBUCK and CO., Hoffman Estates, IL 60179 U.S.A.

Part No. B1381 Draft 1 (4/23/97)

SAFETY

ASSEMBLY

OPERATION

MAINTENANCE

PARTS LIST

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### LIMITED ONE YEAR WARRANTY ON CRAFTSMAN HIGH PRESSURE WASHER

For one year from the date of purchase, when this Craftsman High Pressure Washer is maintained and operated according to the instructions in the owner's manual, Sears will repair, free of charge, any defect in material and workmanship.

If this washer is used for commercial purposes, this warranty applies for only 90 days from the date of purchase. If this high pressure washer is used for rental purposes, this warranty applies for only 30 days after date of purchase.

This warranty does not cover:

- Expendable items such as spark plugs and air filters, which become worn during normal use.
- Repairs necessary because of operator abuse or negligence, including damage resulting from no water being supplied to pump or failure to maintain the equipment according to the instructions contained in the owner's manual.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE HIGH PRESSURE WASHER TO THE NEAREST SEARS STORE OR OTHER CRAFTSMAN OUTLET IN THE UNITED STATES.

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

SEARS, ROEBUCK AND CO., D/817 WA, Hoffman Estates, IL 60179

# SAFETY RULES

SAFETY



**CAUTION: ALWAYS DISCONNECT SPARK PLUG WIRE AND PLACE WIRE WHERE IT CANNOT CONTACT SPARK PLUG, TO PREVENT ACCIDENTAL STARTING WHEN SETTING UP, TRANSPORTING, ADJUSTING OR MAKING REPAIRS TO YOUR HIGH PRESSURE WASHER.**



**CAUTION: Before using this product, read this manual and follow all Safety Rules and Operating Instructions.**



## WARNING:



**The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.**

### TRAINING:

- Engine exhaust gases contain DEADLY carbon monoxide gas. This dangerous gas, if breathed in sufficient concentrations, can cause unconsciousness or even death. Operate this equipment only in the open air where adequate ventilation is available.
- Gasoline is highly FLAMMABLE and its vapors are EXPLOSIVE. Do not permit smoking, open flames, sparks or heat in the vicinity while handling gasoline. Avoid spilling gasoline on a hot engine. Allow unit to cool for 2 minutes before refueling. Comply with all laws regulating storage and handling of gasoline.
- Locate this pressure washer in areas away from combustible materials, combustible fumes or dust.
- The high pressure equipment is designed to be used with Sears authorized parts only. If you use this equipment with parts that do not comply with minimum specifications, the user assumes all risks and liabilities.
- Some chemicals or detergents may be harmful if inhaled or ingested, causing severe nausea, fainting or poisoning. The harmful elements may cause property damage or severe injury.
- Do not allow CHILDREN to operate the Pressure Washer at any time.

### PREPARATION:

- Operate engine only at governed speed. Running the engine at excessive speeds increases the hazard of personal injury. Do not tamper with parts which may increase or decrease the governed speed.
- Do not wear loose clothing, jewelry or anything that may be caught in the starter or other rotating parts.
- Before starting the Pressure Washer in cold weather, check all parts of the equipment and be sure ice has not formed there.
- Units with broken or missing parts, or without protective housing or covers should NEVER be operated.
- The muffler and air cleaner must be installed and in good condition before operating the Pressure Washer. These components act as spark arrestors if the engine backfires.
- Check the fuel system for leaks or signs of deterioration such as chafed or spongy hose, loose or missing clamps or damaged tank or cap. Correct all defects before operating the Pressure Washer.

### OPERATION:

- Do not spray flammable liquids.
- Never allow any part of the body to come in contact with the fluid stream. DO NOT come in contact with a fluid stream created by a leak in the high pressure hose.
- High pressure stream of fluid that this equipment can produce can pierce skin and its underlying tissues, leading to serious injury and possible amputation.
- Never aim the gun at people, animals or plants.
- High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds.
- Always wear eye protection when you use this equipment or when you are in the vicinity where the equipment is in use.
- Operate the pressure at no more than the PSI fluid pressure rated for your pressure washer.
- Never move the machine by pulling on the high pressure hose. Use the handle provided on the top of the unit.
- Always be certain the spray gun, nozzles and accessories are correctly attached.
- Never use a spray gun which does not have a trigger lock or trigger guard in place and in working order.
- Use a respirator or mask whenever there is a chance that vapors may be inhaled. Read all instructions with the mask so you are certain the mask will provide the necessary protection against inhaling harmful vapors.
- High pressure spray may damage fragile items including glass. Do not point spray gun at glass when in the jet spray mode.
- Keep the hose connected to machine or the spray gun while the system is pressurized. Disconnecting the hose while the unit is pressurized is dangerous.
- Hold the spray gun firmly in your hand before you start the unit. Failure to do so could result in an injury from a whipping spray gun. Do not leave the spray gun unattended while the machine is running.
- The cleaning area should have adequate slopes and drainage to reduce the possibility of a fall due to slippery surfaces.
- Keep water spray away from electric wiring or fatal electric shock may result.
- Do not adjust unloader valve to a pressure in excess of machine rating.
- Do not secure trigger gun in the pull-back (open) position.
- Do not by-pass any safety device on this machine.
- The muffler and engine heat up during operation and remain hot immediately after shutting it down. Avoid contact with a hot muffler or engine or you could be severely burned.

### MAINTENANCE AND STORAGE:

- Operate and store this unit on a stable surface.
- High pressure hose can develop leaks from wear, kinking, abuse, etc. Water spraying from a leak is capable of injecting material into skin. Inspect hose each time before using it. Check all hoses for cuts, leaks, abrasions or bulging of cover, or damage or movement of couplings. If any of these conditions exist, replace hose immediately. Never repair high pressure hose. Replace it with another hose that meets minimum pressure rating of your pressure washer.



**LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS "ATTENTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED."**

# ASSEMBLY

## CARTON CONTENTS

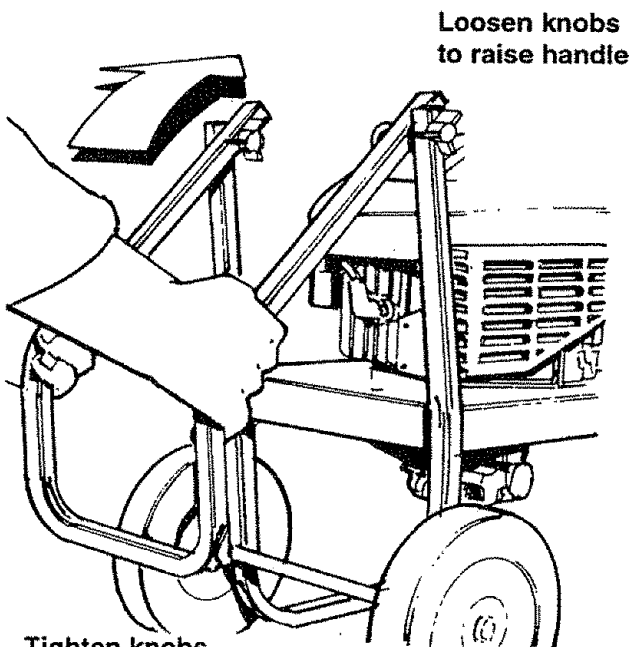
The following parts are shipped loose with your pressure washer:

- Main Unit — pressure washer with wheels, guide handle and turbo nozzle.
- High Pressure Hose
- Manual Bag (which includes the items listed below)
  - Nozzle Cleaner Kit
  - Accessories Adaptor
- Parts Box (which includes items listed below)
  - Spray Gun
  - Wand Extension
  - Hi/Lo Adjustable Nozzle.
  - Wire Form
  - Motor Oil

Become familiar with each piece before assembling the pressure washer. Check all contents against the illustration on Page 6. If any parts are missing or damaged, call the Pressure Washer Helpline at 1-800-222-3136.

## TO REMOVE PRESSURE WASHER FROM CARTON

- Remove loose parts and parts box included with pressure washer. The high pressure hose is packed in the bottom of the carton on the guide handle end. Remove the hose.
- Slice two corners at guide handle end of carton from top to bottom so the panel can be folded down flat, then remove all packing material.
- Raise guide handle, secure in place and roll the pressure washer out the open end of the carton.



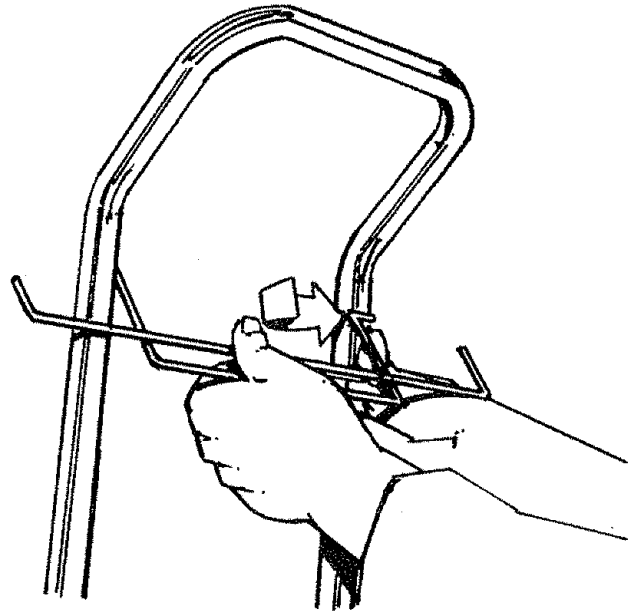
Tighten knobs when handle is straight.

- Check carton for additional loose parts.

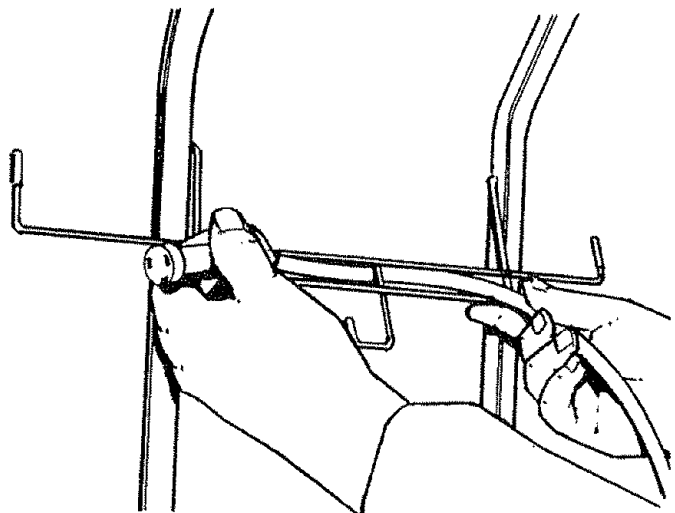
## HOW TO SET UP YOUR PRESSURE WASHER

For the most part, your Craftsman High Pressure Washer has been assembled at the factory. You must, however, attach the wire form, assemble the spray gun, and attach the high pressure hose to the pump and spray gun.

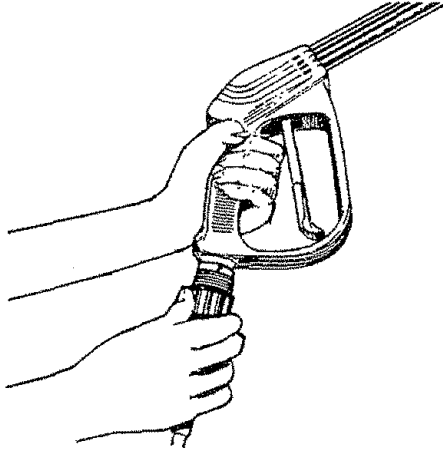
- Insert the wire support with the longer arm positioned on the left. From this view the hook should resemble a "J".



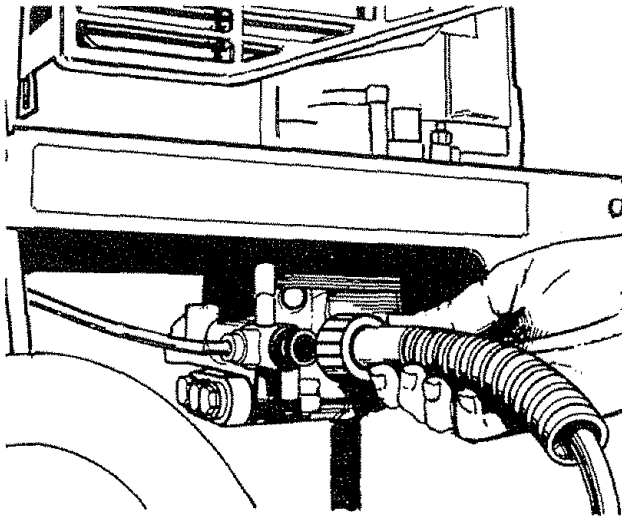
- Cut tie wrap on chemical injection tube. Remove chemical injection filter, thread chemical injection tube through the wire form and reinsert filter into tube.



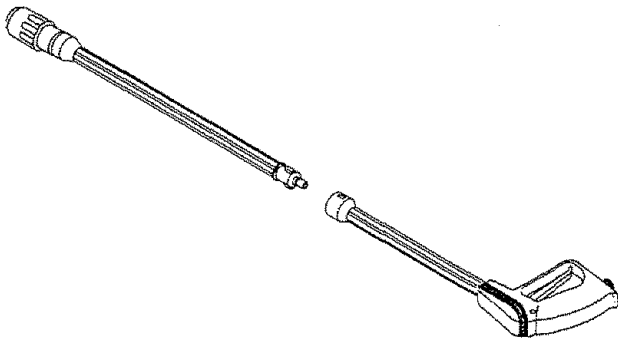
- Cut the tie wraps on the high pressure hose and connect high pressure hose to gun. Tighten by hand.



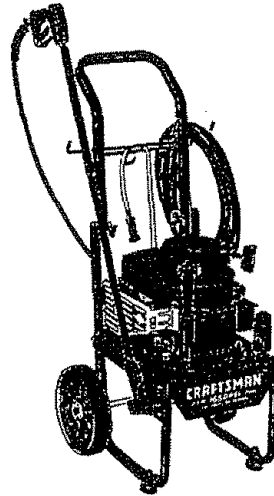
- Remove plastic cap and connect high pressure hose to pump. Tighten by hand.



- Screw nozzle to nozzle extension.
- Connect nozzle extension to spray gun.



- Place assembled spray gun on holder.



### CHECKLIST

Before you operate your new high pressure washer, to be sure you receive the best performance and satisfaction from this quality product, please review the following checklist:

- All assembly instructions have been completed.
- The high pressure hose connections to the spray gun and to the pump are tight and secure.

While learning how to use your high pressure washer, pay extra attention to the following important items:

- Engine oil is at proper level
- Be sure gas tank is filled properly with clean, fresh, unleaded gasoline.
- Become familiar with all controls – their location and function. Operate those controls before starting the engine.

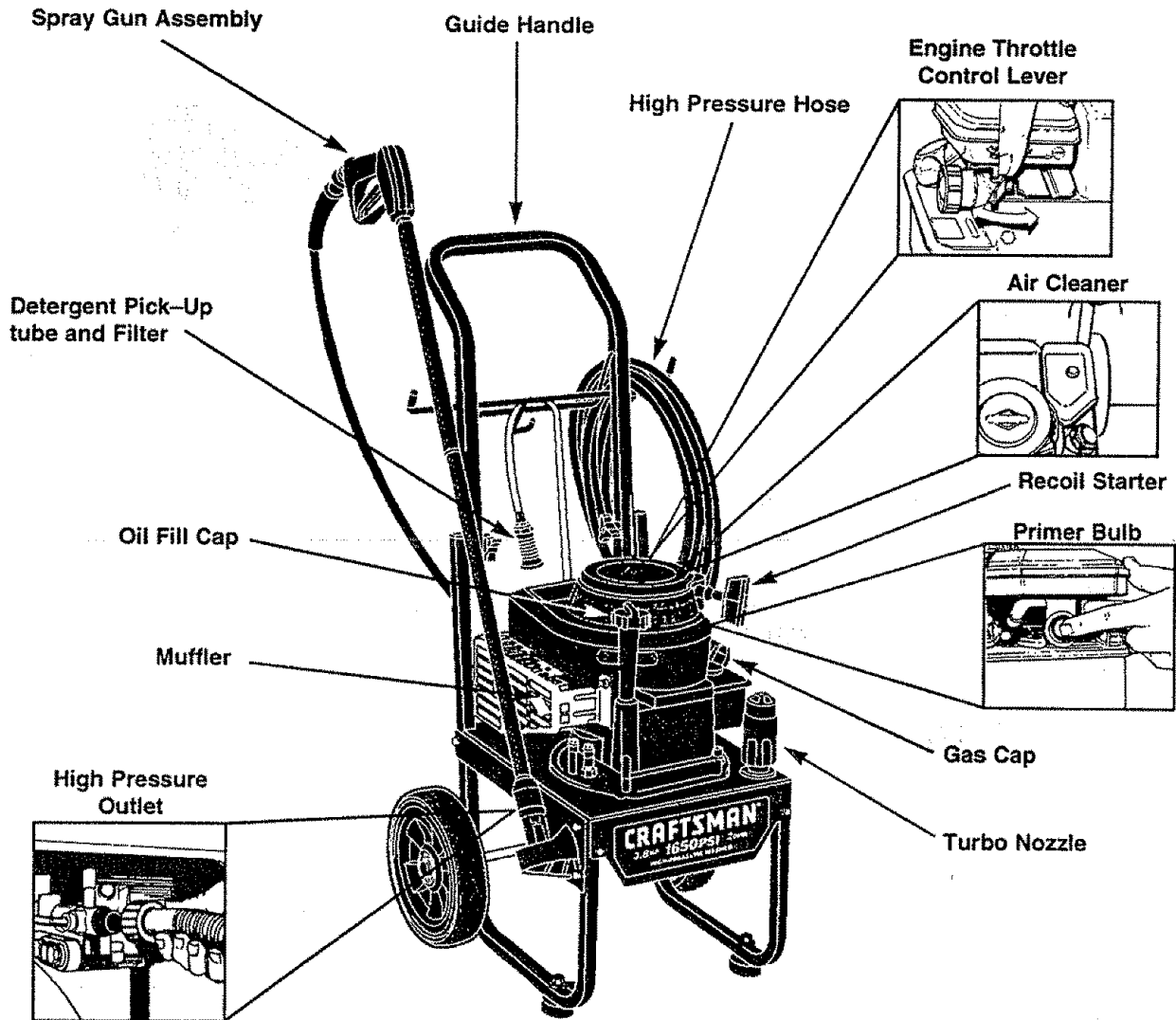


**CAUTION:** Any attempt to crank or start the engine before it has been properly serviced with the recommended oil may result in an engine failure. See Page 8 for instructions on adding oil and proper oil specifications.

# OPERATION

## KNOW YOUR HIGH PRESSURE WASHER

Read this owner's manual and safety rules before operating your high pressure washer. Compare the illustrations with your high pressure washer to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



**Pump** – Develops high water pressure.

**Engine Throttle Control Lever** – Sets engine in starting mode for recoil starter; STOPS running engine.

**Recoil Starter** – Used for starting the engine manually.

**Primer Bulb** – Supplies fuel to carburetor before starting a cold engine.

**Air Cleaner** – Dry type filter element limits the amount of dirt and dust that gets in the engine.

**Spray Gun Assembly** – Controls the application of water onto cleaning surface with trigger device. Includes safety latch.

**Detergent Pick-up Tube and Filter** – Mixes water and detergent in outlet water flow.

**High Pressure Outlet** – Connection for high pressure hose.

**Water Inlet** – Connection for garden hose.

## HOW TO USE YOUR PRESSURE WASHER

IF YOU HAVE ANY PROBLEMS operating your pressure washer, please call the pressure washer helpline at 1-800-222-3136.

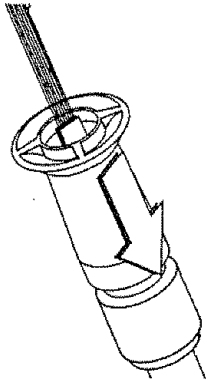


**WARNING NEVER adjust spray pattern when spraying. NEVER put hands in front of spray nozzle to adjust spray pattern. You could be injured.**

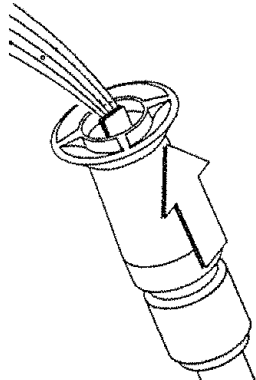
### HOW TO USE THE ADJUSTABLE NOZZLE

On the end of your spray gun is a nozzle that you can slide forward and backward and that you can also twist from side to side. With the adjustable nozzle you can adjust the spray pattern to be either high pressure or low pressure. You can also adjust the spray so it is concentrated in a stream pattern or expanded into a fan pattern.

- Slide the nozzle forward when you wish to adjust the spray to low pressure mode. Slide the nozzle backward to achieve high pressure.

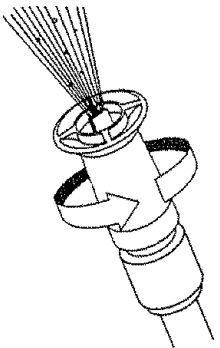


Nozzle in High Pressure Mode

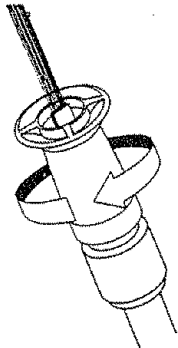


Slide Nozzle Forward for low pressure mode and detergent application

- Twisting the nozzle adjusts the spray pattern from a narrow pattern to a fan pattern.



Twist nozzle counter-clockwise for fan spray pattern



Twist nozzle clockwise for narrow spray pattern

- For most effective cleaning, keep spray nozzle between 8 to 24 inches away from cleaning surface.

- If you get spray nozzle too close, especially using high pressure mode, you may damage the cleaning surface.

### HOW TO USE THE TURBO NOZZLE

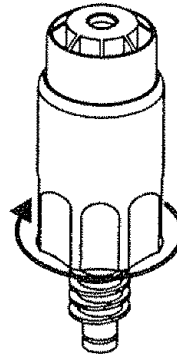
The rotating turbo nozzle increases the area of the high pressure stream.

**IMPORTANT:** You cannot apply detergent with this nozzle.

To attach the turbo nozzle:

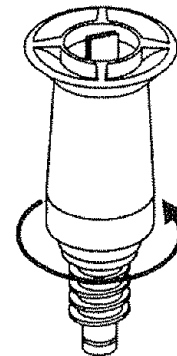
- Remove the adjustable nozzle from the gun.
- Attach the turbo nozzle.

Turbo Nozzle



TIGHTEN

Adjustable Nozzle



LOOSEN

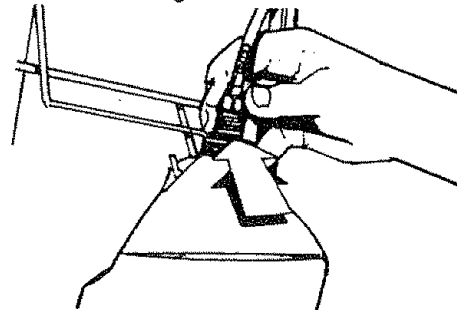
### APPLYING DETERGENT AND CLEANING WITH ADJUSTABLE NOZZLE

**IMPORTANT:** Use soaps designed specifically for pressure washers. Household detergents could damage the pump.

**IMPORTANT:** You must attach all hoses before you start the engine. Starting the engine without all the hoses connected and without the water turned ON will damage the pump.

To apply detergent follow these steps:

- Prepare the detergent solution as required by the job.
- Hang the detergent solution on the "J" hook on the wire form on the guide handle.
- Place small filter on the clear, chemical injection tube into the detergent container.



- Slide the adjustable nozzle forward to low pressure mode. Detergent cannot be applied with nozzle in high pressure position.

OPERATION

**Note:** The first step involves applying an appropriate detergent/solvent solution to penetrate and loosen grime. The detergent is applied at low pressure to avoid splashing, overspraying and waste. Leave the solution on surface for 3 to 5 minutes to allow solution to work.

**Note:** The second step involves cleaning the surface you have prepared with the pressure washer and then rinsing it clean.

- Review the use of the adjustable nozzle on Page 7.
- Connect garden hose to water inlet (see "TO START PRESSURE WASHER"), check that high pressure hose is connected to spray gun and pump (see ASSEMBLY), and start engine.
- For cleaning, start at lower portion of area to be washed and work upward, using long, even overlapping strokes.
- Allow the detergent to soak in between 3-5 minutes before washing and rinsing.

### RINSING WITH THE PRESSURE WASHER

- Hook up the water supply and start your pressure

**WARNING** Be extremely careful if you must use the pressure washer from ladder, scaffolding or any other relatively unstable location. Pressure in a running washer builds in the wand as you climb. When you press the trigger, the recoil from the initial spray could force you to fall, or if you are too close to the cleaning surface, high pressure could force you off a climbing apparatus.

washer (see TO START THE PRESSURE WASHER).

- Slide adjustable nozzle rearward to high pressure position and wait for detergent to clear. Detergent will not flow when in the high pressure mode.
- When detergent has cleared you may want to expand the spray pattern for a more gentle rinsing action. Start at top of area to be rinsed, working down with same action as for cleaning.

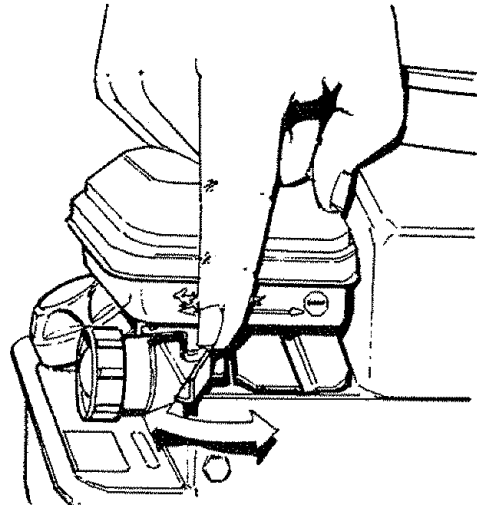
You can also stop detergent from flowing by simply removing siphon from bottle.

### HOW TO STOP YOUR PRESSURE WASHER

- First, move the engine Throttle Control Lever to STOP position.
- Simply shutting OFF the engine will not release pressure in the system. Squeeze trigger on the spray gun to relieve pressure in the hose.

**Note:** A small amount of water will squirt out when you release the pressure.

### Stopping the Pressure Washer



### BEFORE STARTING THE PRESSURE WASHER

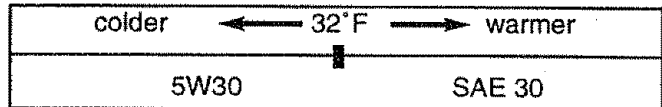
To operate the engine you will need to do the following:

#### ENGINE OIL

- A 20 oz. bottle of SAE 30 weight oil is included in the parts carton. Fill engine crankcase with recommended oil until oil level is at FULL point on dipstick. Do not overfill above that mark. About 20 ounces is required. POUR SLOWLY.

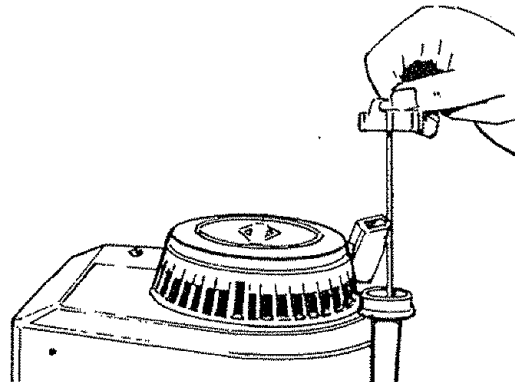
**Note:** When adding oil to the engine crankcase in the future, use only high quality detergent oil rated with API service classification SF and SG rated SAE 30 weight. Use no special additives.

Select the oil's viscosity grade according to your expected operating temperature.



Although multi-viscosity oils (5W30, 10W30, etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible damage from running low on oil. Oil sump capacity is 20 ounces.

- Place pressure washer on a level surface
- Clean area around oil fill and remove oil dipstick.





- Wipe dipstick clean.
- Pour oil from enclosed bottle into the oil fill opening until oil reaches FULL mark on the dipstick. Stop and check the oil level periodically. **DO NOT OVERFILL.**
- Install oil dipstick, hand tighten securely.

#### ADD GASOLINE



**WARNING NEVER fill fuel tank indoors. NEVER fill fuel tank when engine is running or hot. DO NOT light a cigarette or smoke when filling the fuel tank.**

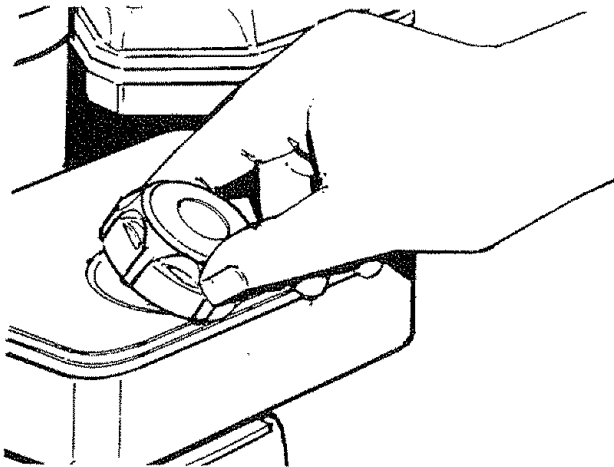


**CAUTION: Do not overfill the fuel tank. Always leave room for expansion.**

- Use regular UNLEADED gasoline with the pressure washer engine. Regular leaded gasoline may also be used if UNLEADED is not available. Fuel tank capacity is 1 U.S. quart.

**IMPORTANT:** 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 gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. See "Storage" on page 14. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

- Clean area around fuel fill cap, remove cap.

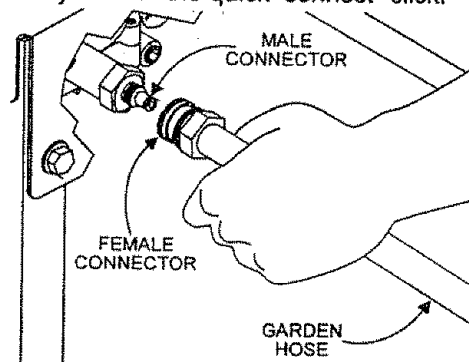


- Add "UNLEADED" regular gasoline, slowly, to fuel tank.
- Install fuel cap and wipe up any spilled gasoline.

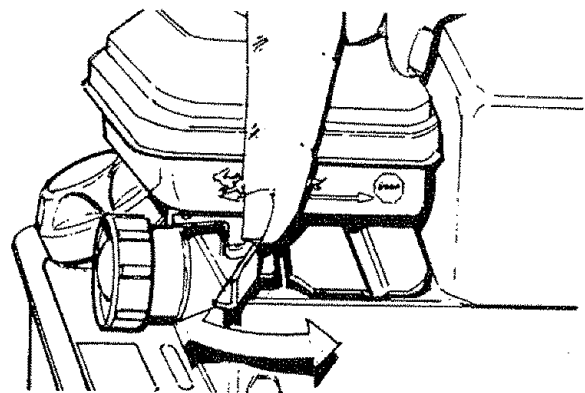
#### TO START YOUR PRESSURE WASHER

You have assembled your high pressure washer and have prepared the engine for starting. You are now ready to clean your car, boat or the outside of a building or whatever you plan to clean.

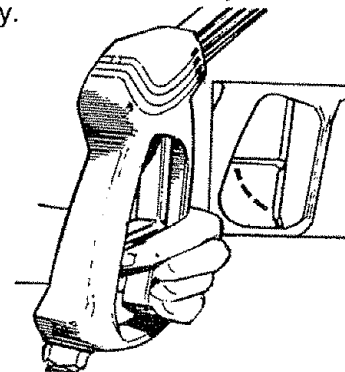
- Place the pressure washer in an area close enough to an outside water source that can flow at a rate of 3 gallons per minute. Connect a garden hose to the water spout.
- Check that the high pressure hose is tightly connected to the spray gun and to the pump. See ASSEMBLY section for illustrations.
- Remove the female quick-connect from pump. Check inlet screen. If the screen is dirty, clean before attaching to garden hose. If the screen is damaged, **Do not** connect to the garden hose. Call the pressure washer customer helpline to order a replacement.
- Attach the female quick-connect to garden hose and then attach the garden hose to the water inlet. Push until you hear the quick-connect "click."



- Turn on the water.
- Set Throttle Control Lever to RUN position.



- Remove the wand extension and squeeze the trigger to purge pump system of air and impurities then engage the safety latch on spray gun by pushing lever upward toward the top of the handle. This disables the trigger so you cannot inadvertently actuate a high pressure spray.

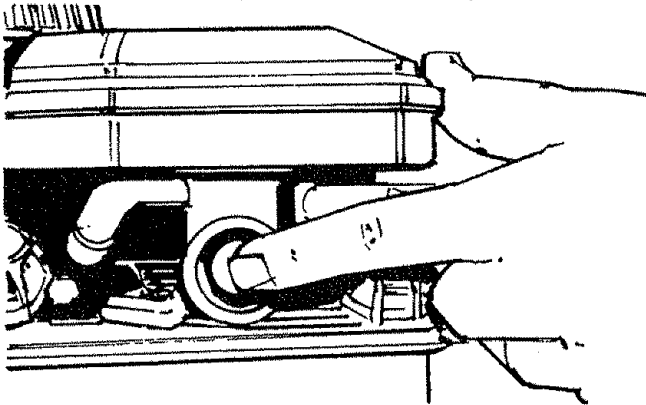


- Reconnect the wand extension.

**Note:** After reconnecting the wand extension, you may need squeeze trigger again on pressure washer wand to relieve the air pressure caused by water inlet supply. Water will spew out of the gun in a thin stream. This will make it easier to pull start the engine.

To start engine for the first time,

- Push primer bulb firmly 5 times. If engine fails to start after 4 pulls push primer bulb 3 times. Press trigger on gun to release pressure after each pull.



- Allow engine to run for two minutes before using.
- Once engine has started, place Safety Latch in the DOWN position.

To start engine after initial start,

- Press the primer bulb 3 times, For warm engine, do not prime.
- Press trigger to release water pressure.
- Grasp recoil handle and pull.
- If engine fails to start, repeat steps.

### SIPHONING

We recommend that you DO NOT siphon your water supply. Connect only to household water supply.

### TIPS

- Never use the garden hose inlet to siphon detergent or wax.
- If you have the spray nozzle too far away, the cleaning will not be as effective.

## MAINTENANCE

### CUSTOMER RESPONSIBILITIES

MAINTENANCE SCHEDULE FILL IN DATES AS YOU COMPLETE REGULAR SERVICE	HOURLY OPERATING INTERVAL				SERVICE DATES			
MAINTENANCE TASK	Before Each Use	Every 25 Hours or Yearly	Every 50 Hours or Yearly	Every 100 Hours or Yearly				
<b>PRESSURE WASHER</b>								
Check/clean water inlet screen on quick-connect.	X†							
Check high pressure hose.	X							
Check detergent hose.	X							
Check spray gun and assembly for leaks.	X							
Purge pump of air and contaminants.	X							
<b>ENGINE</b>								
Check oil level.	X							
Change engine oil. ‡			X*					
Service air cleaner.		X**						
Clean/replace spark plug.				X				
Prepare for storage.	Prepare unit for storage if it is to remain idle for longer than 30 days.							

† Clean if clogged. Replace if perforated.

‡ .Change oil after first 8 hours of operation then after every 50 hours.

\* Change sooner when operating under heavy load or high ambient temperature.

\*\* Clean more often under dirty or dusty conditions.

## GENERAL RECOMMENDATIONS

The warranty of the high pressure washer does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain high pressure washer as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your high pressure washer.

All adjustments in the Service and Adjustments section of this manual should be made at least once each season.

- Once a year you should clean or replace the spark plug and clean or replace the air filter and check the gun and wand assembly for wear. A new spark plug and clean air filter assure proper fuel-air mixture and help your engine run better and last longer.

## PRODUCT SPECIFICATIONS

### Pressure Washer Specifications

PRESSURE	1650 psi
FLOW RATE	2 GPM
DETERGENT MIX	Use undiluted detergent
WATER SUPPLY TEMPERATURE	Not to Exceed 140° F

### Engine Specifications

ENGINE MODEL	Briggs & Stratton
RATED HORSEPOWER	3.8
DISPLACEMENT	158cc
SPARK PLUG: Type:	Champion RJ-8C or equivalent
Set Gap to:	0.030 inch (0.76mm)
GASOLINE CAPACITY	1 U.S. quart
OIL (20 oz. capacity)	SAE 30 weight
SOLID STATE IGNITION AIR GAP	0.0125 inch

In the State of California a spark arrestor is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.

**Note:** If you equip the engine of your pressure washer with a spark arrestor muffler, the spark arrestor must be maintained in effective working order by the owner/operator.

You can order a spark arrestor through your Sears Service Center.

## BEFORE EACH USE

- Check water inlet screen for damage.
- Check high pressure hose for leaks.
- Check detergent inlet hose and filter for damage.
- Check gun and wand assembly for leaks.
- Purge pump of air and contaminants.
- Check engine oil level.

## PRESSURE WASHER MAINTENANCE

**Check and Clean Inlet Screen:** Remove quick-connect and examine inlet screen on the female connector. Clean if it is clogged or replace if it is torn.

**Check High Pressure Hose:** High pressure hose can develop leaks from wear, kinking, abuse. Inspect hose each time before using it. Check for cuts, leaks, abrasions or bulging of cover, or damage or movement of couplings. If any of these conditions exist, replace hose immediately.

**Check Detergent Hose:** Examine the filter on the detergent hose and clean if clogged. Hose should fit tightly on barbed fitting. Examine hose for leaks or tears. Replace the filter or hose if either is damaged.



**DANGER: Water spraying from a leak is capable of injecting material into skin. NEVER repair high pressure hose. Replace with hose that meets minimum pressure rating of your pressure washer.**

**Check Gun and Wand:** Examine hose connection to gun and make sure it is secure. Test trigger by pressing it and making sure it springs back into place when you release it. Put safety latch in UP position and test trigger. You should not be able to press trigger.

### Purge Pump of Air and Contaminants

To remove the air from the pump, follow these steps:

- Set up the pressure washer as described in the ASSEMBLY section and connect the water supply.
- Remove the wand extension from the gun.
- Pull the trigger on the gun and hold.

To remove the contaminants from the pump, follow these steps:

- Set up the pressure washer as described in the ASSEMBLY section, and connect the water supply.
- Remove the nozzle attachment from the gun.
- Start the engine according to instructions in OPERATION section.
- Pull the trigger on the gun and hold.
- When the water supply is steady and constant, engage the safety latch and refasten the nozzle attachment.

**MAINTENANCE**

## ENGINE MAINTENANCE



**CAUTION: Disconnect spark plug wire from spark plug and keep wire away from spark plug.**

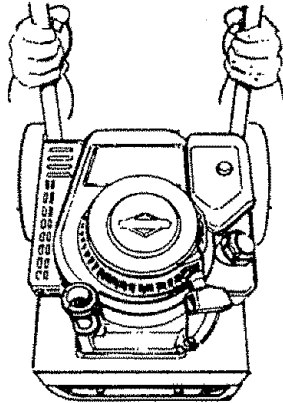
### CHECKING OIL LEVEL

Oil level should be checked prior to each use or at least every 5 hours of operation. Keep oil level maintained.

### CHANGING ENGINE OIL

Change oil after first 8 hours of operation. Change oil every 50 hours thereafter. If you are using your pressure washer under extremely dirty or dusty conditions, or in extremely hot weather, change oil more often.

- Change oil while engine is still warm from running, as follows:
- Before you tip the pressure washer to drain oil, drain fuel tank by running pressure washer until fuel tank is empty.
- Clean area around oil fill, remove oil fill cap/dipstick. Wipe dipstick clean.
- Tip your pressure washer as shown to drain oil completely into a suitable container. When crankcase is empty, return the pressure washer to upright position.



- Fill engine crankcase with recommended oil until oil level is at FULL point on dipstick. Do not overfill above that mark. About 20 ounces is required. POUR SLOWLY.
- When engine crankcase is filled to proper level, install and tighten oil cap/dipstick.

### SERVICE AIR CLEANER

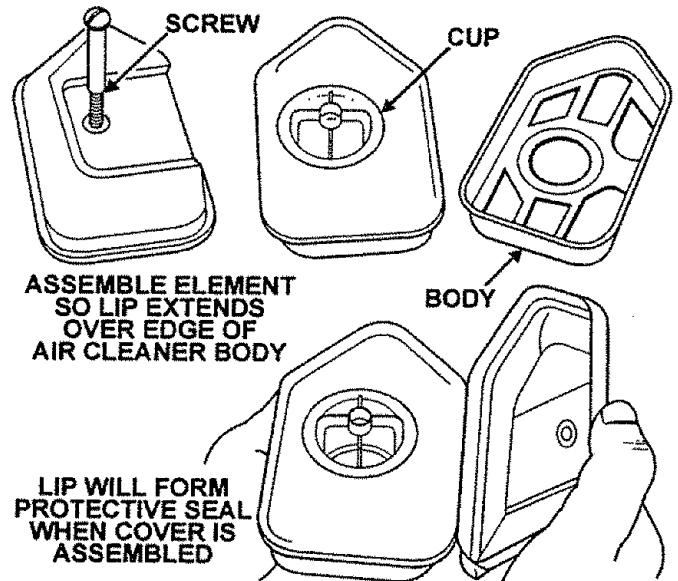
Your engine will not run properly and may be damaged if you run it with a dirty air cleaner.

Clean or replace the air cleaner once every 25 hours of operation or once each year, whichever comes first. Clean or replace more often if operating under dirty or dusty conditions. Replacements are available at your local Sears Authorized Service Center.

To clean or replace the air cleaner, follow these steps:

- Remove screw on the air cleaner cover.

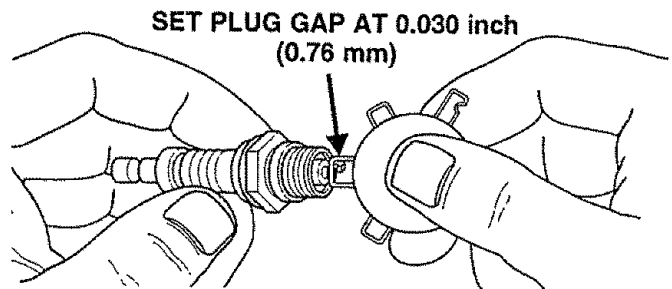
- Remove air cleaner carefully to prevent debris from falling into carburetor.
- Take air cleaner apart and clean all parts and service the foam element.



- Wash foam element in liquid detergent and water. If the element is damaged or very dirty, replace the element.
- Squeeze the element dry in a clean cloth.
- Saturate the foam element in engine oil. Squeeze the saturated element in a clean cloth to remove excess oil.
- Reassemble all parts and fasten securely to the carburetor with the screw.

### CLEAN/REPLACE SPARK PLUG

Change the spark plug every 100 hours of operation or once each year, whichever comes first. This will help your engine to start easier and run better. Replace with champion RJ-8C or equivalent type spark plug. Set the spark plug gap to 0.030 inch (0.76mm).



## SERVICE AND ADJUSTMENTS

### CARBURETOR

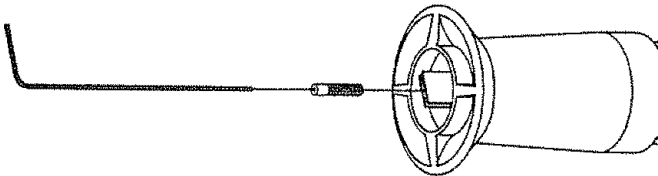
If you think your carburetor needs adjusting, see your nearest Sears Service dealer. Engine performance may be affected above 4,000 feet in altitude. To improve engine performance, see your nearest Sears Service dealer.

### NOZZLE MAINTENANCE

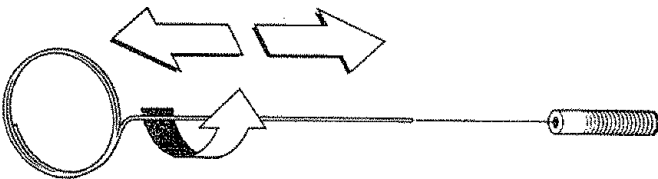
If the nozzle becomes restricted or clogged with foreign materials, such as dirt, excessive pump pressure may develop. A partially clogged nozzle can cause a pulsing sensation during use. This generally is not a pump related problem, but rather a clogged or partially restricted nozzle.

If the nozzle becomes clogged or partially restricted, immediately clean the nozzle with the kit included with your pressure washer by following these instructions:

- Shut off the engine and turn off the water supply.
- Separate the wand from the gun.
- Rotate to stream setting.
- Remove nozzle from the end of the wand using a 2mm or 5/64 allen wrench (like the one included in the kit).

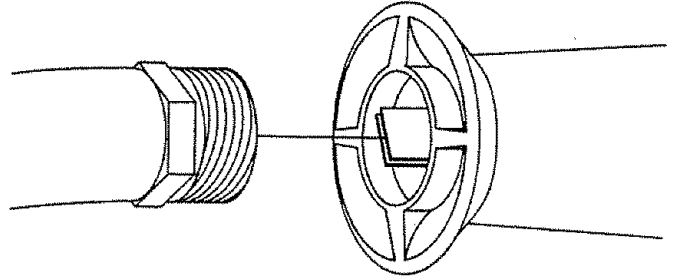


- Use the wire included in the kit or a small paper clip to free the foreign materials clogging or restricting the nozzle.



Insert wire into nozzle and turn back and forth to clear obstruction.

- Remove additional debris by back flushing water supply through wand. Back flush between 30 to 60 seconds. Turn wand to stream spray and move nozzle from low to high pressure while flushing.




- Reinstall nozzle into wand. DO NOT overtighten.
- Reconnect wand extension to spray gun.
- Reconnect the water supply, turn ON the water, and start the engine.
- Test the pressure washer by operating with nozzle in the high and the low pressure positions.

## STORAGE

### AFTER EACH USE

Water should not remain in the unit for long periods of time. Sediments of minerals can deposit on pump parts and "freeze" pump action. Follow these procedures after every use:


- Flush detergent hose by placing the injector filter into a pail of clear water while running Pressure Washer with nozzle in low pressure mode. Flush until you can see clear water running through the tube.
- Shut off the engine and let it cool, then remove all hoses.

 **CAUTION:** Be sure throttle lever is in "STOP" position before you continue. If you start engine without the proper water supply connected, you can damage the pump.

- Empty the pump of all pumped liquids by pulling recoil handle about 6 times. This should remove most of the liquid in the pump.
- Coil the high pressure hose and inspect it for damage. Cuts in the hose or fraying of it could result in leaks and loss of pressure. Should any damage be found, replace the hose. DO NOT attempt to repair a damaged hose. Replace the hose with the genuine Craftsman part.
- Drain water from hose and properly hang it on the wire support provided on the guide handle.

**Note:** To protect the unit from freezing temperatures, you can draw windshield washer fluid into the pump by pouring the washer fluid into a 3-foot section of garden hose connected to the inlet adaptor and pulling the recoil handle twice.

- Store in a clean, dry area.

 **WARNING:** NEVER store engine with fuel in tank indoors or in enclosed, poorly ventilated areas where fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer or other gas appliance.

### LONG TERM STORAGE

If you do not plan to use the Pressure Washer for more than 30 days, you must prepare the engine for long term storage.


**Note:** As always, prepare the pressure washer pump as you would after each use.

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 gas can damage the fuel system of an engine while in storage.

To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Follow these instructions:

### PROTECT FUEL SYSTEM

- Remove all gasoline from the fuel tank to prevent gum deposits from forming on these parts and causing possible malfunction of engine.

 **WARNING:** Drain fuel into approved container outdoors, away from open flame. Be sure engine is cool. Do not smoke.


- Run engine until engine stops from lack of fuel. Make sure you have water supply to pump inlet connected and turned ON. (See Changing Oil Level on Page 12.)

### CHANGE OIL

While engine is still warm, drain oil from crankcase. Refill with recommended grade.

### OIL CYLINDER BORE

- Remove spark plug and pour about 1/2 ounce (15ml) of engine oil into the cylinder. Cover spark plug hole with rag. Crank slowly to distribute oil.

 **CAUTION!** Avoid spray from spark plug hole when cranking engine slowly.

- Install spark plug. Do not connect spark plug wire.

### OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your unit indoors and cover it to give protection from dust and dirt. **BE SURE TO EMPTY THE FUEL TANK.**
- Cover your unit with a suitable protective cover that does not retain moisture.

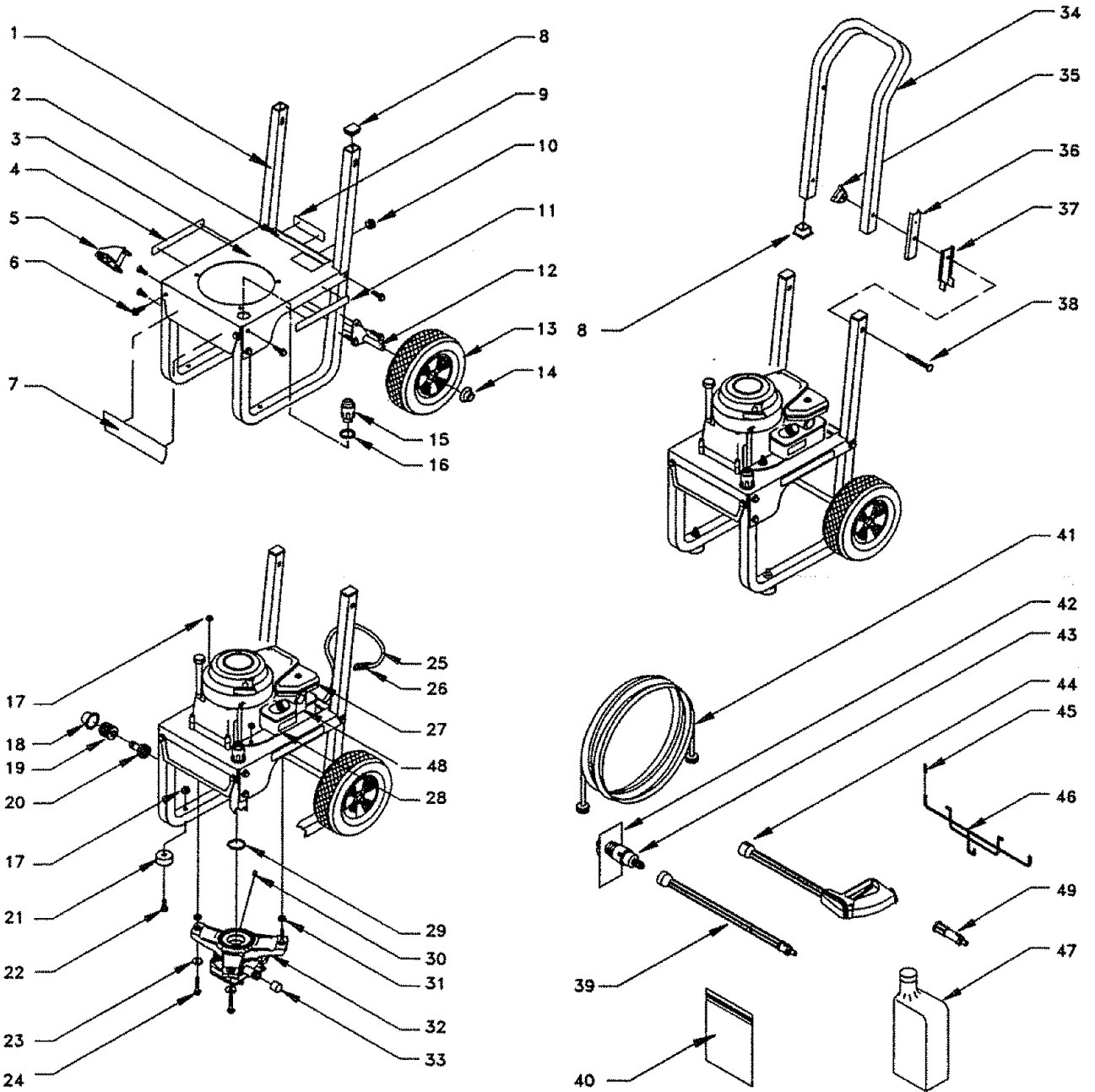
**IMPORTANT:** NEVER cover your pressure washer while engine and exhaust area are warm.

## TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
<p>Pump has following problems: failure to produce pressure, erratic pressure, chattering, loss of pressure, low water volume.</p>	<ol style="list-style-type: none"> <li>1. Nozzle in low pressure mode.</li> <li>2. Water inlet is blocked.</li> <li>3. Inadequate water supply</li> <li>4. Inlet hose is kinked or leaking</li> <li>5. Clogged inlet hose strainer.</li> <li>6. Water supply is over 140°F.</li> <li>7. Outlet hose is blocked.</li> <li>8. Outlet hose leaks.</li> <li>9. Gun leaks.</li> <li>10. Nozzle is obstructed.</li> <li>11. Pump is faulty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Pull nozzle backward for high pressure mode.</li> <li>2. Clear inlet</li> <li>3. Provide adequate water flow.</li> <li>4. Straighten inlet hose, patch leak.</li> <li>5. Check / clean inlet hose strainer.</li> <li>6. Provide cooler water supply.</li> <li>7. Clear blocks in outlet hose.</li> <li>8. Replace outlet hose if leaking.</li> <li>9. Replace gun.</li> <li>10. Clear nozzle.</li> <li>11. Contact Sears Service Department.</li> </ol>
<p>Detergent fails to mix with spray.</p>	<ol style="list-style-type: none"> <li>1. Detergent line is not submerged.</li> <li>2. Chemical filter is clogged.</li> <li>3. Nozzle is in high pressure mode.</li> </ol>	<ol style="list-style-type: none"> <li>1. Insert chemical line into detergent.</li> <li>2. Clean or replace filter/detergent line.</li> <li>3. Push nozzle forward for low pressure mode.</li> </ol>
<p>Engine runs good at no-load but "bogs down" when load is added</p>	<p>Engine speed is too slow.</p>	<p>Contact Sears Service Department.</p>
<p>Engine will not start; or starts and runs rough</p>	<ol style="list-style-type: none"> <li>1. Dirty air cleaner</li> <li>2. Out of gasoline.</li> <li>3. Stale gasoline.</li> <li>4. Spark plug wire not connected to spark plug</li> <li>5. Bad spark plug.</li> <li>6. Water in gasoline.</li> <li>7. Overchoking.</li> <li>8. Excessively rich fuel mixture.</li> <li>9. Intake valve stuck open or closed.</li> <li>10. Engine has lost compression.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace air cleaner.</li> <li>2. Fill fuel tank.</li> <li>3. Drain gas tank; fill with fresh fuel.</li> <li>4. Connect wire to spark plug.</li> <li>5. Replace spark plug.</li> <li>6. Drain gas tank; fill with fresh fuel.</li> <li>7. Set engine throttle control lever to fast position.</li> <li>8. Contact Sears Service Department.</li> <li>9. Contact Sears Service Department.</li> <li>10. Contact Sears Service Department.</li> </ol>
<p>Engine shuts down during operation</p>	<ol style="list-style-type: none"> <li>1. Out of gasoline.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill fuel tank.</li> </ol>
<p>Engine lacks power.</p>	<p>Dirty air filter.</p>	<p>Replace air filter.</p>

# PARTS

## CRAFTSMAN 1650 PSI HIGH PRESSURE WASHER 580.761652





# PARTS

## CRAFTSMAN 1650 PSI HIGH PRESSURE WASHER 580.761652

ITEM	PART NO.	DESCRIPTION
1	21416	VS PW LEG (2 REQ.)
2	20089A	STARTING INSTRUCTION DECAL (1 REQ.)
3	21207A	SHEET METAL BASE VSPW (1 REQ.)
4	21449	DANGER/EXHAUST DECAL (1 REQ.)
5	97769	GUN CUP (1 REQ.)
6	20441	1/4"-14 SELF-DRILLING SCREW (14 REQ.)
7	A1405	LOGO DECAL 1650 (1 REQ.)
8	81895	3/4" SQ. TUBING CAP (4 REQ.)
9	20042	IMPORTANT/CAUTION DECAL (1 REQ.)
10	30809	CHEM. HOSE GROMMET (1 REQ.)
11	21450	DANGER DECAL (1 REQ.)
12	97741	AXLE ASSEMBLY (1 REQ.)
13	21206	2"x 8" BLACK MAG WHEEL (2 REQ.)
14	75402	1/2" PUSHNUT (2 REQ.)
15	B1013	TURBO NOZZLE (1 REQ.)
16	B1127	TURBO NOZZLE GROMMET (1 REQ.)
17	52858	M8 LOCKING FLANGE NUT (5 REQ.)
18	A1408	QUICK DISCONNECT SHIPPING CAP (1 REQ.)
19	21782	QUICK DISCONNECT — FEMALE (1 REQ.)
20	21781	QUICK DISCONNECT — MALE (1 REQ.)
21	87841	RUBBER MOUNT FOOT (2 REQ.)
22	39414	M8 x 1.25 X 35mm LONG HHCS (2 REQ.)
23	96796	GROMMET SUPPORT WASHER (3 REQ.)
24	39288	M8 x 1.25 X 55mm LONG HHCS (3 REQ.)
25	A1040B	CHEMICAL HOSE (1 REQ.)
26	A1041	CHEMICAL HOSE FILTER (1 REQ.)
27		B & S 3.8 HP ENGINE — Model # 10A902-233-01
28	96307	1-800 NUMBER DECAL (1 REQ.)
29	98300	ENGINE SEAL RING (1 REQ.)
30	96137	1/8" NPT PLUG WITH SEALANT (1 REQ.)
31	20874	ENGINE MOUNT SPACER (3 REQ.)
32	B1262	EG PUMP ASSEMBLY (1 REQ.)
33	97100	HIGH PRESSURE SHIPPING CAP (1 REQ.)
34	21268	HANDLE VS PW (1 REQ.)
35	97178	PW HANDLE KNOB (2 REQ.)
36	99368	S.S. WEAR PLATE (2 REQ.)
37	97082	HANDLE HOLDING CLIP (2 REQ.)
38	97912	1/4"-20 x 2.25 CARRIAGE BOLT (2 REQ.)
39	21337	LANCE EXTENSION (1 REQ.)
40	97009	NOZZLE CLEANING KIT (1 REQ.)
41	97810	1/4" X 25' HIGH PRESSURE HOSE (1 REQ.)
42	97566	NOZZLE HANG TAG (1 REQ.)
43	B1384F	NOZZLE HEAD HI-LO (1 REQ.)
44	21336	HIGH PRESSURE GUN (1 REQ.)
45	21702	Ø .203 BLACK VINYL CAP (2 REQ.)
46	B1298	WIREFORM (1 REQ.)
47	96382	20 OZ. OIL BOTTLE (1 REQ.)
48	B1210	START INSTRUCT CARD (1 REQ.)
49	B1051	BAYONET ADAPTOR (1 REQ.)

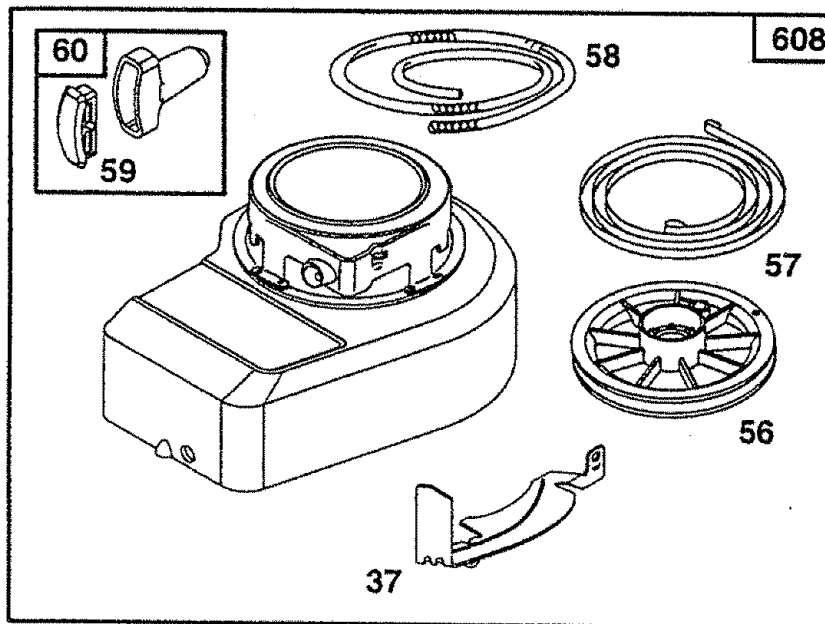
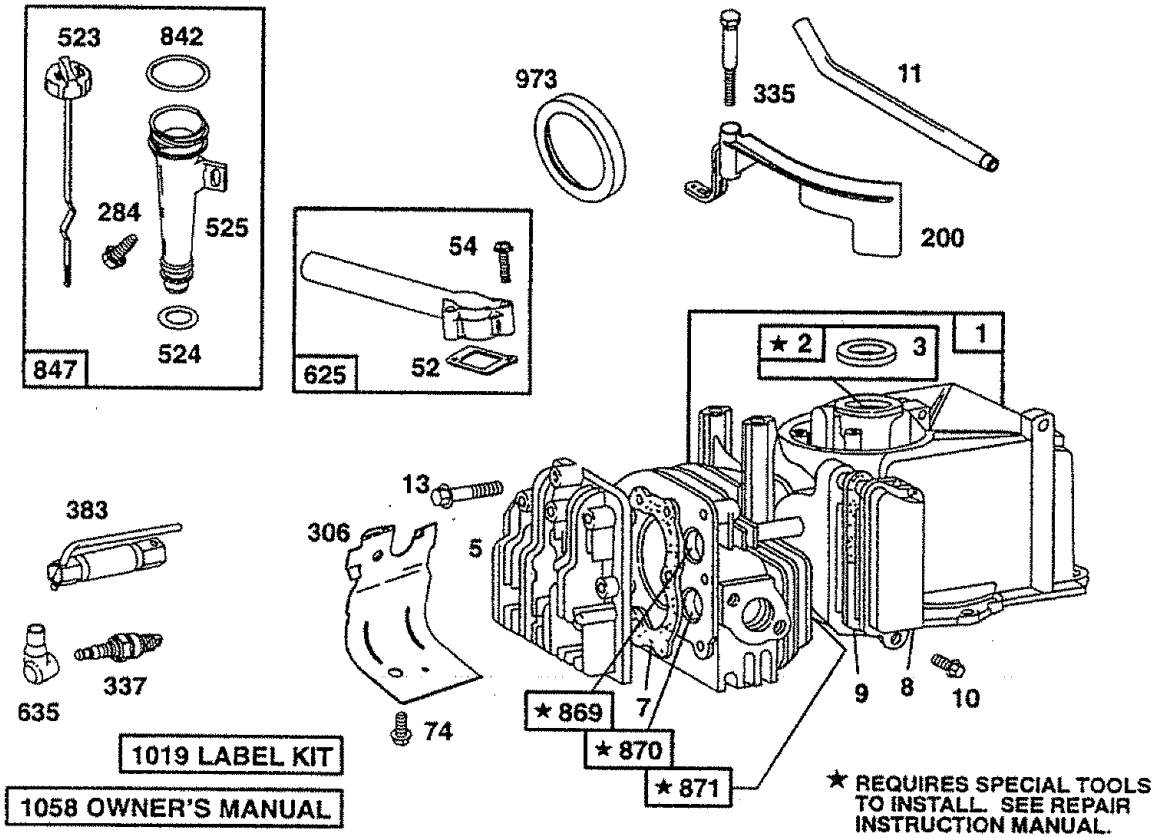
**Parts Not Illustrated**  
B1381

**Optional Accessories**

71-75189	UTILITY BRUSH SET
71-75199	ROTATING BRUSH SET
71-75190	BROOM BRUSH SET
71-75100	MULTI PURPOSE CLEANER
71-75101	DECK WASH
71-75102	VEHICLE WASH
71-75103	DEGREASER
71-75104	WAX

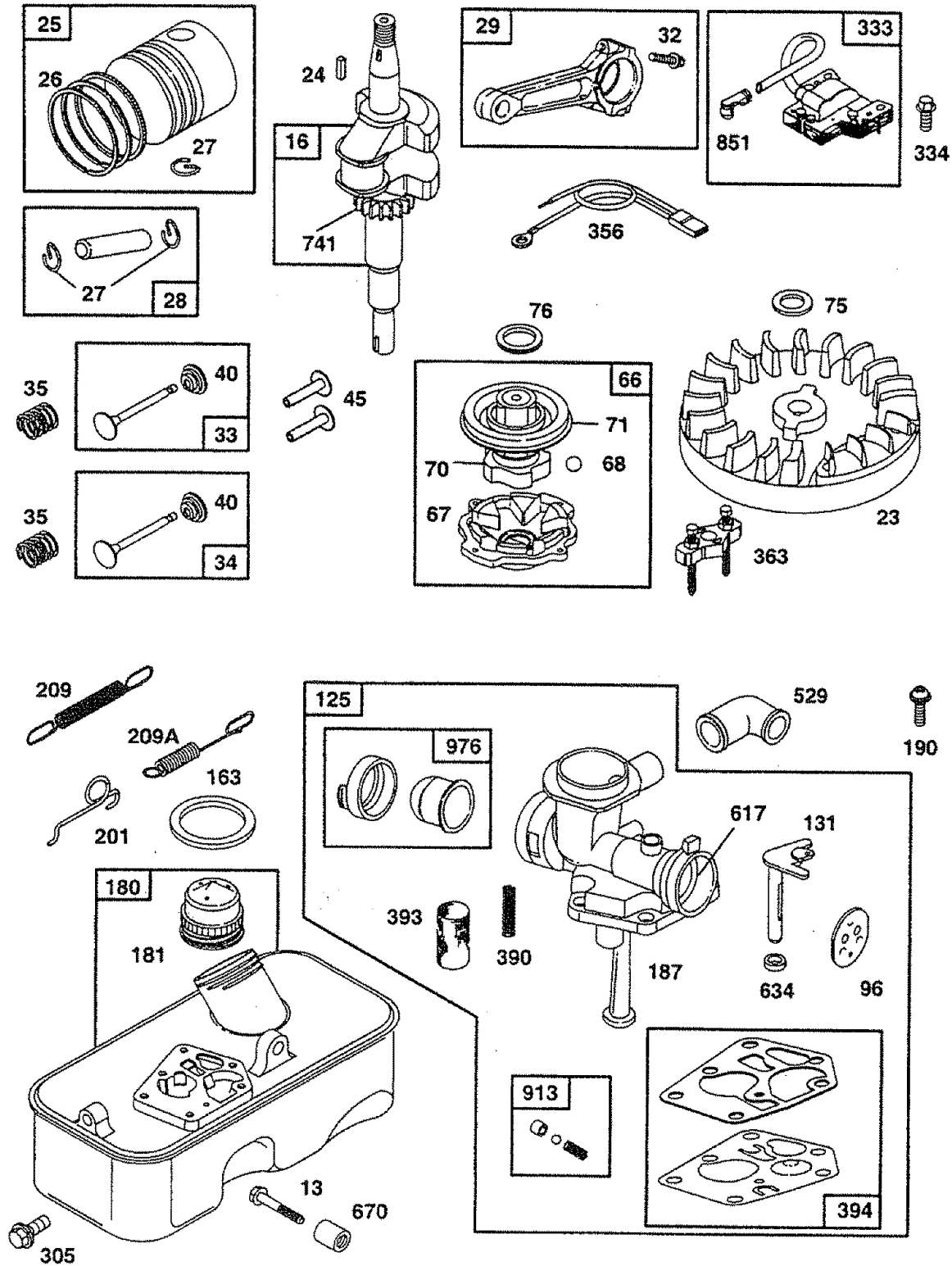
# PARTS

CRAFTSMAN 1650 PSI HIGH PRESSURE WASHER 580.761652  
 BRIGGS & STRATTON 4-CYCLE ENGINE 10A902-233-01



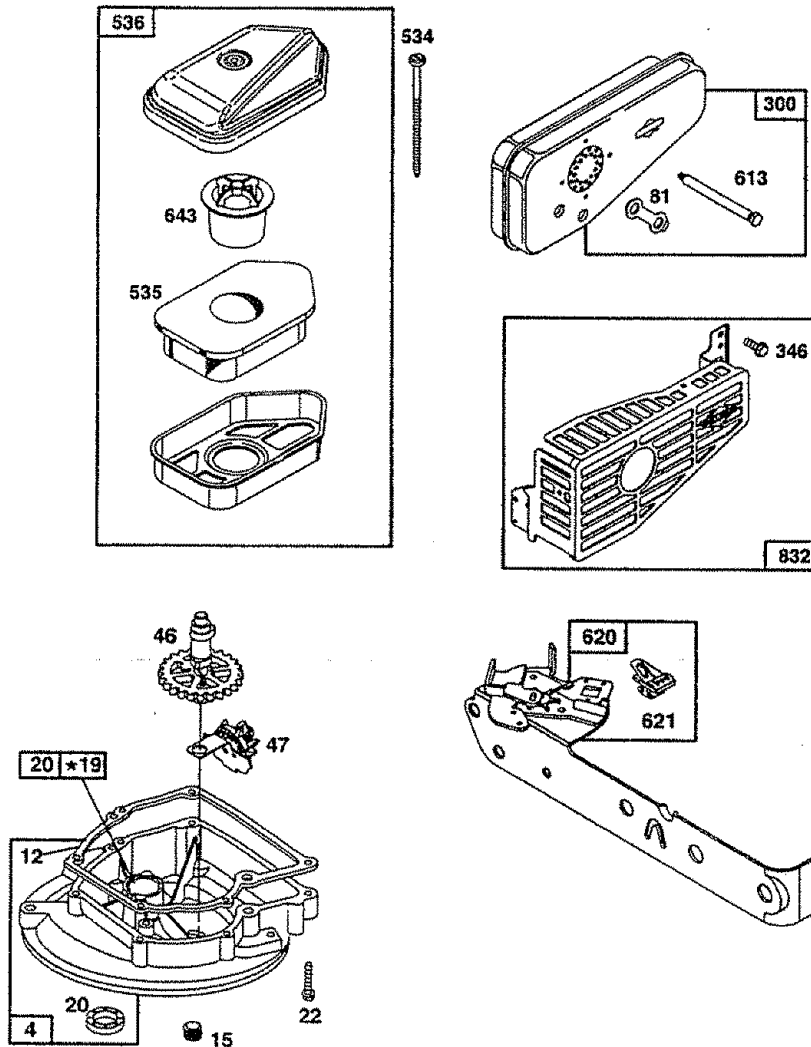
# PARTS

CRAFTSMAN 1650 PSI HIGH PRESSURE WASHER 580.761652  
 BRIGGS & STRATTON 4-CYCLE ENGINE 10A902-233-01

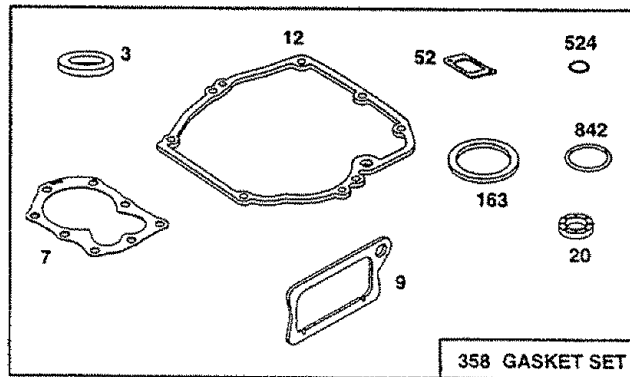


# PARTS

CRAFTSMAN 1650 PSI HIGH PRESSURE WASHER 580.761652  
 BRIGGS & STRATTON 4-CYCLE ENGINE 10A902-233-01



★ REQUIRES SPECIAL TOOLS TO INSTALL. SEE REPAIR INSTRUCTION MANUAL.



# PARTS

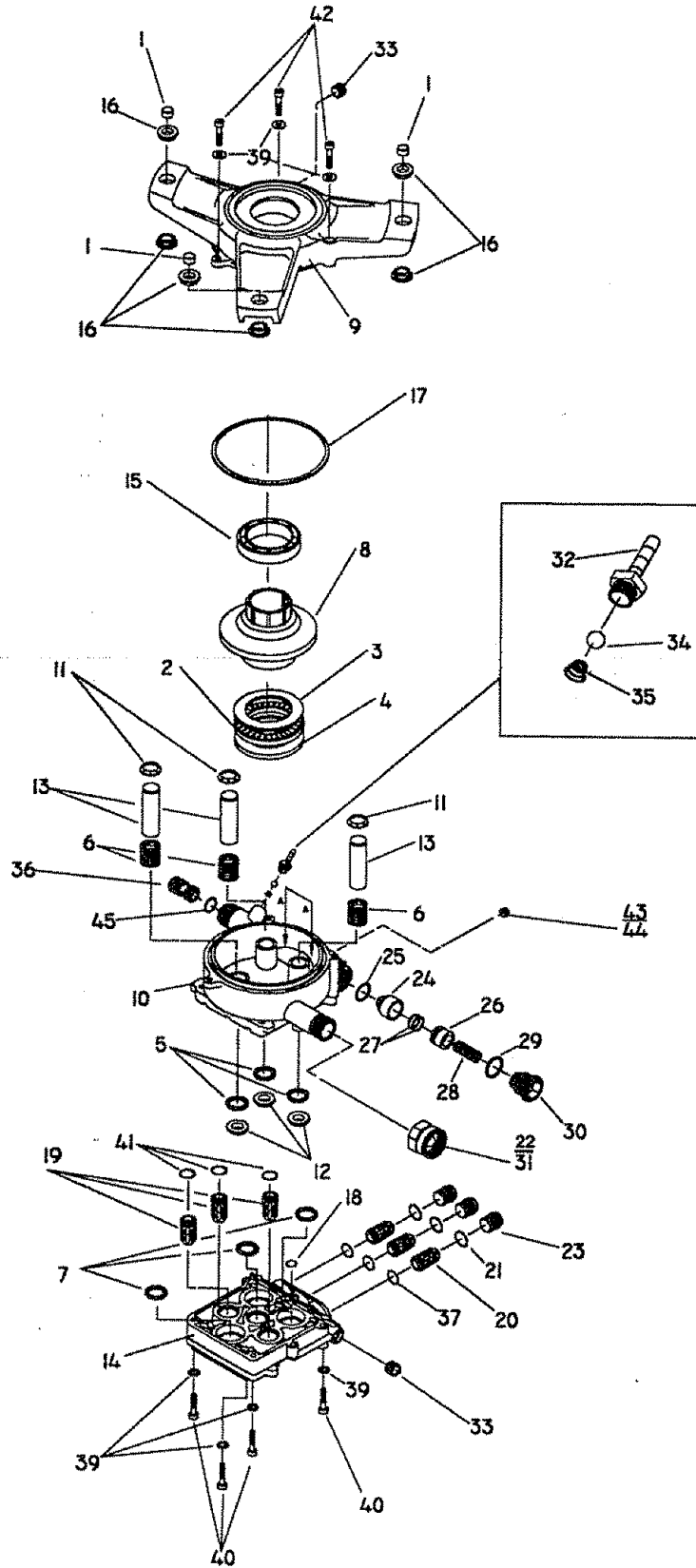
## CRAFTSMAN 1650 PSI HIGH PRESSURE WASHER 580.761652 BRIGGS & STRATTON 4-CYCLE ENGINE 10A902-233-01

Ref. No.	Part No.	Part Name
1	399164	Cylinder Assembly
2	293708	Bushing
3	*299819	Oil Seal
4	395384	Engine Sump
5	214277	Cylinder Head
7	*272694	Cylinder Head Gasket
8	298383	Breather Assembly
9	*272602	Breather Gasket
9A	*272481	Breather Gasket
10	94621	Hex Screw
11	231774	Breather Tube
12	*270833	Crankcase Gasket
13	93111	Hex Screw
15	94720	Oil Drain Plug
16	496839	Crankshaft
19	293709	Bushing
20	*391483	Oil Seal
22	94682	Hex Screw
23	496278	Flywheel
24	222698	Flywheel Key
25	498668	Piston Assembly (Standard)
	498669	Piston Assembly (.010" O.S.)
	498669	Piston Assembly (.020" O.S.)
	498671	Piston Assembly (.030" O.S.)
26	498672	Ring Set (Standard)
	498673	Ring Set (.010" O. S.)
	498674	Ring Set (.020" O. S.)
	498675	Ring Set (.030" O.S.)
27	26026	Piston Pin Lock
28	298909	Piston Pin (Standard)
	298908	Piston Pin (.005" O. S.)
29	496792	Connecting Rod
32	94699	Hex Screw
33	296676	Exhaust Valve
34	296677	Intake Valve
35	260552	Valve Spring
37	225013	Flywheel Guard
40	93312	Valve Retainer
45	230173	Valve Tappet
46	493747	Cam Gear
47	491688	Oil Slinger
52	*270345	Intake Gasket
54	93485	Hex. Screw
56	281336	Starter Pulley
57	490179	Rewind Starter Spring
58	280406	Starter Rope (Cut to Required Length)
59	396892	Grip Insert
60	393152	Starter Rope Grip
66	399671	Starter Clutch
67	394897	Clutch Housing
68	63770	Clutch Ball
70	298799	Clutch Ratchet
71	394506	Retainer Washer
75	223407	Washer
76	68238	Seal

Ref. No.	Part No.	Part Name
81	223526	Muffler Screw Lock
96	224412	Throttle Shaft
125	498811	Carburetor
131	281437	Throttle Shaft
163	†271139	Air Cleaner Gasket
180	494406	Fuel Tank
181	497929	Fuel Tank Cap
187	496046	Fuel Pipe
190	94712	Torx® Screw
200	281024	Governor Blade
201	262753	Link
209	263109	Governor Spring
209A	263113	Governor Spring
284	94073	Hex Screw
300	394644	Exhaust Muffler
306	221805	Cylinder Shield
333	398593	Magneto Armature
334	94731	Hex Screw
335	94732	Hex Screw
337	802592	Spark Plug
346	94602	Hex Screw
356	398808	Stop Wire
363	19069	Flywheel Puller
383	89838	Spark Plug Wrench
390	262764	Diaphragm Spring
393	262734	Carburetor Screen
394	495770	Carburetor Diaphragm
523	497968	Oil Fill Cap
524	*271485	Fill Tube Seal
525	280504	Oil Fill Tube
529	67838	Grommet (Breather)
534	93865	Slotted Screw
535	272335	Air Filter
536	497628	Air Cleaner
608	497797	Rewind Starter (5 o'clock position)
613	93935	Hex Screw
617	†270334	Intake Manifold Seal
620	498206	Control Bracket
621	396847	Stop Switch
625	298775	Intake Manifold
634	280566	Shaft Washer
635	66538	Spark Plug Boot
643	280972	Air Filter Retainer
670	94047	Spacer
741	261533	Timing Gear
832	494896	Muffler Guard
842	*270920	Cap Seal
847	497969	Oil Fill Tube
851	493880	Cable Terminal
869	211172	Intake Valve Seat
870	211291	Exhaust Valve Seat
871	231348	Guide Bushing (Exhaust Valve)
	63709	Guide Bushing (Intake Valve)
913	494409	Check Valve Seat
973	281661	Trim Ring
976	494408	Carburetor Primer
1019	497624	Label Kit
1058	273366	Valve Overhaul Gasket Set

# PARTS

CRAFTSMAN 1650 PSI HIGH PRESSURE WASHER 580.761652



# PARTS

## CRAFTSMAN 1650 PSI HIGH PRESSURE WASHER 580.761652

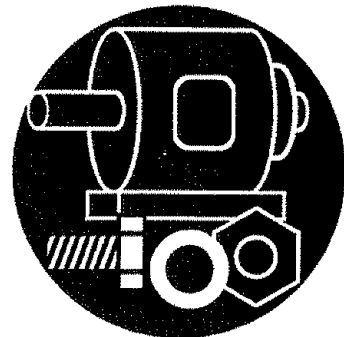
ITEM	PART NO.	DESCRIPTION
1	96795	SLEEVE, RUBBER GROMMET SPACER (3 REQ.)
2	21640	ASSY., CAGE NEEDLE BEARING 45 X 65 (1 REQ.)
3	21641	WASHER, BRG. DIA. 45 x 65 x 1T (1 REQ.)
4	21642	WASHER, BRG. DIA. 36 x 65 x 6T [SPECIAL] (1 REQ.)
5	93680	SEAL, OIL PISTON DIA. 15 (3 REQ.)
6	97828	SPRING, PISTON RETURN - EG (3 REQ.)
7	93667	SEAL, U-CLIP (3 REQ.)
8	98304	CAM, AXIAL 5.6mm w/INSERT (1 REQ.)
9	98227	ADAPTER, ENGINE (1 REQ.)
10	20110V	HOUSING, PISTON AND UNLOADER (1 REQ.)
11	97830	RETAINER, PISTON SPRING (3 REQ.)
12	97831	SPACER, PILOT (3 REQ.)
13	97832	PISTON, DIA. 15-65 LONG (3 REQ.)
14	A1111B	HEAD, PUMP (1 REQ.)
15	57018	BEARING, BALL RADIAL (1 REQ.)
16	21429	BUSHING, RUBBER (6 REQ.)
17	97835	"O" RING, HOUSING SEAL (1 REQ.)
18	97837	"O" RING, HI-PRESSURE TRANSFER (1 REQ.)
19	97838	ASS'Y, CHECK VALVE - INLET (3 REQ.)
20	97839	ASS'Y, CHECK VALVE - OUTLET (3 REQ.)
21	97840	"O" RING, INLET PORT CAP (3 REQ.)
22	21781	QUICK CONNECT, BRASS, MALE, PUMP (1 REQ.)
23	97841	CAP, INLET PORT (3 REQ.)
24	97842	SEAT, UNLOADER (1 REQ.)
25	97843	"O" RING, UNLOADER VENTURI (1 REQ.)
26	B1253	PISTON, UNLOADER (1 REQ.)
27	97845	SEAL, UNLOADER "PARBACK" (2 REQ.)
28	A2731	SPRING, UNLOADER (1 REQ.)
29	97847	"O" RING, UNLOADER CAP (1 REQ.)
30	A2730	CAP, UNLOADER (1 REQ.)
31	21782	QUICK CONNECT, BRASS, FEMALE/HOSE (1 REQ.)
32	A1575	BARB, HOSE WITH NYLON INSERT (1 REQ.)
33	96137	PLUG, 1/8" NPT [WITH SEALANT] (2 REQ.)
34	95379	BALL, DIA. 5.5 CHEMICAL INJECTOR (1 REQ.)
35	95380	SPRING, CHEMICAL INJECTOR (1 REQ.)
36	20631	VENTURI, CHEMICAL INJECTOR (1 REQ.)
37	97934	"O" RING, CHECK VALVE - INLET (3 REQ.)
39	93873	LOCK WASHER, M6 RIBBED (7 REQ.)
40	40946	SOCKET HEAD CAPSCREW M6-1.0 x 35mm (4 REQ.)
41	97851	"O" RING PISTON HOUSING (3 REQ.)
42	97962	SOCKET HEAD CAPSCREW, M6-1.0 x 25mm (3 REQ.)
43	50873	1/4" NPT PIPE PLUG (1 REQ.)
44	20876	.5 OZ. SEALANT, THREAD LOCKTITE 242 (0 REQ.)
45	B1077	"O" RING VENTURI (1 REQ.)

**For the repair or replacement parts you need delivered directly to your home**

Call 7 a.m. - 7 p.m., 7 days a week

**1-800-366-PART**

(1-800-366-7278)



**For in-home major brand repair service**

Call 24 hours a day, 7 days a week

**1-800-4-REPAIR**

(1-800-473-7247)



**For the location of a  
Sears Parts and Repair Center  
in your area**

Call 24 hours a day, 7 days a week

**1-800-488-1222**



**For information on purchasing a Sears  
Maintenance Agreement or to inquire  
about an existing agreement**

Call 9 a.m. - 5 p.m., Monday-Saturday

**1-800-827-6655**



The model number of your product is on a decal attached to the pressure washer.  
The model number of the engine is located on the blower housing of the engine.  
When requesting service or ordering parts, always provide the following information:

- Product Type
- Model Number
- Part Number
- Part Description

**SEARS**  
**REPAIR SERVICES**  
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