Operators Manual

P00125 Jetter

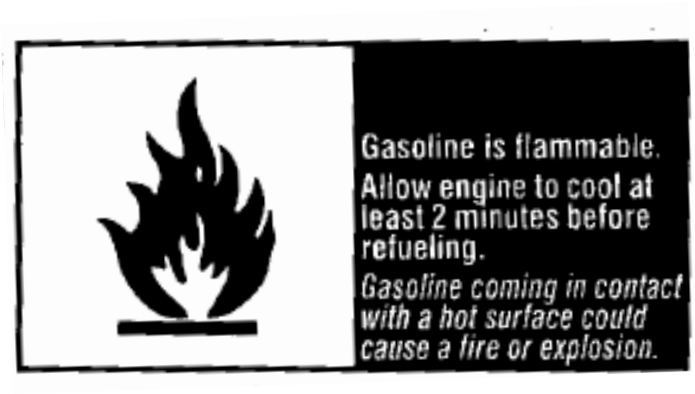
Model	PSI	GPM	CC
P00125	3000	4.0	390 Honda

Thank you for selecting our products. Our personnel have proudly made every effort to ensure that your new pressure washer is of the quality you expect. But things do occasionally go wrong. This is why every pressure washer is covered by a limited warranty. Among other things, this warranty provides for the replacement of parts found to be defective during the operation of your new pressure washer. Please note that the owner/operator has certain obligations under the terms of the warranty. Be sure to read this manual for directions on proper installation, start-up, use, and storage of your pressure washer.

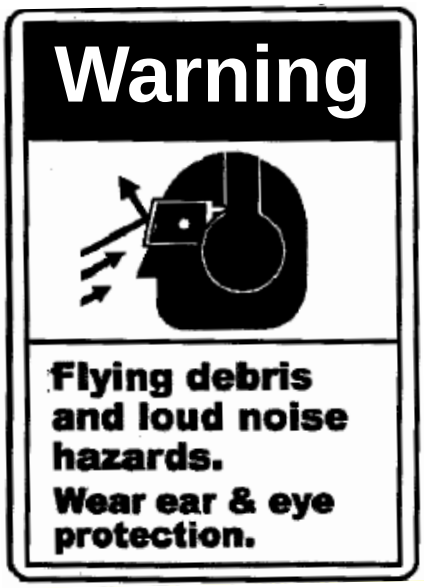
Your new jetter was tested after production for proper pressure and flow. Please note that this process will sometimes leave a water residue in the pump. The dealer you have purchased your new machine from should review with you the proper installation, start-up, use, and storage. Most 'big' problems occur when shortcuts are taken in one of these processes. If a problem occurs that you need some assistance with, please feel free to contact us at the listing below:

Warranty Service Center
520 Brooks Road
Iowa Falls, IA 50126
1.800.648.6007

Please make note of Model Identification
Model #_____
Code #_____
Serial #_____
Always have this information when calling Warranty Service Center.



Be familiar with the model plate located on your machine. Have the model and code number with you when you call for service. **(Located on engine)**.



WARNING

This product can expose you to chemicals, including lead, Chromium, Nickel, DEHP, DINP, and carbon monoxide which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The products we sell are not intended for use in potable water systems and are only for industrial non-drinking water applications.

Statement of Warranty

The manufacturer of this product agrees to repair or replace designated parts that prove defective within the warranty period listed in the chart below. Specific limitations and exclusions apply. This warranty covers defects in material and workmanship and not failure due to normal wear, depreciation, abuse, accidental damage, negligence, improper use, maintenance or storage. To make claim under the terms of the warranty, all parts said to be defective must be returned to a designated Warranty Service Center for warranty inspection. The judgments and decisions of the factory-authorized personnel concerning the validity of warranty claims are final.

Many components are covered by warranties given by their respective manufacturers. These warranties pass through to the end user. As a factory authorized and trained warranty service center the factory will honor the terms of all component warranties and satisfy claims of the appropriate warranty provisions.

Normal wear items include but are not limited to: hoses, nozzles, filter, valves, seals and are not covered by this warranty.

This warranty is in lieu of all other warranties, express or implied, including without limitation any warranties of merchantability or fitness for a particular purpose and all such warranties are hereby disclaimed and excluded by the Manufacturer. The Manufacturer's warranty obligation is limited to repair and replacement of defective products as provided herein and the Manufacturer shall not be liable for any further loss, damages or expenses, including damages from shipping, accident, abuse, acts of God, misuse or neglect. Neither is damage from repairs using parts not purchased from the Manufacturer or alterations performed by non-factory authorized personnel. Failure to install and operate equipment according to the guidelines put forth in the instruction manual shall void warranty.

Manufacturer	Warranty Period and Details
AR Pump	2 year 1 year on Pump/Motor units 1 year axial
Cat Pump	5 year on 2SF and 4SF models
	2 year on 5DX models 1 year axial
General Pump	5 year on pumps
	Lifetime on brass manifold against freezing
	1 year on Pump/Motor units
	1 year on the aluminum manifold
	1 year axial
Udor Pumps	5 year 1 year axial
Briggs and Stratton	1 year on standard engines
	2 year on Intek and Vanguard products
Hatz Diesel Engines	1 year
Honda Engines	3 year on GX series Engines effective 1/1/09
	2 year on GC products for personal use
	90 days on GC products in commercial use
Robin Engines	2 year
Baldor Electric Motors	1 year from date of purchase
Leeson Electric Motors	1 year from date of purchase
Burners	1 Year from date of purchase
Hot Water Coils	Lifetimeof the machine
Machine Frame	1 year from date of purchase
Accessories: Includes tips, guns, wands, hoses, injectors, unloaders, gauges, switches, thermostats, sandblasters, flat surface cleaners, hose reels, turbo nozzles, drain nozzles, brushes, foamers, GFCI units, thermal relief, filters, tanks, etc.	90 days

WARNING

The following warnings must be followed. Failure to follow these warnings could result in serious personal injury or death!

Never allow children or untrained personnel to operate machinery.

CAUTION

Gun kicks back--hold with both hands.

High pressure water can cause death or serious injury.
Wear protective clothing and face shield.
Do not direct water stream toward self or others.
Do not spray electrical apparatus.

Pressurized fluid streams and ruptured pressure vessels can cause death or serious injury.
High pressure fluid can create a high-pressure stream or ruptured vessel.
Wear safety face shield.
Relieve pressure before servicing.
Do not modify/repair/rework vessel or change safety relief or pressure setting.
Do not direct stream toward self or others.

Exhaust fumes contain harmful gases.
Use in open, well ventilated areas or vent the exhaust to the outside.

Exhaust gases can cause death or serious injury.

Important Safety Instructions

WARNING - when using this product, the following basic precautions should always be followed:

1. Read all the instructions before using the product.
2. To reduce the risk of injury, close supervision is necessary when a product is used near children.
3. Know how to stop the product and bleed pressure quickly. Be thoroughly familiar with the controls.
4. Stay alert--watch what you are doing.
5. Do not operate the product when fatigued or under the influence of alcohol or drugs.
6. Keep operating area clear of all persons.
7. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
8. Follow the maintenance instructions specified in the manual.
9. WARNING - Risk of injection or injury--do not direct discharge stream at persons.

Save these instructions

Initial setup and operation of your new jetter/pressure washer

Inspection for freight damage

When you receive your pressure washer, be sure you check for concealed freight damage. Any damage should be noted with the delivering carrier. If you have any questions related to freight, call the 800 number listed on the inside front cover of the manual.

Inspection of oil levels

Check all oil levels in the pump or engine, if applicable. Failure to check all levels will result in equipment damage. Most pumps are shipped with oil from the factory and the crankcase is sealed. You may have to remove a shipping plug and install a dipstick in the pump.

Water supply

Your water supply must provide water to the equipment that exceeds the Gallon Per Minute (GPM) rate of your machine. You can check your GPM by using a five-gallon bucket and a timer. If your machine is five GPM or less and the bucket fills in less than a minute you have adequate supply. Some systems are affected by washing machines, livestock watering systems, and flushing of toilets. Be sure the supply is still adequate when these operations are taking place. The water temperature cannot exceed 145 degrees Fahrenheit. Pressure should not exceed 60 PSI. Failure to secure adequate water supply will result in pump damage. Do not run pump dry!

Water quality

Your water supply should not contain particles larger than 80 microns. Although there are small filters installed on pressure washers that filter the water, they can only filter poor quality water for a short period of time before clogging. This will result in damage to the machine. Therefore, you should insure no sand or scale particles are present in the water supply.

Supply hose

Hook a garden hose from the hydrant to the machine. When doing this, be sure to check the inlet water filter or screen. This hose should be at least 5/8" diameter with a length at least 15 feet. This 15' length helps isolate the water supply from pulsations from the pump. Many states require a vacuum break or backflow preventor be installed at the hydrant, before the garden hose, to insure the water source cannot be contaminated. Be sure to check local and state regulations upon installation.

Purge air

Turn on the water supply and open the trigger gun. This will purge all the air from the system. Look for water leaks and stop any leak found. Leaks can cause erratic pump behavior.

Pump/ engine

Prior to starting the engine, check the oil in the engine and pump. Be sure they are at proper operating levels and the correct oil for the conditions. Check your engine manual for oil type and conditions and the pump breakdown for proper oil for the pump.

Fuel

Be sure your engine is full of fresh, clean fuel.

Starting engine

Start your engine following the instructions in the engine manual. Be familiar with fuel shut off, throttle control, choke, and shut-off switch before starting. Allow engine to warm at half throttle for one to two minutes before operating washer. Before shutting down, run engine at half throttle for one to two minutes.

⚠ WARNING

In drain jetting applications, ***the hose must be inserted into the drain line at least five feet before starting water flow.*** Be sure machine is not powered on before hose is inserted into the drain. Be sure machine is shut down before removing the hose from the drain. Always be sure hose is marked at the point five feet from the nozzle to identify nozzle position.

Jetter operating procedure

Starting engine

1. Be sure water supply exceeds the gallons per minute (GPM) rating for the machine. (see page 5).
2. Turn on water supply.
3. Remove drain nozzle from hose.

⚠ WARNING

4. Insert jetter hose *a minimum of 5'* into the drain and secure. *Failure to secure hose may result in personal injury or death.*
5. Open discharge valve on the reel.
6. Start your engine and allow pump to prime until all air is purged from hose and you have a good solid stream of water from hose.
7. Shut off the water flow with the discharge valve and reinstall your drain nozzle.
8. Allow engine to warm up in this position for 1 - 2 minutes.
9. Reinsert jetter hose *a minimum of 5'* into the drain and secure. *Failure to secure hose may result in personal injury or death.*

⚠ WARNING

10. You are now ready to begin jetting.

Pulsar valve

The pulsar valve is located on the center inlet valve of your pump (see page 8). Turning valve knob clockwise will disable the center cylinder of the pump, causing the hose to vibrate or pulse. The pulse feature is very helpful when executing long runs, tight blockages or maneuvering corners. *For best results keep as much hose as possible either down the drain or snug on the reel*. Having the hose snug on the reel will greatly increase the effectiveness of the pulse valve.

During operation

The pressure was set at the factory during the testing procedure; no adjustments to the machine should be required for operation. During operation, do not leave the machine running for more than two minutes without the trigger gun being pulled. Although your machine has a by-pass valve on it and may have a thermal relief system, this pressure build-up can cause extensive pump damage. If machine will not be discharging water for more than two minutes, shut the machine off.

Accessory operation

⚠ WARNING Use extreme caution when attaching devices to the discharge of this equipment. Allow only trained individuals to operate this machinery. The attachments must be rated to operate within the pressure range of the equipment or injury could occur. Only use attachments designed, rated, and sized for the equipment by the manufacturer.

Hose and reels

The discharge hoses and fittings should be inspected before every use. Also inspect the connections made on the hose reels. Refer to accessories listing and exploded views included for specifications and replacement parts.

Hose sizing

For pressure wash applications, the ideal hose to deliver adequate water flow and pressure at distances up to 300 feet is a 3/8" ID hose with a minimum burst pressure rating no less than four times the operating pressure of the equipment. For drain jetting and sewer cleaning, a hose should be selected for the adequate pressure range and length needed. The diameter of the hose should be chosen from the chart below for the application requirements.

Hose size considerations

Hose size	**Pipe size**	**Typical application**
3/8" or 5/16"	4" to 8" lines	Floor drains, septic lines, and long runs
1/4"	2" to 4" lines	Kitchen, laundry drains, and clean-outs
1/8"	1" to 2" lines	Tight bends, bathroom and trap lines

-Remember, when selecting a hose, the smaller diameter and longer the hose, the greater the pressure and flow loss will be.
-Do not couple hoses together for drain jetting. The long couplings will get caught in bends in the drain lines.
-When drain jetting, always attach a shut-off valve, trigger gun, or foot valve directly to the hose to be inserted in the drain. This ensures safe shut-off of the water flow at the user's discretion.

⚠ WARNING

Drain and trap hoses

In drain jetting applications, the hose must be inserted into the drain line at least five feet before starting water flow. Be sure machine is not powered on before hose is inserted into the drain. Be sure machine is shut down before removing the hose from the drain. Always be sure hose is marked at the point five feet from the nozzle to identify nozzle position.

Drain and trap hoses listed in the accessory sheet are fitted with a twist-fast coupler. Your drain jetting equipment is shipped with an assortment of twist-fast couplers to make the necessary connections for the drain hose to be installed either on the existing hose, by removing the drain nozzle, or by installing it directly to the foot valve included on some models.

Nozzles

The nozzle, or tip, of the machine is used to restrict the discharge water flow to achieve the rated operating pressure of the equipment. Only use a properly sized nozzle for your equipment. The nozzle should be inspected before every use for obstructions and nozzle wear. New nozzles can be selected from the accessory sheet enclosed in the Operator's Manual folder pocket.

Shut-down procedure

Shut-down

1. Turn off the power switch on the pressure washer.
2. Relieve pressure on line by pulling trigger gun.
3. Shut off water supply and disconnect garden hose.
4. Be sure to check for water leaks or oil leaks that should be repaired before the next operation.

Storage

5. If you are going to store the machine for extended periods of time in cold climates be sure to anti-freeze the equipment. A 50% anti-freeze solution may be drawn in through the inlet of the pump using a short remnant of garden hose. This fluid should be run through the pump. When the fluid is discharged from the pump discharge your machine is winterized. Do not allow machine to freeze.

Pump

The pump oil should be changed after the first 50 hours of operation. Then change every year after that for average use. Oil should be changed more frequently for extensive use or use in dusty areas or areas with high moisture.

Engine

If the engine is to be stored for an extended length of time, a fuel stabilizer is highly recommended. Failure to use a fuel stabilizer may result in varnishing in the carburetor or injectors and will require servicing to make the engine run.

Filters

Water filters, hoses, and fittings should be checked prior to every operation for cleanliness, leaks, and needed repair or replacement.

Troubleshooting

Despite the complexity of your jetter, a number of common complaints stem from relatively simple problems. With guidance, the user can identify and remedy many common problems.

Always disconnect the power supply before attempting to service any equipment.

Common problems and solutions

Malfunction	Cause	Remedy
Unit runs but no water discharges	-Water supply not turned on -Plugged nozzle on discharge -Shut off valve is malfunctioning	-Turn on water supply -Remove, clean, or replace nozzle -Remove, repair, or replace valve
Low nozzle pressure	-Plugged spray nozzle -Inlet screen is plugged -Insufficient water supply -Unloader valve stuck open -Plugged inlet or discharge hose -Use of additional lengths of hose	-Remove and clean or replace nozzle -Remove and clean or replace filter -Secure adequate water supply -Disassemble and clean, repair, or replace -Flush or replace hoses -Reduce discharge hose length
Surging pressure or drop in pressure	-Partially plugged spray nozzle -Worn nozzle -Soap (low pressure tip installed) -Restricted or leaking inlet hose, filter -Cavitation (inadequate water supply) -Worn pump packings -Fouled inlet or discharge valves -Broken valve spring -Worn or restricted unloader valve	-Remove and clean or replace nozzle -Remove and replace nozzle -Remove and install one of the nozzles -Check inlet hose, filter; clean or replace -Secure adequate water supply -Inspect and replace worn packings -Inspect and clean or replace valves -Inspect and replace valve spring -Inspect, repair, or replace unloader
Pressure at pump but low discharge pressure	-Restricted discharger	-Check for discharge obstructions in injector, gun, hose, valve, wand, and unloader.
Chemical injector not working properly	-Soap nozzle (low pressure tip) not installed -Injector valve not turned on -Discharge hose too long -Clogged injector pick up hose -Clogged injector	-Install nozzle with large hole -Turn on injector by turning fitting on injector -Reduce hose length or reposition injector to within 40’ of trigger gun -Remove, clean, and replace -Disassemble, clean, and reassemble -Inspect and replace
Water leaks from pump manifold	-Worn plungers or packings	-Inspect, clean or replace
Unloader does not bypass	-All valves fouled -Unloader valve seat fouled	-Inspect, clean or replace Unloader assly.
Unloader cycles when gun is shut off	-Leak in trigger or discharge line	-Inspect, repair or replace leaking fittings
Water in crankcase	-High humidity or direct water spray -Worn seals	-Reduce oil change intervals -Replace seals

Accessory
Hose Reel
D30002

Jetter Hose 3/8 x 200
509082.200
Jetter Hose 1/8 x 75
519038.75

Ball Valve
525116

Accessory Reel
Mounting Bracket
(See inset)

Detachable
Hose Reel
526489

Lynch Pin
526521

Throttle Valve
CAT 8100

Frame
510402

Pressure Gauge
520902

Battery Box
527806

Pop-Off Valve
(2500-3000)
515500
(3500-4000)
CAT 33961

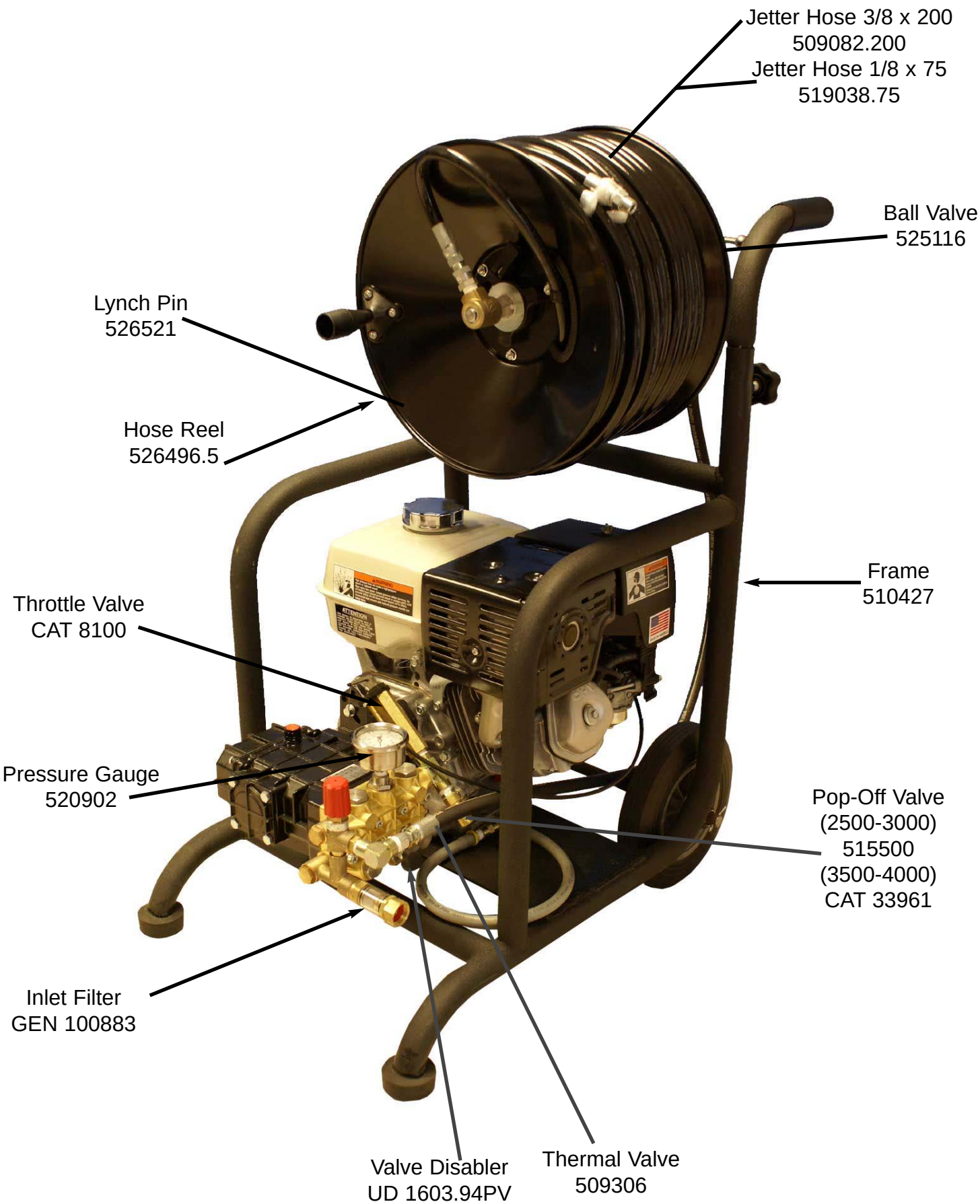
Inlet Filter
GEN 100883

Wheel
524518

Valve Disabler
(UD 1603.94PV)

Thermal Valve
509306

Wheel Cap
509570


Jetter Hose 3/8 x 200
509082.200
Jetter Hose 1/8 x 75
519038.75
Ball Valve
525116
Lynch Pin
526521
Hose Reel
526496.5
Frame
510427
Throttle Valve
CAT 8100
Pressure Gauge
520902
Pop-Off Valve
(2500-3000)
515500
(3500-4000)
CAT 33961
Inlet Filter
GEN 100883
Valve Disabler
UD 1603.94PV
Thermal Valve
509306

WARNING!

IF YOU SEE "IT" - STOP "IT": FAILURE TO PROPERLY REPAIR OR REPLACE HOSE AFTER EXPOSING WHITE BRAID REINFORCEMENT LAYER CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

DANGER

READ AND UNDERSTAND THE FOLLOWING:

LIKE STRANDS IN A BRIDGE CABLE, EACH REINFORCEMENT FIBER PLAYS AND EXACT ROLE IN THE ULTIMATE BURST STRENGTH OF THE HOSE. A **MINOR** SLICE OR NICK IN THE REINFORCEMENT CAN RESULT IN TOTAL HOSE FAILURE.

THE AGE OF THE HOSE **DOES NOT MATTER**! IT IS UNFORTUNATE, BUT EVEN HOSE USED (1) TIME CAN BE DAMAGED IN SEVERE APPLICATIONS. THESE HOSES MUST BE IMMEDIATELY REMOVED FROM SERVICE.

HOSE BASICS

1. NEVER EXCEED THE MAXIMUM WORKING **PRESSURE**
2. NEVER EXCEED THE MAXIMUM WORKING **TEMPERATURE**
3. NEVER APPLY PRESSURE TO A **DAMAGED** HOSE
4. HIGH PRESSURE HOSES ARE DESIGNED TO USE SPECIFIC **FITTINGS** AND **TOOLING.** NEVER USE A DIFFERENT **BRAND** OF FITTINGS OR TOOLING. FAILURE TO DO SO CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.
5. A **KINKED, CRUSHED,** OR **BLISTERED** HOSE WILL EVENTUALLY FAIL - DO NOT RISK INJURY. IMMEDIATELY REPAIR OR REMOVE HOSE FROM SERVICE

(See reverse side for excerpts from the 2003 WASTEC guidelines)