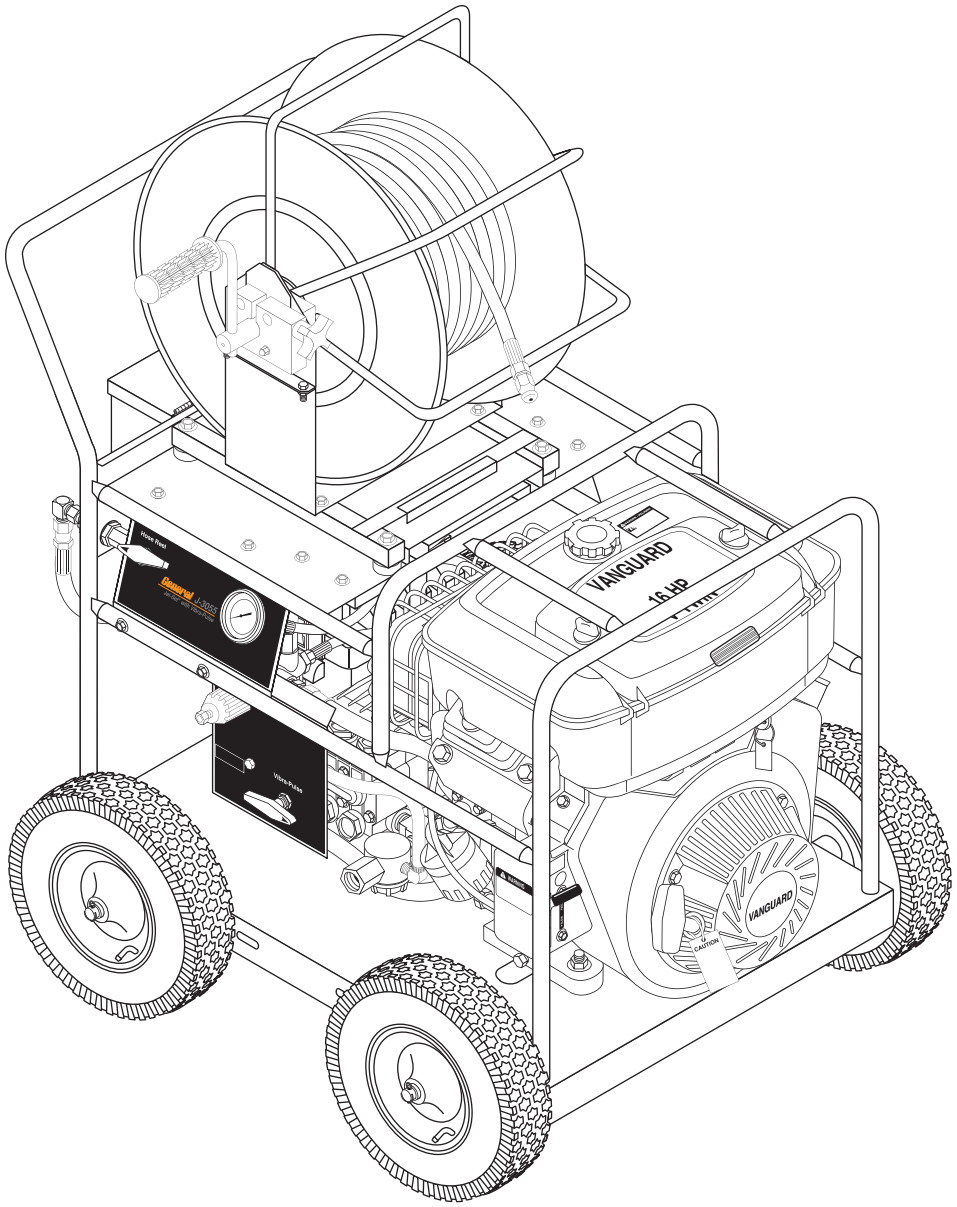
General's JET SET™

OPERATOR'S MANUAL

J-3055 and J-3080



General Wire Spring Co ■ USA ■ 1-412-771-6300 or 1-800-245-6200

8.914-327 / 8.914-327.0 / 97-6120

CONTENTS

Model Number _____

Serial Number _____

Date of Purchase _____

The model and serial numbers will be found on a decal attached to the pressure washer. You should record both serial number and date of purchase and keep in a safe place for future reference.

INTRODUCTION

Thank you for purchasing a General's Jet Set™.

This manual covers the operation and maintenance of models J-3055 and J-3080. All information in this manual is based on the latest product information available at time of printing.

General Wire Spring reserves the right to make changes at any time without incurring any obligation.

Owner/User Responsibility:

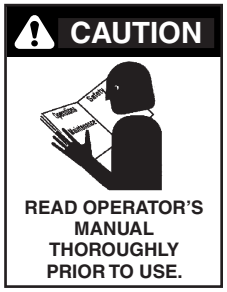
The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this General's Jet Set™. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number.

MACHINE SAFETY



CAUTION: To reduce the risk of injury, read operating instructions carefully before using.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage.
2. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details.

CAUTION: Risk of asphyxiation. Use this product only in a well ventilated area.

3. Avoid installing machines in small areas or near exhaust fans. Exhaust contains poisonous carbon monoxide gas; exposure may cause loss of consciousness and may lead to death. It also contains chemicals known, in certain quantities to cause cancer, birth defects or other reproductive harm.

WARNING: Flammable liquids can create fumes which can ignite causing property damage or severe injury.
WARNING: Risk of fire. Do not add fuel when the product is operating.
WARNING: Risk of explosion — do not spray flammable liquids.

4. Do not place machine near flammable objects as the engine is hot.
5. Allow engine to cool for 2 minutes before refueling. If any fuel is spilled, make sure the area is dry before testing the spark plug or starting the engine. (Fire and/or explosion may occur if this is not done.)

   Gasoline engines on mobile or portable equipment shall be refueled:

   (a) outdoors;

   (b) with the engine on the equipment stopped;

   (c) with no source of ignition within 10 feet of the dispensing point; and

   (d) with an allowance made for expansion of the fuel should the equipment be exposed to a higher ambient temperature.

   In an overfilling situation, additional precautions are necessary to ensure that the situation is handled in a safe manner.

CAUTION: High pressure stream of water that this equipment can produce can pierce skin and its underlying tissues, leading to serious injury and possible amputation.

CAUTION: Do not touch engine during operation. The muffler and other parts of the engine get hot and can cause severe burns.

WARNING: High pressure spray can cause particles to become airborne and fly at high speeds.

6. Eye safety devices, rubber gloves, ear plugs and foot protection must be worn when using this equipment.
7. High pressure developed by these machines will cause personal injury or equipment damage. Use caution when operating. Do not direct discharge stream at people or severe injury or death will result.
8. Never make adjustments on machine while it is in operation.
9. Do not operate valve in the off position for extensive periods of time as this may cause damage to the pump.
10. The best insurance against an accident is precaution and knowledge of the machine.
11. General Wire Spring will not be liable for any changes made to our standard machines, or any components not purchased from General Wire Spring.
12. Read engine safety instructions provided.

WARNING: Keep water spray away from electric wiring or fatal electric shock may result.

13. Never run pump dry.
14. Do not allow children to operate the General's Jet Set™ at any time.
15. Inlet water supply must be cold and clean fresh water.

ASSEMBLY

Upon arrival, inspect the shipping crate for damages. Uncrate and examine all parts. Note any damage to machine or components for claims against freight carrier.

The tires on the jets may be partially deflated for packing and shipment. Reinflate tires to the pressure specified on the side of the tire before using the machine.

Jets have antifreeze in the pump to protect it from freezing conditions during shipment and storage. If machine will be stored and operated in a cold climate, follow Freeze Protection instructions on page 11.

PRE-OPERATION CHECK

- ❑ Pump oil (SAE 30W non-detergent oil)
- ❑ Gear reduction (90W gear lube)
- ❑ Cold clean fresh water supply (6 GPM • 3/4" (15.875 mm) • 20 PSI)
- ❑ Hose, nozzle
- ❑ Fuel (unleaded 86 or higher octane)
- ❑ Engine oil (SAE 10W40)

SETUP PROCEDURES

These machines are meant to be used at or near the working area and under operator supervision. If machine must be located out of sight of the operator, special controls may be required for proper machine operation and operator safety.

Locate the equipment on a solid level area with slopes for drainage. Avoid areas where water can be sprayed at machine.

Before using the jet, make sure there are no impurities in the incoming water supply. Turn the water source on for at least 15 seconds, to remove any possible debris in the water before connecting hose to water inlet swivel.

The inlet screen located inside the filter should be cleaned before each use. To clean the inlet screen, unscrew cap beneath the filter, remove the screen and rinse thoroughly with water. Then replace screen.

Connect one end of a garden hose (not included) to the water faucet — water supply not to exceed 100 PSI *(6.9 bar)* and the other end to the water inlet of the jet machine. (See component identification drawings on next pages.) Use heavy duty 3/4" hose of no more than 50 ft. *(15 m)* in length. If run without an adequate water supply, the pump will cavitate. Cavitation causes the pump to vibrate, causing damage to the pump. **NOTE:** Lack of water supply can lead to seal damage, causing a loss of pressure and will void the warranty to the pump.

Maximum temperature from the water source should not exceed 140°F *(60°C)*. Using water hotter than 140°F *(60°C)* can cause damage to the pump and void the warranty. If jet is being used to clear ice blockages, see instructions on page 10.

Remove oil plug on top of pump and replace with dipstick supplied. Fill engine with oil. Refer to engine manual for quantity.

Hose Selection Guide

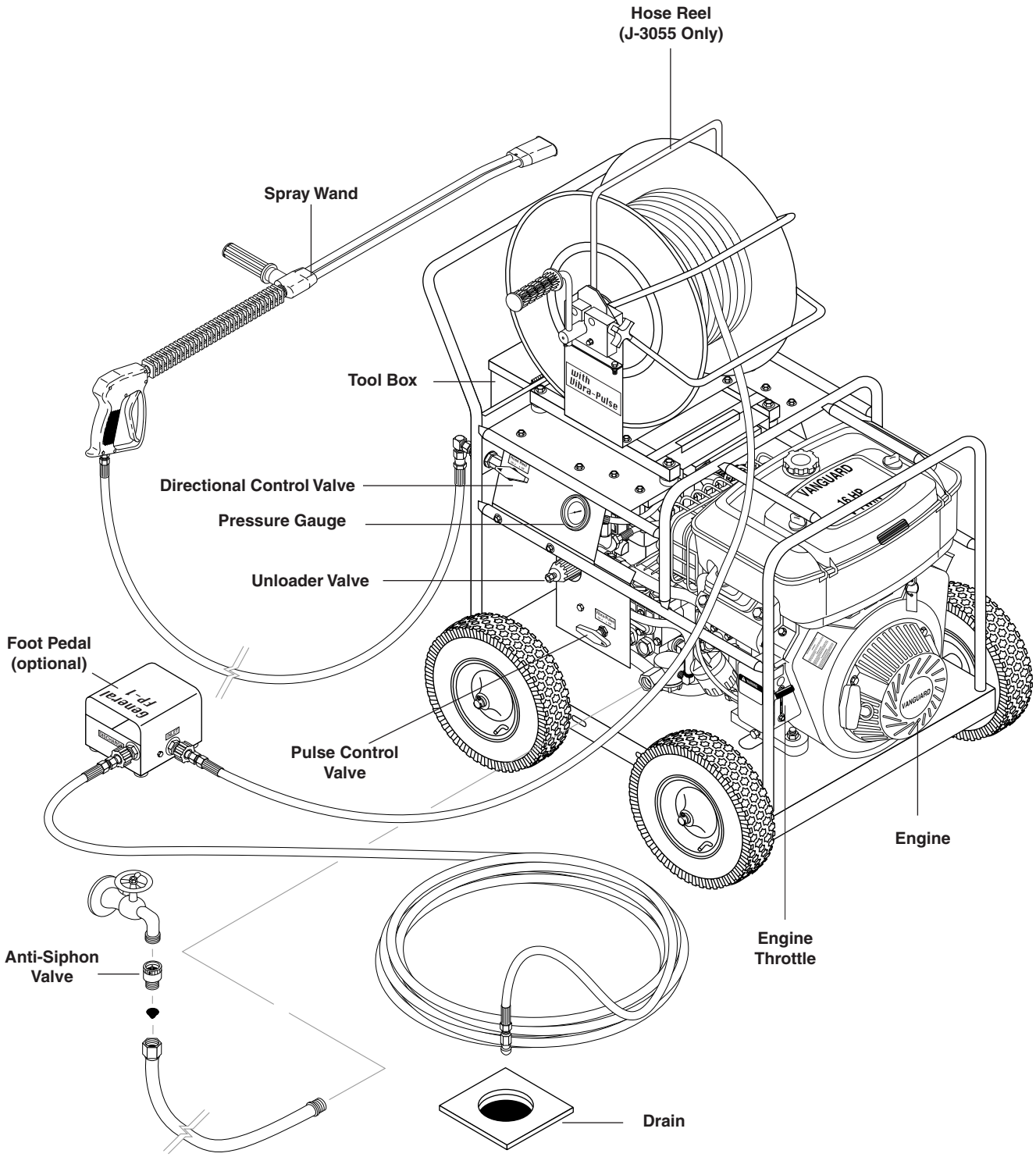
Select the proper hose diameter for the line to be cleaned. When using new hose, run water through it to clean it out before attaching the nozzle.

Hose Size (ID)*	Pipe Size	Typical Applications
3/8" or 5/16" *(9.925 mm to 7.938 mm)*	4" to 8" *(102 mm to 203 mm)*	Floor drains, septic lines, long runs
1/4" *(6.350 mm)*	2" to 4" *(51 mm to 102 mm)*	Kitchen sinks, laundry drains, clean outs
1/8" *(3.175 mm)*	1-1/2" to 2" *(38 mm to 51 mm)*	Small lines, bathroom sinks, tight bends

* Inside Diameter

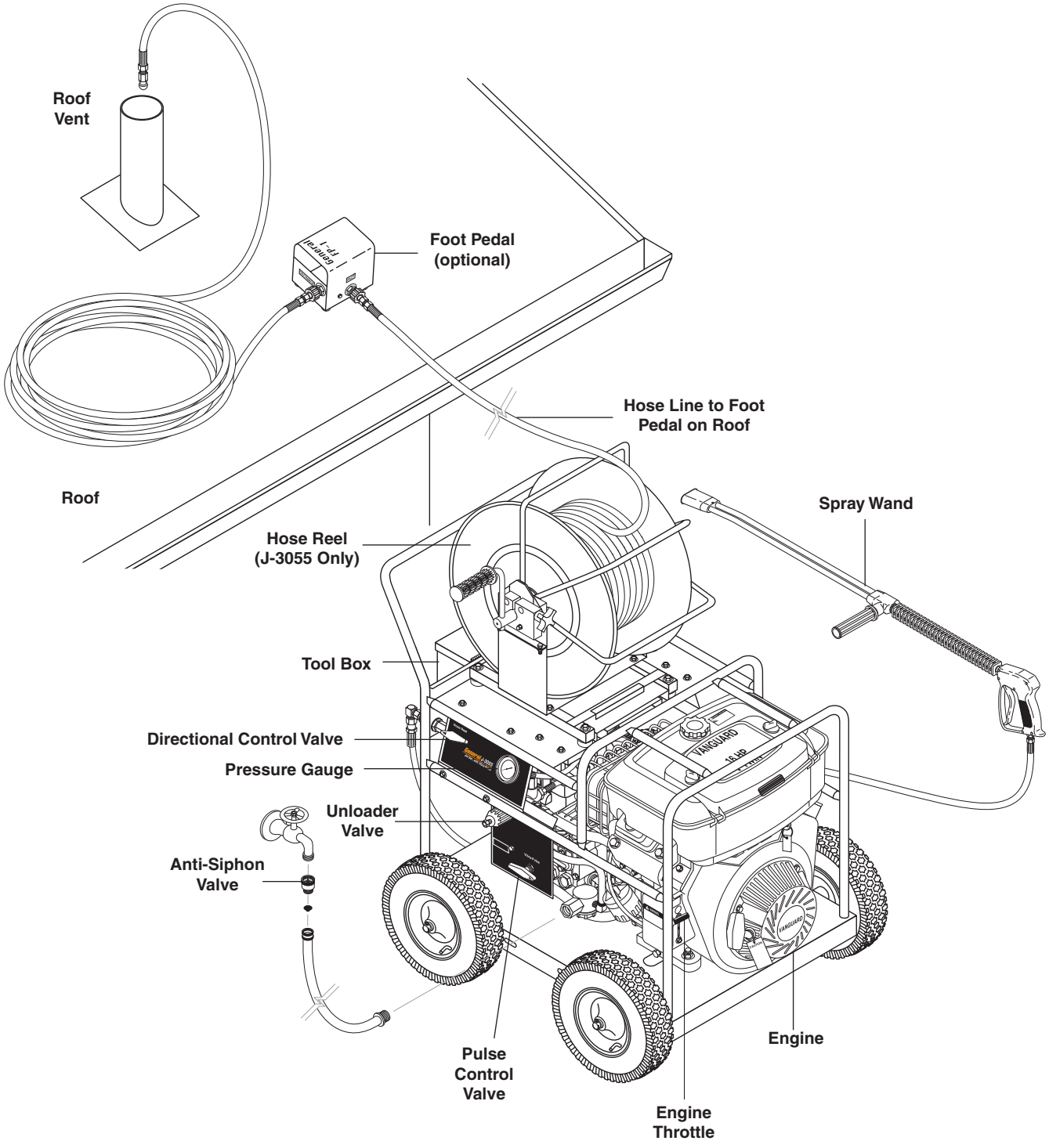
COMPONENT IDENTIFICATION AND USE

DRAIN CLEANING



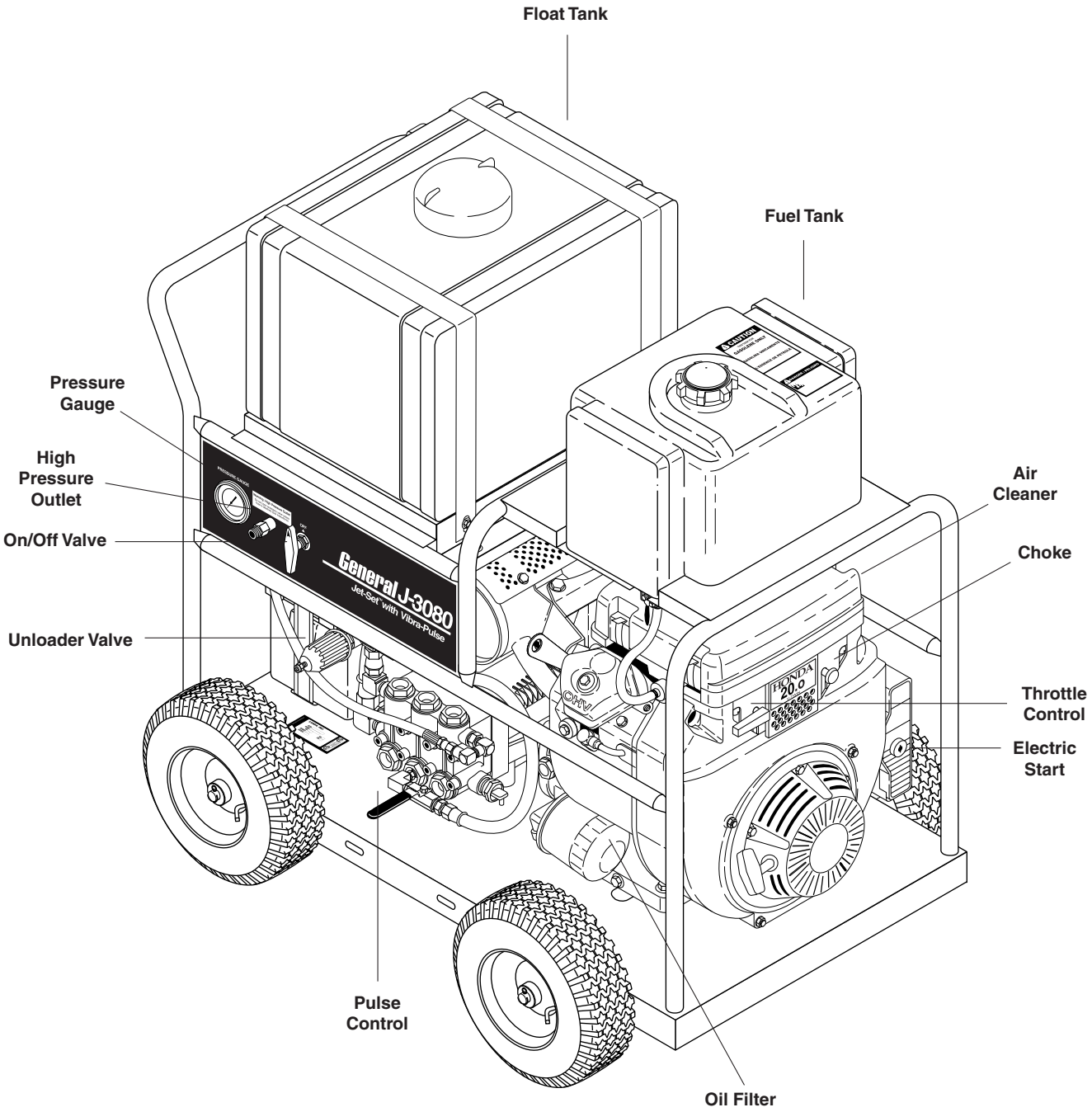
COMPONENT IDENTIFICATION AND USE

DRAIN CLEANING THROUGH ROOF VENT



COMPONENT IDENTIFICATION

J-3080



When selecting hose size, consider that pressure is lost as the water travels down the length of the hose. As the length increases, the pressure decreases. In addition, the smaller the diameter of the hose, the greater the loss of pressure per foot will be. As an example, at 2 GPM *(.13L/sec)* a 1/4" *(6.350 mm)* hose will lose 180 lbs. *(12.4 bar)* of pressure over 100 ft. *(30.5 m)* of hose, yet a 3/8" *(9.925 mm)* hose will only lose 25 lbs. *(1.7 bar)* of pressure over the same length and at the same flow rate. At 4 GPM, a 3/8" hose will lose 90 lbs. *(6.2 bar)* of pressure over a 100 ft. *(30.5 m)* length. The gauge reflects pressure from the pump only, not pressure at the end of the hose. It is important to select the largest possible hose size in order to have as much pressure as possible at the end of the hose.

Hoses of the same diameter may be coupled together using the CC-1 coupling, but it is not recommended for use in lines smaller than 8" *(203 mm)* in diameter. The long length of the hose connectors and coupling together can get caught in bends in the line.

Coupling two different size hoses can be done through the spray wand trigger or foot pedal.

It is not advisable to have two different hose sizes coupled in a drain line. There is a tremendous loss of pressure when combined, aside from the difficulty of getting around bends.

The 3/8" *(9.925 mm)* and 1/4" *(6.350 mm)* hoses may be attached to the fitting in the core of the hose reel using the swivel at one end of the hose. The 3/8" hose may also be attached directly to the accessory outlet by using a twist connect. The 1/4" and 1/8" *(3.175 mm)* hoses may be connected directly to the accessory outlet if an adapter fitting (AD-1 or AD-2) is used between the hose and quick connect. Adapters may be ordered separately.

Often, the 1/8" hose is used in conjunction with the spray wand trigger to give the operator finger tip control. Remove the spray wand from the trigger and attach the 1/8" hose using the AD-3 adapter.

A foot pedal FP-1 valve is available that can be used as a safety shut-off valve for all hose sizes. See foot pedal section for installation and operating instructions.

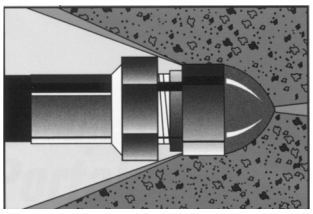
Nozzles

A number of types of nozzles are available for drain cleaning. Each has a different spray pattern. Some nozzles may have a hole in the front to cut though the stoppage. All will have holes in the back to drive the hose down the line and clean the walls of the pipe. A tight spray pattern (15°) has more driving power for long runs, a wide spray pattern (40°) does a better job of cutting the grease off the walls of the pipe. A combination of nozzles may be required to clear a line. Always turn off the machine and shut off valve before changing nozzles.

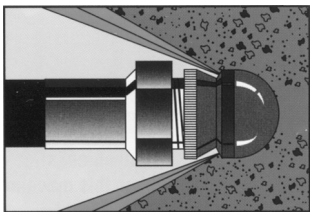
Make sure the nozzle you are using matches the pump size. A 3000 PSI *(207 bar)* pump requires a different nozzle orifice than a 1500 PSI *(104 bar)* pump. Mismatching nozzles with pump size will either cause too little pressure which may not clear the drain, or too much pressure which may damage the machine.

Check nozzles before and after each use for clogged holes which can cause pressure to increase to dangerously high levels and damage the pump. A clogged hole can be cleared by simply using the NCT Nozzle Cleaning Tool.

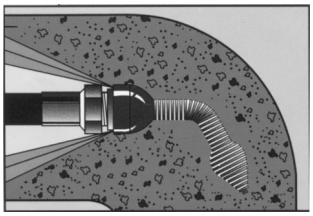
Use the nozzle selection guide to determine what nozzle you will need for various applications. Example: If a nozzle is stamped #22, it is a JN-22, 15° rearjets, 2 GPM *(.13L/sec)* @ 1500 PSI *(104 bar)* with a forward cutting jet. Spring leader nozzles and down head nozzles are special nozzles to help aid hose travel through the pipe when there are a lot of curves and bends.



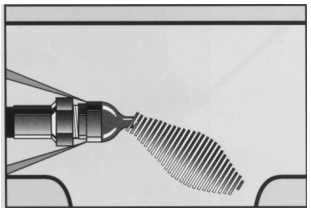
Powerful penetrating nozzle cuts through grease and ice.



Wide spray flushing nozzle cleans inside of pipe thoroughly.

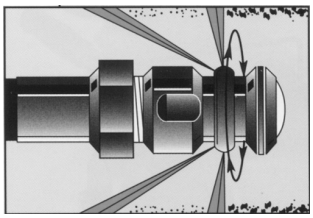


Spring leader nozzle gets hose around tight bends and P-traps



(Optional)

Downhead nozzle takes hose down Tee's and around difficult corners.



(Optional)

Rotary nozzle scours walls of pipe crystal clear.

NOZZLE SELECTION GUIDE

	1/8"	1/4"	3/8"
15° No Forward Jet	61	71	81
15° w/Forward Jet	62	72	82
30° No Forward Jet	63	-	-
40° No Forward Jet	-	74	84
Spring Leader (JNSL)	7	8	9
Rotary Nozzle	-	4	-

* Rotary Nozzles can be adapted to 1/8" and 3/8" hose using AD-3 or AD-4 adapters

Rotary Nozzles

Rotary nozzles are useful as a finishing tool. After the line has been cleared, you may switch to the rotary nozzle to more thoroughly clean the walls of the pipe. Use these nozzles only in a predominantly straight run since they are longer than regular nozzles and may get caught in tight bends.

PRE-OPERATION CHECKLIST

- ❑ Be sure you understand all safety precautions and have been trained to use the machine.
- ❑ Wear goggles or a face shield to protect your eyes from spray and from any product of the spray.
- ❑ Wear gloves, rubber boots and other protective clothing as required.
- ❑ Be sure you understand all safety precautions for the detergent use.
- ❑ Check the labels of any substance you will spray. If the label recommends any antidote or treatment, be ready to use it.
- ❑ Check that all lines and hoses are clear.
- ❑ Check that the machine is connected to an adequate water supply and that the water supply is on.
- ❑ Check that traffic has not made the hose weak, worn or damaged. Check the hose for pinching or kinking.
- ❑ Replace any damaged hose.
- ❑ Tighten all fluid connections securely.
- ❑ Check gasoline and oil level of engine. See enclosed manufacturer's manual for engine and oil types.

OPERATING INSTRUCTIONS

1. Read engine warning and operating instructions. Failure to follow instructions can cause serious injury and damage to equipment. Be familiar with all pre-operation checklists.
2. Check all hoses for wear and damage. Tighten all connections securely.
3. Check oil level of pump.
4. Check engine fuel and oil levels.
5. To begin, turn the water faucet on fully and purge air from system.
6. Insert end of the jet hose 2 to 3 feet into the drain line. Then turn the valve on.

Warning: Never point the end of the jet hose at a person while operating.

Gas Engine Start-Up

1. Make sure that the ball valve is turned on and water is flowing.
2. Turn fuel valve to the open position.
3. Move choke lever to the closed position.

NOTE: Do not use choke if engine is warm or ambient air temperature is high.

4. Move throttle lever to the midpoint position.
5. Turn the engine switch to the ON position.
6. Pull the starter grip lightly until resistance is felt, then pull briskly.
7. As the engine warms up, gradually move the choke lever to the open position.
8. Position the throttle to the desired engine speed.

NOTE: The directional control valve directs high pressure water to either the hose reel or hose, wand and spray gun.

Vibra-Pulse

Pulsation makes the hose vibrate, helping the jet go longer distances and around tight bends easier.

The pulse control valve is located on the front of the pump. Simply turn the valve on to engage the pulse.

The pulse causes a pressure drop when it's engaged. The pulse is most effective in a 1/8" hose. You'll note less vibration with a 1/4" hose and almost none with a 3/8" hose. However the pulse is still effective, causing the water to burst from the nozzle hundreds of times per second.

If you are still having difficulty getting a hose around a tight bend, switch to a smaller diameter hose.

Turn the pulse off before turning machine off.

Shut-Down Instructions

After drain cleaning or spray washing is completed, run clear water through the system. Always leave ball valve in open position when turning off engine. Reduce engine to idle, turn off engine and then be sure to turn off fuel valve. Turn off water supply and drain as much water from pump as possible. Remove water supply

hose from inlet. If you are in a cold climate, see Freeze Protection on page 11.

Cart-Reel™ and Handy-Reel

Use the Cart-Reel™ or Handy-Reel when clearing inside drain lines with the gas jet in order to use the high pressure jet without the danger of fumes in the building. Position the reel at the drain site. Connect the hose from the jet machine to the inlet on the reel. Select and attach a nozzle to the hose on the reel. Put the hose 2 to 3 ft. into the drain line. Open the ball valve on the reel. Follow the start up procedures.

Foot Pedal (Optional)

The foot pedal is used with any jet manufactured by General (see page 6 or 7). It interrupts the flow of water between the pump and the nozzle while leaving both hands free to guide the hose. The pump will continue to run in bypass mode. Do not leave pump in bypass for more than a few minutes or the pump can be damaged. (See Regulating Pressure Unloader).

The foot pedal may be hooked up either at the machine or remotely at the drain site. To use the foot pedal at the machine, remove the hose going to the swivel on the hose reel and attach it to the inlet side of the foot pedal. Then, connect the accessory hose (6AHW) between the outlet of the pedal and the swivel on the hose reel. Some jet models may need the added length of the accessory hose on the inlet side of the pedal.

For remote hookup, pull the hose from the hose reel to the drain site. Attach the hose to the inlet of the pedal. The pedal is designed for 3/8" hose fittings. If using a 1/4" hose, use the AD-1 as well. Then attach the smaller hose (1/8" or 1/4") to the outlet side of the pedal. Use the smaller hose to clear the drain line.

Ice Blockages

High pressure water can be used to clear an ice blockage. A 3000 PSI *(207 bar)* gas jet can clear a 4" *(102 mm)* line at an approximate rate of one foot per minute. The smaller electric jet will take twice as long. Ambient air temperature will effect these times. Use a 15° nozzle with a forward jet. DO NOT allow the incoming water supply to exceed 140°F *(60°C)* or it could cause damage to the pump. Remember to follow the cold weather precautions found in the freeze protection section.

Spray Wand

Follow the same procedures listed previously for safety, setup, operation and maintenance. To operate the spray wand, connect the high pressure hose and trigger to the machine. Turn on the water supply, then squeeze the trigger to purge air from the system. Continue to squeeze trigger as you start the machine.

Use caution when pressure washing. Wear goggles and rubber gloves and boots. Analyze angle of spray and anticipate angle of back splash. Do not point spray at anyone including yourself. Do not put your hand in front of water spray. It can penetrate the skin and cause a need for amputation. It is best to start at a 45° angle at a 7 to 10 ft. *(2 to 3 m)* distance from object to be cleaned. Direct spray at close range can be powerful enough to cause damage.

NOTE: Typical industry standard stipulates you hold the high pressure spray nozzle approximately 6-8" from the surface to be cleaned. When cleaning with a detergent, apply from bottom up with an even left to right movement. Rinse from top down with a similar motion. This will help reduce potential streaking. Always apply soap to a dry surface. This will enhance penetration and detergent cling and reduce dilution of detergent with an already wet surface.

If you have the dual-lance wand you may draw detergents through the spray wand in conjunction with the detergent injector mounted on the machine. First set up the detergent injector system (see Detergent Injector).

Then simply turn the knob on the wand counterclockwise so that water is flowing through the wide spray nozzle. To spray water only, turn the knob to the clockwise position so that the water flows through the narrow spray nozzle.

The spray wand option with the other jets may also be used to spray detergent. To do so, simply turn the nozzle on the end of the wand counterclockwise. As the spray widens, more of the detergent will be drawn through the wand. Turn the nozzle clockwise to reduce the detergent flow and narrow the water spray pattern and return to high pressure.

Detergent Injector

The detergent injector can be attached to the free end of the ball valve. Do not attach detergent injector to the inlet side of the pump. Detergents can damage pump.

To use the detergent injector, attach one end of siphon hose to the injector and put the filter end in the detergent solution. Be sure the end of the hose is at the bottom of the container or bucket. Some models have adjustable valves to control the amount of detergent drawn through the hose.

Remember: Do not use corrosive material. See warning previously listed.

Regulating Pressure Unloader

The machine is equipped with a regulating pressure unloader to prevent pressure overload in the event that the nozzle is plugged or the ball valve or trigger is shut off. When the machine is in the bypass mode, the pump will continue to run. However running in bypass mode

for extended periods will cause damage to the pump; no more than 5 minutes with the J-3055 or J-3080 pumps. Excessive temperatures will damage the pump and void the warranty.

The machine also comes with thermal overload protection. When water temperature in pump increases to 140°F *(60°C)*, the thermal relief valve will release hot water and allow cool water to enter pump from fresh water supply.

To adjust unloader, loosen lock nut and turn the knob clockwise to increase pressure and counterclockwise to decrease pressure.

Caution: Do not overtighten unloader. Tighten lock nut after adjustments are made.

FREEZE PROTECTION

To protect your machine from severe damage caused by water freezing inside the components, it is important to winterize whenever it is subjected to freezing temperatures. The best way to protect the system is to keep it out of the cold. If the machine is stored outside in freezing temperatures the following procedures must be followed to prevent damage to the machine

Model J-3055 - Flush the system with antifreeze. To do so, simply attach a short garden hose (not to exceed 4 feet) to the inlet of the pump and place the other end into a container of 50/50 mixture of water and antifreeze Remove the jetter nozzle from the jetter hose Turn the machine on to draw antifreeze into the system When antifreeze flows out the end of the hose, turn the machine off.

Model J-3080 - Flush the system with antifreeze. To do so, simply add two gallons of a 50/50 mixture of water and anti-freeze solution to the water tank Remove the jetter nozzle from the jetter hose and place end of jetter hose into water tank. Start engine allowing anti-freeze to flow through the pump and hose back into the water tank Turn the engine off and drain water from inlet water filter and hose connecting filter to water tank

When preparing to operate equipment the next time capture the anti-freeze in the water tank by placing jetter hose with nozzle removed into a customer provided container and start engine Upon anti-freeze being depleted in water tank turn engine off Antifreeze, if kept relatively undiluted can be used again and again. Hoses can also be protected from freezing by using compressed air to clear them of residual water.

MAINTENANCE

Regular inspection is the key to preventing breakdowns and prolonging the life of the equipment. Follow this simple procedure religiously.

DAILY

- ❑ Check that the water supply is adequate.
- ❑ Check that the nozzle on the spray wand is not clogged or worn out.
- ❑ Check that the PUMP OIL LEVEL is within operating range on dipstick or sight glass.
- ❑ Check that the engine FUEL LEVEL is full.
- ❑ Check that the ENGINE OIL LEVEL is within operating range on dipstick.
- ❑ Check the INLET FILTER.

WEEKLY

- ❑ Check the PRESSURE HOSE for wear and damage.
- ❑ Damaged hose can be repaired at a local service dealer or by your equipment dealer.
- ❑ Check the FUEL FILTER for dirt and sediment.
- ❑ Check the AIR FILTER for dirt. Clean and replace as required.

Maintenance Schedule

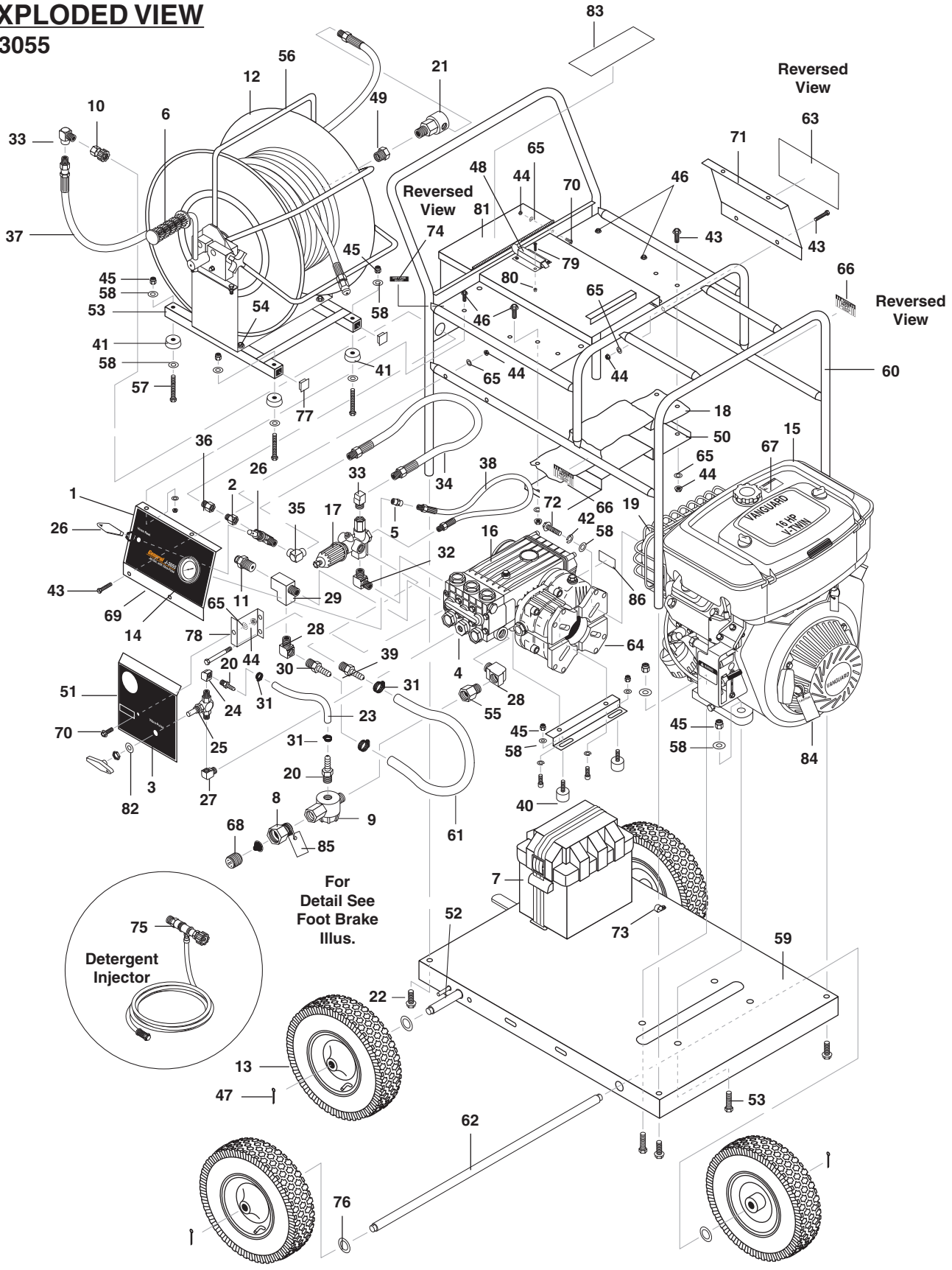
Use the following maintenance schedule at the stated intervals or when your routine turns up a problem.

Shut off gas engine before attempting any repairs or maintenance.

ITEMS TO BE SERVICED	MONTHS OR HOURS OR SERVICE				
	1st Month or 20 Hours	1st 3 Months or 50 Hours	Every 3 Months or 50 Hours	Every 6 Months or 100 Hours	Every Year or 500 Hours
Pump Crankcase Oil Change*		X			X
Engine Oil Change	X			X	
Air Filter Cleaning		X	X		
Fuel Filter Change				X	
Spark Plug Change				X	

* Use SAE 30w non-detergent motor oil to full mark on dipstick or to dot on sight glass.
** Refer to engine manufacturer's specifications for correct oil viscosity when adding to engine oil.

EXPLODED VIEW
J-3055



EXPLODED VIEW PARTS LIST

J-3055

ITEM	PART NO.	DESCRIPTION	QTY
1	11-0109	Label, Control Panel	1
2	2-11020	Adapter, 3/8" x 3/8"	1
3	11-0115	Label, Pressure Control	1
4	1-190029	Cap, Valve General w/1/4" Gauge Port	1
5	2-0022	Coupling, 1/4" Pipe	1
6	2-01101	Grip, 1" Handle (Waffle)	1
7	2-0117	Battery Box, MPG	1
	90-10046	▲ Bolt, Carriage, 1/4" x 1/2"	1
	90-200012	▲ Nut, 1/4" Whiz Loc	1
	2-011700	▲ Battery Box Plate	1
8	2-10942	Swivel, 1/2" MP x 3/4" GHF w/Strainer	1
	2-30062	▲ Anti-Siphon Valve	1
9	2-1923	Strainer, 1/2" Inline	1
10	2-2113	Coupler, 3/8" Female	1
11	2-30082	Pump Protector, 1/2" 140°	1
12	4-02751015	Hose Reel, 18", General Wire	1
13	4-0310	Wheel & Tire Assy, 4" Tubeless, White Rim, 5/8" HUB	4
14	4-050351	Gauge, 0-6000 PSI	1
15	5-0322	Engine, Vanguard 16 HP ES w/Fuel Tank & Throttle, 20 Amp	1
	76-494052	▲ Kit, Man. Throttle Speed Ctrl	1
	76-91540	▲ Key, Shaft, 16 HP Vanguard	1
	6-05108	▲ Cable, Battery, 29" Blk, 4 Ga	1
	6-05109	▲ Cable, Battery, 32" Red, 4 Ga	1
	90-1030	▲ Bolt, 8mm x 16mm Hex Head	1
	90-4001	▲ Washer, 5/16" Flat SAE	1
	90-4008	▲ Washer, 5/16" Lock Split Ring	1
16	5-2307	Pump, Interpump TS-2021	1
17	5-3207	Unloader, AL606, 7.8 GPM @ 3650 PSI	1
18	7-0148	Insulation Blanket, w/Foil	1.25 SF
19	76-807964	Muffler, Exhaust, Briggs 16 HP	1
	76-808227	Guard, Muffler	1
	90-805849	▲ Screw, Hex 1/4"-20 x1/2", TF, TCS, ZN	4
20	2-10871	Hose Barb, 3/8" Barb x 1/4" ML Pipe	2
21	4-027510282	Swivel 1/2 x 3/8	1
22	90-19960	Screw, 3/8" x 1-1/4", Whiz Loc	4
23	4-02120003	Hose, 3/8" Push-On	5"
24	2-1018	Elbow, 1/4" Female, Brass	1
25	2-30025	Valve, 1/4" Ball, 2 Way, Brass	1
26	2-30024	Valve, 3/8" Ball, 2-Way, Brass	1
27	2-0030	Elbow, 1/4" Street	1
28	2-1024	Elbow, 1/2" Street, Brass	2
29	2-1042	Tee, 1/2" Street	1
30	2-10865	Hose Barb, 1/2" Barb x 1/2" MNPT, Brass	1
31	2-9002	Clamp, Screw	4
32	2-00270	Elbow, 3/8" Male, Pipe	1
33	2-0031	Elbow, 3/8" Street	2
34	4-02037822	Hose, 3/8" x 22.5", 1 Wire, 3/8" MPT X 3/8" X 3/8" MPTS	1
35	2-0027	3/8" x 3/8" Female, Elbow	1
36	2-2114	Plug, 3/8" Screw-Type Coupler 7642	1
37	4-02037834	Hose, 3/8" x 34.5", 1 Wire, 3/8" MPT x 3/8" MPTS	1
38	4-02011220	Hose, 1/4" x 20.5", 1 Wire, 1/4" MPT x 3/8" MPTS	1
39	2-008801	Hose Barb, 1/2" Barb x 3/8" MNPT Steel	1
40	2-01022	Bumper, Rubber 1" w/Bolt, 5/16" x 1/2" 60 DUR	2
41	2-01018	Bumper, Rubber, 3/4" w/Washer	4
42	90-4008	Washer, 5/16" Lock, Split Ring	4
43	90-19709	Bolt, 1/4" x 1-1/2"	8
44	90-2000	Nut, 1/4" Flange, Zn	11
45	90-2001	Nut, ESNA, 5/16"	10
46	90-19710	Screw, 1/4" x 3/4" HH, NC Whiz Loc	4
	90-2000	▲ Nut, 1/4" Flange ZN	4
	90-4000	▲ Washer, 1/4" Flat SAE	4
47	90-50023	Pin, 1/8" x 1-1/4" Cotter	4
48	90-50041	Latch Finger	1
49	2-00681	Bushing, 1/2" x 3/8" Steel	1
50	95-07103259	Shield, Muffler, GWJ-3055	1
51	95-07103260	Bracket, Pulse Valve GWJ-3055	1
52	95-07103256	Rod, Brake, GWJ-3055	2
53	95-07103255	Rail, Weld Assy, Hose Reel	1
54	90-19714	Screw, 5/16" x 1-1/2", Whiz Loc	4
	90-2001	▲ Nut, 5/16" ESNA	4
	90-4001	▲ Washer, 5/16" Flat, SAE	4
55	2-1100	Adapter 1/2" x 1/2" Pipe	1
56	95-07103215	Handle, w/Guard	1
57	90-1010	Bolt, 5/16" x 1-3/4"	8

EXPLODED VIEW PARTS LIST (CONT)

J-3055

ITEM	PART NO.	DESCRIPTION	QTY
58	90-4001	Washer, 5/16"	22
59	95-07103252	Base, Welded	1
60	95-07103253	Cage, Welded	1
61	4-02110000	Hose, 1/2" Push-On	20 in
62	95-07103251	Axle, 5/8" x 28.1"	1
63	11-0114	Label, General Wire, J-3055	1
64	5-23124	Gear Reduction, PA B-18, 1"/24mm	1
65	90-4000	Washer, 1/4" Flat, SAE	11
66	10-02025A	Label "Hot/Caliente" w/Arrows Warning	2
67	10-02029	Label, Danger Cool Engine	1
68	2-01442	Plug, Garden Hose Adapter Plastic	1
69	95-07103258	Panel, Control GWJ-3055	1
70	90-19711	Screw, 1/4" x 1/2" HH NC, Whiz Loc	3
71	95-07103257	Panel, Decal, GWJ-3055	1
72	90-10091	Bolt, 5/16-24" x 1-1/4", NF, HH	4
73	2-9016	Clamp, Round, 0.56 I.D.	1
	90-19713	▲ Screw, 5/16" x 3/4" Whiz	1
	90-2001	▲ Nut, 5/16", ESNA, NC	1
	90-4001	▲ Washer, 5/16" Flat SAE	1
74	11-1015	Label, Warning, High Pressure Outlet	1
75	4-011179	Chem Injector Assy, Gen. Wire 3-5 GPM	1
76	90-4005	Washer, 5/8" Flat, SAE	4
77	2-011310	Cap, 1" Square Black Plastic	4
78	95-07103250	Bracket, Pump Face Plate	1
79	90-10001	Screw, 10-32" x 1/2" Slot Pan MS ZN	4
80	90-200470	Nut, 10/32" ESNA, SS	4
81	95-07103208	Assy, Tool Box, Orange, Gen Wire	1
82	95-07103212	Washer, 1.5 x 0.75 x .102 Brass	1
83	11-0113	Label, General Gas Warning	1
84	11-1005	Tag, Caution, No Oil in Engine	1
85	11-3104	Tag, Water Temp to Pump	1
86	10-1580	Label, Use 90W Gear Lube	1

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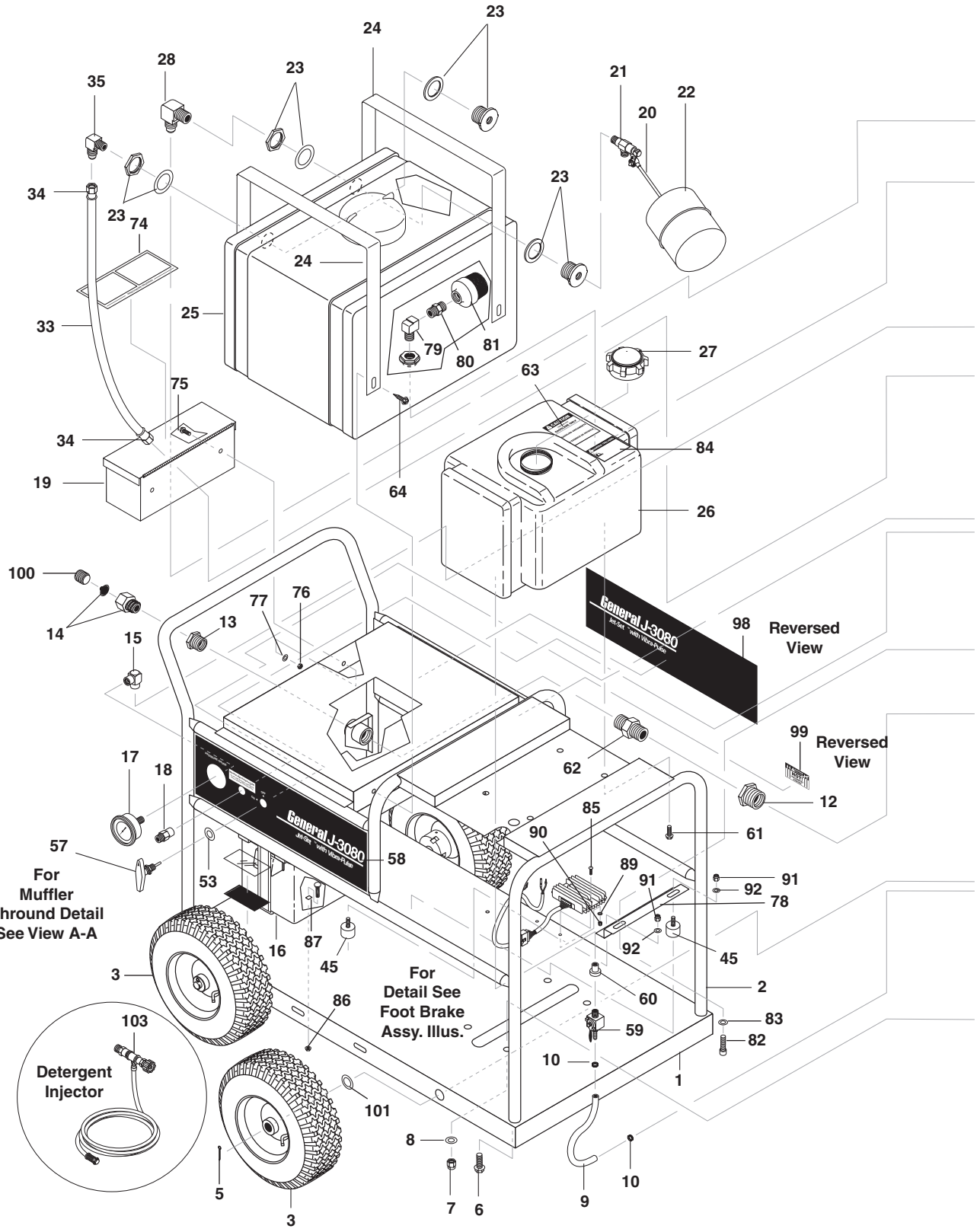
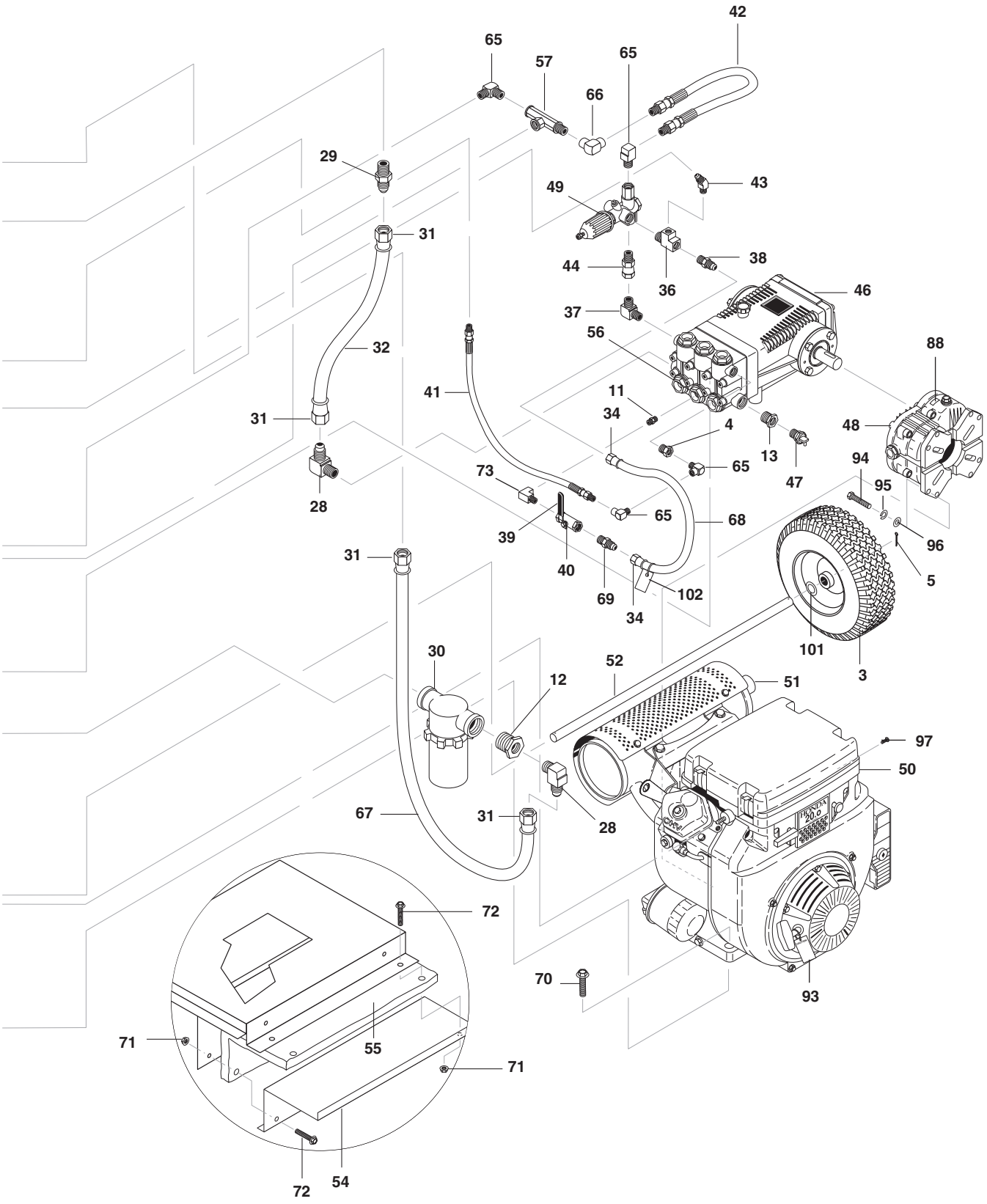
EXPLODED VIEW
J-3080 LEFT SIDE



EXPLODED VIEW
J-3080 RIGHT SIDE



EXPLODED VIEW
J-3080 PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	95-07103263	Base Plate Assy.	1
2	95-07103264	Frame Assy.	1
3	4-0310	Wheel & Tire, 6.5 Steel Rim, 12.5 Tire	4
4	2-00681	Bushing, 1/2" x 3/8" Steel	1
5	90-50023	Pin, 1/8 x 1, Cotter	4
6	90-19960	Screw, 3/8 x 1-1/4" Whiz	4
7	90-2002	Nut, 3/8, ESNA, NC	4
8	90-4002	Washer, 3/8, SAE, Flat	4
9	4-02100000	Hose, 1/4, Fuel Line Black	9"
10	2-9000	Clamp, Hose	2
11	2-0004	Nipple, 1/4" Hex Steel	1
12	2-10813	Bushing, 1 x 3/4 Barstock	2
13	2-1081	Bushing, 3/4 x 1/2 Pipe	2
14	2-10942	Swivel, 1/2 MP x 3/4 GHF w/Strainer	1
	2-30062	▲ Valve, Anti-Siphon	1
15	2-0026	Elbow, 1/4, Female Pipe	1
16	2-0117	Battery Box, Small	1
	2-011700	▲ Plate, Battery Box, Small Polypro	1
17	4-050351	Gauge, 0-6000 PSI	1
18	2-2114	Coupler, 3/8 Female, Screw-type	1
19	95-07103208	Assy, Tool Box, Orange	1
20	90-10049	Stud, 1/4-20, Brass w/Groove	1
21	8.749-329.0	Valve, 3/4" Float	1
22	2-010210	Ball, Float, Cylindrical	1
23	2-010058	Bulkhead, 3/4 Polypro	2
24	95-07103266	Strap, Tank	2
25	2-0115040	Tank, Applicator, 12 Gal.	1
26	2-011507	Tank, Encore 5 Gal., Fuel	1
	2-00471	▲ Plug, 1/8" Square Head, Black	1
27	2-01167	Cap, Fuel Tank, Plastic H60-AV	1
28	2-10620	Elbow, 3/4 SAE x 3/4, 90°, Brass	3
29	2-10636	Nipple, 3/4 JIC x 3/4 Pipe	1

ITEM	PART NO.	DESCRIPTION	QTY
30	2-190510	Strainer	1
31	2-11050	Swivel, 3/4 SAE Fem, Push-on	4
32	4-02120000	Hose, 3/4, Push-On	15"
33	4-02110000	Hose, 1/2, Pull-on	20"
34	2-1105	Swivel, 1/2 JIC FEM, Push-On	4
35	2-1063	Elbow, 1/2 JIC x 3/4, 90°	1
36	2-1041	Tee, 3/8 Street	1
37	2-0054	Elbow, 1/2 JIC, 1/2, 90°	1
38	2-1052	Nipple, 1/2 JIC x 3/8 Pipe	1
39	2-01214	Cover, Handle, VPulse, LG 3000	1
40	2-30001	Valve, 1/4 Shut-Off	1
41	4-02011218	Hose, 1/4 x 18.25, 1 Wire, 1/4 MPT x 3/8 MPTS	1
42	4-02037819	Hose, 3/8 x 19, 1 Wire, 3/8 MPT x 3/8 MPTS	1
43	2-106301	Elbow, 1/2 JIC x 3/8, 45°	1
44	2-0079	Swivel, 1/2 JIC Fem, 3/8 MAL	1
45	2-01022	Bumper, Rubber 1 w/Bolt	2
46	5-1942	Pump, Legacy, GX8030/R 8@ 3000, 1460 RPM	1
47	2-30082	Pump Protector, 1/2 PTP	1
48	5-23126	Gear Reduction, PA B-18, 1/25mm	1
49	5-3207	Unloader, Al-Vrt 606, 7.8 GPM @ 3650 PSI	1
50	9.802-323.0	Engine, Honda, GX620K1QAF1, 20 HP, 20 Amp	1
	6-05108	▲ Cable, Battery, 29" Black, 4 Ga.	1
	6-05109	▲ Cable, Battery, 32" Red, 4 Ga.	1
	95-07141121	▲ Key, 0.247 SQR x 2.125"	1
51	8.718-156.0	Muffler, Honda, GX620/GX670, Left	1
	8.739-597.0	▲ Bolt, Flange M8 x 20	2
52	95-07103251	Axle, 5/8 x 28.1 L	1
53	95-07103212	Washer, 1.5 x 0.75 x .102 Brass	1
54	95-07103265	Shield, Heat	1
55	7-0148	Insulation, Blanket w/ASJ Foil, 2 Sides	1.25 SF
56	70-460124	Cap Valve w/ 1/4 Gauge Port, LX Series	1
57	2-30024	Valve, 3/8" Ball, 2-Way, Brass	1

EXPLODED VIEW

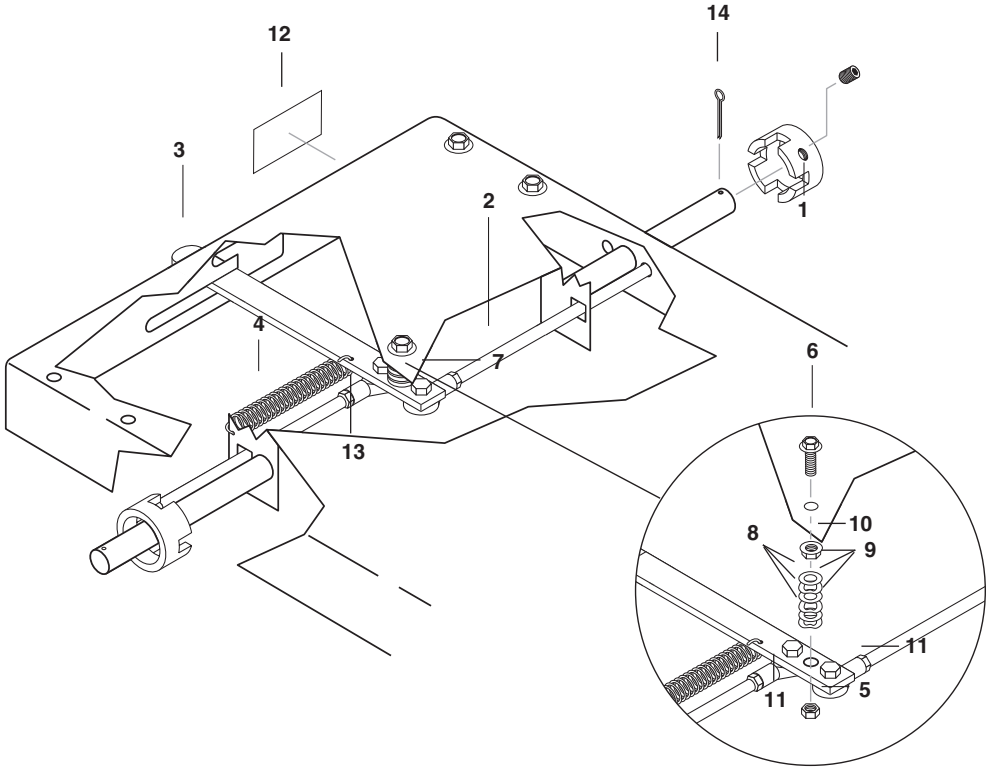
J-3080 PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
58	11-1056	Label, J-3080 w/Vibra Pulse, Front Panel	1
59	2-30057	Valve, 1/4" Shut-off	1
60	2-010061	Bushing, Rubber Nitrile	1
61	90-19711	Screw, 1/4" x 1/2" HH, NC Whiz Loc	4
62	2-1009	Nipple, 3/4" Hex	1
63	10-02011	Label, This Tank for Gas Only	1
64	90-100461	Screw, 1/4-20x 1/2, Tri-round	4
65	2-0031	Elbow, 3/8" Street	4
66	2-0027	Elbow, 3/8" Female, Pipe	1
67	4-02120000	Hose, 3/4" Push-On	39"
68	4-02110000	Hose, 1/2", Push-On	16"
69	2-1051	Nipple, 1/2" JIC x 1/4" Pipe	1
70	90-19962	Screw, 3/8" x 2.0" HH, NC, Whiz Loc	4
71	90-20012	Nut, Whiz Loc 5/16 Flange	4
72	90-19715	Screw, 5/16" x 1-1/4" Whiz	4
73	2-1022	Elbow, 1/4" Street	1
74	11-0113	Label, Warning	1
75	90-19711	Screw, 1/4" x 1/2" HH NC, Whiz Loc	2
76	90-2000	Nut, 1/4" ESNA, NC	2
77	90-4000	Washer, 1/4", Flat, SAE	2
78	95-07103269	Bracket, Pump Support, GX (Use J-3055 Bracket that comes with Pump)	1
79	2-1025	Elbow, 3/4" Street	1
80	2-1009	Nipple, 3/4" Hex	1

ITEM	PART NO.	DESCRIPTION	QTY
81	2-19061	Strainer, 3/4" Basket, 40 Mesh	1
82	90-10343	Bolt, 10mm x 20mm	2
83	90-400910	Washer, 7/16" Lock	2
84	10-02029	Label, Danger	1
85	90-19980	Screw, 1/4" x 1" BHSOC CS	2
86	90-200012	Nut, 1/4" Whiz Loc	1
87	90-10046	Bolt, 1/4" x 1/2" Carriage	1
88	10-1580	Label, Use 90W Gear Lube	1
89	90-4000	Washer, 1/4" Flat SAE	2
90	90-2000	Nut, 1/4" ESNA, NC	2
91	90-2001	Nut, 5/16" ESNA NC	2
92	90-4001	Washer, 5/16" Flat, SAE	2
93	11-1005	Tag, Caution, No Oil in Engine	1
94	90-10091	Belt, 5/16-24" x 1-1/4" NF, HH	4
95	90-4008	Washer, 5/16", Lock, Split Ring	4
96	90-4001	Washer, 5/16", Flat, SAE	4
97	90-805849	Screw, Hex, 1/4"-20 x 1/2" TF	1
98	11-1055	Label, J-3080 w/Vibra Pulse, Rear Panel	1
99	10-02025A	Label, "Hot/Caliente" w/Arrows Warning	1
100	2-01442	Plug, Garden Hose Adapter	1
101	90-4005	Washer, 5/8" Flat, SAE	2
102	11-3104	Tag, Water Temp to Pump	1
103	4-011178	Chemical Injector Assy, Gen Wire 5-8 GPM	1

▲ Not Shown

FOOT BRAKE ASSEMBLY
AND PARTS LIST



ITEM	PART NO.	DESCRIPTION	QTY
1	95-07103207	Collar, Brake Lock	2
2	95-07103256	Rod, Brake, GWJ-3055	2
3	95-07103202	Bracket, Brake	1
4	90-5026	Spring, J-3055 Brake	1
5	90-2002	Nut, 3/8", ESNA, NC	1
6	90-19962	Screw, 3/8" x 2", Whiz Loc	1
7	90-19960	Screw, 3/8" x 1-1/4", Whiz Loc	2
	90-2002	▲ Nut, 3/8" ESNA	2
8	90-40088	▲ Washer, 3/8" Wave	3
9	90-4002	Washer, 3/8" SAE, Flat	3
10	90-20040	Nut, 3/8", Flange, Whiz Loc	1
11	90-5045	Linkage, 3/8 Joint, General Wire Brake	2
12	11-1018	Label, Brake	1
13	90-20072	Nut, 3/8-24, Hex NF	2
14	90-50023	Pin, 1/8" x 1" Cotter	4

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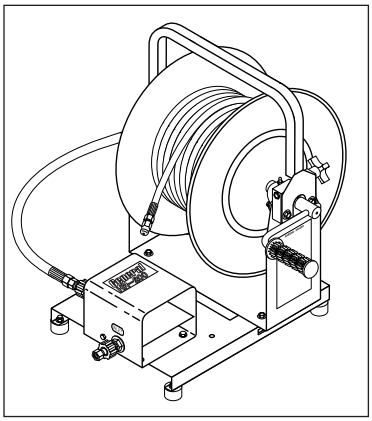
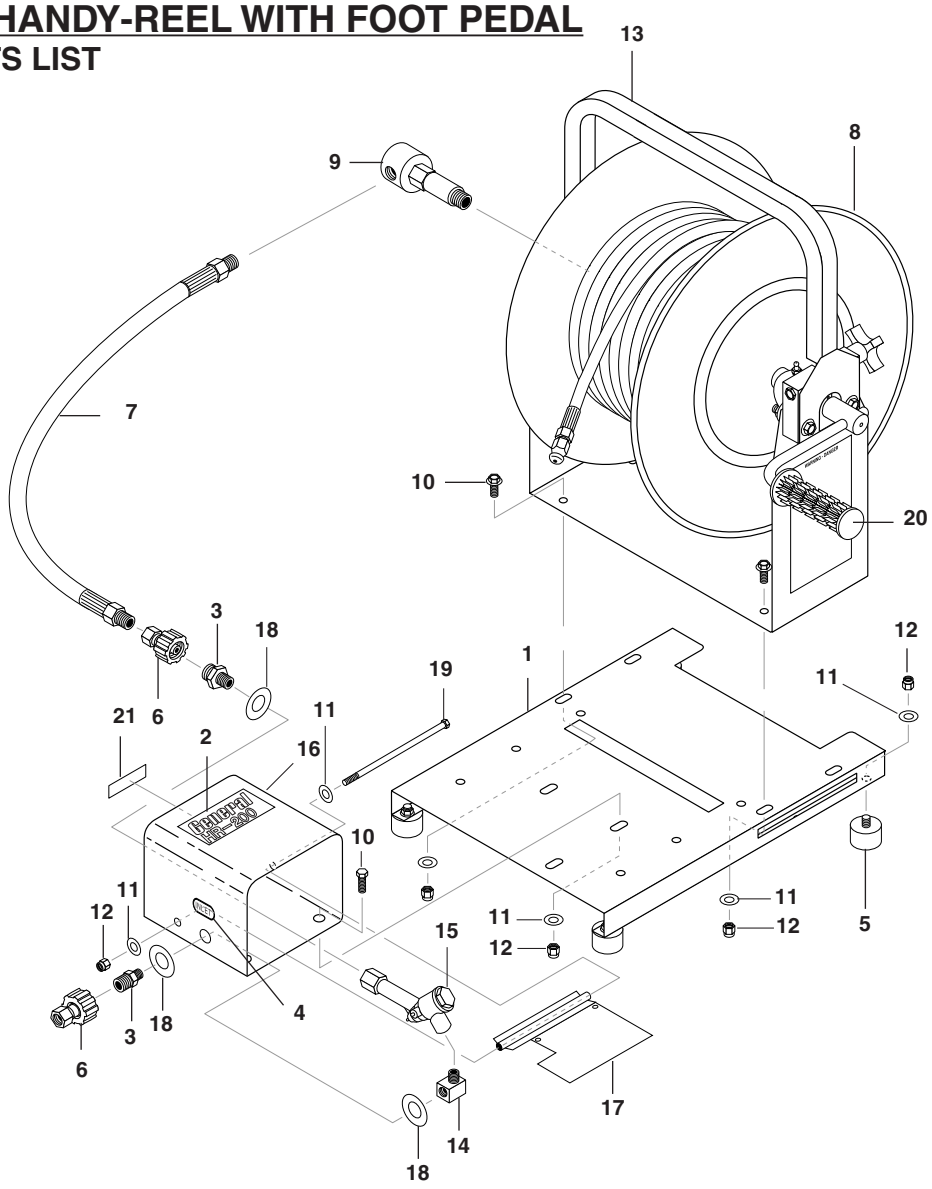
OPTIONAL HR-200W HANDY-REEL WITH FOOT PEDAL
EXPLODED VIEW & PARTS LIST



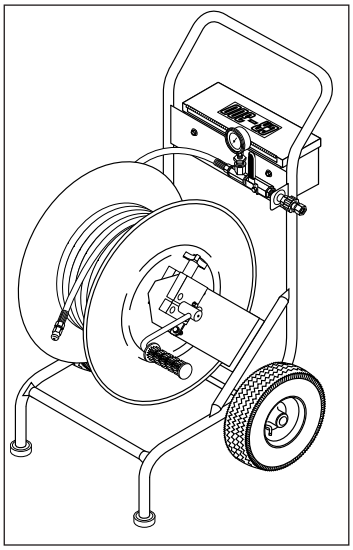


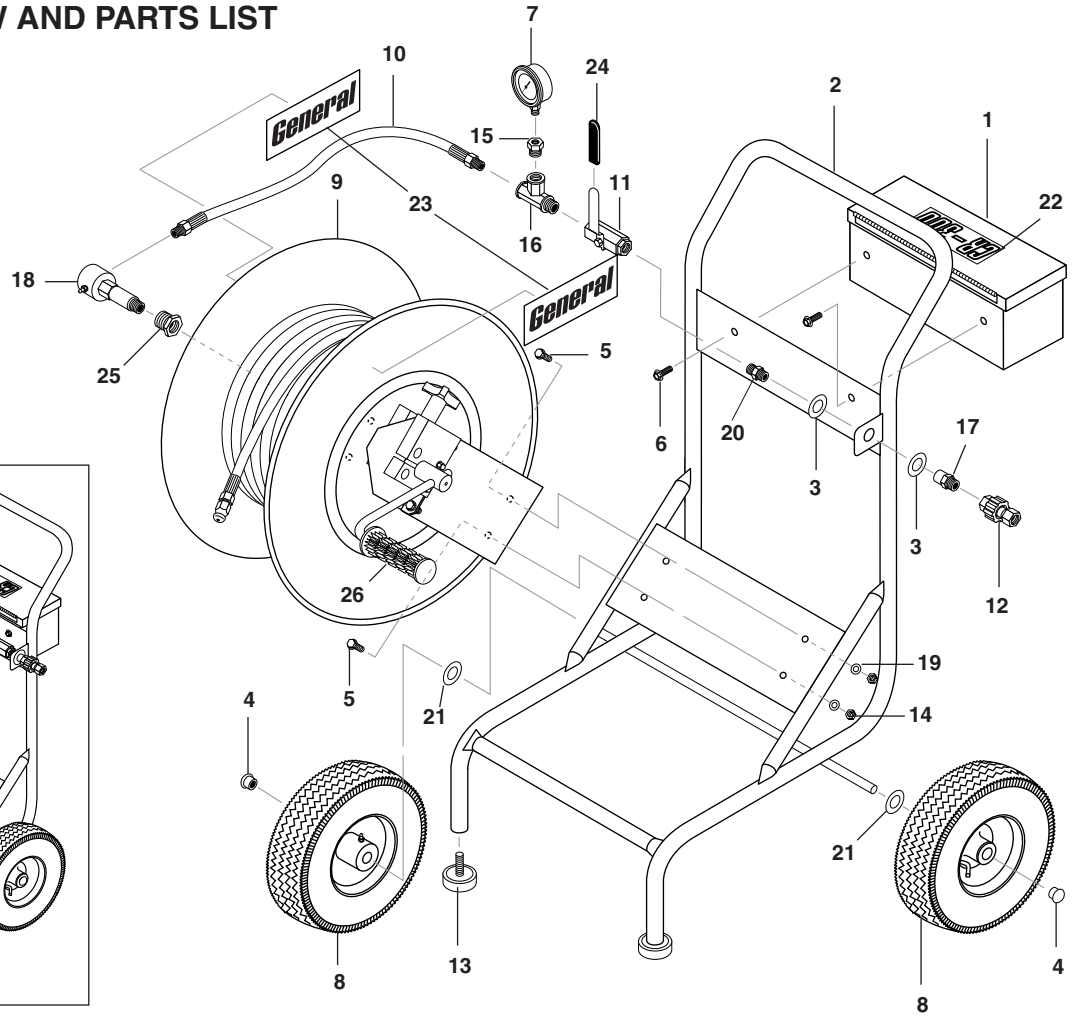
ITEM	PART NO.	DESCRIPTION	QTY
1	95-07103106	Bracket, Hose Reel Mount	1
2	11-20200	Label, HR-200	1
3	2-2116	Nipple, 1/4" x M22, Twist	2
4	11-1019	Label, Inlet	1
5	2-01022	Foot, Rubber	4
6	2-2113	Coupler, 3/8" Female Screw Type 7640	2
7	4-02037817	Hose, 3/8" x 17.5", 1 Wire, 3/8" MNPT(SLD) x 3/8" MNPT(SWL)	1
8	4-02751016	Hose Reel, 13" General Wire	1
9	4-027510281	Swivel, 3/8" x 3/8"	1
10	90-19713	Screw, 5/16" x 3/4" Whiz Loc	7

ITEM	PART NO.	DESCRIPTION	QTY
11	90-4001	Washer, 5/16"	13
12	90-2001	Nut, 5/16" ESNA	12
13	95-07103105	Hose Reel Guard	1
14	2-1022	Elbow, 1/4" Street	1
15	83-21008	Valve Assy, Complete	1
16	95-07103180	Cover, Welded Assy. Foot Valve	1
17	95-07103181	Plate, Fott Valve Assy	1
18	90-3096	Washer, 1/2" Flat	3
19	90-10124	Bolt, 5/16" x 6-1/2" HH, NC	1
20	2-01101	Grip, 1" Handle, Waffle	1
21	11-1010	Label, Discharge	1

CR-300 (J-3055)

EXPLODED VIEW AND PARTS LIST



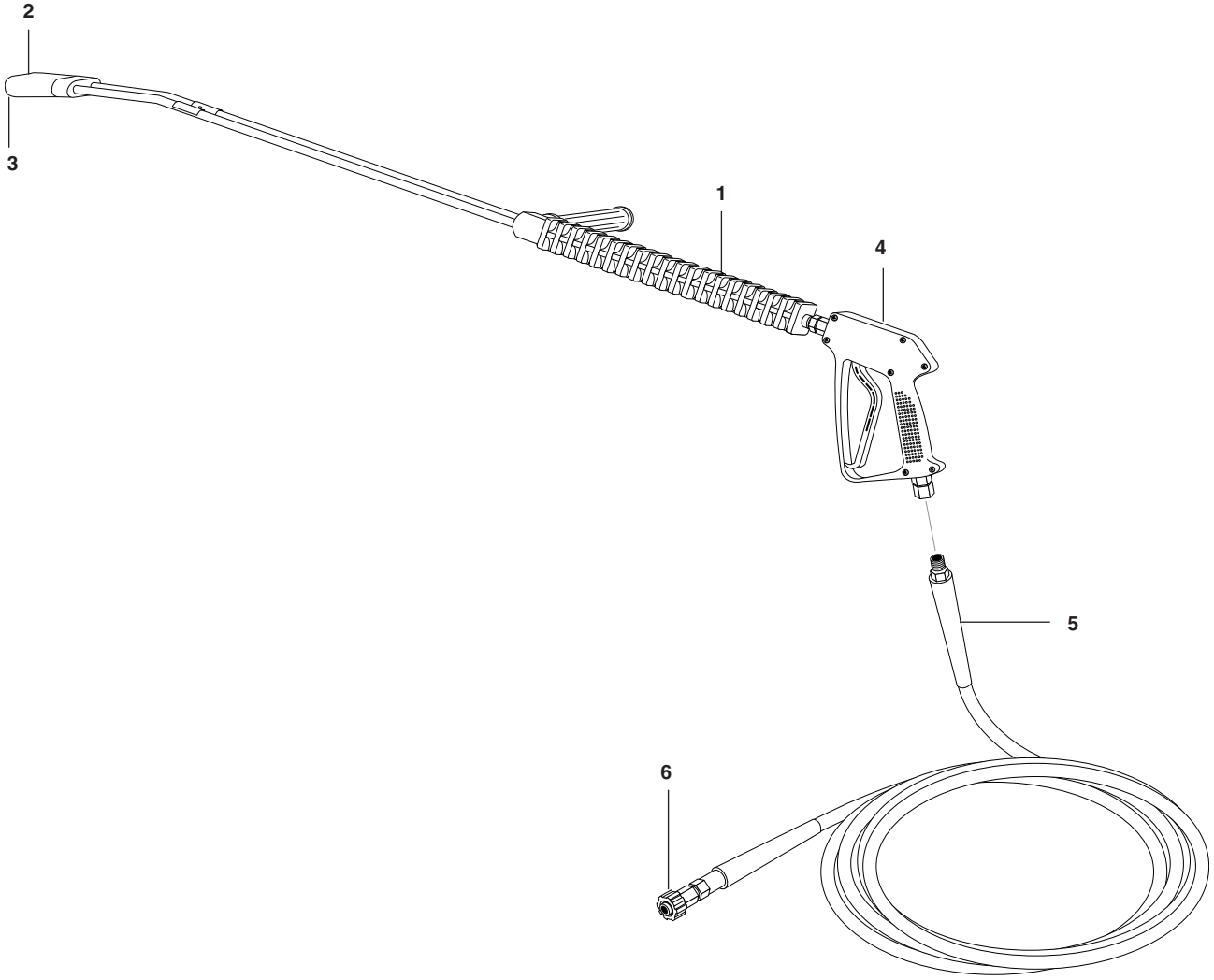


ITEM	PART NO.	DESCRIPTION	QTY
1	97-07103208	Assy, Tool Box, Orange	1
2	97-07103130	Assy, Frame, General CR-300	1
3	90-400712	Washer, 3/4" x 1-1/2", .102 THK Brass	2
4	90-200420	Cap, 5/8" Axle	2
5	90-19713	Screw, 5/16" x 3/4" Whiz	4
6	90-19711	Screw, 1/4" x 1/2" HH NC, Whiz Loc	2
	90-2000	▲ Nut, 1/4" ESNA	2
	90-4000	▲ Washer, 1/4" Flat, SAE	2
7	4-0502	Gauge, Pressure 0-5000 PSI	1
8	4-0303	Wheel & Tire Assy, 4" Tubeless Silver Rim, 5/8" Hub	2
9	4-02751015	Hose Reel, 18", General Wire	1
10	4-02047823	Hose, 3/8" x 23", 2 Wire 3/8" SMNPT x 3/8" SWMNPT	1
11	2-30002	Valve, 3/8" Ball, Steel	1

ITEM	PART NO.	DESCRIPTION	QTY
12	2-2113	Coupler, 3/8" Female Screw-Type 7640	1
13	2-01019	Foot, Rubber (Crutch)	2
14	90-2001	Nut, 5/16" ESNA	4
15	2-00682	Bushing, 3/8" x 1/4" Steel	1
16	2-0045	Tee, 3/8" Street	1
17	2-2114	Plug, 3/8" FX M22, Twist Coupler	1
18	4-027510282	Swivel, 1/2" x 3/8"	1
19	90-4001	Washer, 5/16" Flat	4
20	2-0006	Nipple, 3/8" Hex Steel	1
21	90-4005	Washer, 5/8" Flat, SAE	2
22	11-1009	Label, CR-300	1
23	11-0105	Label, General Logo	2
24	2-01209	Cover, Handle, General, Jet LG	1
25	2-00681	Bushing, 1/2" x 3/8", Steel	1
26	2-01101	Grip, 1" Handle, Waffle	1

HOSE AND SPRAY GUN ASSEMBLY

EXPLODED VIEW AND PARTS LIST J-3080 SWA-3080 J-3055 SWA-3055

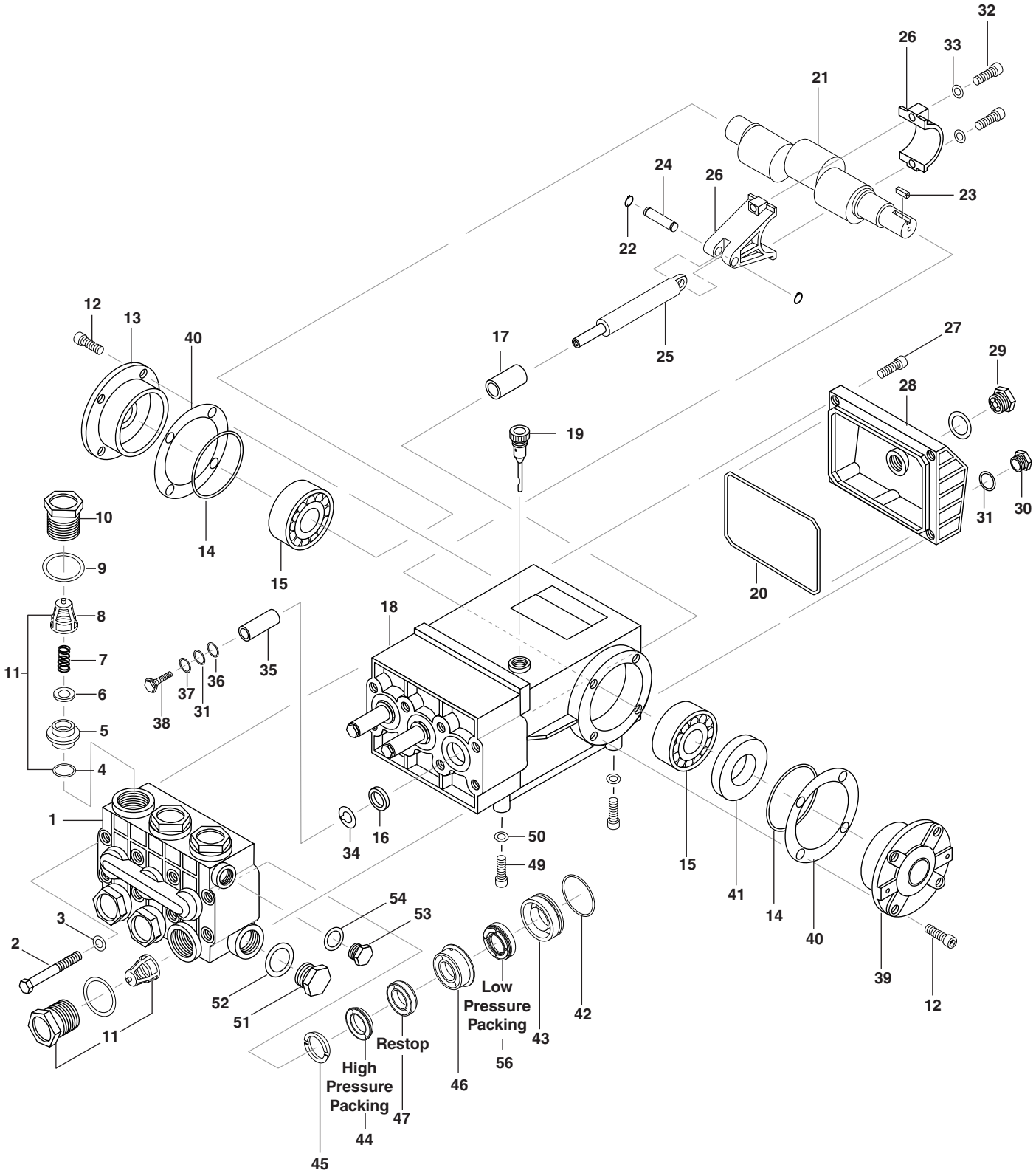


ITEM	PART NO.	DESCRIPTION	QTY
1	4-0111461C	Wand, VP ARO, Soap Nozzle (J-3080)	1
	4-0111461A	Wand, VP, ARO, Soap & 2506 (J-3055)	1
2	4-01409025	Nozzle Only, 1/4" MEG 2509 (J-3080)	1
	4-01406025	Nozzle Only, SA, 1/4" Meg-2506 (J-3055)	1
3	4-0146540S	Nozzle Only, H-1/4"-U-6540, VEEJET (J-3080)	1
	4-0146540S	Nozzle Only, H-1/4-U-6540, VeeJet (J-3055)	1

ITEM	PART NO.	DESCRIPTION	QTY
4	4-01246	Spray Gun, Shut-off, AP-1000	1
5	8.739-031.0	Hose, 3/8" x 50', 1 Wire, Tuff-Skin 3/8" MPT x 3/8" MPTS	1
6	2-2113	Coupler, 3/8" Female Screw-Type 7640	1

PUMP MODEL NO. TS-2021 #5-23071

EXPLODED VIEW



PUMP MODEL NO. TS-2021 #5-23071
EXPLODED VIEW PARTS LIST, SPECS

ITEM	PART NO.	DESCRIPTION	QTY
1	1-47120941	Pump Head	1
2	1-99320600	Screws	8
3	1-96702000	Washers	8
4	1-90384100	O Rings (Kit 1-0001)	6
5	1-36200366	Valve Seats (Kit 1-0001)	6
6	1-36200176	Valve Plates (Kit 1-0001)	6
7	1-94737600	Springs (Kit 1-0001)	6
8	1-36200251	Valve Guides (Kit 1-0001)	6
9	1-90384700	O Rings (Kit 1-0005)	6
10	1-98222200	Valve Caps (Kit 1-0005)	6
11	1-36703201	Valve Assembly (Available only in Kit 1-0001)	6
12	1-99303900	Screws	8
13	1-47150122	Side Crankcase Cover (Closed)	1
14	1-90391300	O-Rings	2
15	1-91837500	Tapered Roller Bearings	2
16	1-90162500	Oil Seals (Available only in Kit 1-0002)	3
17	1-90912600	Bushings	3
18	1-47010422	Crankcase	1
19	1-98210600	Oil Dip Stick	1
20	1-90392200	Cover Gasket	1
21	1-47021735	Crankshaft	1
22	1-90055700	Snap Rings	6
23	1-91489000	Key	1
24	1-97738000	Wrist Pins	3
25	1-47050356	Piston Guides	3
26	1-47030001	Connecting Rods	3
27	1-99191200	Screws	5
28	1-47160122	Rear Crankcase Cover	1
29	1-97596800	Oil Level Indicator	1
30	1-98204100	Cap	1
31	1-90358500	O Rings (Kit 1-0006)	4
32	1-99309900	Screws	6
33	1-96701400	Washers	6
34	1-96728600	Washers (Kit 1-0006)	3

ITEM	PART NO.	DESCRIPTION	QTY
35	1-47040409	Pistons	3
36	1-90506700	Anti-Extrusion Rings (Kit 1-0006)	3
37	1-96728000	Washers (Kit 1-0006)	3
38	1-47219566	Piston Screws (Kit 1-0006)	3
39	1-47150022	Side Crankcase Cover (Open)	1
40	1-97567800	Shims	2
41	1-90164800	Oil Seal (Kit 1-0003)	1
42	1-90361600	O Rings (Kit 1-0028)	3
43	1-47080570	Packing Retainers (Kit 1-0028)	3
44	1-90270500	Packings, High Pressure Seal (Kits 1-0008, 1-0028, 1-0069)	3
45	1-47100051	Head Rings (Kits 1-0007, 1-0028)	3
46	1-47216970	Intermediate Rings (Kit 1-0028)	3
47	1-90270400	Restop (Kit 1-0028, 1-0069)	3
49	1-99364400	Screws	4
50	1-96710600	Washers	4
51	1-98217600	Cap	1
52	1-96751400	Washer	1
53	1-98210000	Cap	1
54	1-96738000	Washer	1
56	1-90271000	Packings, Low Pressure Seal (Kits 1-0008, 1-0028, 1-0069)	3

For proper pump repair and ease of packing insertion the following tool is recommended:

1-ZMVTOOL Packing Insertion Tool

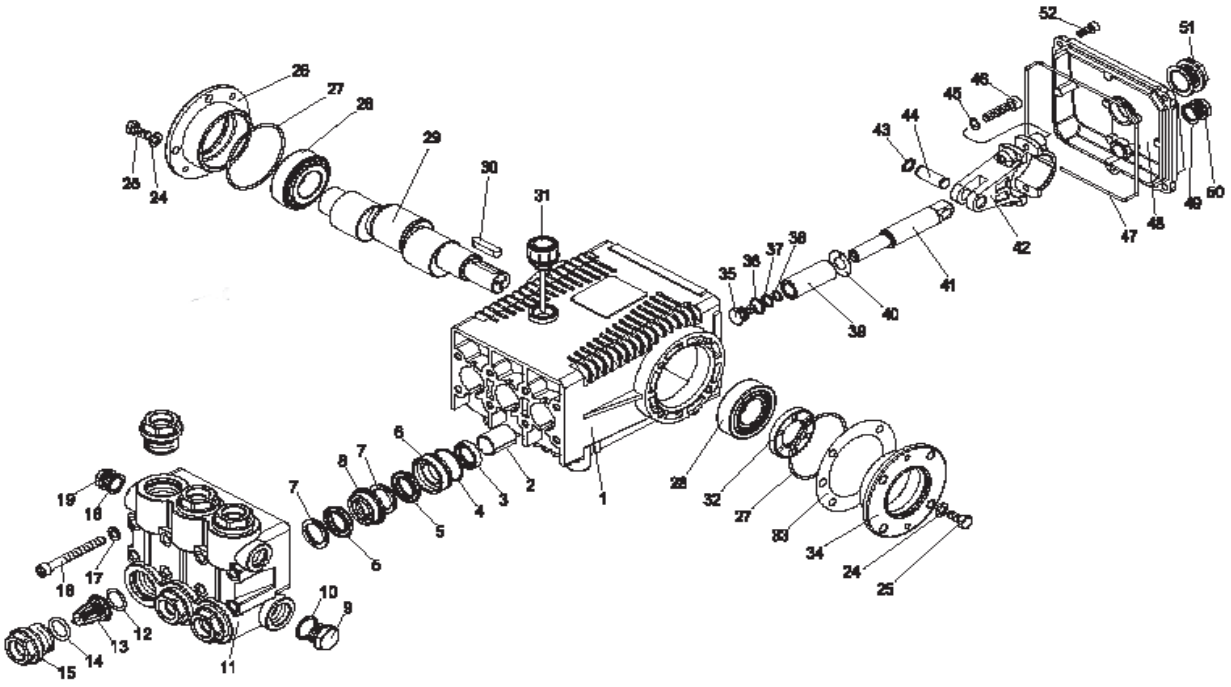
Crankcase Oil Capacity, 40.6 oz.

TORQUE SPECS			
Item	**Ft. Lbs**	**Item**	**Ft. Lbs**
2	22.1	32	14.7
10	73.7	38	14.7
12	14.7	49	29.4
27	7.3	51	29.4
29	13.2	53	29.4
30	14.7		

KIT NO.	1-0001	1-0002	1-0003	1-0005	1-0006	1-0007	1-0008	1-0028	1-0069
Assembly (Pos. #)	4, 5, 6, 7, 8, 11	16	41	9, 10	31, 34, 36, 37, 38	45	44, 56	42, 43, 44, 45, 46, 47, 56	44, 47, 56
# of Assemblies	6	3	2	6	3	6	3	1	3

LEGACY GX 8030R PUMP #5-1942

EXPLODED VIEW



TORQUE SPECS	
ITEM #	FT. LBS.
15	95
16	60
25	8
35	10
46	30
52	7.6

LEGACY GX 8030R PUMP #5-1942
PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	70-020210	Crankcase	1
2	70-060200	Plunger Guide	3
3*	70-000101	Plunger Oil Seal	3
4*	70-060108	O-Ring Ø1.78 x 37.82	3
5*	70-000202	V Seal, Dia. 25mm	6
6*	70-120110	Pressure Ring 25mm	3
7*	70-030002	Support Ring 25mm	6
8*	70-030015	Intermediate Ring	3
9	70-160133	Brass Plug, 3/4	1
10	70-060311	Copper Washer 3/4	1
11	70-160223	Manifold Housing	1
12*	70-060105	O-Ring Ø2.62 x 23.47	6
13*	70-360471	Valve Assembly	6
14*	70-060187	O-Ring Ø3.53 x 25.80	6
15	70-160145	Valve Plug	6
16	70-180133	Manifold Stud Bolt	8
17	70-140301	Lock Washer	8
18	70-060307	Copper Washer 1/2	1
19	70-160120	Brass Plug 1/2	1
24	70-140001	Washer	8
25	70-180203	Flange Screw	8
26	70-050054	Closed Bearing Housing	1
27	70-060100	O-Ring Ø2.62 x 71.12	2
28	70-020004	Roller Bearing	2
29	70-000447	Crankshaft (LX 8030)	1
	70-000474	Crankshaft (LX 1025)	1
30	70-020604	Crankshaft Key	1
31	70-160007	Oil Dip Stick	1
32	70-000100	Crankshaft Seal	1
33	70-030100	Shim	2
34	70-050053	Bearing Housing	1

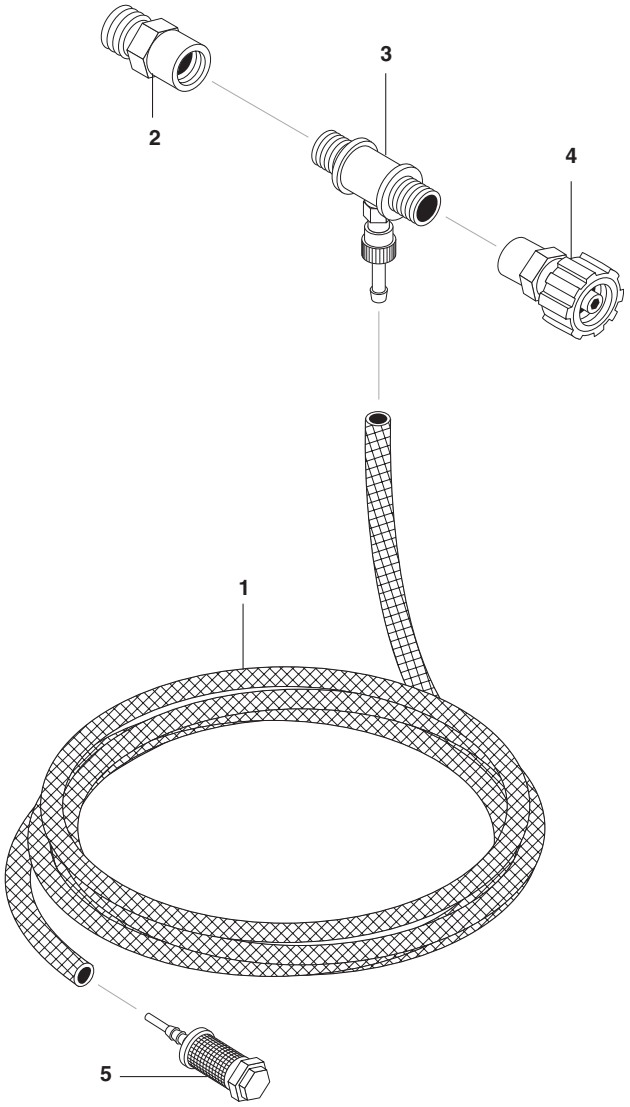
ITEM	PART NO.	DESCRIPTION	QTY
35*	70-180000	Plunger Bolt	3
36*	70-140013	Copper Spacer	3
37*	70-060102	O-Ring Ø1.78x10.82	3
38*	70-000902	Teflon Ring	3
39*	70-120013	Plunger 25mm	3
40*	70-140014	Copper Spacer	3
41	70-000300	Plunger Rod	3
42	70-010000	Connecting Rod	3
43	70-150000	Snap Ring	6
44	70-150200	Connecting Rod Pin	3
45	70-140103	Spring Washer	6
46	70-180101	Connecting Rod Screw	6
47	70-060185	O-Ring Ø2.62 x 152.07	1
48	70-020351	Crankcase Cover	1
49	70-060302	Gasket, G3/8	1
50	70-160117	Brass Plug 3/8	1
51	70-070005	Sight Glass G3/4	1
52	70-180112	Cover Screw	5

* Available in kit (See below)

Kit Numbers	70-260207	70-260208	70-260209	70-260025	70-260023
Kit Description	Plunger Seal 25 mm	Seal Packing 25 mm	Plunger 25 mm	Complete Valve	Plunger Oil Seals
Items Numbers Included	4, 5, 7	4, 5, 6, 7, 8	35, 36, 37, 38, 39, 40	12, 13, 14	3
Number Of Cylinders Kit Will Service	3	1	1	6	3

INJECTOR SCREW COUPLER

J-3055 (4-011179)
J-3080 (4-011178)



ITEM	PART NO.	DESCRIPTION	QTY
1	4-02090000	Hose, 1/4" x 1/2" Braided Vinyl	1
2	2-2114	Plug, 3/8" Screw Type Coupler 7642	1
3	3-1310	Injector, Detergent Adj., 3/8" M x M, 3-5 GPM (J-3055)	1
	3-1200	Injector, Detergent, Adj. 5-8 GPM (J-3080)	1
4	2-2113	Coupler, 3/8" Female Screw Type 7640	1
5	2-1904	Strainer, 1/4"	1

TROUBLESHOOTING

These troubleshooting procedures cover pump malfunctions, delivery problems and charge system malfunction.

Warning: Before attempting any repairs or maintenance, make sure machine is shut off.

PROBLEM	POSSIBLE CAUSE	REPAIR
LOW PRESSURE	Worn or oversized nozzle	Replace worn nozzle. Check nozzle size.
	Clogged water and/or detergent inlet strainer	Clean or replace strainers.
	Worn or damaged piston cups	Replace piston cups.
	Worn or damaged inlet or discharge valve	Replace worn valve poppets or valve springs.
	Dirt or foreign particles in valve assembly	Remove any dirt particles.
	Air leak in inlet plumbing	Locate air leak. Re-seal connection or replace damaged port.
ROUGH OPERATION WITH LOSS OF PRESSURE	Restricted inlet plumbing or air leak in inlet plumbing	Replace clogged inlet fittings. Check supply hose and ensure adequate water supply.
	Damaged piston, cup or pump valve	Replace any damaged pump parts and clean out any foreign particles.
	Clogged nozzles	Clean or replace nozzles.
WATER LEAKAGE AT INTAKE MANIFOLD OR CRANKCASE	Worn manifold seals, pistons or O-rings. Or, condensation inside crankcase	Replace seals, sleeves or O-rings. Change oil at regular intervals.
	Inadequate water supply to pump creating a vacuum lock	Ensure adequate tap water supply. Clear inlet filter.
OIL LEAKS	Worn pistons and/or leaking crank seals, crankcase cover seal or drain plugs	Replace seals, sleeves or O-Rings.
EXCESSIVE WEAR	Worn or loose bearings	Replace bearings. Check bearing seals, spacers and retainers. Replace any worn parts.
SHORT PISTON CUP LIFE	Scored cylinders from pumping acids	Replace cylinders. DO NOT PUMP ACID SOLUTIONS. For acid application, ask your dealer for a Pump Saver Injector.
	Abrasive particles in fluid being pumped	Replace water and detergent strainers if damaged or missing. Install additional filter if fine abrasives are still evident.
	Operator(s) running pump without water supply	do not allow washer to be run without proper water supply.
	Hot water in pump	Do not run in bypass for more than 5 minutes. Do not let water supply exceed 140°F (60°C).
IRREGULAR SPRAY PATTERN	Worn or partially clogged nozzle	Clean or replace nozzles.

TROUBLESHOOTING

Detergent System Malfunction

PROBLEM	POSSIBLE CAUSE	REPAIR
WASHER FAILS TO DRAW DETERGENT	Detergent metering valve closed or valve clogged or defective	Open detergent metering valve, following procedure in operating instructions.
	Back pressure in hose (when using additional lengths of pressure hose)	Contact dealer for proper injector size when adding lengths of hose.
	Back pressure in pressure hose (when using dual lance wand)	Use proper size flood nozzle in dual lance wand (refer to parts breakdown).
	Suction tube not below liquid surface	Completely submerge suction tube and strainer in detergent solution.
	Clogged or damaged suction strainer	Clean or replace strainer.
DETERGENT SOLUTION TOO WEAK	Clogged detergent strainer	Clean or replace strainer.
	Air leak in detergent suction tube or inlet plumbing	Find air leak and clean or replace parts as necessary.
DETERGENT SOLUTION TOO CONCENTRATED	Original detergent too concentrated	Dilute product as necessary to achieve proper concentration.
DETERGENT IN RINSE CYCLE	Dual lance wand or adjustable nozzle holder in open position or chemical metering valve open	Close dual lance wand adjustable lance holder to achieve high pressure. Close detergent metering valve.
DILUTION OF DETERGENT CONCENTRATE DURING CYCLE	Worn or defective internal check valve	Repair or replace check valve or injector parts as necessary.
	Defective check valve in detergent tank	Replace parts as necessary

TROUBLESHOOTING

Unloader Valve Malfunction

PROBLEM	POSSIBLE CAUSE	REPAIR
UNLOADER CYCLES	Fitting leaking downstream	Tighten/replace fitting.
	Piston or valve spring broken or worn	Replace parts as necessary.
	Clogged nozzle	Clean or replace.
FLUID LEAKING FROM BODY	O-ring worn or cut	Replace part as necessary.
UNLOADER WILL NOT COME TO PRESSURE	Foreign particle in valve	Replace or clean.
	Nozzle worn or wrong size	Replace part as necessary.
	Piston or valve worn	Replace part as necessary.
EXTREME PRESSURE SPIKES	Adjusting nut turned completely into unloader	Back off adjusting nut.
	Clogged nozzle	Clean or replace

General Wire Spring Co.
LIMITED ONE YEAR WARRANTY

General Wire products are warranted by General Wire Spring Co. to be free of defects in material and workmanship under normal use for the periods specified below.

General Wire machines carry a one year limited warranty against defect or breakage except as noted below. Should any part break or fail to work properly in the year following purchase, it will be repaired or replaced at our discretion at no charge. Some parts, such as hoses and nozzles, are subject to severe wear and are replaced within a year only if a flaw in the material causes breakage. No adjustment can be made on kinked hoses, since a kink is evidence of abuse. Also, no adjustment can be made where there is considerable wear at the point of the break.

Warranty on service/wear items, replacement parts and electrical components is limited to 90 days.

All parts replaced under warranty must be original General Wire Spring Co. replacement parts. Under no circumstances will General Wire reimburse a service center for parts that are not General Wire parts.

Damage due to negligence, rust, exposure to corrosive chemicals, abnormal usage, accidents or alteration from original design is not covered by this warranty.

Warranty Does Not Cover:

1. Certain items not manufactured by General Wire but used as components such as engines and motors are guaranteed by their respective manufacturer service centers.
2. Items subject to normal wear such as seals, valves, hoses, spray guns, wands, couplings, nozzles, belts, swivels, filters or any part subject to direct physical contact by the public.
3. Replacement of any fluids such as oil or chemicals, nor does it cover cleaning of any parts.
4. General Wire products are only warranted to the original purchaser, there is no continuation of warranty on used products.
5. Products damaged in transit. (A claim should be filed with the carrier in the event a product is damaged in shipment.)
6. Damage caused by the use of caustic or corrosive liquids.
7. Operating the pump under conditions that cause or contribute to cavitation.
8. Damage caused by contaminated fuel or oil.
9. Heat damage within the pumping system, whether introduced with the water supply or generated within the system.
10. Damage caused by accident, fire, flood, wind storm, freeze up or other acts of nature.
11. Damage caused by improper installation or power supply.
12. Cost of transportation to authorized service center.
13. Freight costs are the responsibility of purchaser/dealer.
14. Cost incurred for telephone communications.
15. Travel costs or mileage and/or time.
16. Failure to follow recommended maintenance or operating procedures outlined in the operators manual.
17. Loss of running time, income or any other loss due to down time.
18. Use of unauthorized/substandard accessories or attachments.

In order to obtain warranty service the original purchaser is responsible for:

1. Providing proof of purchase (original invoice or bill of sale).
2. Informing your wholesaler of the defect(s) or problem(s) and making the product available for repair. They will direct you to the nearest authorized Service Center. (Charges for pick-up or delivery, service calls and mileage are <u>not</u> covered under warranty.)

This warranty is made in place of all other warranties, express, statutory or implied, including those of merchantability and of fitness for purpose.

This warranty gives you specific legal rights and you may also have other rights that vary from state to state. Some states do not allow the exclusion of limitation of incidental or consequential damages, so these limitations may not apply to you.

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