



M157206R

ITEM NUMBER: 157205, 157207	
SERIAL NUMBER: _____	
Engine Model: _____	
Pump Model: _____	
Flow: _____	Pressure: _____
Hose Length: _____	Lance Length: _____
Nozzle Size: _____	

Installation, Operation, and Maintenance Manual

PRESSURE WASHER: *Cleans dirty surfaces with high pressure water.*

To the Owner:

Thank you for purchasing a NorthStar pressure washer. Your machine is designed for long life, dependability, and the top performance you demand! Take time now to read through this manual so you better understand the machine's operation, maintenance and safety precautions. Everyone who operates this machine must read and understand this manual. The time you take now will prolong your machine's life and prepare you for its safe operation. Enjoy the exceptional performance of your NorthStar pressure washer, the industry leader! The manufacturer reserves the right to make improvements in design and/or changes in specifications at any time without incurring any obligation to install them on units previously sold.

Quick Facts

Engine Oil	Engine is shipped without oil. Fill before starting. Use SAE 10W-30 motor oil.	
Pump Oil	Pump is shipped with oil. Remove the red shipping plug and install vented dipstick. Use SAE 30 Non-Detergent oil (item# 4043) for oil changes.	
Water	Make sure your water flow is 20% higher than the pressure washer's flow rate. Make sure your water is clean and particle free.	
Storage	Do not allow water to freeze in the pump, hose, or spray gun. Add fuel stabilizer to the fuel tank before long term storage.	
Spraying Chemicals	Use any North Star brand or equivalent pressure washer chemicals. Use black nozzle.	
Maintenance Schedule	Engine:	Oil: change after first 20 hours, then annually or every 100 hours. Spark Plug: clean every 100 hrs, replace annually or every 300 hrs. Air Filter: clean every 100 hours, replace annually or every 300 hrs.
	Pump:	Oil: change after first 40 hours, then every 3 months or 500 hours.
Read and understand all manuals before operating.		

Any Questions, Comments, Problems, or Parts Orders
Call NorthStar Product Support 1-800-270-0810

Table of Contents			
Important Safety Instructions	2	Maintenance Instructions	10-11
Machine Component Identification	3	Moving and Handling Instructions	12
Installation Instructions	4-6	Long Term Storage	12
Operation Instructions	7-9	Troubleshooting	13
Safety Features	9	Parts Explosions	14-15

Important Safety Instructions

WARNING -Risk of Injection or Injury to Persons - Do Not Direct Discharge Stream at Persons. - Do not use a hose if exterior damage is evident.

-Risk of explosion. - Do not spray flammable liquids. - Do not operate in a flammable environment.

CAUTION -Risk of Asphyxiation - Exhaust fumes are deadly. For outdoor use only. Avoid inhaling exhaust fumes.

-Risk of fire. Do not add fuel when the product is operating or hot.

-Gun kicks back. Hold with both hands.

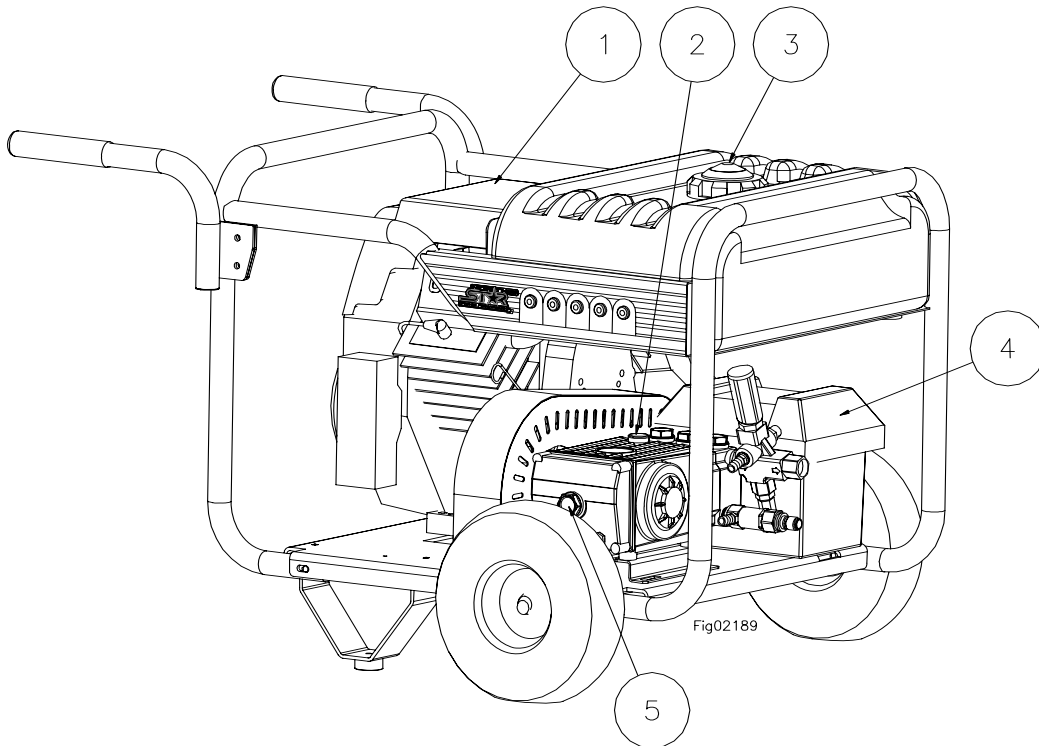
-To reduce the risk of injury, read operating instructions carefully before use.

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

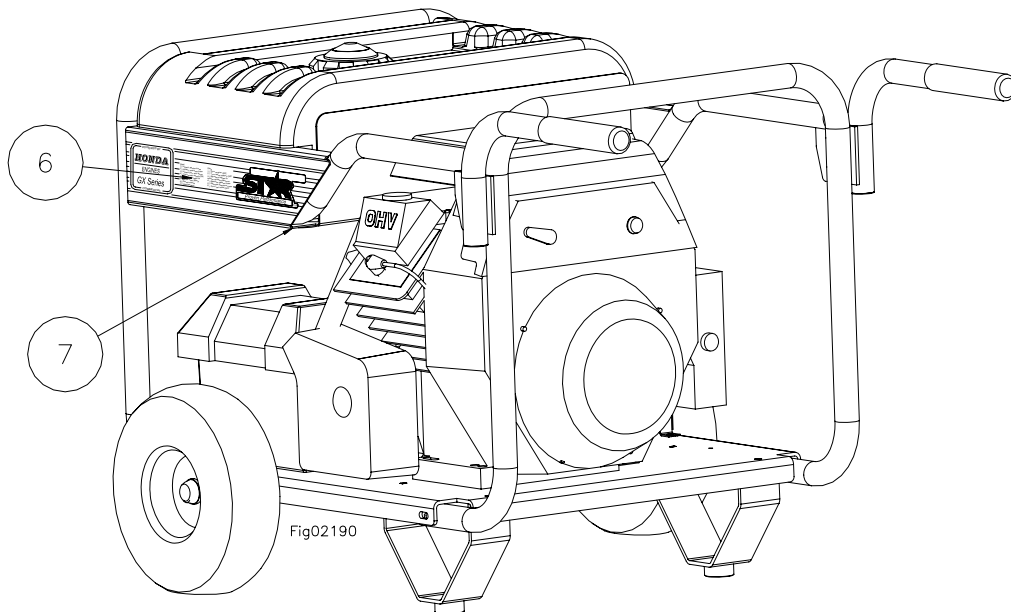
- 1.) Read all the instructions before using the product.
- 2.) To reduce the risk of injury, close supervision is necessary when the product is used near children. Do not allow irresponsible use by children. Always stop the product and bleed pressures before leaving unattended, disconnecting hoses, or servicing the pump.
- 3.) Know how to stop the product and bleed pressures 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. Never smoke while operating or fueling this machine.
- 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. Wear footwear capable of maintaining a good grip on wet surfaces - Do not place the machine on soft or unstable ground.
- 8.) Follow the maintenance instructions specified in all manuals. Do not run machine without sufficient lubrication or sufficient water to cool the pump.
- 9.) Wear safety glasses, gloves, face protection and appropriate clothing when operating the machine.
- 10.) Do not operate this machine with broken or missing parts. - Never alter the manufacturer's original design or deactivate any safety device on the machine.
- 11.) Risk of exposure to dangerous chemicals. Wear protective gloves when handling and cleaning with chemicals. Follow the chemical manufacturer's directions. Understand all safety hazards and first aid for all chemicals being used. Check whether dangerous chemicals have been used and take any precautions that may have been recommended by the supplier of these chemicals when cleaning filters. Do not pump highly abrasive fluids or use with incompatible chemicals or solvents.
- 12.) Know the pressure and temperature limits of your machine. Be sure all high pressure accessories meet or exceed your machine's limits. Do not set the pressure relief valve above the machine's limit.
- 13.) Do not move this machine by pulling on the hose. Do not use the pump to support other items of equipment that impose unacceptable loads on the pump. Do not attempt to use this machine as a prop.
- 14.) To reduce risk of injury, do not secure the spray gun open. Your spray gun is equipped with a built-in trigger safety latch to guard against accidental trigger release and potentially dangerous high pressure spray. Rotate the safety latch to the locked position when not spraying.
- 15.) Do not clean this machine with its own spray. Cleaning should be done with a damp sponge with the engine OFF.

SAVE THESE INSTRUCTIONS

Machine Component Identification



Ref	Description	Ref	Description
1	Engine	5	Pump Oil Sight Glass
2	Pump Oil Fill/Dipstick	6	Startup/Shutdown Instructions
3	Gas Cap with Gauge	7	Fuel Shutoff Valve
4	Battery Box		



Installation Instructions

I.) Unpack

Separate and identify the components. Use the assembly instructions in this manual for assembly.

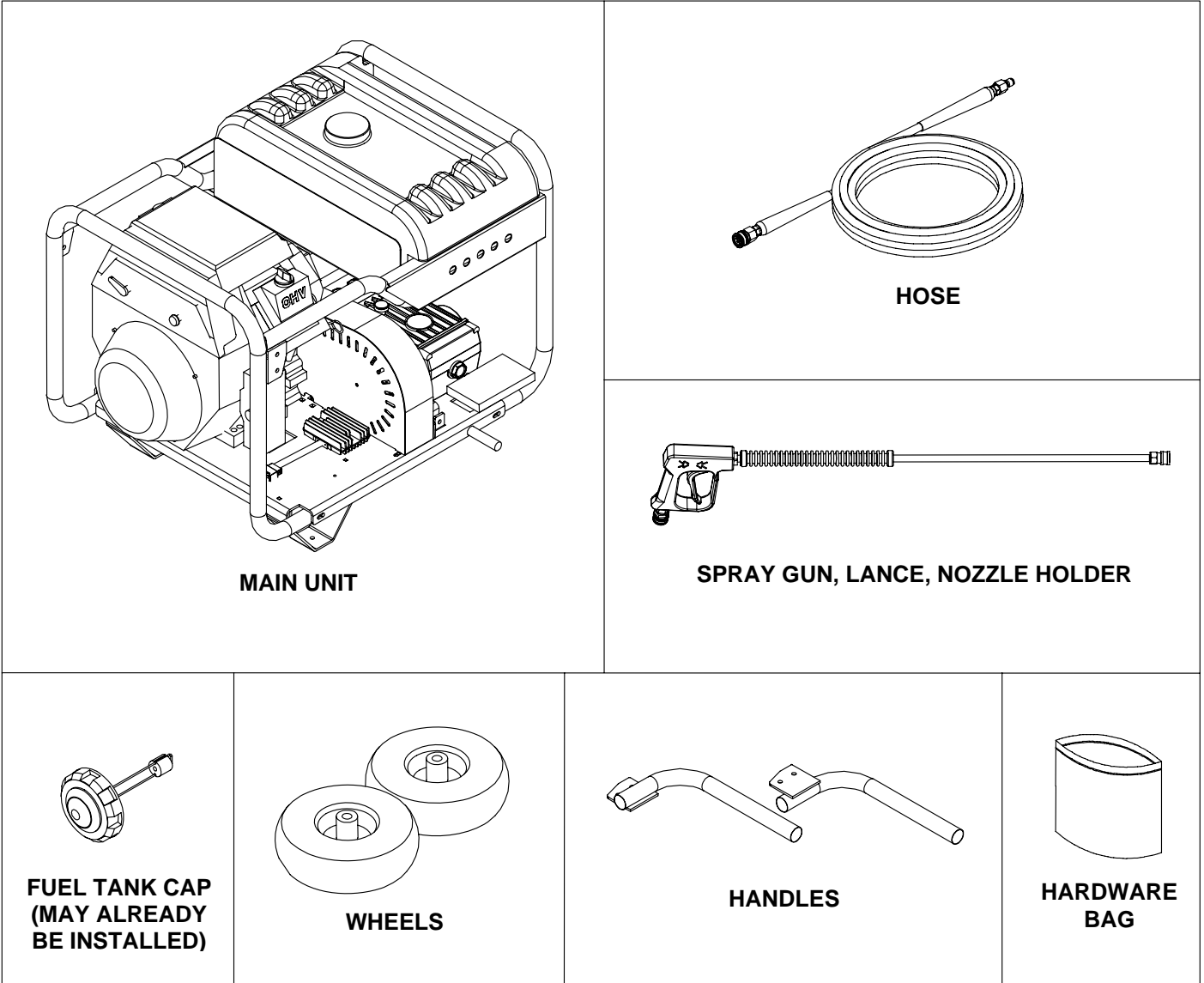
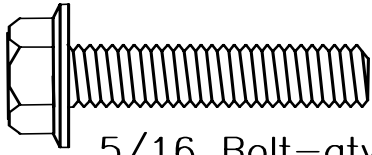
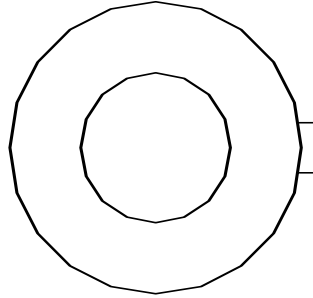


FIG02225

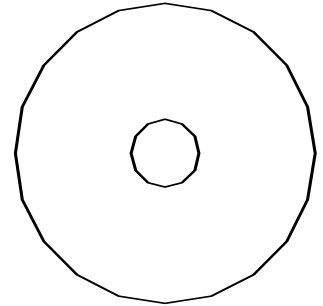
Hardware Bag



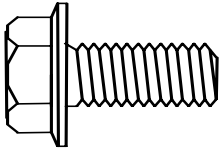
5/16 Bolt—qty2
(157207 only)



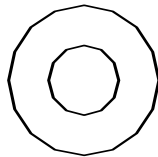
Wheel Retainer—qty2



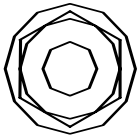
Rubber Foot—qty2
(157205 only)



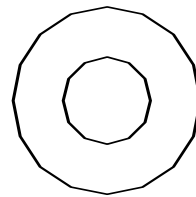
5/16 Bolt
(157205—qty6)
(157207—qty4)



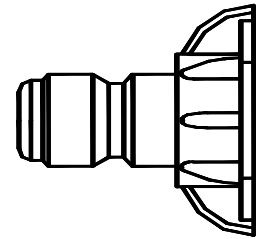
5/16 Washer—qty2
(157207 only)



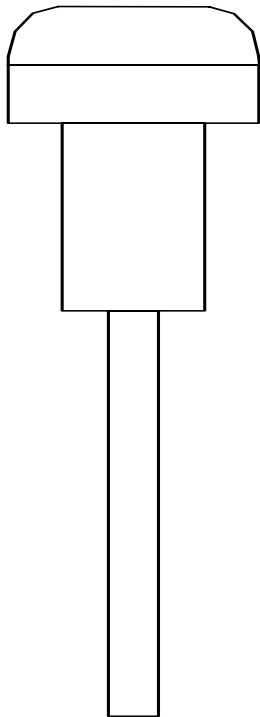
5/16 Nut—qty6



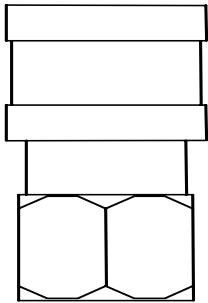
Grommet—qty5



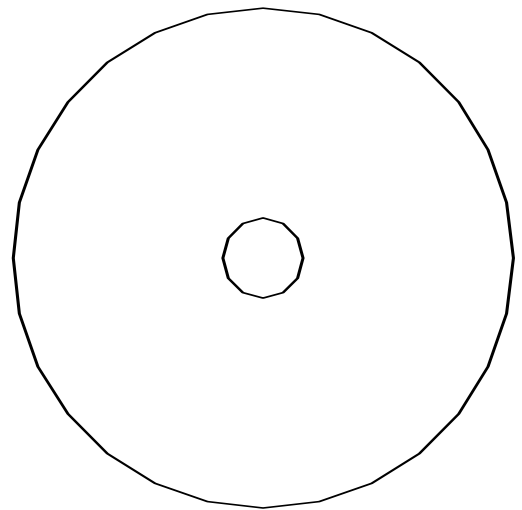
Nozzle—qty5



Vented
Dipstick



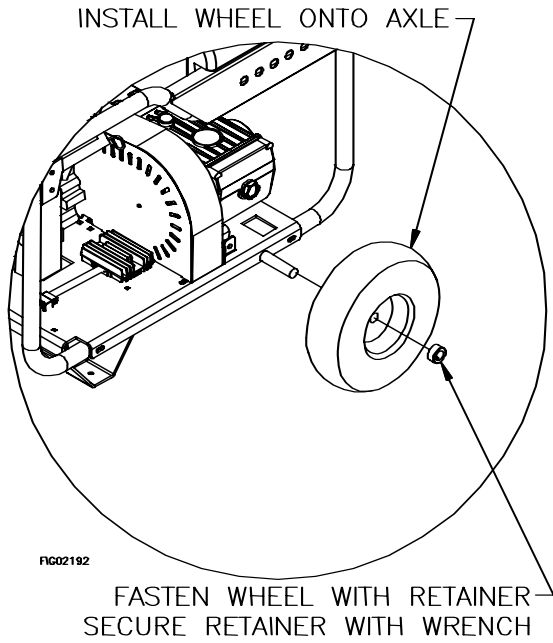
Nozzle Holder
(157207 only)



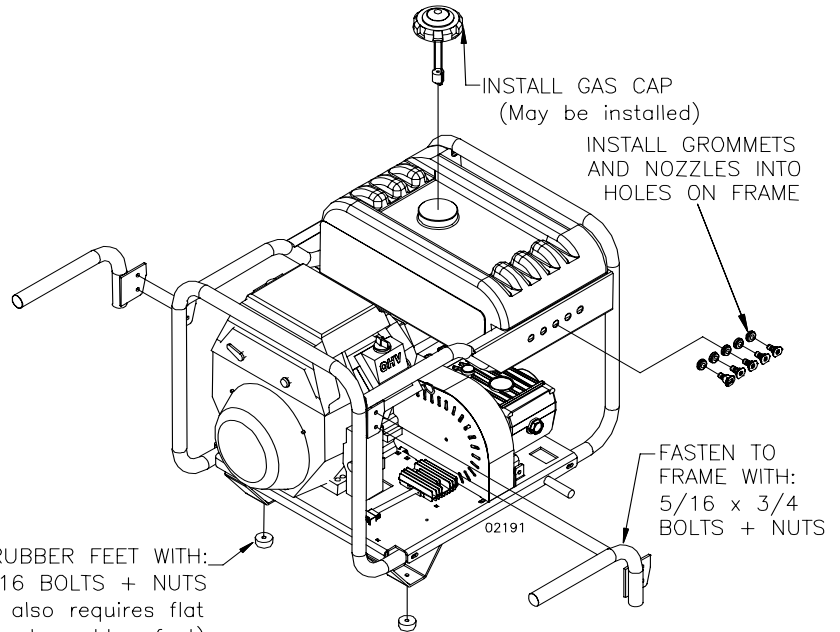
Rubber Foot—qty2
(157207 only)

FIG02193

II.) Assembly Instructions



INSTALL RUBBER FEET WITH:
5/16 BOLTS + NUTS
(157207 also requires flat
washers under rubber feet)



III.) Pump Preparation

- Remove red shipping plug from oil fill hole.
- Install vented dipstick into oil fill hole.
- Make sure the oil is 1/2 way up oil sight glass.

IV.) Engine Preparation

- Fill engine with SAE 10W30 oil.
- Fill fuel tank with unleaded gasoline, 86 octane min.

V.) Battery

Warning: Sulfuric acid is a corrosive poison. Avoid contact with skin, eyes or clothing. Always wear safety glasses when working on or near the battery.

The battery box provides protection for the battery and will accept a standard lawn tractor size battery (Group U1-7). The engine requires a 12 volts dc battery, with a minimum rating of 18 Amp-Hours. When installing a battery, always connect the red colored ("positive" or "+") cable first. When disconnecting a battery, always remove the black colored ("negative" or "-") cable first.

Quantities Of Fluid

Item #	Engine/Pump	Type of Fluid	QTY
157205	Briggs Vanguard	SAE 10W30	1.75qt (1.7L)
157207	Honda GX670	SAE 10W30	1.48qt (1.4L)
157205	AR RKA 45G40	SAE 30**	15.0oz (.44L)
157207	General T9281	SAE 30**	40.60oz (1.2L)

**SAE Non-Detergent (Item# 4043)

Operating Instructions

Read and understand the entire manual before operating the pressure washer.
Follow these instructions every time you use the pressure washer.

I.) Pre-Operation

- ☑ A.) Position the machine for easy access to all controls.
- ☑ B.) Position the machine on a solid surface, with less than a three degree slope, and so it is protected from external damage.
- ☑ C.) Position the machine so that ambient lighting is sufficient for the surface you are cleaning to be seen with ease. Use artificial light if needed.
- ☑ D.) Check all connections for signs of wear, cracks and looseness, and replace as required.
- ☑ E.) Check and clean the nozzle orifice.
- ☑ F.) Check and clean the water inlet screen and filter.
- ☑ G.) Read entire manual, especially the important safety instructions listed on page 2.
- ☑ H.) Check and maintain proper oil levels in the pump and engine.

II.) Check Your Water Supply

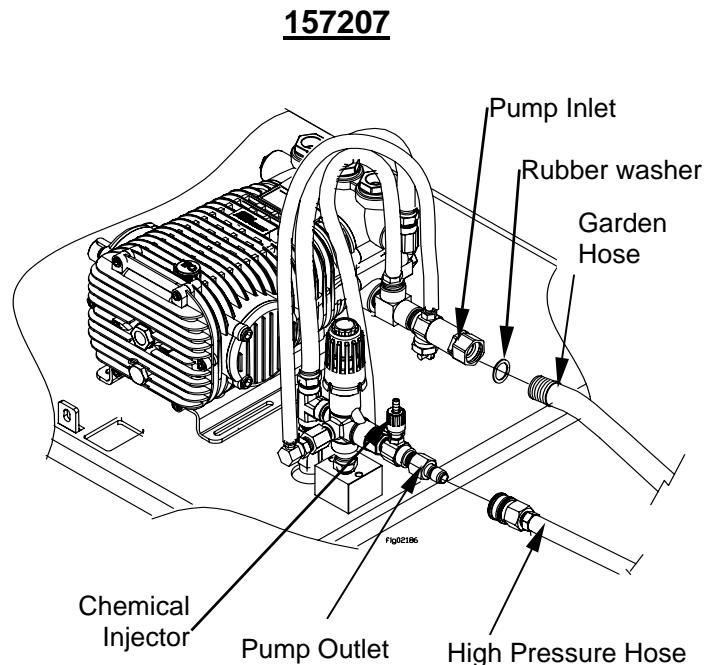
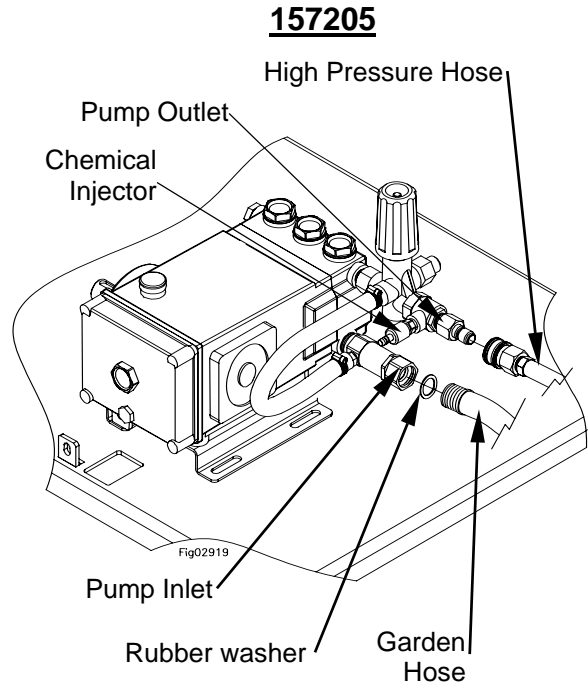
- ☑ A.) Make sure the water supply is clean. Debris can cause excess pump wear and reduce performance.
- ☑ B.) An insufficient water supply will damage your pump. Make sure the water supply is steady and is 20% over the rated flow of your pump. Use a stopwatch to time how long it takes to fill a 5 gallon bucket with your garden hose.

Example: If the rated flow is = 3gpm
Then required flow = $3 \times 1.20 = 3.6\text{gpm}$
 $5\text{gallons} / 3.6\text{gpm} = 1.39\text{ minutes}$
 $1.39\text{min} \times 60\text{sec}/\text{min} = 83\text{ seconds}$
Therefore, you must be able to fill a 5 gallon bucket in 83 seconds or faster.

- ☑ C.) The water supply garden hose must have an inside diameter of at least 5/8". If the hose is more than 100 ft. long, the diameter must be at least 3/4".
- ☑ D.) Never use a reservoir tank as a water source. This pressure washer is designed for a pressurized water source such as a city water faucet. Sucking water out of a tank may cause pump cavitation and damage to your pump. However, the inlet pressure of the pump must not exceed 115 psi (8 bar).
- ☑ E.) Always use a flexible rubber hose for your water supply. Do not use rigid piping.
- ☑ F.) Do not pump flammable liquids or liquids containing incompatible chemicals or solvents.

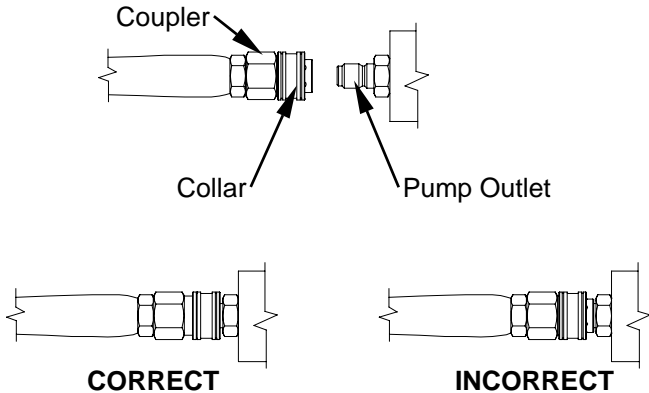
III.) Attach Garden Hose

Remove shipping plug from pump inlet and confirm rubber washer is in place. Attach garden hose.



IV.) Attach High Pressure Hose

Your pressure washer hose is equipped with quick couplers. Simply pull the collar back and push the coupler onto the nipple. Make sure the collar slides over the ball bearings. Once the connection is made, pull on the hose to assure a positive connection.



V.) Turn Water Supply ON

Make sure the hose is not “kinked”. A kinked hose will provide insufficient water supply to the pump and will reduce its life. Make sure the hose remains unkinked after moving the pressure washer.

VI.) Squeeze Trigger

Squeeze the trigger until a steady flow of water sprays out the nozzle. Make sure all the air is out of the hoses before running the pressure washer. This step is very important, it will prolong the pump’s life. NEVER run the pump dry.

VII.) Attach Nozzle

Color of Nozzle:	Spray Angle	Used For:
Red	0	Highest Impact
Yellow	15	Tough Stains/ Stripping
Green	25	General
White	40	Light Cleaning
Black	65	Applying Chemicals

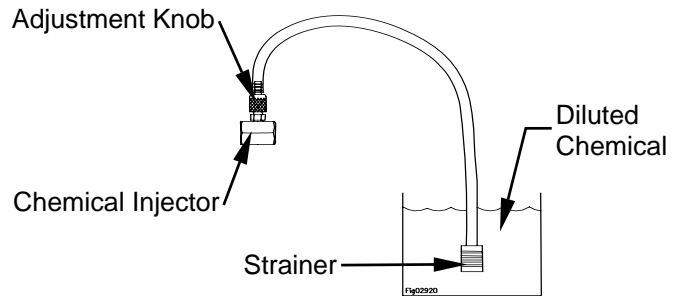
Your pressure washer is equipped with five nozzles. To install a nozzle simply pull back the collar and push the nozzle into the coupler. Once the connection is made, pull on the nozzle to assure a tight connection.

WARNING: Make sure the nozzle is correctly inserted. The nozzle may become a projectile if not inserted correctly. Do not attempt to use different types of nozzles that may not fit the coupler.

VIII.) Applying Chemicals

WARNING: Only use NorthStar pressure washer chemicals or chemicals specifically formulated for pressure washers. Follow the chemical manufacturer’s recommendations. Understand all safety precautions and first aid for all chemicals. NOTE: Your pressure washer is equipped with a low pressure chemical injector. The proper chemical used for the proper application can speed up cleaning jobs tremendously.

A.) Place the chemical injection hose onto the chemical injector hose barb and submerge the suction strainer into the chemical solution.



- B.) You need to use the black nozzle to spray chemicals onto the cleaning surface.
- C.) The amount of chemical applied can be changed by turning the chemical adjustment knob located on the chemical injector.
- D.) Squeeze the spray gun trigger. The chemical injector will draw the chemical into the water stream
- E.) Apply chemicals evenly to the cleaning surface. Allow the chemicals to react with the dirt, and then clean at high pressure with green nozzle.
- F.) Never use more chemical than is necessary to clean the surface.

IX.) Start Engine

***Refer to the engine manual to start your engine.**

IMPORTANT: The water must be turned on before starting. Running the pump dry will cause damage and void the warranty.

IMPORTANT: Make sure the fuel shutoff valve located under the fuel tank is in the ON position.

WARNING: Check that there are no leaks in the vicinity of the pump before starting engine.

Once the engine is started, begin cleaning. If the engine doesn’t start on the first pull, pressure may build up in the pump. Relieve the pump pressure by squeezing the spray gun trigger. This will make starting easier.

WARNING: Do not inhale the exhaust from the engine. Do not point the lance at anyone even if the engine has stopped because there could be a release of water under retained pressure if the spray gun trigger is actuated.

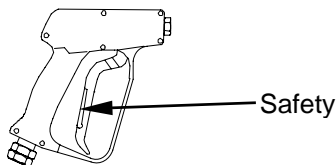
X.) Cleaning

WARNING: Wear eye, ear, hand, foot and skin protection at all times while operating this pressure washer.

DANGER: Do not point the spray wand at yourself or at any person. Bodily injury may result from water under high pressure.

CAUTION: Be careful on painted or delicate surfaces, the pressure may damage the surface if the nozzle is too close.

IMPORTANT: Your spray gun is equipped with a built-in trigger safety latch to guard against accidental trigger actuation and potentially dangerous high pressure spray. Rotate the safety latch to the locked position when not spraying.



- A.) Hold the lance with two hands, have a sturdy stance.
- B.) Point lance at dirty surface and squeeze trigger.
- C.) Wash from the bottom to the top, using side to side
00417 This washes away heavy dirt and allows the detergent to soak as you work toward the top.
- D.) Use the width of the spray pattern to wash in a wide path. Overlap spray paths for complete coverage.
- E.) The nozzle should be 12" to 24" from the work, closer for tough areas.
- F.) Small parts should be washed in a basket so the pressure does not push them away. Larger, light weight parts should be clamped down.
- G.) The pressure washer is set and locked to the maximum rated pressure when it leaves the factory. An easy way to reduce the water pressure is to reduce the engine speed. (Never exceed 3600RPM on the engine)

XI.) Shut-Down Instructions

WARNING: Do not leave an operating machine unattended. Always shut the machine OFF and relieve the pressure before leaving the machine. Never disconnect the high pressure hose from the pump or spray gun while the system is pressurized. Depressurize the system by squeezing the spray gun trigger after the engine is turned OFF.

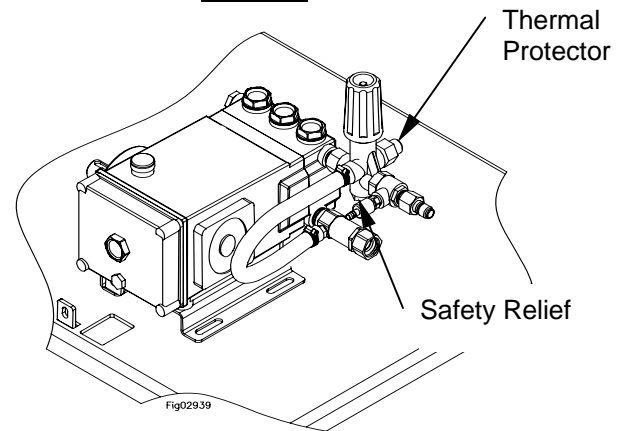
- A.) Turn engine OFF.
- B.) Close engine fuel line valve.
- C.) Turn water supply OFF.
- D.) Actuate spray gun trigger to relieve system pressure.
- E.) Remove garden hose.
- F.) Remove pressure hose.

SAFETY FEATURES

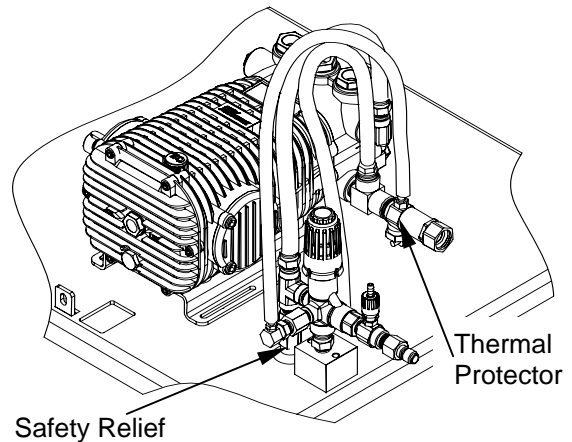
I.) Safety Relief

The safety relief valve is a backup safety feature. If the unloader malfunctions, the safety relief valve will open and relieve system pressure.

157205



157207



WARNING: If the safety relief valve ever discharges water, turn the engine off and do not use the machine. See a dealer or call Product Support at 1-800-270-0810.

II.) Thermal Protector

The thermal protector protects your pump from overheated water. When the spray gun trigger is released, the pump **DOES NOT** stop pumping. Water is circulated through the unloader valve and pump. The circulating water heats up quickly. The thermal protector discharges water when it reaches 140°F preventing pump damage.

Maintenance Instructions

***Refer to the Honda Engine Owner's Manual for Engine Maintenance Instructions**

Maintenance Mode

Before performing any maintenance on the pressure washer, it must be placed in maintenance mode.

- A.) Turn off engine
- B.) Turn off water supply
- C.) Bleed water from system
- D.) Shut off fuel valve
- E.) Unplug spark plug wire from spark plug

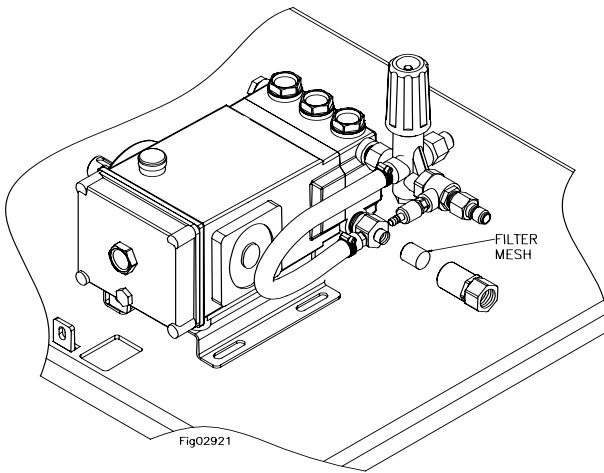
Maintenance Schedule

What to Check	When To Check	What to Do
Inlet Filter	Each Use	Clean
Tires	Each Use	Check Pressure
Hoses	Each Use	Check for Wear
Bolts	Each Use	Check for Loose Bolts

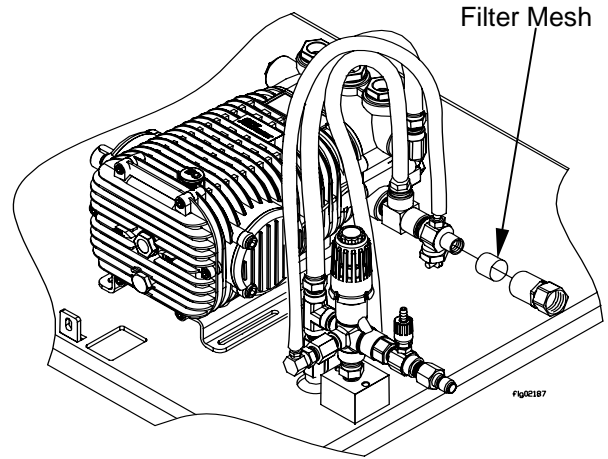
Cleaning The Inlet Filter

WARNING: Check whether dangerous chemicals have been used, and take precautions when handling filters.

157205



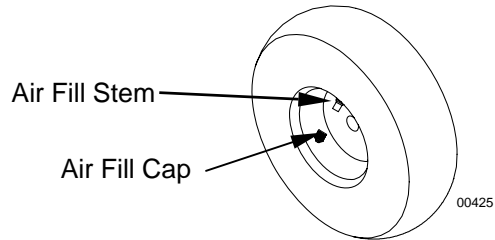
157207



- A.) Unscrew inlet filter cap
- B.) Remove Inlet filter mesh
- C.) Run water through to clean mesh

Checking the Tire Air Pressure

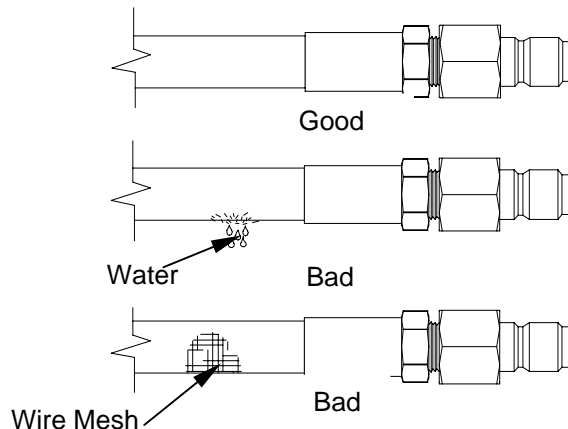
- A.) Remove air fill cap
- B.) Check tire sidewall for correct pressure.
- C.) Replace air fill cap



Checking the Hoses

WARNING: Do not use a finger or skin to check for leaks. Escaping fluid under pressure has sufficient force to penetrate the skin, causing serious injury. Do not operate the pressure washer if the hose is cracked, worn, or leaking.

- A.) Check all hoses for leaks
- B.) Check all hoses of worn areas



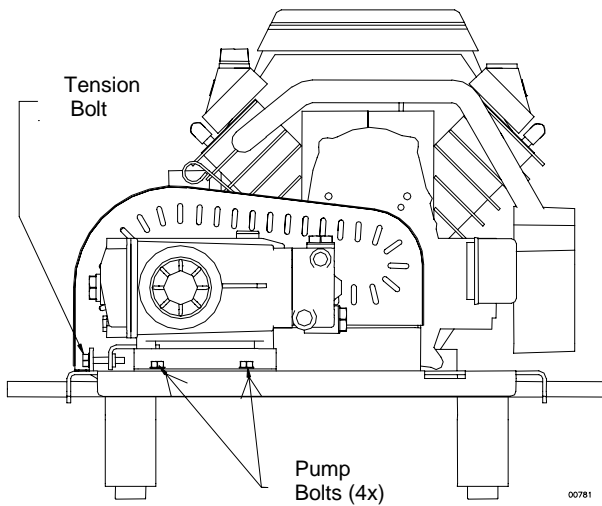
Belt Tension

Some general rules of belt tension are:

- 1.) Ideal tension is the lowest tension without belt slippage.
- 2.) Over tightening decreases belt and bearing life.
- 3.) Keep belts clean and free of foreign material that may cause slippage.
- 4.) Tighten belts when slipping.
- 5.) Never apply belt dressing. It will damage the belts and cause early failure.

Tightening belts

- 1.) Loosen pump mount bolts (4 places).
- 2.) Tighten tension bolt.
- 3.) Re-tighten pump mount bolts.



Changing The Pump Oil

*Change oil after first 40 hours, then every 3 months or 500 hours.

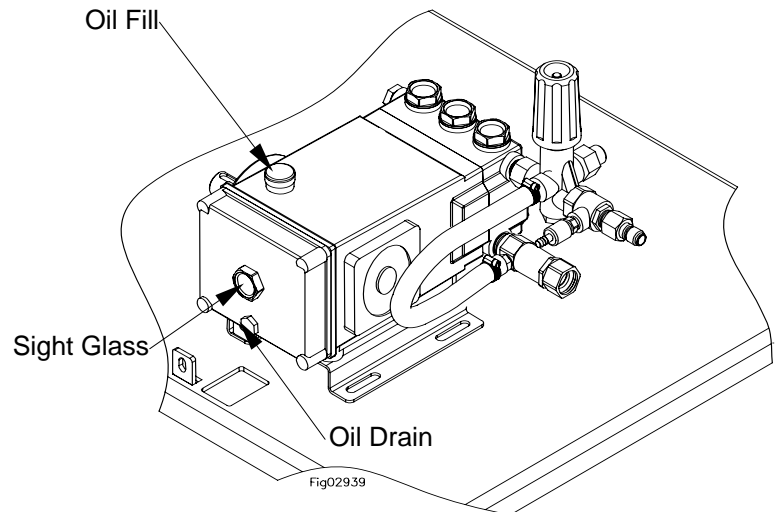
- 1.) Remove oil drain plug
- 2.) Drain pump oil
- 3.) Replace oil drain plug
- 4.) Fill pump with pump oil.
- 5.) Fill half way up sight glass.

Quantities Of Fluid

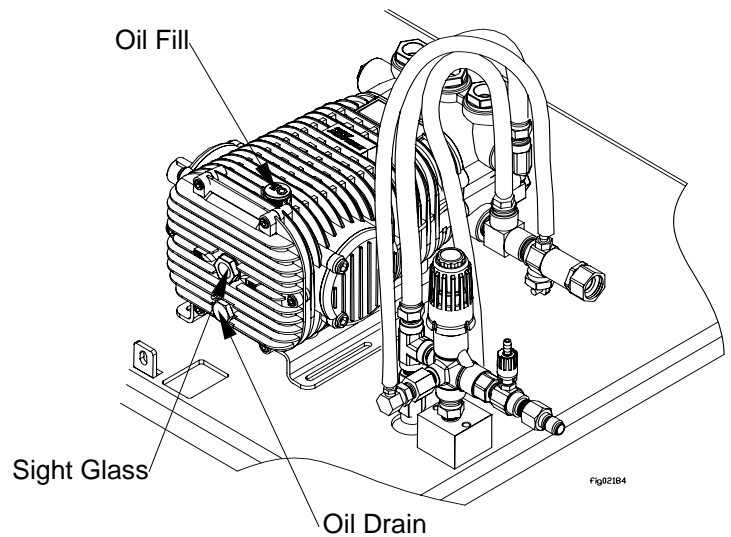
Item #	Pump	Type of Fluid	Qty. (oz./L)
157205	AR RKA 45G40	SAE 30**	15.0oz (.44L)
157207	General T9281	SAE 30**	40.60oz (1.2L)

**SAE Non-Detergent Oil (Item #4043)

157205



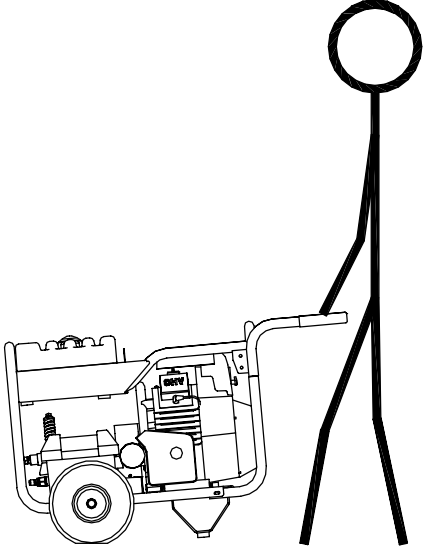
157207



Moving and Handling Instructions

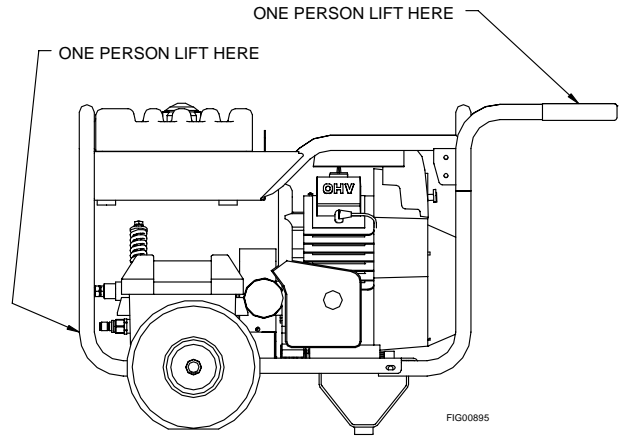
Maneuvering Your Pressure Washer

- 1.) Pull the handles up with both hands.
- 2.) Push the pressure washer forward as you walk.



Lifting Your Pressure Washer

- 1.) To reduce risk of injury, it is recommended that two adults lift the pressure washer.
- 2.) Only lift the pressure washer by the roll bars and handle. Do not use the pump or engine as a lifting point.



Storage

During cold weather, store the pressure washer indoors and move it outdoors before starting the engine. Follow these instructions to prevent the pump from freezing during storage.

Storage:

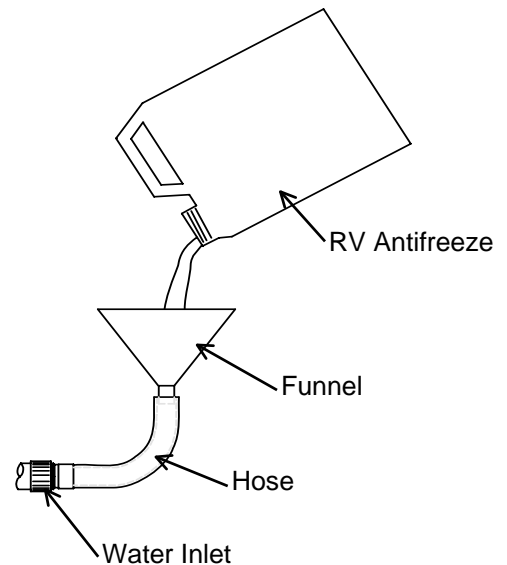
Before you store the pressure washer, make sure you do the following:

- 1.) Remove gasoline from engine or add fuel stabilizer to the gasoline to prevent gumming.
- 2.) If adding stabilizer, run pressure washer with high pressure hose for five minutes.
- 3.) Shut down pressure washer by turning engine start switch OFF.
- 4.) Disconnect high pressure and garden hose.
- 5.) Remove spark plug, turn engine start switch OFF, and turn fuel valve OFF.
- 6.) Pour one teaspoon of engine oil into spark plug hole. Cover the spark plug hole with a rag and turn engine over several times to lubricate cylinder.
- 7.) Replace spark plug.

Winter Storage:

Items needed: 12" piece of garden hose or equivalent, funnel and RV antifreeze (approximately 6 oz.)

- 1.) Follow the storage instructions listed above.
- 2.) Disconnect spark plug cable. Make sure the engine start switch is OFF, and the fuel valve is OFF.
- 3.) Attach the garden hose with funnel to the pump inlet (see illustration).
- 4.) Pour RV antifreeze into the funnel, turn the engine over until antifreeze comes out the pump outlet.
- 5.) Drain all water from the high pressure hose. Depress trigger on gun and drain all water out of gun/lance.



Troubleshooting

ENGINE WILL NOT START

<i>Causes</i>	<i>Solutions</i>
Low Oil Shutdown	Fill engine with the adequate amount of oil
Cold Engine	Choke engine to start
No Fuel	Add gas to engine - Make sure fuel shutoff valve is open
Pressure build-up from initial use	Trigger spray gun to relieve pressure
Engine not turned ON	Place ON/OFF switch in the ON position
Spark plug wire not attached	Attach spark plug wire to spark plug

LOW/SURGING PRESSURE

<i>Causes</i>	<i>Solutions</i>
Insufficient water supply	Increase water flow - Check for kinked or pinched hose
Plugged inlet screen	Pull out and clean screen carefully
Need to use high pressure nozzle	Change to the green nozzle
Plugged nozzle	Remove nozzle, check for blockage
Worn nozzle	Replace nozzle
Leak in high pressure line	Fix leaks

NO CHEMICAL INJECTION

<i>Causes</i>	<i>Solutions</i>
Adjustment knob turned OFF	Rotate adjustment knob counter-clockwise
Need to use different nozzle	Change to the black nozzle
Back pressure from extra long hose	Try shorter hose
Leak in clear chemical hose	Replace hose. Use hose clamps if necessary
Chemical strainer not submerged	Make sure strainer is completely submerged in solution

Any Questions, Comments, Problems, or Parts Orders
Call NorthStar Product Support 1-800-270-0810

M157206R

Parts Breakdown

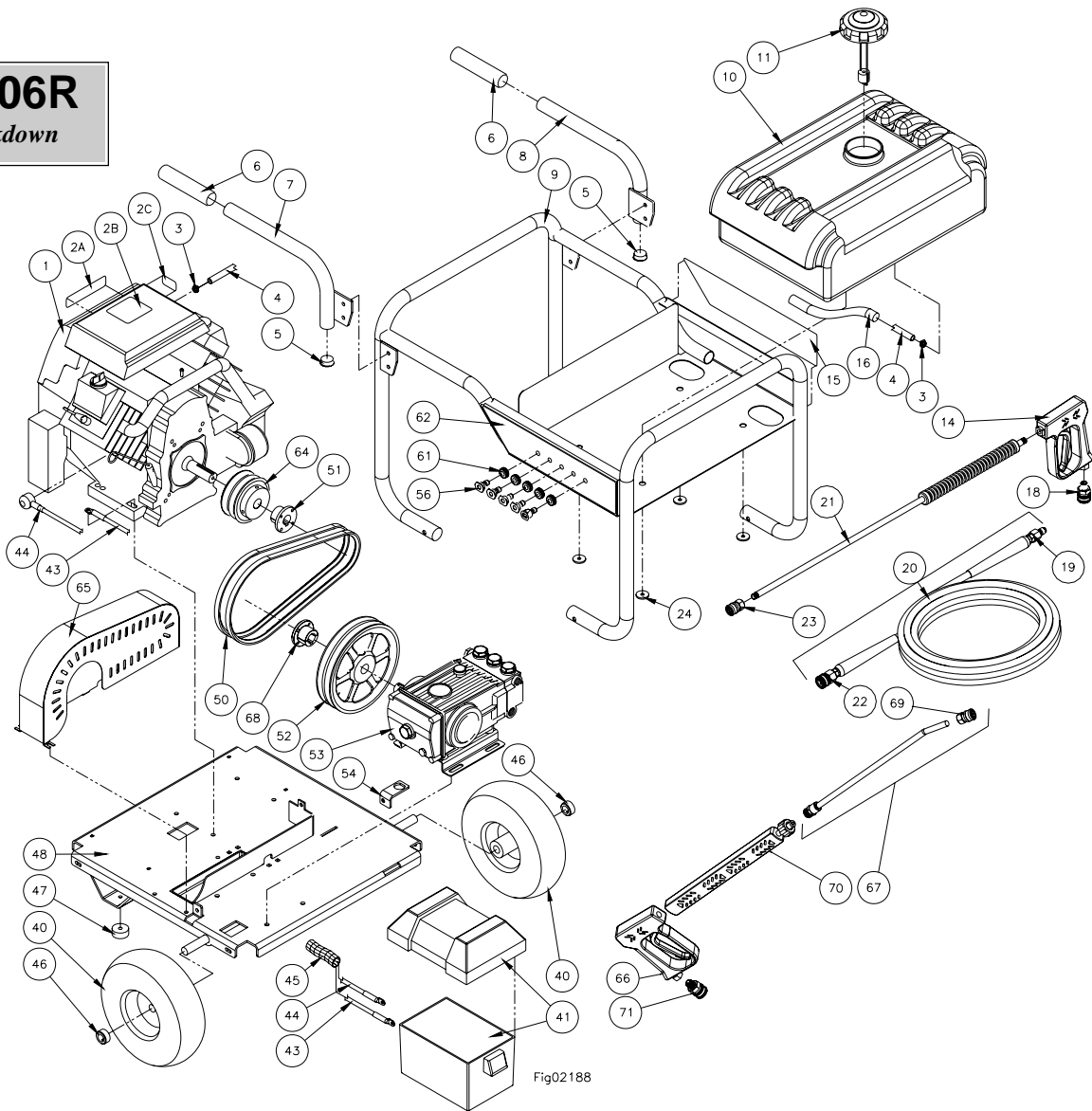


Fig02188

ITEM	PN	DESCRIPTION	QTY	MODEL
1	780367 39314	16 HP Briggs Vanguard 24 HP V-Twin Honda	1	157205 157207
2A	35166	4000 IPW Decal	1	157205
2B	35166	Warning Decal	1	All
2C	35166	Hot Muffler Decal	1	All
3	777834	1/4" Hose Clamp	2	All
4	777345 777345	1/4" Fuel Line Hose	29" 72"	157205 157207
5	30748	Tube Cap	2	157207
6	30747	Handle Grip	2	All
7	34945	Right Handle	1	All
8	34946	Left Handle	1	All
9	780380 777391	Roll Cage	1	157205 157207
10	38759	Fuel Tank, 6.5 Gallon	1	All
11	33321	Fuel Tank Cap	1	All
14	777420	Gun Handle, 5000 psi	1	157207
15	780396	Instruction Decal	1	All
16	31881	Heat Reflective Sleeve	18" 42"	157205 157207
18	777422	Coupler, 3/8" M NPT, SS	1	157207
19	313109 777723	Nipple, 3/8" Female NPT Nipple, 3/8" F NPT, SS	1 1	157205 157207
20	38525 777396	50' Hose, 4000 psi 50' Hose, 5400 psi	1 1	157205 157207
21	777421	48" Lance w/ Grip	1	157207
22	313108 777722	Coupler, 3/8" F NPT Coupler, 3/8" F NPT, SS	1 1	157205 157207
23	2234	Coupler, 1/4" F NPT	1	All
24	30754	Leather Washer	4	All
40	12278	10" Pneumatic Wheel	2	All

ITEM	PN	DESCRIPTION	QTY	MODEL
41	777352	Battery Box	1	All
43	777108	24" Black Battery Cable	1	All
44	32839	42" Red Battery Cable	1	All
45	31332	Protective Sleeve	6" 9"	157205
46	305200	Wheel Retainer	2	All
47	2215 15431	Rubber Foot	2	157205 157207
48	780372 777412	Base	1	157205 157207
50	35226	Cogged Belt, BX36	2 3	157205 157207
51	777790	1" Bushing	1	157205
52	2006 777418	Sheave, 2BK90H Sheave, 3BK90H	1	157205 157207
53	Next pg	Pump	1	All
54	777414	Tension Plate	1	157207
56	25455	Nozzle 5 pack #4.5	1	All
61	35198	Grommet	5	All
62	34948	Nozzle Decal	1	All
64	34935 777790 777416 777417	Sheave, 2BK47H SH bushing, 1" Sheave, 3B42SH SH bushing, 1-1/8"	1	157205 157205 157207 157207
65	35136 777379	Belt Guard	1	157205 157207
66	779165	Gun	1	157205
67	779167	Lance	1	157205
68	777419	24MM Bushing	1	157205
69	777904	1/4" Nozzle QC Coupler	1	157205
70	22622	Lance Grip	1	157205
71	780455	3/8" Male QC Coupler	1	157205

Parts Explosion (continued)

Item Numbers:
157205, 157207
Revision R

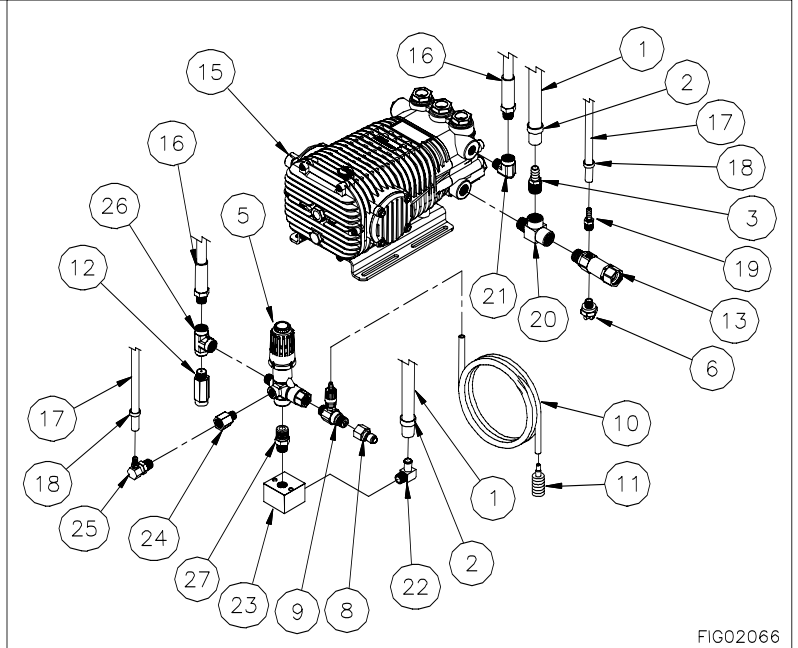
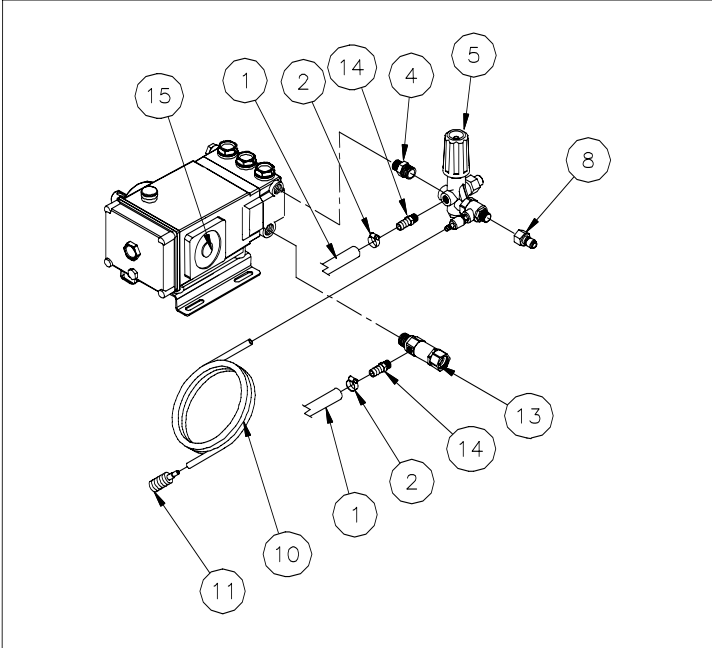


FIG02066

ITEM	PN	DESCRIPTION	QTY	MODEL
1	2264	½" hose	12"	157205
			20"	157207
2	777119	½" hose clamp	2	All
3	2294	½"NPT X ½" hose barb	1	157207
4	2296	3/8 x 3/8 steel nipple	1	157205
5	782572	Unloader valve	1	157205
			1	157207
6	35918	Thermal protector, 1/4"	1	157207
8	777915	3/8" MNPT QC nipple	1	157205
			1	157207
9	777373	Injector, SS	1	157207
			36"	All
10	777165	1/4" chemical hose	36"	All
11	221222	Chemical strainer	1	All
12	777376	Safety relief valve	1	157207
13	35169	Inlet filter, ½"	1	All
14	777840	½" HB X 1/4" MNPT	2	157205

ITEM	PN	DESCRIPTION	QTY	MODEL
15	780368	AR, RKA 45G40HN	1	157205
	780352	AR pump riser	1	157205
	777374	Comet Pump TWS5050S	1	157207
	777377	Rail kit for Comet Pump	1	157207
16	777378	18" high psi hose	1	157207
17	4054	1/4 hose	21"	157207
18	171410	¼" hose clamp	2	157207
19	777340	1/4 MNPT X 1/4 HB	1	157207
20	777639	½ Street tee	1	157207
21	777410	3/8" street elbow	1	157207
22	32808	3/8NPT x 1/2"HB elbow	1	157207
23	777409	Unloader block	1	157207
24	777423	1/4"MNPT X 3/8 FNPT	1	157207
25	38584	Easy start valve, 3/8npt	1	157207
26	777411	3/8" tee	1	157207
27	777337	½" x 3/8" steel nipple	1	157207



Manufactured by
Northern Tool + Equipment Co.,
2800 SouthCross Drive West
P.O. Box 1499 Burnsville, MN 55337-0499