SPARTAN

Model 717 Mini-Jet

Owner's Manual

Record the Serial Number of your

Model 717

and give the number to the factory when ording parts.

Serial

Number .....

SPARTAN TOOL L.L.C.

8 0 0 . 4 3 5 . 3 8 6 6

www.spartantool.com

71701200 (Rev. g) 11-5-2020

Warnings

— Read the safety and operating instructions before using any Spartan Tool product. Drain and sewer cleaning can be dangerous if proper procedures are not followed and appropriate safety gear is not utilized.

— Before starting unit, be sure to wear personal protective equipment such as safety goggles or face shield and protective clothing such as gloves, coveralls or raincoat, rubber boots with metatarsal guards, and hearing protection.

— Insure the jet hose has been placed in the pipe (minimum of 6 feet suggested) before engaging the water pressure to prevent the hose from coming out of the pipe prematurely and causing injury.

— Always shut the water pressure off before pulling the hose out of the pipe. Mark the hose a minimum of 6 feet from the end to help insure the hose is not accidentally pulled out of the pipe while still under pressure. Shut off the water pressure when the hose mark is encountered. WARNING: Portions of the system can still be under pressure even if the unit is not operating.

— Never point the wash gun at anyone while operating the unit. Injury may result.

— Drains and sewer can carry bacteria and other infectious micro-organisms or materials which can cause death or severe illness. Avoid exposing eyes, nose, mouth, ears, hands and cuts and abrasions to waste water or other potentially infectious materials during drain and sewer cleaning operations. To further help protect against exposure to infectious materials, wash hands, arms and other areas of the body, as needed, with hot, soapy water and, if necessary, flush mucous membranes with water. Also, disinfect potentially contaminated equipment by washing such surfaces with a hot soapy wash using a strong detergent.

— For any questions contact the company at the address shown below.

“California Prop. 65: This product may contain an extremely small amount of lead in the coating. Lead is a material known to the State of California to cause cancer or reproductive toxicity.”

SPARTAN TOOL L.L.C.
1618 Terminal Road
Niles, Michigan 49120
800.435.3866
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Table of Contents

Technical Information

GENERAL	
Pipe Sizes	1-1/4” to 6” Diameter
Max Water Delivery	2.2 GPM
Max Pressure Delivery	1500 PSI
Weight	133 Lbs.
Unit Size	21-1/4W x 34D x 47-1/2H

ENGINE	
Horsepower	2 HP
Speed (RPM):	1800
Motor Weight:	53lbs.
Max Electric Draw	19 Amps @ 1500 PSI
Volts:	115/230
Frequency (HZ):	60
Phase:	Single
Feature	Thermal Protection Overload

PUMP	
Pump	Triplex Plunger
Max. Pressure	1500 PSI
Max. Water output	2.2 GPM
Max Temperature	160º F
Max RPM	3400
Plungers	3

High Pressure Water Jetting

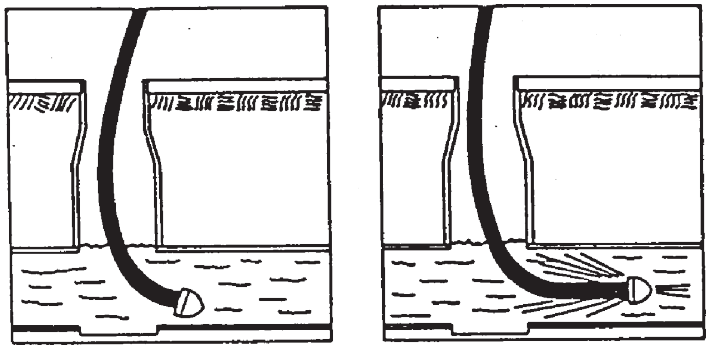
High pressure water jetting is the utilization of high pressure water combined with sufficient water flow to remove debris in drain/sewer pipes. High pressure water jetting can also be used to remove debris on surfaces.

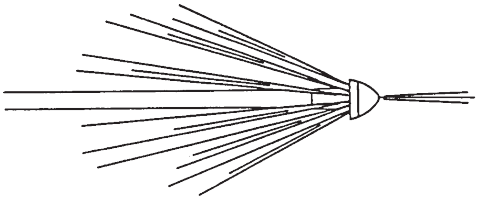
A high pressure water jet consists of a pump, a motor or engine, a hose reel, a given length of hose and a various assortment of nozzles.

A pipe is cleaned with a high pressure water jet by directing water pressure and flow through a nozzle. Controlled water pressure and flow propels a water jet through the sewer pipe allowing it to remove and wash away the obstruction. (See Fig. 1.)

Ideally, a sewer pipe is cleaned from the lower end of the pipe and the hose propels itself to the higher end of the pipe. By slowly withdrawing the jet hose, the water pressure and flow cleans the line most effectively. When it is impossible to clean from the lower end of the pipe, the pipe must be water jetted several times to remove all the debris. A skilled operator can effectively clean a drain/sewer regardless of the obstacles in his way.

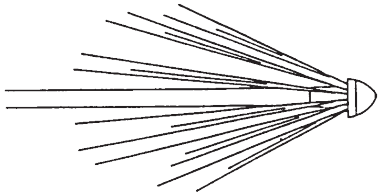
How A Jet Works





(Penetrating Nozzle) 71108500

Nozzle to be used for initial penetration of sewer pipe.



(Closed Nozzle) 71108200

Nozzle to be used for thorough cleaning of sewer pipe.

Fig. 1

Jet Applications Areas

There are a wide variety of uses for the Spartan Model 717 Water Jet. Here are just a few:

— **Apartments/Hotels**

Mains and garage drains, remove grease and debris from main lines under the buildings.

— **Factories**

Food processing plants and foundries have frequent drain and sewer blockages.

— **Farms, Rural**

Clean and spray barns, pens and heavy farm equipment, revitalize drain field in septic systems.

— **Housing Authorities**

Any drains, laundry lines, garbage chutes, clean-outs and many grease-removing applications.

— **Institutions**

Clean-running drains and sewer lines are a “must” in hospitals, schools, prisons. Use in kitchens, remove lime deposits on buildings and clean parking lot.

— **Municipals**

Open culverts for proper flood control, wash down manholes, clean lines in wastewater treatment plants.

— **Residential**

Clean drain lines, septic lines, field tiles, culverts, swimming pools, surface cleaning.

— **Restaurants**

Grease in drains is always a problem - Your Spartan Water Jet actually removes grease from the lines instead of simply punching a hole through the blockage, risking reaccumulation downstream.

Other opportunities for using the Jet and accessories are as follows:

— Clean interiors of buildings-factories, farms.

— Clean and washdown trucks, buses, other large equipment.

— Clean insides of tanks.

— Clean parking lot and gas station drains.

— Clean commercial air conditioning lines.

Safety Procedures

WARNING: READ THE “OPERATORS MANUAL” THOROUGHLY BEFORE USING ANY SPARTAN TOOL PRODUCT. DRAIN/SEWER CLEANING CAN BE DANGEROUS IF PROPER PROCEDURES ARE NOT FOLLOWED. KNOW THE PROPER OPERATION, CORRECT APPLICATIONS AND THE LIMITATIONS OF ALL SPARTAN TOOL PRODUCTS BEFORE USE.

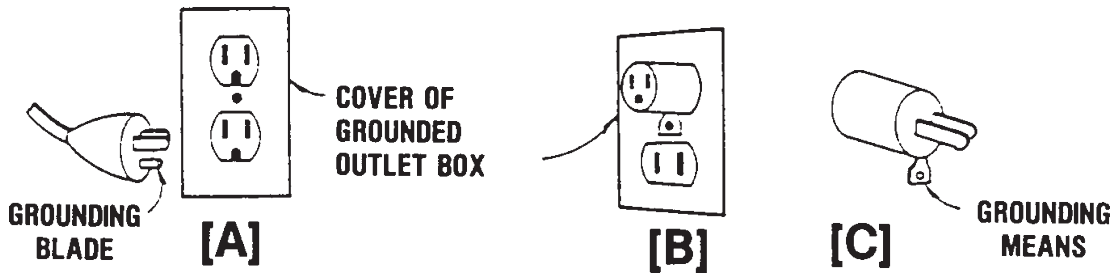
Caution #1 Use of any electrical equipment in a wet environment can cause fatal shock if equipment is not properly grounded, adequately maintained, and if care is not used by the operator.

A. GROUNDING INSTRUCTIONS —

Before using your Spartan Tool equipment, make sure a properly grounded, three hole electrical outlet is available. If not, as in some older homes, use a three-prong adapter and connect the green pigtail (or grounding lug) to a known ground such as a cold water pipe. A three- prong adapter is provided and available through Spartan Tool. Never cut off the grounding prong for use in a two hole outlet receptacle. By doing so, you have cut off your protection from shock.

Spartan Tool equipment must be grounded while in use to protect the operator from electrical shock. Spartan Tool equipment comes with a three-conductor cord and threeprong grounding type plug to fit the properly grounded receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal. If your unit is for use on less that 150V, it has a plug that looks like that shown in sketch (A). An adapter, see sketches (B) and (C), is available for connecting, sketch (A) type plugs, to a two-prong receptacle, except in Canada.

The green-colored rigid ear (or lug), extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.



Don’t assume that all three-hole outlets are properly installed. Check the outlet and also the adapter, if used, with an outlet testing device which quickly indicates if a ground is connected. Correct a faulty test indication before proceeding.

Safety Procedures (cont.)

B. The Spartan Model 717 is equipped with a ground fault interrupter (GFI) to guard against shock.

C. Extension cords are not to be used with the Spartan Model 717.

Caution #2 Always locate drain/sewer cleaning machine as close as possible to opening of pipe. Do not locate machine more than 3 feet from the opening of the pipe.

A. Always locate drain/sewer cleaning machine as close as possible to opening of pipe. Do not locate machine more than 3 feet from the opening of the pipe.

Caution #3 Avoid eye or skin contact with acids or caustic substances while cleaning drains/ sewers.

A. Always wear safety goggles and rubber, gauntlet-style gloves when cleaning drains/ sewers to avoid injury.

B. Before beginning work, ask the customer if either acids or caustic substances are present in the pipe. If in doubt, litmus paper used at the opening of the pipe may give an indication of the type of substance in the line. Litmus paper (acids/caustics) can be purchased at most pharmacies.

Caution #4 Drains/sewers carry bacteria and the possibility of infectious disease exists, if exposed.

A. Always wear safety goggles and rubber gloves to minimize exposure to infection from bacteria in pipes.

B. Avoid contact with ears, eyes or mouth with contents of pipe to lower the risk of infection.
DO NOT SMOKE!

C. Avoid exposing any cuts to drains/ sewers and sewer cleaning equipment.

Follow all rules of safety and good housekeeping.

Safety Procedures (cont.)

Caution #1

A. Keep work area clean.

B. Keep all safety guards in place.

C. Stay alert.

D. Place machine and controls in a stable and accessible position for safe operation.

E. Properly store the tools.

F. Keep children away from all equipment.

G. Use only recommended equipment and accessories. Maintain tools in original working condition.

H. Do not wear loose fitting clothes.

I. Do not exceed limitations of equipment or accessories.

J. Avoid accidental starting by unplugging machine when not in use.

K. Always wear recommended safety gear.

L. Always lift with legs and not your back.

M. Wear ear protectors when using equipment for extended periods of time.

Pre-Operation Checklist

Before using the operational instructions for the "Mini Jet", follow this checklist:

1. Check the ground fault interrupter (GFI) before each use. (See instructions located on the GFI). DO NOT USE THE GFI IF THE INDICATOR LIGHT DOES NOT GO ON WHEN RESET OR IF THE INDICATOR LIGHT REMAINS ON WHEN THE TEST BUTTON IS PUSHED IN. DO NOT USE EXTENSION CORD WITH GFI.
2. The inlet screen must be cleaned before each use to avoid damage to the pump or pulsator. To clean the inlet screen, remove the hose by pulling back on the disconnect fitting at the water inlet valve. (See Fig. 2.) Remove the water inlet valve and screen. Rinse the screen thoroughly with water. Replace the screen, water inlet valve and hose.

WARNING: NEVER OPERATE THE "MINI JET" WITHOUT THE INLET SCREEN. DAMAGE TO THE PUMP OR PULSATOR MAY OCCUR.

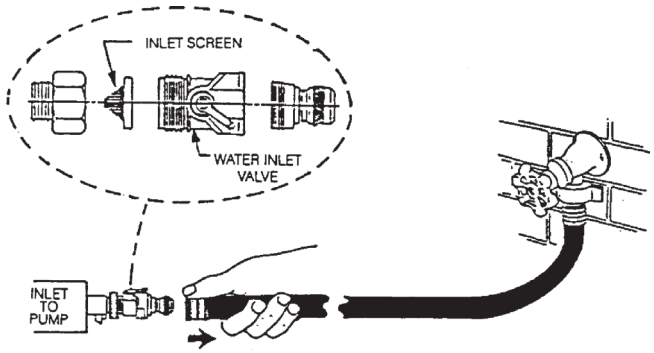


Fig. 2

3. Use only garden hose with 5/8" I.D. Make sure there are no impurities in the incoming water supply. If the possibility of impurities exist, turn on the incoming water supply for 15 seconds to remove debris or rust buildup.
4. Select the proper nozzle for the application and install it on the hose. Insure the nozzle has been tightened sufficiently to avoid loosening. Use these guidelines for nozzle selection:

   A. Ultra Lite Hose/Nozzle - To execute bends in 1 1/4" - 1 1/2" lines.

   B. 20º Open Nozzle - To blast openings and clean 1 1/2" - 6" lines.

   C. 20º Closed Nozzle - To clean 1 1/2" - 2" lines.

   D. 30º Closed Nozzle - To clean 2" - 3" lines.

   E. 45º Closed Nozzle - To clean 4" - 6" lines.

Operational Instructions

WARNING: A MINIMUM OF 19 AMPS MUST BE AVAILABLE ON THE ELECTRICAL CIRCUIT AT ALL TIMES FOR THE "MINI JET" TO FUNCTION PROPERLY.

CAUTION: - 20 AMP CIRCUIT - MAX PRESSURE 1500 PSI

1. Make sure the Pre-Operation Checklist has been followed before operating the "Mini Jet."

2. Position the "Mini Jet" close to the pipe opening and electrical outlet. Never allow more than 3 feet between the machine and the pipe to avoid having the hose from exit prematurely.

3. Release the jet hose from the reel by turning the plastic knob on the side of the reel support frame counterclockwise (left). (See Fig. 3.)

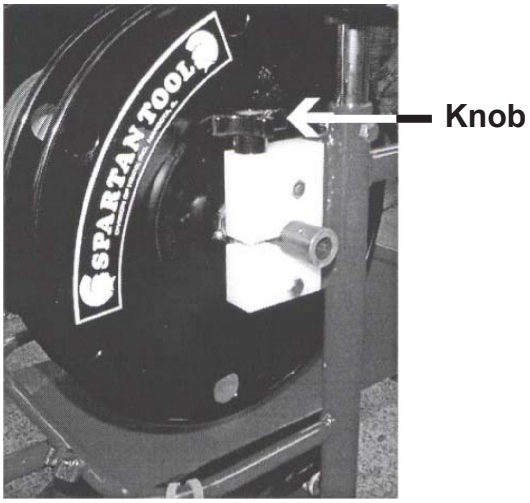


Fig. 3

4. Pull off a length of hose from the reel and push at least 3 feet to 6 feet of hose into the pipe.

5. Connect one end of a garden hose to the water faucet and the other end of the hose to the water inlet connection. (See Fig. 4.)

Fig. 4

Operational Instructions (cont.)

6. Turn on the water faucet.

7. Prime the system by turning on the water inlet valve (See Fig 5). Allow the water to flow until the air is purged from the system

8. Flip the motor switch “on”.

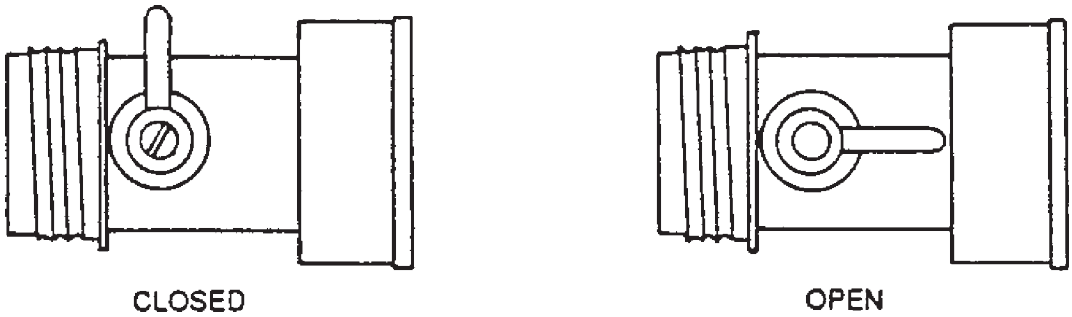


Fig. 5

9. Allow the water jet hose to enter the pipe a few feet by holding the hose and pushing it into the pipe.

10. The “Mini Jet” will operate up to 1500 psi. If the machine is operating at a lower pressure, the pressure control knob can be turned clockwise (right) to increase the pressure. The operating pressure is shown on the pressure gauge. (See Fig. 6.)

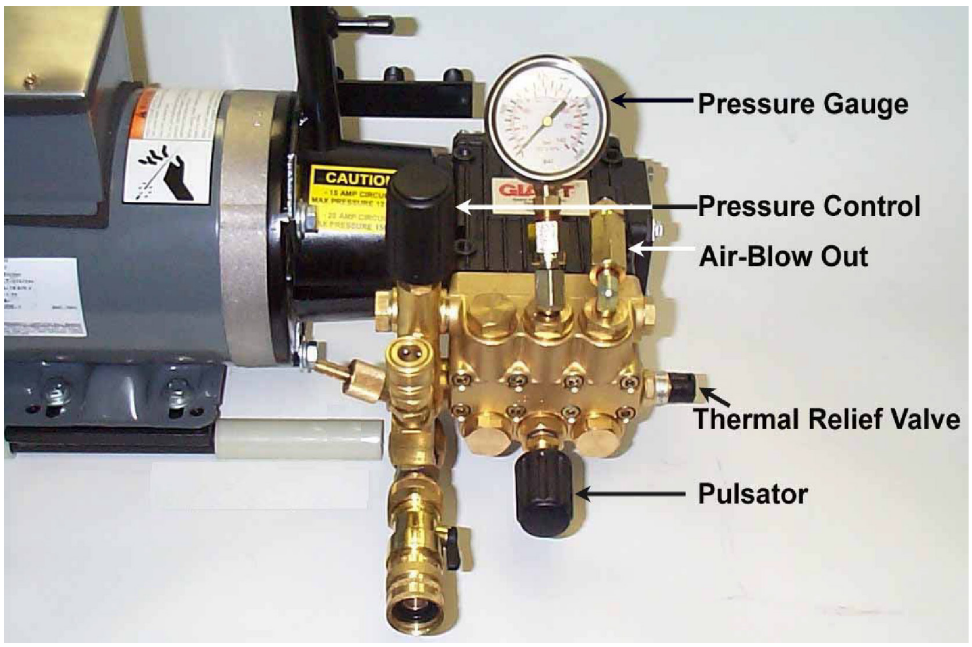


Fig. 6

11. Always pull the water jet hose back one half the distance advanced. The actual cleaning of the pipe takes place when the hose is pulled back toward the operator. Pulling the water jet hose backwards also insures that the hose is not caught in the pipe or has not exited the pipe.

PULSATION CONTROL

12. On pipes with minimum stoppages problems, it may not be necessary to engage the pulsator when using the “Mini Jet.” However, there are times when a pipe cannot be cleaned without the use of the pulsator.

13. The “Mini Jet” comes equipped with a Pulsator (see Fig. 7.) The purpose of the pulsation is to assist in moving the water jet hose through the pipe. The pulsator unit operates by creating a vibrating or pulsing action on the hose using pressurized water. The pulsing or vibration action reduces hose drag in a pipe by reducing surface contact of the hose on the pipe and, with the assistance of the water jet nozzle, causes the hose to propel itself into the pipe farther and faster.

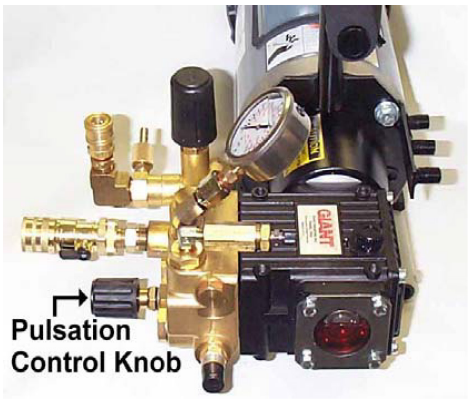


Fig. 7

The pulsation control can be activated in all cleaning applications from minimum to maximum obstructions. The pulsation control is engaged in the following manner:

A. Insure the “Mini Jet” unit is completely operational (unit running) and the water jet hose with nozzle has been placed in the pipe about 3 to 6 feet.

B. B. Turn control knob of the pulsation control clockwise (right) all the way to the built-in stop. The vibrating or pulsing action will start instantly and the hose will move into the pipe. A slight drop in pressure will be noted on the pressure gauge when the pulsation is engaged. When retrieving the hose from the pipe, pulsating action is not required and by turning the control knob counterclockwise (left) all the way to the stop, the unit is returned to standard jetting.

NOTE: Pulsation Control Knob must be in one of two possible positions during operation. The knob must be turned completely out or turned completely in to avoid excessive wear on pump and pulsation unit.

***Patent #: 5580225**

Operational Instructions (cont.)

WARNING: BE SURE TO RE-ADJUST PRESSURE CONTROL TO 1500 PSI BY TURNING CONTROL KNOB LEFT (COUNTERCLOCKWISE) BEFORE STOPPING UNIT, THIS WILL MAKE IT EASIER TO RE-START THE UNIT. (THE FUSE OR BREAKER MAY TRIP REPEATEDLY IF THE UNIT IS OPERATED OVER 1500 PSI DUE TO THE HIGHER CURRENT BEING DRAWN BY THE MOTOR.)

14. If the water jet hose fails to advance even with the assistance of the pulsator, it may be necessary to pull off additional hose and twist the hose in a corkscrew-like manner. (See Fig. 8.)

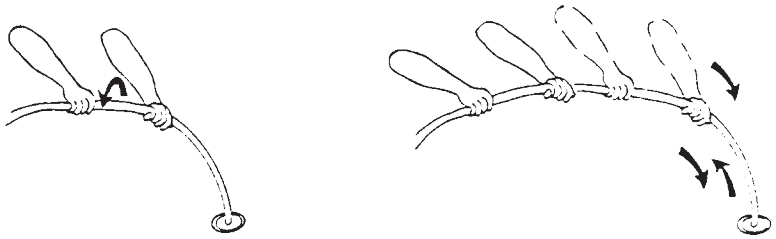


Fig. 8

15. In those rare instances where backflow is created, a bilge pump may be used. (See Fig. 9.)

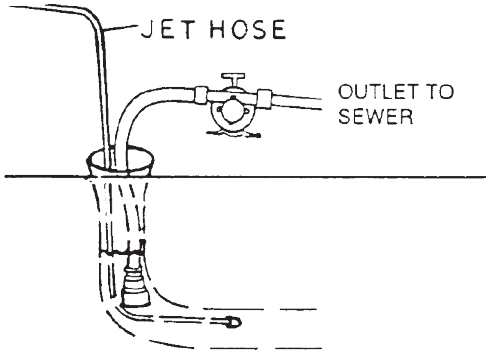


Fig. 9

16. When the pipe cleaning operation is complete, the “Mini Jet” *must be shut-down in the following sequence to avoid problems.*

A. Turn off the motor switch

B. Turn off the water faucet

C. Close the water inlet valve

D. Unplug the electrical outlet

E. Disconnect the garden hose

F. Retrieve the hose and lock the reel

Removal of “Power Pak”

The mini jet is actually “two water jets in one.” It can be operated as a complete long line unit or the “power pak” can be removed from the main reel frame and used as an independent portable unit in conjunction with shorter water jet hose assemblies.

To remove the “power pak follow these guidelines:

1. Remove hair pin clip located on right side of “power pak” motor plate by pulling pin free of holes in motor plate and base plate.

2. Disconnect pressure feed hose from reel to pump at quick disconnect located on left side of pump.

3. 3. Slide “power pak” unit from base plate by pulling forward on front handle, lift unit free.

NOTE: To reinstall unit, reverse above procedure.

The “power pak” unit can now be taken to the job site. Attach the selected jet hose assembly to the quick coupler at pump outlet, attach garden hose to inlet and plug in unit. “Power pak” is now operational.

Preventive Maintenance & Troubleshooting

1. **Cold Weather Protection:** To avoid damage to the pump and water jet hose, keep the “Mini-Jet” from freezing temperatures. If the “Mini-Jet” must be stored in freezing temperatures, you must use one of the following methods.

   Method 1:
   Use pressurized air to blow out any remaining water left inside pump and hose by using the air blow-out feature.

   Method 2:
   Attach a short garden hose (not to exceed four feet) to the water inlet valve and put the other end of the garden hose into a mixture of 50% antifreeze and 50% water. Plug in the machine and turn the motor switch “on.” Allow the mixture to be pumped completely through the system.

2. **Hot Water Damage to Pump:** Never use water at temperatures higher than 160º. Hot water above 160º will damage the pump and void the warranty.

3. **Cavitation (Loss of Flow or Air in the System):** If there is insufficient water flow in the garden hose or if air enters the inlet side of the pump, cavitation will occur. The pump will become noisy and vibrate. Damage to the pump can occur. If cavitation occurs, check for the following:

   A. Filter screen at inlet is dirty or blocked.

   B. Small diameter garden hose being used. (The longer the hose, the larger the diameter.) Garden hoses available in 1/2”, 5/8” or 3/4”.

   C. Insufficient water flow. With the garden hose disconnected from the unit, and the valve turned on, a full stream should flow two feet or more from the hose end.

   D. Check for kinks in garden hose.

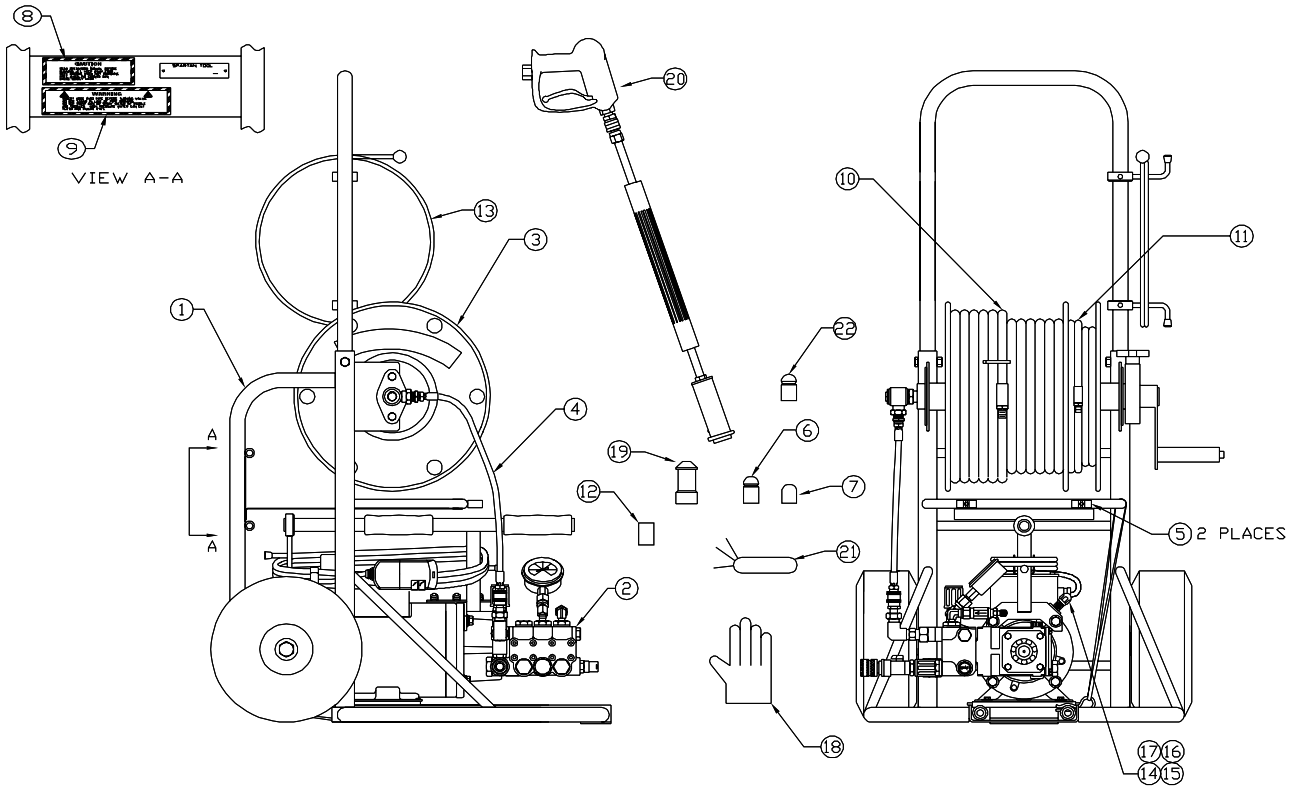
   E. Be sure hose gaskets are used at both ends of hose connections.

4. **Pump Requirements:** Change crankcase oil after first 50 hours of operation, then at regular intervals of 500 hours or less depending on operating conditions. Use ONLY Giant crankcase oil or a 15W-50 synthentic oil. Failure to comply with these conditions voids the warranty.

Troubleshooting

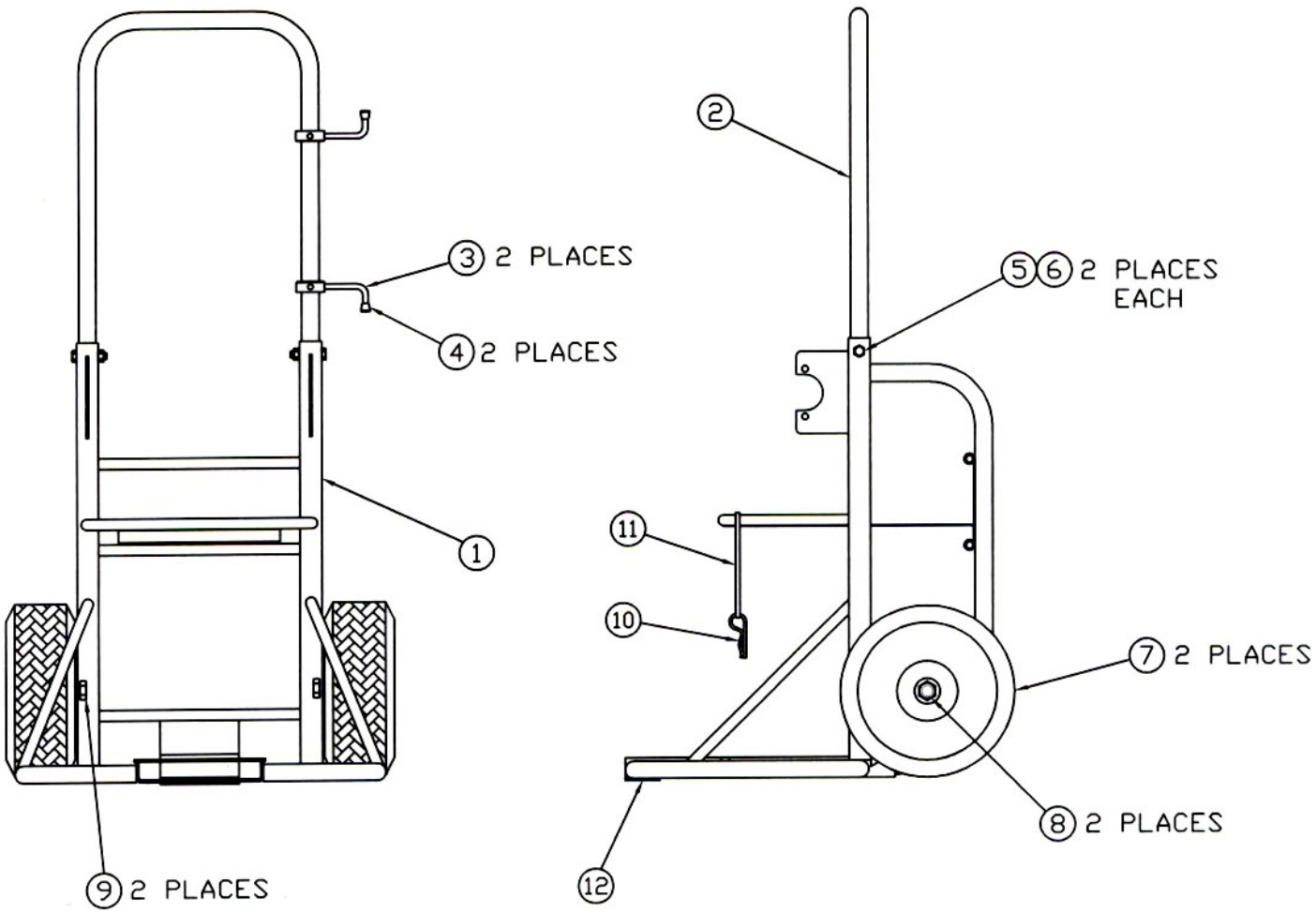
PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Low Pressure	inlet suction clogged or improper size	Clean. Use adequate size. Check more frequently
	Indequate water supply	Check flow available to pump
	Worn nozzle	Replace nozzle of proper size
	Leaky discharge hose	Repair or replace
	Pressure gayge inoperative or not registering accurately	Check with new gague. Replace worn or damaged gauge
	Air leak in inlet plumbing	Disassemble, Reseal and Reassemble
	Worn packing seals	Replace packing seals
	Broken valve spring	Replace spring
	Fouled or dirty inlet or discharge valves	Clean inlet and discharge valve assemblies
	Worn or Plugged relief valve on pump	Clean, Reset, and Replace
	Cavitation	Check suction lines on inlet of pump for restrictions
	Unloader	Check for proper operation
Rougn/Pulsating Operation with Pressure Drop	Worn packing	Replace packing
	Inlet restriction	Check System for stoppage, air leaks, and correctly size inlet plumbing
	Cavitation	Check inlet lines for restrictions and/or proper size
Water in Crankcase	High Humidity	Reduce oil change interval
	Leakage of crankcase or seals installed backwards	Replace Packing
	Worn seals	Replace seals
Noisy Operation	Worn bearings	Replace bearings, Refill crankcase with recommended lubricant
	Cavitation	Check inlet lines for restrictions and/or proper size
	Coupler loose on crankshaft	Check and tighten set screws
Frequent or Premature Failure of the Packing	Damaged or worn plungers	Replace Plungers
	Abrasive material in the fluid being pumped	Install proper filtration on pump inlet plumbing
	Excessive pressure and/or temprature of fluid being pumped	Check pressures and fluid inlet temperature. Be sure they are within specified range
	Over pressure of pumps	Reduce pressure
	Running pump dry	Do not run pump with inadequate water supply
Excessive Leakage	Worn or cracked plungers	Replace plungers
	Worn packing/seals	Adjust or replace packing seals
	Excessive vacuum	Reduce suction vacuum
	Inlet pressure to high	Reduce inlet pressure
High Crankcase Temperature	Wrong Grade of Oil	Giant oil or 15W-50 Synthetic oil
	Improper amount of oil in crankcase	Adjust oil level to proper amount

Final Assembly - 71700000



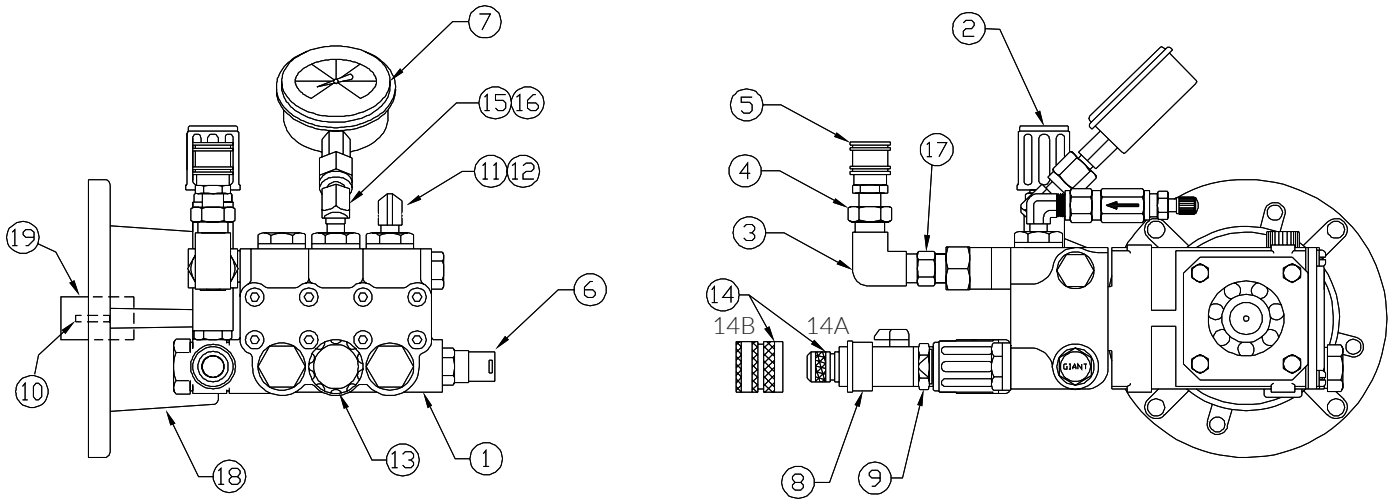
ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	44245700	ASSEMBLY, FRAME
2	1	71705800	ASSEMBLY, POWER PAK
3	1	71702700	ASSEMBLY, REEL
4	1	71110200	ASSEMBLY, HOSE 21”
5	2	71107200	CLAMP, GRIPPER
6	2	44039500	RIVET, POP 1/8” DIAMETER
7	1	71129200	NOZZLE, 1/8” 20 DEG CLOSED
8	1	77739800	DECAL, CAUTION
9	1	77739900	DECAL, WARNING
10	1	71729001	HOSE, 1/4” I.D. X 115’ (GREEN)
11	1	71129102	HOSE, 3/16” I.D. X 50’ (ORANGE)
12	1	71108700	BUSHING, REDUCER 3/8 NPT X 1/4 NPT
13	1	71132900	HOSE, ULTRA LIGHT W/ NOZZLE 25’
14	1	71108200	NOZZLE, 20 DEG CLOSED
15	1	71108300	NOZZLE, 30 DEG CLOSED
16	1	71108400	NOZZLE, 45 DEG CLOSED
17	1	71108500	NOZZLE, OPEN 20 DEG
18	1	44256200	GLOVES, FULL LENGTH
19	1	44250100	NOZZLE, REVOLVING 1/4”
20	1	77799900	HANDGUN V NOZZLE ASSY-SMALL
21	1	71109900	TIP CLEANER SET
22	1	71137500	NOZZLE, OPEN 20 DEG

Frame Assembly - 44245700



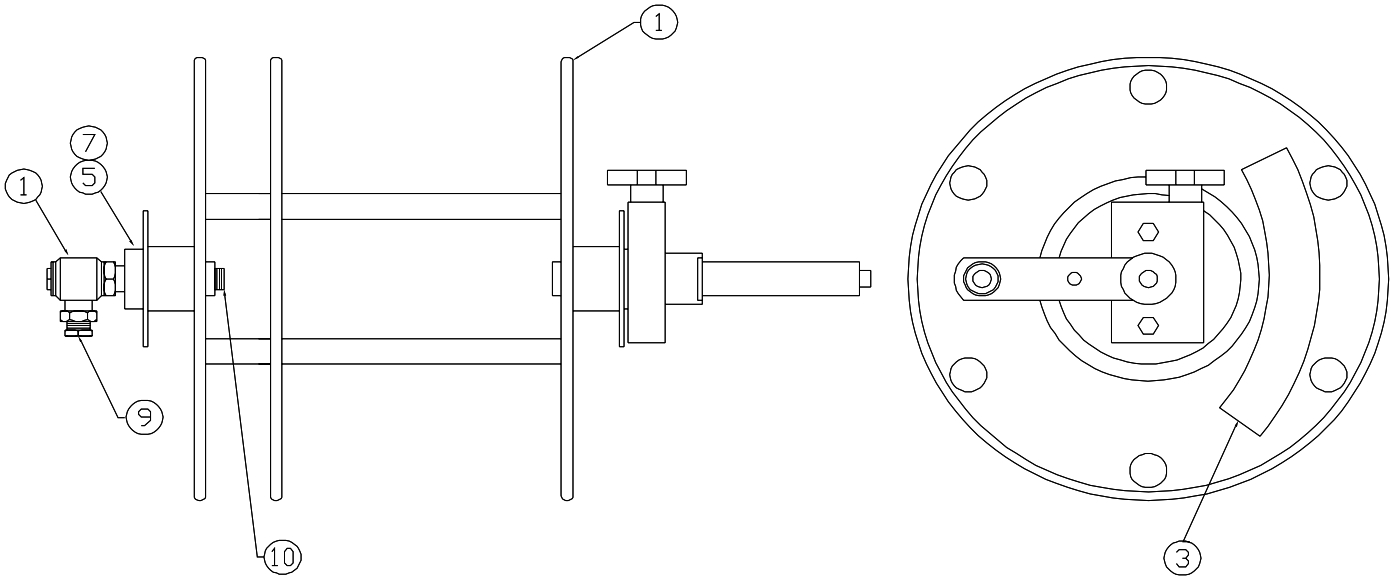
ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	44245250	WELDMENT, FRAME 717
2	1	44245000	HANDLE
3	2	44245400	WELDMENT, HANDLE WRAP
4	2	44245600	CAP, PROTECTIVE
5	2	00116900	SCREW, HEX HEAD 3/8-16 X 1-3/4”
6	2	522132-00	NUT, NYLOCK 3/8-16
7	2	71100700	TIRE, 10” PNEUMATIC
8	2	02994400	SCREW, HEX HEAD 5/8-18 X 4”
9	2	02820800	NUT, JAM 5/8-18
10	1	77737100	PIN, COTTER
11	1	75853810	CABLE ASSEMBLY
12	1	02865500	RUBBER PAD

Pump Assembly - 71706300



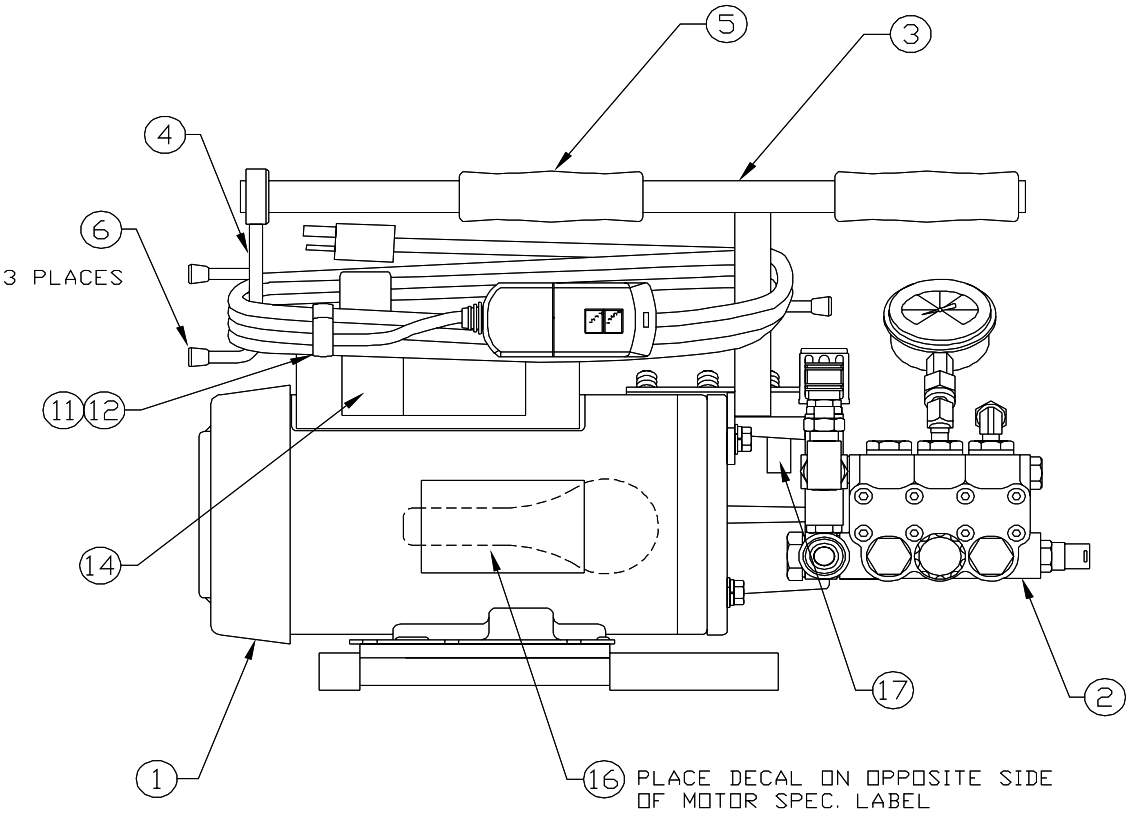
ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	71705900	PUMP, GIANT P221
2	1	71705955	UNLOADER
3	1	71136300	ELBOW, 90 DEG. FEMALE 3/8
4	1	71108700	BUSHING, REDUCER 3/8 MNPT X 1/4 FNPT
5	1	77721300	COUPLER, QUICK - FEMALE
6	1	71705954	THERMAL RELIEF VALVE
7	1	544001-01	GAUGE, 2000 PSI - 1/4 NPT
8	1	71106000	SHUT-OFF, HOSE
9	1	79904465	SWIVEL GARDEN HOSE 1/2 NPT BRASS
10	1	71706921	KEY 5/16 X 7/8 PUMP
11	1	71707300	ELBOW, 90 DEG. MALE 1/4 X 1/8
12	1	71707400	CHECK VALVE with AIR VALVE
13	1	71705953	PULSATOR VALVE ASSEMBLY
14A	1	71105902	CONNECTOR, QUICK MALE 3/4 GHT
14B	1	71105901	CONNECTOR, QUICK FEMALE 3/4 GHT
15	1	71706800	ELBOW, 45 DEG. STREET 1/8
16	1	71707000	ADAPTER, 1/8 MNPT X 1/4 FNPT
17	1	71700700	NIPPLE, HEX MALE 3/8
18	1	71705956	BELL HOUSING
19	1	71705958	ALUMINUM MOTOR/PUMP SHAFT COUPLER

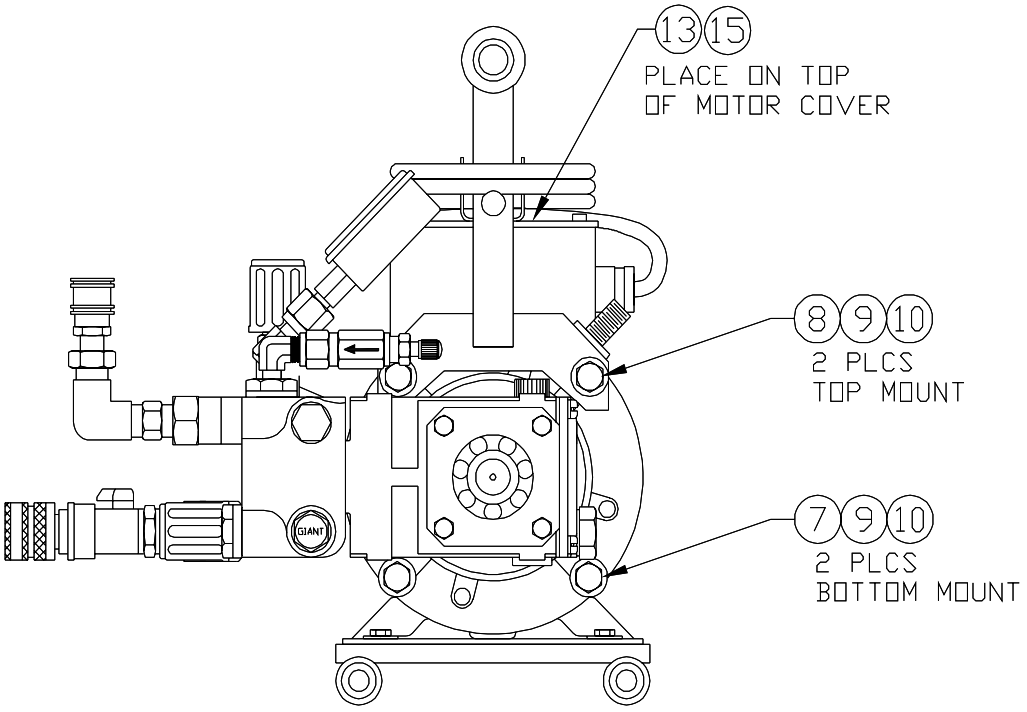
Assy Reel- 717
71702700



ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	71702600	REEL, 717
2	1	71703100	HANDCRANK
3	1	71703200	BRAKE
4	1	71703300	BRAKE KNOB
5	2	71703400	BEARING, 1”
6	1	71703500	SWIVEL, REPLCMNT 717 3/8 BRASS
7	1	71703600	COLLAR, SHAFT
8	2	44052700	DECAL, DRUM MODEL 200 & 300
9	1	71108700	BUSHING, REDUCER 3/8M X 1/4 F BRASS
10	1	542012-03	NIPPLE 3/8 X 1/4

Assy, Motor & Pump
71705800





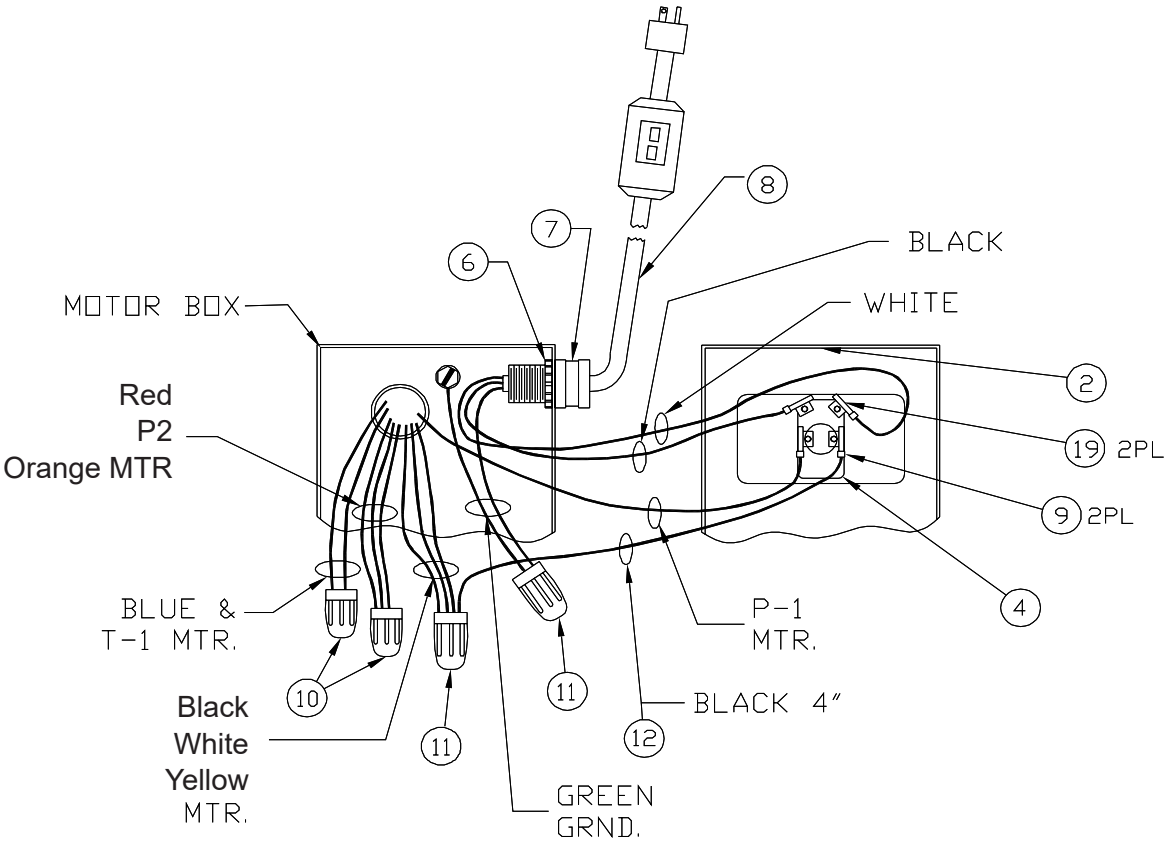
Assy, Motor & Pump
71705800

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	71706100	ASSEMBLY, MOTOR - 2 HP
2	1	71706300	ASSEMBLY, PUMP
3	1	44244700	ASSEMBLY, HANDLE (includes 4, 5, & 6)
4	1	44245500	WELDMENT, CORD HOLDER
5	2	71102500	GRIP, FOAM
6	3	44245600	CAP, PROTECTIVE
7	2	77759900	SCREW, HEX HEAD 3/8-16 X 1-1/4”
8	2	77760000	SCREW, HEX HEAD 3/8-16 X 1-1/2”
9	4	00165800	WASHER, SPLIT-LOCK 3/8
10	4	00162600	WASHER, FLAT 3/8
11	10”	71107600	VELCRO
12	1	01588200	WASHER, FLAT 3/16 SAE
13	1	72706400	DECAL, WARNING - UNTRAINED PERSONNEL
14	1	72707800	DECAL, WARNING - HIGH PRESSURE
15	1	44261900	DECAL DANGER - ELECTROCUTION
16	1	71706500	DECAL, SPARTAN
17	1	71706600	DECAL, CAUTION - AMPERAGE

717 Pump
Torque Specifications

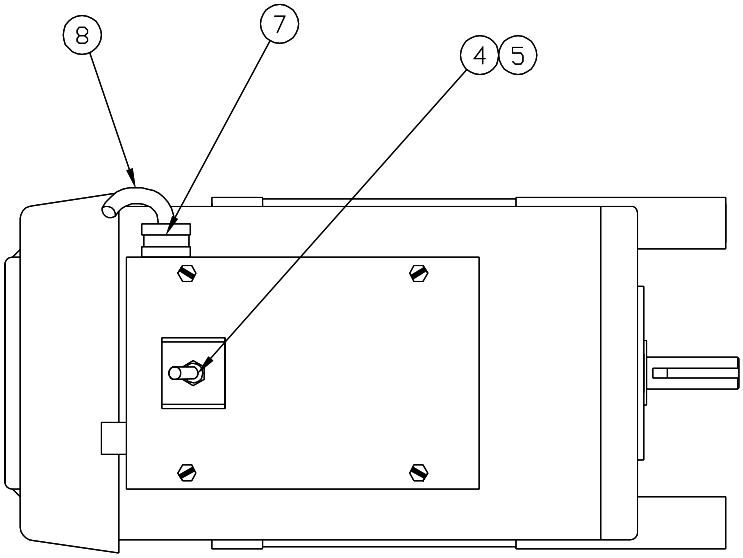
ITEM	PART NUMBER	DESCRIPTION	TORQUE AMOUNT
16c	71705926	Tension Screw, plunger	120 (in.-lbs.)
32	71705943	Valve Plug	59 (in.-lbs.)
34	71705946	Hex Head Cap Screw	105 (in.-lbs.)

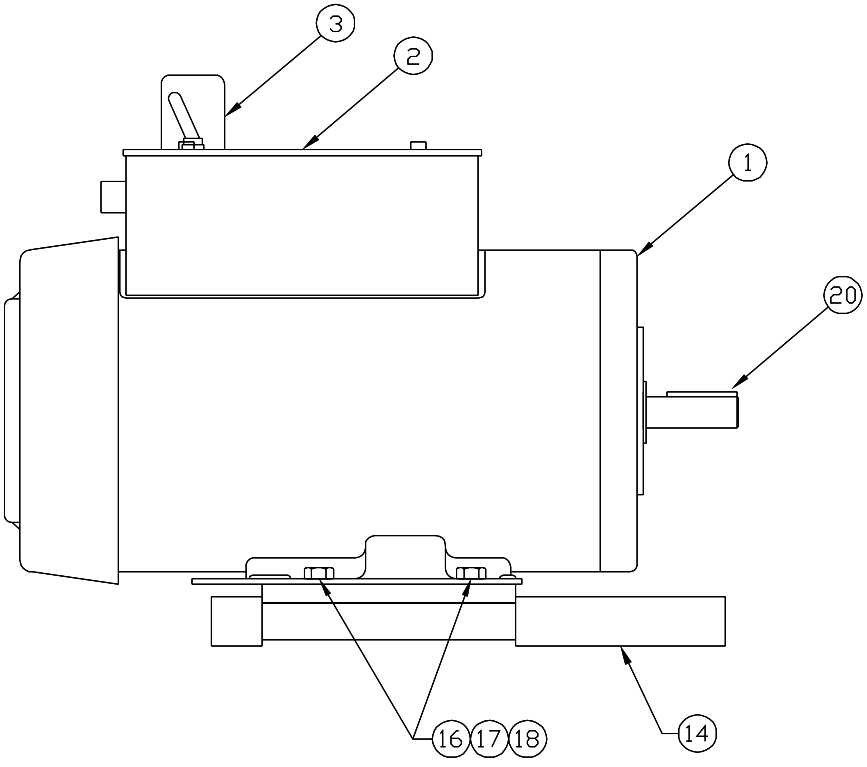
Assy, Motor
71706100



ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	71706000	MOTOR, MARATHON 2 HP
2	1	71135003	COVER, MOTOR (MACHINED)
3	1	44230201	GUARD, TOGGLE SWITCH (BLACK)
4	1	532000-02	SWITCH, TOGGLE DPST
5	1	44110500	RUBBER BOOT
6	1	538006-02	1/2" STEEL LOCKNUT
7	1	538006-01	STRAIN RELIEF CORD GRIP
8	1	71707100	CORD, POWER 12GA GFCI
9	2	71106800	DISCONNECT, FLAG TYPE
10	2	71125800	CONNECTOR TWIST-ON SMALL
11	2	71107000	CONNECTOR TWIST-ON WIRE
12	4"	71125700	WIRE, BLACK - 14 AWG THNN
13	1	44244300	ASSY, MOTOR PLATE (INCL. 14 & 15)
14	2	44244100	SKID, NYLON 4-1/8" LG
15	2	44244200	SKID, NYLON 1" LG
16	4	00114800	SCREW, HEX HD 5/16-18 X 5/8
17	4	00165600	KANTLINK LOCKWASHER, 5/16
18	4	00162600	WASHER, FLAT 5/16 USS ZINC
19	2	71707200	DISCONNECT, FLAG INSL (12 AWG)
20	1	71123100	KEY 3/16 X 1-1/4 (MOTOR)

Assy, Motor
71706100

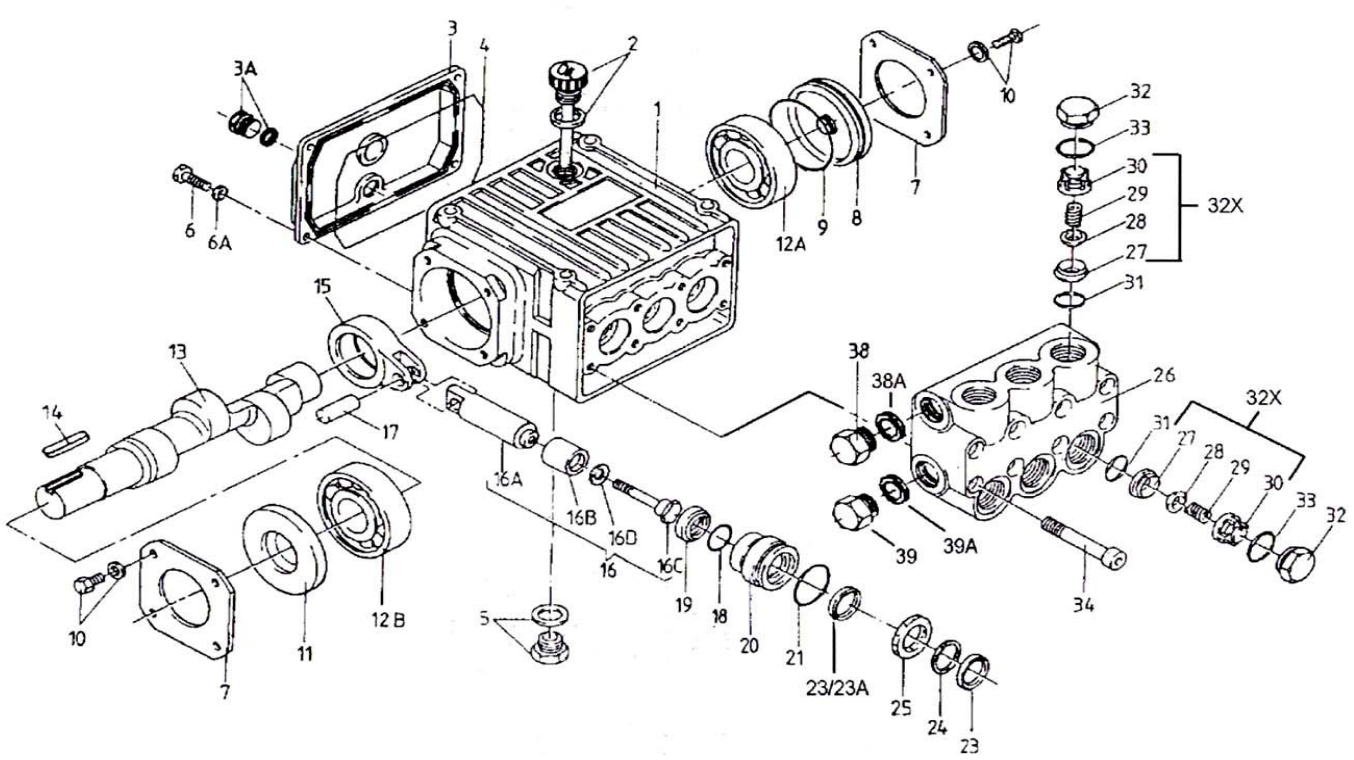




Pump, Giant P221 (Modified)
71705900

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	71705905	CRANKCASE (GIANT P221)
2	1	71705906	OIL DIPSTICK (GIANT P221)
3	1	71705907	CRANKCASE COVER, SHORT
3A	1	71705908	DRAIN PLUG & GASKET (GIANT P221)
4	1	71705909	O-RING (GIANT P221-08005)
5	1	71705910	OIL DRAIN PLUG & GSKT (GIANT P221)
6	4	71705911	SCREW, SHORT COVER (GIANT P221)
6A	4	71705912	WASHER, SHORT COVER (GIANT P221)
7	2	71705913	BEARING COVER (GIANT P221)
8	1	71705914	SIGHT GLASS (GIANT P221)
9	1	71705915	O-RING (GIANT P221-08492)
10	8	71705916	SCREW W/LOCK WSHR (GIANT P221)
11	1	71705917	RADIAL SHAFT SEAL (GIANT P221)
12A	1	71705918	BALL BEARING (GIANT P221-08020)
12B	1	71705919	BALL BEARING (GIANT P221-01020)
13	1	71705920	CRANKSHAFT (GIANT P221)
14	1	71705921	KEY 5/16 X 7/8 (PUMP)
15	3	71705922	CONNECTING ROD (GIANT P221)
16	3	71705923	PLUNGER, COMPLETE (GIANT P221)
16A	3	71705924	PLUNGER BASE (GIANT P221)
16B	3	71705925	PLUNGER PIPE (GIANT P221)
16C	3	71705926	TENSION SCREW (GIANT P221)
16D	3	71705927	COPPER GASKET (GIANT P221)
17	3	71705928	WRIST PIN (GIANT P221)
18	3	71705929	O-RING (GIANT P221-07770)
19	3	71705930	OIL SEAL (GIANT P221)
20	3	71705931	SEAL CASE (GIANT P221)
21	3	71705932	O-RING (GIANT P221-08443)
23	3	71705933	V-SLEAVE, WEEP (GIANT P221)
23A	3	71705934	V-SLEAVE, BROWN (GIANT P221)
24	3	71705935	PRESSURE RING (GIANT P221)
25	3	71705936	WEEP RETURN RING (GIANT P221)
26	1	71705937	VALVE CASING (GIANT P221)
27	6	71705938	VALVE SEAT (GIANT P221)
28	6	71705939	VALVE PLATE (GIANT P221)
29	6	71705940	VALVE SPRING (GIANT P221)
30	6	71705941	VALVE SPRING RET. (GIANT P221)
31	6	71705942	O-RING (GIANT P221-07853)
32	6	71706401	PLUG, VALVE -GIANT-
32X	3	71705943	VALVE ASSY COMP (GIANT P221)
33	6	71705944	O-RING (GIANT P221-07913)
34	8	71705945	SCREW, HEX HD CAP (GIANT P221)
38	1	71705946	PLUG, 3/8" BSP (GIANT P221)
38A	1	71705947	SEAL (GIANT P221)
39	1	71705948	PLUG, 1/2" BSP (GIANT P221)
39A	1	71705949	COPPER SEAL RING (GIANT P221)

71705900
Pump - Exploded View



717 Pump Repair Kits

Plunger Packing Kits (71705950)

QTY	PART NUMBER	DESCRIPTION
3	71705933	V-Sleeve, Weep
3	71705934	V-Sleeve, Brown
3	71705935	Pressure Ring

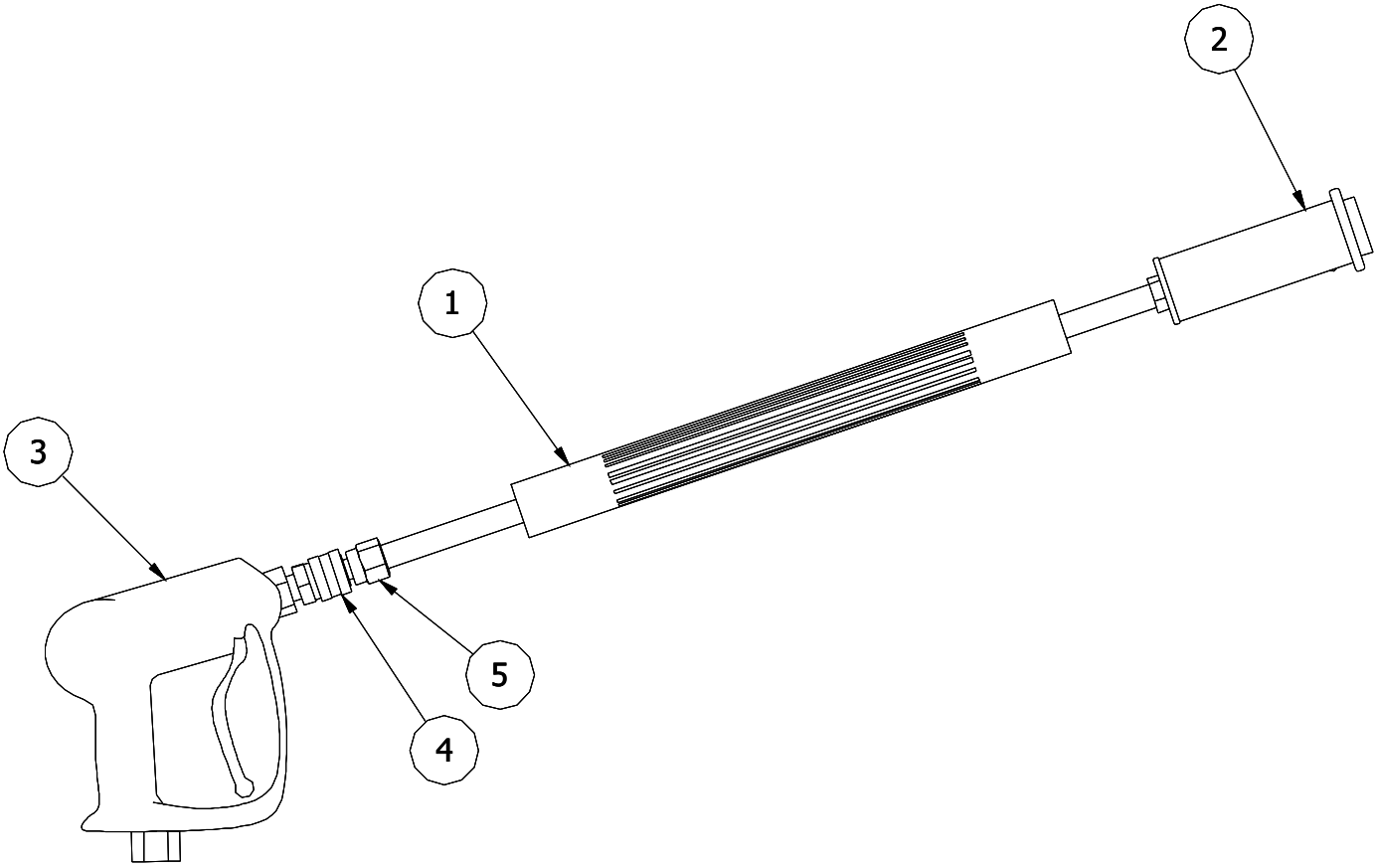
Oil Seal Kit (71705952)

QTY	PART NUMBER	DESCRIPTION
3	71705930	Oil Seal

Valve Assembly Kit (71705951)

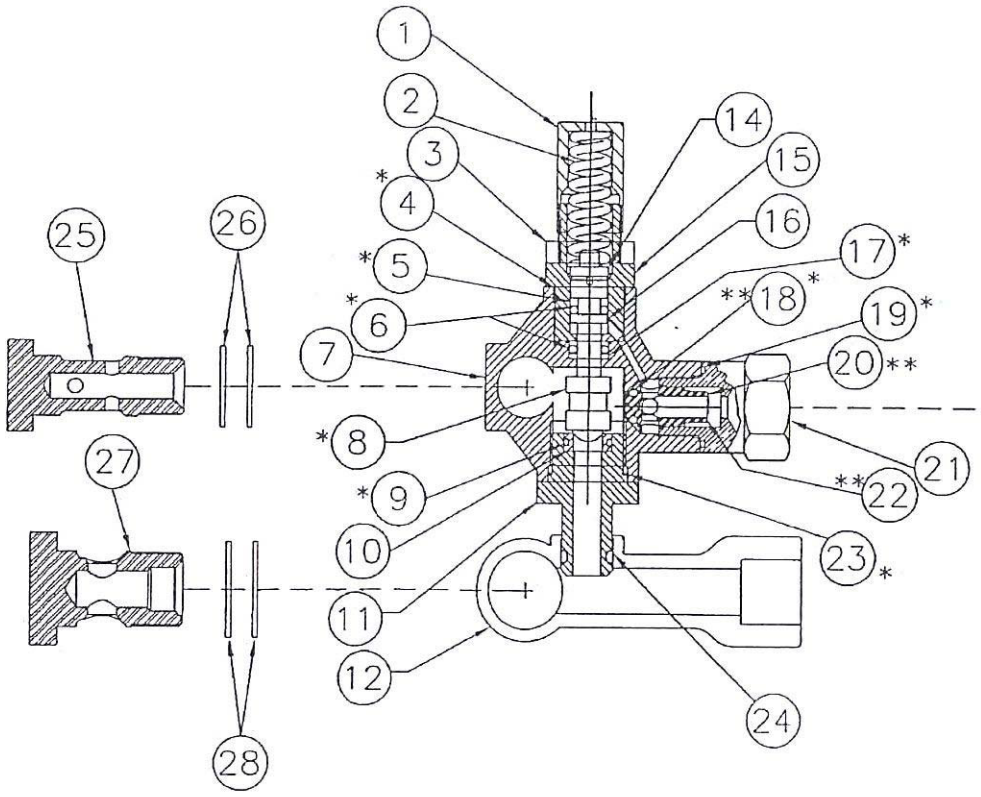
QTY	PART NUMBER	DESCRIPTION
6	71705944	Valve Assembly Complete
6	71705942	O-Ring

Handgun Vnozzle Assy - Small
77799900



ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	553006-01	LANCE, INSULATED GRIP 18"
2	1	71126100	NOZZLE, VARI-
3	1	77720100	GUN, HAND
4	1	77721300	COUPLER, QUICK GUN, 1/4" NPT MALE
5	1	77721400	COUPLER, QUICK GUN, MALE

71705955 Unloader (Giant P221)



ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	71705964	A djus ting Spring Cap
2	1	71705965	P res s ure S pring
3	1	71705966	Nut
4	1	71705929	O-Ring
5	1	71705967	S upport Ring
6	2	71705968	O-Ring, P is t on
7	1	71705969	Unloader B ody
8	1	71705970	P is ton
9	1	71705971	O-Ring
10	1	71705972	S eat
11	1	71705973	B y pas s Fitting, 23270
12	1	71705974	Inlet Tube, 23270
14	1	71705975	S pring Retainer
15	1	71705976	Guide P lug

ITEM	QTY.	PART NUMBER	DESCRIPTION
16	1	71705977	P is ton Rod
17	1	71705978	S uppport Ring
18	1	71705979	O-Ring
19	1	71705944	O-Ring
20	1	71705980	K ic k Bac k Valve Spring
21	1	71705981	K ic k Bac k Valve Ret ainer
22	1	71705982	K ic k Bac k Valve Cone
23	1	71705983	O-Ring
24	1	71705984	O-Ring
25	1	71705985	Dis c harge B anjo Bolt
26	2	71705986	S eal Ring
27	1	71705987	Inlet B anjo Bolt , 23270
28	2	71705988	S eal Ring

Standard Accessories

PART NUMBER	DESCRIPTION
71108200	20º Nozzle (Closed) 1/4" I.D. Hose
71108300	30º Nozzle (Closed) 1/4" I.D. Hose
71108400	45º Nozzle (Closed) 1/4" I.D. Hose
71108500	20º Nozzle (Open) 1/4" I.D. Hose
71129200	20º Trap Hose Nozzle (Closed) 3/16" I.D. Hose
71137500	20º Trap Hose Nozzle (Open) 3/16" I.D. Hose
71700100	1/4" I.D. x 115' High Pressure Hose w/Couplings
71129102	3/16" I.D. x 50' Trap Leader Hose w/Couplings
71132900	25' Ultra-Lite Hose Assembly w/Nozzle
71109900	Tip Cleaner
71110300	Hand Gun Assembly w/Coupler
71129001	1/4" x 115' Thermoplastic Hose
71126200	Lance Assembly w/Variable Spray Nozzle

Optional Accessories

PART NUMBER	DESCRIPTION
71129002	1/4" I.D. x 50' High Pressure Hose w/Couplings
71129003	1/4" I.D. x 75' High Pressure Hose w/Couplings
71129004	1/4" I.D. x 150' High Pressure Hose w/Couplings
71129101	3/16" I.D. x 25' Trap Leader Hose w/Couplings
71129103	3/16" I.D. x 75' Trap Leader Hose w/Couplings
71129104	3/16" I.D. x 100' Trap Leader Hose w/Couplings
71133000	50' Ultra-Lite Hose Assembly w/Nozzle
77721400	Coupler, Quick Gun (Male) (Item 1)
71138200	Nozzle, Drop Head 3/16”
71701600	Hose S.S. Trap 30' with Nozzle
71701700	Hose S.S. Trap 50' with Nozzle
71701800	Hose S.S. Trap 75' with Nozzle
71702900	Hose S.S. Trap 100' with Nozzle
71701900	Brass Nozzle (for S.S. Hose) 1-1/4" Dia x 1/8 NPT

**Spartan strongly recommends upgrading your hose to a stainless steel hose if difficult situations are encountered.*

Notes

ONE YEAR WARRANTY

Spartan Tool warrants its equipment to free from defects in material and workmanship for one year from the date of purchase. To obtain warranty service, a purchaser should notify Spartan Tool in writing, at the address provided below, within the warranty period, and Spartan Tool will direct where to take or send the equipment for service. If the defect is covered by the warranty, Spartan Tool will repair or replace, at its option, the defective equipment, without charge for labor or materials. (Freight and insurance are the purchaser's responsibility.)

This warranty is limited to the original retail purchaser and is not transferable. Spartan Tool assumes no responsibility for damage due to accident, neglect, abuse, tampering or misuse, nor damage from repairs or alterations by others. This warranty does not cover damage to the equipment resulting from the use of replacement parts other than Spartan Tool parts.

Spartan Tool's sole obligation and the original retail purchaser's exclusive remedy under this warranty shall be for repair or replacement as described above. ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL SPARTAN TOOL BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

SPARTAN TOOL L.L.C.

NILES, MICHIGAN 49120

Spartan Tool L.L.C. reserves the right to make changes at any time, without notice, to specifications and models and also discontinue models. The right is also reserved to change specifications or parts at any time without incurring any obligation to equip same on models manufactured prior to the date of change.

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