

LEWIS POULTRY HOUSECLEANER OWNER / OPERATOR MANUAL



MODEL # SP-1 FROM SERIAL #2101 DELUXE HOUSECLEANER

Manufactured by: Lewis Brothers Manufacturing, Inc.

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11-4-2020

INTRODUCTION

All Lewis Brothers equipment is manufactured under stringent production and quality assurance procedures prior to preparation for shipment. A final quality check is performed on all equipment before shipping.

The best equipment is only as good as its operation and management. Sound operation and good preventive maintenance practices are essential to efficient performance of your Lewis Poultry Housecleaner.

Questions on parts and service for the equipment covered in this manual should be referred to the local dealer from whom the equipment was purchased, or the nearest Lewis Brothers Dealer.

We sincerely thank you for purchasing Lewis Brothers equipment.

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SAFETY

OWNER'S AND OPERATOR'S RESPONSIBILITY

This manual is intended for use with your Lewis Poultry Housecleaner. Extra effort has been made to provide for safe operation of this equipment. This manual as well as the safety decals placed on the equipment is part of that effort. Your new Housecleaner should perform the various functions for which it was designed if it is maintained, adjusted to your specific conditions, and operated correctly.

It is the responsibility of the owner and every operator of this equipment to read and understand this manual before initial startup, before each season, before performing service or maintenance tasks and prior to storing the equipment. Each employee who will work on or around this equipment should be instructed in how to do so safely.

It is important to understand the operational methods and safety issues mentioned in this manual. Lewis Brothers cannot anticipate all conceivable ways service and operational functions might be performed and of the possible hazardous consequences of such. Anyone using or servicing this equipment must first satisfy themselves that their chosen methods do not jeopardize the safety of themselves, others, or the equipment.

Read the warranty on page 8. The purchaser is required to fill out and return the registration card supplied with this owner's manual within ten (10) days of purchase to Lewis Brothers Manufacturing to be eligible for warranty coverage.

Genuine Lewis replacement parts will insure the durability and long life of your Housecleaner. Lewis repair parts and optional equipment should be ordered through your Lewis Brothers' Dealer.

Operators should thoroughly inspect the Housecleaner before and after each use. Failure to repair or replace worn parts could result in damage or excess wear to other parts.

GENERAL PRECAUTIONS

- MAKE SURE everyone is clear of the equipment before starting the tractor's engine and while equipment is under operation.
- **DO NOT** allow anyone to ride on this equipment.
- **KEEP** hands, feet, hair and clothing away from all moving parts. Do not wear loose clothing while operating equipment, as this may present an entanglement hazard.
- **DRIVE** the pulling tractor at speeds compatible with conditions and good safety practices. This is especially important when operating over rough ground, on slopes, crossing ditches or while turning.
- MAKE SURE hitch components are attached securely before operating or transporting.
- **USE** flashing warning lights when on highways, except where prohibited by law.
- **KEEP** all shields in place.
- MAXIMUM towing speed is 25 MPH.
- **OBSERVE** all safety decals located on machine. Should any safety decal become damaged, unreadable, or lost, **REPLACE IT IMMEDIATELY.** New decals may be obtained from your Lewis Brothers' dealer.

WARRANTY

LEWIS BROTHERS MANUFACTURING, INC.

LIMITED WARRANTY

Lewis Brothers Manufacturing, Inc. (hereinafter referred to as "LBM") warrants each item of new equipment manufactured by LBM to be free from defects in material and workmanship under normal use and service.

The obligation of LBM under this LIMITED WARRANTY is limited to repair or replacement, as LBM may elect, of any parts that prove, in LBM's judgment, to be defective in material and workmanship within the first twelve (12) months after the date of invoice to the original purchaser. THIS LIMITED WARRANTY DOES NOT APPLY TO BELTS, HYDRAULIC HOSES, TIRES, AND OTHER SERVICE ITEMS, WHICH SHALL HAVE A NINETY (90) DAY WARRANTY.

THIS LIMITED WARRANTY WILL APPLY FOR (3) MONTHS ONLY WHEN THE UNIT IS USED IN A COMMERCIAL APPLICATION.

All warranty part repairs and replacements must be made by a certified LBM dealer. Any outside work or alterations made without written approval of LBM will render this LIMITED WARRANTY void.

LBM's obligation specifically excludes any liability for consequential damages, such as loss of profit, delays, expenses, damage to goods or property used in connection with or processed in or by the product sold, or damage to the product sold from whatever cause, whether or not such loss is due to negligence by LBM.

This LIMITED WARRANTY shall not apply to any item that has been operated in a manner not recommended by LBM.

No person is authorized to give any other warranties or to assume any other liability on behalf of LBM unless made in writing by Lewis Brothers Manufacturing, Inc.

THIS LIMITED WARRANTY IS IN LIEU OF AND REPLACES ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED, AS ARE ALL OTHER REPRESENTATIONS TO THE USER-PURCHASER AND ALL OTHER OBLIGATIONS OR LIABILITIES, INCLUDING LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES, ON THE PART OF LBM.

LEWIS BROTHERS MANUFACTURING, INC. P.O. BOX 146 - BAXLEY, GA. 31513 FEBRUARY 1, 2007

SPECIFICATIONS

SPECIFICATIONS

HOUSE CLEANER MODEL SP-1

 Pump Max PSI @ 540 R.P.M.
 700 psi

 Pump Max Flow @ 540 R.P.M.
 42 gpm

Tank Volume 500 Gallons

Height 60"

Width 74"

Length 13'

Weight (empty) 1500 lbs

Tire Pressure 50 PSI

Tire Size 9.5L X 15SL

PTO Horsepower (Minimum) 40HP

SETUP AND OPERATION

MACHINE SETUP

In familiarizing oneself with the poultry housecleaner, you need to identify some specific parts. (Figure 1 through Figure 4)

The housecleaner has an effective range of operation between 50 and 700 PSI with sprayer tip output between 10 and 40 gallons per minute.

Some of the basic rules that must be followed if you are to receive good service from your sprayer are as follows:

- 1. Never allow your pump to exceed 700 PSI. Pressure over 700 PSI will eventually rupture the diaphragms in your pump.
- 2. The diaphragm pump cannot be drained to avoid freezing. A 50/50 solution of antifreeze and water must be poured into the pump inlet while slowly turning the pump shaft. Continue filling pump until antifreeze solution flows from the hand gun nozzle. Drain the tank and remove the filter cup to avoid cracking. System pressure will be reduced when the tank agitator is in use. In order to maintain maximum available pressure; use the agitator only when needed.
- 3. Keep agitator turned off unless you are using a material that is difficult to keep in solution. When you use very much agitation, you will notice a drop in system pressure.

OPERATING INSTRUCTIONS

- When starting pump, turn the valve lever to the dump position (by pass) to facilitate priming. Once the pump is primed, turn the valve lever to the "PRESS" position and adjust the working pressure with the knob: turning knob clockwise will increase pressure, turning knob counterclockwise will decrease pressure.
- Operating pump above recommended rpm will not improve performance, but may damage the pump. Operation at rpm higher than specification voids all warranties.
- Be sure that the oil level is not above the maximum level with the pump running with pressure.

AFTER USE

After use, in order to prevent damage, flush pump and let operate for a few minutes at working pressure with a solution that will neutralize the liquid last pumped (refer to that manufacturer's instructions). Afterward empty the pump, so that the pressure drops to zero ("0"), and then let the pump run without liquid for two minutes.

To protect pump from freezing, flush pump per instruction above (after use) and then flush with straight RV-antifreeze. Empty the pump per the instructions above.

Periodically (at the end of a season) inspect the pump and the system components (hoses, connections and so on) and replace necessary parts.

I. SPRAYING SIDE WALLS

- 1. Set the sprayer nozzles to clean the desired side wall area. Adjust nozzles 2-3 feet from sidewall.
- 2. Adjust operating pressure with the hand screw located on the pressure relief valve between 600 700 PSI.
- 3. When making the first pass along the house wall, the operator will want to maintain a quicker pace. This will shake the loose material from the wall and allow time for the water to soak in.
- 4. Repeat this procedure for the other wall before returning to the first wall for the cleaning pass. This second pass should be at a slower pace and do more cleaning than the "wet-down" pass did before.
- 5. Spray nozzles may be pivoted forward or backward to obtain the best results. Try nozzles turned rearward 10 15 degrees on the first pass and forward 10 15 degrees on the next pass in order to be able to clean on both the front and back sides of truss legs, etc.
- 6. The relief valve bypass line must remain unrestricted at all times.

II. WASHING THE CEILING

Two sets of spray tips are included with the sprayer. The wide-angle tips (these have a wide split across the tip) Part No. OC40, are used to spray drop ceiling houses. The narrow nozzles, Part Number TP8050, are used for rafters, trusses, etc.

- 1. Turn cluster nozzle up toward the ceiling. Adjust this nozzle to spray about 10 15 feet of the ceiling area.
- 2. Set pressure to about 600 700 PSI, and use a ground speed that will suit your situation. More than one pass may be required under extreme conditions.

III. DISINFECTING FLOOR

- 1. Adjust the cluster nozzle to spray the entire width of your house. The nozzle should be set 36 inches from the floor using the wide-angle spray tips.
- 2. Set pressure at about 60 80 PSI. At this pressure, you are spraying about 10 gallons per minute.

IV. HANDGUN

The handgun is equipped with a retractable reel and can be used in areas where the sprayer may not be easily maneuvered. House corners and small areas around trusses along with equipment such as bins, fans, and brooders can be cleaned using the handgun. The wand is equipped with an adjustable handle that can change the spray pattern from a direct stream to a fan pattern by rotating the nozzle and thereby eliminating the need to change tips. Excessive use of the hand gun trigger may damage the pump.



Never operate handgun above 400 PSI. Damage to the pump diaphragm will occur.



AFTER EACH USE, THOROUGHLY FLUSH PUMP AND CONTROL VALVE, WITH WATER OR PROPER SOLVENT. FAILURE TO DO SO COULD CAUSE THE CONTROL VALUE OR RELIEF VALVE TO MALFUNCTION, AND RESULT IN POSSIBLE INJURY TO THE USER, AND /OR VOID THE WARRANTY.

RELIEF VALVE BYPASS LINE MUST BE FULL SIZE AND UNRESTRICTED AT ALL TIMES. DO NOT CONNECT THIS LINE TO ANY RESTRICTION, SUCH AS AGITATION DEVICES IN THE SPRAY TANK.



DO NOT PUMP ASPHALT, ASPHALT SEALER, ROOFING COMPOUNDS, CONCRETE SEALERS, OR TWO STEP CURING PRODUCT, OR FLAMMABLE LIQUID WITH THIS PUMP. PERSONAL INJURY MAY RESULT AND ALL WARRANTY WILL BE VOID.



NEVER MAKE TURNS WHILE PTO IS ENGAGED. DOING SO WILL DAMAGE PUMP, BEARINGS & WILL VOID ALL WARRANTY.

SAFETY

GENERAL SAFETY INFORMATION

Use of a pressure relief device on the discharge side of the pump is required to prevent damage from pressure build up if the discharge is closed or blocked while the power source is still running.

WARNING
Do not pump flammable or explosive fluids such as gasoline, fuel, oil, kerosene, etc. Do not use in explosive atmospheres. The pump should be used only with liquids compatible with the pump component materials. Do not pump asphalt, asphalt sealer, roofing compounds or concrete sealers or any two step curing products. Personal injury may result and the warranty will be void.



- Do not operate pump above recommended RPM. (540 RPM)
- Do not pump at pressures higher than the maximum recommended pressures. (See Applications)
- Operate pump between temperature range of 45°F to 140°F.
- Make certain that the power source conforms to the requirements of your equipment.
- Provide adequate protection in guarding around the moving parts such as the shaft and pulleys.
- Disconnect power before servicing.
- Release all pressure within the system before servicing any component.
- Drain all liquids from the system before servicing.
- Secure the discharge lines before starting the pump. An unsecured discharge line may whip, resulting in personal injury and/or property damage.
- Check all hoses for weak or worn condition before each use. Make certain that all connections are tight and secure.
- Periodically inspect the pump and the system components. Perform routine maintenance as required. (See Maintenance Section)
- Replacement parts should be properly rated for system pressure and all should exceed relief valve settings. Never install used pipe or hoses.
- Do not use these pumps for pumping water or other liquids for human or animal consumption.

MAINTENANCE

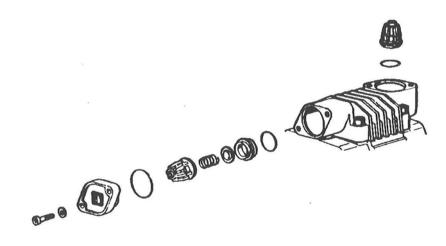
MAINTANCE INSTRUCTIONS

Routine maintenance on the pump included changing the diaphragms, oil valve assembly and o-ring, all of which are normal wear parts.

VALVE ASSEMBLY AND O-RING REPLACEMENT

Occasionally, debris can cause the valve to not seat properly or damage o-rings. To check for this problem please follow these steps:

- 1. Remove the valve cover (or the manifold) and remove the valve, check for debris and wear. Also check o-rings.
- 2. Replace necessary parts and reassemble.
- 3. Repeat for all valves. Consult the parts list for the corresponding valve kit or o-ring kit part number.



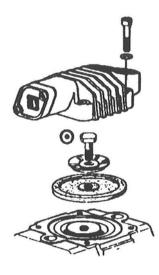
DIAPHRAGM REPLACEMENT

- 1. Remove the pump heads one by one.
- 2. Use a wrench to remove the diaphragm bolt, diaphragm and support washer.
- 3. If you remove the piston sleeves, replace them one at a time in their previous position. It is a good idea to mark them as they are removed.
- 4. Insert the new diaphragm on the piston and install it with its bolt. Use these tightening torques:

			Diaphragm <u>Bolt Size</u>	<u>Torque</u>
M 6 x 1	= 5	N.m.	6 mm	44 inch pounds
M 8 x 1.25	= 12	Nm	8 mm	106 inch pounds
M 10 x 1.25	= 25	N.m.	10 mm	221 inch pounds

The diaphragms should be replaced with the piston at its bottom and the edges inserted perfectly into the groove all the way around.

- 5 Replace the head and attach them with their bolts.
- Refill pump with oil through the reservoir and rotate the shaft to distribute oil and fill to proper level. Repeat all the checks described above in the section "Checks to make before using the pump."
- 7 Check the oil level with the pump running and without pressure until all air bubbles have been vented. Close the cap on the oil sight tube after the air has been completely emptied.
- 8 After the first inspection of the oil level as above, check the oil level again with the pump running with pressure.



OIL CHANGE:

Change oil after 500 hours as follows:

- 1. Remove the tank plug and the drain plug
- 2. Rotate the shaft until the oil stops flowing.
- 3. Wash inside parts with diesel oil.
- 4. Put the drain plug and pour oil (SAE30) slowly into sight tube while turning the pump shaft.
- 5. Start the pump at zero ("0") pressure for a few minutes to allow the correct lubrication of inside parts.
- 6. While the pump is operating, check the oil level inside the reservoir.
- 7. If necessary, fill oil to proper level.

WARNING: Too much oil causes pressure into the crankcase and this can result in leakage or diaphragm failures.

For pumps without the drain plug, it is not necessary to periodically change the oil. However, the oil should be changed when replacing diaphragms.

Troubleshooting Chart

SYMPTOM	PROBABLE CAUSES	CORRECTIVE ACTION
The pump does not	One or more valves are seating	Remove valve & check for
draw water	improperly.	debris.
	Suction line is plugged or	Examine line. & Clean
	collapsed. Clogged strainer.	strainer.
The liquid flow is	The charge in the pulsation	Check pressure in pulsation
irregular.	damper is incorrect.	damper (10% working
	One or more valves are seating	pressure)
	improperly.	Remove valve and check for
		debris. Examine the valve
		seating and clean them.
Output drops & the	Oil level is too low.	Add oil to correct level
pump is noisy.		(halfway up the sight tube)
Oil comes out of the	One or more diaphragms split.	Remove manifold & heads.
discharge port or oil		Drain oil & clean crankcase
is a milky color.		of water. Replace
		diaphragms, heads &
		manifold. Refill with 30W
		non-detergent motor oil.



Hazardous Substance Alert

- Always drain and flush pump before servicing or disassembling for any reason
- Always drain and flush pump prior to returning unit for repair.
- Never store pumps containing hazardous chemicals.

IMPORTANT

FAILURE TO FOLLOW INSTRUCTIONS WILL VOID WARRANTY

SPRING REWIND REELS

NEVER WIND MORE THAN 17 USABLE TURNS AND NEVER WIND SPRING IN REVERSE OR FREE WHEEL PAST START OF SPRING LOAD.

1. RELEASE SPRING

To release the spring, disengage the pawl from the ratchet wheel and allow the spring to unwind completely and slowly.

2. SET SPRING TENSION

To set spring tension, turn the disc by hand, carefully, in the direction the outlet is facing, the number of turns listed above for your particular spring. Lock the reel by engaging the pawl in the ratchet wheel.

CAUTION:

Do not wind more than the number of turns required rewinding the hose. Tension can be reduced after hose has been installed on the reel.

3. ATTACH HOSE OR CABLE

Hose: After setting spring tension, insert hose between rollers and attach hose fitting to reel outlet.

NOTE: On series 900 reels, outlet riser may be removed to attach hose.

Cable: After setting spring tension, feed cable through drum and hub, then connect to collector ring terminals, (remove cover to expose collector ring.)

IMPORTANT: Always use a cable clamp connected to drum to keep pressure off the wire.

4. WIND HOSE OR CABLE ON REEL

Pull gently on hose until pawl drops into one of the cutout positions on the ratchet wheel. (Figure A) Release hose slowly and allow retracting until it is completely on the reel. Then, pull hose out until the pawl drops into one of the locking notches on the ratchet wheel (figure B) to lock the reel.

5. REDUCE SPRING TENSION

If spring tension is greater than needed to properly retract the amount of the hose attached, tension can be decreased by winding hose completely on reel, allowing end of the hose to pass through the roller assembly, and allowing spring to carefully unwind until the proper tension is reached. Relock the reel, as above, and pass hose back through rollers.

6. ATTACHING HOSE OR CABLE STOP

Draw hose through rollers to point where hose stop should be attached according to your individual requirements. At this point, put the two halves of hose stop over hose and fasten with bolts provided.

IMPORTANT

A flexible connector must be used between the inlet pipe and the swivel joint on the reel or our guarantee will be void.

Spring motors are matched to a specific length and diameter of hose or cable. The reel may not function properly if the length or diameter of hose varies from that for which the reel is designed. When ordering parts, always give model number and serial number of reel and describe part as fully as possible.

Guarantee: Equipment manufactured by Clifford B. Hannay & Sons, Inc. is guaranteed for one year from date of shipment when installed according to our instructions, given proper care, and used for the purpose for which it is designed. Equipment which proves to be defective upon our inspection will be replaced free of charges, F.O.B., Western, New York. No allowance will be made for labor charges incurred in making exchanges, replacements or repairs.

We expressly disclaim any liability for damage or injuries resulting from the use, operation, installation, service, maintenance or failure of equipment.

Before returning any material to us for our inspection, contact our factory for proper authorization, or material will not be accepted.

HANNAY REELS THE REEL LEADER

Clifford B. Hannay & Sons, Inc. 600 East Main Street Westerio, New York, USA 12193-0159 Telephone 518-797-3791 Fax 1-800-REELING (733-5464)

DECALS

LA GARANTIA DE LA BOMBA ES INVALIDA:

- 1. SI DEJAN CONGELAR LA BOMBA.
- 2. SI ES USADA CON DEMASIADA PRESIÓN (700 psi MAX).
- 3. POR MUCHO TIEMPO, ESTO CAUSA QUE LA BOMBA TIEMBLE.
- 4. SI EL CELLO ESTÁ ROTO EN LA VALVULA DE ESCAPE.
- 5. SI EL ACEITE ESTÁ CONTAMINADO.

LOS DIAFRAGMAS NO ESTÁN GARANTIZADOS. HAY QUE CAMBIARLOS A SU DEBIDO TIEMPO.

SP-200153

CAUTION!

PRIOR TO FREEZING WEATHER THIS PUMP, REEL & HOSE MUST BE **FILLED WITH 100% ANTIFREEZE** REMOVE FILTER BOWL SP-200151



SP-200152



HK-101669

DANGER

Keep hands away from moving parts

Do not operate machinery without guards and safety devices

Do not clean, oil or repair machinery while in motion

HK-100919

WARNING

PUMP WARRANTY VOID IF:

- 1. PUMP IS ALLOWED TO FREEZE.
- 2. USED WITH EXCESSIVE PRESSURE (700 psi MAX).
- 3. OVER EXTENDED TURNS CAUSE DRIVE LINE CHATTER.
- 4. PRESSURE RELIEF SEAL IS BROKEN.
- 5. PUMP OIL IS CONTAMINATED.

DIAPHRAMS ARE NOT WARRANTED. THEY ARE A TIME CHANGE ITEM.

SP-200154

AGRICULTURAL CHEMICALS CAN BE DANGEROUS. IMPROPER SELECTION OR USE CAN SERIOUSLY INJURE PERSONS, ANIMALS, PLANTS,
SOIL OR OTHER PROPERTY. BE SAFE: SELECT
THE RIGHT CHEMICAL FOR THE JOB. HANDLE IT
WITH CARE. FOLLOW THE INSTRUCTIONS ON
THE CONTAINER LABEL AND OF THE EQUIPMENT MANUFACTURER.

SP-200157

A BE CAREFUL

- KEEP ALL SHIELDS IN PLACE
- STOP ENGINE BEFORE LEAVING OPERATOR'S POSITION TO ADJUST LUBRICATE, CLEAN OR UNCLOG MACHINES.
- REEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
- KEEP OFF EQUIPMENT UNLESS SEAT OR PLATFORM FOR OPERATION AND OBSERVATION IS PROVIDED.
- 6. KEEP ALL OTHERS OFF.
- 7. USE FLASHING WARNING LIGHTS WHEN OPERATING ON HIGHWAYS EX-CEPT WHEN PROHIBITED BY LAW.
- MAKE CERTAIN EVERYONE IS CLEAR OF MACHINE BEFORE STARTING

HK-100899

PARTS

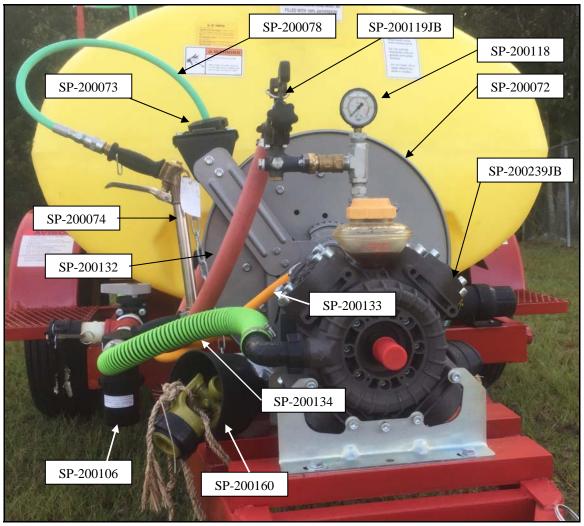


Figure 1

SP-200078	Hose Assembly
SP-200073	Hose Ballstop For Reel
SP-200074	Spray Gun
SP-200132	Hose, Relief Valve To Tank
SP-200106	Strainer
SP-200160	Drive Shaft Assembly
SP-200134	Hose, Line Strainer To Pump
SP-200133	Hose, Pump To Agitator
SP-200239JB	Pump
SP-200119JB	Main Relief Valve
SP-200072	Hose Reel Less Hose
SP-200118	Pressure Gauge

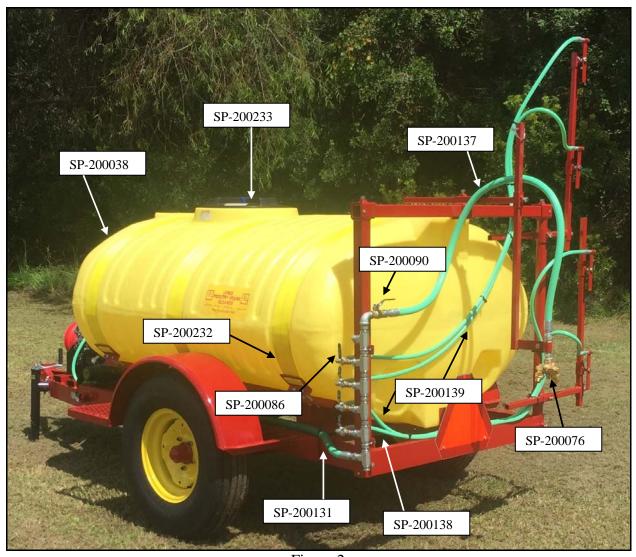


Figure 2

SP-200038	Tank, Elliptical 500 Gallon
SP-200233	16" Fillwell Cover
SP-200232	Sprayer Tank Strap
SP-200090	Ball Valve 3/4"
SP-200086	Ball Valve 3/8" (Quantity 4)
SP-200131	Pump To Manifold Sleeve Assembly
SP-200138	Bottom Side Nozzle Hose
SP-200139	Top Side Nozzle Hose
SP-200076	Nozzle
SP-200137	Manifold To Cluster Nozzle

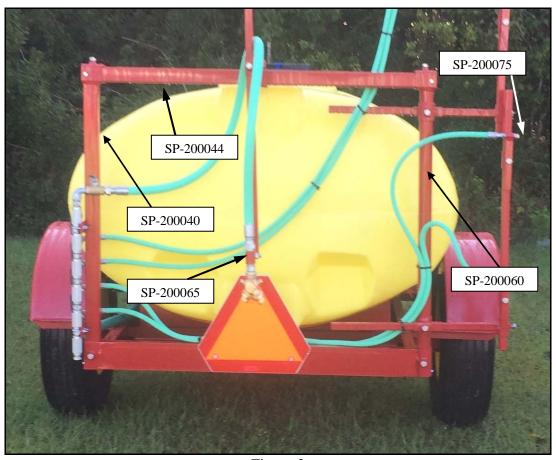


Figure 3

SP-200044	Top Spray Bar
SP-200040	Sprayer Bar Weldment (Left Hand)
SP-200065	Mount Weldment, ¾ Spray Nozzle
SP-200060	Sprayer Bar Weldment (Right Hand)
SP-200075	Spray Nozzle, ss H1/4u-Ss5020 Teejet

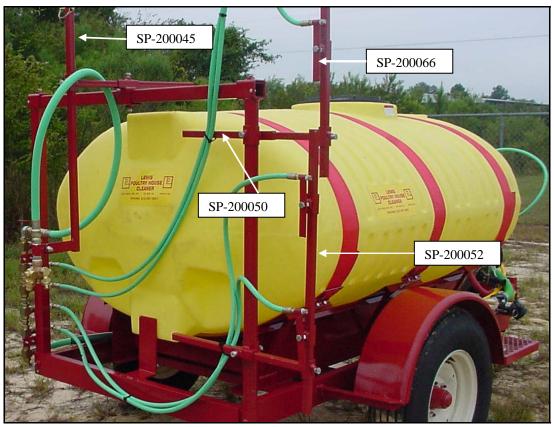
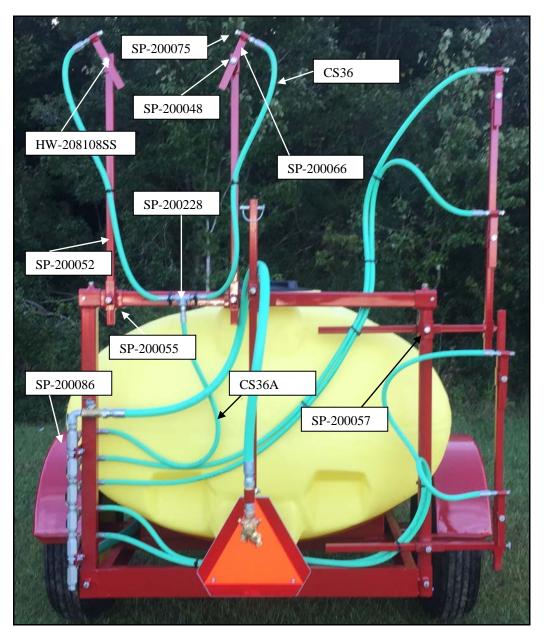
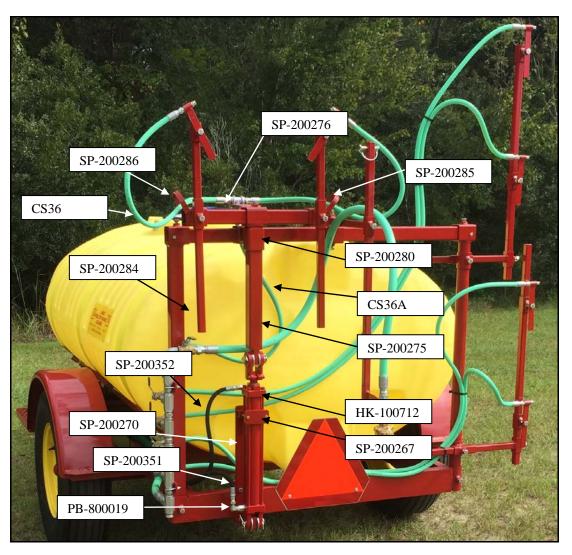


Figure 4

SP-200045	Sprayer Boom Weldment
SP-200050	Sprayer Arm Weldment
SP-200052	Sprayer Boom Extension
SP-200066	Mount Weldment, ¼ Spray Nozzle



CS36	NIPPLE WASHER HOSE (TEE TO NOZZLE)
SP-200055	SLEEVE WELDMENT
SP-200048	SPRAY NOZZLE MOUNT HOLDER WELDMENT
SP-200075	SPRAY NOZZLE
SP-200086	BALL VALVE 3/8"
CS36A	HOSE NIPPLE WASHER (MANIFOLD TO TEE)
SP-200066	MOUNT WELDMENT 1/4" SPRAY NOZZLE
SP-200052	BOOM EXTENSION
SP-200085	3/8" COUPLING
SP-200087	90° X 3/8" ELBOW
SP-200228	3/8 X 3/8 X 3/8 (F-NPT) GALV. TEE
HW-208108SS	BOLT, STAINLESS STEEL ½-13NC X 1-1/2
HW-300208ZG5	HUT, HEX, 1/2-13NC, GR5
SP-200057	R.H. SLEEVE WELDMENT



SP-200267	NIPPLE WASHER MOUNT TUBE
HK-100712	HYDROULIC CYLINDER
SP-200275	NIPPLE WASHER LIFT ROD WELDMENT
SP-200280	NIPPLE WASHER HYD. LIFT ROD GUIDE WELDMENT
SP-200285	SLEEVE WELDMENT (RIGHT)
SP-200276	SNIPPLE WASHER MOUNT TUBE
SP-200286	SLEEVE WELDMENT (LEFT)
SP-200284	BOOM EXTENSION
SP-200352	HYD. HOSE 216" LG
SP-200270	CYLINDER MOUNT WELDMENT
SP200351	HYD. HOSE 211" LG
PB-800019	90° ELBOW RESTRICTOR JIC TO PIPE
CS36A	HOSE, NIPPLE WASHER (MANFOLD TO TEE)
CS36	NIPPLE WASHER HOSE (TEE TO NOZZLE)
SP-200265	MOUNT PLATE, LOWER PLATE (NOT SHOWN)
SP-200263	CYLINDER MOUNT TOP PLATE SPACER(SHIM) (NOT SHOWN
SP-200264	CYLINDER MOUNT TOP PLATE SPACER (NOT SHOWN)