



LEWIS POULTRY HOUSE BLOWER OWNER / OPERATOR MANUAL



MODEL # PB-1

Manufactured by: Lewis Brothers Manufacturing, Inc.
Post Office Box 146
Baxley, GA 31515
Telephone: (912) 367-4651
Fax: (912) 367-3958

7-16-14

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 House Blower.

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.

TABLE OF CONTENTS

INTRODUCTION	2
SAFETY	
Owner's And Operator's Responsibility	4
General Precautions	5
General Safety Information	5
WARRANTY	
Limited Warranty	6
SPECIFICATIONS	
Model PB-1 Specifications	7
OPERATING INSTRUCTIONS	8-19
DECALS	20-21
PARTS	22-27

SAFETY

OWNER'S AND OPERATOR'S RESPONSIBILITY

This manual is intended for use with your Lewis Poultry House Blower. Extra effort has been taken to provide for the safe operation of this equipment. This manual, as well as the safety decals placed on the equipment, is part of that effort. Your new Poultry House Blower should perform the functions for which it was designed if it is maintained and adjusted as described in this manual.

It is the responsibility of the owner and each operator of this equipment to read and understand this manual prior to using the machine and before performing any service or maintenance tasks on the equipment. Each person who will work on or around this equipment should be properly 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 6. 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 Poultry House Blower. Lewis repair parts and optional equipment should be ordered through your Lewis Brothers' Dealer.

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

Check belt tension before each use and adjust if necessary.

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 AND OPERATE** the attached 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.
- **USE** flashing warning lights when on highways, except where prohibited by law.
- **KEEP** all shields in place. Do not operate the machine if any shields are damaged or missing.
- **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.

GENERAL SAFETY INFORMATION



- Do not operate PTO above recommended RPM. (540 RPM)
- 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.

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, 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
JULY 1, 2012

SPECIFICATIONS

POULTRY HOUSE BLOWER MODEL PB-1

Height	57"
Width	39"
Length	55.5"
Weight (WITHOUT OPTIONAL SPRAYER KIT)	480 lbs.
Fan Size	12" x 12"
CFM	6000
Volute	15.5"
PTO Horsepower (Minimum)	20HP

OPTIONAL SPRAY KIT

Pump Max PSI @ 540 R.P.M.	300
Pump Max Flow @540	9.7 GPM
Tank Volume	55 Gallons
Spray tips	4 Required
Spray on off Valve	12 Volt Solenoid
Weight (WITH OPTIONAL SPRAYER KIT)	540 lbs.

OPERATION AND MAINTENANCE

MACHINE SETUP

TRACTOR SETTINGS

The Lewis Poultry House Blower is designed to be operated at 540 rpm PTO. If your tractor is equipped with a 1000 RPM PTO, you should install the 540 shaft adapter.



FIGURE 1

ATTACHING POULTRY HOUSE BLOWER TO TRACTOR

Attach the Poultry House Blower to the tractor's lift-arms and adjustable link. Next, attach the drive shaft to the tractor PTO shaft. Slide the drive shaft onto the PTO shaft until the lock snaps in place. Always try to pull the drive shaft from the PTO after it is in place. If the drive shaft slides and is not locked in place, repeat the process again to insure proper attachment. Connect the Poultry House Blower's two hydraulic lines to the selected remote hydraulic ports located on the tractor (See figure 1). **IMPORTANT:** The Lewis Poultry Blower is designed to handle a maximum system pressure of 2500 PSI. Excess pressure should be avoided in order to prevent damaging system components. Tractors that are capable of supplying higher hydraulic pressure should install a pressure regulator kit (part # PB-800080) to prevent damage to the hydraulic system.

OPERATING INSTRUCTIONS

The ground speed will always vary depending on the particular operation being performed. The Lewis Poultry House Blower is designed to be operated with the tractor PTO turning within a range of 500 to 540 RPM. 540 RPM is the most desirable PTO speed producing the maximum pressure from the blower. Place the machine into operation by first engaging the PTO of the tractor with the tractor engine at safe idle speed. Next, rotate the volute right or left to the desired position of operation by moving the tractor remote hydraulic control handle.

IMPORTANT: ALWAYS ENGAGE PTO CLUTCH SLOWLY AND SMOOTHLY AT LOW RPM TO AVOID SUDDEN STARTS AND FAST CLUTCHING THAT CAN DAMAGE THE DRIVE COMPONENTS.

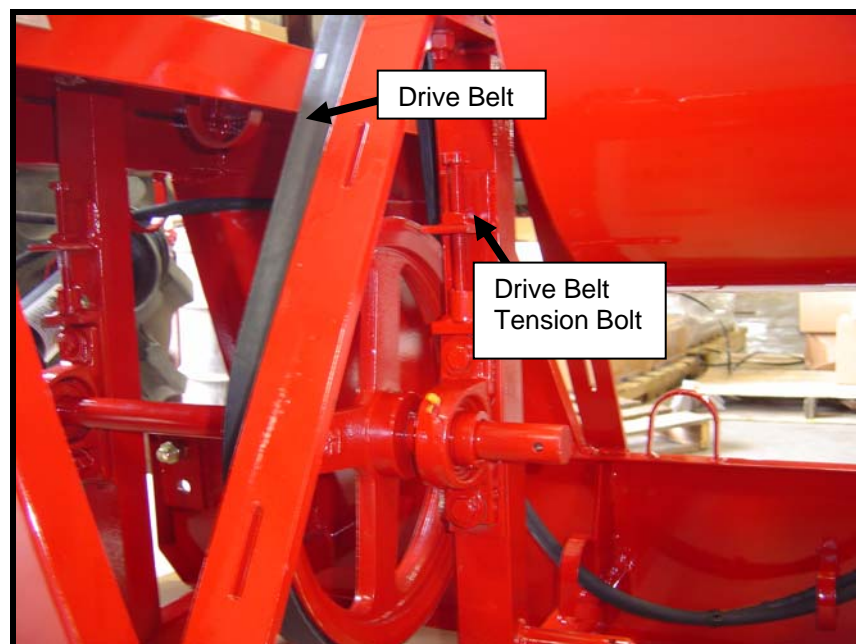


FIGURE 2

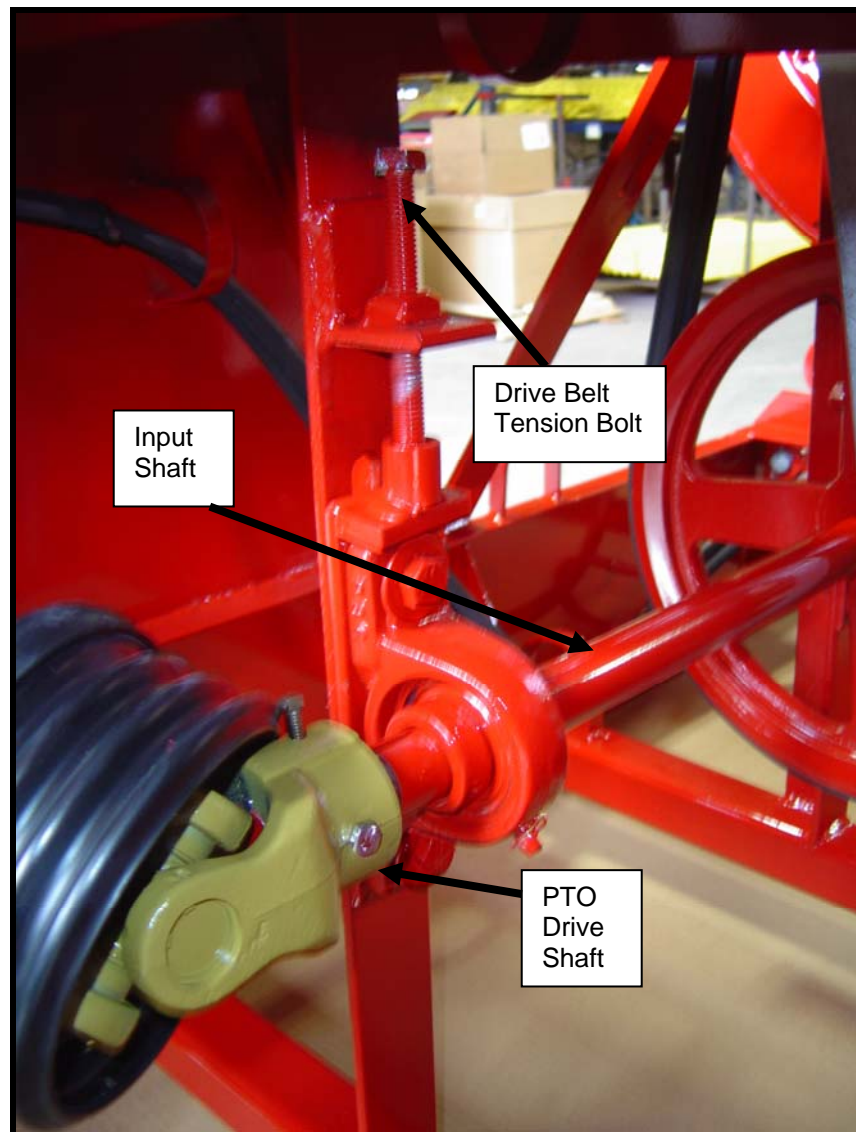


FIGURE 3

Drive Belt Adjustment

New belts should be checked after 10 minutes of initial operation to ensure minimal slippage and be re-adjusted when necessary. Loosen both bearing block bolts (Figure 2 AND Figure 3) and adjust the belt tension using the adjustment bolts located at each bearing. Proper tension can be measured midway between the pulleys with a deflection of $\frac{1}{4}$ " @ 20 Lbs. for new belts, and $\frac{1}{4}$ " @ 10 Lbs. for older belts. Once the correct tension has been established, the bearing block bolts should be re-tightened to maintain the setting.

NOTE: Proper care should be taken to ensure the pulleys remain correctly aligned with each other. Use a straight edge for correct positioning of the pulleys (See Figure 4). Failure to maintain proper alignment of the pulleys will result in damage to the belts and unsafe operating conditions.



FIGURE 4

Drive Belt Replacement

1. Remove bolt from PTO drive shaft and disconnect PTO shaft from Blower input shaft (See Figure 3).
2. Loosen the tension on the adjustment bolts for each bearing. By removing the mounting bolts on each bearing you can remove and replace the drive belt (See Figure 2&3). Repeat the process in reverse order to install the new belt. Once the belt has been installed, refer to the instructions located on page 10 on how to properly adjust belt tension.

Volute Rotation Chain Adjustment

Adjust the chain tension by turning nut, taking care not to over tighten the chain. If necessary, additional adjustment may be achieved by removing chain links. Take care to remove only excess looseness in the chain (See Figure 5).

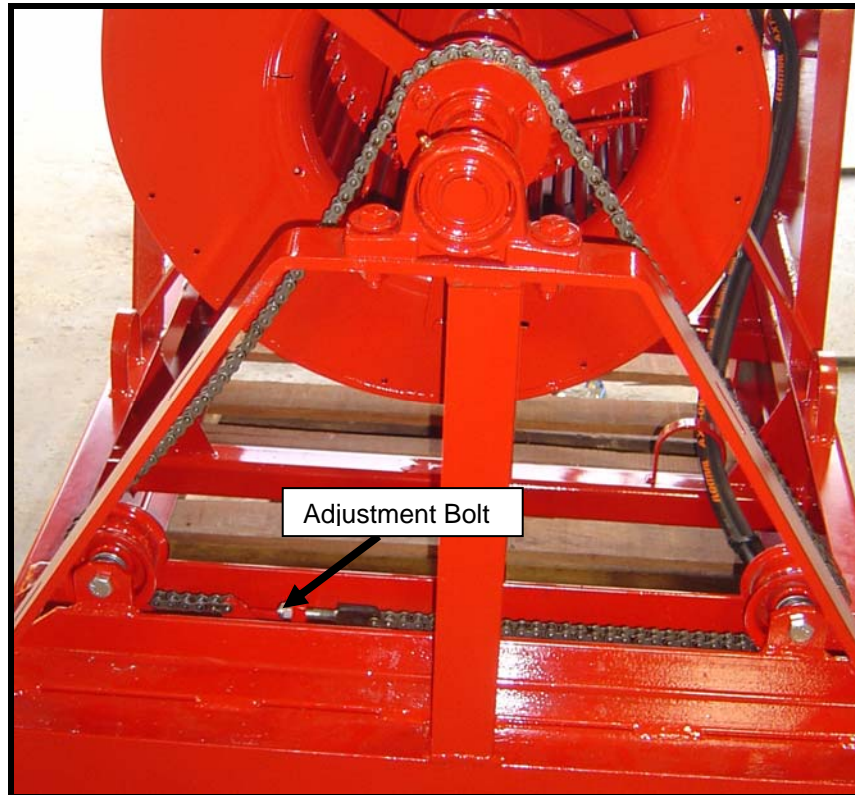


FIGURE 5

Sprayer Option



⚠ 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. If there are any questions, call HYPRO APPLICATIONS toll free number (1-800-445-8360.)

CAUTION

- Do not operate PTO above recommended RPM. (540 RPM)
- Operate pump between temperature range of 45°F to 140°F.
- Drain all liquids from the system before servicing.
- 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. Never install used pipe or hoses.
- Do not use these pumps for pumping water or other liquids for human or animal consumption.

WARNING Pump must not be run dry.

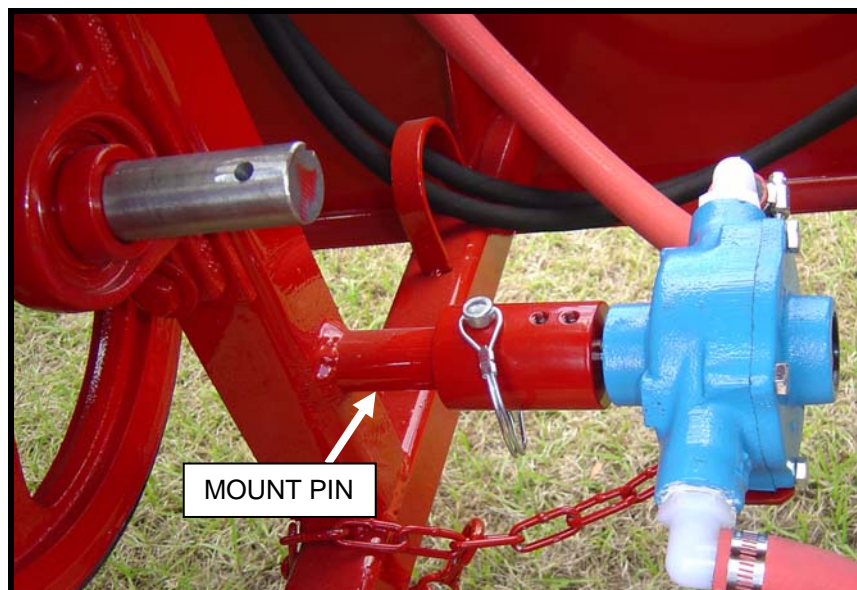


FIGURE 6

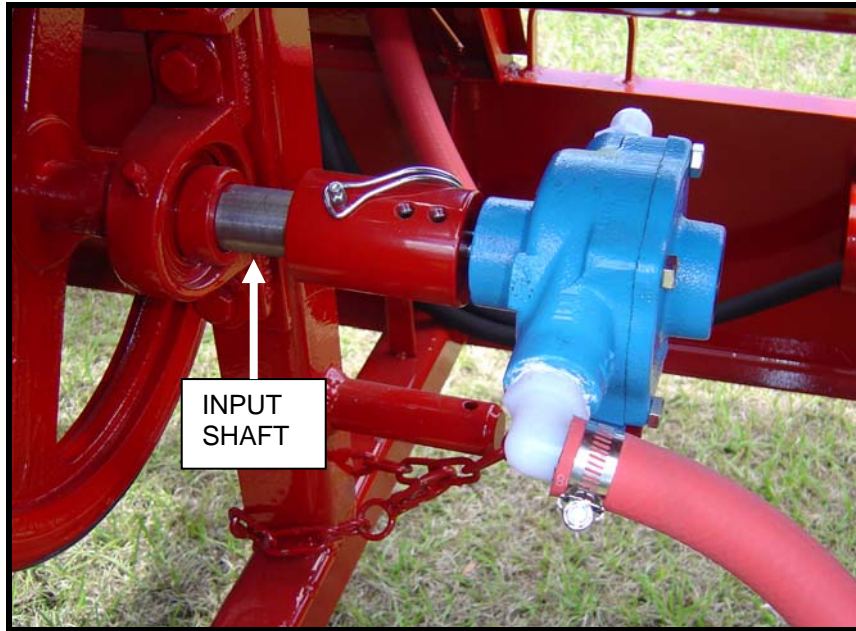


FIGURE 7

Sprayer Set-Up

Position pump on mount pin while not in use and secure with pin provided. When spraying, return pump to Input Shaft (See Figure 6 and 7).

Controlling the Flow

The suction line ball valve should remain open at all times except for maintenance or repair (See Figure 8). Flow and operating pressure can be managed with the manual flow control valve (See Figure 9). Refer to the chart on Page 18 to establish the proper setting for the system pressure and nozzle selection.



FIGURE 8

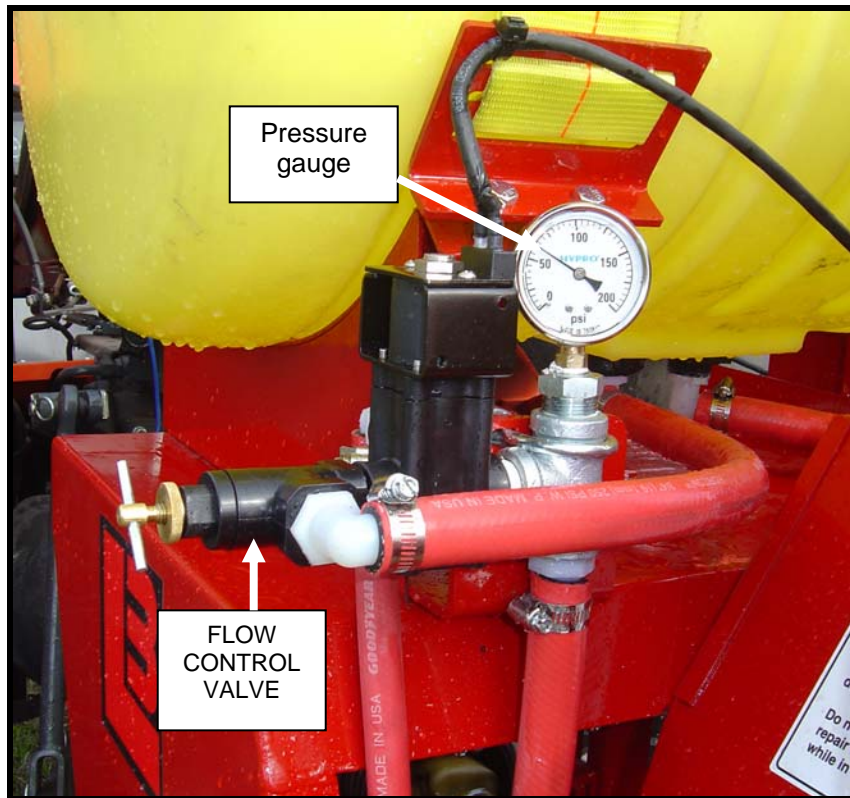


FIGURE 9

Spraying Adjustment

To adjust sprayer Follow these steps:

1. Prime pump with all valves open.
2. With pump running and nozzle control valve set to open, turn the relief valve handle until pressure gauge indicates desired spraying pressure.
3. Make sure flow is uniform from all nozzles.
4. **NOTE:** Machine is equipped with Nozzle # 90A1FP3.0 Lime Green. See chart on page 17 and 18 for other options. (Multiply GPM x 4 to get total machine output)

Measuring Travel Speed

Measure a test course in the area to be sprayed or in an area with similar surface conditions. Minimum lengths of 100 and 200 feet are recommended for measuring speeds up to 5 and 10 MPH, respectively. Determine the time required to travel the test course. To help ensure accuracy, conduct the speed check with a partially loaded (about half full) sprayer and select the engine throttle setting and gear that will be used when spraying. Repeat the above process and average the time that were measured. Use the following equation or the SPEED TRAVEL TABULATION CHART on page 17 to determine ground speed.

$$\text{SPEED (MPH)} = \text{DISTANCE (FT)} \times 60 / \text{TIME (SECONDS)} \times 88$$

Check for proper belt tension before each use

Flush Pump After Use

One of the most common causes for faulty pump performance is “gumming” or corrosion inside the pump. Flush the pump and entire system with a solution that will chemically neutralize the liquid pumped. Mix according to manufacturer’s directions. This will dissolve most residues remaining in the pump, leaving the inside of the pump clean for the next use.

To prevent Corrosion

After cleaning the pump as directed above, Flush it with a permanent-type automobile antifreeze (Prestone, Zerex, etc.) containing a rust inhibitor. Use a solution – half antifreeze and half water. Plug the ports to keep out air during storage. For short periods of idleness, non-corrosive liquids may be left in the pump, BUT AIR MUST BE KEPT OUT. Plug ports or seal port connections.

FAILURE TO FOLLOW INSTRUCTIONS WILL VOID WARRANTY



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

Speed Travel Tabulation Chart

SPEED IN MPH	TIME REQUIRED IN SECONDS TO TRAVEL A DISTANCE OD:		
	100 Feet	200Feet	300 Feet
1.0	68	136	205
1.5	45	91	136
2.0	34	68	102
2.5	27	55	82
3.0	23	45	68
3.5	19	39	58
4.0	17	34	51
4.5	15	30	45
5.0	14	27	41
5.5	--	25	37
6.0	--	23	34
6.5	--	21	31
7.0	--	19	29
7.5	--	18	27
8.0	--	17	26
8.5	--	16	24
9.0	--	15	23

FP- FulcoJet Full Cone Nozzle															
Flow Rate (Gallons per Minute) of Water at 68°F															
Nozzle	Thread	Color	Cone Angle	At Pressure (PSI)											
				10	20	30	40	50	60	70	80	90	100	125	150
90A1FP1.0	1/8" NPT	Orange	45°	0.10	0.14	0.16	0.19	0.21	0.22	0.24	0.25	0.27	0.28	0.31	0.34
90A1FP1.5	1/8" NPT	Red	45°	0.15	0.20	0.25	0.28	0.31	0.34	0.36	0.38	0.40	0.42	0.47	0.51
90A1FP2.0	1/8" NPT	Light Blue	45°	0.20	0.27	0.33	0.37	0.41	0.45	0.48	0.51	0.54	0.56	0.62	0.68
90A1FP3.0	1/8" NPT	Lime green	45°	0.30	0.41	0.49	0.56	0.62	0.67	0.72	0.76	0.81	0.85	0.93	1.01
90A1FP3.5	1/8" NPT	Terracotta	45°	0.35	0.48	0.57	0.65	0.72	0.78	0.84	0.89	0.94	0.99	1.09	1.18
90A1FP5.0	1/8" NPT	Blue	45°	0.50	0.68	0.82	0.93	1.03	1.12	1.20	1.27	1.34	1.41	1.56	1.69

NOTE: Multiply GPM x 4 to get machine output

TROUBLE SHOOTING GUIDE

Symptom	Probable Cause(s)	Corrective Action
Pump does not prime.	Leak in suction line.	Check hose and fitting for leak, and correct.
	Obstruction in suction line.	Inspect hose for obstruction such as debris or loose inner liner.
	Roller stuck in pump.	Disassemble pump and inspect rollers.
	Pump seals leaking air.	Replace seals.
Loss of Pressure.	Clogged suction strainer.	Check strainer and clean it Regularly.
	Kinked or blocked suction hose.	Inspect suction hose and Repair as necessary.
	Air leak in inlet side plumbing.	Check hose and connection For leaks. Use pipe joint sealant And retighten connections.
	Relief valve setting too low.	Check relief valve and correct Setting.
	Faulty gauge.	Replace gauge.
	Pump seal leak air.	Replace seals.
	Nozzle orifices worn.	Replace nozzles.
	Pump worn.	Repair pump.
Pump will not turn.	Corrosion (rust), scale or residue.	Loosen endplate bolts, Squirt oil Into ports to help free rotor. Retighten bolts.
	Solid object lodged in pump.	Disassemble pump and remove Objects.

DECAL



PART # HK-100908



PART # HK-100916,



PART # HK-100912,

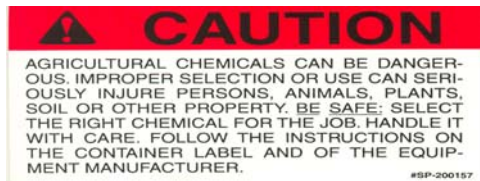
SAFTEY DECALS



PART # DB-400166,



PART # HK-100919,



SP-200157

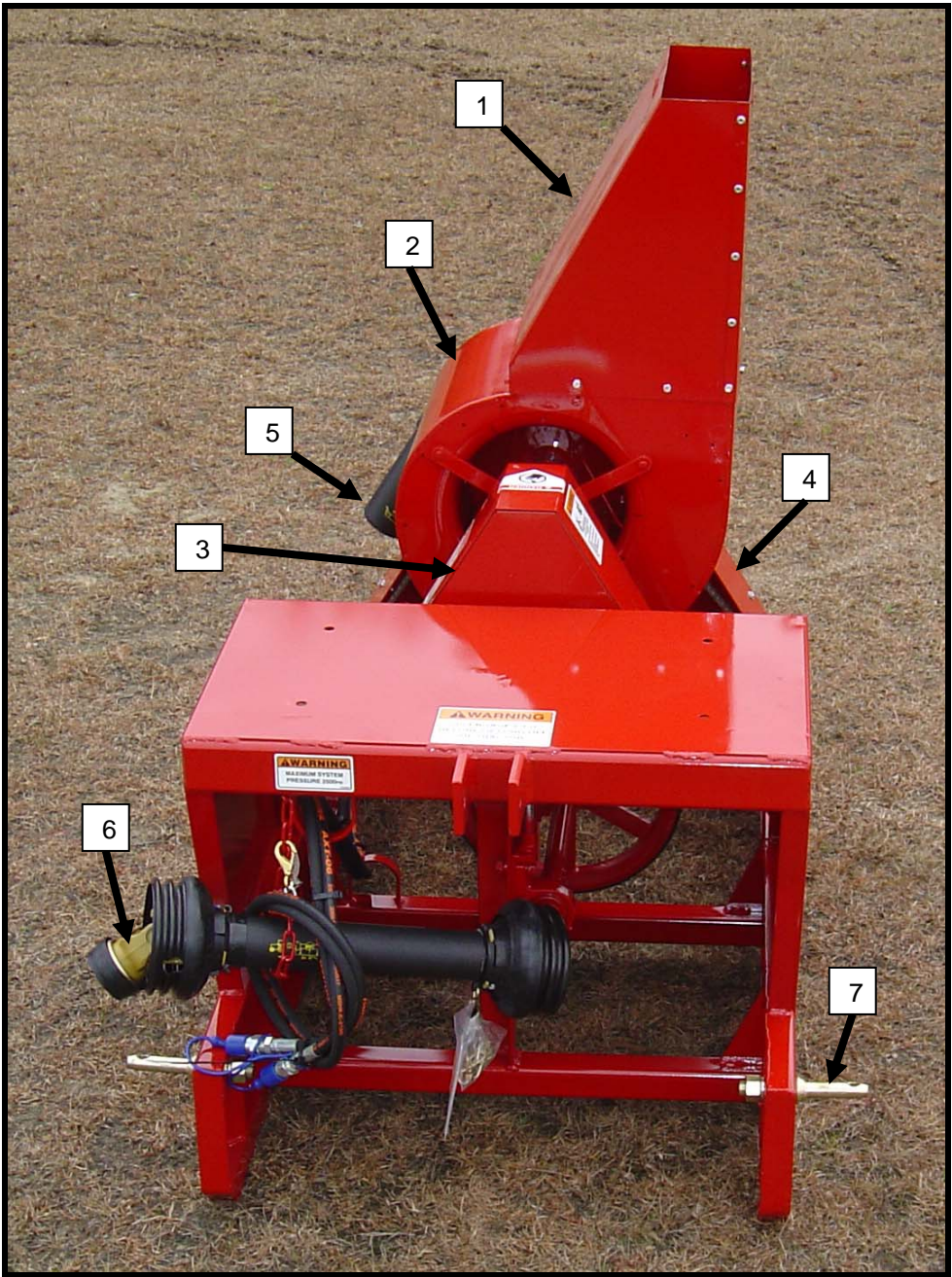


HK-101853

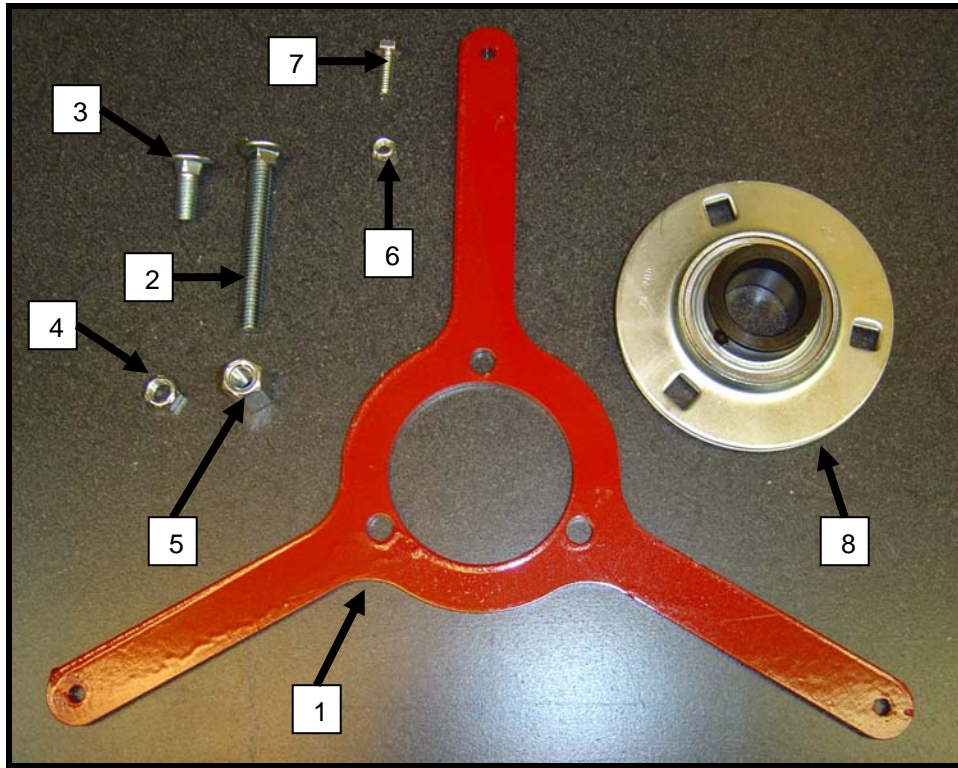


PB-800852

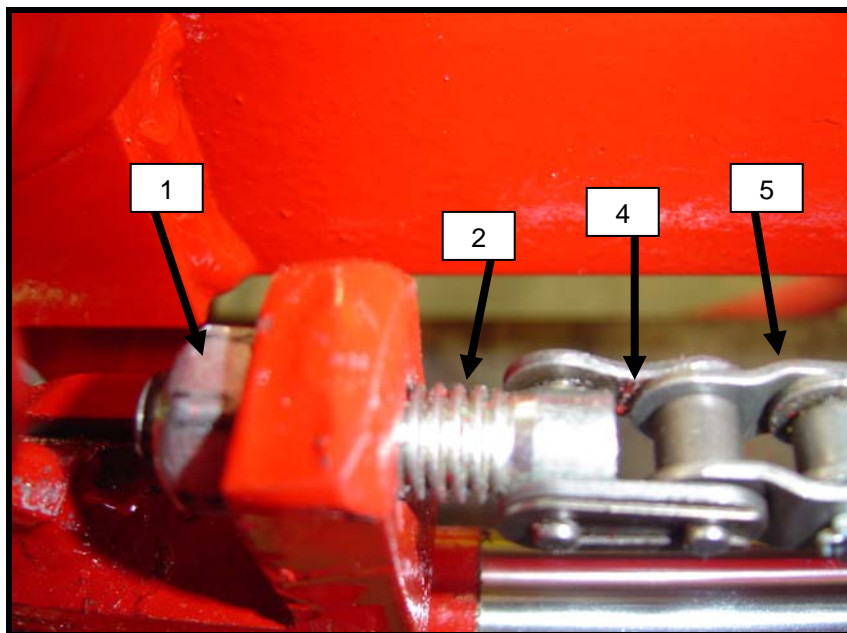
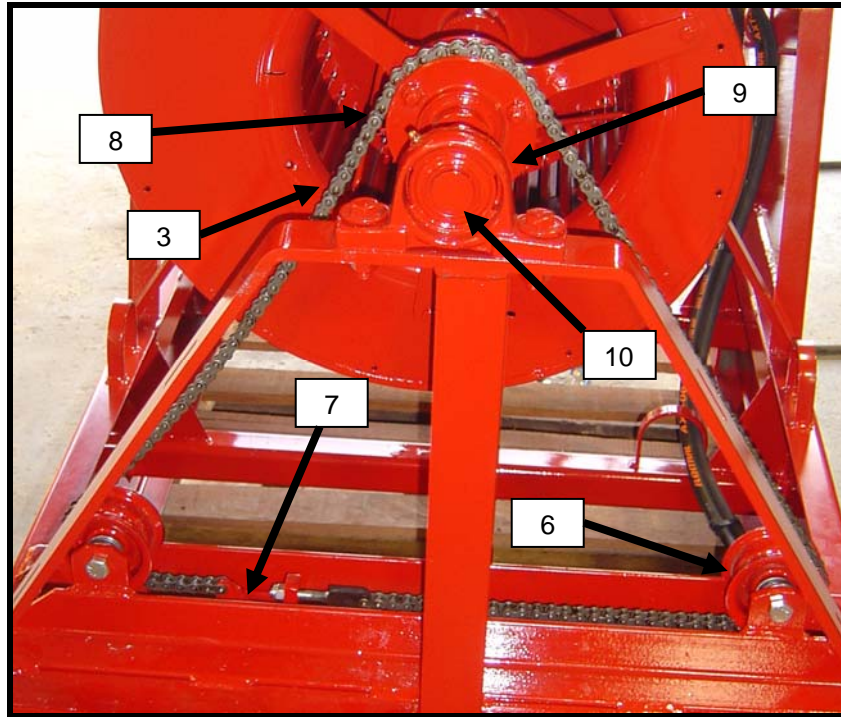
PARTS



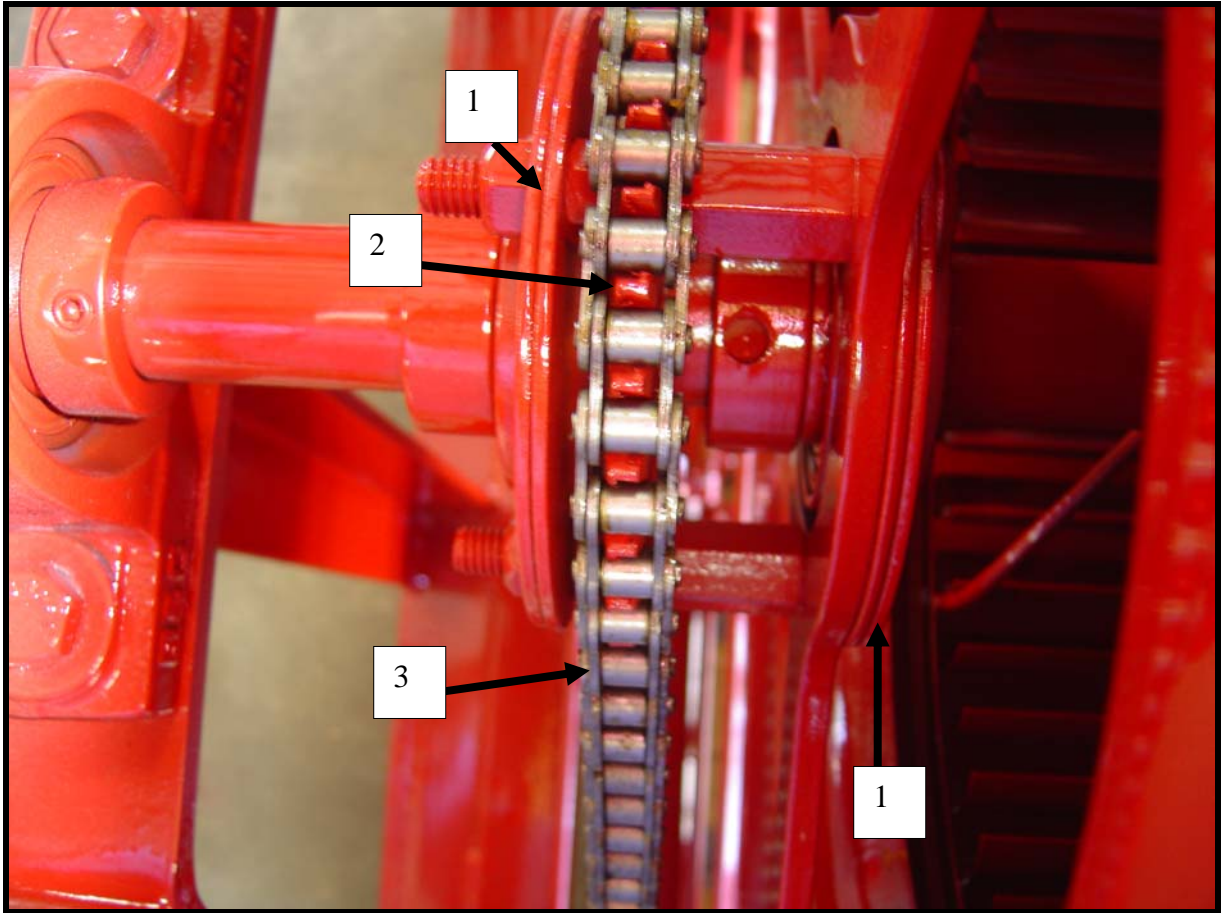
1	PB-800400	VOLUTE
2	PB-800011	FAN ASSEMBLY
3	PB-800034	FRONT GUARD
4	PB-800030	REAR GUARD
5	HK-101827	MANUAL CANISTER
6	PB-800010	DRIVE SHAFT
7	PB-800138	LIFT ARM PIN (CAT-1)



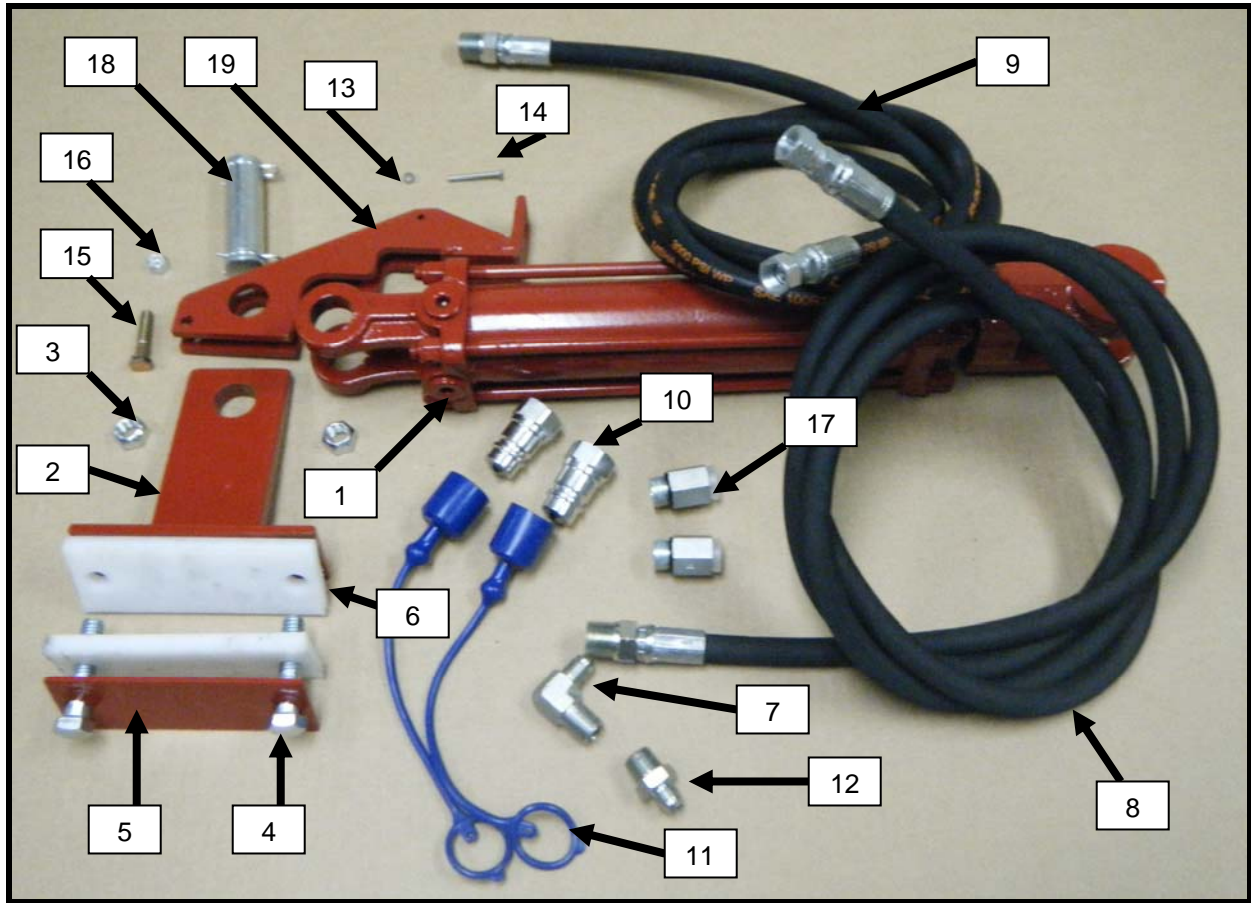
1	PB-800070	FAN BEARING MOUNT
2	HW-804120G5	BOLT, CARIAGE 3/8-16NC X 3 LG
3	HW-804104G5Z	BOLT, CARIAGE 3/8-16NC X 1
4	HW-301204TLZ	NUT, TOP LOCK, 3/8-16NC
5	PB-800026	NUT, HEX, COUPLING, 3/8-16NC X 1-1/8LG
6	HW-301201TL	NUT, TOP LOCK, 1/4-20
7	HW-200104G5	BOLT,HH, 1/4-20NC X 1 LG
8	PB-800053	FAN BEARING



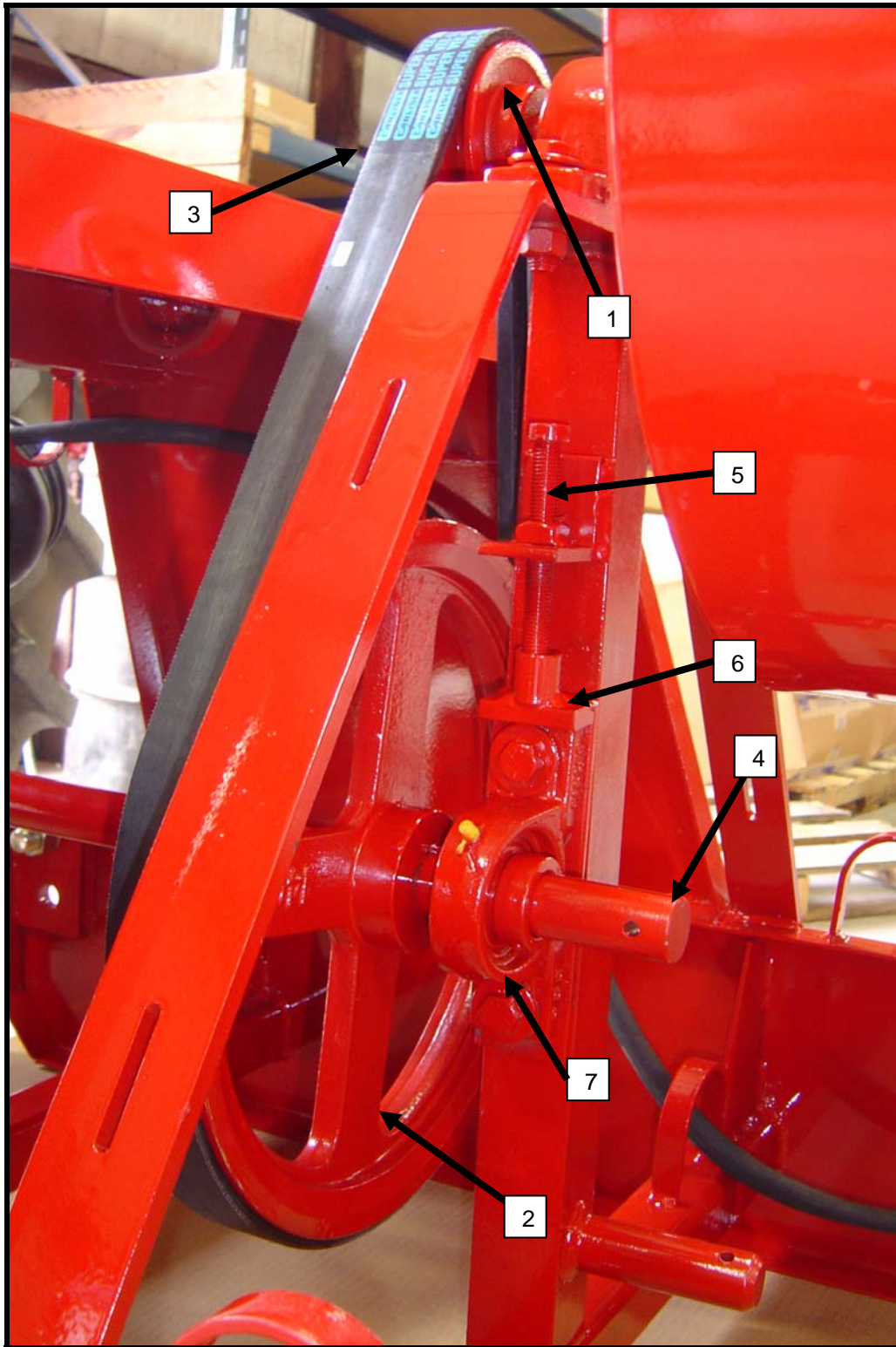
ITEM	PART #	DESCRIPTION
1	HW-301206TL	NUT, TOP LOCK, HEX, 7/16-14NC, ZINC PLATED
2	PB-800140	CHAIN ADJUSTER
3	PB-800013	CHAIN KIT (69.5" #40 CHAIN, ONE CONNECTING LINK)
4	PB-800014	CONNECTING LINK #40 ROLLER CHAIN
5	PB-800015	HALF LINK #40 ROLLER CHAIN
6	HK-101295	IDLER
7	PB-800030	SLIDE CYLINDER MOUNT
8	PB-800025	SPROCKET
9	HK-100389	MOUNT BEARING
10	PB-800064	FAN SHAFT



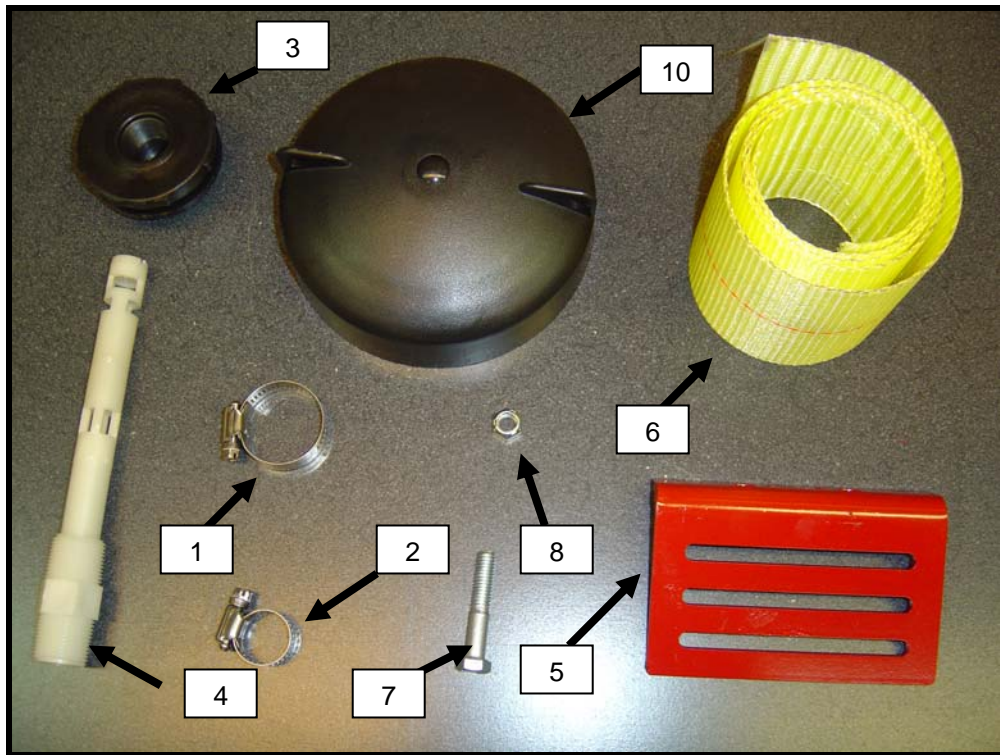
	PART #	DESCRIPTION
1	PB-800053	BEARING
2	PB-800025	SPROCKET
3	PB-800013	CHAIN KIT (69.5" #40 CHAIN, ONE CONNECTING LINK)



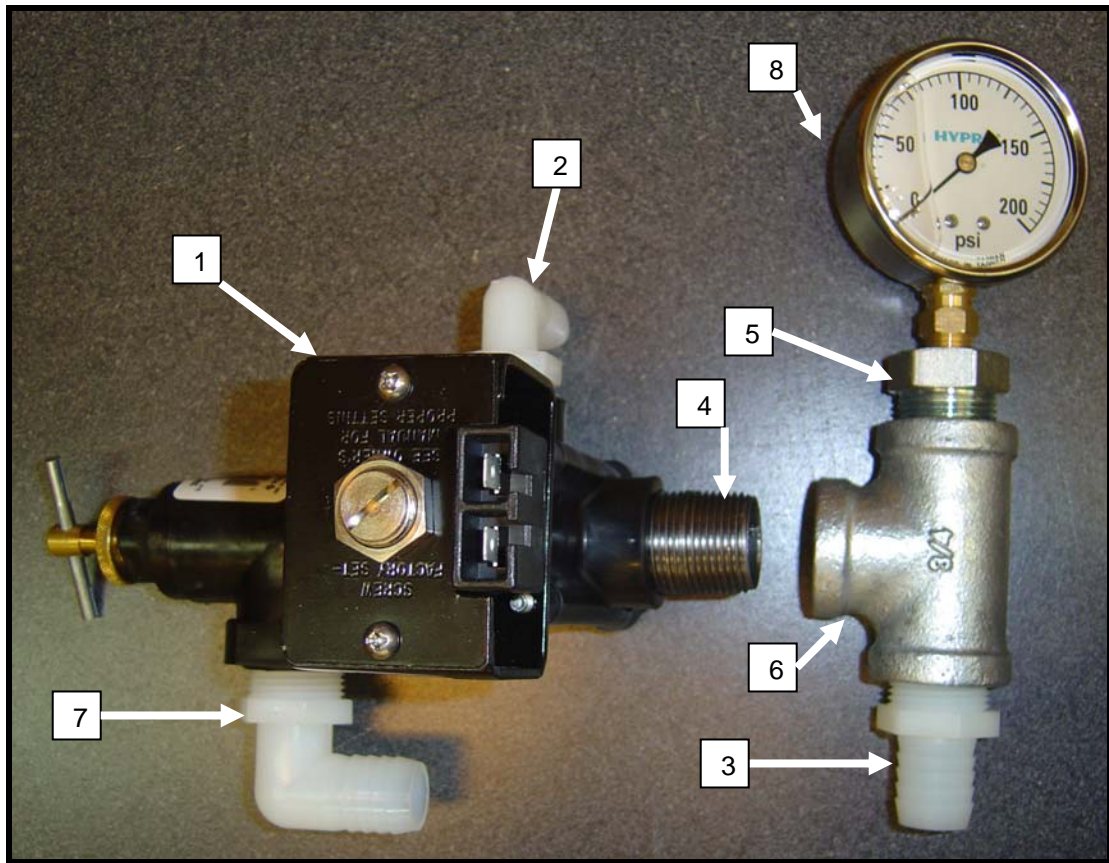
1	PB-800134	HYD. CYLINDER
2	PB-800130	SLIDE CYLINDER MOUNT
3	HW-301208SC	NUT, STOVER LOCK, HEX, 1/2-13NC
4	HW-208112G5Z	BOLT, HH, 1/2-13 X 2
5	PB-800132	SLIDE BOTTOM PLATE
6	PB-800133	SLIDE WEAR PLATE (2 REQUIRED)
7	PB-800019	90° ELBOW RESTRICTOR JIC TO PIPE
8	PB-800018	HOSE (108 LG)
9	PB-800023	HOSE (96 LG)
10	HK-100965	QUICK COUPLER
11	HK-100993	QUICK COUPLER CAP
12	PB-800024	RESTRICTOR JIC TO PIPE
13	HW-960415	NUT, HEX NYLON LOCK, 4,,, A-2
14	HW-960315	BOLT, HH, 4MM X 35MM, SS, A-2
15	HW-202108G8C	BOLT, HH, 5/16-18 X 1-1/2 LG, G8
16	HW-301202TLZ	NUT, TOP LOCK, H, 5/16-18NC
17	PB-800022	PORT ADAPTER
18	HK-101307	HYD. CYLINDER PIN
19	PB-800139	CHAIN MOUNT WELDMENT



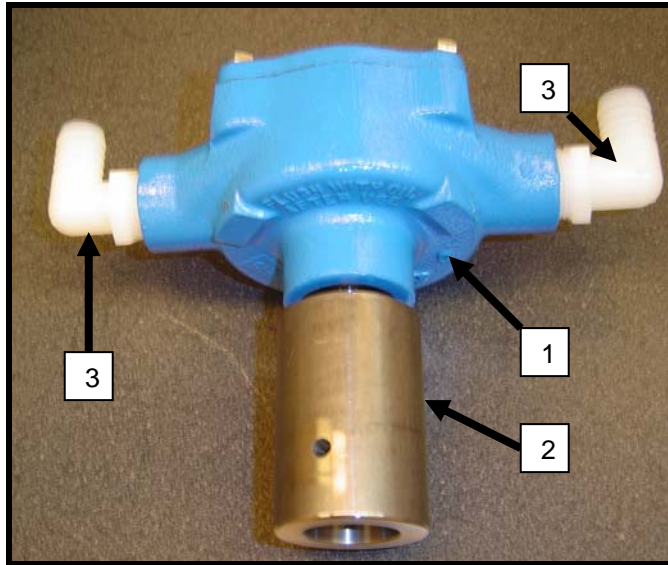
1	HK-100551	FAN PULLEY
2	PB-800012	INPUT SHAFT PULLEY
3	PB-800020	FAN BELT
4	PB-800045	INPUT SHAFT
5	PB-800027	ADJUSTMENT BOLT
6	05-100835	ADJUSTMENT BRACKET
7	HK-100389	BEARING



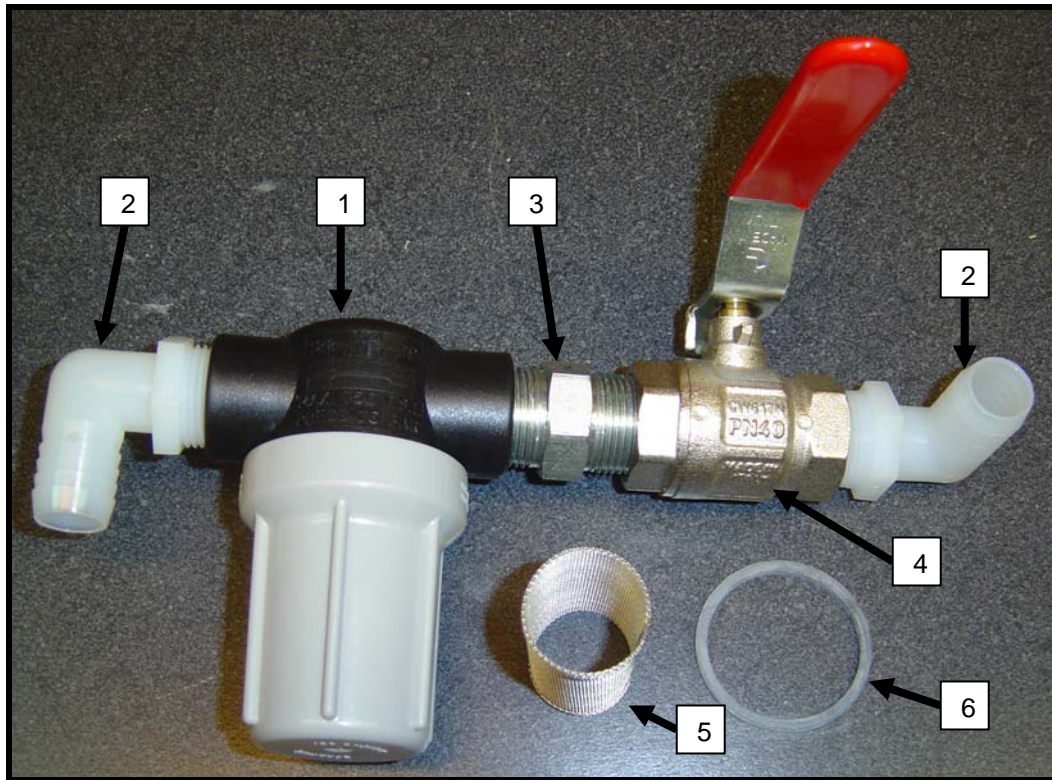
1	HW-960212	HOSE CLAMP 9/16 – 1-1/16
2	HW-960210	HOSE CLAMP 3/8 – 7/8
3	PB-800661	3/4 FNPT PP BULKHEAD FITTING
4	SP-200126	JET AGITATOR
5	SP-200231	TANK STRAP BRACKET
6	PB-800503	TANK STRAP 60" LG
7	HW-204112G5ZF	BOLT, HEX HEAD, 3/8-16 X 2 LG, FULL THREAD
8	HW-301204TLZ	NUT, TOP LOCK, 3/8-16
9	PB-800405	TANK 55 GAL
10	PB-800406	TANK CAP



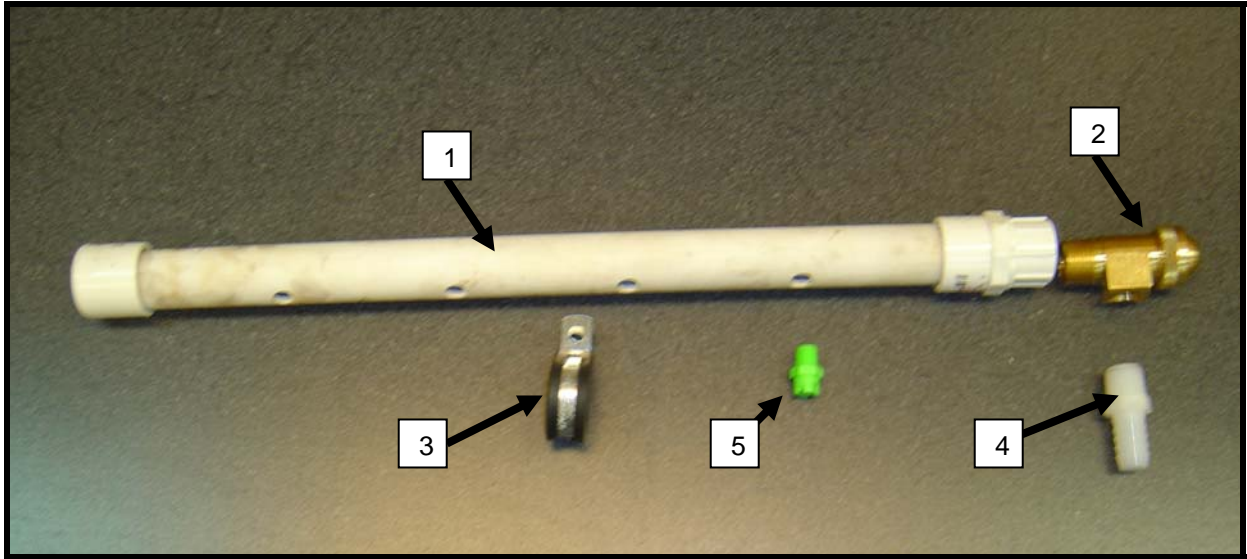
ITEM	PART #	DESCRIPTION
1	PS-500002	ELECTRIC VALVE
2	PB-800664	90° ELBOW 3/4 NPT X 1/2 HOSE BARB
3	PS-500405	3/4 NPT X 3/4 HOSE BARB
4	PB-800663	BLACK PIPE (SHORT) 3/4 NPT X 3/4 NPT
5	HK-101439	BUSHING 3/4 NPT X 1/4 NPT
6	SP-200116	TEE 3/4 NPT X 3/4 NPT X 3/4 NPT
7	PB-800662	90° ELBOW 3/4 NPT X 3/4 HOSE BARB
8	PS-500021	GAUGE



ITEM	PART #	DESCRIPTION
1	6500C	PUMP
2	PB-800625	BUSHING
3	PB-800662	90° ELBOW 3/4 NPT -3/4 HB

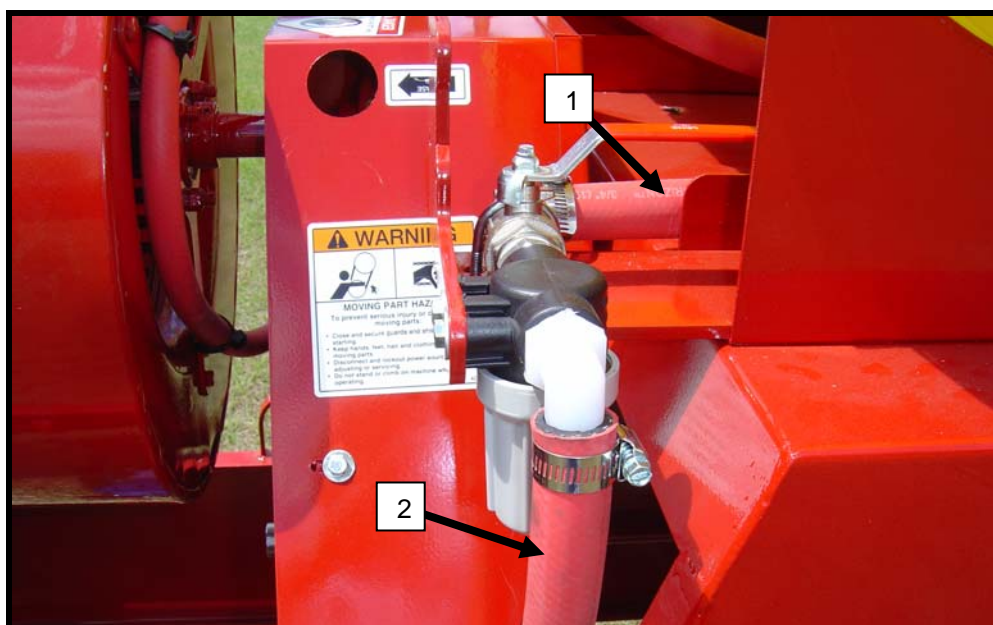


ITEM	PART #	DESCRIPTION
1	PB-800668	STRAINER
2	PB-800662	90° ELBOW 3/4 NPT X 3/4 HOSE BARB
3	HK-100772	NIPPLE STEEL 3/4 NPT X 3/4 NPT
4	SP-200090	BALL VALVE 3/4 NPT X 3/4 NPT
5	PB-800676	SCREEN
6	CP23173-EPR (VI)	LINE STRAINER WASHER



1	PB-800455	MANIFOLD
2	PS-500065	CHECK VALVE
3	PB-800450	MANIFOLD MOUNT STRAP
4	PB-800665	3/8" NPT X 1/2" HOSE BARB
5	90A1FP3.0	NOZZLE, LIME GREEN

NOTE: SEE CHART ON PAGE 17 AND 18 FOR OTHER OPTIONS.



1	PB-800652	HOSE, TANK TO FILTER, 3/4" X 15-1/4 LG
2	PB-800651	HOSE, FILTER TO PUMP, 3/4" X 38" LG
3	PB-800653	HOSE, PUMP TO GAUGE, 3/4" X 45" LG
4	PB-800654	HOSE, GAUGE TO AGITATOR, 3/4" X 23" LG
5	PB-800656	HOSE, ELECTRIC VALVE TO SPRAY TIPS, 1/2" X 78" LG