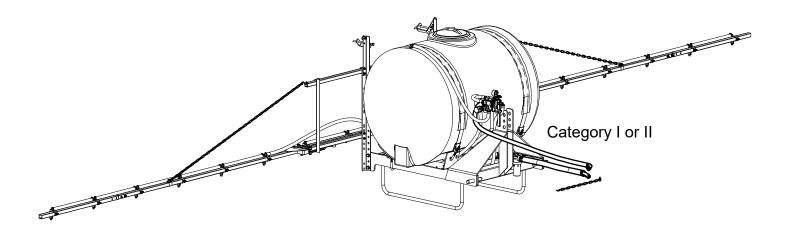
OWNER'S MANUAL

Model: 200-3PT w/814 (5300758)

(200 Gallon 3-Point Sprayer w/8-Row Boom & Agitator)



General Information

Thank you for purchasing this product. The purpose of this manual is to assist you in operating and maintaining your 3 Point sprayer.

BEFORE RETURNING THIS PRODUCT FOR ANY REASON, PLEASE CALL

1-800-831-0027

MONDAY-FRIDAY, 8:00 AM TO 5:00 PM CST

If you should have a question or experience a problem with your Fimco Industries Product: Visit our website @ www.fimcoindustries.com or call the Toll free number above. Our technical support representatives will be happy to help you. In most cases a customer service rep. can resolve the problem over the phone.

To obtain prompt, efficient service, always remember to give the following information....
Correct Part Description and/or part number
Model number and Serial Number
Part descriptions and numbers can be obtained from the illustrated parts list section(s) of this manual.

Retain a copy of your receipt for your unit, as it will be required to validate any warranty service.

Warranted against manufacturer or workmanship defects from date of purchase with copy of receipt:

Homeowner Usage: One Year

Commercial Usage: 90 Days.



WARNING: Cancer and Reproductive Harm. www.P65Warnings.ca.gov



WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.



www.fimcoindustries.com 1000 FIMCO Lane, P.O. Box 1700, North Sioux City, SD 57049 Toll Free Phone: 800-831-0027 : Toll Free Fax: 800-494-0440 [5008102 (10/22)]

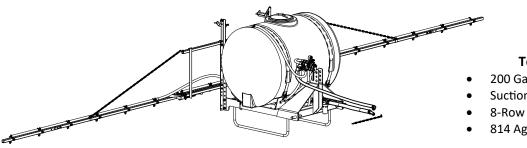
Contents

| Technical Specs 2 |
|--|
| Sprayer and Boom Assembly Instructions 3 - 5 |
| Sprayer Info 5 |
| Operation and Calibration 6 |
| Maintenance, Tank Care and Winter Storage7 |
| Sprayer Exploded View |
| Sprayer Parts List9 |
| Boom Exploded Views and Parts List 10 - 11 |

| Nozzle Harness Exploded View/Parts List | .12 |
|--|-----|
| Agitator Info | .13 |
| Pressure Relief Valve Exploded View/Parts List | .13 |
| TeeValve Control Valve Info | .13 |
| Sprayer Dimensions | .14 |
| Troubleshooting | .15 |
| Warranty | .16 |
| | |

Model: 200-3PT-w-814 (5300758)

(200 Gallon 3-Point Sprayer w/8-Row Boom & Agitator)



Technical Specifications

- 200 Gallon Polyethylene Tank
- Suction Line Filter
- 8-Row (28') Boom
- 814 Agitator

Caution: When fully filled with water, this sprayer will weigh approx. 2,135 lbs.. Consult the owner's manual for your vehicle to verify that you are within it's load carrying capacity.

~~~~~~~~~~IMPORTANT~~~~~~

Remove tank lid and be sure the tank is clean and free of any foreign material. Rinse tank out of any tank residue before filling with water to test.

#### 

It is <u>VERY</u> important for you to test your sprayer with plain water before actual spraying is attempted. This will enable you to check the sprayer for leaks without the possibility of losing any expensive chemicals.

#### 



**Read and Understand** the Owner's Manual before using this sprayer. Test and use in accordance to instructions. Read and Follow chemical label instructions and wear protective gear when filling, using, cleaning and servicing the sprayer.

Exercise Caution in vehicle handling when towing/hauling a filled sprayer to avoid loss of control or overturning. Keep Sprayer and Spray materials away from other people, children and pets.

**Do Not Turn on Power** to the sprayer, until ready to spray in order to avoid unintentional spray release.

**Do Not Use** on steep slopes. A full sprayer could cause loss of control or overturn sprayer and vehicle.

Always operate up and down a slope, never across the face of a slope.

Keep all movement on slopes slow and gradual. Do not make sudden changes in speed, directions or turning. Do not start or stop suddenly when going uphill or downhill.

Stop on level ground, set the parking brake and shut off engine before leaving the operator's position for any reason.

Keep all parts in good condition and properly installed. Fix damaged or worn parts immediately.

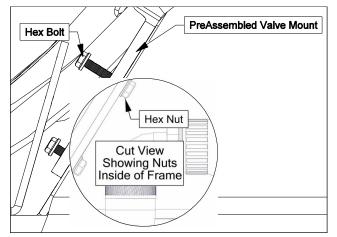
Caution should be taken when towing and/or using any sprayer. This sprayer combined with the weight distribution, turning radius and speed of vehicle can result in damage to vehicle and/or sprayer or severe injury or death, if not used properly.

Improper use of this sprayer or handling of chemicals could result in serious injury or illness, or could cause damage to the environment.

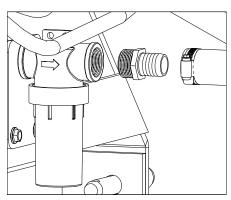
# **Assembly Procedure**

Most of the sprayer has been assembled at the factory.

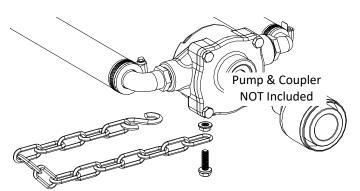
• Follow the steps on pages 3, 4 & 5 to properly assemble the sprayer.



1. Install the preassembled tee valve sub-assembly to the 3-point carrier valve mount and position as shown.

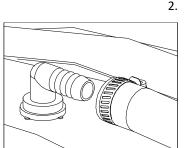


3. Using a good quality thread sealant, carefully thread the 1" fitting into the strainer. Find the 1" x 36" pump feeder hose. Slip a hose clamp onto the ends of the hose. With a twisting motion, slip the hose all the way onto the fitting and secure with the hose clamp.

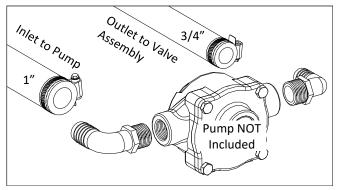


Pump & Coupler ARE NOT included -for reference ONLY

 The roller pump <u>IS NOT</u> included with the assembly. Attach the adapter, the torque chain and S-hook to the pump as needed. It is intended for your pump to be mounted directly to the tractor PTO. The torque chain needs to be secured to the tractor to keep your pump from spinning.

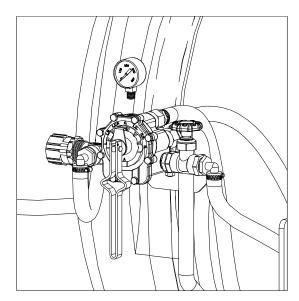


2. Slide a hose clamp on to the bypass hose (from the relief valve), then with a twisting motion, slip the bypass hose over the fitting on the top of the tank. Slide the hose clamp to the end of the hose and secure.



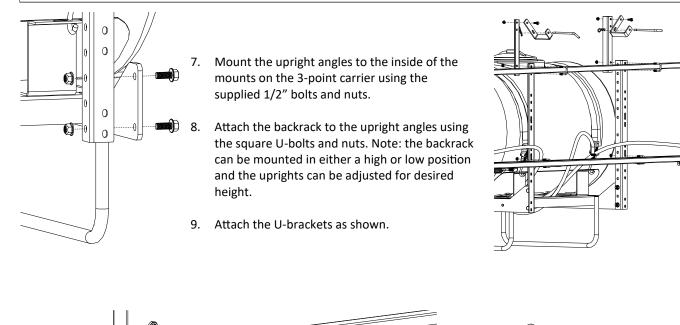
Pump IS NOT included -for reference ONLY

4. Using a good quality thread sealant, thread the 1" fitting into the inlet (IN) side of the pump and the 3/4" fitting to the outlet (OUT) side of the pump. With a twisting motion, attach the other end of the 1" hose to the 1" fitting on the inlet to the pump. Slip a 3/4" hose clamp onto the 3/4" hose coming off the valve assembly and with a twisting motion, attach the 3/4" hose to the output side of the pump and securing with the hose clamp.



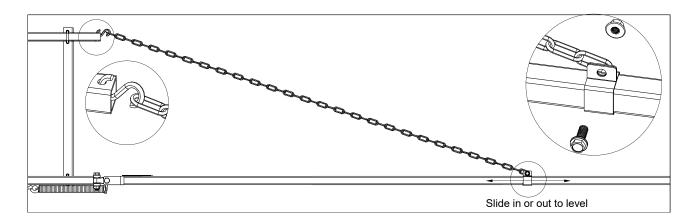
6. Using sealant thread the gauge into the top of the tee valve assembly.

## Assembly Procedure

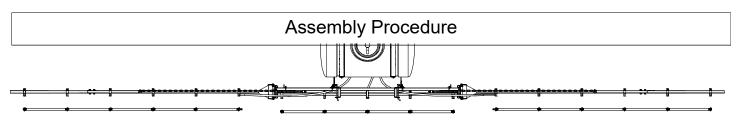




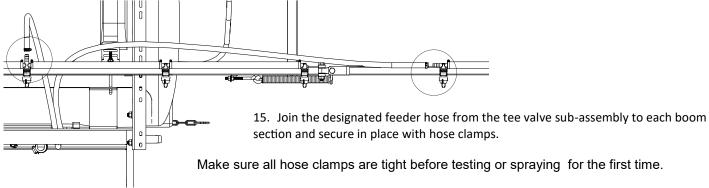
- 10. Loosen the eye bolts and remove the 7" hinge bolts. Line up the outer booms and reassemble the hinge bolt through the outer boom yoke, the hinge casting and the spring connector. Tighten the eye bolt until the spring is at the desired tension. Lock the eye bolt in place with the inner whiz flange locknut.
- 11. Bolt on the boom extensions using the  $3/8'' \times 1-3/4''$  bolts and hex lock nuts.



- 12. Hook an end of each boom chain on an "S" hook attached to the top bar tube.
- 13. Slip a slide clamp onto each outer boom. Place the other end of the boom chain between the ears of the slide clamp and secure with a 3/8" x 1" flange screw. Level the outer booms by moving the slide clamps in or out as needed. Tighten the bolts in the slide clamps to hold the clamps in place.



14. Starting with the center section, attach the appropriate hose assemblies onto each of the three boom sections. Center the center hose assembly on the boom, working outward to the ends of the booms. the center section has five nozzles with a cross nozzle assembly to connect your feeder hose to. The end nozzle harness assemblies have a tee nozzle assembly to connect your feeder hose to and should be approx. 20" from the end of your center nozzle harness assembly.



# \*\* The Sprayer is now ready to TEST w/plain water before actual use \*\*

### **Operation Instructions**

#### Information About the Sprayer

Roller pumps are positive displacement pumps, which means that the entire solution being pumped must go somewhere or the pump will break. In this roller pumping system, solution is drawn from the tank and forced to a planned source, such as boom nozzles or handgun. The pressure is controlled by a pressure relief valve, which is a spring-loaded device that controls the amount of fluid bypassed (recirculated) to the tank. The gray handle is to be tightened to increase pressure and loosened to decrease pressure. The 'directo-valve' is the on/off control which allows the operator to manually control the solution going to the boom.

# **IMPORTANT:** <u>Remove tank lid and be sure the tank is clean and free of any foreign material. Rinse tank out of any tank</u> residue before filling with water to test.

#### **Testing the Sprayer**

Attach the sprayer to the tractor 3 point hitch. Mount the pump to the PTO and affix the torque chain.

**NOTE:** It is important to test the sprayer with plain water before actual spraying is attempted. This will enable you to familiarize yourself and check for leaks without the possibility of losing any expensive chemicals.

Fill the tank about 1/2 full with plain water. Before starting, open the suction line valve (located underneath the carrier frame), turn the relief valve handle out to lower the line pressure. This will help prime the pump.

**CAUTION:** Always be sure that the water (or solution) has reached the pump before starting your sprayer. If the pump is allowed to run dry, serious damage to the pump will result.

Always have the pressure line open to the tips so that the air which may be trapped in the line will be forced (or purged) out. Start the tractor PTO. Check the entire system for leaks. Once the pump is primed, the pressure may be increased by turning the handle of the pressure relief valve in. Keep the pressure line open to the tips when setting the pressure. Set the pressure and then lock the relief valve handle in place. Shut off the directo-valve and check for leaks again. Pressure will increase when the pressure line valve is closed and then return to the pressure when the valve is opened again.

During the testing period, be sure to observe the spray pattern given by the spray nozzles. If there is any pattern distortion, it will be necessary to remove and clean the affected tips.

**Caution:** Never use a metal object or other sharp item for cleaning a nozzle tip. It is better to use a nozzle brush (NOT wire brush) or compressed air for tip cleaning.

Conditions of weather and terrain must be considered when setting the sprayer. Do not spray on windy days. Protective clothing must be worn in some cases

#### Be sure to read the chemical label(s) before application!

#### Operation

The performance of any agricultural chemical depends upon the proper application.

Always fill the tank with a desired amount of water first and then add the chemical slowly, mixing as you pour the

chemical into the tank. You may use the handgun to spraying into the solution in order to mix the chemical and water.

#### Only fill the tank with what you're going to spray in a day, never leave chemicals sit in tank.

The tips supplied as standard with the sprayer can be used for a wide variety of spraying applications. Other tip sizes are available for different coverages. The speed and pressure charts shown indicate the rates can be changed considerably by changing speed and pressure. The pumping system draws solution from the tank through the strainer/filter and to the pump. The pump forces the solution under pressure to the boom nozzles.

#### **Tip Information**

**Important note about tips:** When you refer to the rate charts found in this owners manual, these rates are based on water. Please read this tip selection section carefully before attempting to operate your boom assembly.

The selection of proper tips for the boom is determined by the gallon per acre (GPA) requirement which is specified on the chemical label. The following characteristics also have a determining factor and must be considered.

- 1. Speed of spraying (MPH).
- 2. Boom nozzle spacing (specified in inches).
- 3. Solution weight and conversion factor (CF)
- 4. Gallons of solution to be sprayed per acre.
- 5. Spraying pressure.

#### **Useful Formulas:**

GPM = Gallons Per Minute GPA = Gallons Per Acre MPH = Miles Per Hour

| Suggested Minimum Spray Heights |               |         |         |         |
|---------------------------------|---------------|---------|---------|---------|
|                                 | Nozzle Height |         |         |         |
| Nozzle Type                     | Spray         | 20"     | 30"     | 40"     |
|                                 | Angle         | Spacing | Spacing | Spacing |
| TeeJet (Flat Spray)             | 65°           | 22"-24" | 33"-35" | NR*     |
| TeeJet (XR TeeJet)              | 80°           | 17"-19" | 26"-28" | NR*     |
| TeeJet (XR TeeJet)              | 110°          | 12"-14" | 16"-18" | NR*     |
| FloodJet                        | 120°          | ***     | ***     | ***     |

\* Not Recommended

\*\*\* Wide Angle Spray Tip is influenced by nozzle orientation. The critical factor is to achieve a double spray patter overlap.

#### Calibration

Chemical labels may show application rates in gallons per acre, gallons per 1000 square feet or gallons per 100 square feet. You will note that the tip chart (later in this manual) shows 2 of these rating systems. Once you know how much you are going to spray, then determine (from the tip chart) the spraying pressure (PSI), and the spraying speed (MPH).

Determining the proper speed of the pulling vehicle can be done by marking off 100, 200 & 300 feet. The speed chart indicates the number of seconds it takes to travel the distances. Set the throttle and with a running start, travel the

distances. Adjust the throttle until you travel the distances in the number of seconds indicated by the speed chart. Once you have reached the throttle setting needed, mark the throttle location so you can stop and go again, returning to the same speed.

Add water and proper amount of chemical to the tank and drive to the starting place for spraying

| Speed Chart      |         |                               |         |  |  |
|------------------|---------|-------------------------------|---------|--|--|
| Speed in M.P.H.  |         | equired in s<br>avel a distan |         |  |  |
| (Miles Per Hour) | 100 Ft. | 200 Ft.                       | 300 Ft. |  |  |
| 1.0              | 68 sec. | 136                           | 205     |  |  |
| 2.0              | 34      | 68                            | 102     |  |  |
| 3.0              | 23      | 45                            | 68      |  |  |
| 4.0              | 17      | 34                            | 51      |  |  |
| 5.0              | 14      | 27                            | 41      |  |  |
| 6.0              | 11      | 23                            | 34      |  |  |
| 7.0              | 9.7     | 19                            | 29      |  |  |
| 8.0              | 8.5     | 17                            | 26      |  |  |
| 9.0              | 7.6     | 15                            | 23      |  |  |
| 10.0             | 6.8     | 14                            | 20      |  |  |

| AIXR11003VP Spray Tip Rate Chart (20" Spacing) |                   |                   |          |          |          |          |          |          |          |
|------------------------------------------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|
|                                                | Pressure<br>(psi) | Capacity<br>(GPM) | 1<br>MPH | 2<br>MPH | 3<br>MPH | 4<br>MPH | 5<br>MPH | 6<br>MPH | 8<br>MPH |
| s Per<br>e<br>Water                            | 15                | .18               | 53.6     | 26.8     | 17.8     | 13.4     | 10.7     | 8.9      | 6.7      |
| ons Pe<br>Acre<br>on Wa                        | 20                | .21               | 62.4     | 31.2     | 20.8     | 15.6     | 12.5     | 10.4     | 7.8      |
| Gallons Per<br>Acre<br>sed on Wat              | 30                | .26               | 77.2     | 38.6     | 25.8     | 19.3     | 15.4     | 12.9     | 9.7      |
| Gallo<br>A<br>Based                            | 40                | .30               | 88.0     | 44.0     | 29.8     | 22.0     | 17.8     | 14.9     | 11.1     |
| i Per<br>q. Ft.<br>Water                       | 15                | .18               |          | .61      | .41      | .31      | .24      |          |          |
| ns Pe<br>Sq. F<br>in Wa                        | 20                | .21               |          | .71      | .48      | .36      | .29      |          |          |
| $\circ \circ \circ$                            | 30                | .26               |          | .88      | .59      | .44      | .35      |          |          |
| Gallo<br>1000<br>Based                         | 40                | .30               |          | 1.0      | .68      | .51      | .41      |          |          |

#### Using the Boom Nozzles

Four things must be considered before spraying with the boom.

- 1. How much chemical must be mixed in the tank.
- 2. Rate of spray (gallons per acre to be sprayed).
- 3. What pressure (p.s.i.) will be used.
- 4. Speed traveled (mph) while spraying.
- \* Refer to the chemical label to determine your chemical mixture
- \* See the tip chart to determine the pressure to be used. The chart will also show the speed used when spraying.
- \* Start the pump and open the valve to the boom nozzles.
- \* Check the spray pattern. Usually you can see the coverage better on a solid concrete surface, such as a driveway.

#### **Spraying Solutions Other Than Water**

Since all the tabulations are based on spraying water, which weighs 8.34 lbs. per USA gallon, conversion factors must be used when spraying solutions which are heavier or lighter than water. To determine the proper size nozzle for the solution to be sprayed, first multiply the desired GPM or GPA of solution by the rate conversion factor. Then use the new converted GPM or GPA rate to select the proper size nozzle.

Example: Desired application rate is 20 GPA of 28% Nitrogen.
Determine the correct nozzle size as follows:
GPA (Solution) x Conversion Factor = GPA
20 GPA (28%) x 1.13 + 22.6 GPA (Water)
The applicator should choose a nozzle size that will supply 22.6 GPA of water at the desired pressure.

Miscellaneous Conversion Factors10.66 lbsOne Acre = 43,560 square feet = 0.405 Hectare(28% NitOne Hectare = 2.471 Acres11.0 lbs.One Gallon Per Acre = 9.35 Liters Per Hectare12.0 lbs.One Mile = 5,280 Feet = 1,610 Meters = 1.61 Kilometers14.0 lbs.One Gallon = 128 Fluid Ounces = 8 Pints = 4 Quarts = 3.79 Liters =0.83 Imperial GallonsOne Pound Per Square Inch = 0.069 bar. = 6.895 Kilopascals0.83 Imperial GallonsOne Mile Per Hour = 1.609 Kilometers Per Hour0.83 Imperial Gallons

| Weight of Solution                      | Specific<br>Gravity | Conversion<br>Factors |
|-----------------------------------------|---------------------|-----------------------|
| 7.0 lbs. per gallon                     | .84                 | .92                   |
| 8.0 lbs. per gallon                     | .96                 | .98                   |
| 8.345 lbs. per gallon<br>(Water)        | 1.00                | 1.00                  |
| 9.0 lbs. per gallon                     | 1.08                | 1.04                  |
| 10.0 lbs. per gallon                    | 1.20                | 1.10                  |
| 10.66 lbs. per gallon<br>(28% Nitrogen) | 1.28                | 1.13                  |
| 11.0 lbs. per gallon                    | 1.32                | 1.15                  |
| 12.0 lbs. per gallon                    | 1.44                | 1.20                  |
| 14.0 lbs. per gallon                    | 1.68                | 1.30                  |

Higher pressure not only increases the flow rate of the nozzle, but it also influences the droplet size and the rate of orifice wear. As pressure is increased, the droplet size decreases and the rate of orifice wear is increased. The values given in the tabulation section of this owners manual indicate the most commonly used pressure ranges for the associated spray tips.

#### Tank Care & Maintenance

**Warning:** Do not use the tank as a container for fuel oils, kerosene, gasoline or any other petroleum distillate product. All polyolefins are softened and permeated by such products. In an enclosed area the vaporization of these materials from the outside surface of the tank could create a dangerous condition.

The tank should not be used as a pressure vessel nor used with chemicals or solutions having a weight of more than 12 pounds per gallon.

Store the tank in a dry dark place when not in use. Storage out of sunlight will prolong the life of the tank.

Do not drop, strike or kick the tank, especially at low temperatures. Tanks become brittle and are subject to cracking at temperatures below 20° Fahrenheit.

#### Maintenance During/After Spraying

Periodically close the suction line valve and check the strainer and clean the screen.

Proper care and maintenance will prolong the life of your sprayer.

After use, fill the sprayer tank part way with water. Start the sprayer and allow the clear water to be pumped through the plumbing system and out through the spray nozzles. Refill the tank about half full with plain water and use FIMCO Tank Neutralizer and Cleaner and repeat cleaning instructions above (If no tank cleaner is available, you may substitute dish soap for this step, about 1-2 oz. per gallon). A neutralizer/cleaner should be used to thoroughly clean the system.

Flush the entire sprayer with the neutralizing/cleaning agent, then flush out one more time with plain water.

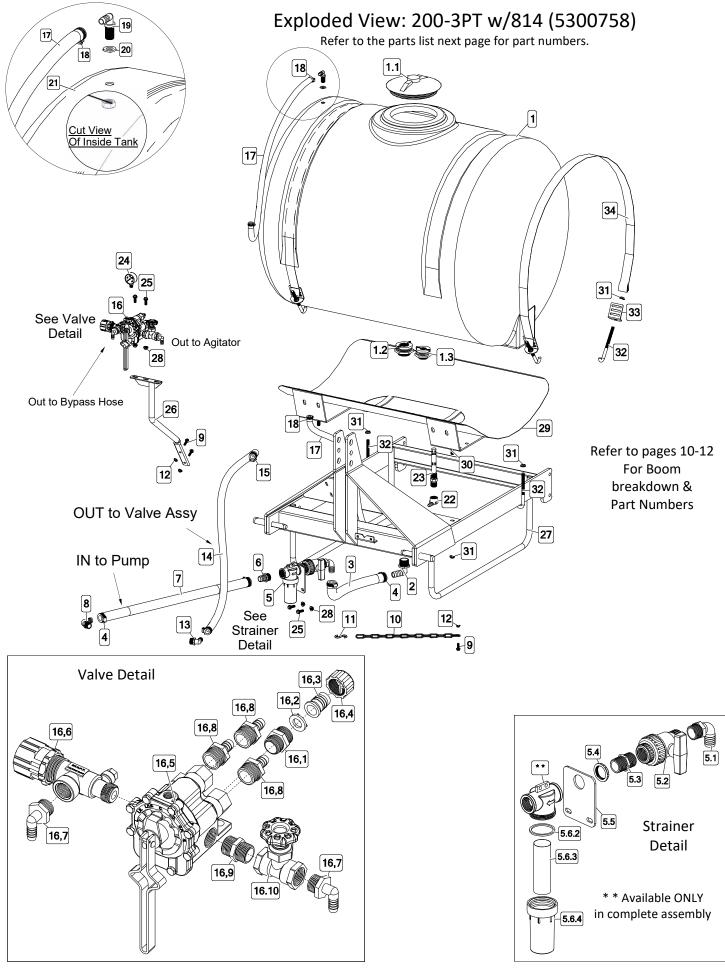
Follow the chemical manufacturer's disposal instructions of all wash or rinsing water. For the boom (if applicable) remove the tips and screens from the nozzle assemblies. Wash these items out thoroughly. Blow the orifice clean and dry. If the orifice remains clogged, clean it with a fine bristle (NOT WIRE) brush or with a toothpick. Do not damage the orifice. Water rinse and dry the tips before storing.

**WARNING:** Some chemicals will damage the pump valves if allowed to soak untreated for a length of time! ALWAYS flush the pump as instructed after each use. DO NOT allow chemicals to sit in the pump for extended times of idleness. Follow the chemical manufacturer's instructions on disposal of all waste water from the sprayer.

#### Winter Storage

Drain all water out of your sprayer, paying special attention to the pump, handgun and valve(s). These items are especially prone to damage from chemicals and freezing weather.

The sprayer should be winterized before storage by pumping a solution of automotive antifreeze (containing a rust inhibitor) through the entire plumbing system. This antifreeze solution should remain in the plumbing system during the winter months. When spring time comes and you are preparing your sprayer for the spray season, rinse the entire plumbing system out, clearing the lines of the antifreeze solution. Proper care and maintenance will prolong the life of your sprayer.

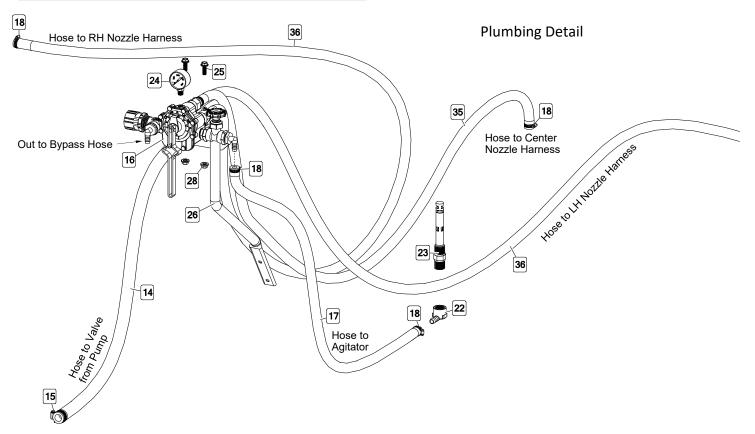


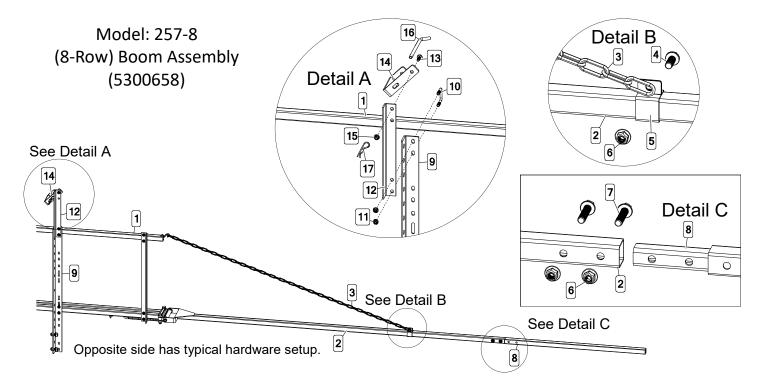
# Parts List: 200-3PT w/814 (5300758)

| Ref. # | Part #      | Description                        | Qty |
|--------|-------------|------------------------------------|-----|
| 1      | 5169004     | 200 Gallon Horizontal Tank (White) |     |
| 1.1    | 63480       | 8" Tank Lid w/Blue Snap-In Vent    |     |
| 1.2    | 5274362     | 1-1/4" Double-Threaded Bulkhead    | 1   |
| 1.3    | 5273736     | 3/4" Double-Threaded Bulkhead      | 1   |
| 2      | 5010215     | Poly Elbow, 1 1/4" MNPT x 1" HB    | 1   |
| 3      | 5020315     | Hose, 1"-2 Brd. x 24"              | 1   |
| 4      | 5051025     | Hose Clamp (1")                    | 4   |
| 5      | 5274765     | Strainer Sub-Assembly              | 1   |
| 5.1    | 5010213     | Poly Elbow, 1" MNPT x 1" HB        | 1   |
| 5.2    | 5143207     | 1" Single Union Ball Valve         | 1   |
| 5.3    | 5011141     | Poly Close Nipple, 1" MNPT         | 1   |
| 5.4    | 5006394     | 1" NPT Nylon Lock Nut              | 1   |
| 5.5    | 5038247-BLK | Strainer Bracket                   |     |
| 5.6    | 5116441     | 1" Nylon Strainer (Black, 40 Mesh) |     |
| 5.6.1  | * *         | Cap (Avail. ONLY in Comp. Assy)    |     |
| 5.6.2  | 5072229     | EPDM Gasket                        |     |
| 5.6.3  | 5116180     | Screen (40 Mesh)                   | 1   |
| 5.6.4  | 5058075     | Strainer Bowl                      | 1   |
| 6      | 5067118     | Poly Fitting, 1" MNPT x 1" HB      |     |
| 7      | 5020338     | Hose, 1"-2 Brd. x 36"              | 1   |
| 8      | 5010210     | Poly Elbow, 3/4" MNPT x 1" HB      | 1   |
| 9      | 5117300     | 5/16-18 x 1.00 FIng Hex Bolt       | 3   |
| 10     | 5049017     | Torque Chain, 24"                  | 1   |
| 11     | 5082006     | "S" Hook                           | 1   |
| 12     | 5006307     | 5/16-18 Serrated Fing Hex Nut      |     |
| 13     | 5010209     | Poly Elbow, 3/4" MNPT x 3/4" HB    |     |
| 14     | 5020179     | Hose, 3/4"-2 Brd. x 6 Ft. (72")    | 1   |
| 15     | 5051024     | Hose Clamp (3/4"                   | 2   |
| 16     | 5275136     | TeeValve Sub-Assembly              | 1   |
| 16. 1  | 5005196     | Adapter, 3/4" MNPT x 3/4" MGHT     | 1   |
| 16.2   | 5016066     | 1" Rubber Washer                   | 1   |

| Ref. # | Part #      | Description                       | Qty |
|--------|-------------|-----------------------------------|-----|
| 16.3   | 5149037     | Poly Swivel, 3/4" Flat Seat HB    |     |
| 16.4   | 5006209     | Knurled Swivel Nut, 3/4" FGHT     |     |
| 16.5   | 5143295     | TeeValve Assembly (AA-17L)        | 1   |
| 16.6   | 5143199     | Pressure Relief Valve, (3/4" NPT) | 1   |
| 16.7   | 5010207     | Poly Elbow, 3/4" MNPT x 1/2" HB   | 2   |
| 16.8   | 5067125     | Poly Fitting, 3/4" MNPT x 1/2" HB | 3   |
| 16.9   | 5011140     | Poly Close Nipple, 3/4" MNPT      | 1   |
| 16.10  | 5143123     | Valve Celcon Globe, 3/4"          | 1   |
| 17     | 5020570     | Hose, 1/2"-1 Brd. x 48"           | 2   |
| 18     | 5051114     | Hose Clamp (1/2")                 | 10  |
| 19     | 5056095     | Elbow, 11/16" U.N.F. x 1/2" HB    | 1   |
| 20     | 5016066     | 1" Rubber Washer                  | 1   |
| 21     | 5006212     | Poly Nut (11/16" Nozzle Thread)   | 1   |
| 22     | 5010220     | Poly Elbow, 3/4" FNPT x 1/2" HB   | 1   |
| 23     | 5014011     | Delta Jet Agitator                | 1   |
| 24     | 5167005     | Gauge, 0-400 p.s.i. (Dry)         | 1   |
| 25     | 5117307     | 3/8-16 x 1.00 Fing Hex Bolt       |     |
| 26     | 5272499-BLK | Valve Mount Weldment              |     |
| 27     | 5273798-RED | 3-Point Carrier (BB-32)           | 1   |
| 28     | 5006259     | 3/8-16 Serrated Fing Hex Nut      | 4   |
| 29     | 5273926-BLK | Saddle Weldment (38-200)          | 1   |
| 30     | 5034019     | 1/2-13 x 1.25 Hex Bolt            | 2   |
| 31     | 5006337     | 1/2-13 Serrated Fing Hex Nut      | 8   |
| 32     | 5034111     | 1/2-13 x 6.00 Hook Bolt           | 6   |
| 33     | 5108041-BLK | Tank Strap Buckle, Bent           | 4   |
| 34     | 5133103     | Nylon Strap (2" x 96")            | 2   |
| 35     | 5020167     | Hose, 1/2"-1 Brd. x 90"           | 1   |
| 36     | 5020571     | Hose, 1/2"-1 Brd x 11'            | 2   |
| 37     | 5300658     | 8-Row Boom Assembly (257-8)       | 1   |

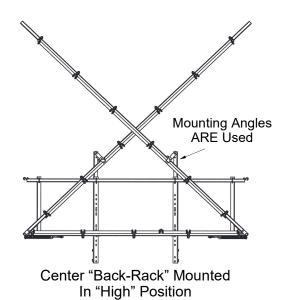
\* \*: Available ONLY in complete assembly

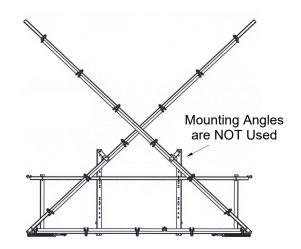




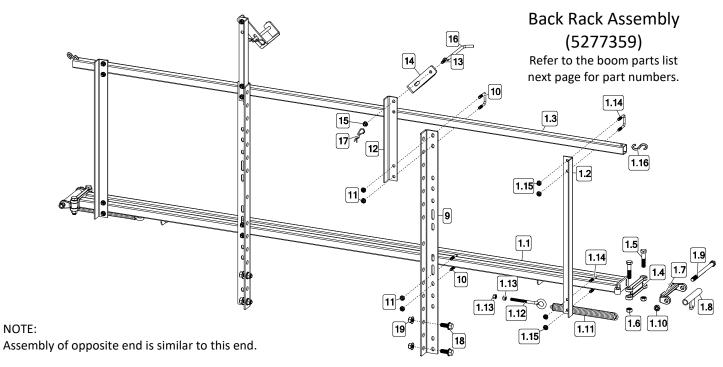
| Ref. # | Part #      | Description                             | Qty |
|--------|-------------|-----------------------------------------|-----|
| 1      | 5277359     | 257 Boom Center Section Assembly        |     |
| 1.1    | 5281559-BLK | Center Boom Weldment                    | 1   |
| 1.2    | 5022256-BLK | End Angle (257 Boom)                    | 2   |
| 1.3    | 5009635-BLK | Top Bar Tube (257 Boom)                 | 1   |
| 1.4    | 5080012-BLK | Inner Hinge Section                     | 2   |
| 1.5    | 5034308     | H.H.C.S., 1/2"-13 x 2 1/4"              | 4   |
| 1.6    | 5006091     | 1/2"-13 Top-Lock Hex Nut                | 4   |
| 1.7    | 5080011-BLK | Outer Hinge Section                     | 2   |
| 1.8    | 5271580-BLK | Spring Connector Weldment               | 2   |
| 1.9    | 5034074     | H.H.C.S., 1/2"-13 x 7"                  | 2   |
| 1.10   | 5006142     | Hex Jam Locknut, 5/16"                  | 2   |
| 1.11   | 5019097     | Hinge Spring                            | 2   |
| 1.12   | 5034107     | 3/8"-16 x 4" Eye Bolt                   | 2   |
| 1.13   | 5006054     | 3/8"-16 Hex Nut                         | 4   |
| 1.14   | 5034159     | 5/16"-18 x 1.3125 x 1.875 Square U-Bolt | 4   |
| 1.15   | 5006307     | 5/16"-18 Serrated Fing Hex Nut          | 8   |
| 1.16   | 5082006     | "S" Hook                                | 2   |
| 2      | 5273313-BLK | End Boom Weldment                       | 2   |
| 3      | 5049018     | Boom Chain (7 Ft.)                      | 2   |
| 4      | 5117307     | 3/8-16 x 1" FIng Hex Bolt               | 2   |

| Ref. # | Part #      | Description                                 | Qty |
|--------|-------------|---------------------------------------------|-----|
| 5      | 5051085-BLK | Slide Clamp                                 |     |
| 6      | 5006345     | 3/8"-16 Fing Top-Lock Hex Nut               | 6   |
| 7      | 5034664     | 3/8"-16 x 1.75" Fing Hex Bolt (Full Thread) | 4   |
| 8      | 5275736-BLK | Boom Extension Weldment (8-Row)             | 2   |
| 9      | 5022255-BLK | Boom Upright Angle                          | 2   |
| 10     | 5034159     | 5/16"-18 x 1.3125 x 1.875 Square U-Bolt     | 4   |
| 11     | 5006307     | 5/16"-18 Serrated Fing Hex Nut              | 8   |
| 12     | 5022238-BLK | Mounting Angle                              | 2   |
| 13     | 5117300     | 5/16-18 x 1" FIng Hex Bolt                  | 2   |
| 14     | 5038317-BLK | U-Bracket                                   | 2   |
| 15     | 5006389     | 5/16"-18 Fing Top-Lock Hex Nut              | 2   |
| 16     | 5101231     | Bent Hitch Pin, 3/8" x 7 3/4"               | 2   |
| 17     | 5101065     | Hair Pin, #211 x 2.50                       | 2   |
| 18     | 5034691     | 1/2"-13 x 1 1/4" FIng Hex Bolt              | 4   |
| 19     | 5006365     | 1/2"-13 Fing Top-Lock Hex Nut               | 4   |
| 20     | 5277894     | 257-8 Nozzle Harness                        | 1   |
| 20.1   | 5277761     | 257 Center Nozzle Harness                   | 1   |
| 20.2   | 5277806     | Wing Nozzle Harness (257-8)                 | 2   |
| 20.3   | 5272165     | Vari-Quick Clamp (1 1/4" Sq. Tube)          | 17  |





Center "Back-Rack" Mounted In "Low" Position

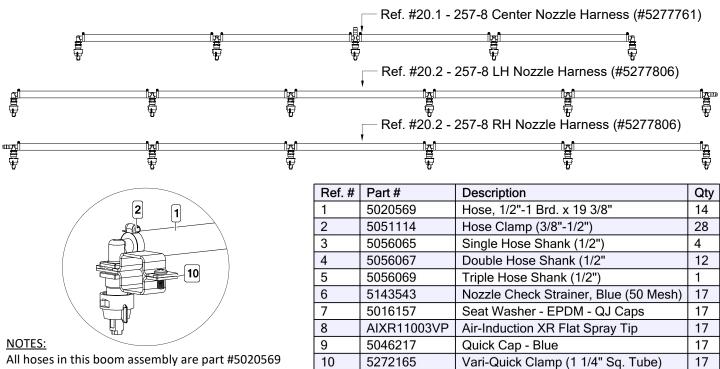


Bolt (Ref. #1.9) goes through the yoke on the outer boom(s), then through Ref. # 1.7 and 1.8, followed with jam locknut (Ref. # 1.10).

NOTE:

For the eyebolt, thread the first nut (Ref. # 1.13) onto the eyebolt, then feed it through the hole in the angle under the lower center section. Use the next nut for adjusting and the first nut for locking the eyebolt into position.

### 257-8 (STD) Harness Parts List



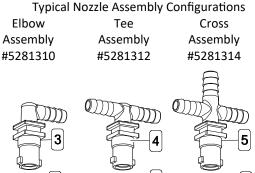
(Ref. # 1)

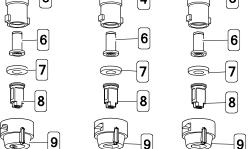
All hose clamps (2 per hose) are #5051114 (Ref. # 10)

The AIXR TeeJet Flat Spray Tip offers the benefits of obtaining excellent drift resistance without compromising spray coverage. Tips producing very coarse droplets do minimize drift but do not provide the same surface coverage as tips that produce smaller droplets. In some applications, inadequate coverage decreases the effectiveness of the applied chemicals.

**AIXR Features and Benefits** 

- 110° wide, tapered flat spray angle with air induction technology for better drift management.
- Made of 2-piece UHMWPE polymer construction which provides excellent chemical resistance, including acids, as well as exceptional wear life.
- Compact size to prevent tip damage.
- Removable pre-orifice.
- Excellent for systemic products and drift management.





Nozzle Assemblies consist of "Elbow", "Tee" & "Cross" style nozzles.

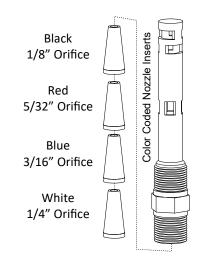
Assemblies include: Nozzle Body, Strainer, Seat Washer, AIXR11003VP Nozzles & Nozzle Cap



Operation As solution is forced through the agitator, the venturi action triples the flow through the agitator.

The valve in the line may shut off the agitation completely when not needed or it can throttle the amount of solution going to the agitator if too much agitation occurs.

| Orifice<br>Color | Orifice | P.S.I. | Inlet Flow<br>(G.P.M.) | Outlet Flow<br>(G.P.M.) |
|------------------|---------|--------|------------------------|-------------------------|
| Black            | 1/8"    | 30     | 2.9                    | 9.5                     |
| Red              | 5/32"   | 30     | 4.1                    | 13.2                    |
| Blue             | 3/16"   | 30     | 5.3                    | 15.4                    |
| White            | 1/4"    | 30     | 6.5                    | 19.5                    |



#### Piston Type Pressure Relief/Regulating Valves

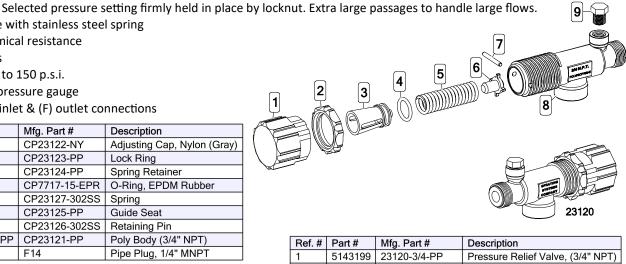
Bypasses excess fluid. Adjustable to maintain control of line pressure at any pressure within the valve operating range.

- Polypropylene with stainless steel spring
- Excellent chemical resistance
- EPDM O-Rings
- Fore pressure to 150 p.s.i.
- 1/4" port for pressure gauge
- 3/4" NPT (M) inlet & (F) outlet connections

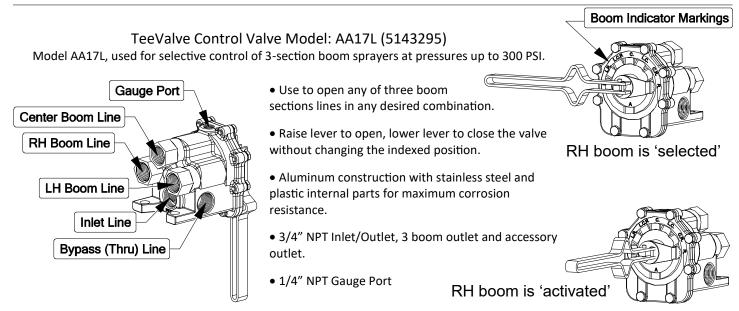
| Ref. # | Part #     | Mfg. Part #   | Description                 |
|--------|------------|---------------|-----------------------------|
| 1      | 5046270    | CP23122-NY    | Adjusting Cap, Nylon (Gray) |
| 2      | 5110266    | CP23123-PP    | Lock Ring                   |
| 3      | <b>* *</b> | CP23124-PP    | Spring Retainer             |
| 4      | * *        | CP7717-15-EPR | O-Ring, EPDM Rubber         |
| 5      | * *        | CP23127-302SS | Spring                      |
| 6      | <b>* *</b> | CP23125-PP    | Guide Seat                  |
| 7      | * *        | CP23126-302SS | Retaining Pin               |
| 8      | CP23121-PP | CP23121-PP    | Poly Body (3/4" NPT)        |
| 9      | 5102022    | F14           | Pipe Plug, 1/4" MNPT        |

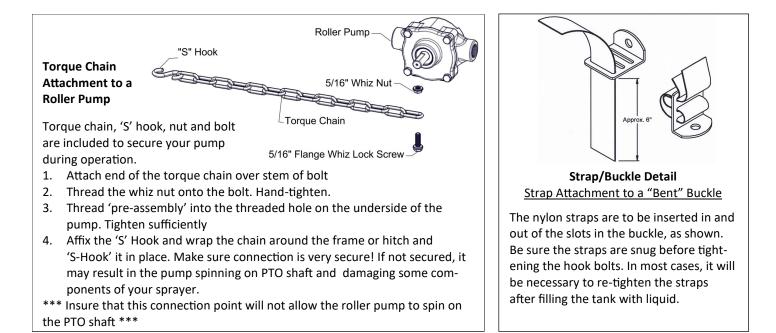
\* \* Available ONLY in Repair Kit

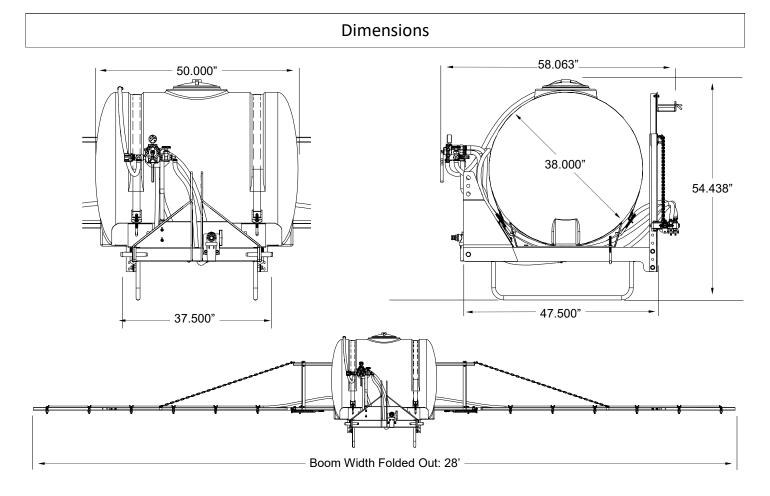
♦ ♦ ONLY Available in Complete Assembly



PK-AB23120-KIT 5168717 Repair Kit, Items Marked \* \*







| Troubleshooting                                          |                                                    |                                                                                      |
|----------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------|
| Symptom                                                  | Probable Cause(s)                                  | Corrective Action                                                                    |
| Pump Does Not Prime                                      | Leak in suction line                               | Check hose and fittings for leaks and correct                                        |
|                                                          | Obstruction in suction line                        | Inspect hose for debris or loose inner liner in hose                                 |
|                                                          | Suction strainer clogged                           | Clean strainer                                                                       |
|                                                          | Suction hose sucked to                             | Cut a notch or "V" in end of suction hose                                            |
|                                                          |                                                    | Pup nump with discharge base removed to clear air lock                               |
|                                                          | Air lock in pump                                   | Run pump with discharge hose removed to clear air lock                               |
|                                                          | Pump worn                                          | Replace or repair pump                                                               |
|                                                          | Rollers stuck in pump                              | Disassemble pump and inspect rollers                                                 |
|                                                          | Pump seals worn, 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 connections for leaks                                                 |
|                                                          |                                                    | Use pipe joint sealant and retighten connections                                     |
|                                                          | Relief valve setting too low<br>or weakened spring | Check relief valve and correct setting                                               |
|                                                          | Faulty Gauge                                       | Replace gauge                                                                        |
|                                                          | Pump seals leak air                                | Replace seals                                                                        |
|                                                          | Nozzle orifices worn                               | Replace nozzles                                                                      |
|                                                          | Pump worn                                          | Repair pump                                                                          |
| Erratic Pressure<br>Gauge Fluctuates<br>Excessively      | Suction line has air leak                          | Tighten all fittings and hoses between pump and tank                                 |
|                                                          | Debris in valve or gauge                           | Remove and clean parts                                                               |
|                                                          | Kinked or blocked suction hose                     | Remove suction line and clean-check tank and strainer                                |
|                                                          | Air leak in suction hose                           | Tighten all fittings - replace hose if necessary                                     |
|                                                          | Suction hose collapsed                             | Replace hose                                                                         |
|                                                          | Pump is sucking air or air has not                 | Make sure suction hose is tightly secured. Run pump with                             |
|                                                          | been evacuated from strainer                       |                                                                                      |
|                                                          |                                                    | discharge hose removed to remove air lock from pump                                  |
| Pump will not turn                                       | Corrosion (rust), scale or residue                 | Loosen endplate bolts. Squirt oil into ports to help free rotor.<br>Retighten bolts. |
|                                                          | Solid object lodged in pump.                       | Disassemble pump and remove objects                                                  |
| Pump Leaks                                               | Worn out seal                                      | Replace seal                                                                         |
| Excessive Vibration or<br>Noisy Pump                     | Loose coupler or damaged shaft                     | Inspect shaft and tighten coupler                                                    |
|                                                          | Excessive PTO or engine speed                      | Reduce PTO or engine speed                                                           |
|                                                          | Rotor or internal problem                          | Replace rotor or pump                                                                |
|                                                          | Partially clogged strainer                         | Clean strainer                                                                       |
|                                                          | Air leak in suction hose                           | Inspect suction hose - replace if necessary                                          |
| Pump Runs, but Low<br>Pressure                           | Debris in suction line                             | Clear debris                                                                         |
|                                                          | Hose kinked                                        | Straighten or replace hose if necessary                                              |
|                                                          | Worn rollers                                       | Replace rollers                                                                      |
|                                                          | Strainer clogged                                   | Clean strainer                                                                       |
| Pump Pressure Good,<br>but Low Output<br>Through Nozzles | Nozzle size may be too small or                    | Clean nozzles - replace nozzles if necessary                                         |
|                                                          | clogged                                            |                                                                                      |
|                                                          | Inlet line too small or blocked                    | Clear blockage and if necessary replace hose                                         |
|                                                          | By-pass open too much                              | Close slightly                                                                       |

## Warranty

#### LIMITED WARRANTY FOR NEW FIMCO, INC.

WHO MAY USE THIS LIMITED WARRANTY. This limited warranty (the "Limited Warranty") is provided by Fimco, Inc. to the original purchaser ("you") of the Equipment (as defined below) from Fimco, Inc. or one of Fimco, Inc.'s authorized dealers. This Limited Warranty does not apply to any subsequent owner or other transferee of the Equipment. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

WHAT THIS LIMITED WARRANTY COVERS AND FOR HOW LONG. Fimco, Ind. warrants that any new Equipment will be free from defects in material and workmanship for a period of **one (1) year** (homeowner), **90 days** (commercial user), after delivery of the Equipment to you (the "Warranty Period"). The Warranty Period is not extended if Fimco, Ind. repairs or replaces the Equipment.

WHAT IS NOT COVERED BY THIS LIMITED WARRANTY. This Limited Warranty does not apply to: (1) used Equipment; (2) any Equipment that has been altered, changed, repaired or treated since its delivery to you, other than by Fimco, Inc. or its authorized dealers; (3) damage or depreciation due to normal wear and tear; (4) defects or damage due to failure to follow Fimco, Inc.'s operator's manual, specifications or other written instructions, or improper storage, operation, maintenance, application or installation of parts; (5) defects or damage due to misuse, accident or neglect, "acts of God" or other events beyond Fimco, Inc.'s reasonable control; (6) accessories, attachments, tools or parts that were not manufactured by Fimco, Inc., whether or not sold or operated with the Equipment; or (7) rubber parts, such as tires, hoses and grommets.

HOW TO OBTAIN WARRANTY SERVICE. To obtain warranty service under this Limited Warranty, you must (1) provide written notice to Fimco, Inc. of the defect during the Warranty Period and within **thirty (30)** days after the defect becomes apparent or the repair becomes necessary, at the following address: Fimco, Inc., 1000 Fimco Lane, North Sioux City, SD 57049; and (2) make the Equipment available to Fimco, Inc. or an authorized dealer within a reasonable period of time. For more information about this Limited Warranty, please call: **800-831-0027** 

WHAT REMEDIES ARE AVAILABLE UNDER THIS LIMITED WARRANTY. If the conditions set forth above are fulfilled and the Equipment or any part thereof is found to be defective, Fimco, Inc. shall, at its own cost, and at its option, either repair or replace the defective Equipment or part. Fimco, Inc. will pay for shipping and handling fees to return the repaired or replacement Equipment or part to you.

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