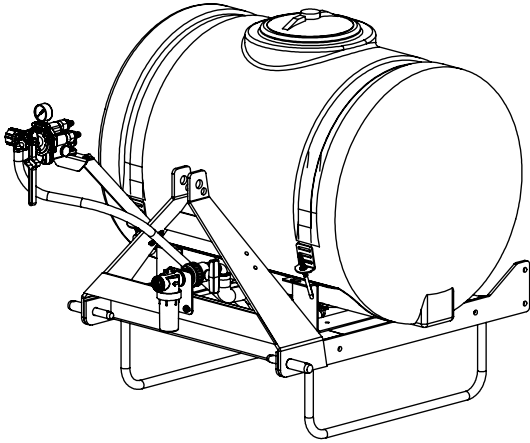


# OWNER'S MANUAL

Model: 110-3PT LESS BOOM (5300738)  
(110 gallon 3-point carrier with NO boom)



**BEFORE RETURNING THIS PRODUCT  
FOR ANY REASON, PLEASE CALL  
1-800-831-0027**

**IF YOU SHOULD HAVE A QUESTION OR  
EXPERIENCE A PROBLEM WITH YOUR  
FIMCO INDUSTRIES PRODUCT:  
1-800-831-0027**

**BEFORE YOU CALL, PLEASE HAVE THE  
FOLLOWING INFORMATION AVAILABLE:  
SALES RECEIPT & MODEL NUMBER. IN MOST  
CASES, A FIMCO INDUSTRIES EMPLOYEE CAN  
RESOLVE THE PROBLEM OVER THE PHONE.**

## 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. Please read it carefully, as it furnishes information which will help you achieve years of trouble-free operation.

## Warranty/Parts/Service

For home usage, products are warranted for one year from date of purchase against manufacturer or workmanship defects.

Commercial users have a 90 day warranty.

Your authorized dealer is the best source of replacement parts and service. To obtain prompt, efficient service, always remember to give the following information...

- Correct Part Description and/or part number.
- Model number/Serial number of your sprayer.

Part descriptions and part numbers can be obtained from the illustrated parts list section(s) of this manual.

Whenever you need parts or repair service, contact your distributor/dealer first. For warranty work, always take your original sales slip, or other evidence of purchase date, to your distributor/dealer.

## 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 (or recirculated) to the tank. The gray handle is to be tightened to increase pressure, and loosened to decrease pressure.

The 'Tee-Valve' is the on/off control which allows the operator to manually control the solution going to the boom.

## Assembly Instructions

1. Install the tee valve sub-assembly to the 3 point carrier valve mount, and position as shown in the exploded view.
2. Slip the 1/2" bypass hose (from the relief valve) over the fitting on the bottom of the tank. Slide the hose clamp to the end of the hose and secure.
3. Find the 1" x 36" pump feeder hose. Using a good quality thread sealant, carefully thread the 1" fitting into the strainer and the 3/4" fitting into the inlet side of the pump. Slip the hose all the way onto the fittings and secure with the hose clamps.
4. Attach the 3/4" hose coming off the valve assembly to the output side of the pump by threading the 3/4" fitting into the pump and securing with the hose clamp. Remember to use sealant.
5. The roller pump is NOT included with the assembly. Attach the adapter, torque chain, and S-hook to your 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 the pump from spinning.
6. Using sealant, thread the gauge into the top of the TeeValve assembly.
7. There are (3) 1/2" boom feeder hoses, for left, center, and right sections. Join the designated feeder hose from the TeeValve assembly to each boom section and secure in place with hose clamps.



[www.fimcoindustries.com](http://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

Form No. 1129 [5004713 (06/13)] Printed in the U.S.A.

## 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 shows all 3 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.

## Tip Selection

### Important note:

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

## Miscellaneous Conversion Factors

One Acre = 43,560 square feet = 0.405 Hectacre  
One Hectacre = 2.471 Acres  
One Gallon Per Acre = 9.35 Liters Per Hectacre  
One Mile = 5280 Feet = 1610 Meters = 1.61 Kilometers  
One Gallon = 128 Fluid Ounces = 8 Pints = 4 Quarts = 3.79 Liters = 0.83 Imperial Gallons  
One Pound Per Square Inch = 0.069 bar. = 6.895 Kilo-Pascals  
One Mile Per Hour = 1.609 Kilometers Per Hour

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.

Speed Chart			
Speed in M.P.H. (Miles per Hour)	Time Required in seconds to travel a distance of		
	100 Ft.	200 Ft.	300 Ft.
1.0	68 sec.	136 sec.	205 sec.
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

## Testing the Sprayer

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

Open the tank lid and be sure the tank is clean and free of foreign material. Fill the tank about 1/2 full with plain water.

### NOTE:

**It is VERY 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.**

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 your boom 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 TeeValve and check for leaks again. Pressure will increase when the pressure line valve is closed and then return to the preset 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.**

## Tank Care and 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 trailer.

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

Always flush the tank with water and a neutralizing agent (such as 'Nutra-Sol') at the end of each use, to prevent contamination of solutions.

## After Spraying

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. 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.

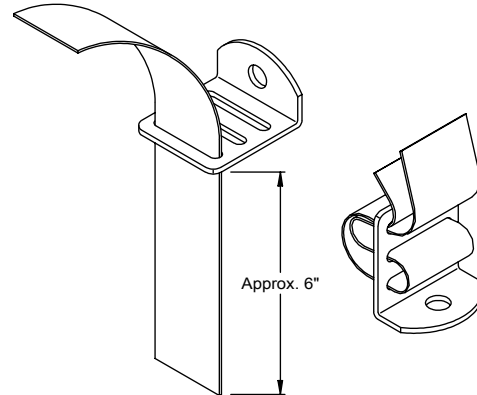
**WARNING: Some chemicals will damage the pump valves if allowed to soak untreated for a length of time! ALWAYS flush the pump as instructed after each use.**

## 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 RV antifreeze 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.

Strap/Buckle Detail  
Strap Attachment to a "Bent" Buckle

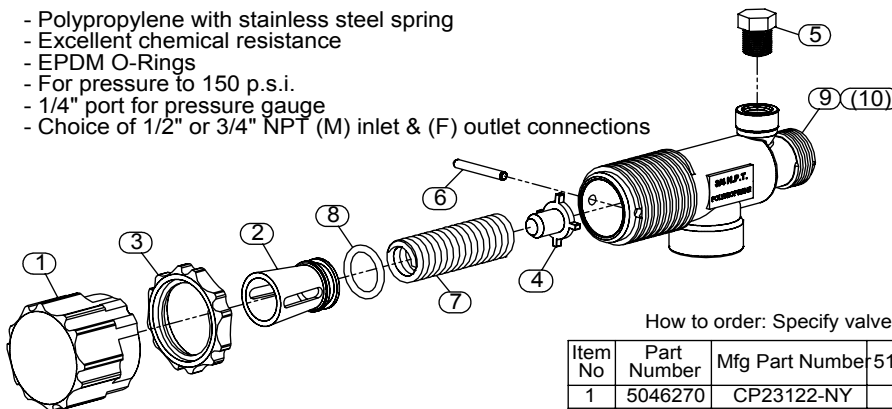


The nylon straps are to be inserted in and out of the slots in the buckle, as shown. Be sure the straps are snug before tightening the hook bolts. In most cases, it will be necessary to re-tighten the straps after filling the tank with liquid.

## PISTON TYPE PRESSURE RELIEF/REGULATING VALVES

Bypasses excess liquid. Adjustable to maintain control of line pressure at any pressure within the valve operating range. Selected pressure setting firmly held in place by locknut. Extra large passages to handle large flows.

- Polypropylene with stainless steel spring
- Excellent chemical resistance
- EPDM O-Rings
- For pressure to 150 p.s.i.
- 1/4" port for pressure gauge
- Choice of 1/2" or 3/4" NPT (M) inlet & (F) outlet connections

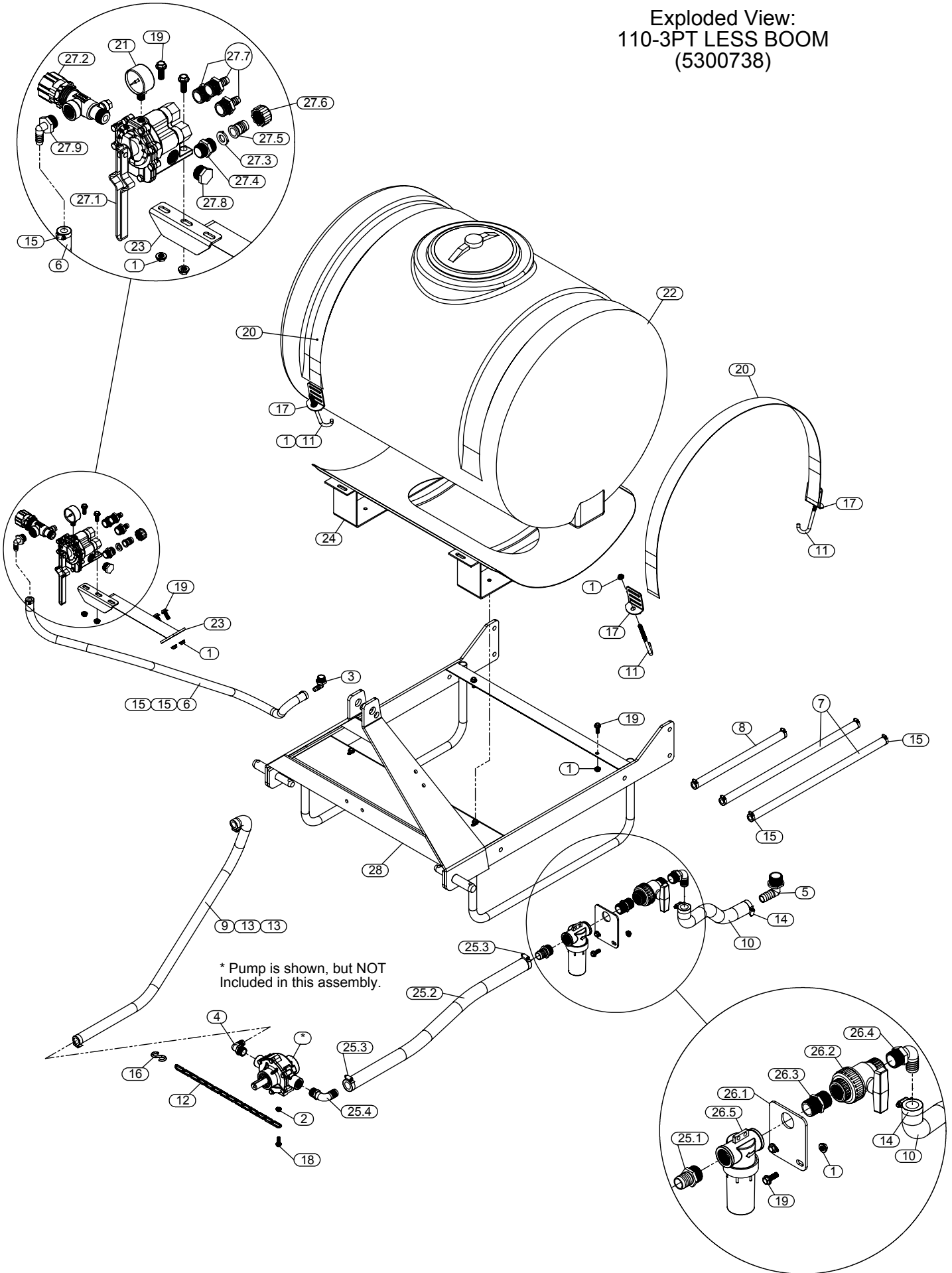


How to order: Specify valve number (Example: 23120-1/2-PP Polypropylene)

FIMCO Number	Mfg Part Number	Description
5143199	23120-3/4-PP	3/4" Poly Valve
5143200	23120-1/2-PP	1/2" Poly Valve
5168717	PK-AB23120-KIT	Repair Kit, Items Marked **

Item No	Part Number	Mfg Part Number	5143199/Qty	5143200/Qty	Description
1	5046270	CP23122-NY	1	1	Adjusting Cap, Nylon (Gray)
2	5108095	CP23124-PP	1	1	Spring Retainer
3	5110266	CP23123-PP	1	1	Lock Ring
4	5115078	CP23125-PP	1	1	Guide Seat
5	**	F14	1	1	Pipe Plug, 1/4" MNPT
6	**	CP23126-302SS	1	1	Retaining Pin
7	**	CP23127-302SS	1	1	Spring
8	**	CP7717-15-EPR	1	1	O-Ring, EPDM Rubber
9	---	CP23121-PP	1	-	Poly Body (3/4" NPT)
10	---	CP23128-PP	-	1	Poly Body (1/2" NPT)

Exploded View:  
110-3PT LESS BOOM  
(5300738)

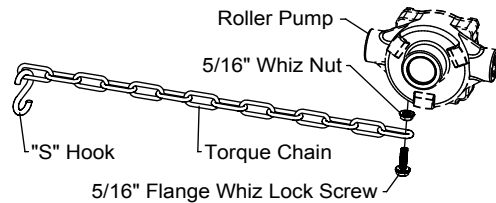


## Parts List: 110-3PT LESS BOOM (5300738)

Item No	Part Number	Qty	Description
1	5006259	14	3/8"-16 Hex Whiz (Flange) Locknut
2	5006307	1	5/16"-18 Hex Whiz (Flange) Locknut
3	5010207	1	Poly Elbow, 3/4" MNPT x 1/2" HB
4	5010209	1	Poly Elbow, 3/4" MNPT x 3/4" HB
5	5010215	1	Poly Elbow, 1 1/4" MNPT x 1" HB
6	5020122	1	Hose, 1/2"-1 Brd. x 48"
7	5020164	2	Hose, 1/2"-1 Brd. x 11 Ft.
8	5020167	1	Hose, 1/2"-1 Brd. x 90"
9	5020179	1	Hose, 3/4"-2 Brd. x 6 Ft.
10	5020315	1	Hose, 1"-2 Brd. x 24"
11	5034173	4	3/8" x 5 1/2" J-Hook Bolt
12	5049017	1	Torque Chain, 24"
13	5051024	2	Hose Clamp, 3/4"
14	5051025	2	Hose Clamp, 1"
15	5051114	8	Hose Clamp (3/8"-1/2")
16	5082006	1	"S" Hook
17	5108041	4	Tank Strap Buckle, Bent
18	5117300	1	5/16"-18 x 1" Flange Whiz Lock Screw
19	5117307	10	3/8"-16 x 1" Whiz (Flange) Lockscrew
20	5133101	2	Nylon Strap (2" x 72")
21	5167005	1	Gauge, 0-400 p.s.i. (Dry)
22	5169003	1	110 Gallon Tank (30" Dia.)
23	5271771	1	Valve Mount
24	5273904	1	Saddle Weldment (30"-110 Gallon)
25.1	5067118	1	Poly Fitting, 1" MNPT x 1" HB
25.2	5020338	1	Hose, 1"-2 Brd. x 36"
25.3	5051025	2	Hose Clamp, 1"
25.4	5010210	1	Poly Elbow, 3/4" MNPT x 1" HB
26	5274765	1	Strainer Sub-Assembly
26.1	5038247	1	Strainer Bracket
26.2	5143207	1	1" Single Union Ball Valve
26.3	5011141	1	Poly Close Nipple, 1" MNPT
26.4	5010213	1	Poly Elbow, 1" MNPT x 1" HB

Item No	Part Number	Qty	Description
26.5	5116441	1	1" Nylon Strainer (Black, 40 Mesh)
27	5274766	1	TeeValve Sub-Assembly
27.1	5143295	1	TeeValve Assembly (AA-17L)
27.2	5143199	1	Pressure Relief Valve, (3/4" NPT)
27.3	5016066	1	Garden Hose Washer
27.4	5005196	1	Poly Adapter, 3/4" MNPT x 3/4" MGHT
27.5	5149037	1	Poly Swivel, 3/4" Flat Seat Hose Barb
27.6	5006209	1	Poly Knurled Swivel Nut, 3/4" FGHT
27.7	5067125	3	Poly Fitting, 3/4" MNPT x 1/2" HB
27.8	5102071	1	Poly Pipe Plug, 3/4" MNPT
27.9	5010207	1	Poly Elbow, 3/4" MNPT x 1/2" HB
28	5275776	1	27-D (3-Point) Frame Weldment (Red)

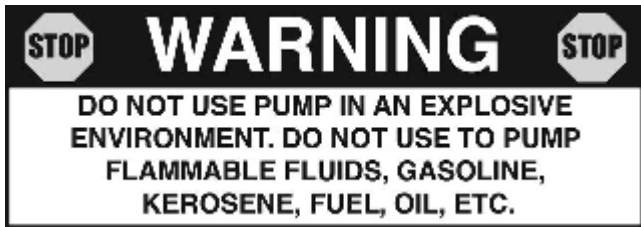
### Torque Chain Attachment to a Roller Pump



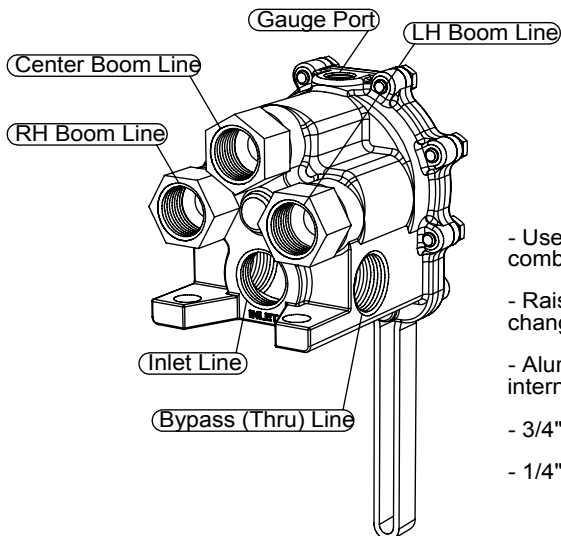
A torque chain, "S" hook, nut, and bolt are included in this assembly, to secure your pump during operation.

1. Attach one end of the torque chain over the threaded stem of the bolt.
2. Thread the whiz nut onto the bolt. Hand-tighten.
3. Thread the bolt, chain, & nut 'pre-assembly' into the threaded hole on the underside of the pump. Tighten sufficiently.
4. Affix the "S" Hook to your frame (or hitch). Wrap the chain around the frame or hitch, and 'S-Hook' it in place. Make sure this connection is very secure! Not having a good, tight connection may result in the pump spinning on your PTO shaft, and damaging some components of your sprayer.

\*\*\* Insure that this connection point will not allow the roller pump to spin on the PTO shaft \*\*\*

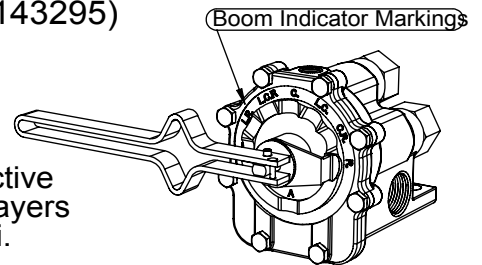


### TeeValve Control Valve Model: AA17L (Fimco Part #5143295)

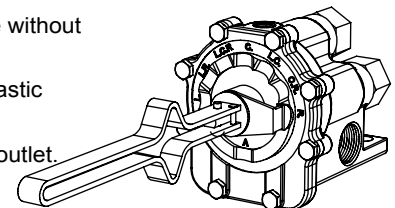


Model AA17L, used for selective control of 3-section boom sprayers at pressures up to 300 psi.

- Use to open any of three boom sections lines in any desired combination.
- Raise lever to open, lower lever to close the valve without changing the indexed position.
- Aluminum construction with stainless steel and plastic internal parts for maximum corrosion resistance.
- 3/4" NPT Inlet/Outlet, 3 boom outlet & accessory outlet.
- 1/4" NPT Gauge Port.



RH boom is 'selected'



RH boom is 'activated'