

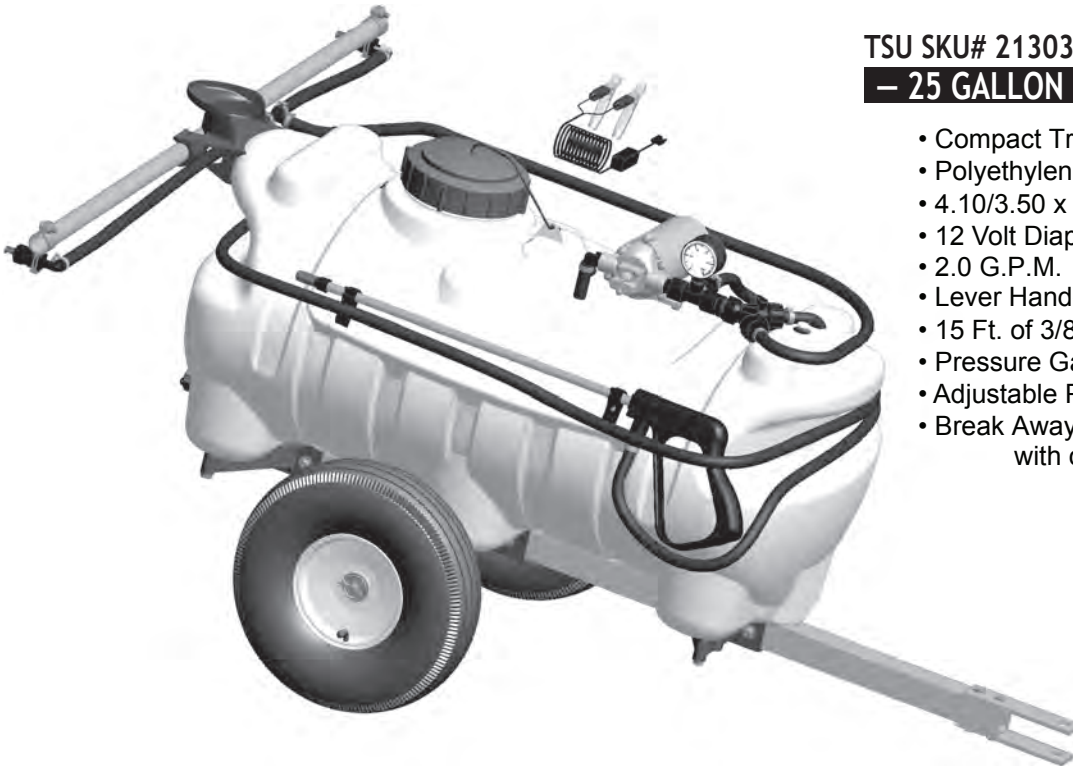


COUNTYLINE[®]

TRACTOR SUPPLY CO.[®]

Assembly / Operation Instructions / Parts

TSU SKU# 2130356 VENDOR# LG 25DTSCL
— 25 GALLON DELUXE TRAILER SPRAYER



- Compact Trailer and Tank
- Polyethylene Tank
- 4. 10/3.50 x 6 Pneumatic Tires
- 12 Volt Diaphragm Pump
- 2.0 G.P.M.
- Lever Handgun
- 15 Ft. of 3/8" Hose (Handgun)
- Pressure Gauge
- Adjustable Pressure Range (0-60 PSI Max.)
- Break Away Boom-2 nozzles, 80" Coverage with check valve and filter

— GENERAL INFORMATION

The purpose of this manual is to assist you in assembling, operating and maintaining your lawn and garden sprayer. Please read it carefully as it furnishes information which will help you achieve years of dependable trouble-free operation.

— WARRANTY / PARTS / SERVICE

Products are warranted for one year from date of purchase against manufacturer or workmanship defects.

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

1. Correct part description and part number.
2. Model number of your sprayer.

Part description and part numbers can be obtained from the illustrated parts list section 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.

— OPERATION

This sprayer is designed to be towed behind a garden tractor.

The pumping system draws solution from the tank, through the strainer and to the pump. The pump forces the solution under pressure to the boom nozzles and spray wand.

The pump has a pressure switch which will shut the pump off when it reaches 60 PSI.

Pressure may be regulated by opening or closing the bypass valve located on the top of the tank. The more it is opened, the lower the pressure will be.

The spray boom can be turned on and off using the valve on the top of the tank.

The nozzles on the boom will spray an 80 inch wide swath. Check the nozzle spray pattern by spraying water on a concrete surface.

Regularly inspect the suction supply screen on the inside of the tank. Flush with water to clear any accumulated debris.

WARNING: Some chemicals will damage the pump valves if allowed to soak untreated for a long period of time. Always flush the pump with water after use. Do not allow chemicals to sit in pump for extended times of idleness. Follow chemical manufacturers instructions on disposal of all waste water from the sprayer.

— 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 three 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).

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 carefully.**

Determining the proper speed of the tractor can be done by marking off 100, 200 and 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 tank and drive to the starting place for spraying.

When you are ready to spray, turn the boom valve to the "on" position. This will start solution spraying from the tips once the pump is turned on. The pressure will decrease slightly when the boom is spraying.

— TIP CHART

Tip No.	Spray Height	Pressure (PSI)	Capacity (GPM)	GALLONS PER ACRE - BASED ON WATER						
				1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
3	18"	10.0	0.30	44.0	22.0	14.9	11.1	08.9	05.9	4.50
		20.0	0.42	63.0	31.5	20.9	15.7	12.6	08.4	6.30
		30.0	0.52	76.0	38.0	26.0	19.3	15.4	10.3	7.70
		40.0	0.60	90.0	45.0	30.0	22.0	17.8	11.8	8.90
Tip No.	Spray Height	Pressure (PSI)	Capacity (GPM)	GALLONS PER 1000 SQ. FT. - BASED ON WATER						
				1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
3	18"	10.0	0.30	1.01	0.50	.340	.254	.204	.135	.103
		20.0	0.42	1.40	0.72	.480	.360	.290	.190	.140
		30.0	0.52	1.74	0.87	.596	.440	.350	.236	.176
		40.0	0.60	2.06	1.00	.688	.500	.408	.270	.200
Tip No.	Spray Height	Pressure (PSI)	Capacity (GPM)	GALLONS PER 100 SQ. FT. - BASED ON WATER						
				1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
3	18"	10.0	0.30	.100	.050	.034	.025	.020	.013	.010
		20.0	0.42	.140	.072	.048	.036	.029	.019	.014
		30.0	0.52	.174	.087	.059	.044	.035	.0236	.017
		40.0	0.60	.206	.100	.068	.050	.040	.027	.020

— SPEED CHART

Speed in MPH (Miles Per Hour)	Time Required in Seconds to Travel a distance of:		
	100 ft.	200 ft.	300 ft.
1.0	68.0	136	205
2.0	34.0	68	102
3.0	23.0	45	68
4.0	17.0	34	51
5.0	14.0	27	41
6.0	11.0	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

— AFTER SPRAYING

After use fill the sprayer part way with water. Start the sprayer and allow 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 a chemical neutralizer such as Nutra-Sol® or equivalent and repeat cleaning instructions. Flush the entire sprayer with the neutralizing agent. Follow the chemical manufacturer's disposal instructions of all wash or rinsing water.

Remove tips and screens from the boom. Wash tips thoroughly with water or cleaning solution (appropriate for chemical used). Blow out orifice, clean and dry. If orifice remains clogged clean it with a fine bristle (not wire) brush, or with a tooth pick. Do not damage the orifice. Water rinse and dry tips before storing.

— WINTER STORAGE

Drain all water and chemical out of sprayer, paying special attention to pump and valves. 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. Proper care and maintenance will prolong the life of the sprayer.

— ASSEMBLY INSTRUCTIONS

Tools required:

- 2 — 7/16" End Wrenches
- 1 — 1/2" End Wrench
- 1 — Pliers
- 1 — Thread Sealant

— TRAILER ASSEMBLY Instruction #1

ASSEMBLE TRAILER FRAME AS ILLUSTRATED BELOW—

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	600100	Frame Member - Axle
2	2	600101	Frame Member - Front, Back
3	2	600103	Hitch Bracket
4	2	600104	Tire/Wheel
5	6	600109	Flange Head Screw 5/16-18 UNC x 1 3/4"
6	2	600106	Hex Cap Screw 1/4-20 UNC x 2 1/4"
7	2	600107	1/4-20 UNC Nylon Lock Nut
8	2	600108	1/8" Dia. Cotter Pin
9	1	600184	Frame Tube
10	1	600132	Tank

Assembly Instructions

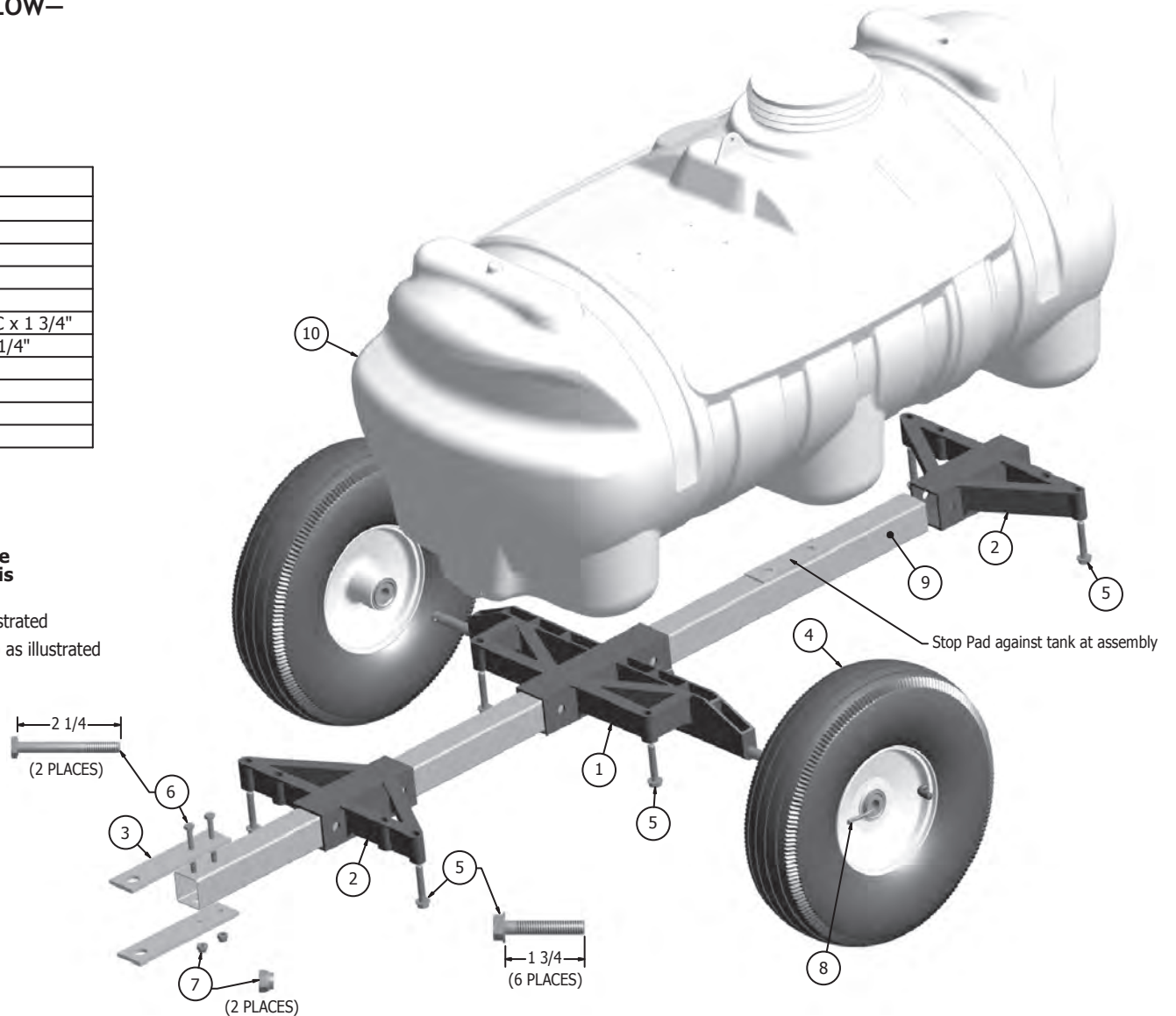
NOTE the location of the Stop Pad on the Frame Tube and the orientation of the Frame Members in this illustration as this is critical for a proper fit of the components.

- 1.0 -- Slide Frame Member—Axle (Item 1) onto Frame Tube (Item 9) as illustrated
- 1.1 -- Slide Frame Member—Front, Back (Item 2) onto Frame Tube (Item 9) as illustrated

NOTE: No fasteners are used to secure the Frame Members to the Frame Tube

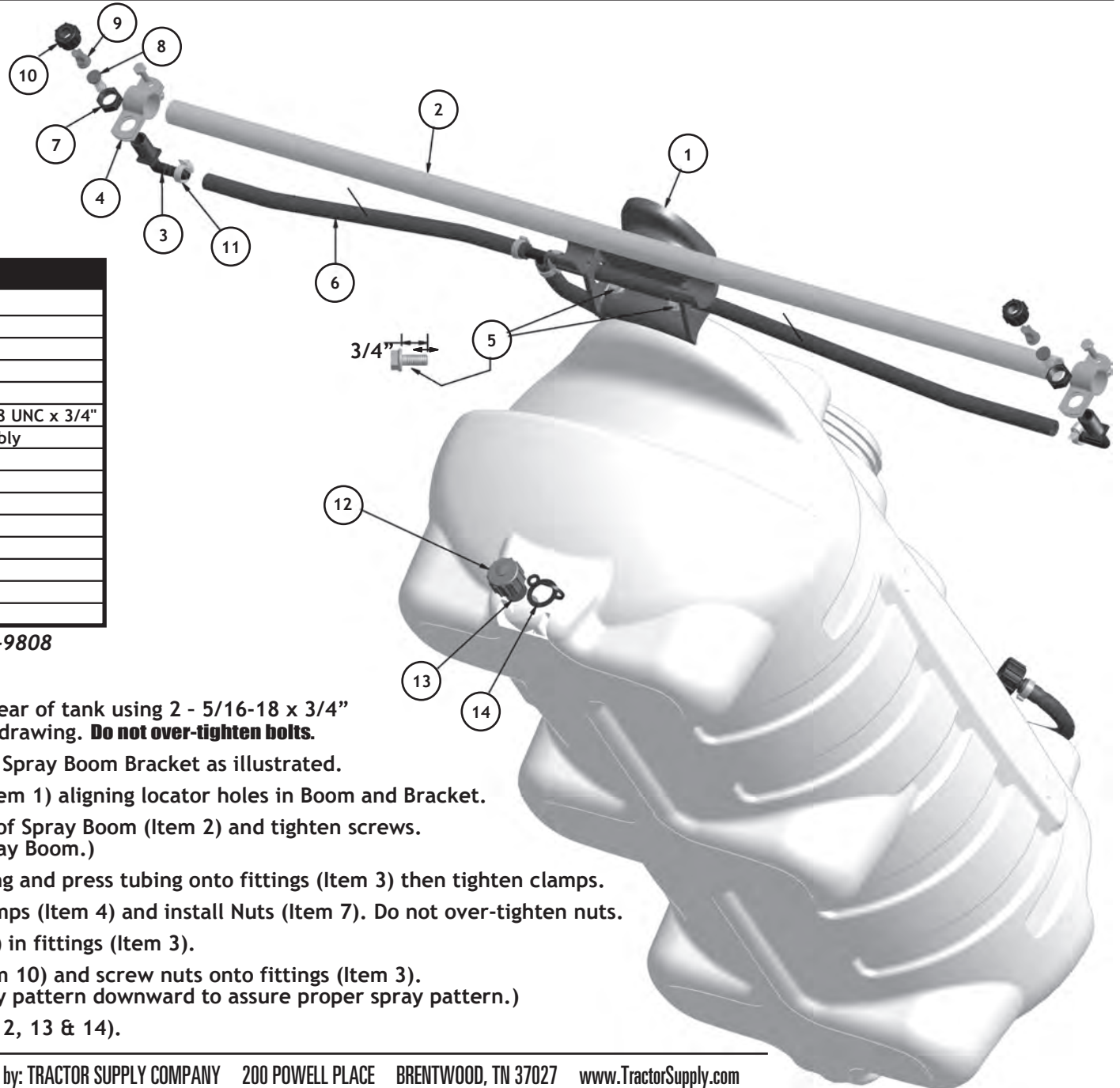
- 1.2 -- Attach the assembled Frame Members and Frame Tube to the bottom of the Tank using the hardware shown on this page
- 1.3 -- Install Tire and secure with Cotter Pin as illustrated.
- 1.4 -- Install Hitch Bracket (Item 3) as illustrated.

DO NOT OVER TIGHTEN BOLTS.



To Order Replacement Parts: 1-800-654-9808

— SPRAY BOOM ASSEMBLY Instruction #2



PARTS LIST

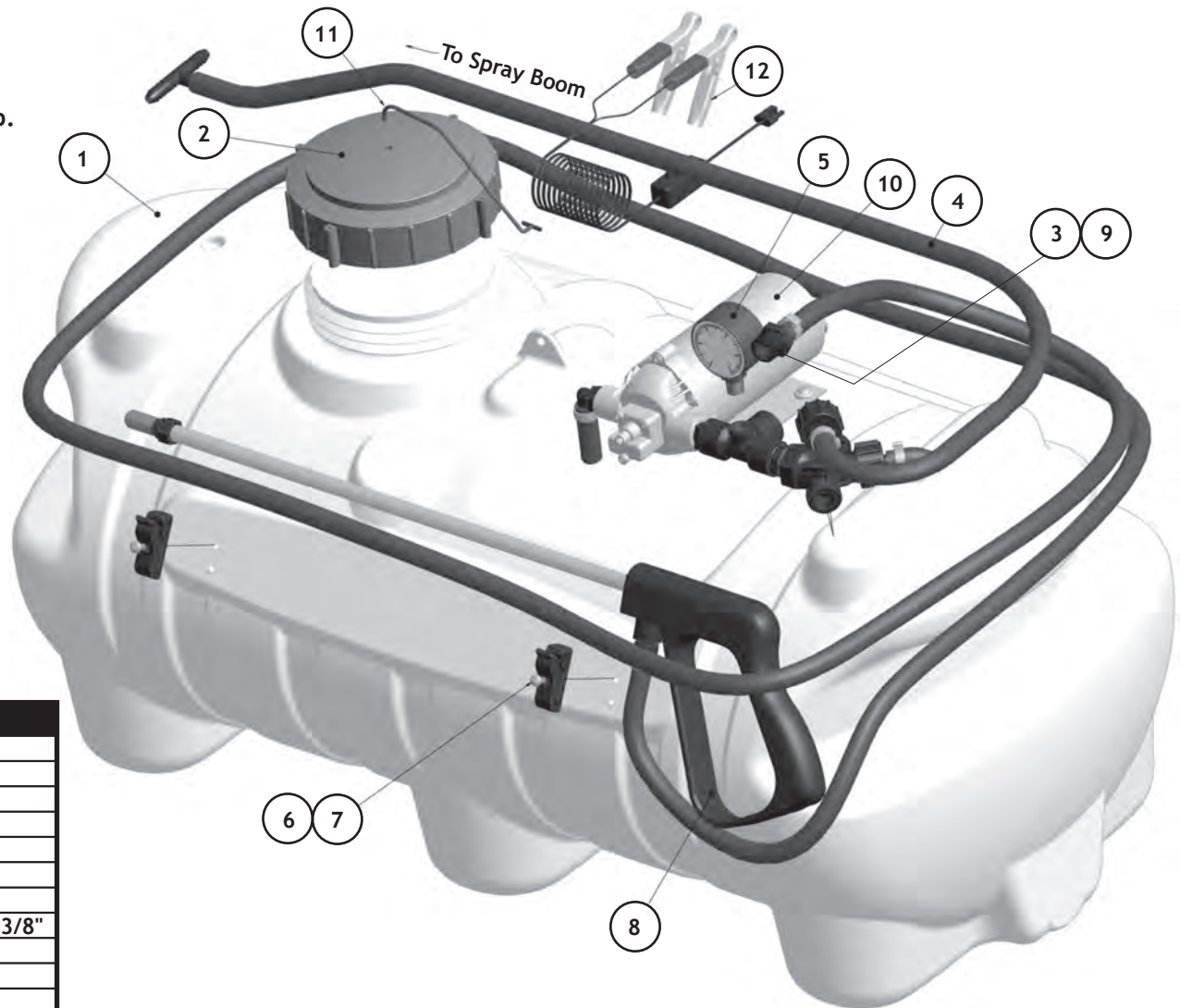
ITEM	QTY	STOCK NUMBER	DESCRIPTION
1	1	600110	Spray Boom Bracket
2	1	600111	Spray Boom
3	2	600112	NTL38 P Fitting
4	4	600113	B 11-3/4 R Boom Clamp
5	2	600114	Hex Flange Screw 5/16-18 UNC x 3/4"
6	1	600115	Boom Supply Hose Assembly
7	2	600116	N1116 P Nut
8	2	600117	Check Valve / Strainer
9	2	600118	Spray Tip
10	2	600119	8027 P Nut
11	2	600120	5/8" Hose Clamp
12	1	600136	Tank Drain Cap
13	1	600138	Tank Drain Cap Gasket
14	1	600137	Tank Drain Cap Tether

To Order Replacement Parts: 1-800-654-9808

- 2.0 Install Spray Boom Bracket (Item 1) to rear of tank using 2 - 5/16-18 x 3/4" washer head bolts as illustrated on this drawing. **Do not over-tighten bolts.**
- 2.1 Insert Boom Supply Hose Assembly thru Spray Boom Bracket as illustrated.
- 2.2 Snap Spray Boom (Item 2) in Bracket (Item 1) aligning locator holes in Boom and Bracket.
- 2.3 Install 2 Boom Clamps (Item 4) on ends of Spray Boom (Item 2) and tighten screws. (Screws should be on the top of the Spray Boom.)
- 2.4 Install Worm Clamp (Item 11) over tubing and press tubing onto fittings (Item 3) then tighten clamps.
- 2.5 Install 2 fittings (Item 3) thru Boom Clamps (Item 4) and install Nuts (Item 7). Do not over-tighten nuts.
- 2.6 Insert 2 Check Valve / Strainers (Item 8) in fittings (Item 3).
- 2.7 Insert 2 Spray Tips (Item 9) in Nuts (Item 10) and screw nuts onto fittings (Item 3). (Assure that tips are oriented with spray pattern downward to assure proper spray pattern.)
- 2.8 Install Tank Drain Cap & Tether (Items 12, 13 & 14).

— SPRAY WAND ASSEMBLY Instruction #3-6

- 3 Install Boom Hose Assembly in location shown in illustration.
- 4 Install Gauge in fitting as illustrated using a good grade thread sealant to prevent leaks.
- 5 Insert Lead Wire Assembly into plug at rear of Pump.
- 6 Join the Red wire of the two-wire cable to a +12V source on the garden tractor, such as a switch, ammeter, or the positive battery post. The Black wire (of the two-wire cable) should be grounded or connected to the negative battery post.

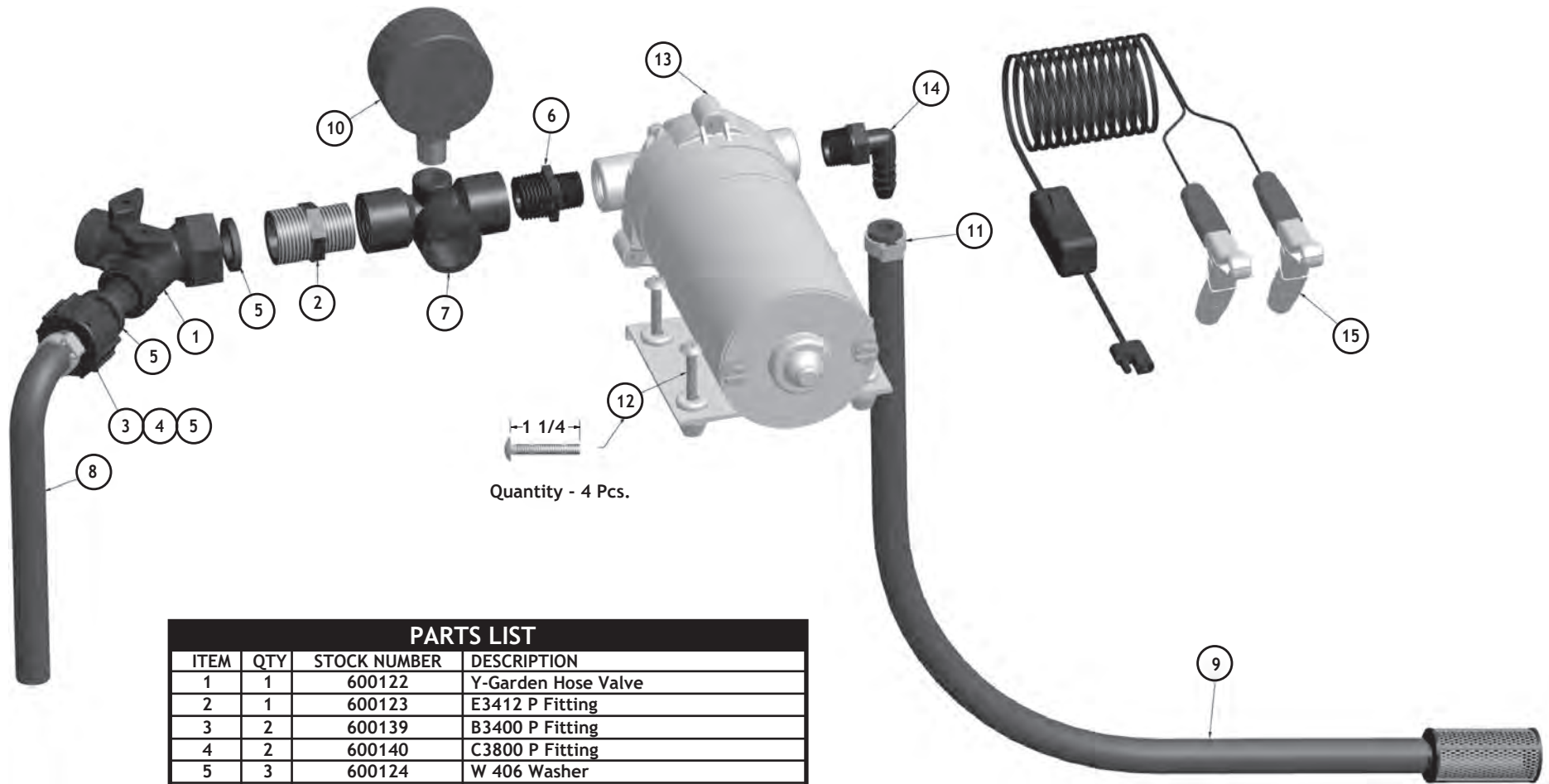


PARTS LIST

ITEM	QTY	STOCK NUMBER	DESCRIPTION
1	1	600132	Tank
2	1	600133	Tank Lid
3	1	600143	A1238 P Fitting
4	1	600115	Boom Supply Hose Assembly
5	1	600129	Gauge 0-100 PSI
6	2	600151	Spray Wand Clip
7	2	600152	Pan Head Screw 10-24 UNC x 3/8"
8	1	600156	Spray Wand & Hose Assembly
9	7	600149	18.5 mm Dia. Pinch Clamp
10	1	600183	2.0 GPM 12V Pump
11	1	600134	Tank Lid Tether
12	1	600153	Lead Wire Assembly w/ Switch (96")

To Order Replacement Parts: 1-800-654-9808

— PUMP ASSEMBLY Instruction #7



Quantity - 4 Pcs.

PARTS LIST			
ITEM	QTY	STOCK NUMBER	DESCRIPTION
1	1	600122	Y-Garden Hose Valve
2	1	600123	E3412 P Fitting
3	2	600139	B3400 P Fitting
4	2	600140	C3800 P Fitting
5	3	600124	W 406 Washer
6	1	600197	RM 12QD P Fitting
7	1	600126	TT12-14 P Gauge Port TEE Fitting
8	1	600127	Relief Hose
9	1	600128	Suction Hose
10	1	600129	Gauge 0-100 PSI
11	8	600149	18.5 mm Dia. Pinch Clamp
12	4	600130	Pan Head Machine Screw 10-24 UNC x 1 1/4"
13	1	600183	2.0 GPM 12V Pump
14	1	600185	EL QD38 P Fitting
15	1	600153	Lead Wire Assembly w/ Switch (96")

To Order Replacement Parts: 1-800-654-9808

PowerFLO™ 7800 Series

12 Volt DC Motor-Driven Diaphragm Pumps



Model: 7802: 2.0 GPM

Specifications —

Motor:

Type: 12 VDC, permanent magnet, totally enclosed, non-ventilated

Leads: 18 AWG, 12" long

Duty Cycle: See Heat Rise graph

Temperature Limits: Motor is not equipped with thermal protection. For user safety, optimal performance, and maximum motor life, the motor surface temperature should not exceed 150°F (66°C) (see Heat Rise graph above right).

Pump:

Type: 3 chamber positive displacement diaphragm pump, self priming, capable of being run dry, demand or bypass model.

Certifications: NSF Standard 58

Liquid Temperature: 140°F (60°C) Max.

Priming Capabilities: 14 feet (4 m)

Max Pressure: 60 PSI

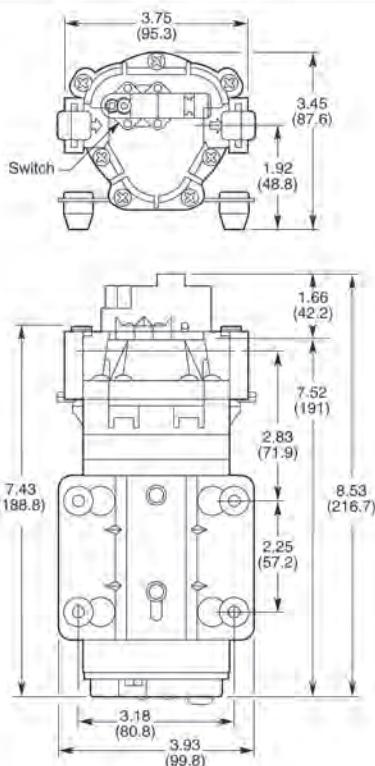
Inlet/Outlet Ports: 7802: Quick Attach

Materials of Construction:

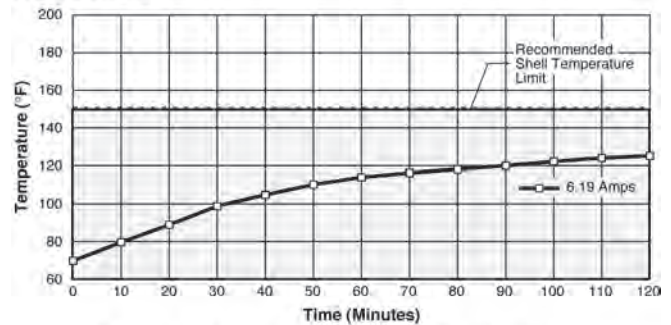
Housing: Polypropylene Diaphragm: Santoprene

Valves: Viton Fasteners: Stainless steel

Weight: 6 lbs (2.7 kg)



Heat Rise



Approximate values, actual values will vary with ambient temperature.

Installation Recommendations —

Mounting:

Determine the optimum location for your pump.

1. The pump should be mounted in a dry place and away from any source of heat. If an enclosure is used, special instructions for cooling the motor may be necessary. Consult the factory.
2. Do not subject the pump to extreme high or low (freezing) temperatures while in operation. (Operating ambient temperature range is 32° F to 115°F).
3. The pump may be mounted horizontally with the outlet port on the right when viewed from the pump end or with the pump above the mount, or vertically with the pump above or below the motor.

Plumbing:

1. Use suction hose on inlet of pump. We recommend use of flexible tubing with proper pressure rating.
2. Pump will prime only if all pressure is relieved from outlet port.
3. It is recommended that pure water be pumped or an in-line sediment filter (50 mesh) be installed at the inlet side to keep foreign debris out of the system. If a check valve is installed in the plumbing, it must have a cracking pressure of no more than 2 psi (0.14 bar).
4. Avoid any sharp bends which may crimp tubing and restrict flow. Use 90° elbow fittings if necessary.
5. The pump should always be mounted prior to any components which could introduce particles to the water; thus, preventing them from entering the pump chambers and possibly causing clogging.

Electrical:

1. The 7800 series pumps are designed for intermittent duty. Make sure that "OFF" periods are sufficient. Refer to Rapid ON/OFF Operation. Consult the factory for particular data and design criteria.
2. Be sure power supply used is adequate for the application.
3. Pump ratings are based off alternator charged battery which supplies 13.7 volts.
4. Each single drop in voltage is a reduction in motor speed thus reducing pump performance. (1 volt decrease = 200-300 loss in RPM)
5. Higher operating flow and pressure increases amp draw.

Installation and Operation Precautions —

1. The pump is equipped with a pressure sensing demand switch that controls the maximum operating pressure.
2. In addition, never subject the pump to pressures above 125 PSI (8.5 bars).
3. As long as there is inlet water pressure, the pump will not stop forward flow of water even if the motor is turned off. Be sure the system has positive means of shutting off water supply.
4. Do not operate pump in an explosive environment. Arcing from the motor brushes, switch or excessive heat from an improperly cycled motor may cause an explosion.
5. Do not locate the pump motor near low temperature plastics or combustible material. The surface temperature of the motor may exceed 250°F (120°C).
6. Do not pump gasoline or other flammable liquids. Pump head materials are designed for use with water only. Do not use with petroleum products.
7. Do not assume fluid compatibility. If the fluid is improperly matched to the pumps' elastomers, a leak may occur.
8. To prevent electrical shock, disconnect power before initiating any work. In the case of pump failure, the motor housing and/or pump fluid may carry high voltage to components normally considered safe. Therefore, always consider electrical shock hazard when working with and handling electrical equipment. If uncertain, consult an electrician. Electrical wiring should only be done by a qualified electrician per local and state electrical codes.

Servicing —

Every Year: Check system against operating standards.

Every 2-3 Years: We recommend replacing the diaphragm and checking against operating standards.

Troubleshooting Guide —

Problem/Causes and Remedies:

Pump will not Start

Check:

- Correct voltage ($\pm 10\%$) and electrical connections
- Fuse or breaker
- Pressure switch operation and correct voltage at switch
- Rectifier or motor for open or grounded circuit
- Locked drive assembly

Pump will not Prime (No discharge with motor running)

Check:

- Debris in strainer
- Restriction (kinks) in inlet/outlet tubes
- Debris or swelling in inlet/outlet valves

Pump will not Shut Off (Output line closed and no leaks)

Check:

- Air trapped in outlet line or pump head
- Correct voltage to pump
- Debris in pump inlet/outlet valves
- Loose drive assembly or pump head screws
- Pressure switch operations/adjustments

Leaks from Pump Head or Switch

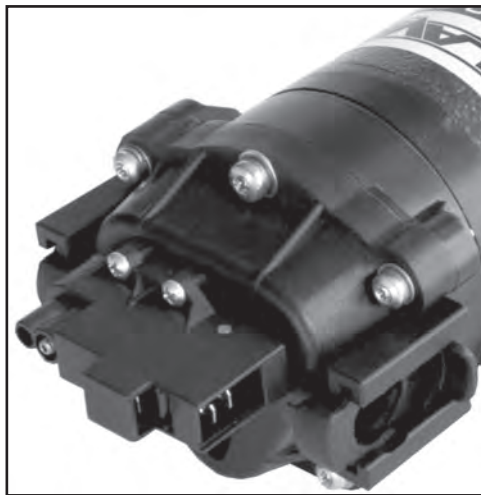
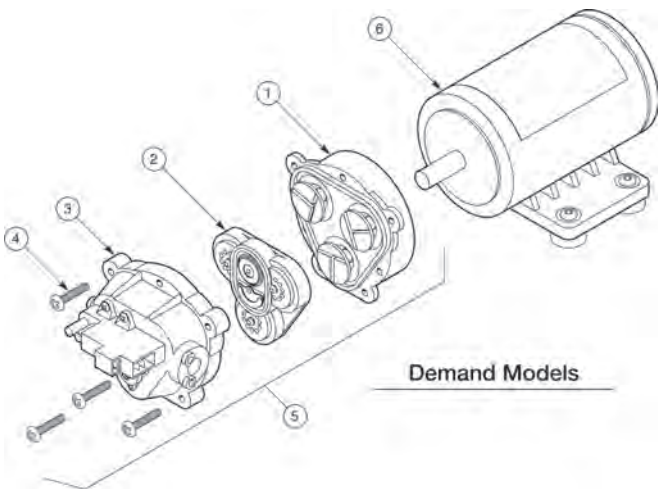
Check:

- Loose screws at switch or pump head
- Switch diaphragm ruptured or pinched
- Punctured diaphragm if fluid is present

Replacement Parts —

PowerFLO™ Model 7802

Item	Description	Part Number	Qty
1)	Lower Housing	LHA-7863-7F77	1
2)	Valve Assembly	VHA-7863-7F77	1
3)	Upper Housing	UHA-7863-7F77	1
4)	Mounting Bolts	MB-7863-1	4
5)	Complete Pump Head	PH-7801-D	1
6)	12 VDC Motor	M12-78B	1



Pressure Sensing Demand Switch —

The PowerFLO Series 7800 pump is controlled by a built-in pressure sensing demand switch. When a faucet or valve is opened down stream of the pump, line pressure drops thus starting the pump automatically. Conversely, when the valve shuts, the line pressure increases turning the pump off automatically. The pressure switch actuates in response to the pump outlet pressure at a predetermined and preset pressure. The pump label indicates the predetermined ON and OFF pressures. Typically, the OFF pressure is accurately set at the Factory and the ON pressure is within an allowable range below that value. In response to the characteristics of the system in which the pump is installed, the flexibility and length of the tubing, the faucet or valves and the duration that they are open; these pressure settings may vary. Therefore, variation in pressure setting is expected with use and over time.

Adjusting the Pressure Switch:

Should the pressure switch OFF setting vary with use and time to an unsuitable value, it may be adjusted for optimum performance. Turn the setscrew clockwise to increase the OFF pressure setting and counter clockwise to decrease. The screw should not be adjusted more than one half turn without consulting the Factory. Excessive adjustment of the pressure switch could cause low system pressure, rapid cycling ON/OFF operation, and reduced pump and motor life. Damage may occur. The Warranty does not cover improper adjustment of the pressure switch.

Standard Warranty:

Delavan warrants PowerFLO Series Pumps for a period of one year from date of manufacture.

All products sold by Delavan are warranted only to purchasers from Delavan for resale or for use in purchasers' own business or original equipment manufacture, against defects in workmanship or materials under normal use, maintenance and service (rental use excluded).

The sole and exclusive obligation of Delavan under this or any implied warranty shall be to replace or, at its option, to repair, without charge, any product which is determined by Delavan to be defective in workmanship or materials after the product is returned to the Delavan factory*, shipping costs prepaid.

In no event shall Delavan be liable to any person for indirect or consequential damages or for injury or commercial loss resulting from any use or inability to use any Delavan product.

Delavan expressly negates any other warranty, express or implied, including any warranty of merchantability or fitness for a particular purpose, or arising from any course of dealing or custom or usage of trade.

No person, including any dealer or representative of Delavan, is authorized to make any representation or warranty on behalf of Delavan in addition to or inconsistent with these provisions.

Purchasers to whom these provisions apply agree to hold Delavan harmless from claims by their customers in excess of the obligations of Delavan expressly set forth herein.

* Important return safety instructions:

When you return your pump for warranty or repair, you must always do the following:

1. Flush chemical residue from the pump (best done in the field).
2. Tag pump with type of chemicals having been sprayed.
3. Include complete description of operation problem, such as how pump was used, symptoms of malfunction, etc. Since pumps can contain residues of toxic chemicals these steps are necessary to protect all the people who handle return shipments, and to help pinpoint the reason for the breakdown.