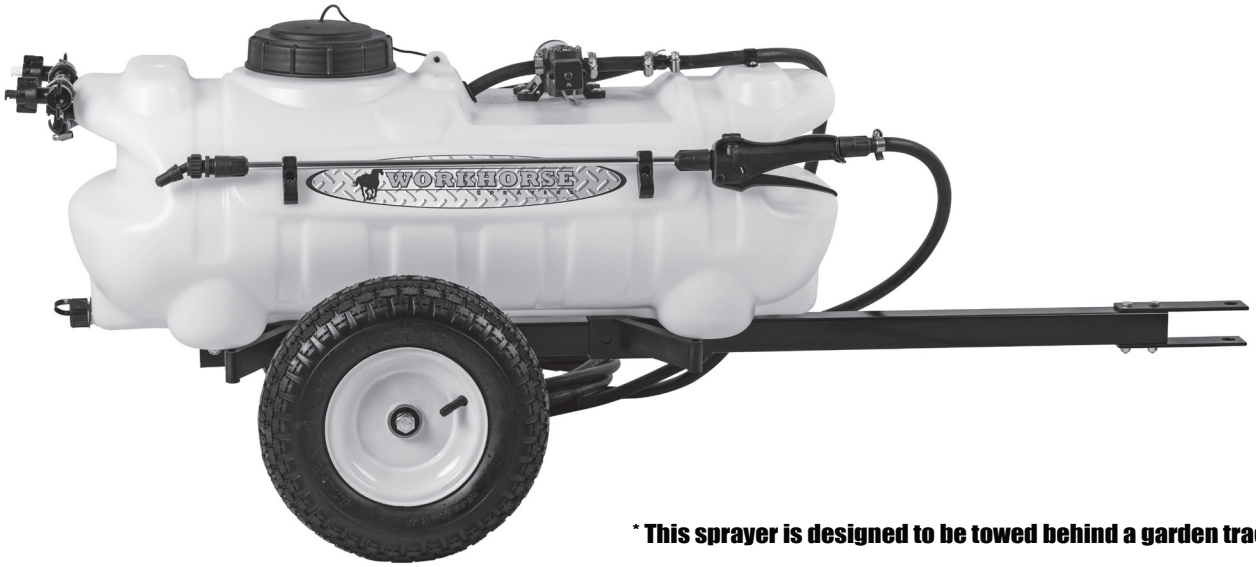
WORKHORSE
SPRAYERS
a Division of Green Leaf, Inc®

Assembly / Operation Instructions / Parts

15 GALLON TRAILER SPRAYER



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

MODEL #LG15ETS

15 GALLON TRAILER SPRAYER

- Compact Trailer and Tank
- Polyethylene Tank
- 4.10/3.50 x 6 Pneumatic Tires
- 12 Volt Diaphragm Pump
- 1.0 G.P.M.
- Lever Handgun
- 15 Ft. of 3/8" Hose (Handgun)
- 2 nozzle, 100" 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

Workhorse products are warranted for one year from the date of purchase against manufacture or workmanship defects for personal or homeowner usage with proof of purchase. Workhorse products are warranted for 90 days for commercial users. Any unauthorized modification of a Workhorse brand sprayer will void 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: 1) Correct part description and part number. 2) Model number and serial 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.

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.

— ASSEMBLY INSTRUCTIONS

Tools required:

2 — 7/16" End Wrenches
1 — 1/2" End Wrench
1 — Pliers
1 — Blade Screwdriver
1 — 3/4" End Wrench

— OPERATION

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 40 PSI.

The nozzles on the boom will spray an 100 inch wide swath. Check the nozzle spray pattern by spraying water on a con-crete surface.

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

— TIP CHARTS

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"	30.0	0.52	76.0	38.0	26.0	19.3	15.4	10.3	7.70

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"	30.0	0.52	1.74	0.87	.596	.440	.350	.236	.176

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"	30.0	0.52	.174	.087	.059	.044	.035	.0236	.017

Most chemical labels indicate a chemical application rate in 1,000 sq. ft.; if the rate on the label is indicated as a rate per acre, divide the per acre rate by 43.56 to convert to a rate per 1,000 sq. ft
1 Acre = 43,560 sq. ft.
1 gallon per 1,000 sq. ft. = 43.56 gallons per acre
1 fl. Oz. = 2 tablespoons
1 cup = 8 fl. Oz.
1 pint = 2 cups = 16 fl. Oz.
1 quart = 2 pints = 32 fl. Oz.
1 gallon = 4 quarts = 8 pints = 128 fl. oz.

— 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

— 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.

— 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.

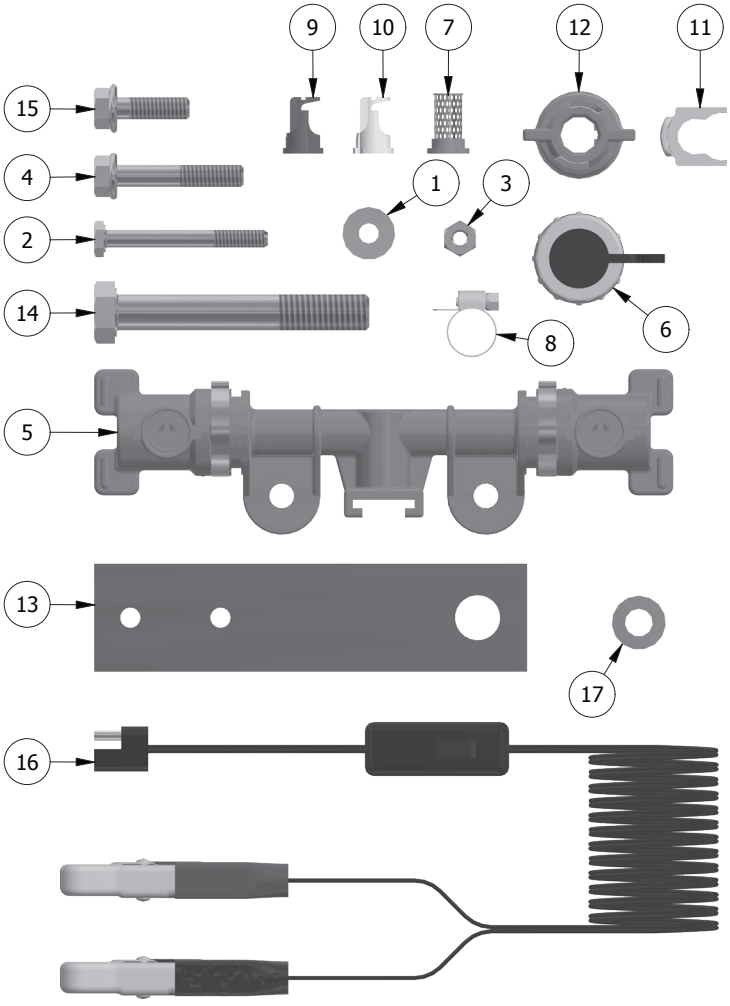
Remove tips and screens from the boom. Wash tips thoroughly with water or cleaning solution (appropriate for chemical used). Blow out orifice, clean and dry. If orifice remains clogged clean it with a fine bristle (not wire) brush, or with a tooth pick. Do not damage the orifice. Water rinse and dry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

— WINTER STORAGE

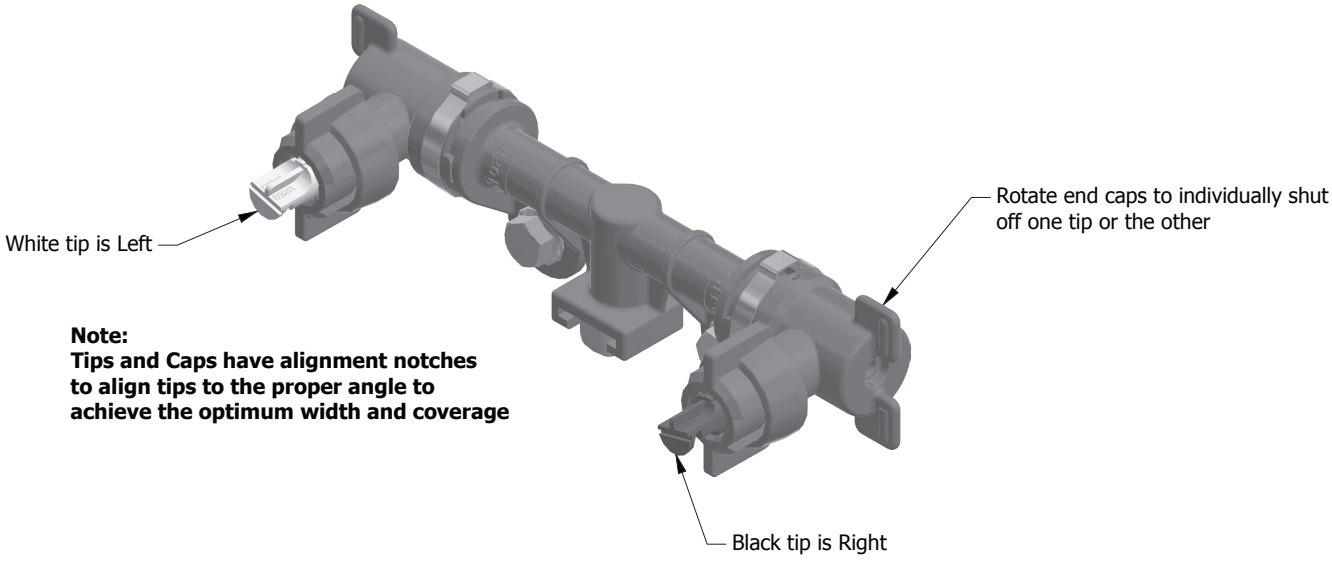
Drain all water and chemical out of sprayer, paying special attention to pump and valves. These items are especially prone to damage from chemicals and freezing weather.

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.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. www.P65Warnings.ca.gov

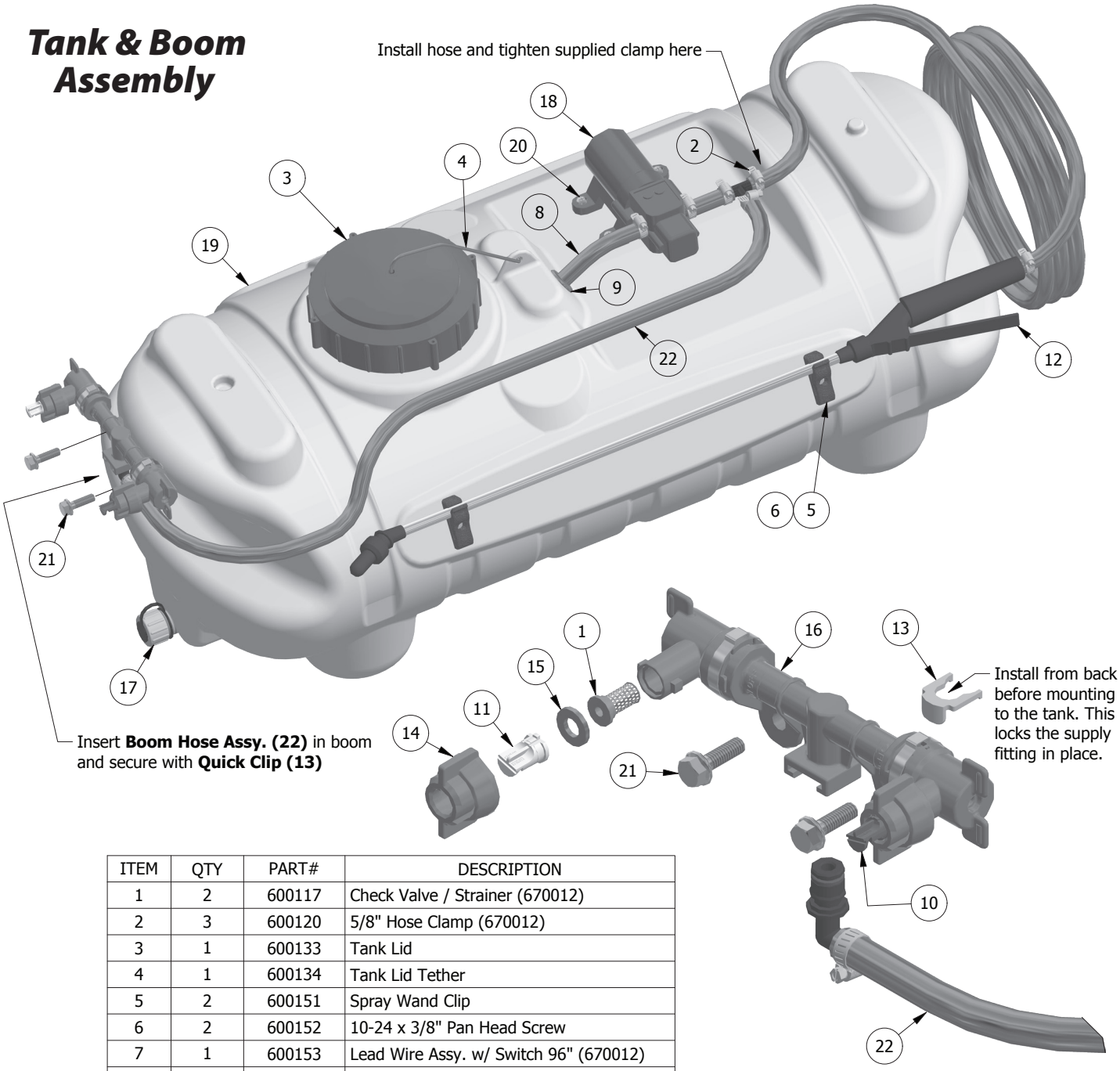


670012 Bag Assmbly			
ITEM	QTY	PART#	DESCRIPTION
1	1	600105	Washer 1/4"
2	1	600106	Hex Cap Screw 1/4-20 x 2 1/4"
3	1	600107	1/4-20 Locknut
4	1	600109	5/16-18 x 1 3/4" Flange Cap Screw
5	1	600283	Boomless Manifold Assembly
6	1	600298	Drain Cap Assembly
7	1	600117	Check Valve / Strainer
8	1	600120	3/8" Hose Clamp
9	1	600253	Boomless Nozzle Right
10	1	600254	Boomless Nozzle Left
11	1	600274	Quick Clip
12	1	600275	Bayonet Cap Self Aligning
13	1	630103	WH Hitch Bracket
14	1	600245	Hex Cap Screw 1/2-13 x 3 1/2"
15	1	640420	5/16-18 x 1" Flange Cap Screw
16	1	600300	Lead Wire Assy. (96") WH102
17	1	600276	Rubber Washer



Note:
Tips and Caps have alignment notches to align tips to the proper angle to achieve the optimum width and coverage

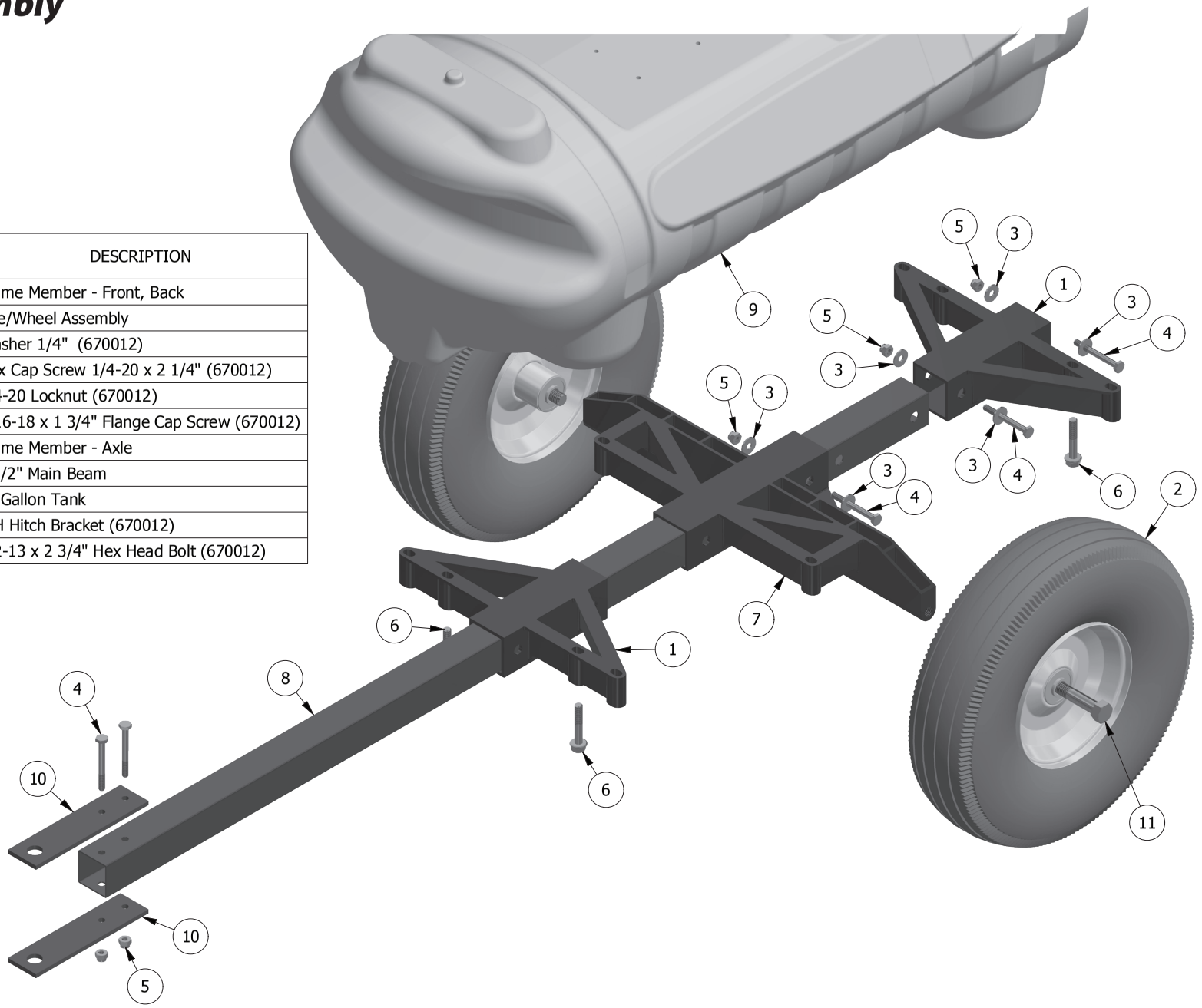
Tank & Boom Assembly



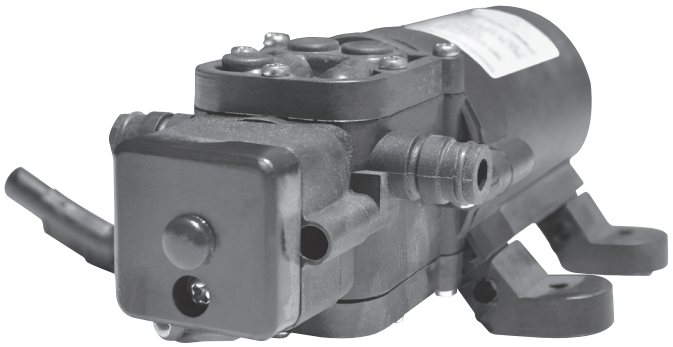
ITEM	QTY	PART#	DESCRIPTION
1	2	600117	Check Valve / Strainer (670012)
2	3	600120	5/8" Hose Clamp (670012)
3	1	600133	Tank Lid
4	1	600134	Tank Lid Tether
5	2	600151	Spray Wand Clip
6	2	600152	10-24 x 3/8" Pan Head Screw
7	1	600153	Lead Wire Assy. w/ Switch 96" (670012)
8	1	600155	3/8 Suction Strainer Hose Assy.
9	1	600207	Rubber Grommet
10	1	600253	Boomless Nozzle Right Black (670012)
11	1	600254	Boomless Nozzle Left White (670012)
12	1	600261	15' Economy Wand Hose Assy.
13	1	600274	Quick Clip (670012)
14	2	600275	Bayonet Cap Self Aligning (670012)
15	2	600276	Rubber Washer (670012)
16	1	600283	Boomless Manifold Assembly (670012)
17	1	600298	Drain Cap Assembly (670012)
18	1	640453	1.0 GPM Pump w/ Barbed Fittings
19	1	630012	15 Gallon Tank
20	4	630014	10-24 x 3/4" Truss Head Screw
21	2	640420	5/16-18 x 1" Flange Cap Screw (670012)
22	1	640433	Boom Hose Assy.

Trailer Assembly

ITEM	QTY	PART#	DESCRIPTION
1	2	600101	Frame Member - Front, Back
2	2	600104	Tire/Wheel Assembly
3	6	600105	Washer 1/4" (670012)
4	5	600106	Hex Cap Screw 1/4-20 x 2 1/4" (670012)
5	5	600107	1/4-20 Locknut (670012)
6	4	600109	5/16-18 x 1 3/4" Flange Cap Screw (670012)
7	1	600244	Frame Member - Axle
8	1	630009	1 1/2" Main Beam
9	1	630012	15 Gallon Tank
10	2	630103	WH Hitch Bracket (670012)
11	2	640418	1/2-13 x 2 3/4" Hex Head Bolt (670012)



PowerFLO™ 2200 Series



Performance

Pressure/Flow/Amp Draw

PSI	Bar	GPM	LPM	Amps
0-3	0.2	1.00	3.7	1.5
10	0.7	0.85	3.1	1.9
20	1.4	0.71	2.6	2.1
30	2.1	0.61	2.3	2.4
40	2.8	0.42	1.6	2.6

Materials of Construction

Motor Housing: Nylon 6/6
Pump Housing: Polypropylene
Valves: Viton
Diaphragm: Santoprene
Fasteners: Stainless steel and zinc plated

Specifications

Motor

Type: 12 VDC, permanent magnet, thermally protected, splashproof

Leads: 2200-2 Model: 18 AWG, 4.5" long

Duty Cycle: Intermittent

Pump

Type: 2-chamber positive displacement, self priming, capable of being run dry

Liquid Temperature: 110°F (43°C) Max.

Priming Capabilities: 4 feet (1.2 m) suction lift

Max Pressure: 40 PSI (2.8 bar)

Pressure Demand Switch:

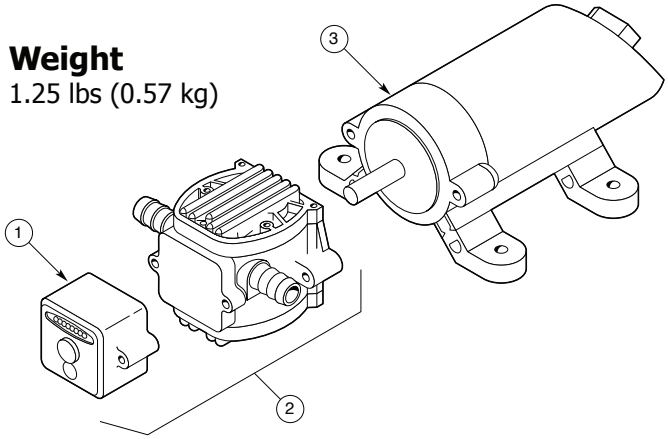
Shut-Off: 40 ±5 PSI (2.8 ±0.3 bar) factory setting

Turn-On: 25 ±5 PSI (1.7 ±0.3 bar) factory setting

Inlet/Outlet Ports: 3/8" hose barb

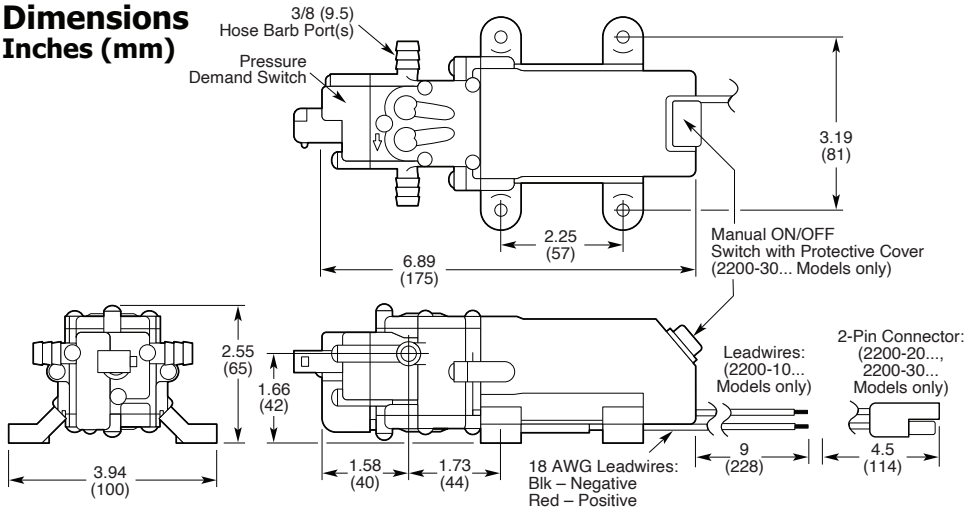
Weight

1.25 lbs (0.57 kg)



Parts List

Ref #	Description	Part Number
1	Switch Asssembly	5157201
2	Pump Head wSwitch Asssembly	5275064
3	Motor with connector, no switch	P39-045B

Dimensions

Inches (mm)