



WORKHORSE

S P R A Y E R S®

by PSE®, a Division of Green Leaf, Inc.®

Assembly / Operation Instructions / Parts

BK 002

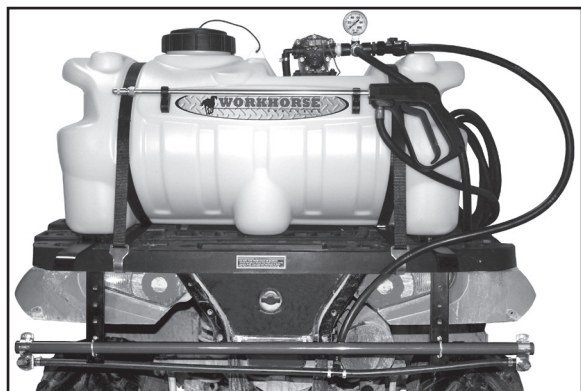
2 Nozzle Quick Attach Boom Kit for ATV Mounting



MODEL # BK 002*

DELUXE 2 NOZZLE BOOM KIT

- 2 Nozzle Boom Assembly
- Quick Attach Mounting System
- 80 inch coverage with Check Valve and Filter



* This boom kit is designed to be used with LG15DSS or LG25DSS & attached to an ATV.

— GENERAL INFORMATION

The purpose of this manual is to assist you in assembling, operating and maintaining your ATV Boom Kit. 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.

— OPERATION

Recommended to be used with a LG25DSS or similar 2.0 or greater GPM spot sprayer.

Refer to your original spot sprayer operating instructions.

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

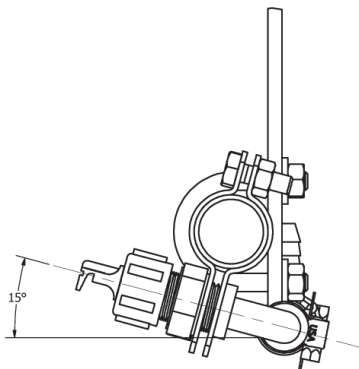
— CALIBRATION

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.**

For the best spray pattern coverage, the nozzles may be rotated rearward 15°.



To determine the ground speed of your sprayer, measure and mark driving distances of 100, 200, or 300 feet. Our speed chart indicates the number of seconds needed to travel these distances. Set your throttle, and with a rolling start, drive the measured distance of your choice. Adjust your throttle until you can match the number of driving seconds needed. Mark the throttle setting and note the gear range so you can use them while spraying.

Add water and chemicals in the proper amounts in the spray tank and drive to your starting point. When you are ready to spray, turn your boom control valve to the "ON" position. Once the pump is turned on, the unit will begin spraying. The system pressure will decrease slightly when you see solution flowing from the spray nozzles. This is normal, the pressure will return as before when you turn the control valve to the "OFF" position.

You will find optimal spraying in the 20 to 30 PSI range.

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

— 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 toothpick. 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.

— 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"	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	

Tip No.	Pressure (PSI)	Capacity (GPM)	GALLONS PER ACRE BASE ON WATER-40" SPACING			
			5 MPH 440 FPM	6 MPH 528 FPM	7 MPH 616 FPM	8 MPH 704 FPM
5	10	0.50	14.9	12.4	10.6	9.3
	20	0.71	21.0	17.6	15.1	13.2
	30	0.87	26.0	22.0	18.5	16.1
	40	1.00	30.0	25.0	21.0	18.6

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.

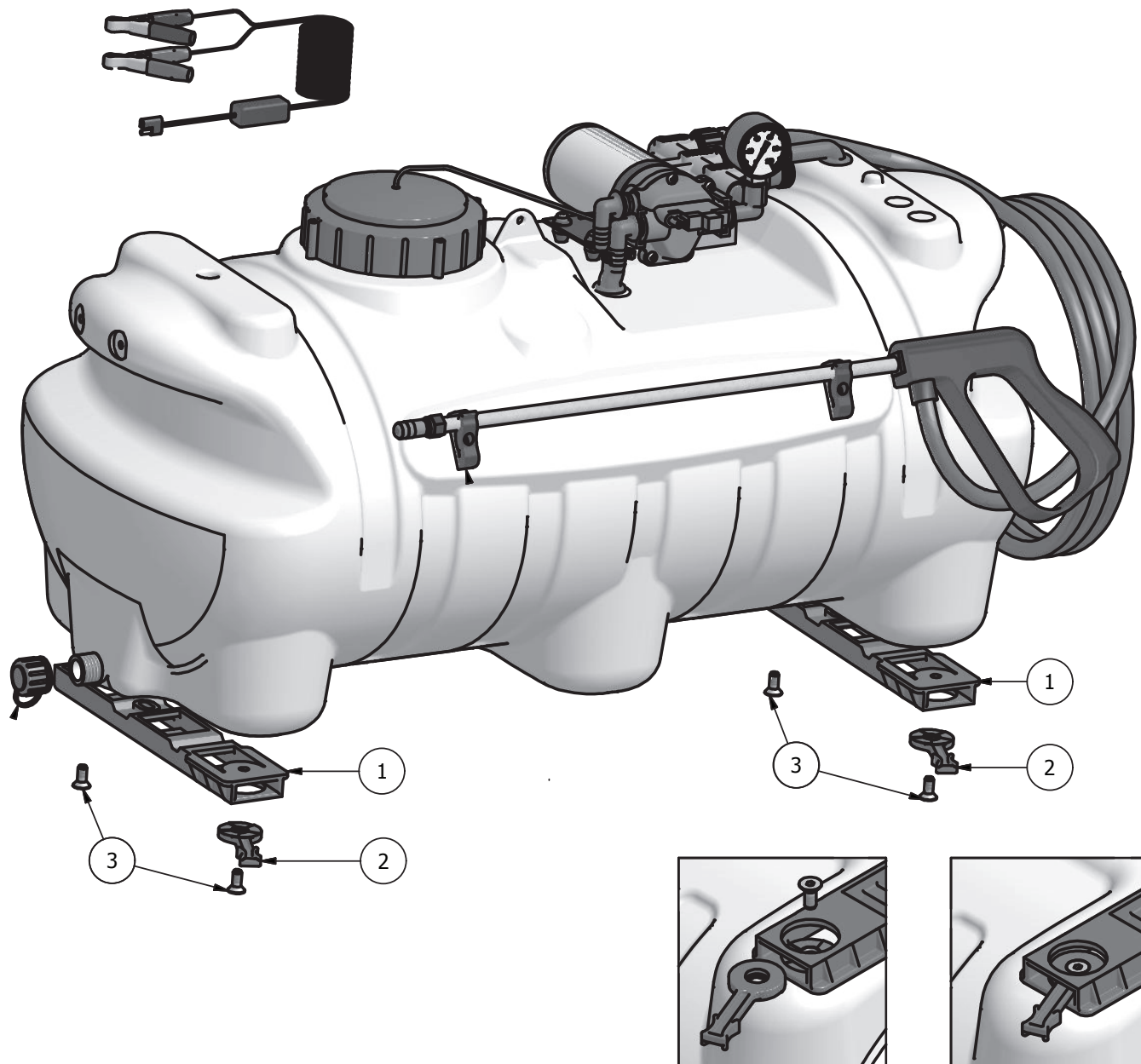
1 Acre = 43,560 sq. ft.
1 gallon per 1,000 sq. ft. = 43.56 gallons per acre
1 fl. Oz. = 2 tablespoons
1 cup = 8 fl. Oz.
1 pint = 2 cups = 16 fl. Oz.
1 quart = 2 pints = 32 fl. Oz.
1 gallon = 4 quarts = 8 pints = 128 fl. oz.

— 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

PSE
PRECISION SPRAY EQUIPMENT
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— GENERAL ASSEMBLY Instruction #1



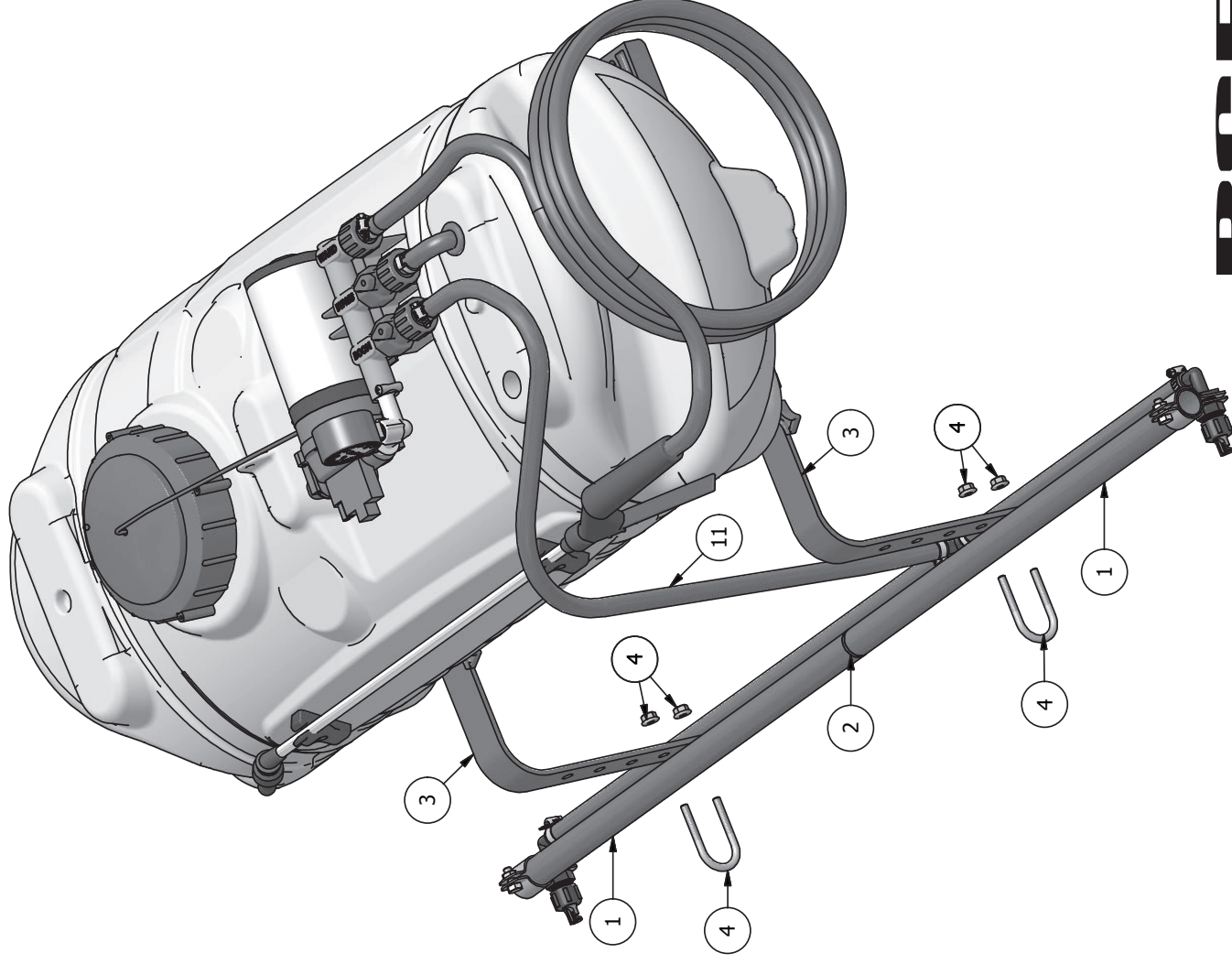
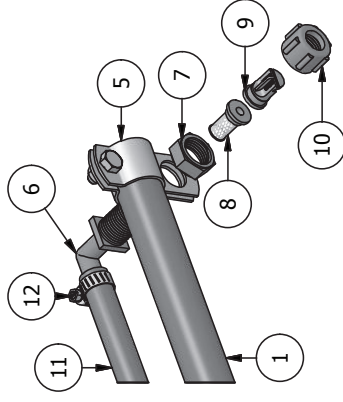
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	600189	ATV Boom Mount
2	2	600190	ATV Helix Lever
3	4	600188	5/16-18 Flat Head Screws

Assembly Instructions

- 1.0--Install ATV Boom Mounts & ATV Helix Levers in two places on bottom of tank as illustrated using 5/16" Flat Head Screws. Note the orientation of all parts as their orientation is essential for proper assembly.
- 1.1--Install Drain Cap Assembly
- 1.2--Insert Lead Wire Assembly into plug at rear of the pump.
- 1.3--Join the red wire of the two wire cable to a +12v source such as a switch, ammeter, or positive battery post. The black wire should be grounded or connected to the negative battery post

— SPRAY BOOM ASSEMBLY

- 2.0--Insert ATV Angle Brackets into ATV Mounts as Illustrated
- 2.1--Attach Spray Boom Assembly to ATV Angle Brackets using U-Bolts with nuts at desired height.
- 2.2--Install Boom Clamps onto each end of the Spray Boom Assembly and tighten screws. (screws should be on top of the Spray Boom)
- 2.3--Install Hose Clamps over each end of the Boom Hose assembly as illustrated and press hose ends onto NTL38P Fittings. Then tighten down Hose Clamps to secure the fittings to the Hose Assembly.
- 2.4--Insert the NTL38P Fittings through the the holes on the Boom Clamps that were previously installed on the Spray Boom. Secure in place with N1116 P Nuts.
- 2.5--Insert Check Valves/Strainers into the NTL38P Fittings.
- 2.6--Insert Spray Tips into 8027 P Nuts and then screw nuts onto fittings. (assume that tips are oriented downward to achieve the correct spray pattern).



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	630022	Spray Boom Assembly
2	1	600256	Boom Insert
3	2	600191	ATV Angle Bracket
4	2	600169	φ1/4" U-Bolt w/ Nuts
5	2	600113	B 11-34 R
6	2	600112	NTL38 P Fitting
7	2	600116	N1116 P Nut
8	2	600117	Check Valve / Strainer
9	2	600118	FT Spray Tip
10	2	600119	8027 P Nut
11	1	600115	Boom Hose Assembly
12	4	600120	5/8" Hose Clamp