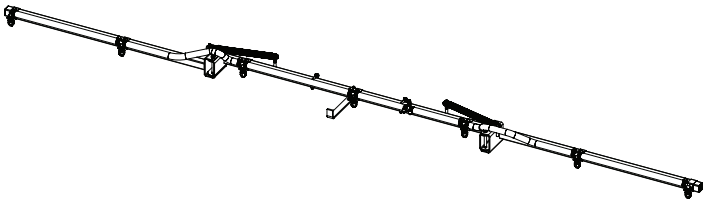
5301100
MODEL NO. FSBK-70A
7 NOZZLE BOOM ASSEMBLY
ASSEMBLY / OPERATION INSTRUCTIONS / PARTS



BEFORE RETURNING THIS PRODUCT FOR ANY REASON, PLEASE CALL

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IF YOU SHOULD HAVE A QUESTION OR EXPERIENCE A PROBLEM WITH YOUR SCHABEN INDUSTRIES PRODUCT:

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

GENERAL INFORMATION

The purpose of this manual is to assist you in operating your sprayer. Please read it carefully as it furnishes information which will help you operate and maintain your boom assembly.

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 spray boom.
3. Serial number of your boom assembly.

Part number and descriptions 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.

TECHNICAL SPECIFICATIONS

- 7 Nozzle Boom Assembly
- Break Away Outer Booms
- 140 Inches Spray Coverage

TESTING THE SPRAYER & BOOM

It is important to test the boom assembly with plain water before attempting actual spraying. This will enable you to check the sprayer for leaks in the plumbing system before adding chemical.

OPERATING THE SPRAYER

The nozzles on the boom will spray a 140" wide pattern swath, however it is necessary to overlap patterns 30% to get proper coverage. The first pass will only cover 112" wide swath, but each pass there after will provide a 140" swath of proper coverage. The proper nozzle height is 18 inches above the object being sprayed.

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 (M.P.H.) while spraying.

• Refer to the chemical label to determine the chemical mixture.
• See the tip chart to determine the pressure to be used. The chart will also show the speed used when spraying.
• If the towing vehicle does not have a speedometer, speed can be determined as per the directions.
• Open the valve to the boom nozzles.
• Check the spray pattern. Each nozzle pattern should overlap approximately 30 percent. Adjust the spray height if necessary.
• Generally the proper height will be from 17 inches to 19 inches from the top of the object being sprayed. 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.

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Calibration

The performance of any agricultural chemical depends upon the proper application of the correct amount. **Be sure that your equipment has been calibrated before spraying.**

• Chemical labels may show application rates in gallons per acre, gallons per 1000 square feet or gallon 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 spraying speed (MPH). The pressure can be set by running the sprayer with the boom nozzles "on" and then adjusting the valve until the gauge reads the dsired pressure. Notice that the pressure will go up when the boom lines are shut off. This is normal and the pressure will return as before when you open the boom lines.

RATE CHART FOR 8002 SPRAY TIP

Pressure P.S.I.	Capacity G.P.M.	Gallons Per Acre Based On Water - 20" Spacing						
		1 MPH 88 FPM	2 MPH 176 FPM	3 MPH 264 FPM	4 MPH 352 FPM	5 MPH 440 FPM	7.5 MPH 660 FPM	10 MPH 880 FPM
20	.14	41.8	20.9	14.0	10.5	8.4	5.6	4.2
30	.17	51.2	25.6	17.2	12.9	10.3	6.9	5.1
40	.20	59.2	29.6	19.8	14.9	11.9	7.9	5.9
50	.23	66.4	33.2	22.2	16.6	13.3	8.8	6.6

Pressure P.S.I.	Capacity G.P.M.	Gallons Per 1000 Sq. Ft. Based On Water - 20" Spacing						
		1 MPH 88 FPM	2 MPH 176 FPM	3 MPH 264 FPM	4 MPH 352 FPM	5 MPH 440 FPM	7.5 MPH 660 FPM	10 MPH 880 FPM
20	.14	.96	.48	.32	.24	.19	.13	.10
30	.17	1.18	.59	.39	.30	.24	.16	.12
40	.20	1.36	.68	.45	.34	.27	.18	.14
50	.23	1.52	.76	.51	.38	.31	.20	.15

Pressure P.S.I.	Capacity G.P.M.	Gallons Per 100 Sq. Ft. Based On Water - 20" Spacing						
		1 MPH 88 FPM	2 MPH 176 FPM	3 MPH 264 FPM	4 MPH 352 FPM	5 MPH 440 FPM	7.5 MPH 660 FPM	10 MPH 880 FPM
20	.14	.095	.048	.032	.024	.019	.012	.009
30	.17	.117	.059	.039	.029	.024	.015	.011
40	.20	.135	.068	.045	.034	.027	.018	.013
50	.23	.152	.076	.050	.038	.030	.020	.015

When selecting pressure from the tip chart, it is a good idea to try for the 20 or 30 PSI range as this allows an excellent nozzle pattern. 10 PSI begins to break up the pattern, and at 40 PSI, you may notice some drift.

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 carrying vehicle can be done by marking off 100, 200 and 300 ft. 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).

A stop watch would be best to use for timing the travel, but a watch with a second hand can be used. Check each distance separately. By doing this you can check yourself until the time is correct.

The following situation is a typical spraying example.

The chemical label says to apply .96 gallons of solution per 1000 square feet. Looking at the tip chart you see that you can spray .96 gallons per 1000 square fee at 20 PSI and 1 MPH. Let's say that is is a fairly still day and the ground is rough. The 20 PSI and 1 MPH will be all right for this spraying situation.

Add proper amount of water to the tank. Add chemical to the tank and drive to the starting place for spraying. When you are ready to spray, turn the ball valve to the "on" position. Start the pump and this will start solution spraying from tips.

AFTER SPRAYING

WARNING: Some chemicals will damage the pump valves if allowed to soak untreated for a length of time. Always flush the pump with water after use. Do not allow chemicals to sit in pump for extended times of idleness.

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	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	6.8	14	20

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 boom assembly.

Refill the tank about half full with plain water and use a chemical neutralizer such as NUTRA-SOL or equivalent and repeat cleaning instructions above. Flush the entire sprayer with the neutralizing agent. Follow the chemical manufacturers disposal instructions of all wash and rinsing water.

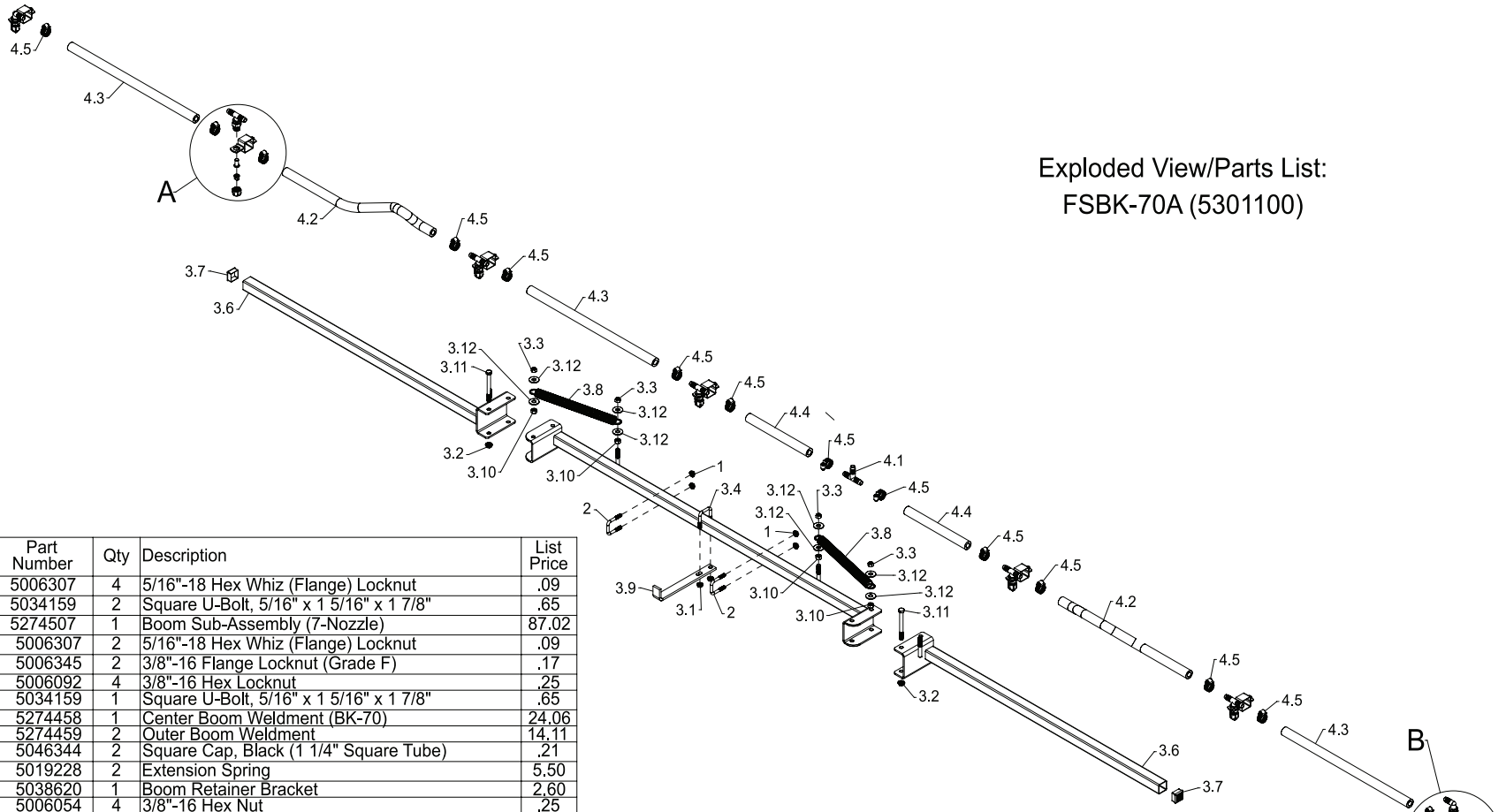
Remove tips and screens from the boom. Wash tips thoroughly with water or cleaning solution (appropriate for chemical used). Blow out orifice, clean and dry. If orifice remains clogged, clean it with fine bristle (not wire) brush, or with a toothpick. Do not damage the orifice. Water rinse and dry tips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

WINTER STORAGE

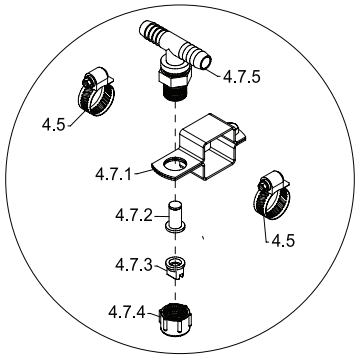
Drain all water out of the sprayer, paying special attention to pump, valves, and hand boom nozzles. These items are especially prone to damage from chemicals and freezing weather.

The sprayer and boom assembly should be winterized before storage by pumping a solution of RV anti-freeze through the entire plumbing. Proper care and maintenance will prolong the life of the sprayer and boom assembly.

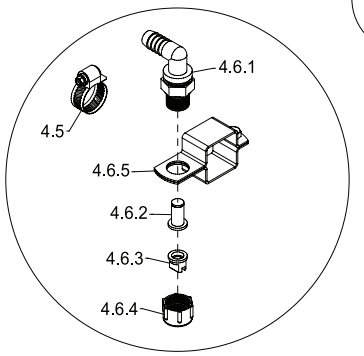
Exploded View/Parts List:
FSBK-70A (5301100)



Item No.	Part Number	Qty	Description	List Price
1	5006307	4	5/16"-18 Hex Whiz (Flange) Locknut	.09
2	5034159	2	Square U-Bolt, 5/16" x 1 5/16" x 1 7/8"	.65
3	5274507	1	Boom Sub-Assembly (7-Nozzle)	87.02
3.1	5006307	2	5/16"-18 Hex Whiz (Flange) Locknut	.09
3.2	5006345	2	3/8"-16 Flange Locknut (Grade F)	.17
3.3	5006092	4	3/8"-16 Hex Locknut	.25
3.4	5034159	1	Square U-Bolt, 5/16" x 1 5/16" x 1 7/8"	.65
3.5	5274458	1	Center Boom Weldment (BK-70)	24.06
3.6	5274459	2	Outer Boom Weldment	14.11
3.7	5046344	2	Square Cap, Black (1 1/4" Square Tube)	.21
3.8	5019228	2	Extension Spring	5.50
3.9	5038620	1	Boom Retainer Bracket	2.60
3.10	5006054	4	3/8"-16 Hex Nut	.25
3.11	5034563	2	H.H.C.S., 3/8"-16 X 3 3/4"	.84
3.12	5016030	8	Flatwasher, 3/8"	.25
4	5274555	1	Harness Assembly (BK-70)	70.38
4.1	5086003	1	Nylon Hose Tee, 1/2" HB	.85
4.2	5020307	2	Hose, 1/2"-1 Brd. x 23"	3.49
4.3	5020416	3	Hose, 1/2"-1 Brd. x 19 3/8"	1.55
4.4	5020144	2	Hose, 1/2"-1 Brd. x 10"	1.77
4.5	5051022	14	Hose Clamp, 1/2"	.62
4.6	5275067	2	Standard "ELL" Nozzle Sub-Aassembly	6.57
4.6.1	5056023	1	Nylon Elbow Assembly, 11/16" U.N.F. x 1/2" HB	.96
4.6.2	5116019	1	50 Mesh Nozzle Strainer, Red	1.01
4.6.3	5138571	1	Nylon Standard Flat Tip, 80 Degree, Yellow	.74
4.6.4	5046052	1	Nylon Nozzle Cap, 11/16" U.N.F. Thread	.36
4.6.5	5273796	1	1 1/4" Square Boom Nozzle Clamp (BC114)	2.58
4.7	5275068	5	Standard "Tee" Nozzle Sub-Assembly	6.47
4.7.1	5273796	1	1 1/4" Square Boom Nozzle Clamp (BC114)	2.58
4.7.2	5116019	1	50 Mesh Nozzle Strainer, Red	1.01
4.7.3	5138571	1	Nylon Standard Flat Tip, 80 Degree, Yellow	.74
4.7.4	5046052	1	Nylon Nozzle Cap, 11/16" U.N.F. Thread	.36
4.7.5	5056027	1	Nylon Tee, 11/16" U.N.F. x 1/2" HB-1/2" HB	.96



Detail A (5xs)



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