

ENGINE AND PUMP ASSEMBLY INSTRUCTIONS

1. Read through all of the instructions before starting the assembly. Check the parts to familiarize yourself with the sprayer. The exploded view drawing and parts list can help identify the parts.
2. The engine and pump have been sub-assembled at the factory. Use (4) 5/16" x 1-1/2" bolts to attach the engine to the skid base plate. Secure the bolts in place with flat washers, lock washers and hex nuts.
3. Thread the fittings into the pump suction and outlet ports as shown on the exploded view drawing. Use a good quality thread sealant to prevent leakage.
4. Thread the fittings into the tank bottom ports.
5. Attach the hose clip for the suction hose to the right side of the skid using a 3/4" x 1" hex bolt, lock washer and nut.
6. Attach the strainer bracket to the base plate using a 5/16" x 3/4" hex bolt, lock washer, and hex nut.
7. Connect the suction line fittings and bypass line fittings (from the tank to the pump fittings) with hoses, and secure each end with hose clamps.
8. Join the handgun hose and handgun to the fittings at the pump. Secure with a hose clamp.
9. Wrap the handgun hose around the hose holders which are attached to the tank straps.

TESTING THE SPRAYER

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

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

CAUTION: Never run the pump dry for more than 30 seconds as serious damage to the pump will result.

2. It is always best to start the sprayer with little or no pressure. This sprayer is equipped with a spring loaded pressure relief valve. Turn the valve screw out to decrease pressure and in for increased pressure. The location of the relief valve and other important components may be found by referring to the parts list section of this manual.
3. You may now start the sprayer engine following the engine manufacturers instructions. Let the sprayer run at low pressure.
4. The pressure should now be increased to 30-40 P.S.I. Operate the sprayer at this increased pressure for 3-5 minutes, thoroughly testing the unit before adding chemicals.

OPERATING THE SPRAYER

Roller pumps are positive displacement pumps which means that the entire solution being pumped must go somewhere, or the pump may break. In this roller pumping system solution is drawn from the tank and forced to a planned source such as the handgun. The pressure is controlled by a relief valve which is a spring loaded device that controls the amount of the fluid bypassed to the tank. The tee handle is to be tightened to increase pressure and loosened to decrease the pressure.

The gas engine is shipped less gas and oil for safety purposes. Check the engine manual for the correct type of oil and gas to be used, and periodic maintenance.

AFTER SPRAYING

After use fill your sprayer tank part way with water. Start the sprayer and allow clear water to be pumped through the plumbing system.

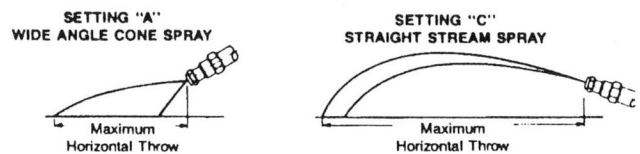
Refill the tank about half full with plain water and use a chemical neutralizer such as NUTRA-SOL or equivalent and repeat cleaning instructions above. Flush the entire sprayer with the neutralizing agent. Follow the chemical manufacturers disposal instructions of all wash water or rinsing water.

WINTER STORAGE

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

The sprayer should be winterized before storage by pumping a 50-50 solution of water and anti-freeze through the entire plumbing. Proper care and maintenance will prolong the life of the sprayer.

SPRAY GUN PERFORMANCE CHART



Tip No.	Data	Liquid Pressure in Lbs. per Square Inch							
		40 P.S.I. Setting		100 P.S.I. Setting		200 P.S.I. Setting		300 P.S.I. Setting	
		"A"	"C"	"A"	"C"	"A"	"C"	"A"	"C"
D-2	Capacity G.P.M.	.29	.30	.45	.47	.64	.66	.78	.81
	Spray Angle	20°	—	25°	—	20°	—	19°	—
	Max. Throw — Ft.	10	32	10	33	10	34	10.5	35
	Max. Vert. Throw Ft.	—	22	—	22	—	23	—	23
D-4	Capacity G.P.M.	.60	.61	.92	.94	1.3	1.3	1.6	1.6
	Spray Angle	22°	—	26°	—	24°	—	20°	—
	Max. Throw — Ft.	10	36	10	36	10.5	37	10.5	38
	Max. Vert. Throw Ft.	—	26	—	27	—	28	—	29
D-6	Capacity G.P.M.	1.2	1.3	1.9	2.0	2.7	2.9	3.3	3.5
	Spray Angle	38°	—	41°	—	38°	—	35°	—
	Max. Throw Ft.	10	44	10	45	10.5	46	11	47
	Max. Vert. Throw Ft.	—	28	—	30	—	32	—	33
D-8	Capacity G.P.M.	2.0	2.2	3.1	3.4	4.4	4.8	5.3	5.9
	Spray Angle	48°	—	50°	—	48°	—	43°	—
	Max. Throw Ft.	10	45	10	46	10.5	47	11	48
	Max. Vert. Throw Ft.	—	29	—	32	—	35	—	36