



Piston Pump Repair Kit (0610407-K)

Tools needed for the installation of parts:

6mm Allen head wrench	13mm socket or wrench
Flat head screwdriver	T-25 Torx screwdriver
11mm wrench or crescent wrench	Grease (Vaseline®)
Long nose pliers	2 x 4 piece of wood 18" long
Heavy hammer	

SAFETY PRECAUTIONS:

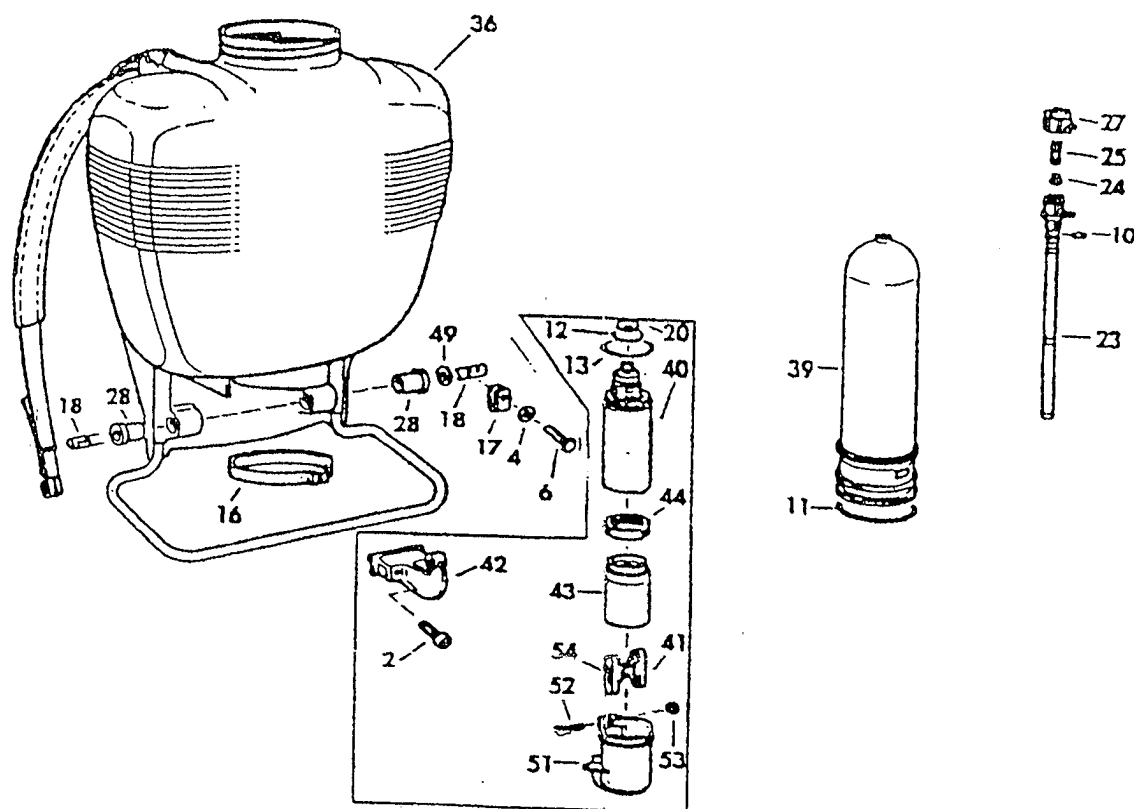
1. Always wear rubber gloves, safety goggles and appropriate protective clothing when repairing a sprayer.
2. Work in a well-ventilated area.
3. Prior to repair, thoroughly flush the sprayer with water. Next, fill the tank with water and pump the water through the sprayer. Discharge out of the wand into an appropriate container or area.
4. Ensure all pressure in the sprayer is released by locking the shut-off valve in the open position.

PROCEDURE: (SEE DIAGRAM ON NEXT PAGE FOR PART NUMBERS)

1. Remove the two handle bolts and set handle and bolts aside. (one handle bolt and nut for fold away handle).
2. Loosen, but do not remove the stop plate (17). (2009 and earlier models)
3. Remove the nut and bolt from the protective cover (51). Then remove the protective cover from the piston cylinder (40).
4. Remove the two 6mm Allen head bolts (2) from the lever (42). Rotate the pump shaft (18) as necessary to access the bolts. Pull the piston (43) out of the piston cylinder and replace the Viton® Collar (44). Lubricate the Viton® Collar with Vaseline®.
5. Unscrew the piston cylinder by rotating counterclockwise.
6. Remove the two O-rings (12 & 13) on the piston cylinder and replace, making sure the O-rings fit into the grooves securely. Lubricate with Vaseline®.
7. Remove the valve plate (20) on the top of the piston cylinder and replace it.
8. Using long nose pliers remove and replace the valve plate (20) held in by the red retaining pin on the inside of the piston cylinder.
9. To replace the large O-ring (11) on the pressure cylinder (39), the cylinder will need to be removed from the tank. **Note: The cylinder will only need to be removed if this O-ring needs to be replaced due to leaking from this area. If you do not need to replace the large O-ring, move to instruction 11.**
10. To remove the pressure cylinder, first remove the pump shaft (18). Remove the black clamp (16) located at the opening at the bottom of tank. If sprayer has pressure control valve, remove the control knob (16) and valve body (12) from the top of the cylinder by turning counterclockwise. To protect the pressure cylinder, place a rag over the top. Use the 2 x 4 and heavy hammer to forcibly knock the cylinder out through the bottom of the tank. Replace and lubricate the large O-ring by sliding it over the top of the pressure cylinder. Ensure that it is seated in the groove.
11. Remove the spring (25) and seal plug (24) from control knob and replace with those in the repair kit. Next remove, replace and lubricate both O-rings (10) on valve body. Re-install the valve body and control knob.
12. If removed, insert the pressure cylinder back into the tank using the 2 x 4 and hammer. Push pressure cylinder down until large O-ring is flush in the tank. Make sure the O-ring is lubricated and does not become pinched between the tank and pressure cylinder.

13. Re-assemble the piston cylinder to the pressure cylinder by turning clockwise. Ensure the tab on the pressure cylinder is aligned with the notch on the piston cylinder.
14. Re-assemble clamp to opening at bottom of the tank and pressure cylinder.
15. Lubricate the inside of the piston cylinder with Vaseline® before installing piston.
16. Re-install the pump shaft (18).
17. Tighten the lever (42) to the pump shaft using the two 6mm Allen head bolts.
18. Tighten the stop plate. (2009 and earlier models)
19. Re-attach the handle with the two 13mm bolts and washers.
20. Fill the formula tank with water only and make sure there are no leaks. Pressurize the sprayer to make sure there are no leaks and that all components are functioning properly. **DO NOT USE THE SPRAYER UNTIL ALL COMPONENTS ARE LEAK FREE AND FUNCTIONING PROPERLY.**

Hint: Vaseline® applied to O-rings will help in re-assembly



<u>Solo Number</u>	<u>Description</u>	<u>Reference Number</u>
4400189	Viton Collar	44
0062291	O-ring	11
0062139	O-ring	12
0062140	O-ring	13
4061257 x 2	Valve Plate	20
0070260	Spring	25
4074350	Seal Plug	24
0062258	O-ring	10