

INSTALLATION INSTRUCTIONS FOR DIAPHRAGM PUMP REPLACEMENT

Note: Always wear rubber gloves, safety goggles and appropriate protective clothing when repairing a sprayer.

Work in a well ventilated area. Prior to repair, flush unit with water by filling, then spraying the water into an appropriate container or area. Ensure that all pressure is released by locking the shut-off valve in the open position. Once a repair is completed, fill the unit with clean water, pressurize, and check for leaks. If the sprayer leaks, **DO NOT USE**. Repair leaks and recheck.

Tools needed for pump replacement: 6mm Allen Head Wrench, Flathead Screwdriver, 11mm Wrench or Crescent Wrench, 13mm Socket or Wrench, Motor or Cooking Oil, Hammer, 2X4 Piece of Wood 18" long.

In order to replace the diaphragm pump in your sprayer, you must remove the existing pump.

Lay the unit on its back with the pump assembly facing you. See Figure 1. Using the 13mm Socket or Crescent Wrench, remove the stop plate (A), washer and bolt from the pump shaft. Next remove the two (2) 6mm Allen head bolts (B) that attach the connecting brackets to the pump shaft (C). Take care not to lose the wrist pin when removing the connecting brackets. Remove the pump shaft and handle. Next loosen the hose clamp and remove the hose. (CAUTION: There may be liquid inside the hose and the pressure cylinder even when the tank is empty.) Next remove the clamp that secures the pump in the bottom of the sprayer tank (E). Save all of these parts.

Rotate the pump assembly 180 degrees. See Figure 2. This will allow you to remove the pump without it hitting the backpack frame.

Stand the sprayer right side up and remove the filler cap and filter basket. If your sprayer is equipped with the pressure control regulator on the top of the pressure cylinder, this must be unscrewed and removed at this time. Using the piece of wood and the hammer, you must forcefully drive the cylinder out through the bottom of the tank. See Figure 3. Once you have accomplished this you are ready to install your new pump.

Stand the sprayer upside down on a piece of cardboard. Lubricate the inside bottom neck of the tank where the pump will be installed as well as the raised portion of the pump cylinder and the o-ring with oil. Insert the pump assembly into the tank until it stops. Using the piece of wood and the hammer, tap the pump assembly into the tank positioning the piece of wood first on one side of the pressure cylinder rim and then the other. Do not tap on the diaphragm assembly. Next rotate the pump so that the tab on the neck of the tank aligns with the groove on the pump assembly. Tap the pump assembly tight against the neck of the tank. Once the cylinder is inserted, inspect the O-ring to ensure that it is not pinched / crimped. Secure the tank with the clamp, reconnect the diaphragm lever, wrist pin and connecting brackets and secure them to the pump shaft with the 6mm Allen head bolts. Refasten the stop plate, washer and bolt.

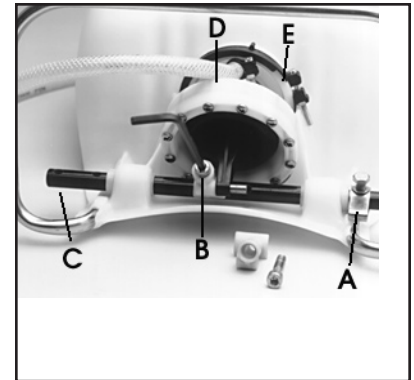


Figure 1

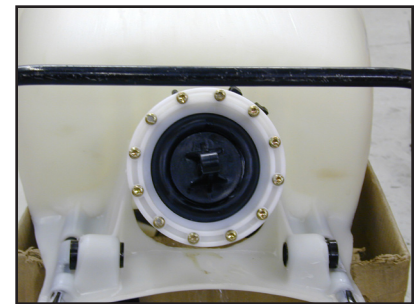


Figure 2



Figure 3