



**GENERAL:** The earliest Atomic-4's had (as an optional accessory) a hand operated piston pump dimensioned to fit inside the 3/4" pipe threaded hole in the side of the cast iron oil pan just forward of the fuel pump. These pumps were quite handy if you had the necessary clearance on that side of the engine to accommodate the 6" travel of the handle (upward and outward at about a 25 degree angle). Our kit is designed to use the same 3/4" threaded hole as the original pumps but employs a simple suction tube dimensioned to extend to the bottom of the oil pan with fittings provided to connect to any of the usual pumping methods you may now be using to remove your oil through the dip stick hole.

**Step 1:** Remove the 3/4" plug from the oil pan. Depending on when this plug was last removed, this step could be the most difficult. In the worst case, you may have to remove the carburetor for better access.

**Step 2:** Using never-seize or similar thread lubricant, install the 90 degree 1/4" pipe thread by 5/16" hose barb fitting into the top of the suction tube. Tighten the fitting securely but leave some flexibility to tighten more later if necessary to point hose barb in desired direction.

**Step 3:** Lubricate threads of suction tube and thread it into oil pan. Do not over tighten. The tube will come very close to the bottom of the oil pan after approximately 4 turns which is barely more than hand tight.

**Step 4:** Check direction which the hose barb is pointing. If it is not pointing in the desired direction, remove suction tube, adjust hose barb, and re-install.

**Step 5:** Slip one end of the 3' length of 5/16" hose over the hose barb and extend to convenient location to connect pump (usually in cabin area). It is intended that this hose be left installed permanently, so if access permits, you may want to install a small hose clamp on the 90 degree hose barb and provide some kind of tie-off to keep the hose out of harms way between oil changes.

**Step 6:** Push the 1/8" male pipe thread by 5/16" straight hose barb into the end of the hose and install hose clamp. The 1/8" brass threaded cap is intended to be left installed (finger tight) between oil changes to prevent oil from dripping out of the hose.

**Step 7:** To change oil, remove the brass cap and connect your pump to the end of the hose using the 1/8" male pipe threads, or install the 1/8" female pipe threaded 5/16" hose barb fitting. If your pump requires some other fitting, check in with your local hardware store. Most hardware stores stock any fitting that you might need.

**NOTE:** If you do not now have a pump, the suction tank system available from many discount suppliers makes an excellent "partner" to this kit. It comes with a section of 5/16" hose for easy connection and since the oil is drawn directly into a 2 gallon tank, true "drip free" operation is more than an idle fantasy.

**Step 8:** When finished, re-install the 1/8" brass cap and stow the hose until next oil change.

**Note:** We have included a straight 1/4" x 5/16 hose barb in the event that the 90 degree hose barb won't swing due to interference by fuel pump, etc....