I. Preparation of PMM-1 Portable Swaging Machine

Clean and lubricate Acme lead screw assembly. Use lightweight lithium or molybdenum-based grease.

Clean and relubricate as required, particularly if the tool has been exposed to dust or dirt during storage.

II. Versatile Features of PMM-1 Include

Three methods of mounting: bench, vise, or horizontal unsecured for ground or flat work surface.

Swage die retaining clips for horizontal position.

Thumbscrew for quick change of coupling pushers.

Optional crank handle box end wrench part number **821072**.

III. Swaging in Vertical Bench Mounting Position

Install appropriate pusher, part number selected from coupling style charts in 4660 Parflex catalog fitting section.

Clean and lubricate bore of swage dies with Parker **Hoze – Oil** or other high film strength Oil. Repeat after two or three swages. Use Parker 702 oil when swaging stainless steel couplings and lubricate each coupling.

Install two-piece split die in bowl. Select proper die for specific coupling style and hose size from assembly tool selection chart in the 4660 catalog.

After having properly inserted hose into coupling and marking insertion depth, remove or elevate one die segment to allow installation of hose and coupling.

Insert coupling all the way into pusher and exert an upward force; replace die segment in bowl of swager. Verify proper alignment with mating die half.

If lubrication has not previously been accomplished, now is another opportunity to lubricate dies.
Note: To avoid premature wear of dies, it is essential to distribute oil around the complete bore of dies.

Using an appropriate wrench, begin clockwise rotation of hex drive nut. As skirt of coupling approaches the die opening, properly align entry of coupling by deflecting the hose as required continuing to exert an upward force on hose and coupling to keep it fully inserted in pusher.

Note: The crank style box end wrench part number **821072** is recommended as it eliminates slipping and provides easier nonstop rotation of drive nut.

Continue swaging stroke until bottom face of pusher fully contacts top face of dies.

Retract pusher sufficiently to allow removal of swaged coupling.

Measure swaged diameter of coupling and inspect threads of male style couplings for any indication of damage. On female swivel style couplings, inspect for free rotation and condition of nut.

IV. Swaging in Horizontal or Unsecured Position

Position torque reaction arm at 90° to the center line of the machine.

Following insertion of hose/coupling assembly into machines, it is necessary in this position to secure the die halves with the spring retaining clips provided.

In the horizontal position, it is easier and recommended to insert both die halves at the same time after the hose and coupling have been inserted.

Each of the previously specified procedures also applies to use of the PMM-1 swager in this position.

V. Vise Mounting

Secure PMM-1 swager in vise using only the lug or ear provided.

DO NOT ATTEMPT to vise mount by gripping the round and tapered base of the machine. To do so can result in serious injury.

Using the vise lug, the machine may be mounted at an inclined angle or may be mounted horizontally using the full area of the mounting lug; this will be determined by the work area arrangements.

Note: When using the PMM-1 swager in the reaction arm position or the vise mounted position, it will not be possible to maintain constant rotation of the driving nut. It is recommended, however, that a continuous, smooth stroke be maintained whenever possible.