

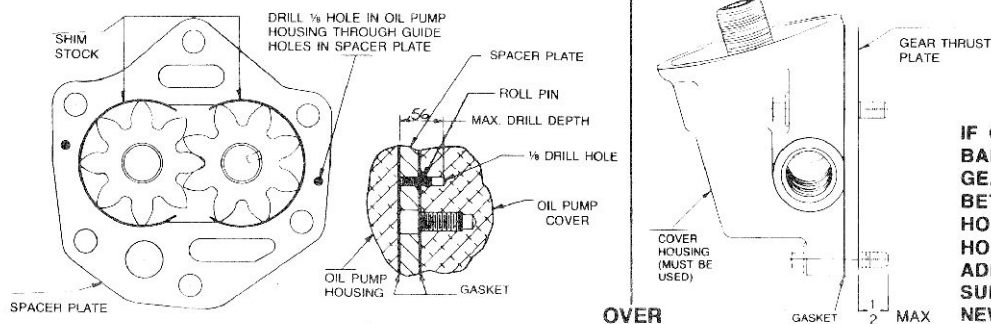
**INSTALLATION INSTRUCTIONS FOR HIGH VOLUME OIL PUMP KIT
READ THE FOLLOWING INSTRUCTIONS CAREFULLY**

FORM M20095

Improper installation can ruin this kit and/or the engine. It is imperative that all parts be clean. Place the front cover assembly in a vise with the oil pump cover pointing upward. Remove the oil pump cover, the old gears, and gasket and discard the oil pump cover screws. There may be varnish build-up on the old drive shaft making it difficult to remove. Don't force it because the bearing surface in the housing can be damaged. Clean any varnish build-up off with a good solvent.

Remove the pressure relief valve plug, the spring, and valve. Clean the cover and valve hole with a good solvent. Oil the new valve and install it in the valve hole. Be sure it moves freely. There is a spring package supplied with this kit. (See back of this sheet for details). Pressures noted will be approx. readings. These readings will vary depending on the bearing and lifter bore clearances in your engine.

Clean both gasket surfaces and install the new gasket between the spacer and pump. Next install all the new gears. Note at this point the gears should not rub the spacer plate. Wrap a piece of the enclosed shim stock around the outer surface of the gears (between the gears both in housing and spacer plate. **Shim stock should be flush with top of spacer plate.**) This prevents the gears from contacting the spacer plate. Bolt the spacer plate (but not the oil pump cover) down with the two $\frac{1}{4}$ -20 \times $\frac{3}{8}$ bolts. Use opposite corners. With the spacer plate securely positioned, drill 2 - $\frac{1}{8}$ " holes into the front cover through the holes shown in the sketch. Use the $\frac{1}{8}$ " drill included in the kit. Install the roll pins. **They must not extend above the spacer plate.** Remove the shims and spin the gears to make sure they spin freely. Install the pump cover with a new gasket and torque all the bolts to 10 ft. lbs. **DO NOT use gasket cement.** The gaskets supplied are neoprene treated and do not require gasket cement. If gasket cement is used, the gear end clearances in the pump will be increased and the pump will not function properly. The final step is to check the end clearance of the gears. When checking end clearance the housing and all parts should be clean and dry. This can be done by checking the up and down movement of the driveshaft. The shaft should move at least .001, but not more than .005. **Gaskets are mated to spacer thickness in each kit.** After final assembly be sure the shaft turns freely and then fill gear cavities with clean oil. (or dip gears in oil). Before installing a new oil filter, fill oil filter with clean oil. This helps pressurize oiling faster.



NOTE
IF COVER HOUSING IS BADLY SCORED, USE GEAR THRUST PLATE BETWEEN COVER HOUSING AND GEAR HOUSING. THIS PLATE ADDS A NEW WEAR SURFACE FOR YOUR NEW GEARS.