



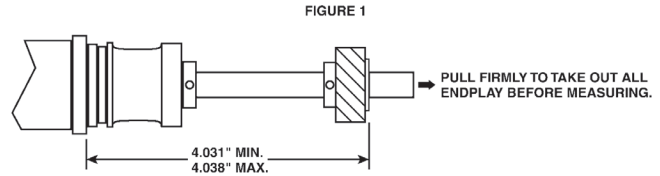
## DISTRIBUTOR GEAR INSTALLATION

The following information covers the installation of a new distributor gear onto an existing distributor. When replacing the distributor gear, it is important that you choose the appropriate gear for your application. If you have questions regarding your gear selection, please contact the Ford Racing Techline at (800) FORD788. Failure to use the correct gear will lead to premature gear failure. Premature gear failure may also be attributed to improper meshing of the gear teeth between the camshaft and distributor. For that reason, we recommend that you install a new distributor gear when installing a new camshaft.

### INSTALLATION INSTRUCTIONS:

- STEP 1:** Remove roll pin from distributor gear and shaft. Save pin for re-assembly.
- STEP 2:** Verify that the shaft endplay is .024" to .035". Modify collar if necessary. Some aftermarket distributors may be constructed in a manner that does not allow you to achieve .024" to .035" of endplay. See "Alternative method of verifying correct distributor gear installation" if your distributor does not have .024" to .035" endplay.
- STEP 3:** Press original distributor gear off shaft.
- STEP 4:** Mark location of original roll pinhole on the shaft by drawing a vertical line along the shaft that intersects the hole. Measure from the centerline of the roll pinhole to a fixed point above it. Note that dimension.
- STEP 5:** Press new distributor gear onto shaft.  
**NOTE:** Replacement distributor gear does not have roll pinhole.
- STEP 6:** Pull distributor shaft out of distributor housing to eliminate endplay (see Figure 1).
- STEP 7:** Check location of distributor gear on distributor shaft (see Figure 1). If it is not in the correct location, use a press to move the gear to the correct location.
- STEP 8:** Using the vertical line on the distributor shaft and the noted dimension (see **STEP 4**), roughly plot where the original roll pinhole is located. Drill a new .125" hole 90° from the original hole, above or below it, through the gear and the shaft.  
**NOTE:** It is important that the dimensions called out in Figure 1 are maintained while drilling.
- STEP 9:** Insert roll pin and check dimensions (see Figure 1).

**WARNING:** If the distributor gear is installed incorrectly, it may be forced down against the support in the block or may be held up away from the support in the block. Both conditions will cause damage to the block and or the block and gears. When the gear is properly installed, the cut on the gears and the direction of rotation will pull the distributor gear down against the support (distributor gear thrust face) in the block.



### ALTERNATIVE METHOD OF VERIFYING CORRECT DISTRIBUTOR GEAR INSTALLATION:

After **STEP 7**, install distributor assembly in the block you are using. Timing chain set and camshaft must be removed. With the aluminum distributor housing fully seated against the block, verify that the distributor gear can be lifted off the support in the block at least .005". Next pull the distributor gear down against the support in the block and hold it there. Pull up on the aluminum distributor housing and verify that you can lift it up at least .005" while holding the gear against the support in the block. This procedure will confirm that the gear is not being forced down against the support and not being held up off the support in the block.

Continue with **STEP 8**.

### COMMON DISTRIBUTOR PROBLEMS:

Distributors with very little or no shaft endplay. This has been found with new and remanufactured distributors. Improper endplay may force the gear against the support in the block or hold it up off the support, causing damage.

Distributors that have a different material gear than advertised. It is important to run the correct distributor gear for the camshaft that you are using. Consult the manufacturer of the camshaft you are using for gear recommendation.

Some heavy-duty oil pump drive shafts may not allow an EFI distributor to slide down far enough over the oil pump drive shaft. EFI distributors have a longer shaft below the gear.

Running an HV oil pump with production bearing clearances can cause abnormally high oil pressure and possible premature distributor gear wear.

Gears on camshafts with a very poor finish. This could cause premature distributor gear wear.

New and remanufactured distributors with the gear installed at the wrong height.