

# John Burns Column

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The purpose of the John Burns Column is to offer technical assistance in the maintenance and restoration of Franklin and other air cooled automobiles. Formerly personally conducted on a question-and-answer basis by the late Mr. Burns, the column is now prepared by a Technical Editor with the assistance of a group of experienced consultants. Information offered is as accurate and authentic as possible. Questions, tips, and suggestions are welcomed.

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## REPLACEMENT DISTRIBUTOR

*by Joe Hafner*

Several people have asked me about parts for older Franklin distributors. These parts are pretty scarce and if you find them, they are often not in very good shape. The prices are usually rather dear, also. I recommend that a faulty distributor on a Series 9 through 13, 6-cylinder Franklin, be replaced with a 6-cylinder Delco distributor from 1955 through 1975. When selecting a distributor, it is very important to select one which normally rotates in the same direction (i.e., clockwise or counterclockwise) as the original equipment distributor. Otherwise, the timing will retard when it should advance and vice versa! Many of the aforementioned Delco distributors are approximately the right size and parts are still easy to find. Please refer to the diagram on the following page for details prior to beginning your installation.

Install the replacement Delco distributor as follows: Crank the engine to put the No. 1 cylinder at top dead center. Mark the old distributor base to show the rotor position for No. 1 cylinder before removing the old distributor. Secretary's "white out" is a good product to use for this operation. It makes a clear mark; it's oil resistant and it's removable.

Next, remove the original distributor. Make careful measurements of the original distributor set-up. Measure the length of the distributor shaft housing and cut the new distributor's shaft housing to the same length.

Next, locate the bronze washer which can be found at the end of the shaft housing. Measure the distance from that washer (bushing) to the far end of the shaft where the gear mounts. Cut the new distributor shaft

to length and fit the old gear to the new shaft being careful to get the distances exactly right. Use a drill press to drill a 1/8 inch hole through the gear and the new shaft. Put the shaft through the mounting plate, put on the gear, and hold the gear and shaft together with a 1/8 inch roll pin (sometimes called a split or spring pin). The gear should "wring" onto the shaft. If the gear fits too loosely on the shaft, it will have excessive runout and damage will likely occur to the teeth.

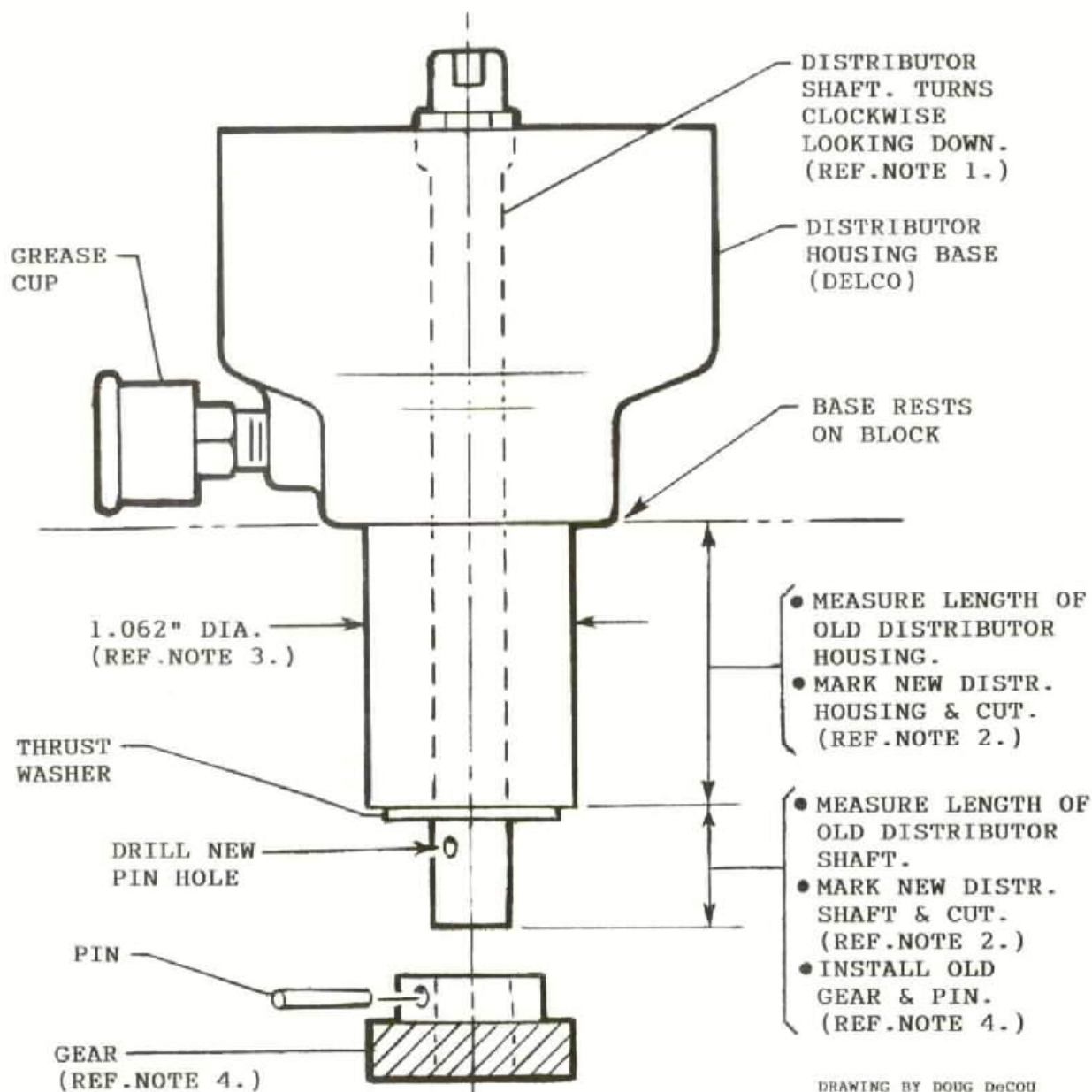
Install the new distributor and set the rotor as close as you can to the No. 1 position. A little adjusting and everything should work fine. The Delco distributors have a grease cup on one side. Give the cup a small quantity of lubricant every five hundred miles. This is important because the only lubrication that the distributor shaft gets is through the grease cup. If you don't grease the distributor, the shaft and the shaft bushing wear rapidly and then the points can't be properly set.

If your Franklin has a spark advance lever, you can use one of the cap clip screw holes to mount it to the distributor. If that doesn't work, drill a hole in the side of the distributor to hold a pin (with a swivel joint of the type that uses a set screw) to lock the control wire.

Replacing the original distributor with a Delco distributor works well; it is inexpensive and none of the original Franklin parts are destroyed. If you ever do find the necessary parts to fit the original distributor, you can restore it and put it back into service.

# ADAPTING DELCO DISTRIBUTORS TO FRANKLINS

BY JOE HAFNER



## NOTES:

1. DISTRIBUTOR WITH CENTRIFUGAL ADVANCE (DESIRED) SET  $13^{\circ}$  AT 1000 DISTR. RPM;  $23^{\circ}$  AT 1500 DISTR. RPM.
2. WORKING CAREFULLY, A HACKSAW OR LATHE CAN BE USED TO CUT HOUSING & SHAFT WITHOUT TAKING DISTRIBUTOR APART.
3. CHECK FIT OF DISTRIBUTOR HOUSING IN HOLE OF ENGINE BLOCK, IT SHOULD TURN EASILY WITH MINIMUM SHAKE.
4. DISTRIBUTOR GEAR SHOULD "WRING" ONTO SHAFT. BUSHING WILL BE REQUIRED IF GEAR FIT IS NOT SNUG.