TECHNICAL TIP
Gentlemen, check your distributors

During recent workshop visits of a number of 425 and 455-V8 engine powered Buicks, distributor shafts were found to have been running with little or no lubrication at the upper bearing. Several distributor shafts were worn and burned badly enough to require restoration by grinding undersize and building up with hard chrome plating and refinishing to original diameter. In all distributors the lubricant in the reservoir surrounding the upper bearing was found to have solidified, most likely a result of age and engine temperature.

Support of distributor shaft particularly at the upper bearing is critical. Looseness here will cause irregular dwell angle while tightness could ultimately result in distributor shaft or camshaft gear failure should seizure occur (even high oil pump loads have been known to result in camshaft gear failure).

I work on a wear limit of 0.0015 inches on diameter before reworking the shaft, then replacing the upper cast iron bearing with bronze bearing part of GM HEI distributor bushing kit, p/n DRK-58, available at NAPA stores. Before removing the old bearing, the height of the bearing is measured using the thrust washer face on the housing as a datum. The old lubricant is cleaned out and the new bushing pressed in making sure that the oil holes are clear of the webs in the reservoir. The height of the bushing in the housing governs shaft end float, measured by feeler gauge at the thrust washer on final assembly.

20W50 engine oil is added to fill the reservoir with the housing tilted and rotated to simulate position in engine. The housing is maintained at this tilt until and during installation in the engine so as to keep the oil in the reservoir and not allow it to spill over into the bottom of the housing.

Distributor service operations are covered in Buick Shop Manual Group 68.

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