

**SERVICE BULLETIN**

**SB05-8A**

**Compliance Will Enhance Safety**

Supersedes SB05-8  
**Technical Portions FAA  
 Approved**

**SUBJECT: IMPROVED CAMSHAFT GEAR P/N 656818**

**PURPOSE:** To announce the production of an improved camshaft gear P/N 656818 which supersedes the current camshaft gear P/N 656031

**COMPLIANCE:** At next engine overhaul or at camshaft gear replacement.

**MODELS AFFECTED:** IO-470-U,V; IO-520-Series; TSIO-520-Series; IO-550-Series; IOF-550-Series; TSIO-550-Series; TSIOL-550-Series

**GENERAL**

As part of our ongoing product improvement initiative, Teledyne Continental Motors has released for production an improved camshaft gear, P/N 656818, for the above listed engines. The new camshaft gear will supersede the current production camshaft gear P/N 656031. TCM recommends that the new gear be incorporated at the next engine overhaul or whenever replacement of the camshaft gear is required.


The P/N 656818 camshaft gear is nominally 0.060" wider than the P/N 656031 camshaft gear. On engine models utilizing the Sandcast style crankcase, the P/N 656818 camshaft gear may be installed as a direct replacement for the P/N 656031 camshaft gear. On engine models utilizing the Permold style crankcase, modification of the starter adapter shaftgear bearing boss is required to provide clearance for the wider camshaft gear.

**NOTE...** On Sandcast crankcase installations clearance must be verified between the new P/N 656818 camshaft gear and the oil gallery plug located directly below the starter adapter boss. (Reference figure 4.)

**PERMOLD CRANKCASE MODIFICATION**

The Permold style of crankcase must be modified to allow use of the new, thicker camshaft gear. A clearance cut is made in the starter drive bearing boss in accordance with the dimensions shown in Figure 3. TCM recommends that a properly certified repair station machine the required clearance.

**CAUTION...** Installation of the new P/N 656818 gear in an unmodified permold style crankcase will result in damage to the gear and/or the crankcase

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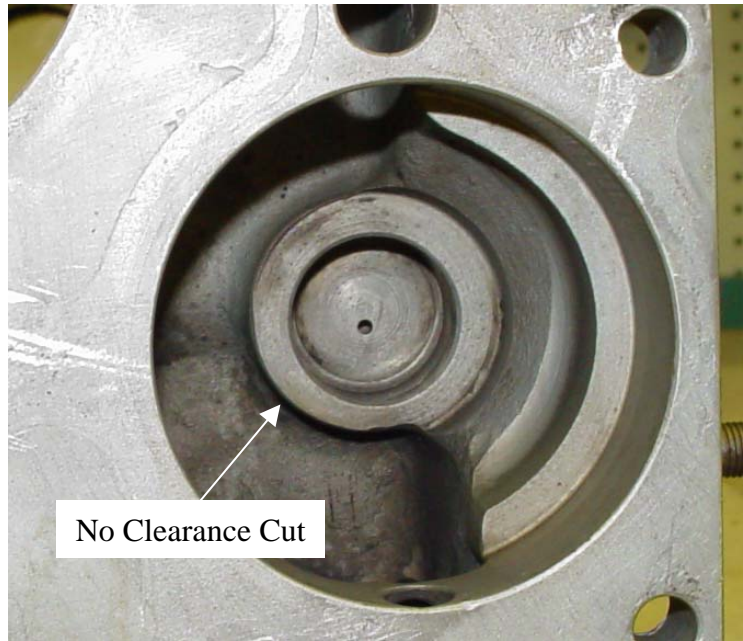


FIGURE 1  
UN-MODIFIED PERMOLD CRANKCASE

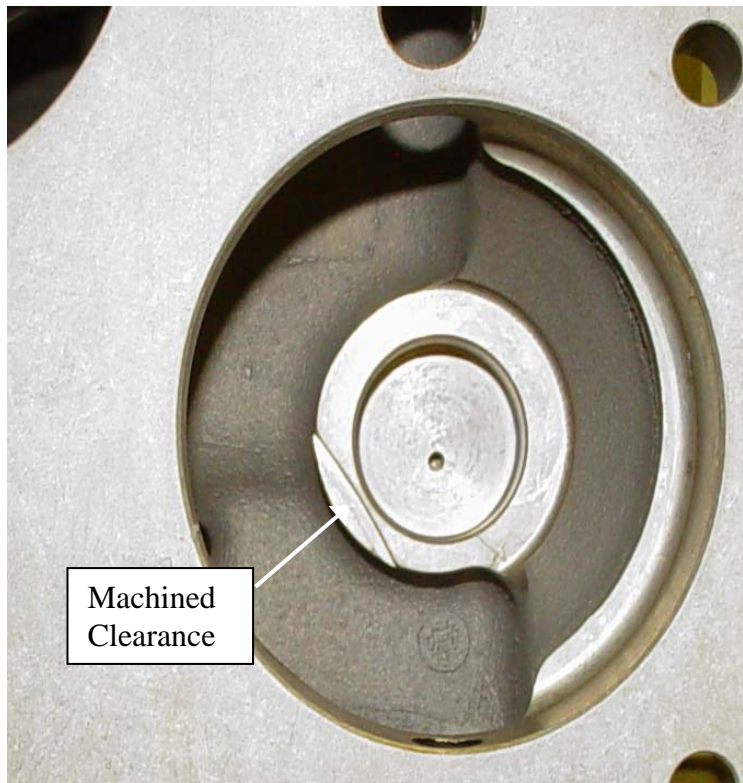

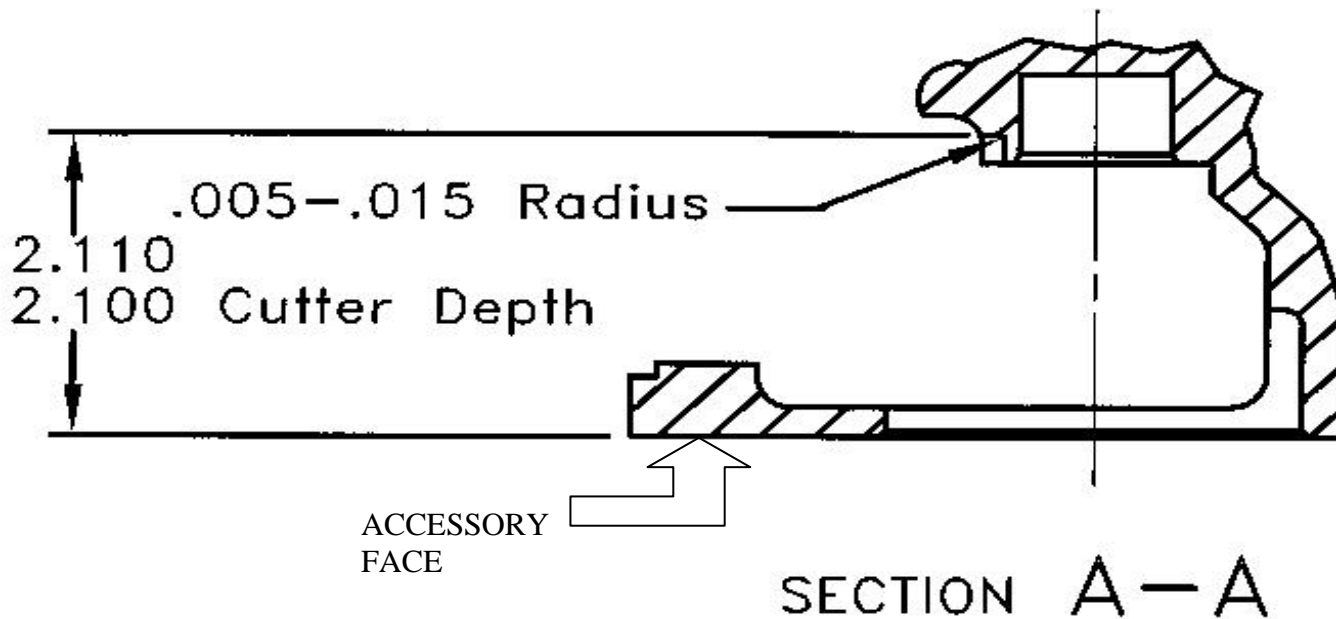
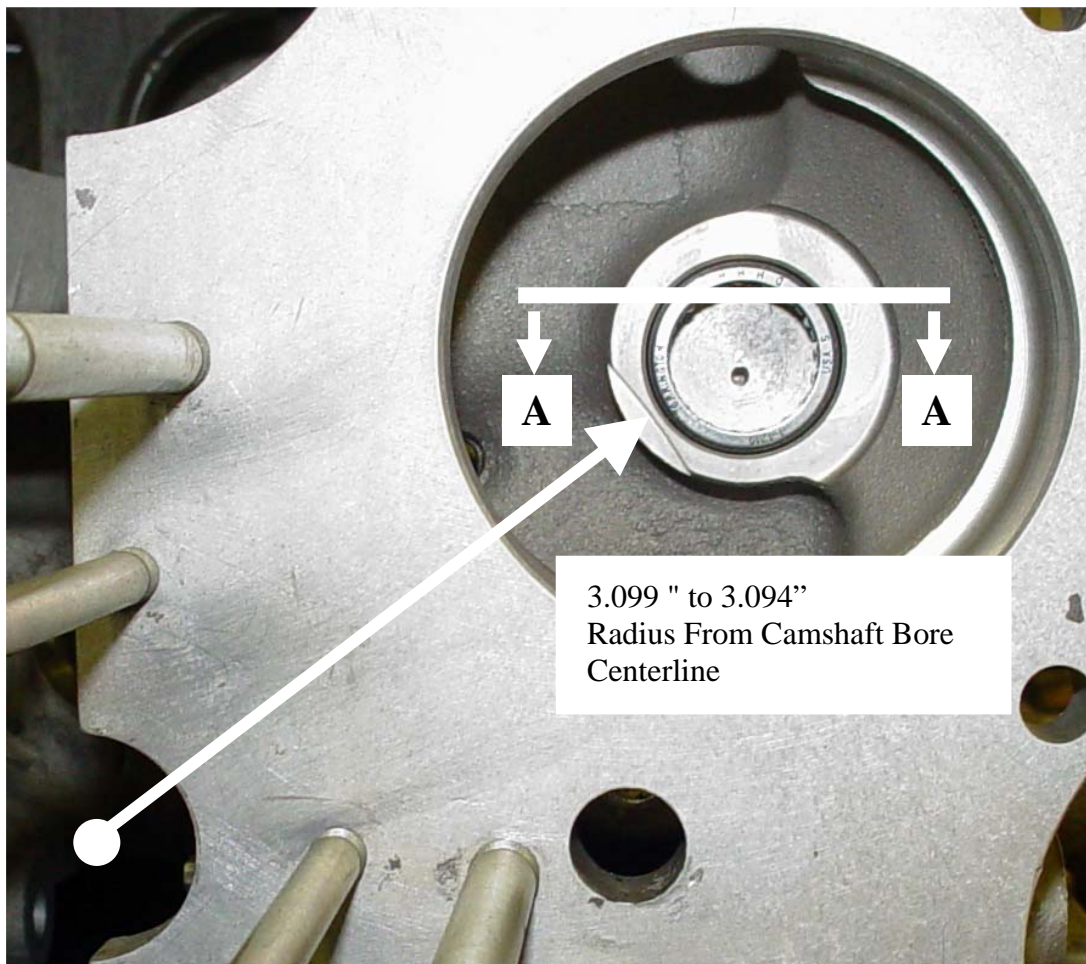



FIGURE 2  
MODIFIED PERMOLD CRANKCASE

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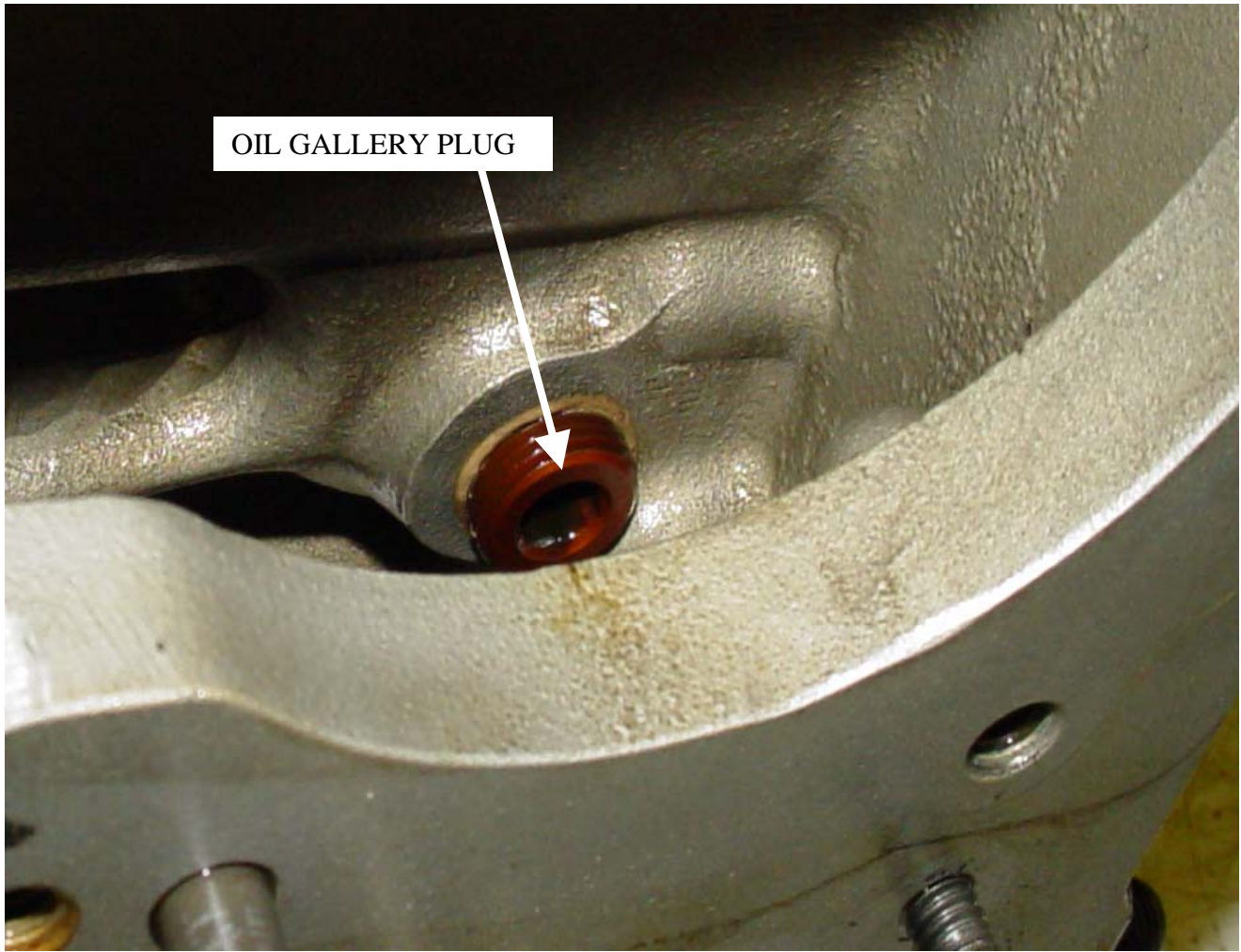
**FIGURE 3  
PERMOLD CRANKCASE MODIFICATION**

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**FIGURE 4**  
**INSTALL CAMSHAFT IN CRANKCASE HALF**  
**INSPECT FOR MINIMUM OF .030 CLEARANCE BETWEEN THE CAMSHAFT**  
**GEAR AND THE END OF THE OIL GALLERY PLUG (WHERE INDICATED).**

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