

SERVICE BULLETIN

Compliance Will Enhance Safety.

SB97-5

FAA APPROVED

SUBJECT: INSTALLATION OF FLANGED TYPE FRONT MAIN BEARINGS**PURPOSE:** Supplement Overhaul Manual Instructions**COMPLIANCE:** Engine overhaul or whenever the crankcase is separated.**MODELS****AFFECTED:** O-470 and IO-470 engines utilizing 537401, 646807 or 538879 standard or oversize one piece flanged front main bearings

Correct installation of flanged type front main bearings requires that the bearing saddle tang slot be properly located so that the flanged portion of the bearing is supported by the machined thrust face of the front main bearing saddle.

Prior to installing flanged type front main bearing insure that the bearing saddle tang slot meets the dimensional specifications provided in Figure 1. Front main bearing saddles not meeting these specifications will require repair by an appropriately approved repair agency.

When installing any bearing insure that the bearing saddle and bearing back are clean, free of any oil and that no debris will be trapped between the bearing back and bearing saddle. Flanged front main bearings must be positioned in the bearing saddle so that the thrust flange is firmly seated

against the machined thrust surface of the bearing saddle.

NOTE...

The thrust surface is the surface that absorbs the load of the crankshaft during engine operation. See Figure 2.

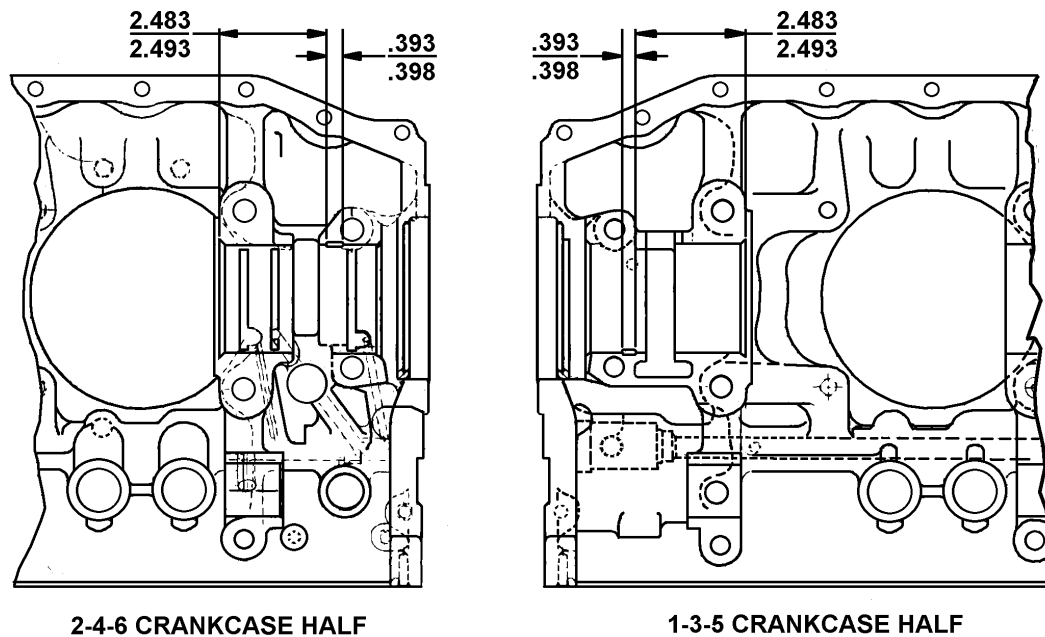
WARNING

UNSUPPORTED FRONT MAIN BEARING FLANGES MAY NOT WITHSTAND CRANKSHAFT THRUST FORCES DURING ENGINE OPERATION. THIS CONDITION CAN RESULT IN FATIGUE CRACKING TO THE BEARING FLANGE RADIUS AND POSSIBLE FAILURE.

AFFECTED

PUBLICATIONS: Insert a copy of this Service Bulletin into the appropriate section of all TCM O-470 and IO-470 Engine model **OVERHAUL** and **MAINTENANCE** Manuals.

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**FIGURE 1. BEARING LOCK SLOT LOCATION ONE PIECE
FLANGED BEARING'S (PHASE 1 CRANKCASE'S ONLY)**

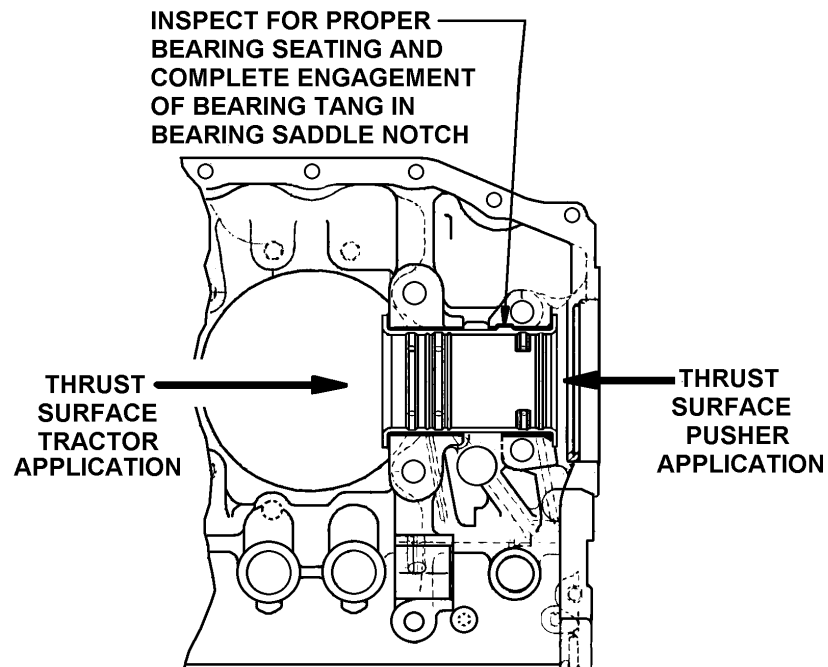


FIGURE 2. THRUST SURFACES

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