

# CONTINENTAL MOTORS® AIRCRAFT ENGINE

## SERVICE BULLETIN

Compliance Will Enhance Safety

CATEGORY 3

### SB96-3C

Supersedes SB96-3B  
TECHNICAL PORTIONS  
FAA APPROVED

**SUBJECT:** CRANKSHAFT GEAR BOLT INSPECTION

**PURPOSE:** Continental Motors (CM) has identified a discrepancy in the packaging of the P/N 536379 crankshaft gear bolt, in which incorrect part number bolts were supplied. This bulletin provides inspection and replacement instructions for the crankshaft gear bolts.

### WARNING

**OPERATION OF AN ENGINE WITH INCORRECT CRANKSHAFT BOLTS MAY CAUSE LOSS OF CRANKSHAFT GEAR RETENTION AND SUBSEQUENT ENGINE FAILURE.**

**COMPLIANCE:** Within the next 25 hours of operation.

### MODELS

**AFFECTED:** All IO-346, E-165, E-185, E-225, O-470, IO-470, TSIO-470, IO-520, TSIO-520, LTSIO-520, GTSIO-520, IO-550, GIO-550, TSIO-550 and TSIOL-550 model engines.


NOTE: This Service Bulletin does not affect any CM factory new or rebuilt engines unless field replacement of crankshaft gear bolts has been accomplished using affected bolts as indicated in the following.

- A. Affected engine models that have had crankshaft bolts installed that were purchased through a CM Distributor during the period of January 20, 1996 through March 20, 1996.
- B. All GTSIO-520 engine models that have had P/N EQ6642 starter adapter kits installed that were purchased through a CM Distributor during the period of January 20, 1996 through March 20, 1996. Crankshaft bolts (6 each) are supplied in the kit.
- C. Inspect inventory of P/N 536379 bolts and P/N EQ6642 starter adapter kits if purchased during the respective dates and return any bolts that do not conform to the illustration in Figure 1 to your CM Distributor.

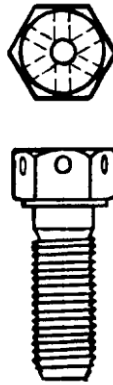
### INSPECTION INSTRUCTIONS

Reference the appropriate Aircraft Maintenance Manual and Engine Overhaul Manual for component removal and replacement instructions.

1. For IO-346-A, IO-520-B, BA, BB, C, CB, M, MB, TSIO-520-B, BB, BE, D, DB, E, EB, J, JB, K, KB, L, LB, N, NB, UB, VB, WB, IO-550-A, B, C, G, TSIO-550-A, B, C, E and TSIOL-550-A model engines, remove the engine driven fuel pump to facilitate the inspection of the crankshaft gear bolts. Proceed to paragraph number 4.

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2. For all O-470, IO-470, TSIO-470, IO-520-A, D, E, F, J, K, L, TSIO-520-AE, AF, CE, C, G, H, M, P, R, T, LTSIO-520-AE, all GTSIO-520, IO-550-D, E, F, L and GIO-550-A model engines, remove the starter adapter to facilitate the inspection of the crankshaft gear bolts. Proceed to paragraph number 4.
3. For all E-165, E-185 and E-225 model engines, remove the starter to facilitate the inspection of the crankshaft gear bolts. Proceed to paragraph number 4.
4. Inspect the crankshaft gear bolts and verify that the P/N 536379 is installed. The distinguishing feature of the P/N 536379 bolt is that the head is drilled in three places (hole in each flat) as illustrated in Figure 1. Incorrect part number bolts have only one hole drilled through the head. If installation of the P/N 536379 bolt is verified, reinstall components that were removed in accordance with the applicable Aircraft Maintenance Manual and Engine Overhaul Manual. Make a log book entry as to compliance with this Service Bulletin.



**P/N 536379 BOLT  
FIGURE 1**


5. If an incorrect bolt or bolts are installed, cut and remove the safety wire.
6. Note: E-Series engines will require removal of the accessory case to replace the crankshaft gear bolts.
7. Remove incorrect bolts and replace with new P/N 536379 bolts, one bolt at a time. Lubricate the threads of the replacement bolt with clean 50 weight engine oil. Torque bolt to 380 - 420 inch pounds. Repeat this process to replace all incorrect bolts. Return all incorrect bolts to your CM Distributor.
8. Using .032" safety wire, safety all crankshaft gear bolts in accordance with in the latest revision of M-0, Standard Practice Maintenance Manual.
9. Reinstall components that were removed in accordance with the applicable Aircraft Maintenance Manual and Engine Overhaul Manual. Make an engine log book entry as to compliance with this Service Bulletin.

**AFFECTED PUBLICATIONS:**

None.

**WARRANTY:**

Warranty action required to comply with this service bulletin is covered by the CM Aircraft Engine Part, Component and Accessory Warranty, subject to its terms and conditions.

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