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MANDATORY SERVICE BULLETIN

DATE: April 24, 1959

Service Bulletin No. 253A
(Cancels Service Bulletin No. 219 and
Supersedes Service Bulletin No. 253)
Approved by FAA

SUBJECT: Replacement of Propeller Flange Bushings

MODELS AFFECTED: Part I: Lycoming Model O-340-A Series Aircraft Engines Equipped with Hartzell Controllable Pitch Propellers
Part II: Lycoming Model O-320 Series Aircraft Engines Equipped with Hartzell Controllable Pitch Propellers

TIME OF COMPLIANCE: At Overhaul, or at Owner's Discretion Prior to Overhaul

Reports from the field have shown there is a possibility of failure of the 3/8" propeller attaching bolts used on the O-340 and the O-320 series aircraft engines when used in conjunction with Hartzell controllable pitch propellers. (At the next overhaul of any of the subject engines, an inspection must be made to determine the size of the propeller attaching bolts.) All engines with 3/8" bolts must be modified, at overhaul, to accommodate the stronger 7/16" bolts now used on this series of engines. To accomplish this modification it will be necessary to replace the present propeller flange bushings with newly designed bushings that will accommodate the larger bolts. These new bushings also have a heavier flange that eliminates the possibility of bushing failure. Part I of this bulletin pertains to the replacement of O-340 propeller flange bushings, while

Part II pertains to the replacement of O-320 propeller flange bushings.

NOTE

In no instance is it permissible to drill and tap an old bushing to accommodate the larger bolt. The old bushing must be removed and replaced with new bushings which are 1/8" shorter and have thicker flanges. Do not drive out the bushings because of the possibility of damage to the crankshaft flange.

To complete this changeover, the instructions contained in Hartzell Propeller Co. Service Bulletin No. 68 must be adhered to. All attaching parts, such as the propeller attaching bolts, must be obtained from Hartzell.

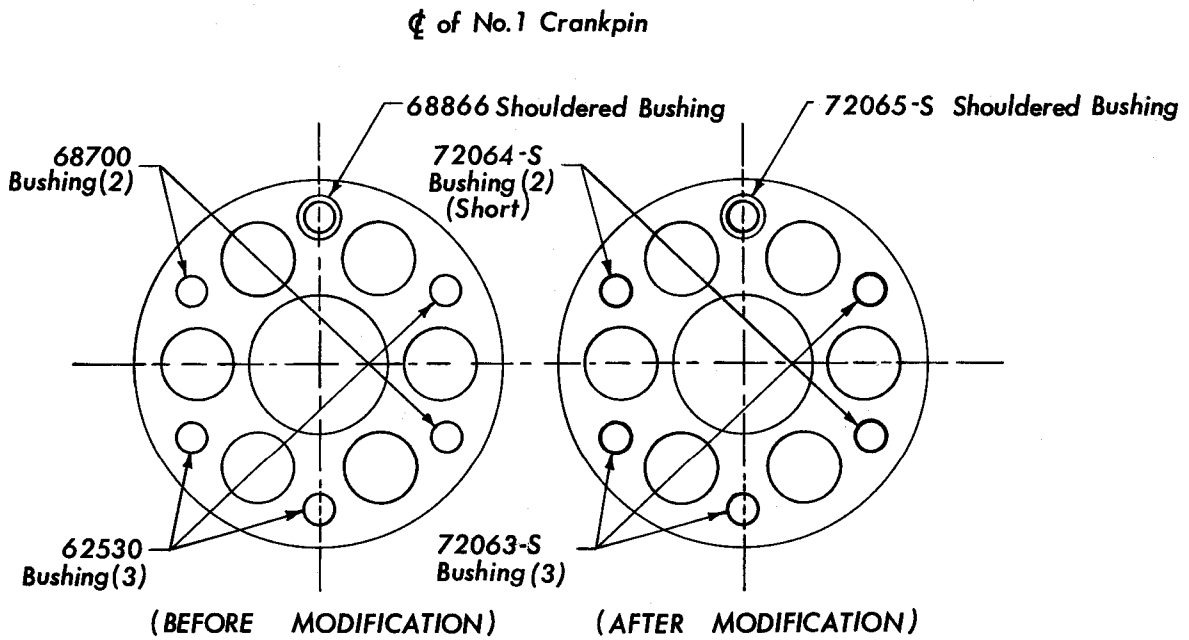


Figure 1. Location of O-340 Crankshaft Flange Bushings

PART I

The modification of the O-340 crankshaft flange is accomplished in the following manner:

- a. Remove the propeller.
- b. Remove the ring gear assembly by tapping lightly with a hammer.
- c. Use the crankshaft flange bushing tool (Lyc. P/N 64869) to remove the shouldered bushing (Lyc. P/N 68866).

Reverse the puller and insert the new bushing (Lyc. P/N 72065-S). See Figure 1.

- d. Use the puller to remove the two (Lyc. P/N 68700) bushings. See Figure 1. Reverse the puller and install the two (Lyc. P/N 72064-S) bushings.
- e. Remove the remaining three (Lyc. P/N 62530) bushings. Figure 1. Install the new bushings (Lyc. P/N 72063-S).

PART II

The modification of the O-320 crankshaft flange is accomplished in the following manner:

- a. Remove the propeller.
- b. Remove the ring gear assembly by tapping lightly with a hammer.
- c. Use the crankshaft flange bushing tool (Lyc. P/N 64869) to remove the shouldered bushing (Lyc. P/N 68866). Reverse the puller and insert the new bushing (Lyc. P/N 72065-S). Figure 2.
- d. Use the puller to remove the two (Lyc. P/N 68700)

bushings Figure 2. Reverse the puller and install the two (Lyc. P/N 72064-S) bushings.

- e. Remove the remaining three (Lyc. P/N 62530) bushings. Figure 2. Install the new bushings (Lyc. P/N 72063-S).

NOTE

After the above modification has been accomplished, remove engine specification plate and stamp a "3" over the "1" on the model number than remount. For example, O-320-A1A after re-stamping, will become O-320-A3A and O-320-B1A will become O-320-B3A.

NOTE: Part II of this bulletin is not applicable to aircraft equipped with fixed pitch propellers.

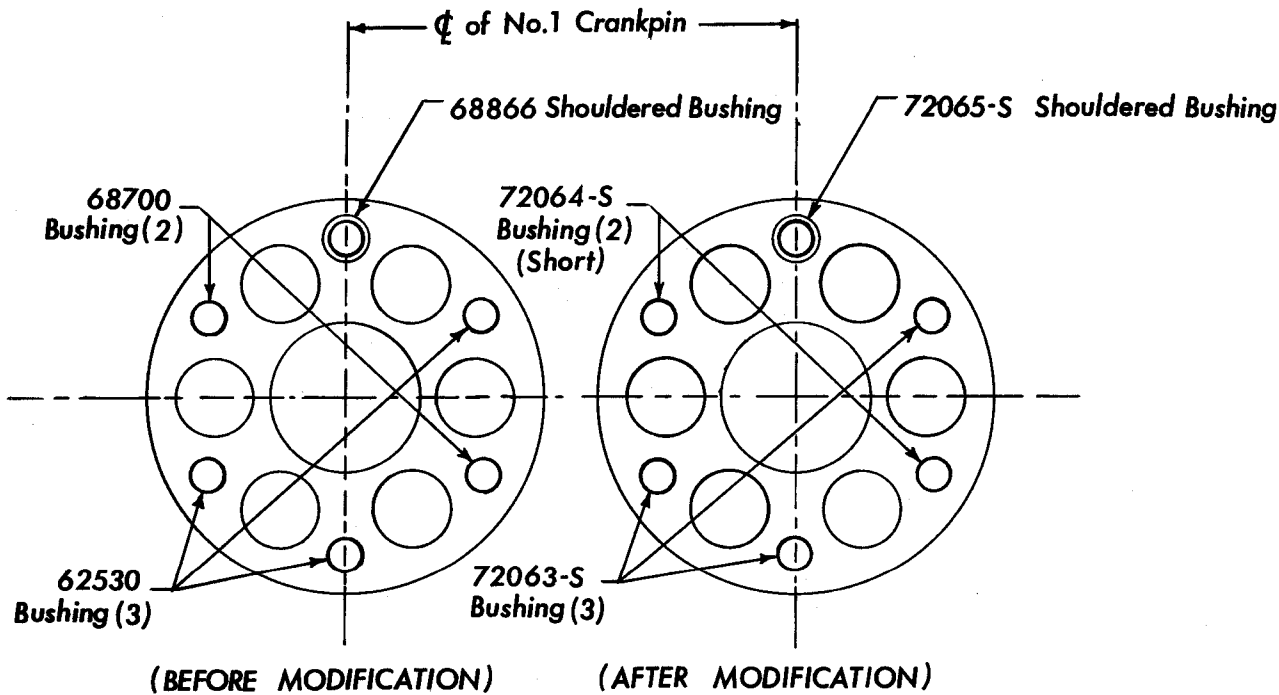


Figure 2. Location of O-320 Crankshaft Flange Bushings