51-04-02 - Cylinder holddown studs

Warner:

Category - Engine

Effective Date - Not Available Recurring - Yes

Supersedes - N/A Superseded by - N/A

WARNER:

Applies to All Engines Except Those With the Letter "A" Stamped After the Serial Number on the Engine Nameplate. The Letter "A" Indicates That the Modifications Hereinafter Discussed Have Already Been Accomplished.

Compliance required as indicated.

As a precautionary measure to preclude serious flight hazards resulting from failure of the 5/16-inch cylinder holddown studs P/N S506, the following inspections or replacements should be accomplished.

- A. Compliance required as soon as possible but not later than April 1, 1951 and at each 100 hours of operation thereafter.
- 1. Check the cylinder holddown nuts to determine that they are tightened to a torque of 180 inch-pounds desired to a 200 inch-pounds maximum.
- (a) If one or more of the studs is found to be broken, replace all of the studs for the particular cylinder.
- (b) Loose cylinder holddown nuts are a good indication that the stud may have stretched to the extent that fatigue failure may soon result. If one or more of the nuts is found loose, it is recommended that all of the studs in the cylinder be replaced.
- (c) When installing a cylinder with oil on the stud threads, tighten nuts to 200 inch-pounds desired to 225 inch-pounds maximum.

(Warner Service Letter No. A-15 discusses procedures for inspecting and replacing 5/16-inch studs and nuts.)

- B. Compliance not required, but will eliminate foregoing mandatory inspections.
- 1. Replace cylinder stud P/N S506 and nut N-511 with 3/8-inch stud S-911 and nut N-910.
- 2. Replace gasket between cylinder barrel and crankcase with an "O" type ring.
- 3. Stamp letter "A" after serial number on engine nameplate when this modification has been completed.

(Warner Service Letter No. A-17 explains the details connected with the replacement of these parts.)

The Warner Aircraft Co., P. O. Box 229, Niles, Mich., which purchased the assets of the Warner Division of the Clinton Machine Co., Detroit, Mich., have a large supply of replacement part stocks that will be held in their inventory for an indefinite period. Warner Service Letter No. A-17 should be consulted before ordering these replacement parts. If either Letter A-17 or Letter A-15 is not available, copies may be obtained from the Warner Aircraft Co., Box 229, Niles, Mich.