Airworthiness Concern Sheet

Date: July 26, 2010

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Make, Model, Series, Serial No.: Taylorcraft, all models equipped with landing gear.

Reason for Airworthiness Concern: Failure of the Main Landing Tie Strut, Part Number B-A51

FAA Description of Airworthiness Concern: A Taylorcraft BC-12D right main landing gear failed on landing when the landing gear tie strut broke approximately 6 inches inboard from the wheel. Investigation found the tie strut to be internally corroded and the probable contributing factor to the failure. Pictures of the failed tie strut are attached. Taylorcraft Aviation Corporation Service Bulletin No. 78-001 (attached) requires owners to check the strut drain hole for blockage, and to drill a drain hole if one does not exist.

Request for Information: The FAA requests information regarding known in-service problems or failures of the tie strut found on any Taylorcraft airplanes equipped with landing gear. Please contact ASW-150 with information to include aircraft model and serial number, type of failure to include the location and size of any cracks, corrosion or other problem encountered, and a point of contact name and phone number we can contact for any additional information. The FAA is also interested in any comments from Taylorcraft owners and/or users regarding landing gear tie strut problems or issues. Any replies to the FAA need to be as specific as possible. Please provide specific examples to illustrate your comments/concerns.

A preliminary risk assessment using the Small Airplane Directorate Airworthiness Directives Manual, Appendix V & VI, resulted in a Safety Risk Factor of 2 – Potential Manufacturer's Service Information, General Aviation Alert, or Special Airworthiness Information bulletin (SAIB).

This Airworthiness Concern Sheet (ACS) is intended as a means for FAA Aviation Safety Engineers to coordinate airworthiness concerns with aircraft owner/operators through associations and type clubs. At this time, the FAA has not made a determination on what type of corrective action (if any) should be taken. The resolution of this airworthiness concern could involve an AD action or an SAIB, or the FAA could determine that no action is needed at this time. The FAA's final determination will depend in part on the information received in response to this ACS.

The FAA endorses dissemination of this technical information to all manufacturers and requests association and type clubs comments.

Attachments: *SDR(s)☐ *A/IDS☐ *SL(s)☐ *SAIB☐ *FAASR/*NTSBSR☐ *AD☐ *AMOC☐ *RA☐

Notification: FAA ☐ *AOPA ☒ *EAA ☐ Type Club ☒ *TC Holder ☒ Other:

Response Requested 10/24/2010: Emergency (10 days) ☐ Alert (30 days) ☐ Information (90 days) ☒

*Service Difficulty Reports (SDRs); Accident/Incident Data System (A/IDS); Service Letter (SL); Special Airworthiness Information Bulletin (SAIB); Federal Aviation Administration (FAA)/National Transportation Safety Board (NTSB) Safety Recommendation (FAASR/NTSBSR); Airworthiness Directive (AD); Alternate Method of Compliance (AMOC); Risk Assessment (RA); Aircraft Owners & Pilots Association (AOPA); Experimental Aircraft Association (EAA); Type Certificate (TC)

Failed Tie Strut on RH Main Gear

Broken End of Tie Strut (Removed from Aircraft)

AREA CODE 216-939-4471 DOROTHY A. FERIS, President

TAYLORCRAFT

AVIATION CORPORATION

14600 COMMERCE N. E.

P. O. BOX 243 ALLIANCE, OHIO 44601

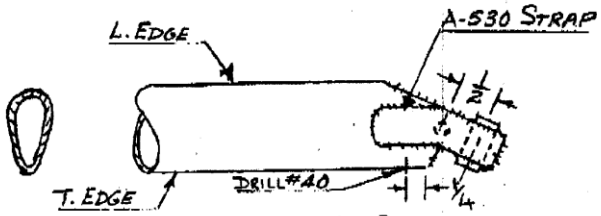
SERVICE BULLETIN

DATE Sept. 19, 1978 SB NO. 78-001

SUBJECT: Drain hole - landing gear tie strut.

COMPLIANCE REQUIRED: Within thirty (30) days from receipt of this Bulletin.

COMPLIANCE PROCEDURE: (1) Inspect landing gear tie strut (TAC P/N B-A51) near "bolt" at axle for obstruction or foreign material in drain hole



B-A51 TIE STRUT

FIG. 1.

Note that drain hole is ~~either~~ located at center of strap (TAC P/N A-530) and/or at trailing edge of tie strut. Only one hole is sufficient for drainage.

(2) If drain hole(s) is (are) plugged, open with suitable means.

(3) If none of the drain holes exist, drill #40 in trailing edge as shown in Fig. 1.