

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
BUREAU OF SAFETY REGULATION
Washington

December 9, 1940

AIRWORTHINESS MAINTENANCE BULLETIN NO. 39.

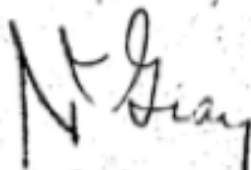
Culver Model LCA

As a precautionary measure, the Administration requests that the front rudder control cables and pulleys be replaced immediately on Culver Model LCA airplanes, Serial Nos. 102 to 178 inclusive, in accordance with Culver Service Memorandum No. 5. The manufacturer's memorandum, necessary instructions, and the replacement kit have been forwarded to all owners affected.

Prompt compliance with the manufacturer's recommendations will be effective in precluding future rudder cable failures at the front pulleys.

An appropriate entry should be made in the log book to record the completion of these alterations. The requests contained herein are based on the service records in the possession of the Civil Aeronautics Administration and are made in an endeavor to assist you in maintaining the airworthiness of your airplane.

If you have sold your Culver LCA airplane(s), please forward this bulletin to the new owner.



J. T. Gray,
Chief, Aircraft Airworthiness
Section.

GES/JDR/ACE

CULVER AIRCRAFT CORPORATION
WICHITA, KANSAS

SERVICE MEMORANDUM

NO. 5

Applies to Model LCA - Serial Nos. 102 through 178 -

SUBJECT: RUDDER CABLE AND FRONT PULLEY INSTALLATION

REFERENCE: CULVER MEMORANDUM NO. 4

1. Some time ago you received Service Memorandum No. 4 requesting immediate inspection on the rudder control cables at the point where they passed over the front pulleys. Service has conclusively shown that the angle of the cable over these small pulleys was great enough to result in fraying of the cable after an extended period of use. If this cable fraying was not detected and was allowed to continue, eventually the cable would break, as happened in a few instances, resulting, fortunately, in no serious damage. The Service Memorandum No. 4, in addition to requesting inspection and replacement of frayed cables, also indicated that the factory would soon forward a kit of replacement parts which would eliminate this condition. These parts are included with this Memorandum and consist of the following:
 - Two - No. 486 Front Pulley Brackets
 - Two - No. 456 Replacement Cables
 - Two - No. 458 Front Rudder Pulley Cables
 - Two - AN210-2 Pulleys
 - Two - AN100-4 Thimbles
 - Drawing No. 489 showing replacement details
 - Two - Floorboard Beam Plywood Gussets
 - One - Floorboard Beam
 - One - Small Package of Cement Coated Nails

2. Drawing No. 489, referred to above, clearly shows the procedures required in changing over from the small pulley to the large pulley. As shown on the upper part of the drawing, certain parts are removed and certain parts are saved for use in the new installation. The lower two views on this drawing show the correct installation of the new parts. It will be noted that the original floorboard beam will have to be cut out into two places, as shown, in order to set the new pulley brackets back on the new beam. Scrape all the finish from the rear face of the original floorboard beam and the adjacent section of floorboard before glueing in the new floorboard beam. The new floorboard beam comes already notched and drilled for installing the pulley brackets after the floorboard beam and gussets are installed. All new woodwork is to be given two coats of high-grade varnish. It will be necessary to make the splice in each of the cables, part No. 456. To correctly accomplish this installation, the rudder pedals should be blocked at the neutral position shown and the rudder should be blocked in neutral. Then with the turn-buckle properly set for adjustment and length, the location of the splice can easily be determined on installation. This drawing is sufficiently clear so that no trouble should be experienced by a competent mechanic in making this alteration.

3. The replacement of these parts is considered to be an emergency matter and in order to provide for the safety of all concerned, after our original Service Memorandum No. 4 had been sent out it was agreed between ourselves and the Aircraft Airworthiness Section of the Civil Aeronautics Administration that an official bulletin should be issued by that Section in order to positively insure inspection of this point in all airplanes in service and to expedite replacement with all possible haste. Upon receipt of this kit and replacement of these parts you are requested to properly fill out and return the enclosed acknowledgment to the Civil Aeronautics Administration, in order that we may report progress on this field replacement.
4. This Memorandum has been approved by the Aircraft Airworthiness Section of the Civil Aeronautics Administration.

ENGINEERING DEPARTMENT

Approved December 2, 1940

Al W. Mooney
Al W. Mooney
Chief Engineer

NOTE: NOVEMBER 2, 1960

If you find that your aircraft has not been so altered please advise me and I will send your kit to you.

Ronald Logan
Ronald Logan
General Manager