

CULVER AIRCRAFT CORPORATION
WICHITA, KANSAS

SERVICE MEMORANDUM

NO. 12

SUBJECT: Alteration of Front Stabilizer Attachment to Fuselage.

TO: Owners of Model LCA & LFA Airplanes, Serial Nos. 101 through 459.

1. It has come to our attention that the underside of the top longerons at the front stabilizer attachment on some airplanes has become crushed. This appears to be due to any one or all of the following causes: Excessive tightening of the attachment bolt, and improper handling on the ground.

2. The following inspection and alteration should be made to your airplane to prevent anything of a serious nature from happening:

Remove stabilizer and elevator. It will be necessary to disconnect the tab cables at the turnbuckles which are just aft of the bulkhead at the rear of the cabin.

Inspect the under side of the top longerons for crushing at the front stabilizer attachment bolt. Also, inspect the skin just below the top longeron for cracks or splitting.

If one or both longerons are crushed, they will have to be spliced in accordance with Culver Drawing No. 798, a copy of which is attached. This drawing shows a typical longeron splice. If the skin is split or cracked a panel, from longeron to longeron and from bulkhead or vertical to vertical, must be replaced using 10 to 1 scarf joints. If longeron does not have to be repaired, remove steel bushing if one is installed, scrape off lionoil from under side of the longeron and the skin for 3/8 in. below the longeron between the rear side of the fin bulkhead and the vertical member aft of the front attachment fitting.

Glue a piece of aircraft quality birch, maple, or black walnut plywood 3/16" thick 1-1/8" wide and 2-1/2" long to the underside of the longeron as shown in Fig. 1. Use aircraft quality casein glue mixed according to directions.

If longeron or longerons have to be replaced, glue bearing blocks in place before replacing skin.

The bolt hole will have to be drilled thru the plywood block on the bottom, using a 5/16 drill. If your airplane did not have a bushing, the hole will have to be drilled out to 5/16 as well as drilling the block.

A bushing, 1-3/16" long of 5/16 OD x .028 wall steel tubing is to be inserted in the hole.

After the blocks and/or skin have been glued in place, relionoil all unprotected wood. If skin has to be replaced, refinish exterior to

match rest of fuselage.

Reinstall horizontal tail, replacing the front mounting bolts with AN4-16A bolts fixed from rotating as shown on Fig. 1.

3. Appropriate entry of compliance with this memorandum is to be made in the aircraft log book.

If you have sold your airplane, please forward this bulletin to the new owner.

ENGINEERING DEPARTMENT

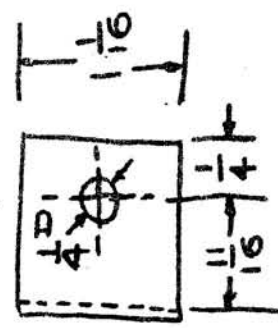
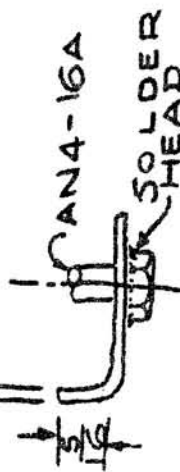
Attachments (20)

ROBERT B. SHORT,
Chief Engineer

Approved, May 28, 1942.

10-11-45

21576
D49 SAE 4130 SHEET



BOLT ANCHORING
DETAIL
"A"

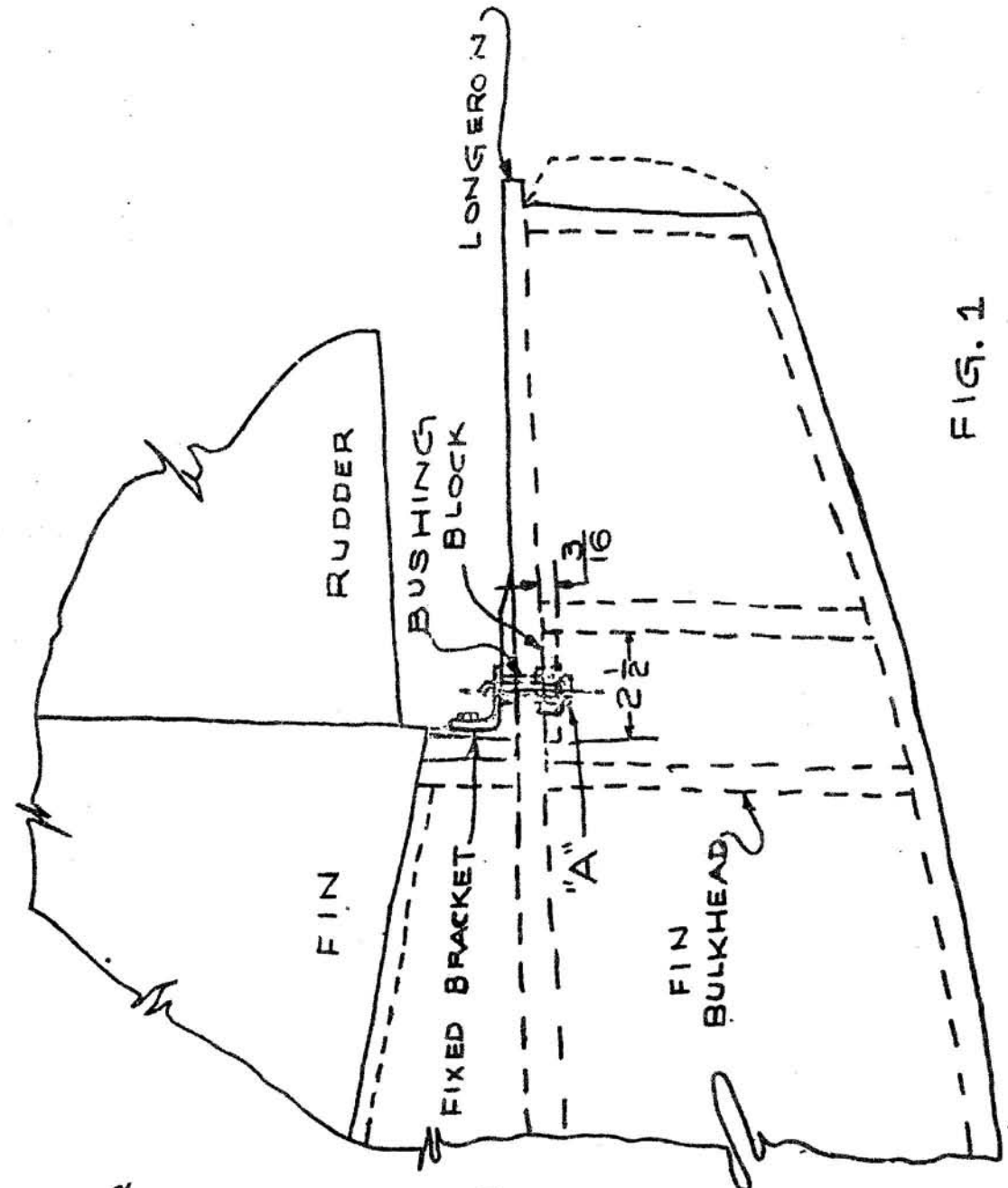
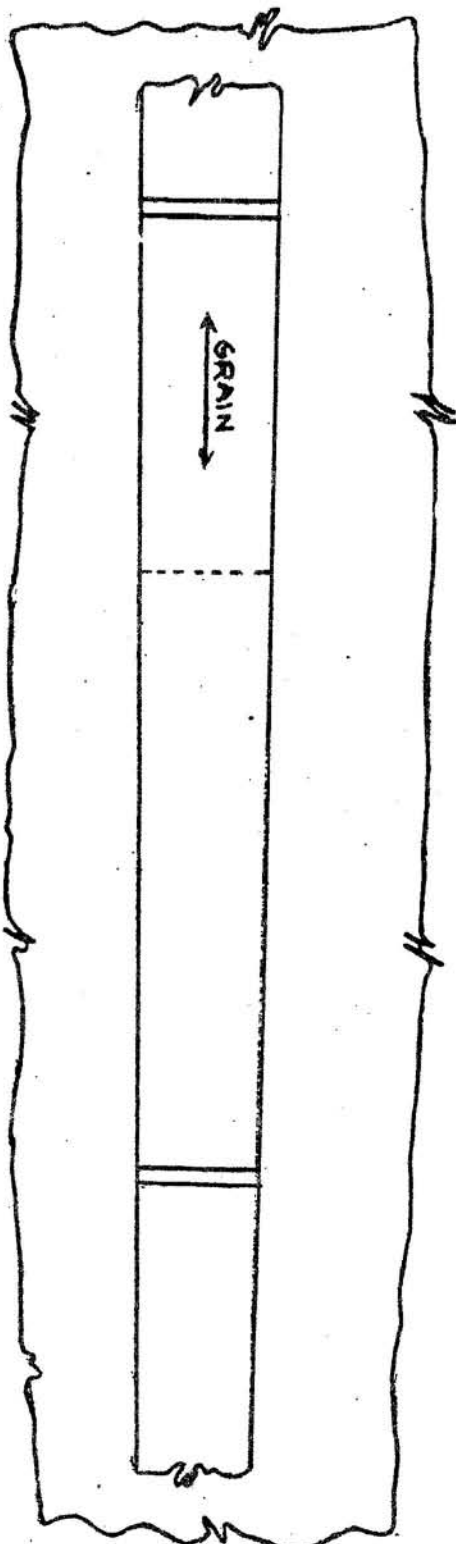
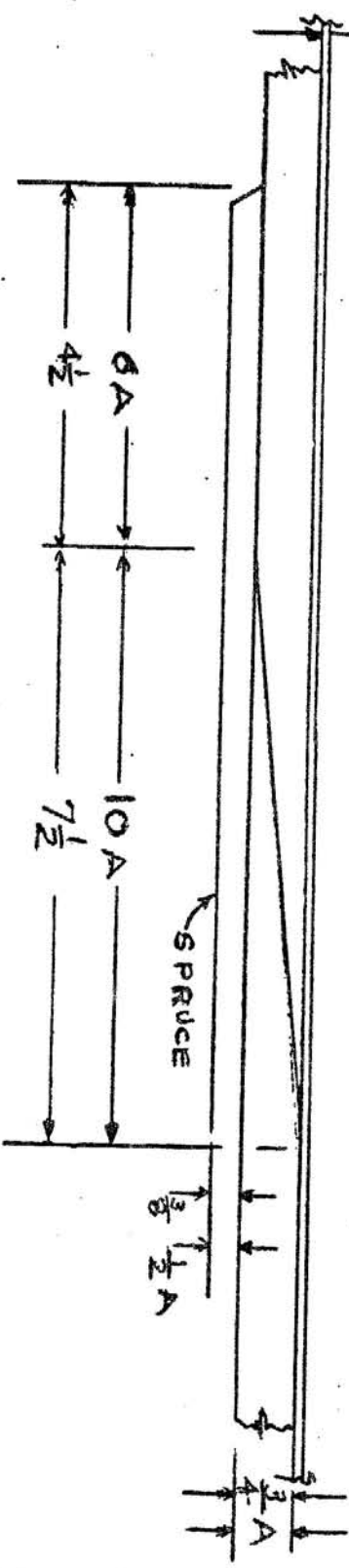


FIG. 1

1/8 PLYWOOD SKIN REF



NOTE--ONLY ONE LONGERON SPLICE PER FUSELAGE BAY

AIRCRAFT QUALITY CASEIN GLUE
MUST BE USED

DRN	CHK	APP	TOLERANCE	SCALE: 0"=1'0"	FUSELAGE STRUCTURE	MODEL - 1
					TYPICAL	
					LONGERON SPLICE	
					CULVER	
					AIRCRAFT CORP	
					WICHITA KANS.	
					798	

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