

SERVICE BULLETIN NO. 76

56" lead used

SUBJECT: Instructions for Modifying Ailerons on B17 and C17 Model Airplanes to Remove the Restrictions Imposed by C.A.A. Airworthiness Bulletin No. 26.

AIRPLANES AFFECTED: All B17 and C17 Model Airplanes up to and Including Serial Number 135.

1. Determine the balance condition of the ailerons as they are when removed from the wings (previous to beginning modifications). Record this information on the attached form page No. 5 and return it to the Beech Aircraft Corporation. Be sure to do this as the Civil Aeronautics Authority requires this information. The aileron should be set up as illustrated in Figure No. 1 with the chord line horizontal. The chord

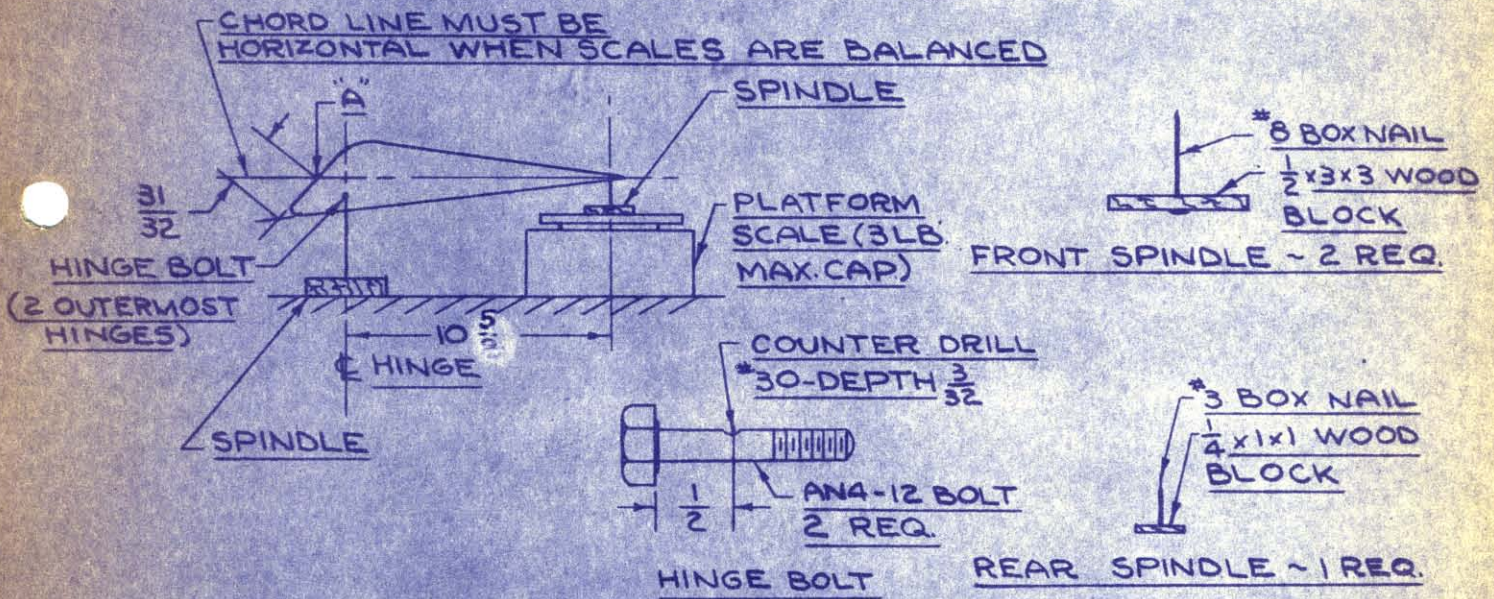


FIGURE NO. 1

line will be a line drawn through point "A" on the aileron nose bisecting the trailing edge radius on the root rib. The weight registered on the scales will be the amount the aileron is out of balance at this point. If the scales register zero the aileron is balanced. Should the trailing edge tend to rise the aileron is over balanced.

2. After the balancing condition has been determined, prepare nose section for the addition of a new lead section and a wood fairing strip for the purpose of rounding the nose and balancing the aileron (See Figure No. 4). To do this proceed as follows:

- (a) Clean aileron with compound.
 - (b) Sand back on both sides of aileron for fabric to be added later over the reworked nose. See Figure No. 4.
 - (c) Cut fabric along aileron nose one inch back on underneath side and two and one-quarter inches up on top side. Tape remaining fabric to plywood to prevent shavings from getting in between fabric and plywood.
 - (d) Scrape away old protective coatings from plywood now exposed.
3. Approximately 72 inches of lead will be required to balance the B17L, B17B, C17L, and C17B ailerons. Approximately inches of lead will be required to balance the B17E, B17R, C17E, and C17R ailerons. Before gluing spruce fairing to nose determine as nearly as possible the amount of lead required. This may be accomplished by taping the lead and wood fairing to the nose at the correct location and balancing, see Figures 1, 2, and 4. Be sure to cut the lead long enough to compensate for the nose of the aileron that will later be rounded off. Spruce fillers may be glued in to fill space if the lead has to be cut off later. Install lead continuously along the nose as far outboard as possible. At the tip work lead down to maintain 1/8 clearance at every point along aileron.
4. Glue wood fairing strips to leading edge, locating as illustrated in Figures 2 and 4. Nail fairing strips to ribs to keep fairing from sliding while gluing pressure is being applied. Apply gluing pressure by piling sand

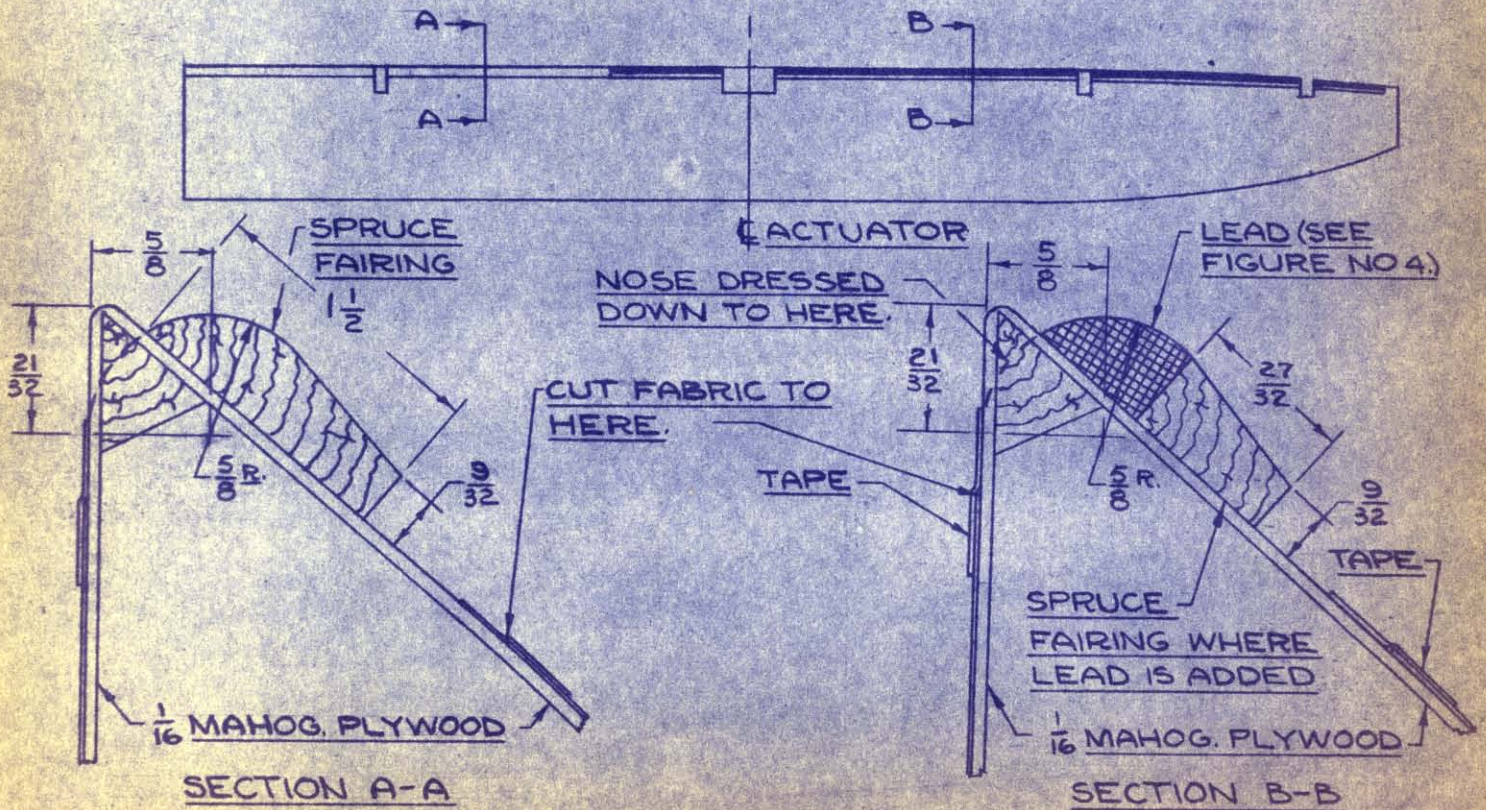


FIGURE NO. 2

bags against aileron nose as in Figure No. 3.

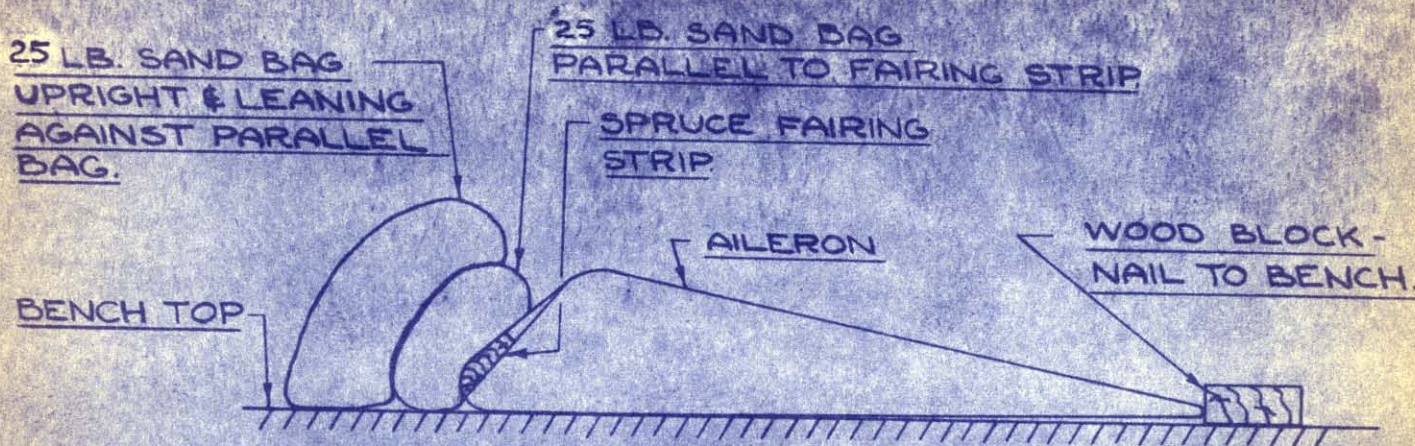


FIGURE NO. 3

5. Attach lead to glued on wood fairing strip with #4-36 1-1/2 long oval head machine screws, spacing 3-1/2 apart. See Figure No. 4.

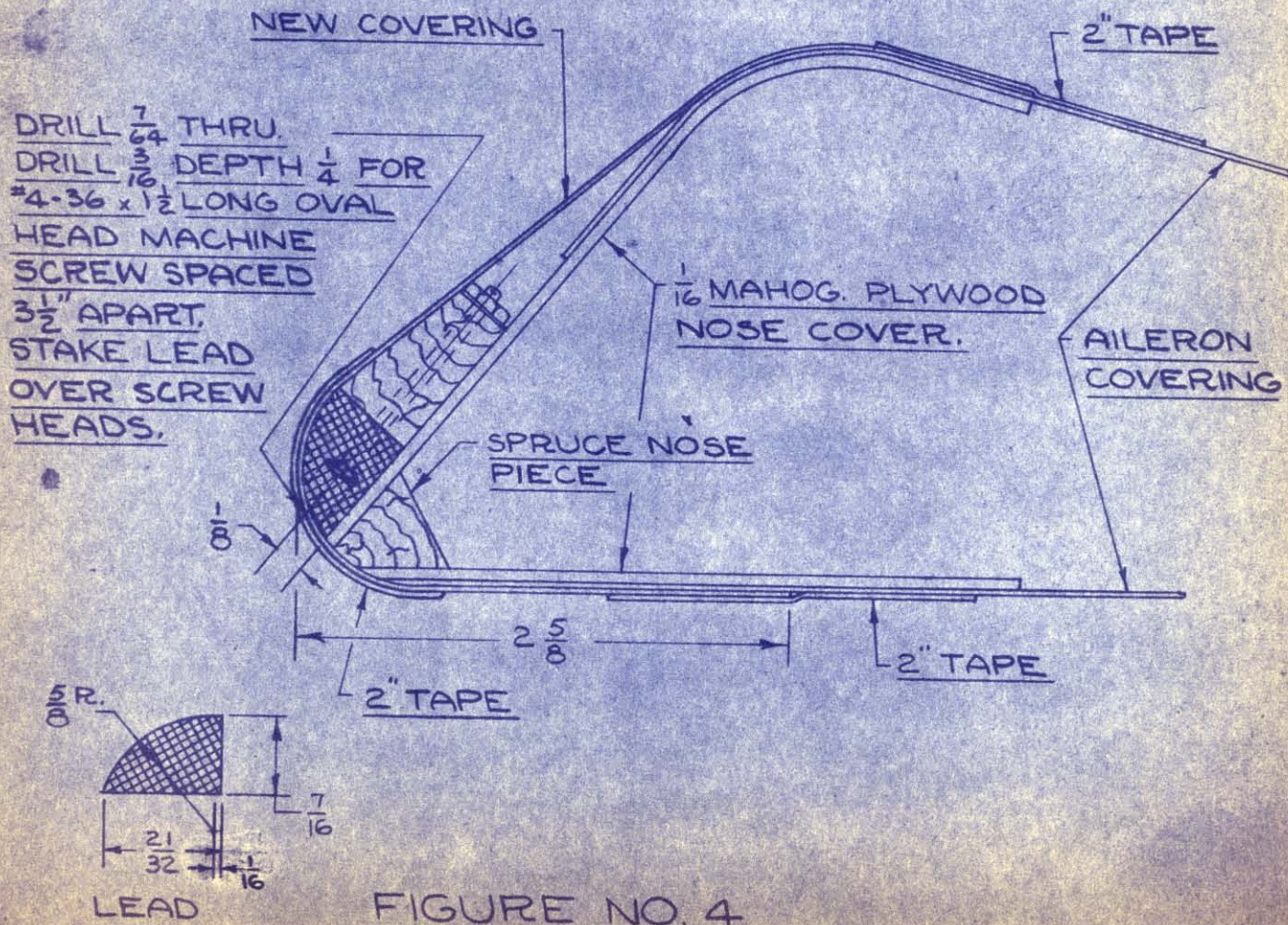


FIGURE NO. 4

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5. The amount of lead to be added will be determined by the balancing condition of the aileron. Sufficient lead must be added to at least completely statically balance it. A little over balance is permissible but no under balance.
6. Cover nose of aileron proceeding as follows:
 - (a) Apply one coat of dope to plywood leading edge and underneath side of adjoining fabric. Work dope into fabric until it is sticking firmly to plywood.
 - (b) Dope on new fabric nose cover (See Figure 4).
 - (c) Dope on 2" Grade "A" Flightex Tape at edges of new nose cover and over nose.
7. Reshape metal fairing strip, at control link location, to new nose contour. For support of lower end attaching screws, glue to inside of lower plywood surface a $3/8 \times 1\ 1/2 \times 2$ spruce block. Dress block down where necessary to maintain full travel.
8. Finish nose to match remainder of aileron.

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BALANCE DATA

Please fill in this form accurately and return it promptly to the Beech Aircraft Corporation, Wichita, Kansas.

Airplane Model _____
Serial Number _____
License Number _____
Owner's Name _____
Owner's Address _____
Date Balancing Completed _____

	Right Aileron	Left Aileron
1. Weight at trailing edge of aileron as removed from wing with set up as in Figure No. 1	____ lbs. ____ oz.	____ lbs. ____ oz.
2. Weight of Lead added to aileron.	____ lbs. ____ oz.	____ lbs. ____ oz.