



**REPUBLIC AVIATION CORPORATION
FARMINGDALE, LONG ISLAND, NEW YORK
SERVICE DEPARTMENT**

September 9, 1947

MANDATORY CHANGE

SERVICE BULLETIN NO. 19

INSTALLATION OF WING STRUT BRACES

Reason for Change: The design of the wing float strut is adequate for normal usage. However, a brace has been developed which will double the ability of the strut to take side loads such as are imposed during drift or rough water landings. This brace, which attaches to the wing lift strut fitting and the bottom of the float strut, is designed so that two rivets will shear before a heavy side load could damage the lift strut fitting. As this brace also increases the strength of the float strut in a fore-aft direction, it is necessary to add a reinforcing angle to the rear spar at the inboard end so that an adequate margin of safety is provided between the ultimate strength of the float strut and the point at which the rear spar may crimp.

Airplanes Affected: All airplanes.

Description of Change: This change involves installing a brace between the bolt holding the lift strut to the wing and the upper of the through bolts holding the float to the float strut. A spacer with two large disc washers is inserted inside the float strut to keep it from collapsing under load. Also, an angle is bolted to the forward lower side of the rear spar at the inboard end. The change shall be accomplished as follows:

Installing Wing Reinforcing Angle:

1. Place flaps in partially down position.
2. Remove four outboard bolts from fitting on inboard end of rear spar, leaving inboard end bolts as is.
3. Place 17W21028-1L angle in position shown on Figure 1. This is on the forward bottom side of the aft wing spar. Insert angle through spar lightening hole. Install second from inboard end bolt through existing hole in angle and clamp outer end of angle in position.
4. Mark location of seventeen holes to be drilled in spar web as shown on Figure 1 and drill through web and angle with a #10 (.193) drill. Install AN3-5A bolts, AN365-1032 nuts and AN960-10 washers.
5. Drill three ¼" (.250) holes through angle at inboard end using holes in spar as guides. Reinstall original ¼" bolts, nuts and washers.

6. Install 17W21028-1R angle in same manner on right wing except that it will be necessary to cut a piece off the outboard end of the angle to clear existing stiffener inside the wing.

Installation Float Strut Brace

7. Install Float Strut Brace Assembly 17W22013-1L, Spacer 17W22011-1 and Lug 17W22010-1 as follows on the left wing referring to Figure 2.
 - a. Remove wing float.
 - b. Attach Strut Brace Assembly 17W22013-1L to forward side of wing lift strut fitting using same bolt which attaches lift strut to fitting.
 - c. Reinstall wing float, first placing Spacer 17W22011-1 and two Washers 17W2201L-1 over spacer in upper attaching hole in strut as shown on Figure 2 (a).
 - d. Put Lug 17W22010-1 in place as shown. Using pilot holes in lug as guides drill through lug at end of strut with a #20 (.161) drill first being sure that there is at least 1/8 inch flat at the two locations shown on Figure 2 (b). Attach lug to strut with two AN441-5-7P rivets.
8. Repeat above installation on right side.
9. Make suitable entry in log books.

Parts Required:

Service Bulletin Kit No. 19 (Spare Parts Item 1570) consists of the following:

<u>Quantity</u>	<u>Part Number</u>	<u>Part Name</u>
1L-1R	17W21028-1	Angle
2	17W22010-1	Lug
2	17W22011-1	Spacer
4	17W22012-1	Washer
1L-1R	17W22013-1	Strut
34	AN3-5A	Bolt
34	AN365-1032	Nut
4	AN441-5-7P	Rivet
34	AN960-10	Washer

Time Required: Approximately 6 man-hours are required to accomplish this change.

W. H. Ehmann
Service Manager

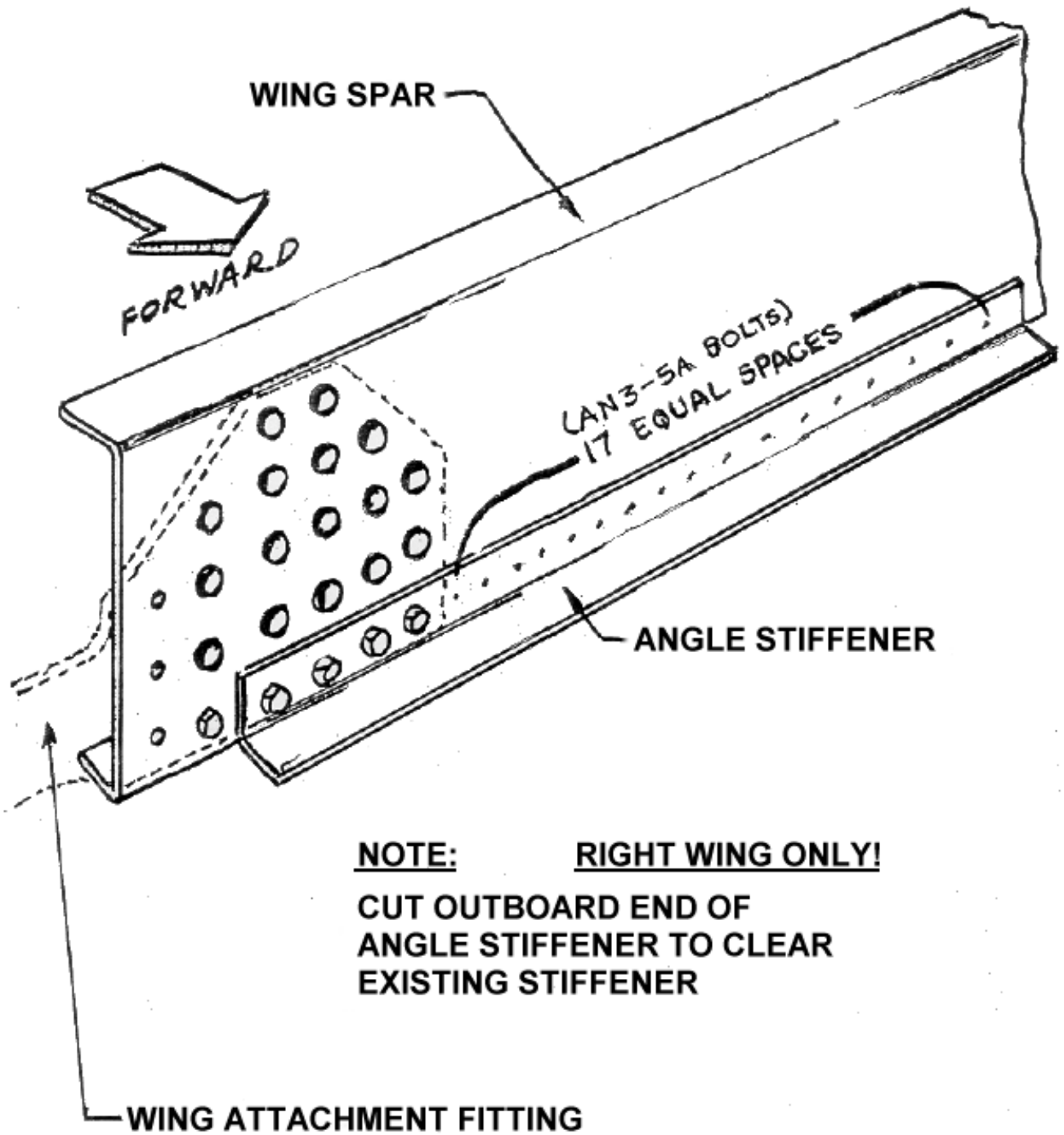


FIG. 1

NOTE:
INSTALL TWO WASHERS AND
A SPACER INTO EACH STRUT
BEFORE REPLACING THE FLOATS

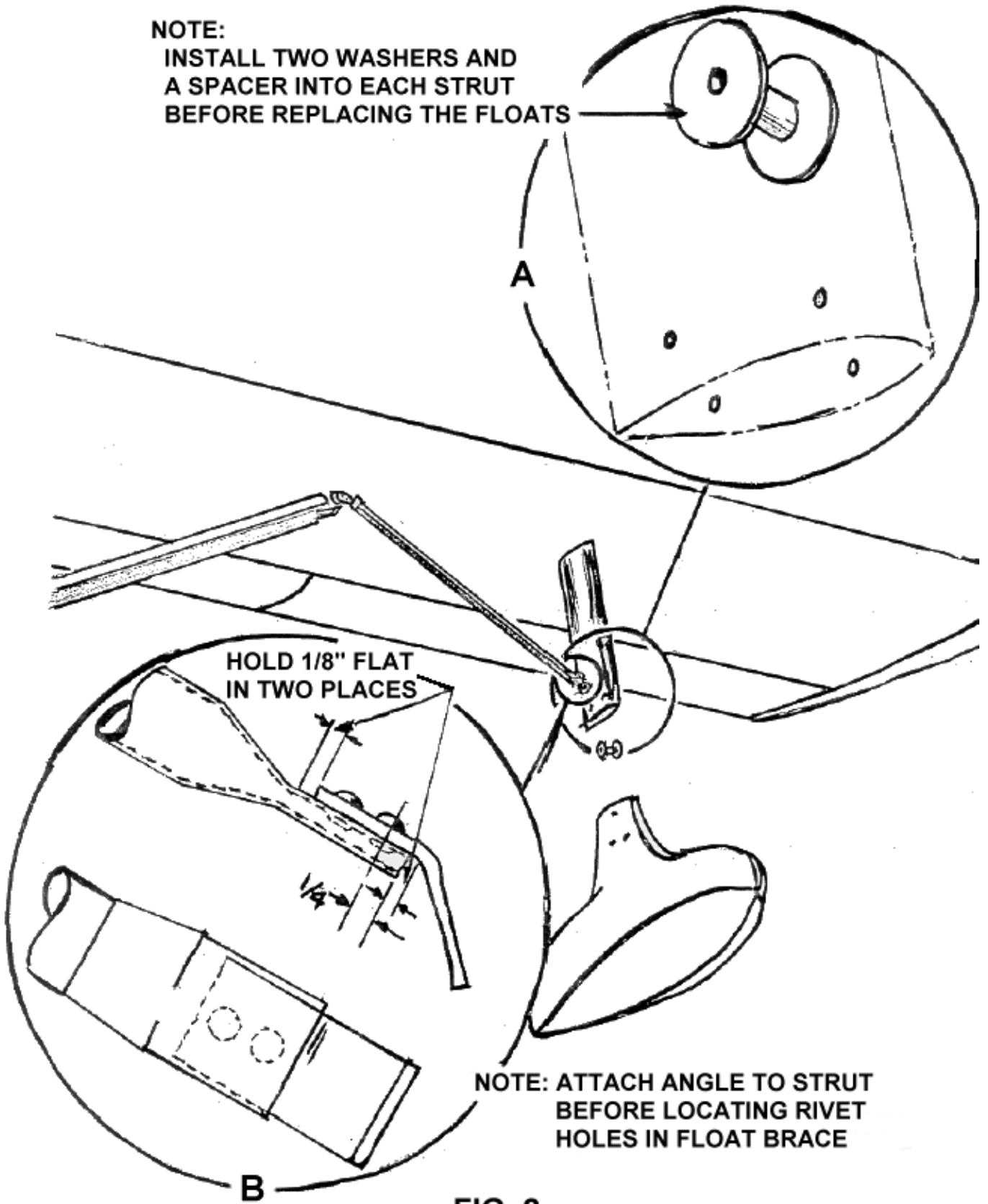


FIG. 2