

## IMMEDIATE ACTION

# SERVICE

NUMBER 79



# BULLETIN

June 13, 1940

Rev. Date: 2-18-46

**SUBJECT:** Reinforcing of Rib Nose Structure

**MODELS AFFECTED:** J4 Cubs, Serial Nos. 4-400 to 4-634 incl., 4-636, 4-638, 4-639 and 4-641.

At the request of the Civil Aeronautics Authority, this bulletin describing the method to be used in reinforcing the nose structure of the ribs of the subject model is being issued.

Sketch 1 shows the structure of the forward portion of the rib. That structure which is shown in solid lines is that which is now existent. The diagonal brace shown in dotted lines is to be inserted as shown.

To install this reinforcing brace, it will be necessary to remove the two rivets marked "A". These rivets are removed most easily by drilling from the hollow end with a size 42 drill. The brace is to be installed with four (4) 3/32" soft aluminum rivets, two of which replace the original rivets. The remaining two rivets are placed in the upper end of the brace as shown in the accompanying sketch.

In riveting this brace, it must be borne in mind that the minimum distance between the centerline of the rivet and the edge of the material is 1/8". Care must also be exercised not to split the capstrip when riveting in the crimped section. The material has already been worked and any careless hammering is certain to result in cracks. It is recommended that a formed heading and bucking block be used.

The reinforcing brace must be installed on the opposite side of the rib from the present diagonal, marked "B" on the sketch.

When ordering this brace from your local dealer or distributor specify part number 1070.

**PIPER AIRCRAFT CORPORATION, LOCK HAVEN, PA., U. S. A.**

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An appropriate entry should be made in the airplane log book upon completion of the installation of this reinforcing brace.

NOTE: This bulletin was formerly Service Bulletin No. 29.

As an alternate method to that discussed above, we are offering the following method of reinforcing the rib nose structure of the subject model. This method does not require the removal of the wing covering, and for that reason may be more desirable than that outlined in the earlier bulletin.

Sketch 2 on the following page shows details of the installation while the following comments give the procedure to be followed.

1. There will be forwarded to you under separate cover a complete kit containing all necessary parts. Check this kit with the list of material on the last page of this bulletin. It is not necessary to reinforce the extreme tip rib of each panel. This leaves a total of 26 ribs per ship to be reinforced.
2. Cut two slots in the leading edge material beside the top capstrip of each rib. These slots must be on opposite sides of the rib, and are spaced as shown in Figure 3. Figure 1 shows the size of the slot and its position with respect to the capstrip. Care must be used to determine the exact position of the capstrip so that it will not be damaged when drilling the slot. The rough edges left by the drill can be removed by a small flat file.
3. Cut a slot in the fabric on each side of the lower capstrip for the lower end of the strap.
4. Insert the strap by sliding it downward through the slot from the top of the wing. Mark the bend line of the lower end, remove the strap and start the bend. It can then be replaced, the bend completed and the strap cut so that there is approximately a 1/8" overhang past the rib capstrip.
5. Drill the strap and the rib with the drill included in the kit and insert the Parker screws, also included in the kit. Refer to Figure 2 for details of the placing of the Parker screws. They should be placed in the side of the capstrip opposite the body of the brace. The strap should be taut, but not enough so as to damage the rib.
6. The pinked tape included is to be placed over each rib completely around the wing leading edge, starting at a point approximately 1" aft of the front spar on top and continuing around to the same point on the bottom. This completes the installation.

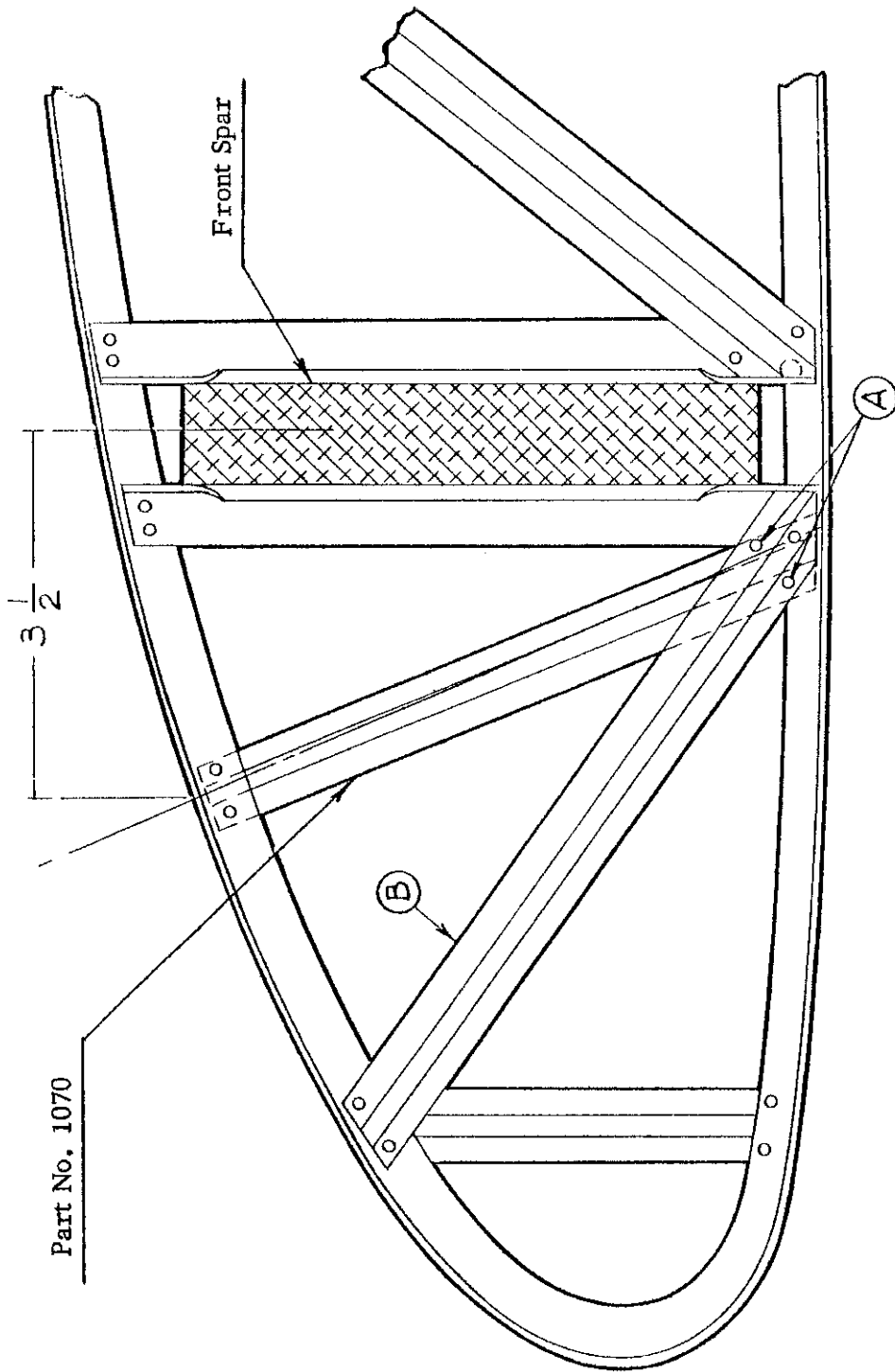
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Before removing the maneuvering placard, it is necessary to contact a representative of the Civil Aeronautics Authority and notify him of this alteration. An appropriate entry should be made in the aircraft log book.

Material included in kit furnished by your local dealer or distributor:

54 stainless steel strips, Part No. 1141 (.020 x 3/8" wide).  
110 type "A" No. 4 Parker-Kalon screws.  
18 yds., 1-1/2" wide pinked reinforcing tape.  
1 Number 42 drill.

NOTE: This bulletin was formerly Service Bulletin No. 30.



SKETCH 1

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