

SERVICE BULLETIN 82 SUPPLEMENT A

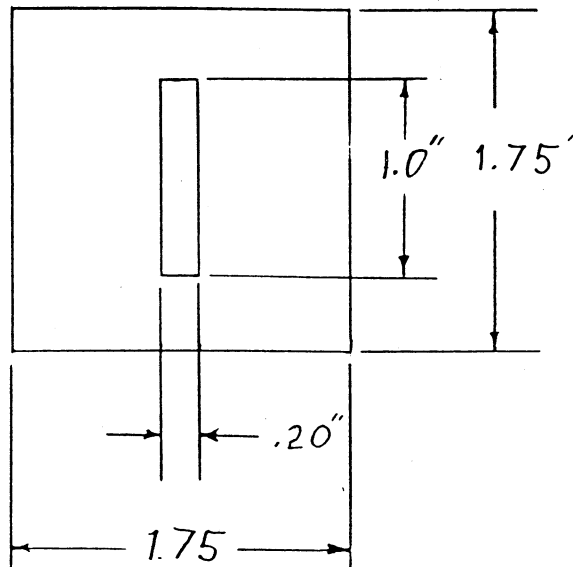
SUBJECT: REWORKING THE GLASAIR III 90° INDUCTION ELBOW

APPLICATION: All Glasair III 90° induction elbows and support arms shipped before 10/8/90

DESCRIPTION: Since Service Bulletin 82 was issued, we have had no further reports of failure of either the 90° induction elbow or the induction elbow support arms. Our prototype Glasair III is still using its original elbow and support arms with no failure and with more than 1400 hours of flight time, which includes hundreds of aerobatic routines.

Since we have had no further reports of cracking, we require only that the builder continue to inspect both the 90° elbow and the support arms at 25 hour intervals. Refer to the original Service Bulletin 82 for details. We strongly recommend reworking the elbow, however, as described in the following instructions, to prevent the possibility of cracks forming. If the elbows are reworked, then the 25 hour inspection requirement for the 90° elbows may be disregarded.

SOLUTION:




REINFORCEMENT PATCH

.063" 4130 STEEL

FIGURE (1)

Cracking found at the base of the welded control cable mounting tab in the two instances originally reported may have been the result of the metal being stretched too thin during the tube bending process to properly support the tab. To reinforce these areas, weld a 4130 steel sheet reinforcement patch around each of the control cable mounting tabs. The reinforcement patches must be slotted to slip over the tabs and formed to match the curvature of the tube by heating with a torch and hammering into shape.

 <b>STODDARD-HAMILTON</b> AIRCRAFT, INCORPORATED			
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Remove the cadmium plate in the areas where the welding will be done, and weld the patches to the elbow and all around the tabs. After welding, paint the elbow with an epoxy primer to protect against corrosion.

**WARNING:** Cadmium plating must be removed before welding; otherwise dangerous cyanide gas may be released by the heat of welding.

**NOTE:** If one of the control cable attach tabs is too short to accommodate the patch, cut off the tab and fabricate a new, slightly longer one from .125" thick 4130 steel sheet. Reweld the new tab in the same location and at the same angle as the original tab before welding the patch in place. This sequence ensures that the tab is attached to both layers of material for maximum strength.

Prefabricated 4130 steel patches may be purchased for \$8.00 each (\$16.00 for a set of two), or you may return your induction elbow to Stoddard-Hamilton for rework. If you return the elbow to us by February 1, 1991, we will reinforce it, replate it, and return it to you by March 15, 1991. The price for the rework is \$48.00 per elbow.

**NOTE:** All induction elbows returned to Stoddard-Hamilton must be tagged with the builder's name, the kit number, and specific instructions: "Rework per Service Bulletin 82-A." The tag must be wired to the elbow for ease of removal; DO NOT use tape.



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