

# GLASTAR SERVICE BULLETIN 1

**Subject:** Trim Tab Hinge

**Applicability:** Kits #5002 through 5050, inclusive

**Discussion:** A design change occurred between the shipping of your tail group kit and the printing of the trim tab section of the *GlaStar Assembly Manual*. As a result, you were supplied with the 36" length of hinge stock (P/N 335-2000-136) called for by the original design rather than the 44" length (P/N 045-20257-44) called for by the current design and specified in the manual.

The original design called for two short hinges made of extruded aluminum stock at either end of the trim tab. The revised design features a full-length hinge of bent-loop aluminum hinge stock. Because the extruded hinge (the type you received) is much stronger per unit length than the bent-loop type, the two designs are equally strong.

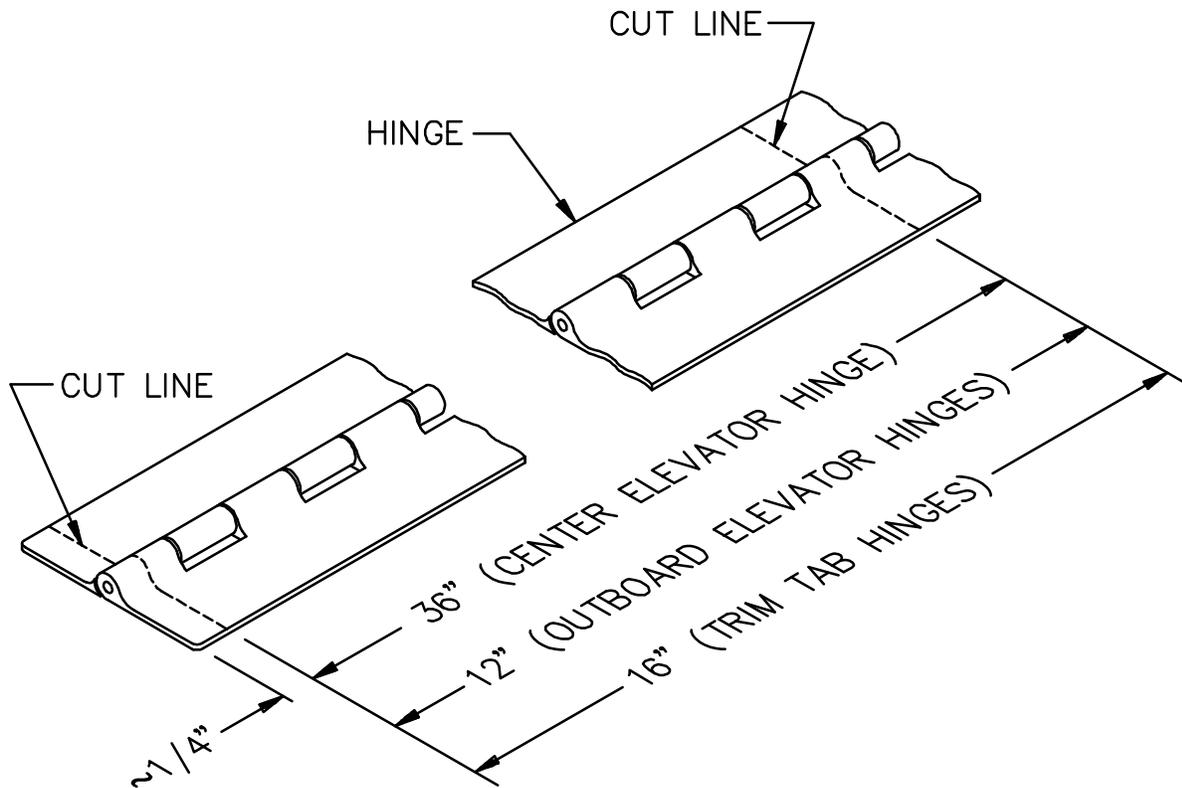
**Recommended Action:** The recommended action in response to this situation is simply to install the hinge you were provided—the 36" extruded hinge—according to the original design. The following instructions are keyed to the relevant steps in "SECTION V: ELEVATOR ASSEMBLY" of the *GlaStar Assembly Manual*.

## ***Step 78: Cut the Elevator and Trim Tab Hinges to Length***

Replace the **first paragraph on page 94** with the following: Remove the pin from the **36"** length of hinge stock and separate the halves; the hinges will be cut one half at a time. As shown in Figure 51, each end of each hinge should fall roughly in the middle of one of the "knuckles." So, first, select one half of the hinge stock and cut off one end in the middle of the first "knuckle." From that freshly cut end, measure, mark and cut off a **16"** length. This will be one of the trim tab hinges.

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Replace **Figure 51** with the following:



**Figure 1: Cutting the Hinges**

Replace the **first paragraph on page 95** with the following: Next, lay the 16" half flat on the bench and slide it together with its mate (the remaining 36" half), with the loops up on both halves. Mark the 16" length on the second half, using the cut 16" half as a guide. Cut the second half to the marked length. Repeat the process on the remaining stock to produce a second 16" pair.

Smooth and deburr all five hinge pairs as instructed.

Before proceeding to **Step 79** complete the following **additional step**: At an open width of 1-1/2", the hinge stock provided is too wide to fit inside the narrow flanges of the trim tab slot and trim tab. Thus, you'll need to cut it down, as shown in Figure 2. Mark lengthwise lines  $7/32$ " in from the edges of both halves of both hinges, and use a bandsaw or heavy-duty shears to remove the excess width. Carefully smooth the cut edges.

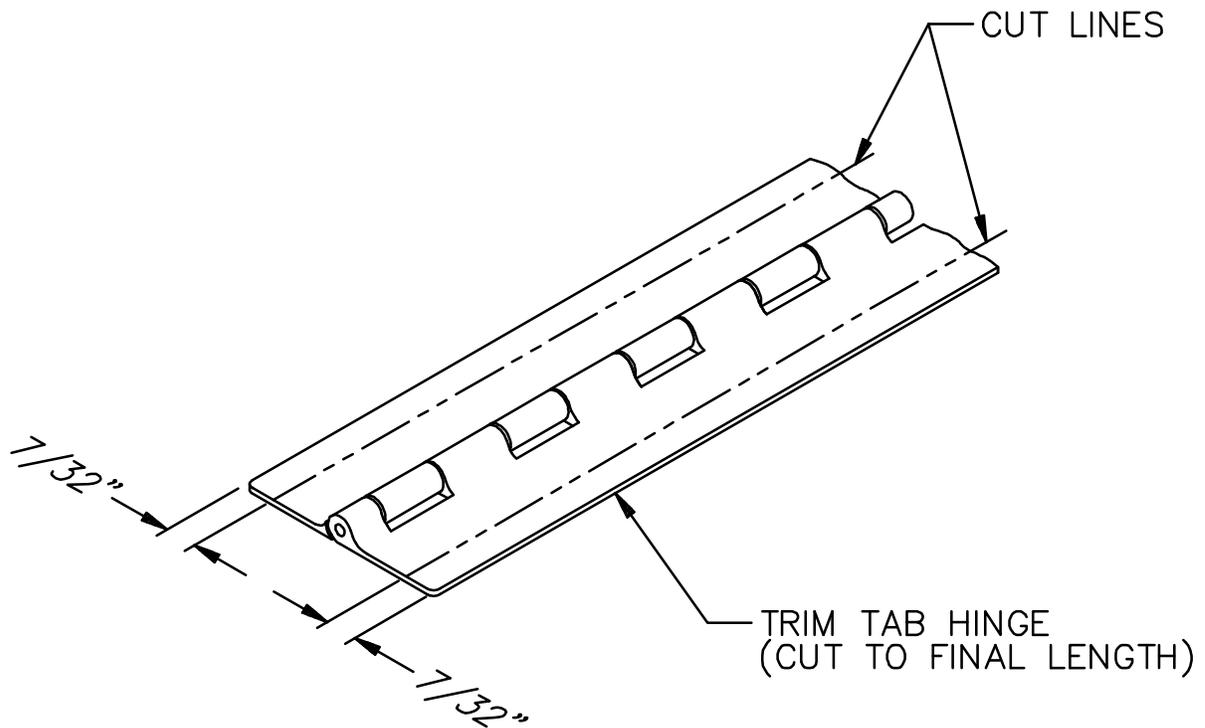


Figure 2: Cutting the Hinges to Final Width

**Step 79: Cut and Bend the Hinge Pins**

Replace the **first sentence** of the **fourth paragraph** on **page 95** with the following:  
 From the 36" length of hinge pin, cut two pieces 17-1/2" long.

Bend all five hinge pins as instructed.

**Step 85: Position the Trim Tab Hinges and Drill Index Holes**

Both the **text** for this step and **Figure 54** are still perfectly applicable to the installation of the **right-hand** hinge. For the **left-hand** hinge, simply transpose the directions given in the text and figure—that is, always measure from outboard in. Also, pay close attention to the alignment of the two hinges relative to each other, as well as to the trim tab leading edge.

***Step 86: Align the Hinges on the Elevator Side and Drill Index Holes***

***Step 87: Drill the Final Alignment Holes***

***Step 88: Drill the Remaining Holes***

The text for these steps is still applicable; simply follow all the instructions for **both** hinges. After all the hinge holes are drilled, be sure also to drill the intervening holes in the trim tab leading edge (i.e., those outboard of and between the hinges) with a #40 bit.

***Step 91: Rivet the Trim Tab Hinge Halves to the Elevator***

***Step 92: Rivet the Trim Tab Hinge Halves to the Trim Tab***

Both the **text** for this step and **Figure 56** are still perfectly applicable to the installation of the **left-hand** hinge halves. For the **right-hand** halves, simply transpose the directions given in the text and figure—that is, keep the unriveted hole outboard.

***Step 105: Cut and Drill the Hinge-Pin Retainers***

***Step 106: Rivet the Nutplates to the Hinge-Pin Retainers***

The **text** for these steps and **Figure 66** are still perfectly applicable. Simply make five retainers rather than four. Your kit included sufficient extra rivets to accomplish this, but we have enclosed an extra nutplate (P/N MF5000-08).

***Step 107: Mount the Elevator and Trim Tab***

Replace **Step C** with the following: trim tab hinges — bent ends outboard.

***Step 108: Install the Hinge Pin Retainers***

Follow the instructions for all five retainers. We have enclosed an extra screw (P/N AN526-8R6) and washer (AN960D8).