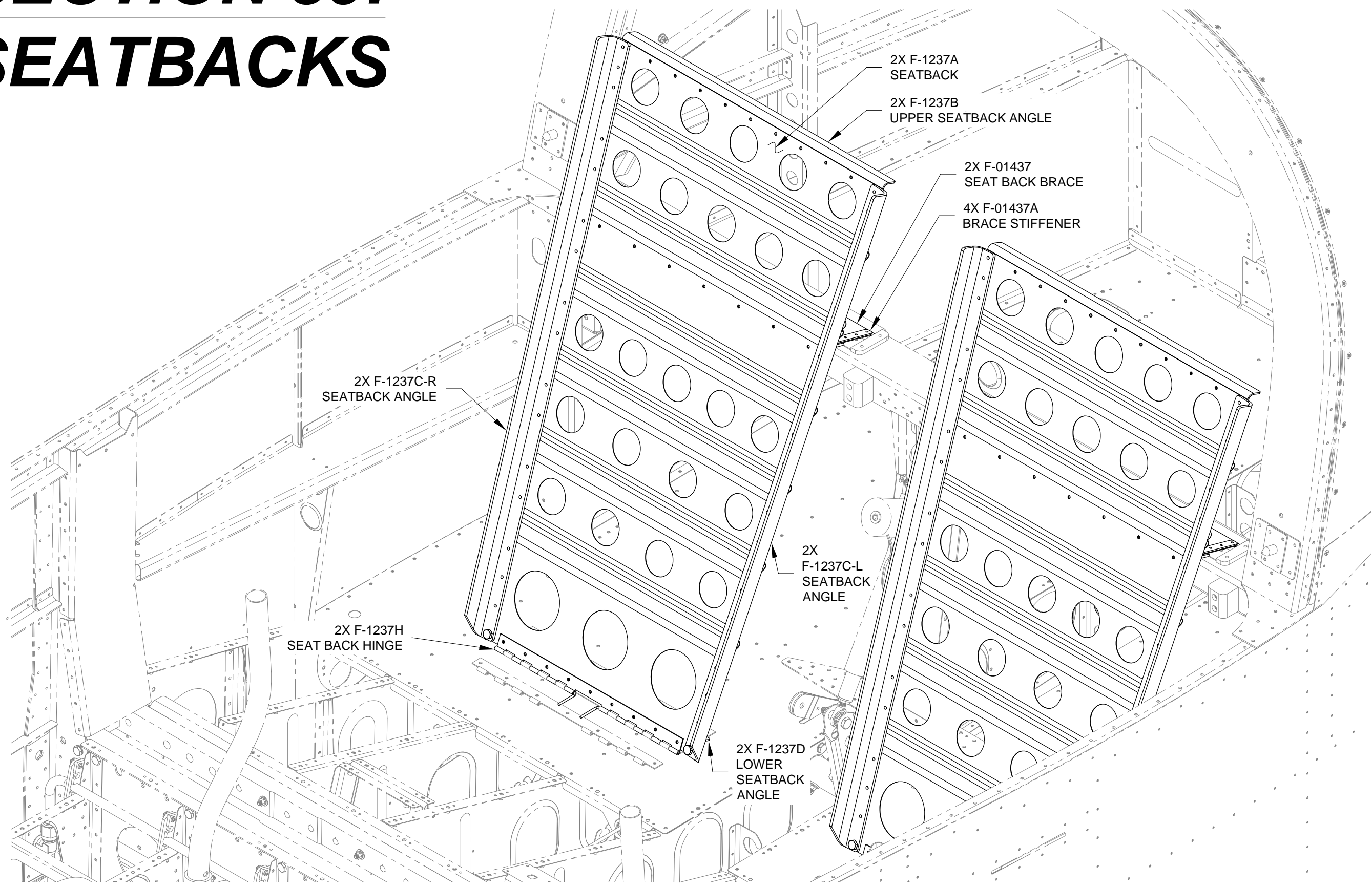
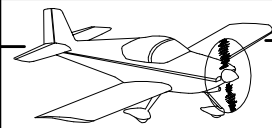


# SECTION 39: SEATBACKS

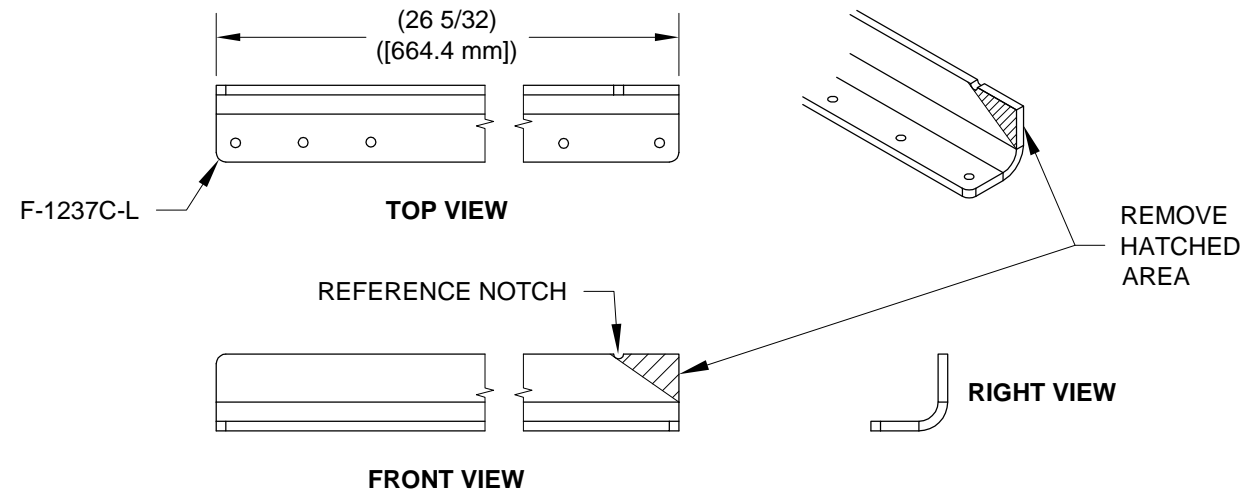




**NOTE:** Except where separate instructions and/or figures exist for both left and right sides of the aircraft, only the left side parts, assemblies, or installations will be shown.

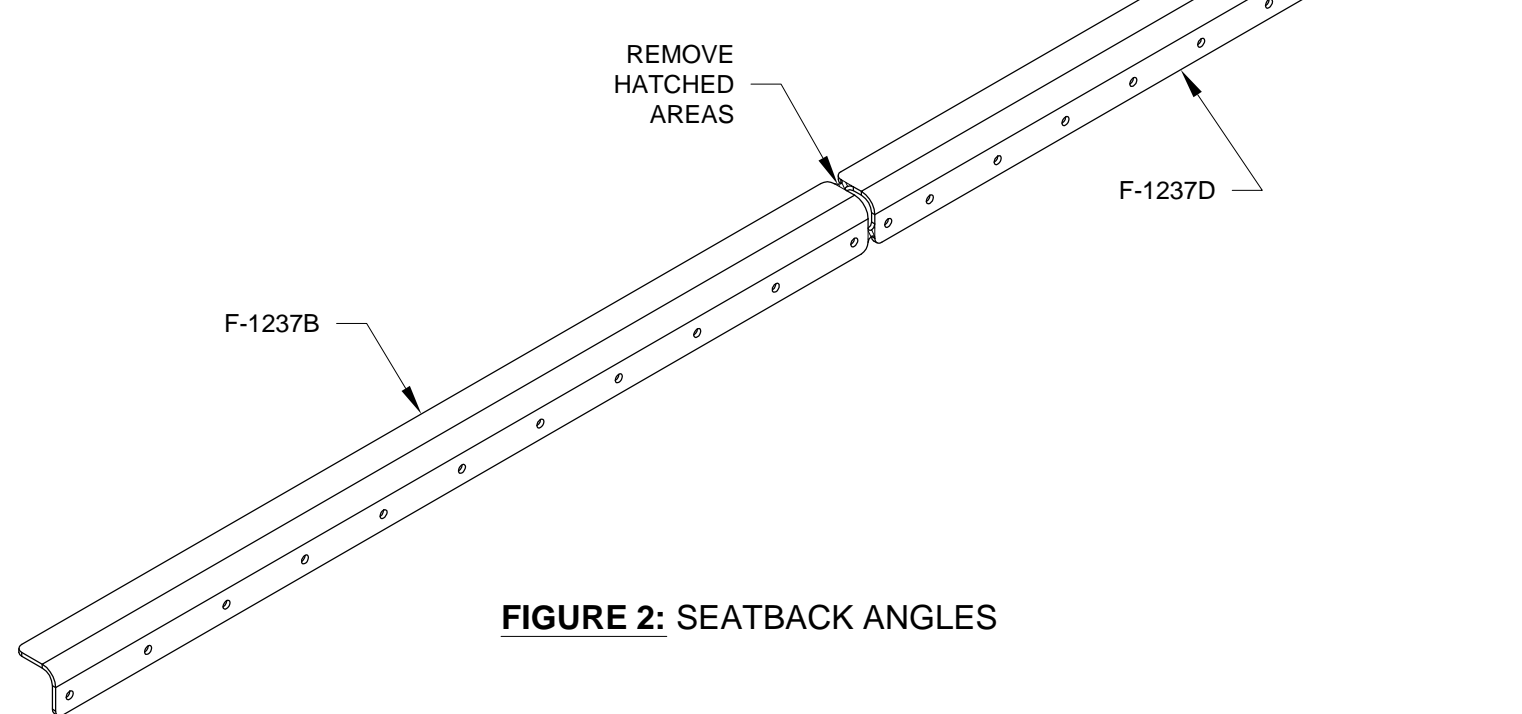
It is the builder's choice as to whether to complete all steps for the left side before repeating those steps for the right side, or to complete each step for both left and right sides before moving to the next step.

Step 1: Trim the F-1237C-L and F-1237C-R Seatback Angles as shown in Figure 1. Deburr the edges of the four seatback angles.



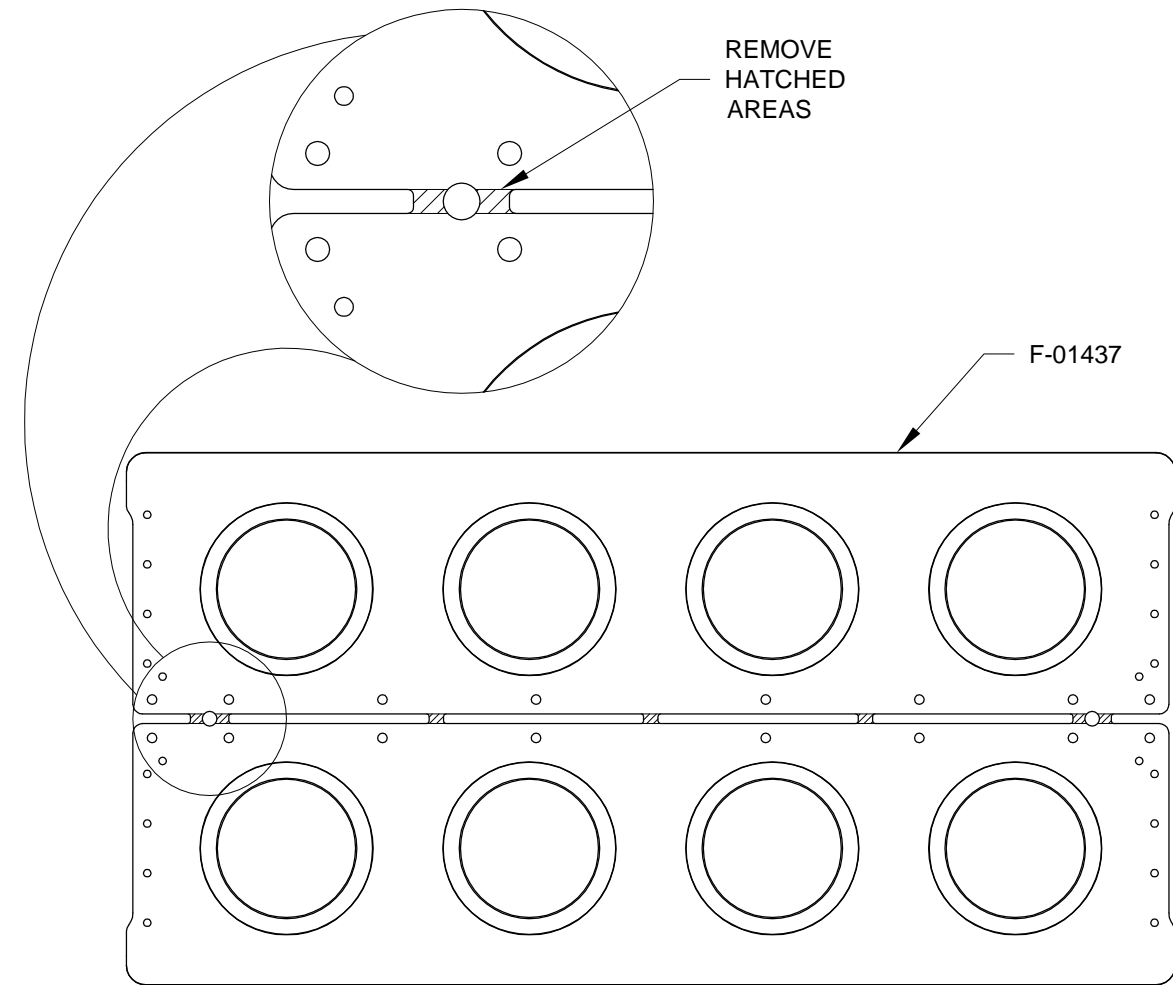
**FIGURE 1: TRIM SEATBACK ANGLE**  
(LEFT ANGLE SHOWN)

Step 2: Separate the F-1237BD Seatback Angle into the F-1237B Upper Seatback Angle and F-1237D Lower Seatback Angle as shown in Figure 2.



**FIGURE 2: SEATBACK ANGLES**

Step 3: Separate the F-01437 Seat Back Braces as shown in Figure 3.



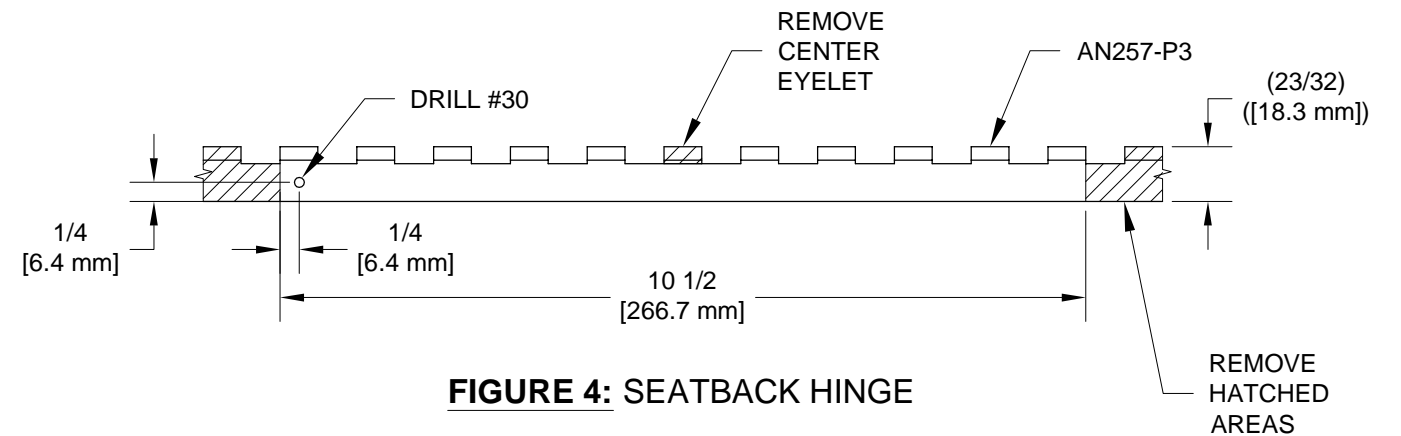
**FIGURE 3: SEPARATE SEAT BACK BRACES**

Step 4: Remove the hinge pin from an AN257-P3 hinge. Retain the hinge pin for use later in this section.

Step 5: Fabricate the F-1237H Seat Back Hinge from one half of the AN257-P3 hinge using the dimensions given in Figure 4.

Remove the center eyelet as shown in Figure 4.

Step 6: Drill #30 a locating hole in the F-1237H Seat Back Hinge using the dimensions given in Figure 4.



**FIGURE 4: SEATBACK HINGE**



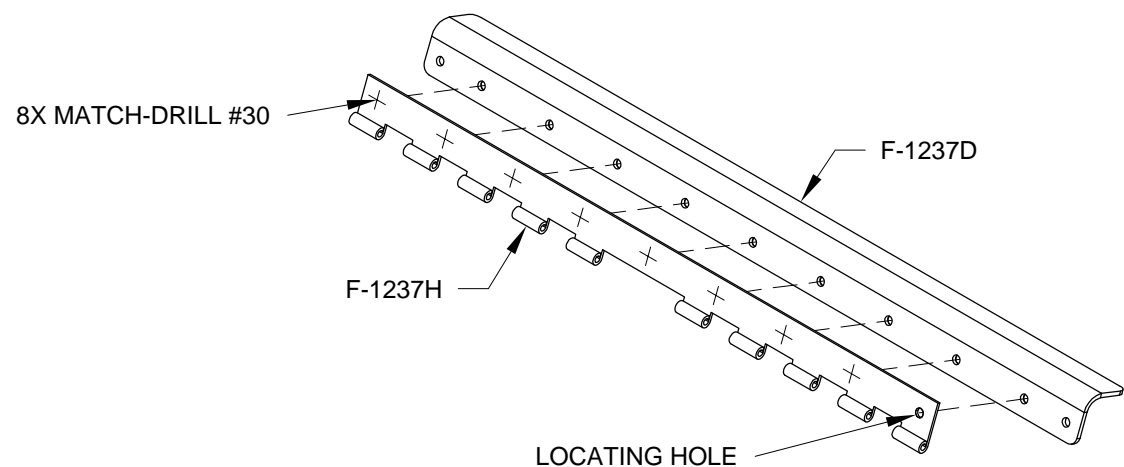
**Step 1:** Cleco the locating hole in the F-1237H Seat Back Hinge to the F-1237D Lower Seatback Angle. Firmly clamp the hinge to the lower seatback angle. Ensure that the edges of the hinge remain parallel to the angle. See Figure 1.

**Step 2:** Match-Drill #30 the holes in the F-1237D Lower Seatback Angle into the F-1237H Seat Back Hinge. Cleco each hole as it is drilled and continue to verify that the hinge remains parallel to the angle as drilling progresses.

**Step 3:** Mark the F-1237H Seat Back Hinge and F-1237D Lower Seatback Angle so that they can be reassembled in their original configuration.

Disassemble the hinge and lower seatback angle and deburr the holes.

Cleco the hinge to the lower seatback angle as previously marked and set aside for use later in this section.



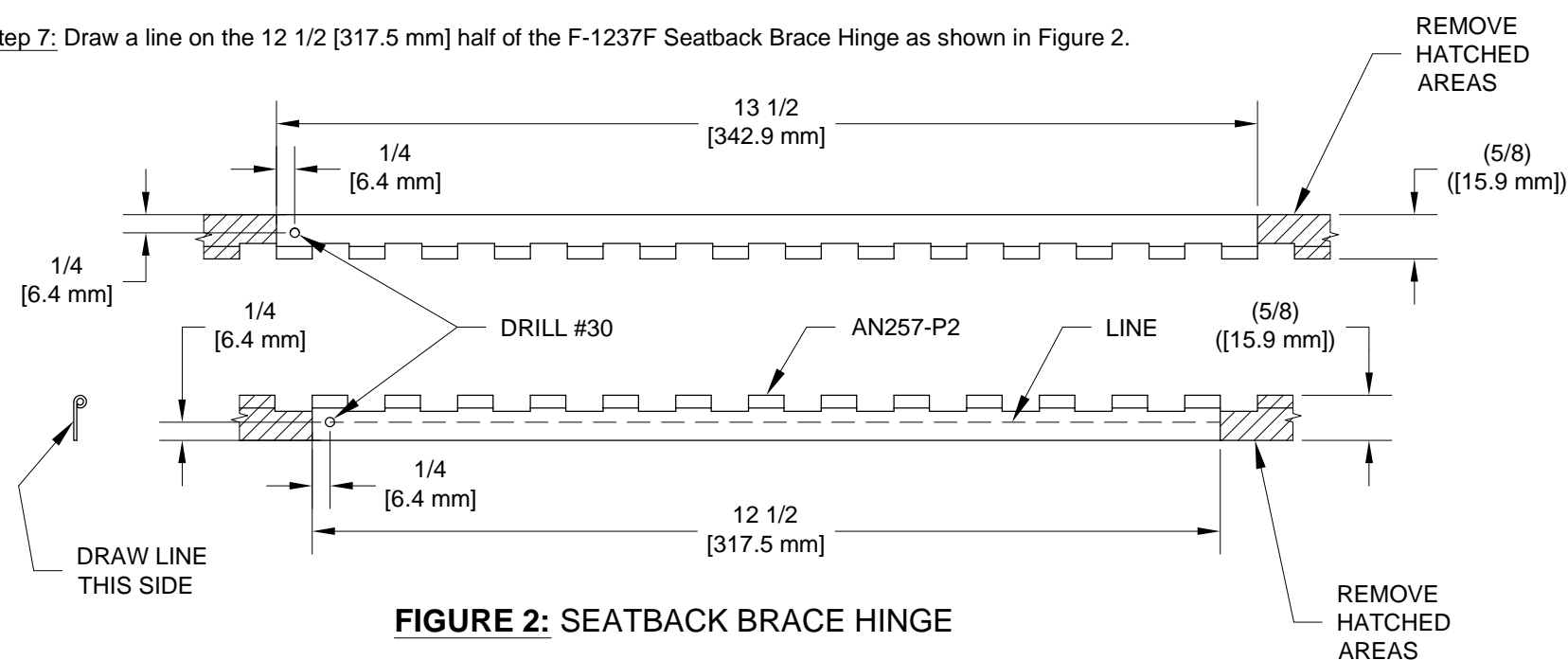
**FIGURE 1: SEAT BACK HINGE AND ANGLE**

**Step 4:** Remove the hinge pin from an AN257-P2 hinge. Retain the hinge pin for use later in this section.

**Step 5:** Fabricate the F-1237F Seatback Brace Hinge from the two AN257-P2 hinge halves using the dimensions given in Figure 2.

**Step 6:** Drill #30 one locating hole in each half of the F-1237F Seatback Brace Hinge using the dimensions given in Figure 2.

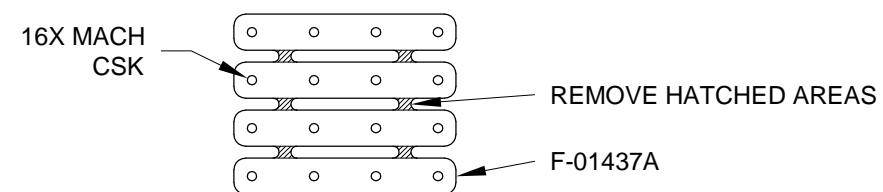
**Step 7:** Draw a line on the 12 1/2 [317.5 mm] half of the F-1237F Seatback Brace Hinge as shown in Figure 2.



**FIGURE 2: SEATBACK BRACE HINGE**

**Step 8:** Machine countersink one side of the four F-01437A Brace Stiffeners as shown in Figure 3.

**Step 9:** Separate the four F-01437A Brace Stiffeners as shown in Figure 3.



**FIGURE 3: BRACE STIFFENERS**

**Step 10:** Cleco the locating hole in the 13 1/2 [342.9 mm] half of the F-1237F Seatback Brace Hinge to the F-01437 Seat Back Brace. Firmly clamp the hinge half to the seat back brace. See Figure 4.

**Step 11:** Match-Drill #30 the holes in the F-01437 Seat Back Brace into the hinge half. Cleco each hole as it is drilled and continue to verify that the hinge remains parallel to the brace as drilling progresses.

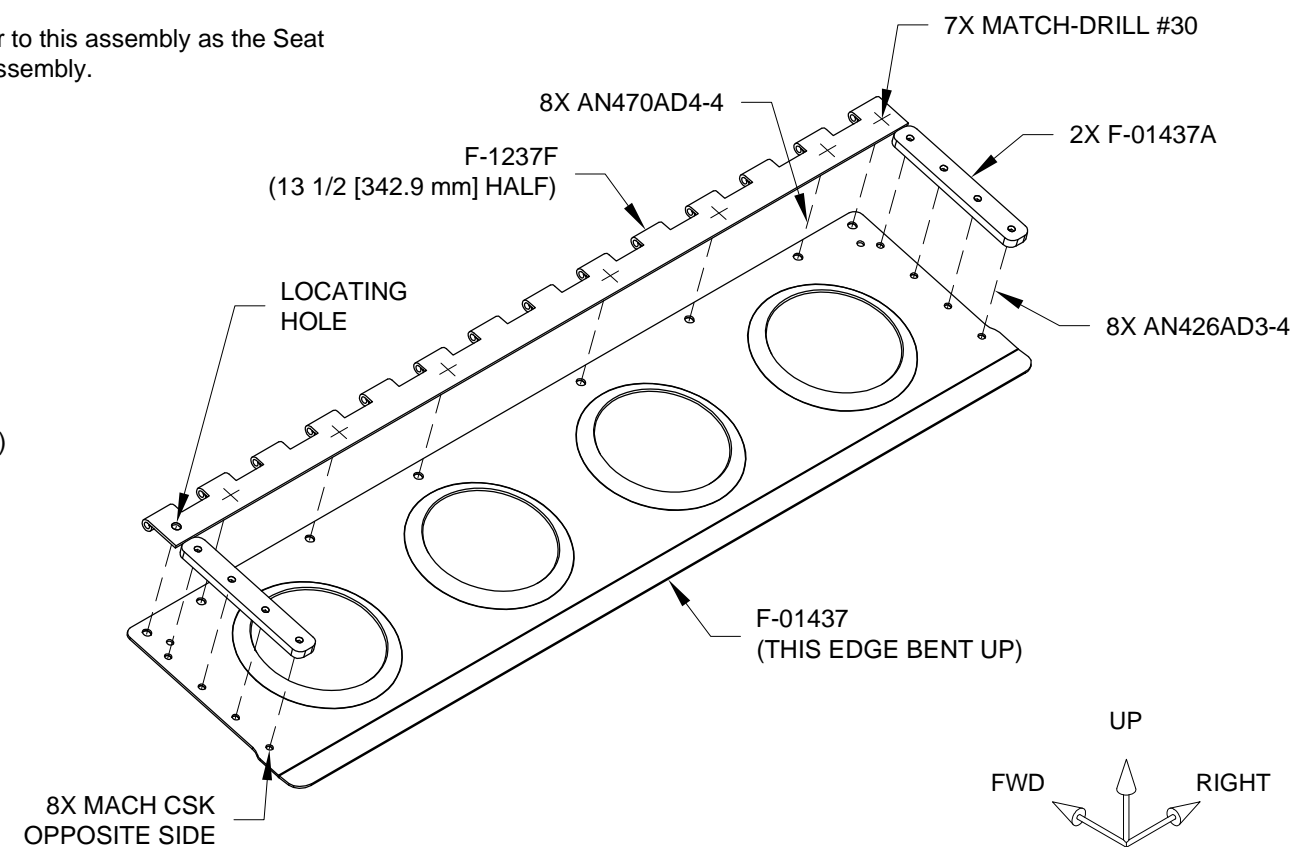
**Step 12:** Cleco the F-01437A Brace Stiffeners to the F-01437 Seat Back Brace and machine countersink the seat back brace for double flush rivets.

**Step 13:** Mark the hinge half and seat back brace so that they can be reassembled in their original configuration.

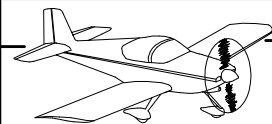
Disassemble the hinge half and seat back brace and deburr the holes.

**Step 14:** Cleco, then rivet the 13 1/2 [342.9 mm] half of the F-1237F Seatback Brace Hinge and F-01437A Brace Stiffeners to the F-01437 Seat Back Brace as shown in Figure 4. Place the manufactured heads of the rivets against the seat back brace.

Hereafter refer to this assembly as the Seat Back Brace Assembly.



**FIGURE 4: SEAT BACK BRACE ASSEMBLY**



**Step 1:** Cleco the locating hole in the 12 1/2 [317.5 mm] half of the F-1237F Seatback Brace Hinge to the F-1237A Seatback.

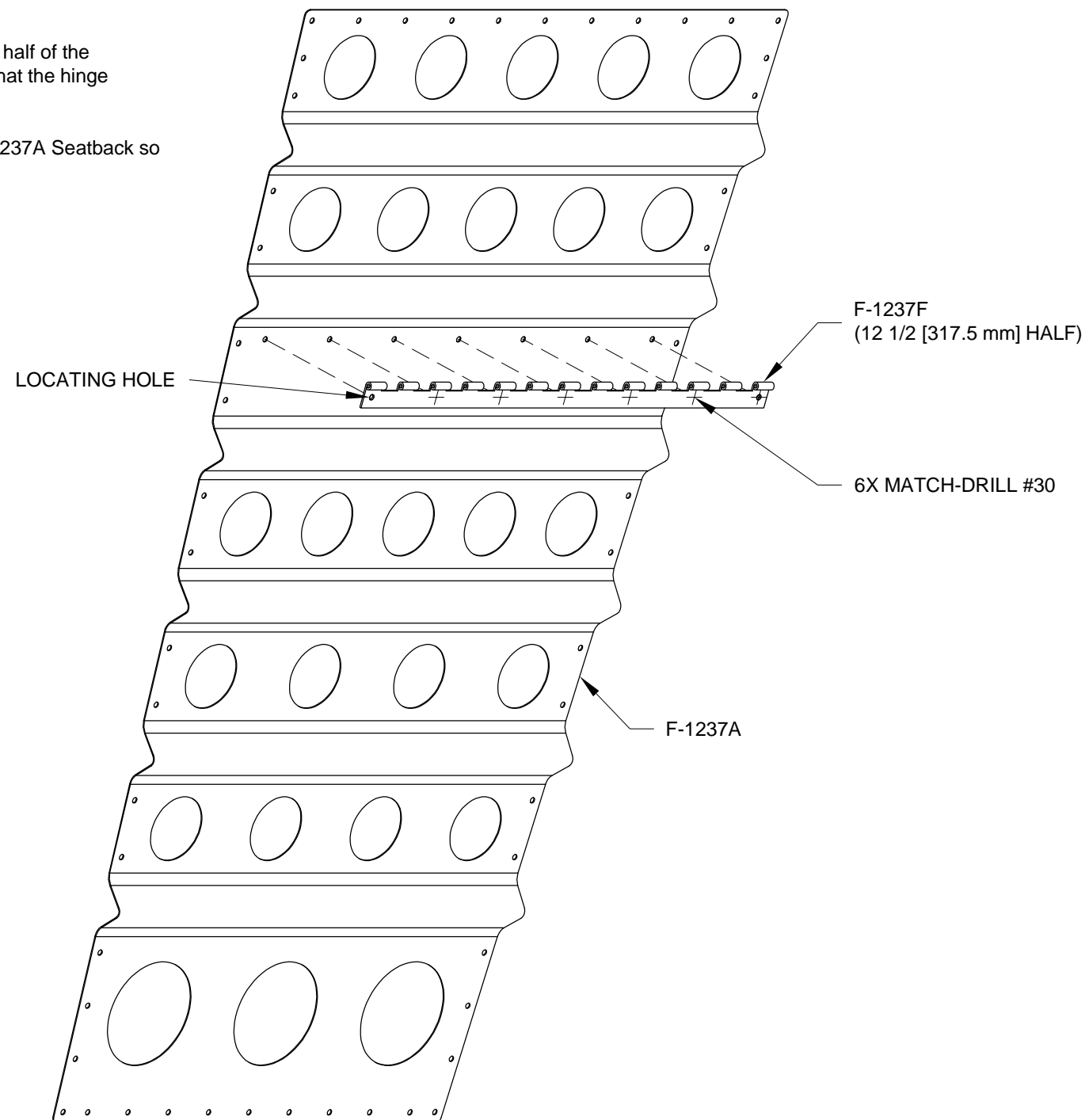
Align the line on the seatback brace hinge half with the centers of the holes in the seatback. Firmly clamp the hinge half to the seatback. See Figure 1.

**Step 2:** Match-Drill #30 the holes in the F-1237A Seatback into the 12 1/2 [317.5 mm] half of the F-1237F Seatback Brace Hinge. Cleco each hole as it is drilled and continue to verify that the hinge remains parallel to the seatback as drilling progresses.

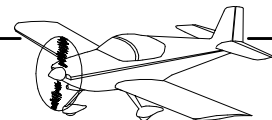
**Step 3:** Mark the 12 1/2 [317.5 mm] half of the F-1237F Seatback Brace Hinge and F-1237A Seatback so that they can be reassembled in their original configuration.

Disassemble the hinge half and seatback and deburr the holes.

Cleco the hinge half to the seatback as previously marked.



**FIGURE 1: SEATBACK BRACE HINGE PREPARATION**



**NOTE: Refer to Figure 1 for the following steps:**

Step 1: Cleco the F-1237B Upper, F-1237D Lower, and F-1237C-L & -R Seatback Angles to the F-1237A Seatback.

Hereafter refer to this assembly as the Seatback Assembly.

Step 2: Final-Drill #12 the two holes in the lower corners of the Seatback Assembly.

Disassemble the Seatback Assembly and deburr the holes.

Step 3: Cleco the F-1237H Seat Back Hinge as well as the F-1237B Upper, F-1237D Lower, and F-1237C-L & -R Seatback Angles to the F-1237A Seatback.

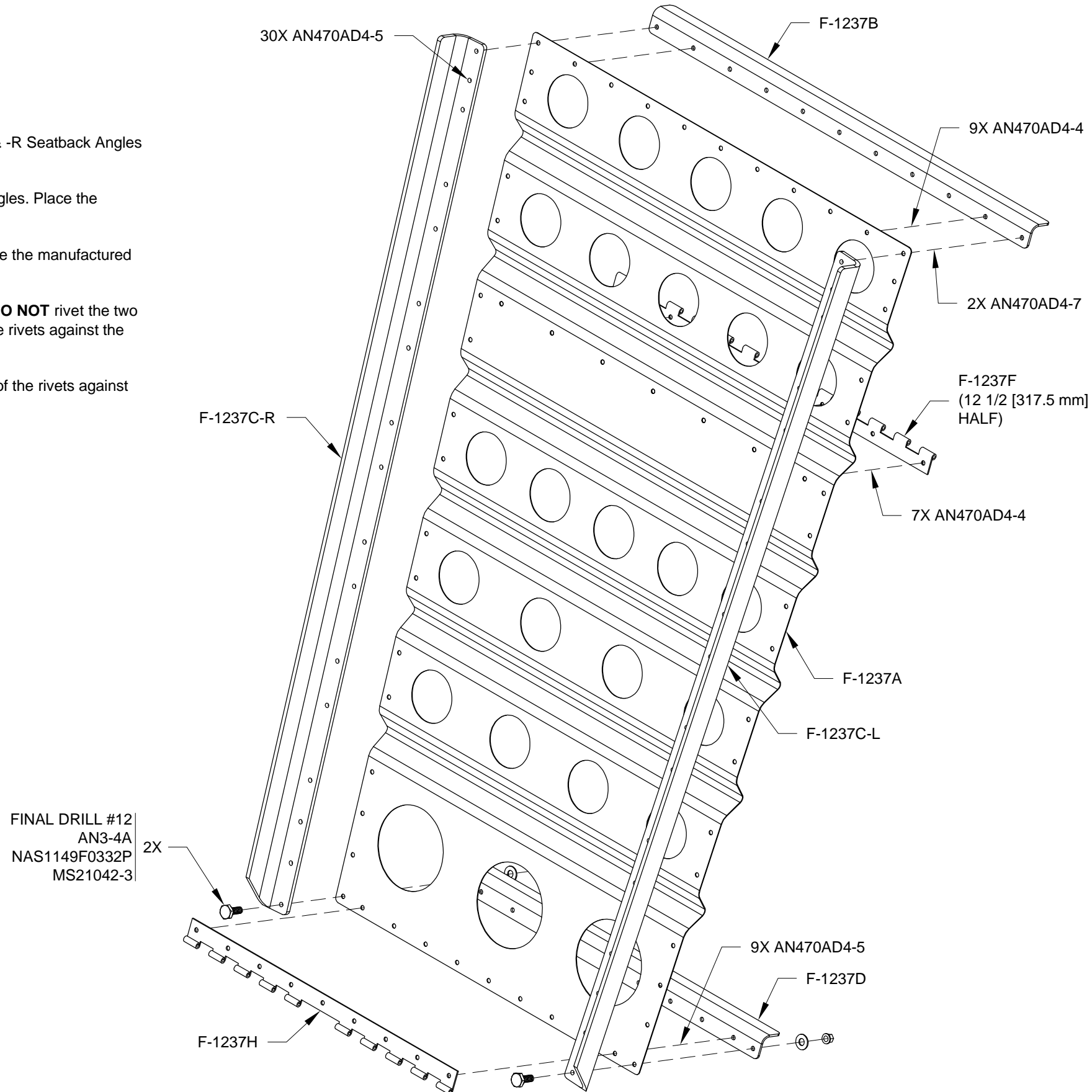
Step 4: Rivet the F-1237B Upper Seatback Angle to the F-1237A Seatback and F-1237C-L & -R Seatback Angles. Place the manufactured heads of the rivets against the seatback or F-1237C-L & -R Seatback Angles.

Step 5: Rivet the 12 1/2 [317.5 mm] half of the F-1237F Seatback Brace Hinge to the F-1237A Seatback. Place the manufactured heads of the rivets against the seatback.

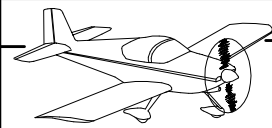
Step 6: Rivet the F-1237D Lower Seatback Angle and F-1237H Seat Back Hinge to the F-1237A Seatback. **DO NOT** rivet the two holes in the lower corners of the Seatback Assembly: they are bolt holes. Place the manufactured heads of the rivets against the seat back hinge.

Step 7: Rivet the F-1237C-L & -R Seatback Angles to the F-1237A Seatback. Place the manufactured heads of the rivets against the F-1237C-L & -R Seatback Angles.

Step 8: Install the hardware in the two holes in the lower corners of the Seatback Assembly as shown.



**FIGURE 1: SEATBACK ASSEMBLY**



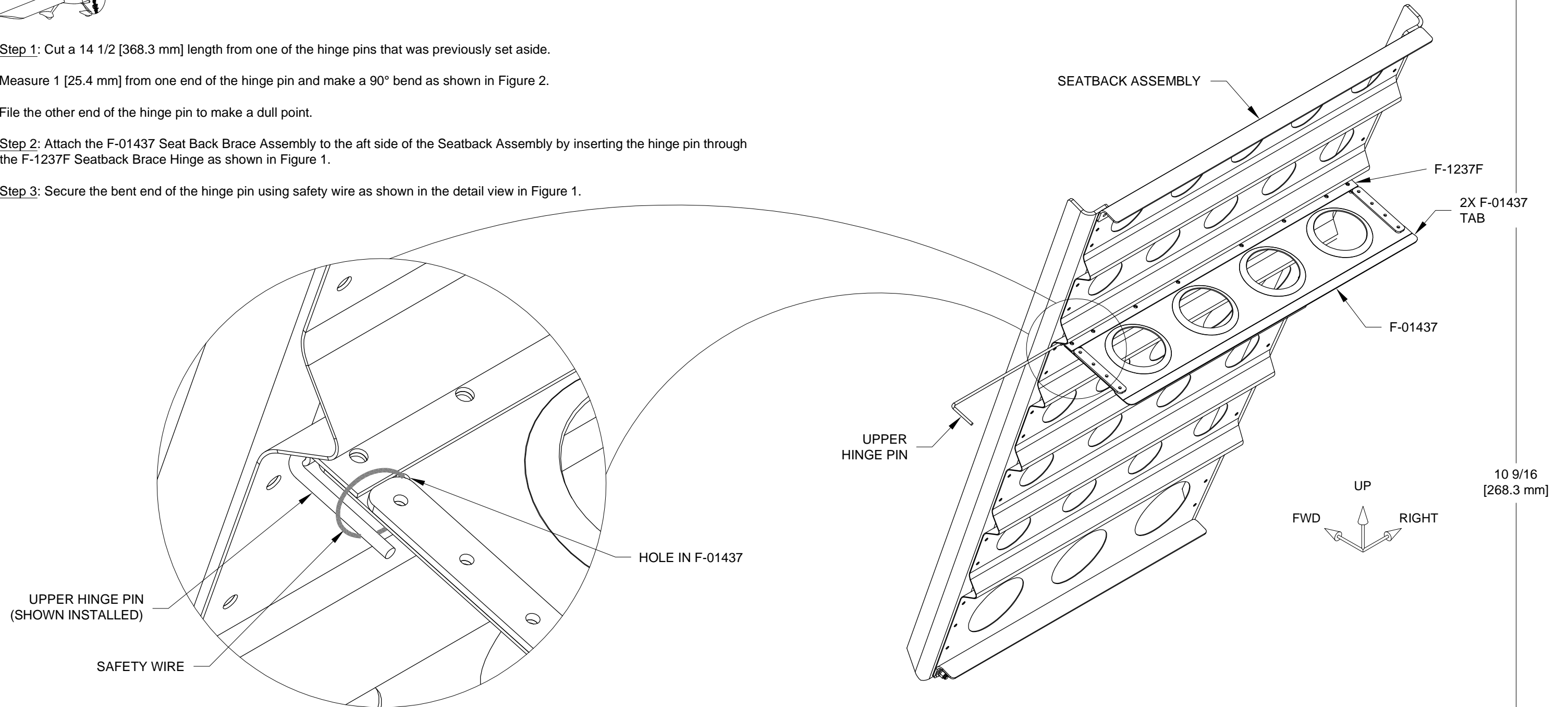
Step 1: Cut a 14 1/2 [368.3 mm] length from one of the hinge pins that was previously set aside.

Measure 1 [25.4 mm] from one end of the hinge pin and make a 90° bend as shown in Figure 2.

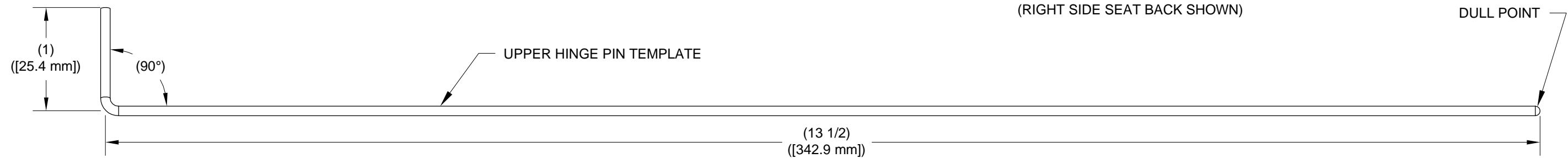
File the other end of the hinge pin to make a dull point.

Step 2: Attach the F-01437 Seat Back Brace Assembly to the aft side of the Seatback Assembly by inserting the hinge pin through the F-1237F Seatback Brace Hinge as shown in Figure 1.

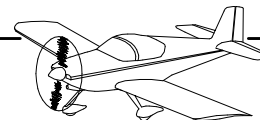
Step 3: Secure the bent end of the hinge pin using safety wire as shown in the detail view in Figure 1.



**FIGURE 1: INSTALL SEAT BACK BRACE ASSEMBLY**  
(RIGHT SIDE SEAT BACK SHOWN)



**FIGURE 2: UPPER HINGE PIN**  
(NOTE: CHECK PRINTED SCALE 1:1 PER SECTION 3 BEFORE USING THE TEMPLATE!)



Step 1: Cut two 5 1/2 [139.7 mm] lengths from the hinge pins that were previously set aside.

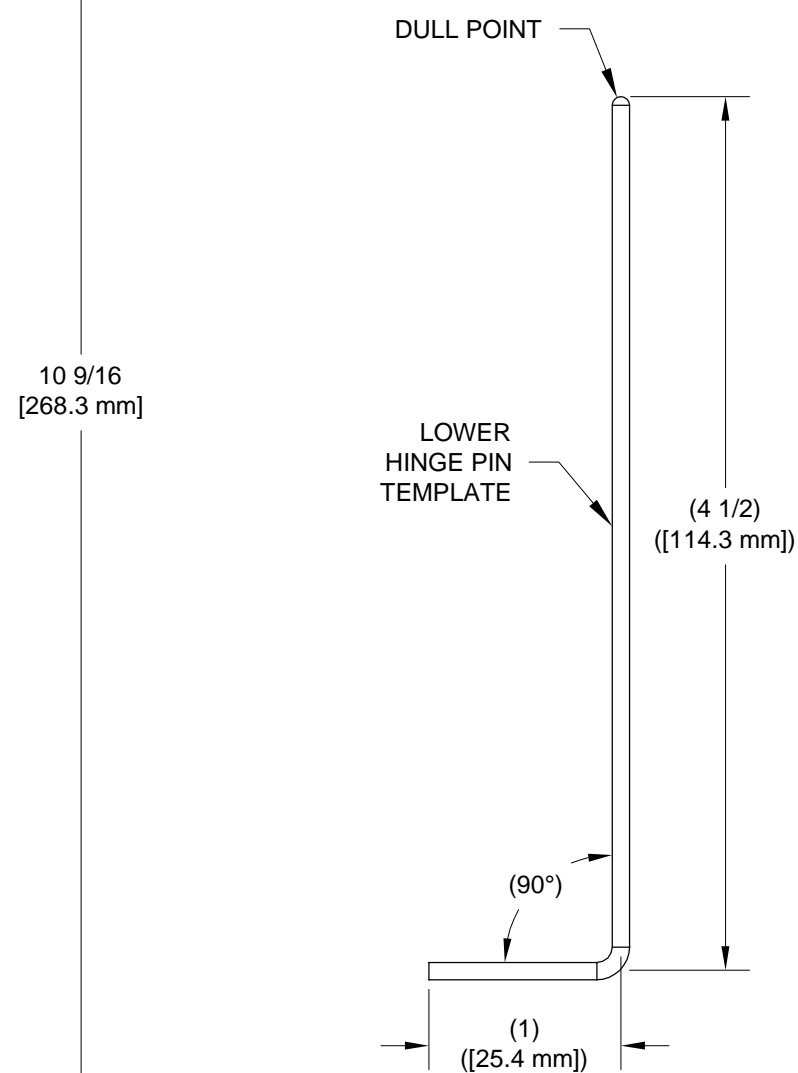
Measure 1 [25.4 mm] from the end of each hinge pin and make a 90° bend as shown in Figure 1.

File the other end of each hinge pin to make a dull point.

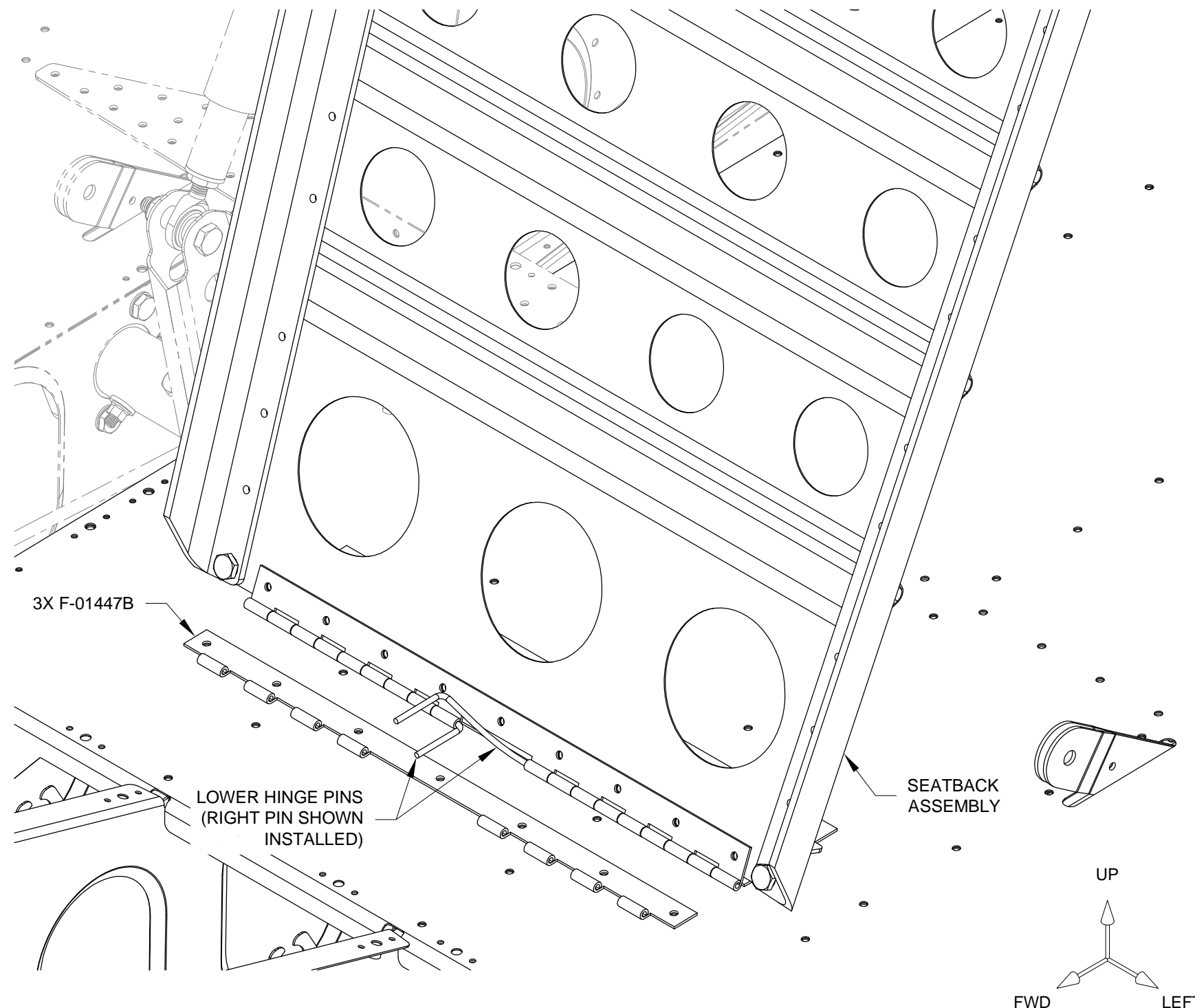
**NOTE:** Figure 2 depicts the Seatback Assembly attached in the middle position for reference only. Three positions are possible, adjust as desired.

Step 2: Attach the Seatback Assembly to the fuselage by inserting both lower hinge pins through the forward, middle, or aft F-01447B Seatback Hinge as shown in Figure 2.

Step 3: Remove material from the F-01437 Seat Back Brace "tabs" until the brace fits snugly into its slot. See Figure 1 on the previous page.



**FIGURE 1: LOWER HINGE PIN**  
(NOTE: CHECK PRINTED SCALE 1:1 PER SECTION 3 BEFORE USING THE TEMPLATE!)



**FIGURE 2: INSTALL SEATBACK ASSEMBLY**  
(LEFT SIDE SHOWN)

16  
[406.4 mm]



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