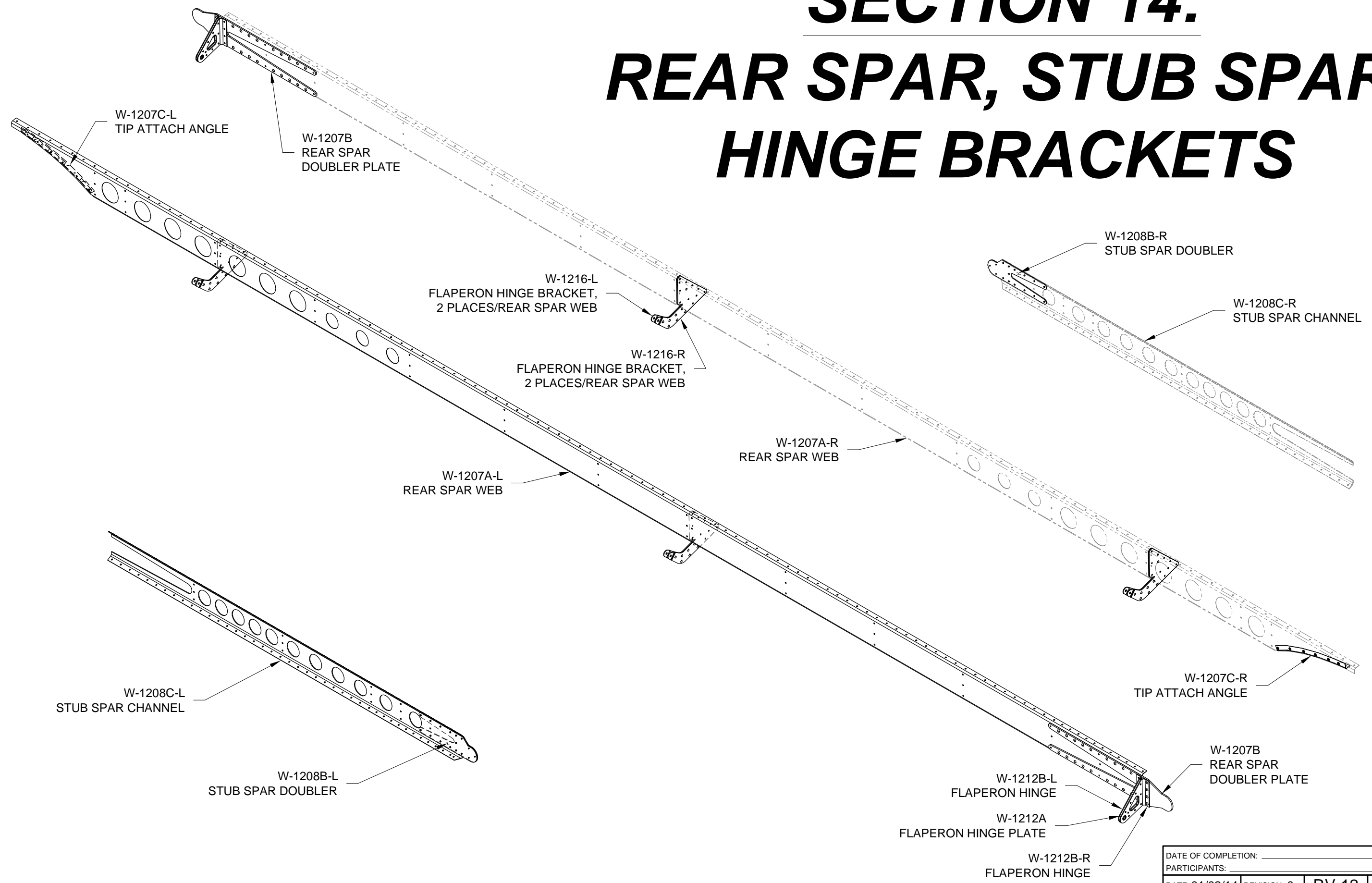
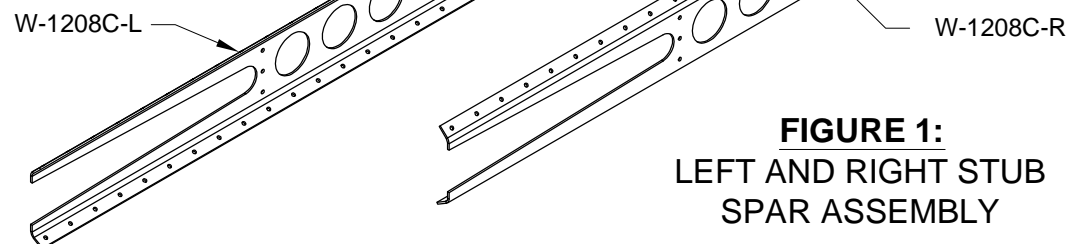


SECTION 14: REAR SPAR, STUB SPAR, HINGE BRACKETS



DATE OF COMPLETION: _____
PARTICIPANTS: _____
DATE: 01/02/14 REVISION: 0 RV-12 PAGE 14-01

Step 1: Cleco one W-1208B Stub Spar Doubler to each of the W-1208C-L & -R Stub Spar Channels, on the outer web (opposite the direction that the flanges are bent), as shown in Figure 1. Mark the stub spar doublers as left and right per callout in Figure 1. Refer to the stub spar doubler and channel as the Left and Right Stub Spar Assembly.



**FIGURE 1:
LEFT AND RIGHT STUB
SPAR ASSEMBLY**

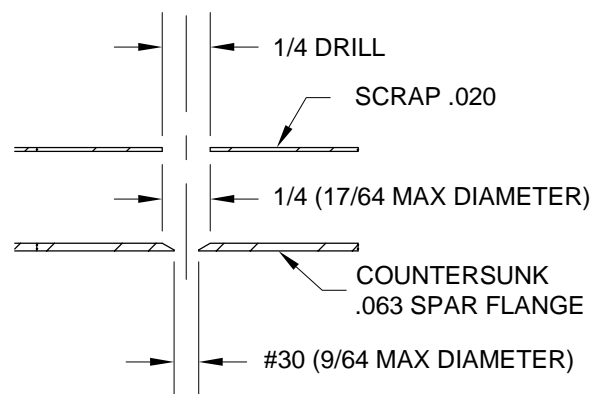
CAUTION: Avoid using a dimple as a guide for the countersink depth. The dimple may prevent the skin from laying flat even when the countersink is too large.

Step 2: Machine countersink 120° the W-1208C-L & -R Stub Spar Channel, per dimensions in Figure 2, on the outer surface of all the holes in both flanges as called out in Figure 3. Drill a 1/4 inch hole in a thin piece of scrap aluminum to make checking the maximum diameter of each countersink easy.

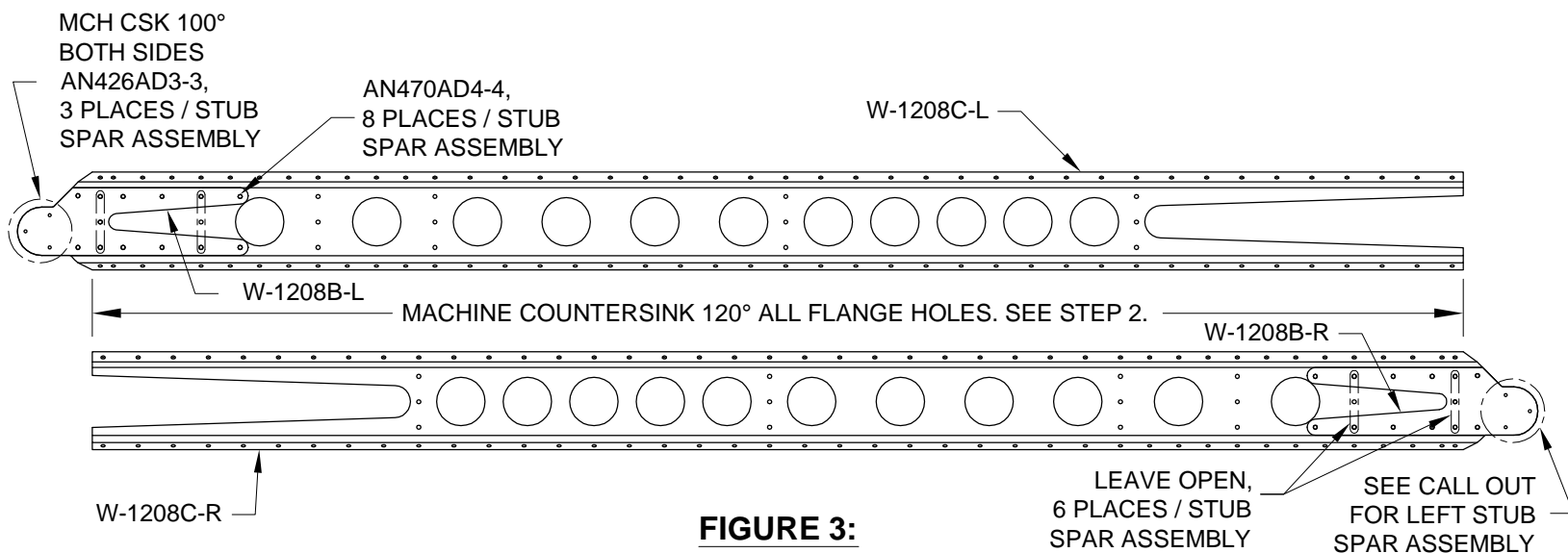
Step 3: Machine countersink 100° the three holes at the inboard end of the Stub Spar Assembly to fit the head of an AN426AD3 rivet as called out in Figure 3.

Step 4: Rivet the Stub Spar Assembly together at the holes called out in Figure 3. When setting the three flush rivets at the inboard end of each Stub Spar Assembly, the goal is to make both the shop head and the manufactured head as flush as possible. Leave open the called out holes that will later correspond to the wing ribs.

Set both Stub Spar Assemblies aside until called for in Section 15, Wing Ribs.



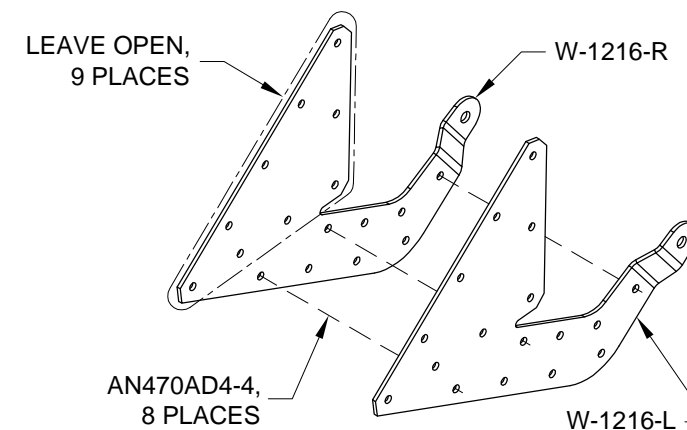
**FIGURE 2:
STUB SPAR CHANNEL
FLANGE COUNTERSINK**



**FIGURE 3:
STUB SPAR ASSEMBLY
COUNTERSINKS & RIVETS**

Step 5: Cleco one of the W-1216-R Flaperon Hinge Brackets to one of the W-1216-L Flaperon Hinge Brackets as shown in Figure 4. Do the same with the remaining three left and right flaperon hinge brackets.

Step 6: Rivet the W-1216-L & -R Flaperon Hinge Brackets together using the rivets called out in Figure 4. Set the rivets in a random pattern to prevent warping in the final assemblies. Refer to each of these assemblies as the W-1216 Hinge Bracket Assembly. Set all four W-1216 Hinge Bracket Assemblies aside until Section 16, Wing Skeleton.



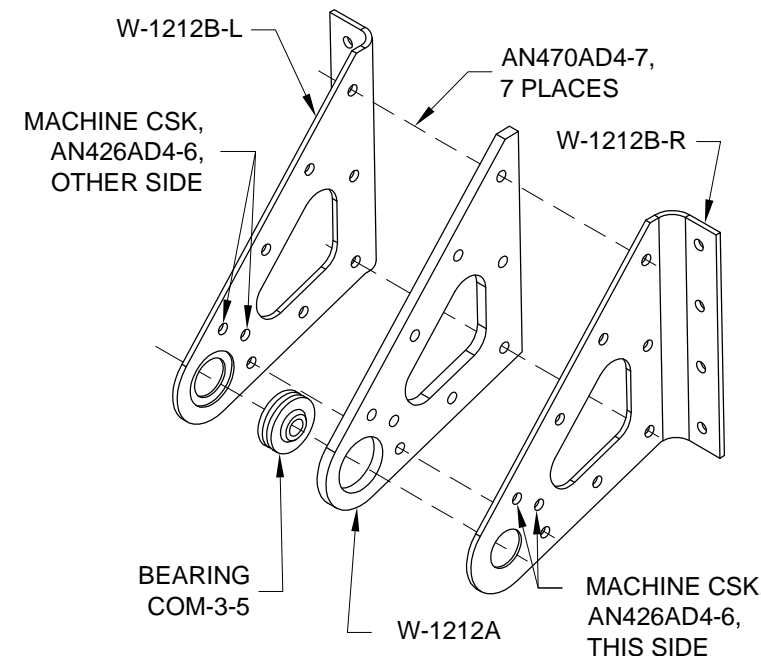
**FIGURE 4:
W-1216 HINGE
BRACKET ASSEMBLY**

Step 7: Machine countersink the W-1212B-L & -R Flaperon Hinge Brackets per callouts in Figure 5.

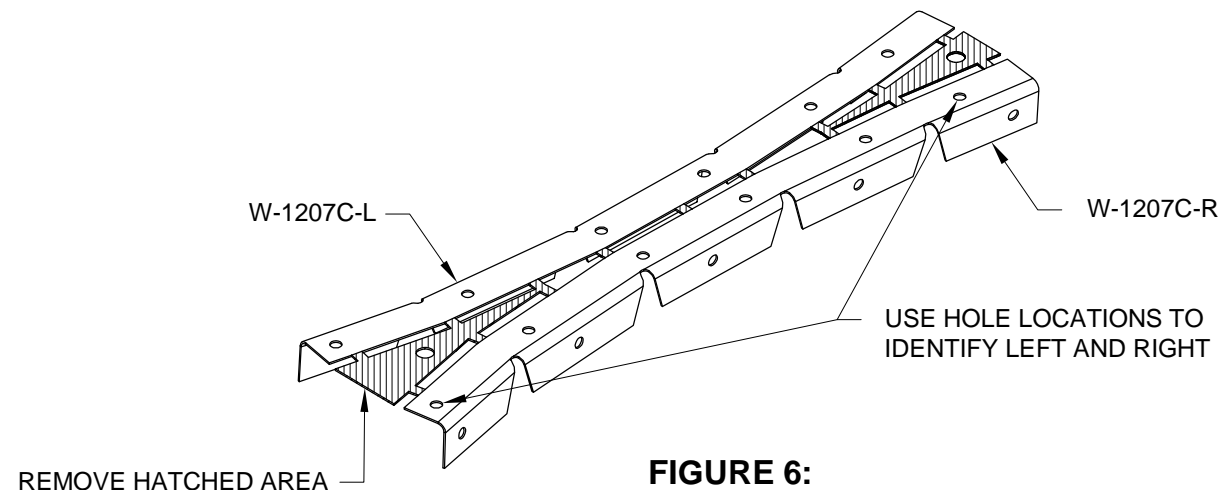
Step 8: Press one BEARING COM-3-5 into each of the W-1212A Flaperon Hinge Plates as shown in Figure 5. Use a 7/16 inch, 3/8 inch drive socket to push on the bearing and a 9/16 inch, 3/8 inch drive socket to back up the flaperon hinge plate. Squeeze with a vise or c-clamp.

Step 9: Cleco each of the W-1212A Flaperon Hinge Plates between one each of the W-1212B-L & -R Flaperon Hinges. Press the area around the BEARING COM-3-5 of the assemblies together to insure that the bearing is seated into the recesses in the flaperon hinge bracket sides and not spreading the assemblies apart near the bearing.

Step 10: Rivet the W-1212A Flaperon Hinge Plates and the W-1212B-L & -R Flaperon Hinges together using the rivets called out in Figure 5. Set the rivets in a random pattern to prevent warping in the final assemblies. Refer to each of these assemblies as the W-1212 Hinge Assembly. Set both W-1212 Hinge Assemblies aside until later in this section.



**FIGURE 5:
W-1212 HINGE ASSEMBLY**



**FIGURE 6:
F-1207C TIP ATTACH
ANGLE SEPARATION**



Step 1: Cleco one of the W-1212 Hinge Assemblies to each of the W-1207B Rear Spar Doubler Plates. Orient the parts as shown in Figure 1.

Step 2: Rivet only the inboard flange of the W-1212 Hinge Assemblies to each of the W-1207B Rear Spar Doubler Plates using rivets indicated in Figure 2. Identify the hinge assembly and rear spar doubler plate as the Left and Right Doubler Assembly per call outs in Figure 1.

Step 3: Cleco the Left and Right Doubler Assembly to the inboard end of the W-1207A-L & -R Rear Spar Web as shown in Figure 1.

Step 4: Cleco the W-1207C-L & -R Tip Attach Angles to the outboard end of the W-1207A-L & -R Rear Spar Web as shown in Figure 1.

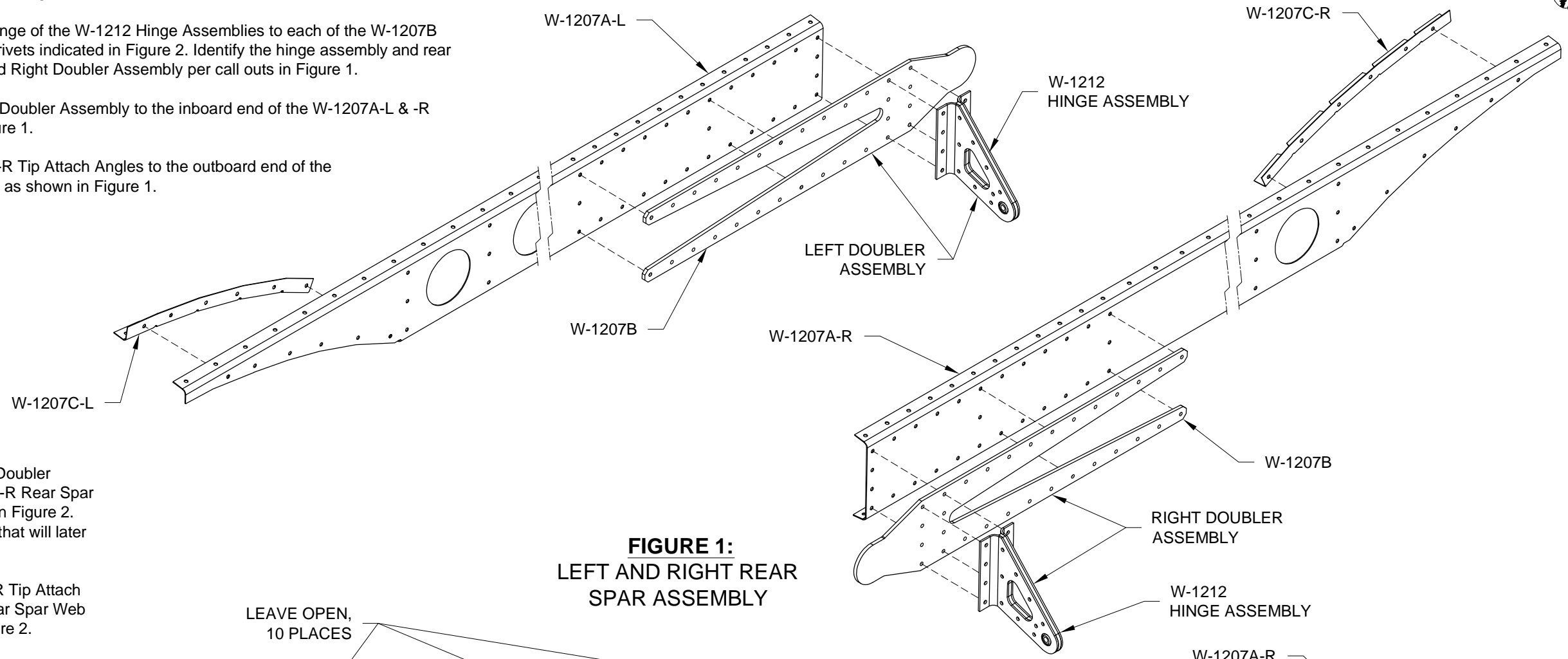


FIGURE 1:
LEFT AND RIGHT REAR SPAR ASSEMBLY

Step 5: Rivet the Left and Right Doubler Assemblies to the W-1207A-L & -R Rear Spar Webs using the rivets indicated in Figure 2. Leave open the called out holes that will later correspond to the wing ribs.

Step 6: Rivet the W-1207C-L & -R Tip Attach Angle to the W-1207A-L & -R Rear Spar Web using the rivets called out in Figure 2.

Hereafter refer to these subassemblies as the Left and Right Rear Spar Assembly.

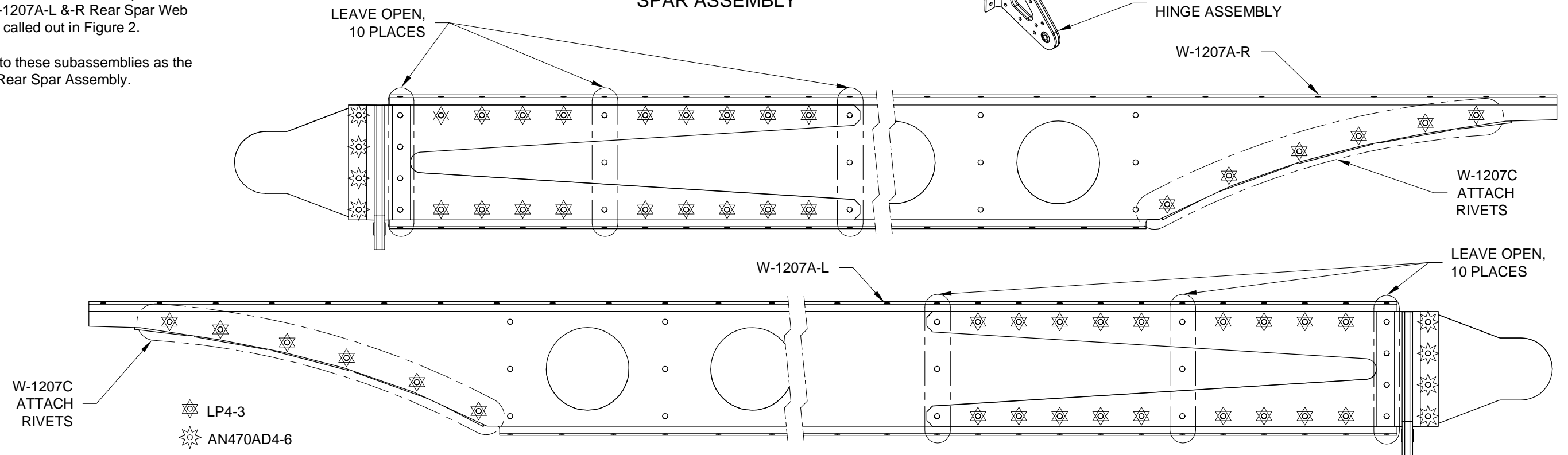


FIGURE 2:
LEFT AND RIGHT REAR SPAR ASSEMBLY RIVETS

- LP4-3
- AN470AD4-6



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