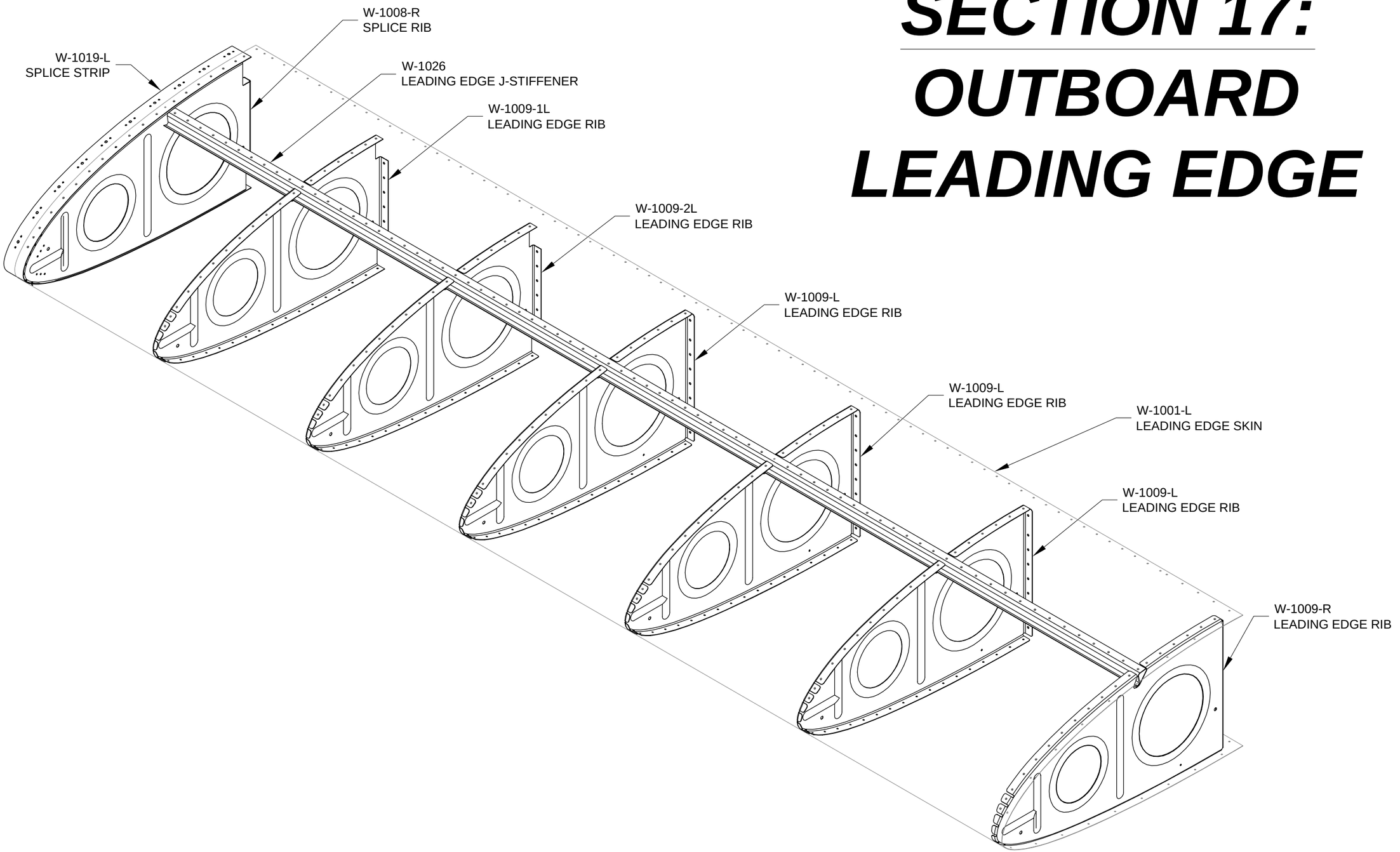
SECTION 17:
OUTBOARD LEADING EDGE



Step 1: Flute, straighten and adjust all flange angles of all the ribs per Section 5-12.

Step 2: Fabricate the W-1026 Leading Edge J-Stiffener for both the left and right wing assemblies by cutting two pieces of J-channel, each one 76 1/8 inches long. Draw a centerline on the flange of each J-stiffener as shown in Figure 1. Set one J-stiffener aside for use on the right outboard leading edge assembly.

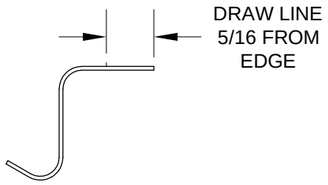


FIGURE 1: J-STIFFENER END VIEW

Step 3: Modify two W-1009-L for the left wing assembly and two W-1009-R Leading Edge Ribs for the right wing assembly per the dimensions given in Table 1 and as shown in Figure 2. This will create W-1009-1L, W-1009-2L, W-1009-1R and W-1009-2R. The ribs must be notched to fit around the spar bars and rivet heads on the main spar assembly. Because the main spar bars are stepped (spanwise thickness changes) two different modified ribs will be required, see isometric view on page 1.

	X1	Y1	X2	Y2
W-1009-1L/R	13/32	1 11/16	9/32	1 21/32
W-1009-2L/R	11/32	1 11/16	5/32	1 1/16

TABLE 1: LEADING EDGE RIB TRIM

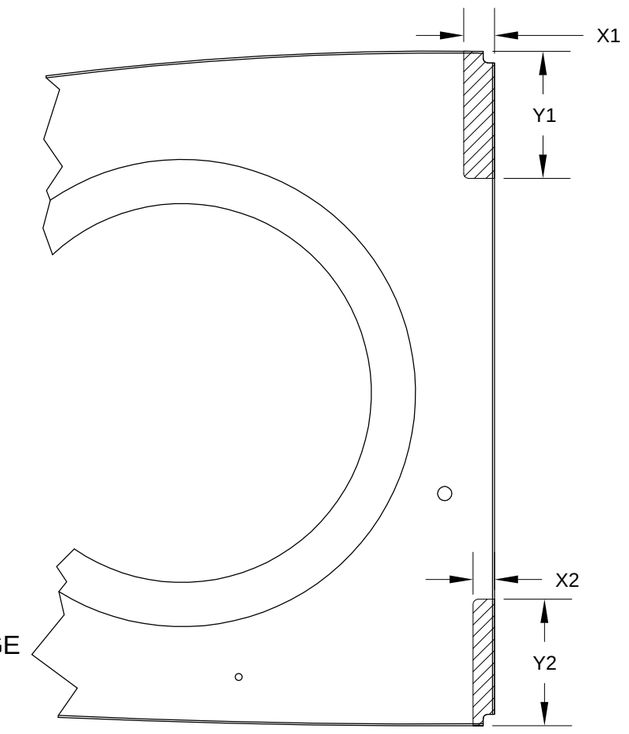


FIGURE 2:
LEADING EDGE
RIB TRIM

Step 4: Create a cradle to hold both the leading edge and tank assemblies during assembly. First remove the material indicated by the hatched area in Figure 4 from the VB-11 Wing Leading Edge Vee Blocks. **Save** the removed material, it will be used later to create the flap cradle. Make rails 57 1/2 inches long to interconnect the vee blocks. Assemble the cradle as shown in Figure 5. Line the inside face of the cradle with duct tape or weather strip as shown in Figure 5.

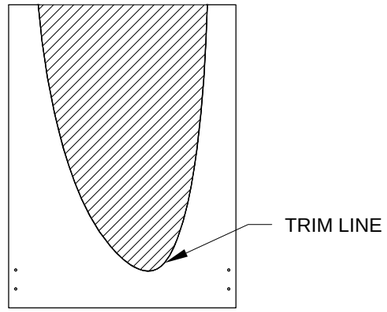


FIGURE 4: WING LEADING
EDGE VEE BLOCK

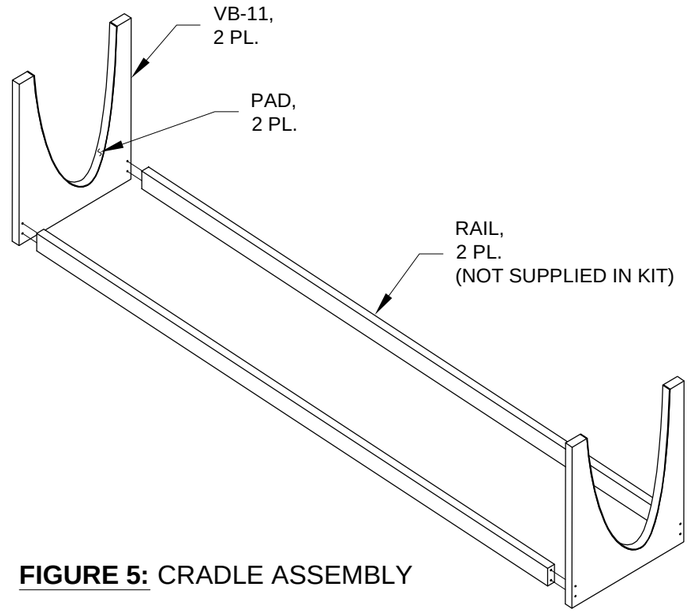


FIGURE 5: CRADLE ASSEMBLY

Step 5: Remove the W-1019-L and W-1019-R Splice Strips from the T-1001-L and T-1001-R Fuel Tank Skins, see Figure 3. Careful use of a die-grinder works well. File off the remaining tab material.

Step 6: Deburr all edges on all the parts in the leading edge assembly. Smooth the inboard edge of the T-1001-L and T-1001-R Fuel Tank Skins.

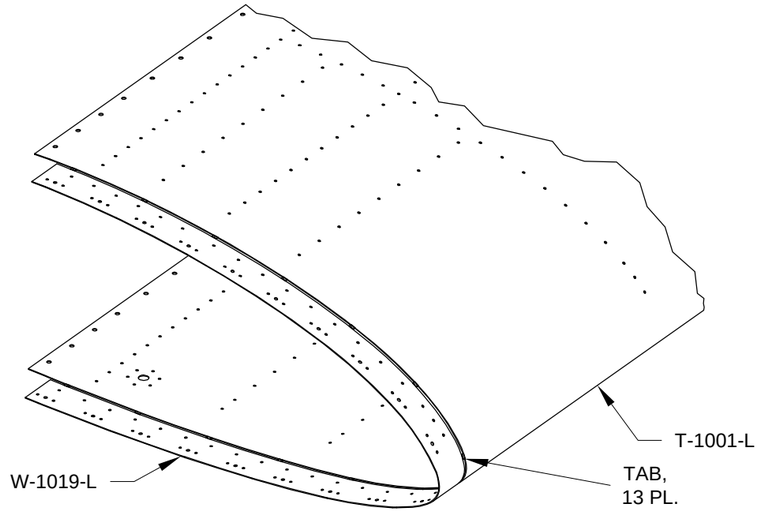


FIGURE 3: REMOVING SPLICE STRIP FROM FUEL TANK SKIN

NOTE: The remaining steps in this section are for the left outboard leading edge assembly except step 12 on this page.

Step 1: Remove the protective vinyl coating from the inside surface of the W-1001-L Leading Edge Skins.

Step 2: Insert the W-1001-L Leading Edge Skin into the cradle. Cleco the W-1009-L/R, W-1009-1L and W-1009-2L Leading Edge ribs to the leading edge skin. Insert the W-1019-L Splice Strip into the inboard end of the leading edge skin then insert the W-1008-R Splice Rib and cleco the splice rib, splice strip and leading edge skin together. See Figure 1.

Step 3: Insert the W-1026 Leading Edge J-Stiffener into the assembly as shown in Figure 1. Position the outboard edge of the J-stiffener flush with the outboard face of the W-1009-R Leading Edge Rib. See the isometric view on Page 17-1. Align the centerline drawn on the flange of the J-stiffener with the holes in the leading edge skin, then drill and cleco the J-stiffener to the skin.

Step 4: Final-Drill #40 all the ribs and splice strip to the skin. Run a #40 bit through the aft row of main spar attach holes on the bottom and top of the W-1001-L Leading Edge Skin. Run a #40 bit through the platenut attach holes on the W-1019-L Splice Strip.

Step 5: Enlarge all screw holes on the W-1019-L Splice Strip to #19.

Step 6: Disassemble the leading edge.

Step 7: Machine countersink the #40 nutplate attach holes in the W-1019-L Splice Strip for the head of an AN426AD3 rivet.

Step 8: Deburr all holes in all parts.

CAUTION!: Holes dimpled for a #8 screw have a tendency to crack if not deburred carefully! First check that the hole has been drilled to final size. Before dimpling thoroughly deburr the holes.

Step 9: Dimple the screw holes in the splice strip for a #8 screw.

Dimple remaining holes in all parts as required (including the aft top and bottom rows of holes on the W-1001-L Leading Edge Skin).

Step 10: Prime all parts if/as desired.

Step 11: Rivet the nutplates onto the W-1019-L Splice Strip as shown in Figure 2.

Step 12: Rivet (fill) the two stall warning slot guide holes in the W-1001-R Leading Edge Skin with AN426AD3-3 rivets. See Page 17-4, Figure 1.

NOTE: If using the standard stall warning device it is easier to complete the steps on Page 19-2 now before finishing the steps on this page.

Step 13: Reassemble the parts per step 1.

Step 14: Rivet the assembly together per the rivet call-outs given on Page 17-4, Figure 1. Start by riveting the aft most two holes in the leading edge ribs and splice rib, top and bottom, then rivet all parts together progressively working towards the leading edge.

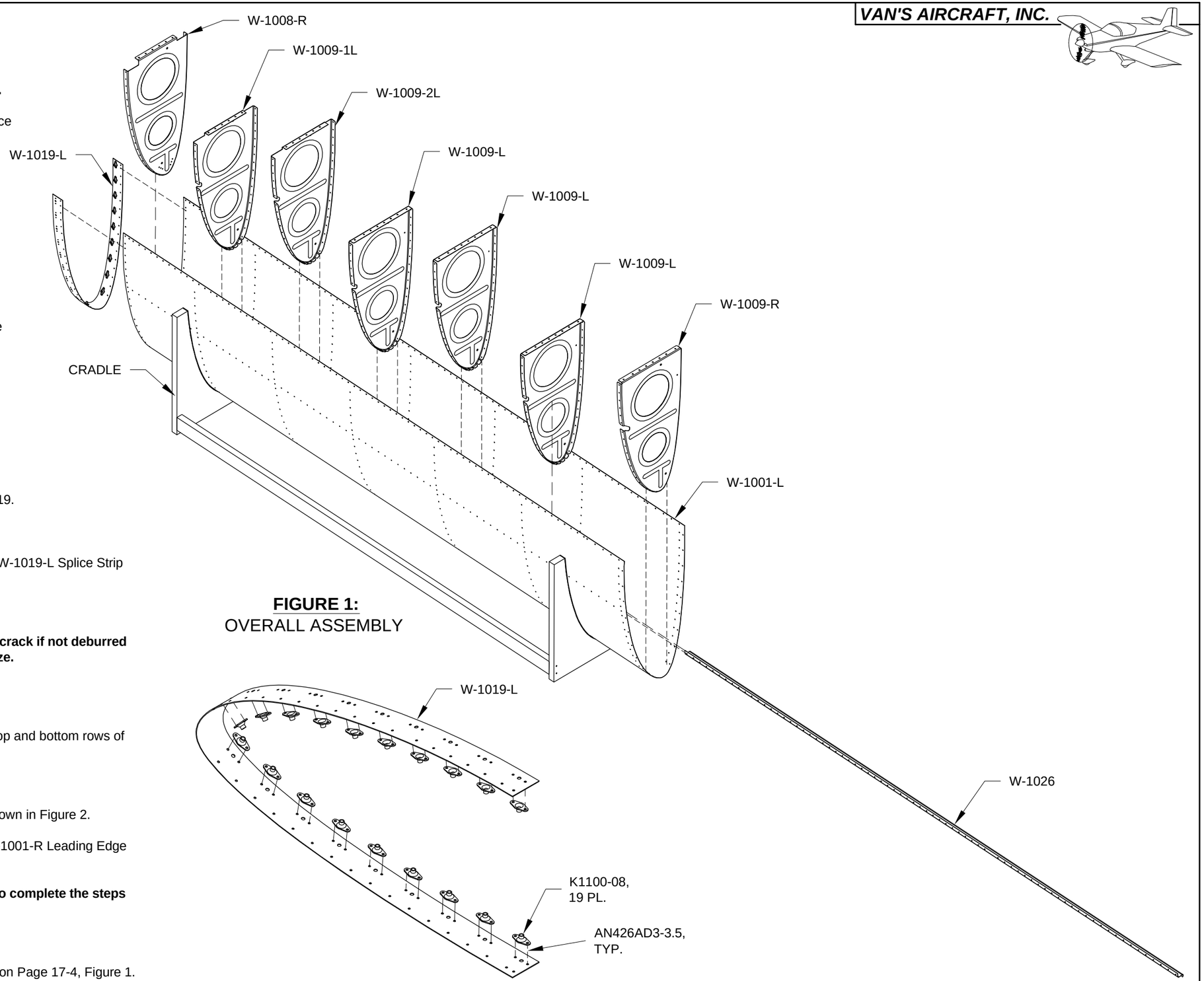


FIGURE 1:
OVERALL ASSEMBLY

FIGURE 2: NUTPLATE TO SPLICE STRIP ATTACH

Step 1: Enlarge the tie-down hole (indicated in Figure 1) to allow a tie-down ring to be inserted through the W-1001-L Leading Edge Skin into the W-1020 Tie-Down. Tie down rings are not provided in kit, order BOLT EYE 3/8-16 T.D. from VAN'S ACCESSORIES CATALOG.

Step 2: Remove any clecos holding the W-1012-R Outboard Wing Rib to the main spar assembly. Cleco the leading edge assembly to the main spar assembly. There may be some misalignment in the main spar assembly between the holes punched in the C Channel Spar Web and the Doubler. Run a #30 drill through these holes if required to insert clecos.

Final-Drill #30 the holes common to the main spar assembly and the aft flange of the ribs in the leading edge assembly. Check that the tie-down hole is located in the proper position.

Step 3: Rivet the W-1009-R Leading Edge Rib to the main spar and outboard wing rib as shown in Figure 2.

Step 4: Rivet the leading edge ribs to the main spar assembly per the rivet call-outs shown in Figure 2.

Step 5: Rivet the W-1001-L Leading Edge Skin to the main spar assembly flange.

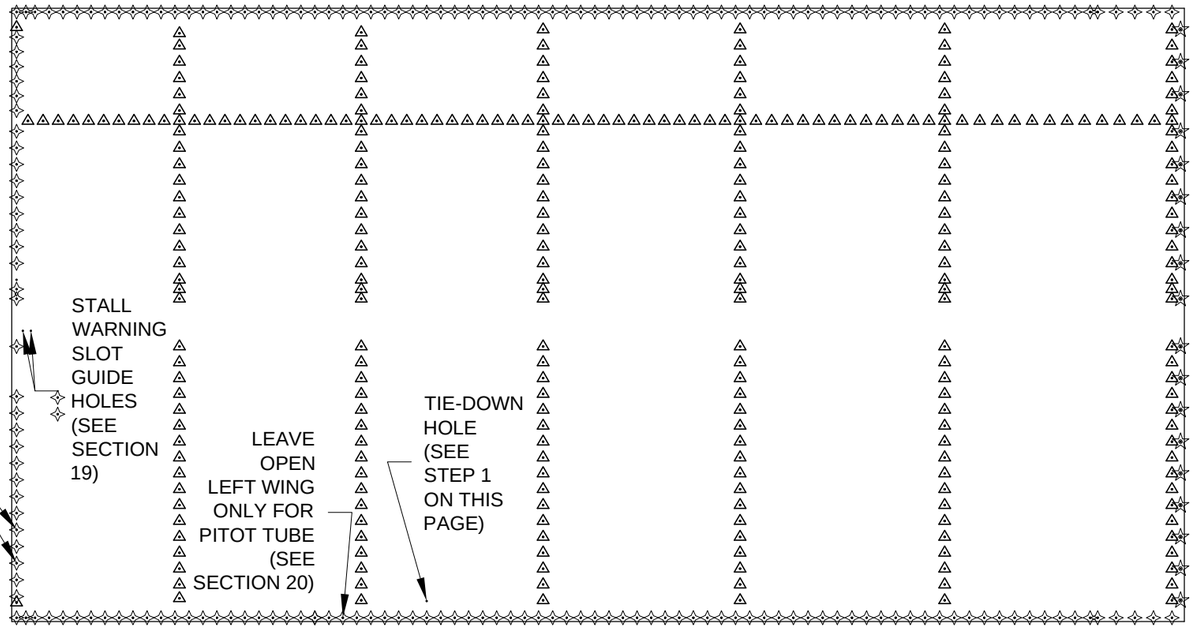


FIGURE 1: LEADING EDGE SKIN RIVET DIAGRAM

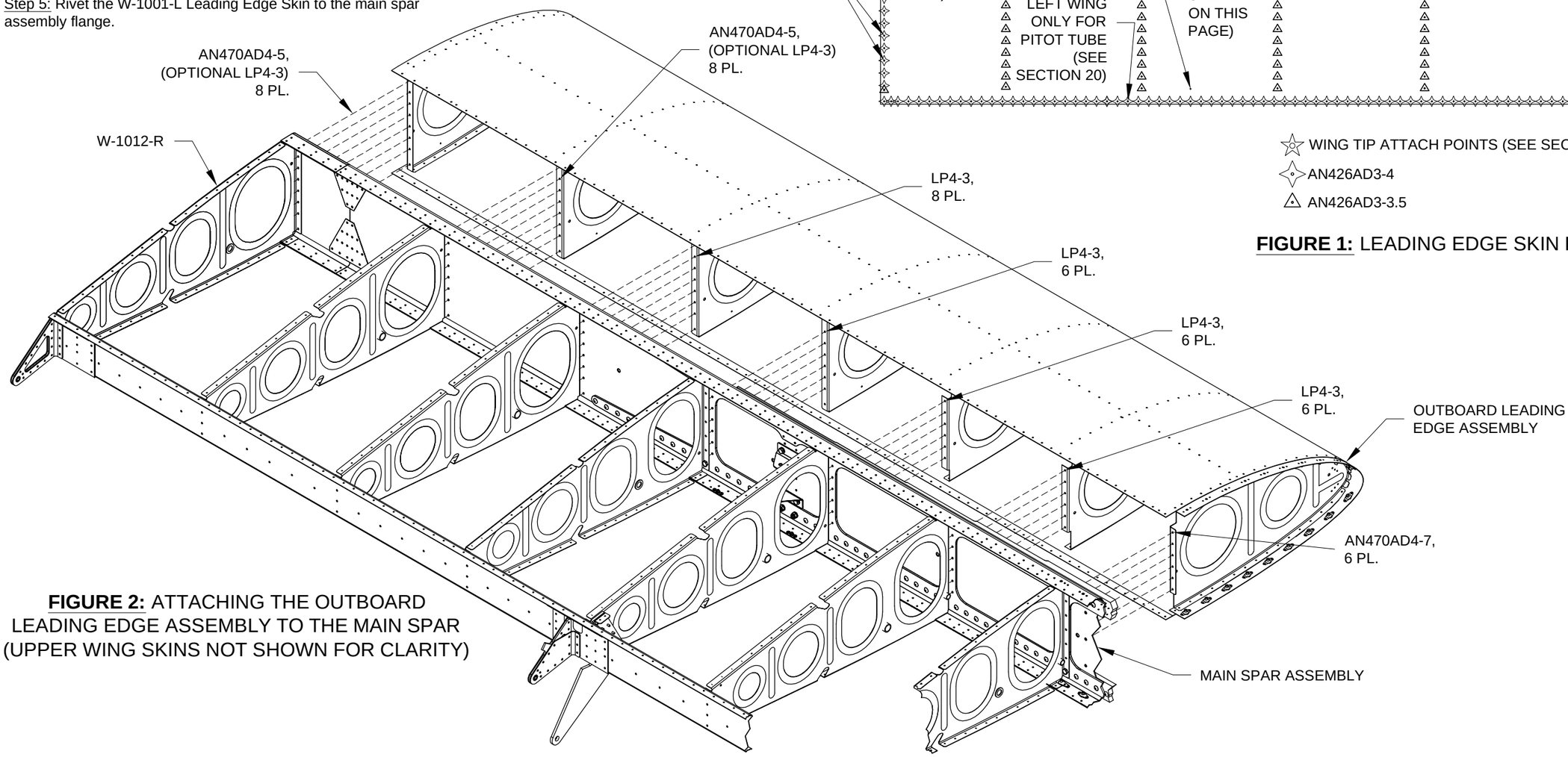


FIGURE 2: ATTACHING THE OUTBOARD LEADING EDGE ASSEMBLY TO THE MAIN SPAR (UPPER WING SKINS NOT SHOWN FOR CLARITY)