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REVISION DESCRIPTION:

Page 28-01 REV 2: Updated figures for new configurations of F-01435-L & -R and F-01435A-L & -R.

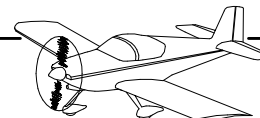
Page 28-04 REV 1: In Step 6, "Rivet the nutplates to the centers of the F-14108A & B Fuel Pump Brackets." was "Rivet the nutplates to the F-14108A & B Fuel Pump Brackets.".

Page 28-05 REV 1: Updated Figure 1 for new configuration of F-01435-L & -R.

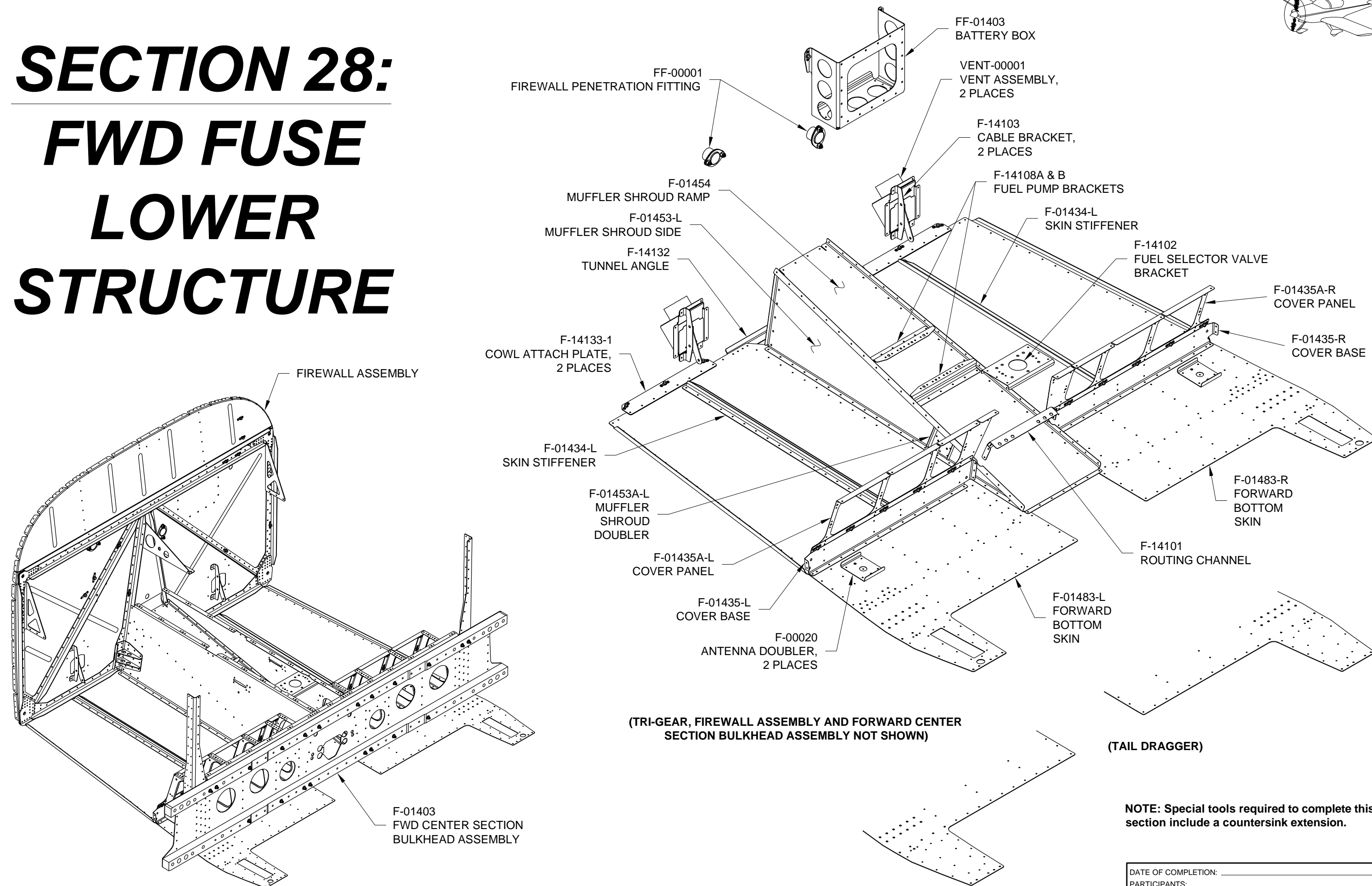
Page 28-07 REV 3: Updated Figure 3 for new configuration of F-01435-L.

Page 28-08 REV 1: Updated Figure 1 for new configuration of F-01435-L & -R.

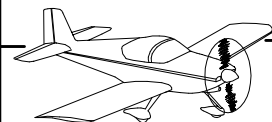
Page 28-11 REV 2: Updated Figure 1 and Figure 2 for new configurations of F-01435-L & -R and F-01435A-L & -R.



SECTION 28: FWD FUSE LOWER STRUCTURE



NOTE: Special tools required to complete this section include a countersink extension.



NOTE: Mirror call-outs about the aircraft centerline.

Step 1: Separate the F-01434 Skin Stiffeners and F-00020 Antenna Doublers as shown in Detail A and Detail B in Figure 1.

Step 2: Dimple the #40 holes in the F-00020 Antenna Doublers as shown in Figure 1.

Step 3: Dimple the #40 holes in the lower flanges of the F-01434-L & -R Skin Stiffeners as shown in Figure 1.

NOTE: If only one communications antenna will be installed, plug the unused holes with AN426AD3-3 rivets instead of enlarging and/or drilling.

Step 4: Use a step drill to enlarge the #40 communications antenna hole in each F-01483-L & -R Forward Bottom Skin to 9/16. See Figure 1. Deburr the holes.

Step 5: Final-Drill #12 the two holes in each F-01483-L & -R Forward Bottom Skin as shown in Figure 1. Deburr the holes.

NOTE: Be sure the outboard flanges of the forward bottom skins turn upward. DO NOT dimple the 5/32 holes called out in Figure 1.

Step 6: Break edges upward around the aft perimeter of the F-01483-L & -R Forward Bottom Skins as shown in Figure 1.

Step 7: Dimple the #30 and #40 holes in the F-01483-L & -R Forward Bottom Skins except as shown in Figure 1.

Step 8: Rivet the F-00020 Antenna Doublers and F-01434-L & -R Skin Stiffeners to the F-01483-L & -R Forward Bottom Skins.

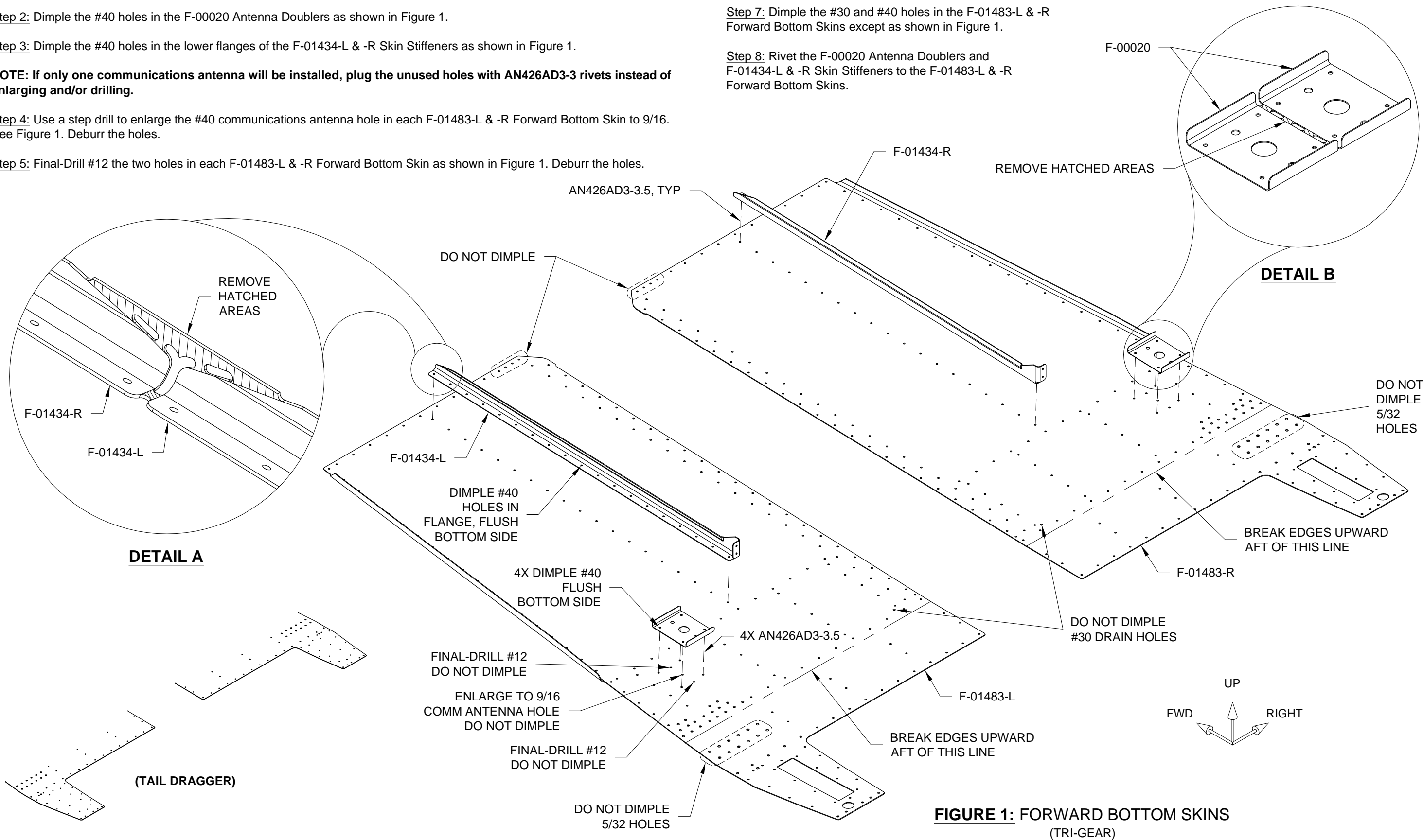
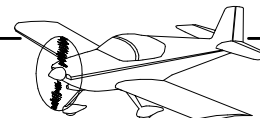


FIGURE 1: FORWARD BOTTOM SKINS
(TRI-GEAR)



CAUTION! Stainless steel edges are very sharp. Handle with care.

NOTE: See Section 5 for additional construction process information.

Step 1: Separate the F-01453A-L & -R Muffler Shroud Doublers as shown in Figure 1.

Dimple the #40 holes in the muffler shroud doublers as shown in Figure 1. **DO NOT** dimple the #30 holes.

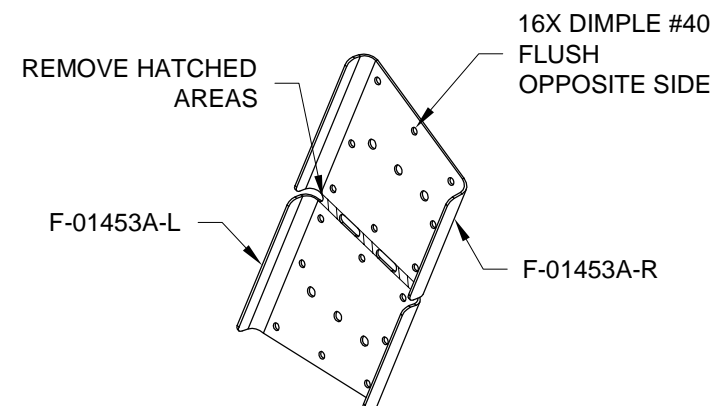


FIGURE 1: MUFFLER SHROUD DOUBLERS

Step 2: Separate the F-01465 Muffler Hanger Angles as shown in Figure 2.

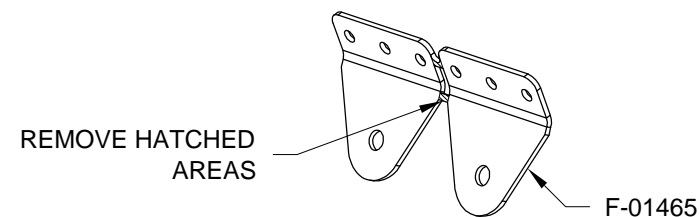


FIGURE 2: MUFFLER HANGER ANGLES

Step 3: Separate the F-14108A & B Fuel Pump Brackets as shown in Figure 3. Note the additional hole in the F-14108B bracket.

Dimple the #40 holes in the F-14108A & B Fuel Pump Brackets as shown in Figure 3. **DO NOT** dimple the nutplate center holes.

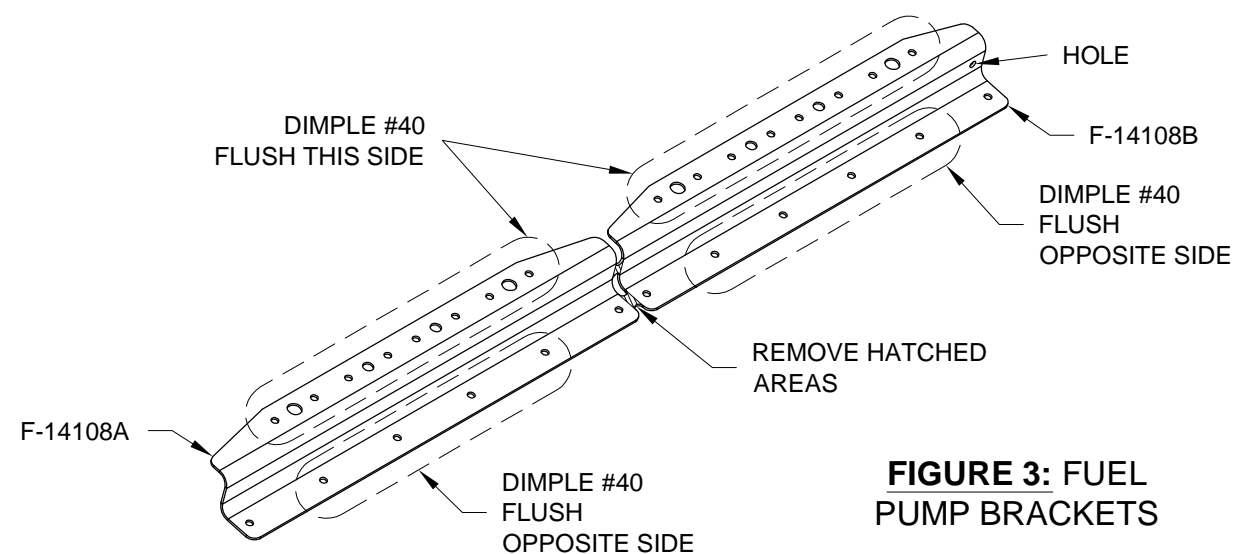


FIGURE 3: FUEL PUMP BRACKETS

Step 4: Dimple the #30 holes along the forward webs of the F-01453-L & -R Muffler Shroud Sides as shown in Figure 4.

Step 5: Dimple the #40 holes in the webs of the F-01453-L & -R Muffler Shroud Sides where the F-01453A-L & -R Muffler Shroud Doublers will be attached. See Figure 4.

Step 6: Dimple the #40 holes in the web and lower-aft flange of the F-01454 Muffler Shroud Ramp as shown in Figure 4.

Step 7: Trim the ends of the F-01453-L & -R Muffler Shroud Sides as shown in the detail view in Figure 4. Straighten the aft end of the upper flange as required.

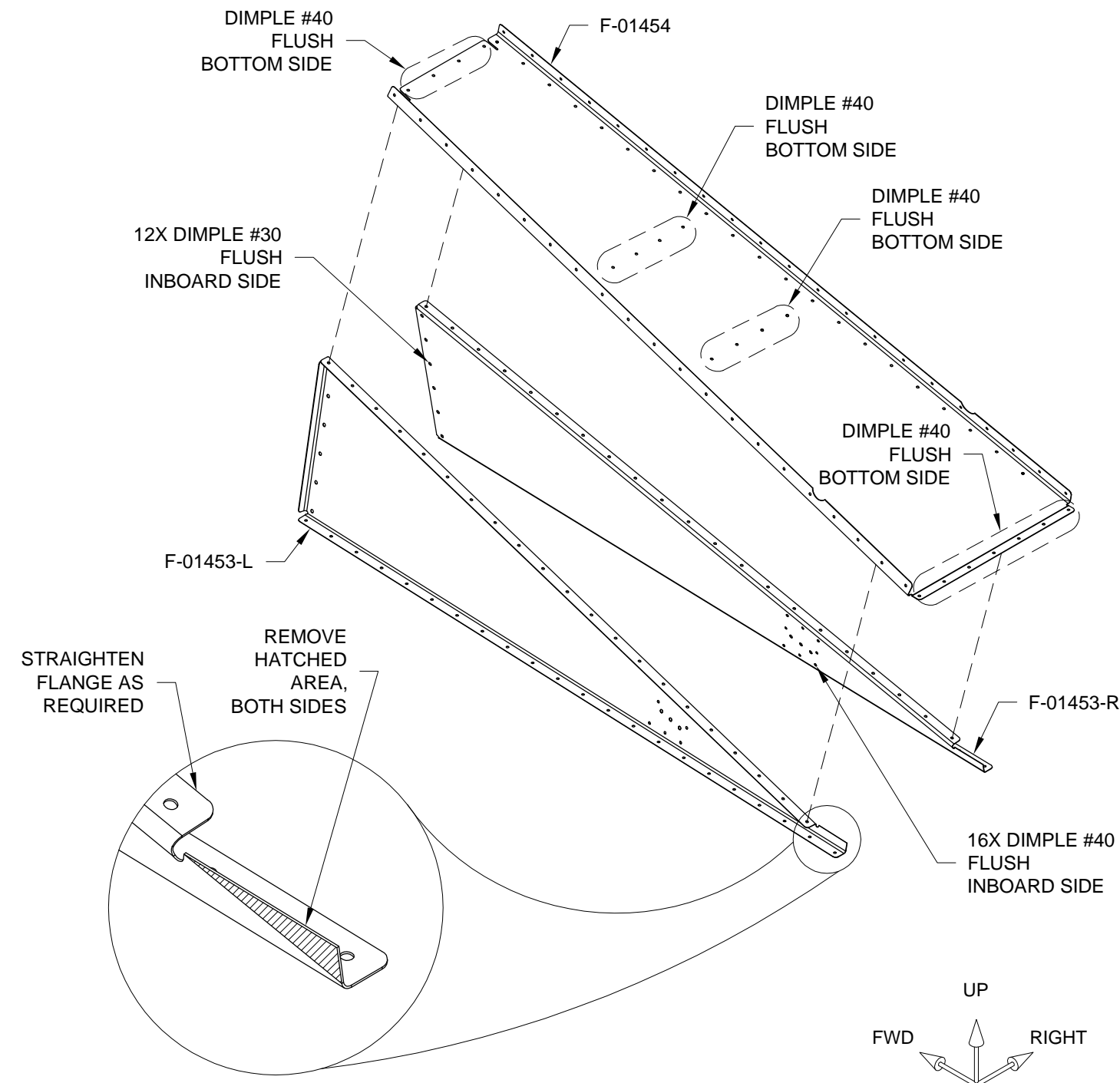
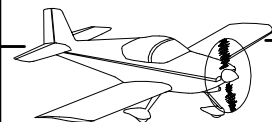


FIGURE 4: PREP MUFFLER SHROUD



NOTE: Refer to Figure 1 for the following steps. Mirror call-outs about the aircraft centerline.

Step 1: Rivet the F-01453A-L & -R Muffler Shroud Doublers to the F-01453-L & -R Muffler Shroud Sides.

Rivet the two F-01465 Muffler Hanger Angles to the muffler shroud sides and muffler shroud doublers.

Step 2: Clean with solvent (acetone or isopropyl alcohol) the bottom side of the lower flanges of the F-01453-L & -R Muffler Shroud Sides. Allow the cleaned areas to dry completely.

Step 3: Apply a 1/16 [1.6 mm] bead of fuel tank sealant to the bottom flanges of the F-01453-L & -R Muffler Shroud Sides inboard of where the flanges rivet to the F-01483-L & -R Forward Bottom Skins.

Step 4: Cleco, then rivet the F-01453-L & -R Muffler Shroud Sides to the F-01483-L & -R Forward Bottom Skins. Remove excess fuel tank sealant as required. **DO NOT** rivet the lower-aft flange of the muffler shroud ramp to the forward bottom skins.

Step 5: Dimple the nutplates shown to fit the F-14108A & B Fuel Pump Brackets.

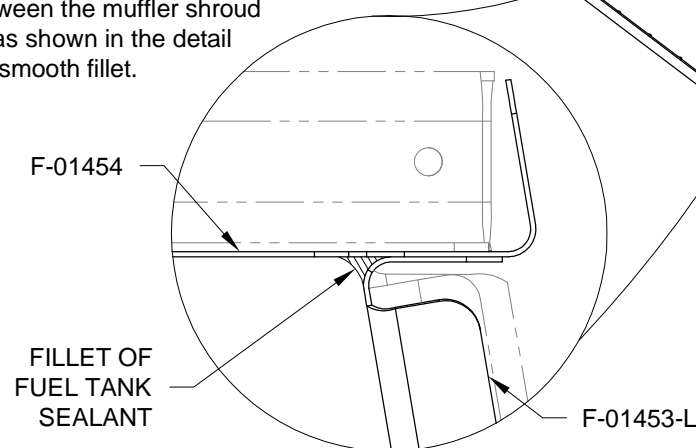
Step 6: Rivet the nutplates to the centers of the F-14108A & B Fuel Pump Brackets.

Step 7: Rivet the F-14108A & B Fuel Pump Brackets to the F-01454 Muffler Shroud Ramp. Note the additional hole in the F-14108B bracket.

Step 8: Rivet the F-14108A & B Fuel Pump Brackets and F-01454 Muffler Shroud Ramp to the F-01453-L & -R Muffler Shroud Sides.

Step 9: Clean with solvent (acetone or isopropyl alcohol) the areas where the bottom side of the F-01454 Muffler Shroud Ramp meets the inboard walls of the F-01453-L & -R Muffler Shroud Sides. Allow the cleaned areas to dry completely.

Apply a fillet of fuel tank sealant between the muffler shroud ramp and each muffler shroud side as shown in the detail view. Use a popsicle stick to form a smooth fillet.



(VIEW FRONT SIDE LOOKING AFT ALONG RAMP,
LEFT SIDE SHOWN)

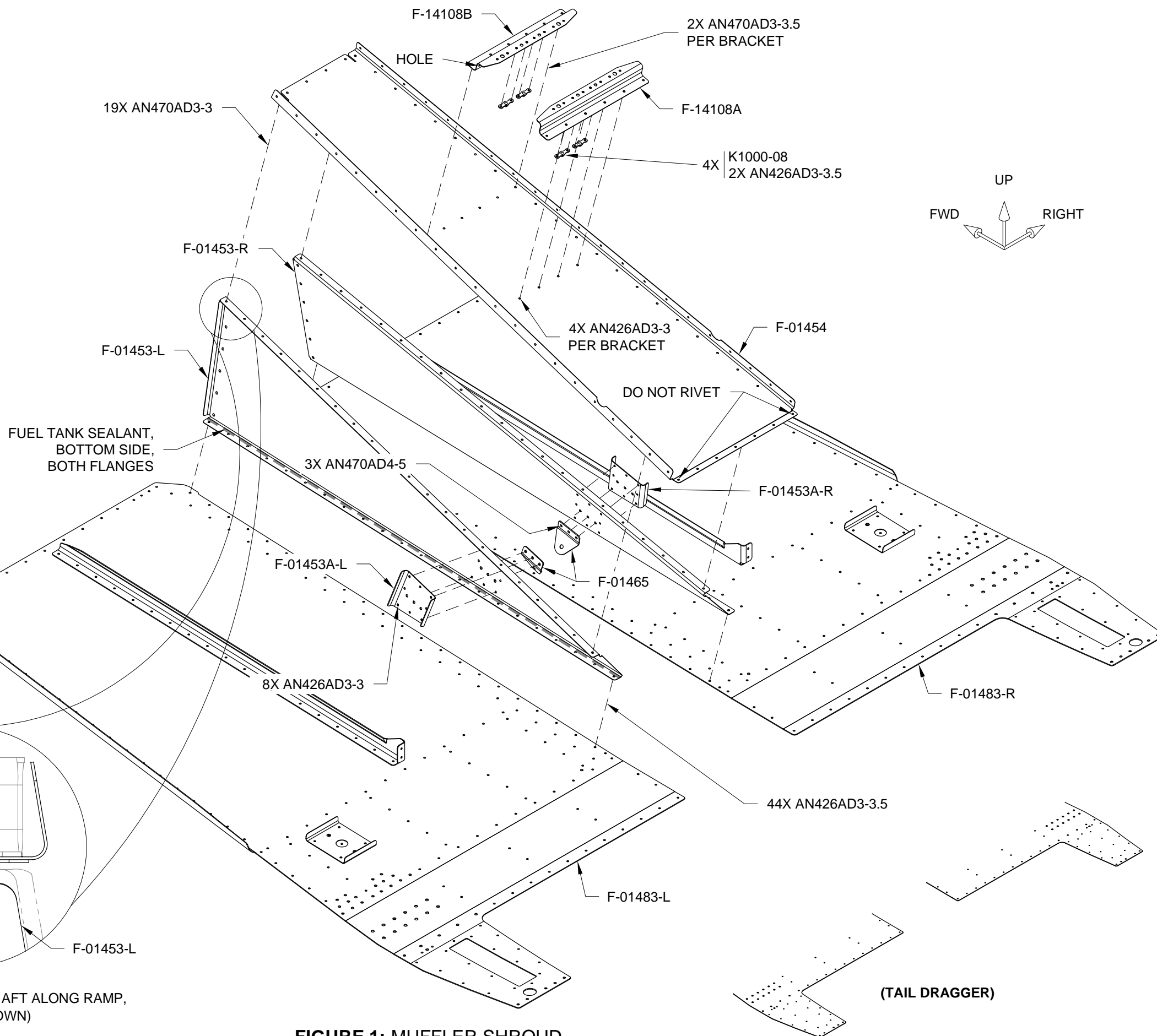


FIGURE 1: MUFFLER SHROUD

NOTE: Pages 28-05 and 28-06 must be completed in one session. Mirror call-outs about the aircraft centerline.

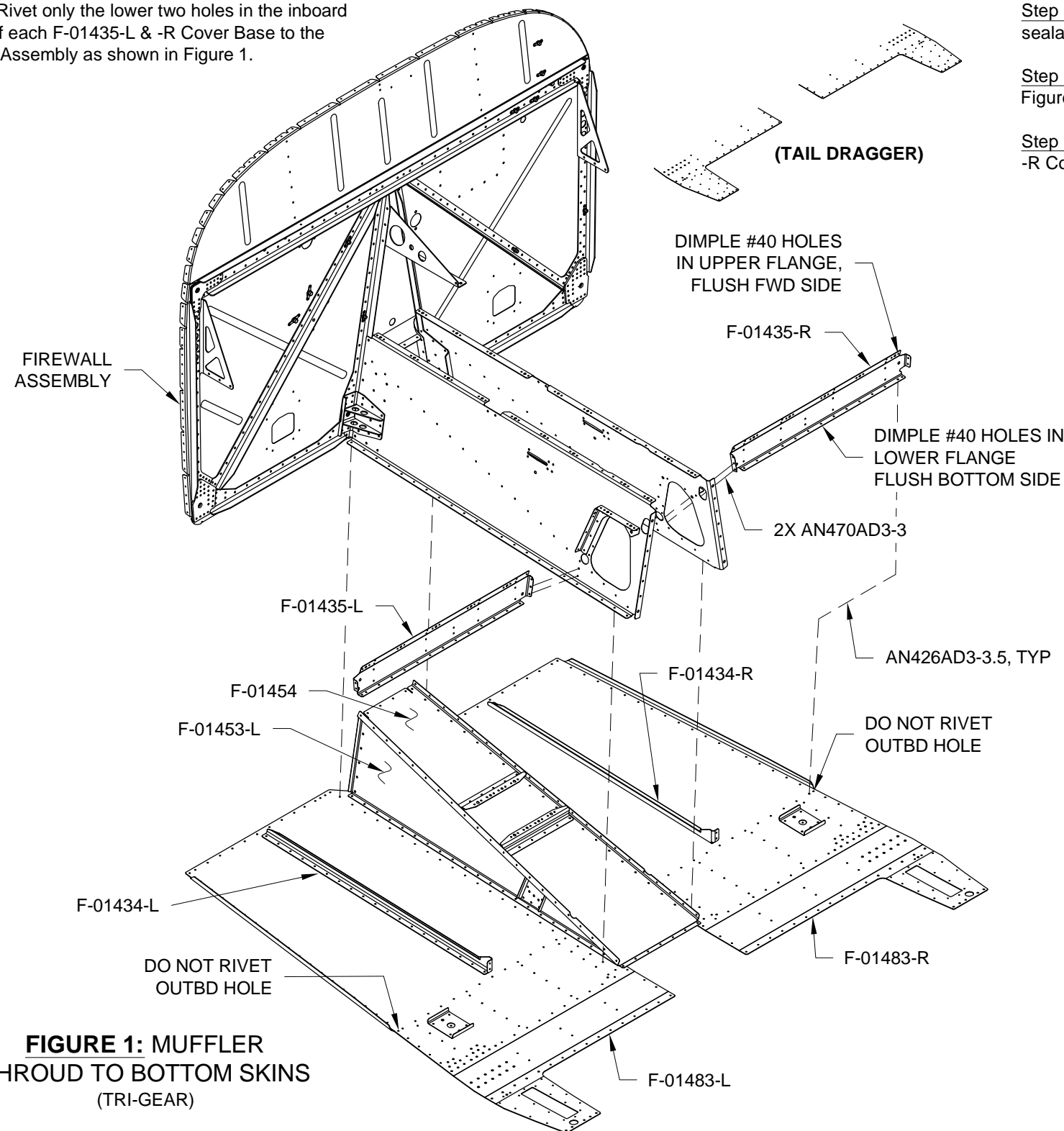
Step 1: Dimple the #40 holes in the lower flanges of the F-01435-L & -R Cover Bases as shown in Figure 1.

Step 2: Dimple the #40 holes in the upper flanges of the F-01435-L & -R Cover Bases as shown in Figure 1.

Step 3: Pre-position the Firewall Assembly onto the F-01483-L & -R Forward Bottom Skins to become familiar with the areas that need to be sealed. The goal is to seal all gaps against oil intrusion, etc. See Figure 1 for alignment.

Step 4: Clean with solvent (acetone or isopropyl alcohol) the areas where fuel tank sealant will be applied as shown in Figure 1 and Figure 2. **DO NOT** allow solvent to contact previously applied fuel tank sealant. Allow the cleaned areas to dry completely.

Step 5: Rivet only the lower two holes in the inboard flange of each F-01435-L & -R Cover Base to the Firewall Assembly as shown in Figure 1.



**FIGURE 1: MUFFLER
SHROUD TO BOTTOM SKINS
(TRI-GEAR)**

NOTE: Apply fuel tank sealant between part edges and the first line of rivet holes.

Step 6: Apply a 1/16 [1.6 mm] bead of fuel tank sealant to the forward bottom flanges of the Firewall Assembly where they meet the F-01483-L & -R Forward Bottom Skins as shown in Figure 2.

Step 7: Apply a 1/16 [1.6 mm] bead of fuel tank sealant to the three curled flanges of the Firewall Assembly where they meet the sides and ramp of the muffler shroud as shown in Figure 2.

Step 8: Apply a 1/16 [1.6 mm] bead of fuel tank sealant to the curved edges of the F-01483-L & -R Forward Bottom Skins where they meet the two curled flanges of the Firewall Assembly as shown in Figure 2.

Step 9: Cleco the Firewall Assembly to the F-01483-L & -R Forward Bottom Skins. Remove excess fuel tank sealant as required.

Step 10: Rivet the F-01435-L & -R Cover Bases to the F-01483-L & -R Forward Bottom Skins as shown in Figure 1. **DO NOT** rivet the outboard hole on each side.

Step 11: Rivet the aft flanges of the F-01434-L & -R Skin Stiffeners to the forward sides of the F-01435-L & -R Cover Bases using four AN470AD3-3.5 solid rivets.

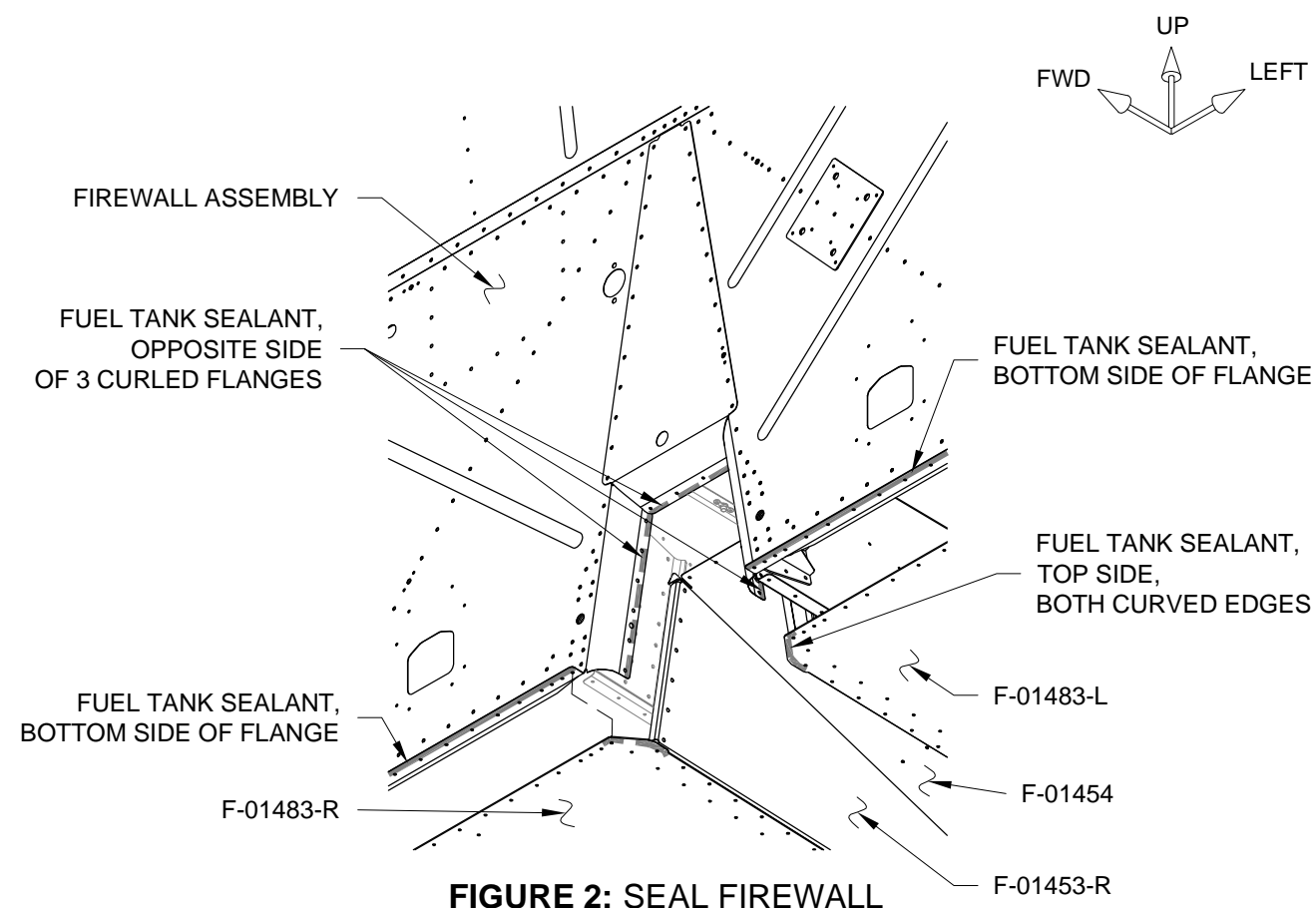
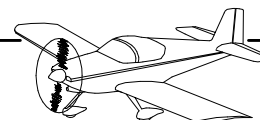


FIGURE 2: SEAL FIREWALL





NOTE: Pages 28-05 and 28-06 must be completed in one session.

NOTE: Refer to Figure 1 for the following steps.

Step 1: Blind rivet the F-01401B-L &-R Firewall Sides to the F-01453-L & -R Muffler Shroud Sides.

Step 2: Rivet the F-01401C Firewall Center to the F-01454 Muffler Shroud Ramp.

Step 3: Clean with solvent (acetone or isopropyl alcohol) the areas where the F-01401C Firewall Center meets the F-01401B-L & -R Firewall Sides and F-01454 Muffler Shroud Ramp as shown in Figure 1.
DO NOT allow solvent to contact previously applied fuel tank sealant. Allow the cleaned areas to dry completely.

Apply a fillet of fuel tank sealant as shown in Figure 1. Continue the fillet onto the forward faces of the left and right firewall sides.

Step 4: Machine countersink the #40 holes in the F-14132 Tunnel Angle as shown in Figure 1.

Step 5: Cleco, then rivet the F-14132 Tunnel Angle to the F-01483-L & -R Forward Bottom Skins and F-01401B-L & -R Firewall Sides.

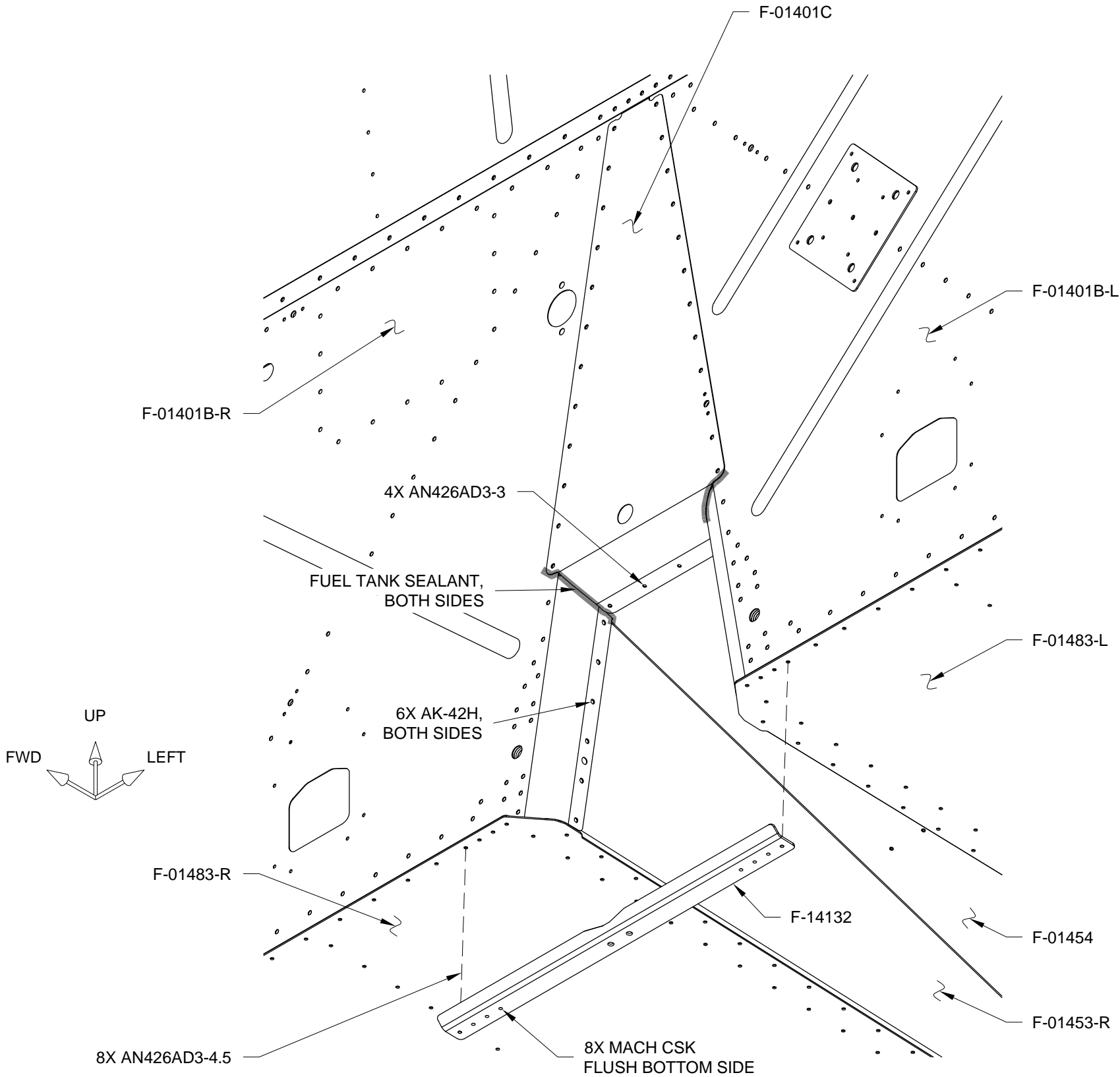


FIGURE 1: TUNNEL ANGLE

NOTE: Mirror call-outs about the aircraft centerline.

Step 1: Separate the F-14134C Cowling Hinge Shims as shown in Figure 1. Retain the remaining shims for use in Sections 29 and 35.

Step 2: Dimple the F-14134C Cowling Hinge Shims as shown in Figure 2.

Step 3: Machine countersink the #40 holes in the F-14133-1 Cowl Attach Plates as shown in Figure 2.

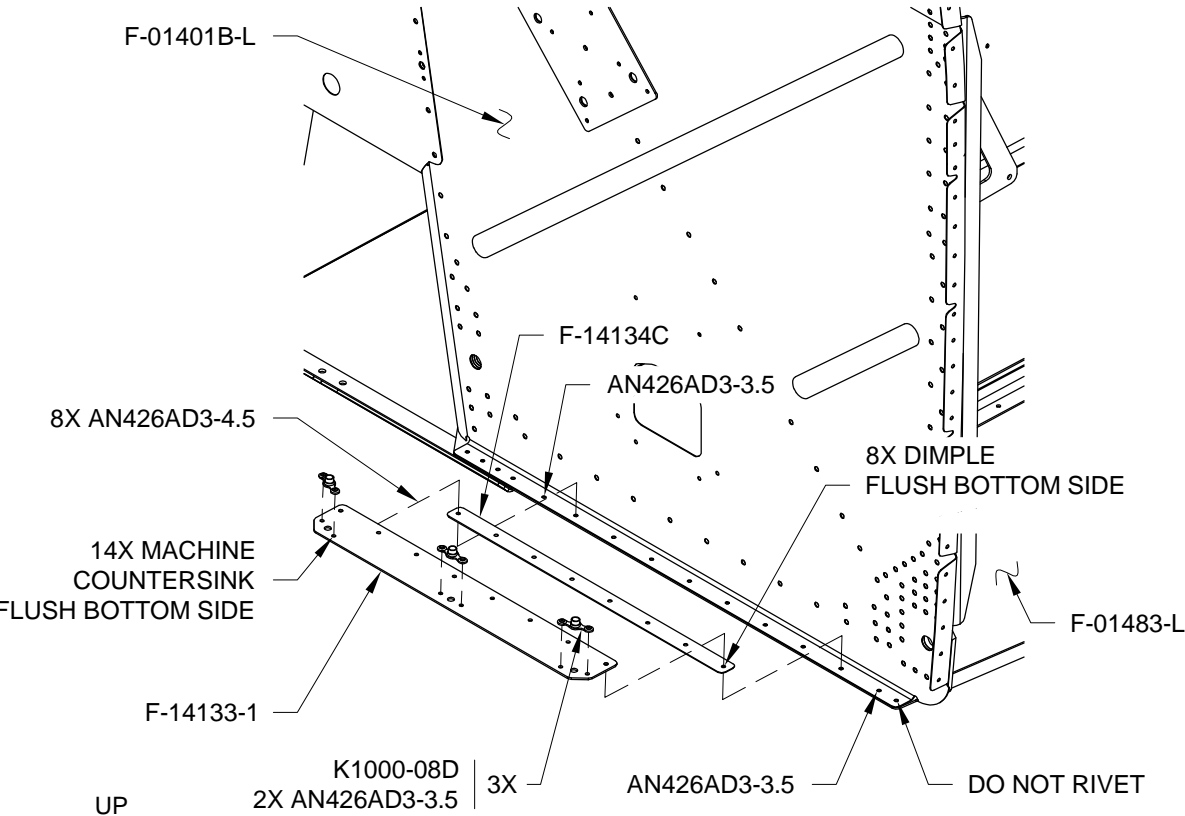
Step 4: Rivet the nutplates to the F-14133-1 Cowl Attach Plates as shown in Figure 2.

Step 5: Cleco, then rivet the F-14134C Cowling Hinge Shims and F-14133-1 Cowl Attach Plates to the F-01401B-L & -R Firewall Sides and F-01483-L & -R Forward Bottom Skins as shown in Figure 2.

Rivet the forward bottom skins to the firewall sides as shown in Figure 2. **DO NOT** rivet the outboard hole on each side.



FIGURE 1: COWL HINGE SHIMS

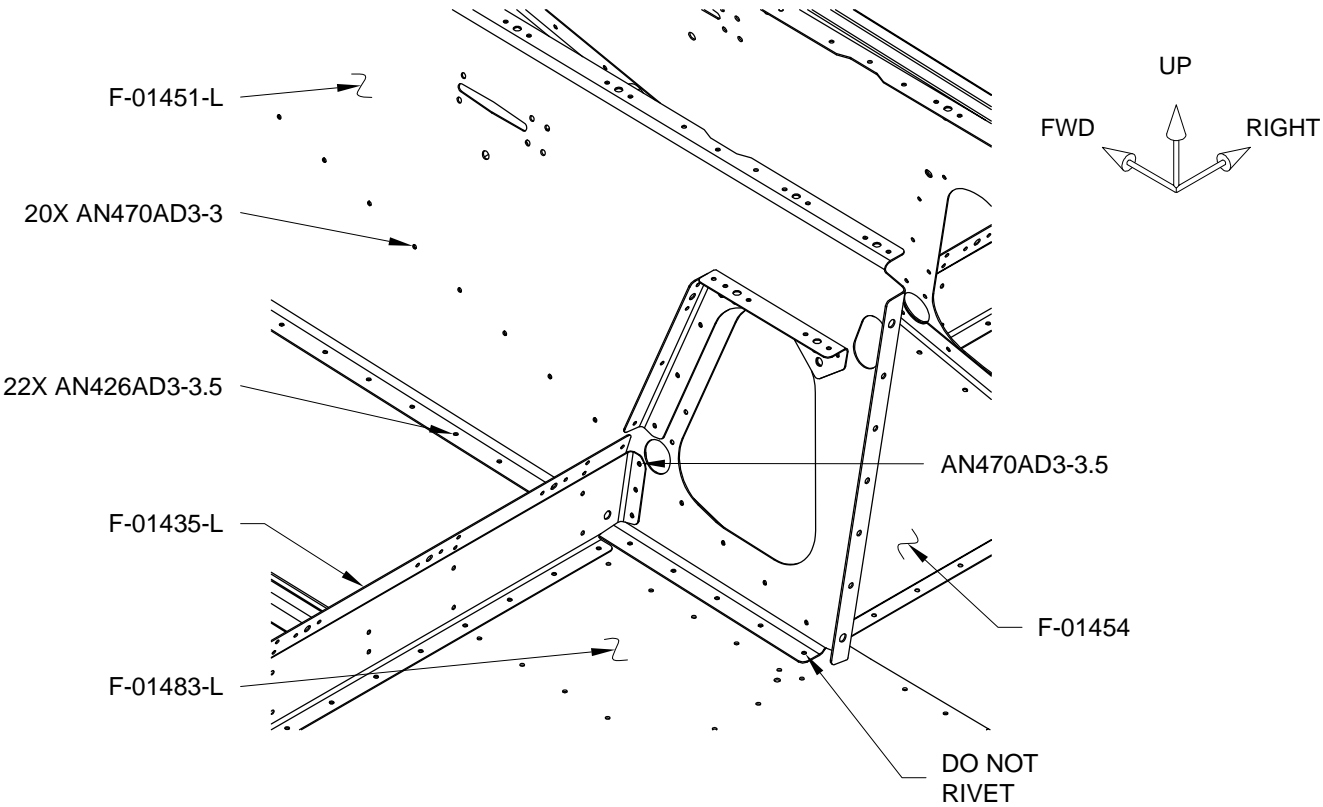


**FIGURE 2: COWL PLATES AND SHIMS
(LEFT SIDE SHOWN)**

Step 6: Rivet the F-01451-L & -R Tunnel Sides to the F-01483-L & -R Forward Bottom Skins as shown in Figure 3. **DO NOT** rivet the aft-most hole in the tunnel sides.

Step 7: Rivet the F-01435-L & -R Cover Bases to the F-01451-L & -R Tunnel Sides and F-01454 Muffler Shroud Ramp as shown in Figure 3.

Step 8: Rivet the F-01451-L & -R Tunnel Sides to the F-01454 Muffler Shroud Ramp as shown in Figure 3.

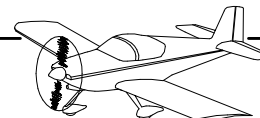


**FIGURE 3: JOIN FIREWALL AND MUFFLER ASSEMBLIES
(LEFT SIDE SHOWN)**



Step 6: Attach the FF-00001 Firewall Penetration Fittings to the Firewall Assembly.





NOTE: Two identical Vent Door Assemblies and two identical Vent Inlet Assemblies will be fabricated.

Step 1: Fabricate two VENT-00001D Vent Hinges from MS20257-C2 Stainless Steel Hinge raw material using the dimensions given in Figure 1. Trim the hinge pins to the length of the finished parts and insert.

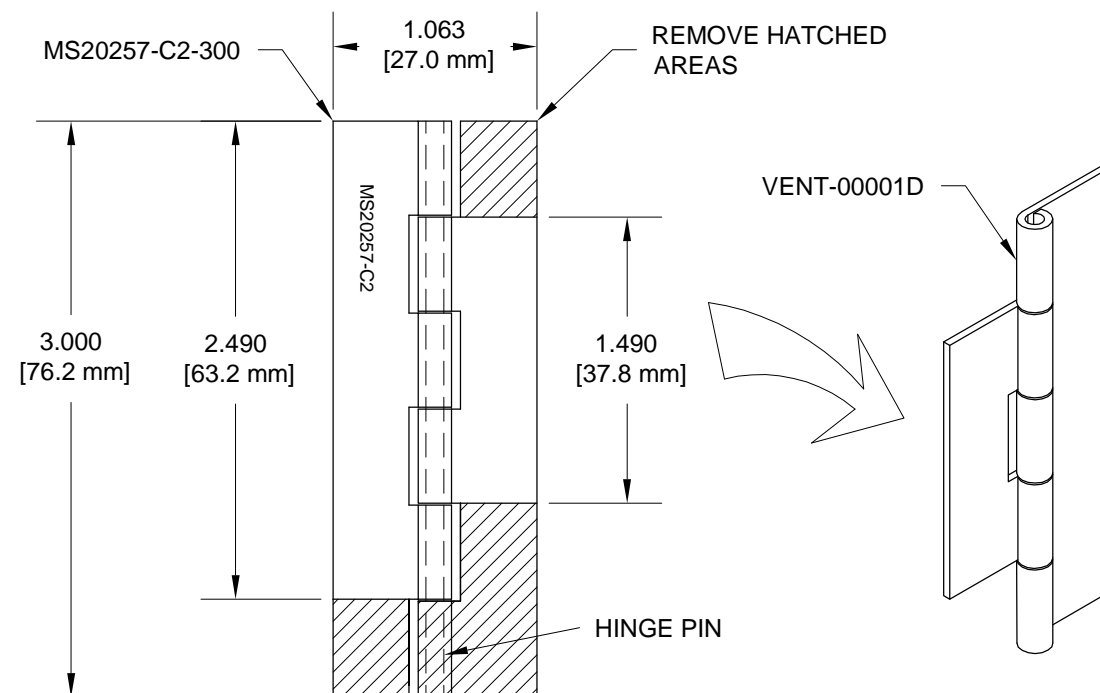


FIGURE 1: FABRICATE HINGES
(ONE PART SHOWN)

NOTE: Center the hinge halves within their side to side play and firmly clamp all parts before match-drilling.

Step 2: Center the two halves of one VENT-00001D Vent Hinge on one VENT-00001CE Vent Door and match-drill #40 the vent hinge using the vent door as a guide. Repeat for the remaining vent hinge and vent door. See Figure 2.

Step 3: Separate the VENT-00001E Hinge Templates from the VENT-00001CE Vent Doors as shown in Figure 2. Discard the hinge templates.

Step 4: Dimple the #40 holes in the VENT-00001D Vent Hinges as shown in Figure 2.

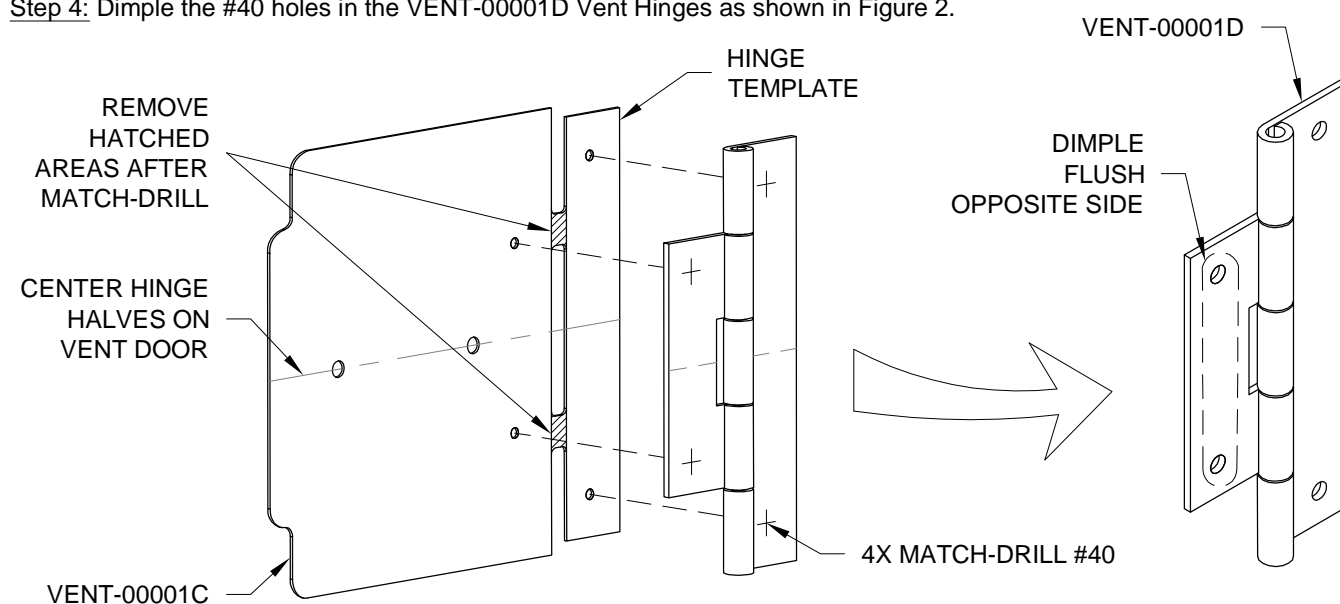


FIGURE 2: MATCH-DRILL & DIMPLE HINGES
(ONE SET SHOWN)

Step 5: Separate the VENT-00001A-L & -R Vent Sides as shown in Figure 3.

Step 6: Prime the VENT-00001A-L & -R Vent Sides and VENT-00001B Vent Inlets.

Step 7: Machine countersink the #40 holes in the two VENT-00001F Vent Arms as shown in Figure 4.

Step 8: Dimple the VENT-00001C Vent Doors as shown in Figure 4.

Step 9: Rivet the VENT-00001D Vent Hinges and VENT-00001F Vent Arms to the VENT-00001C Vent Doors as shown in Figure 4.

Hereafter refer to this as the Vent Door Assembly.

Step 10: Blind rivet the VENT-00001B Vent Inlets to the VENT-00001A-L & -R Vent Sides as shown in Figure 4.

Hereafter refer to this as the Vent Inlet Assembly.

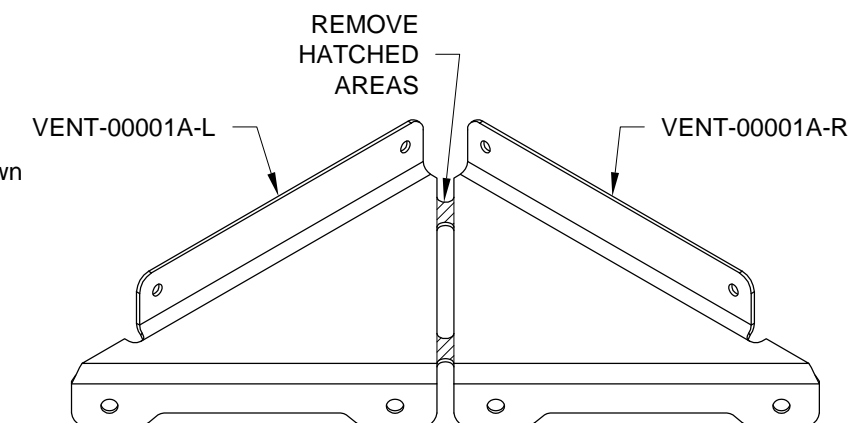


FIGURE 3: SEPARATE VENT SIDES
(ONE SET SHOWN)

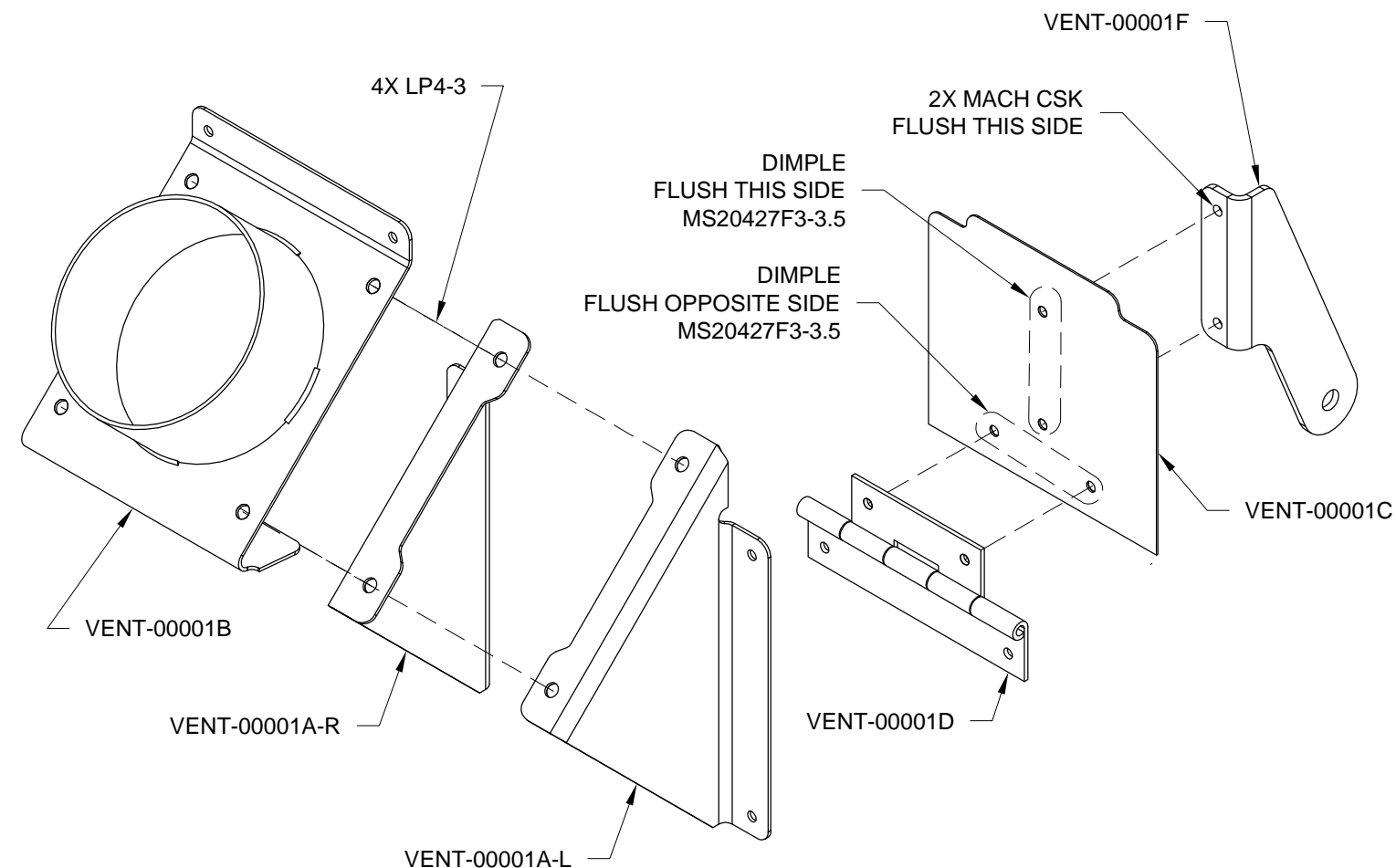
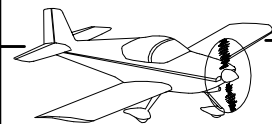


FIGURE 4: VENT DOORS AND VENT INLETS
(ONE SET SHOWN)



NOTE: Left and right side vents are identical. See Page 28-01.

Step 1: Separate the F-14103 Cable Brackets as shown in the detail view in Figure 2.

Step 2: Rivet the Vent Inlet Assemblies and Vent Door Assemblies to the Firewall Assembly and F-14103 Cable Brackets as shown in Figure 1 and Figure 2.

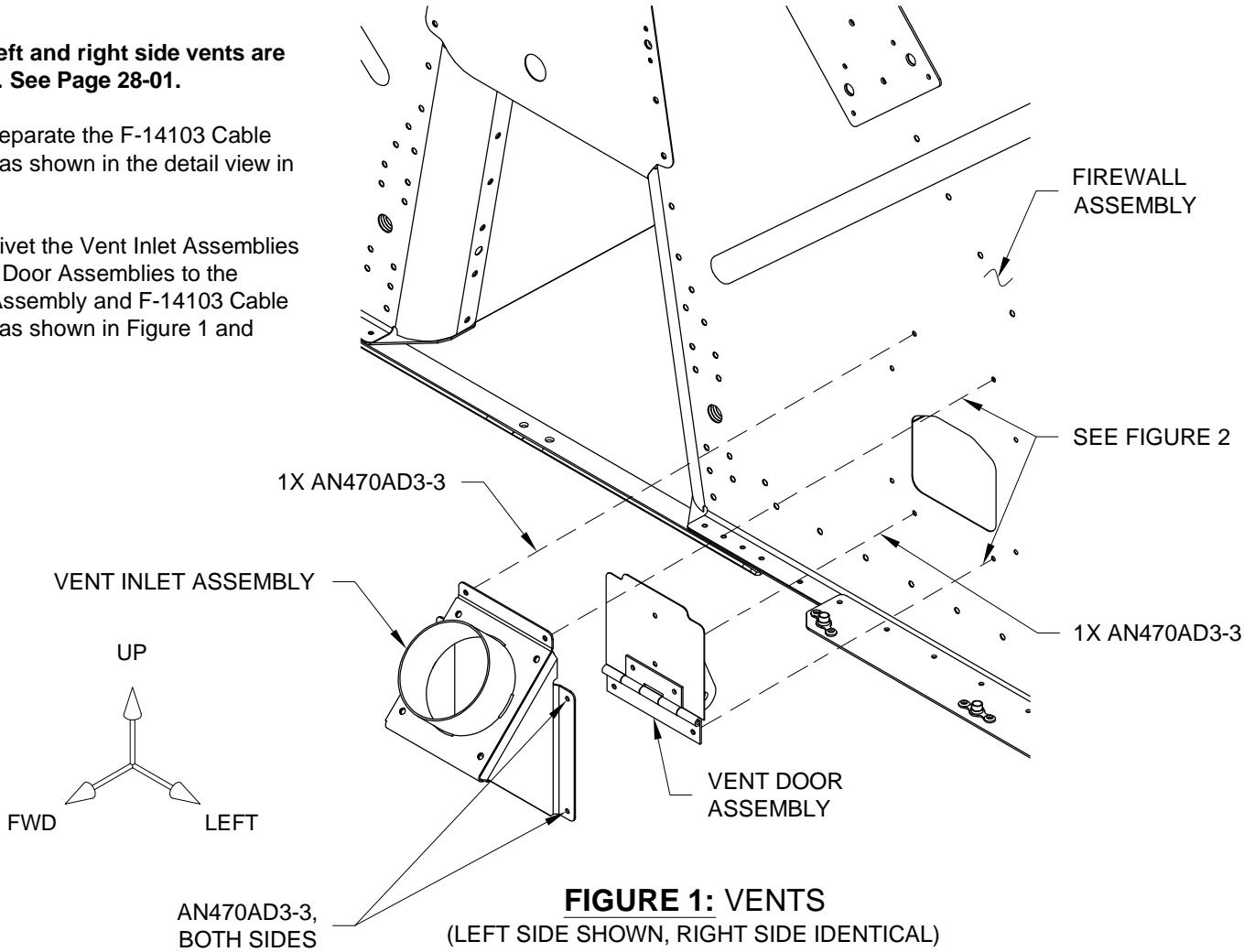


FIGURE 1: VENTS
(LEFT SIDE SHOWN, RIGHT SIDE IDENTICAL)

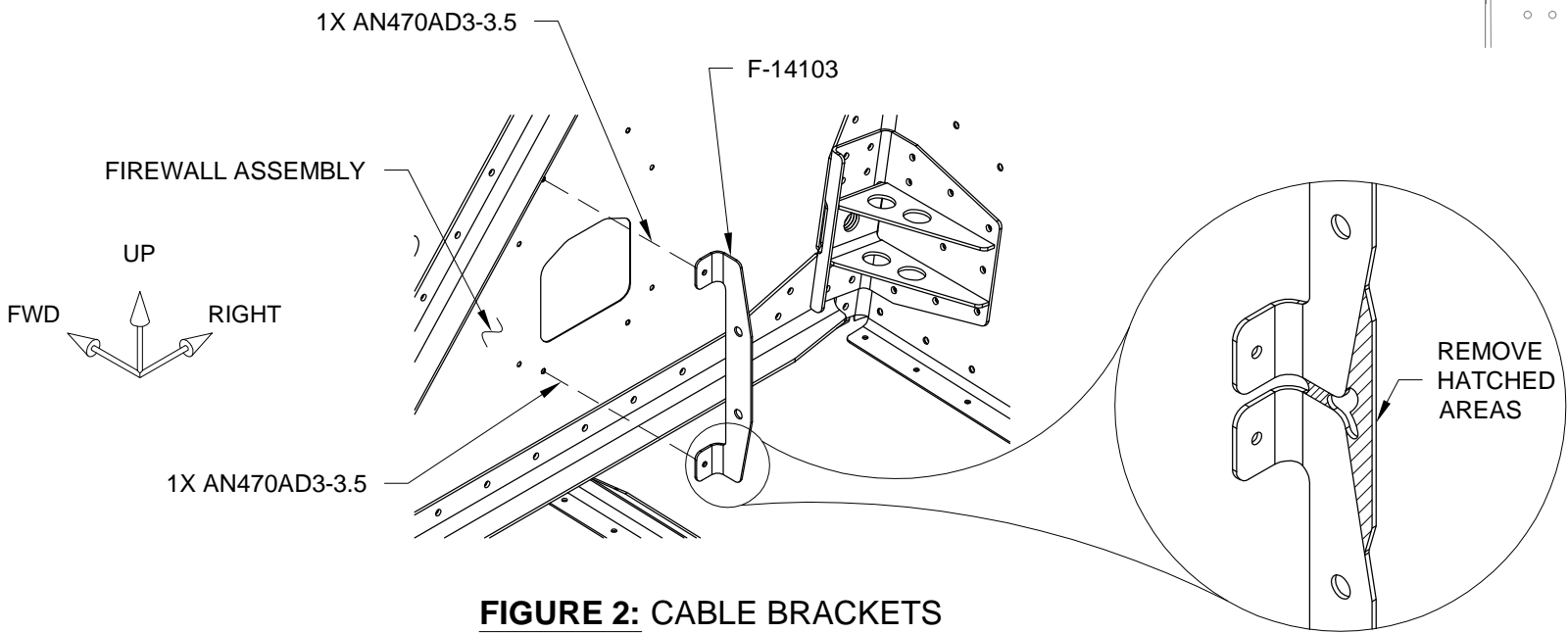


FIGURE 2: CABLE BRACKETS
(LEFT SIDE SHOWN, RIGHT SIDE IDENTICAL - NOT MIRRORED)

Step 3: Machine countersink the holes in the FF-01403 Battery Box for the rivets shown in Figure 3. Use a countersink extension as required. All rivets are flush on the forward side unless otherwise noted.

Step 4: Rivet the nutplates to the aft sides of the FF-01403 Battery Box flanges as shown in Figure 3.

Step 5: Rivet the FF-01403 Battery Box to the forward side of the Firewall Assembly as shown in Figure 3.

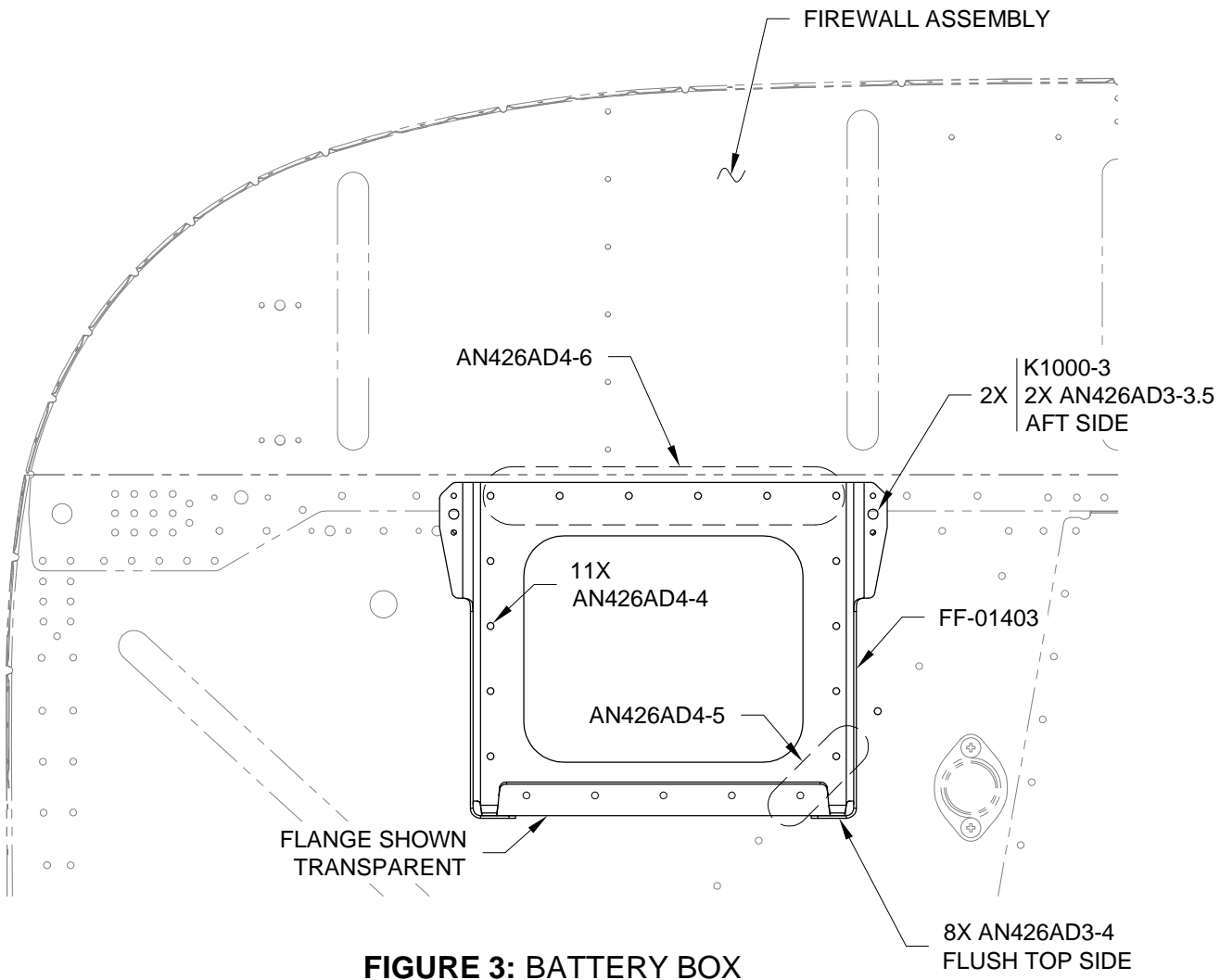


FIGURE 3: BATTERY BOX
(VIEW FRONT SIDE LOOKING AFT)

Step 1: Dimple all of the #40 holes in the F-01435A Cover Panel as shown in Figure 1.

Step 2: Separate the F-01435A-L & -R Cover Panels as shown in Figure 1.

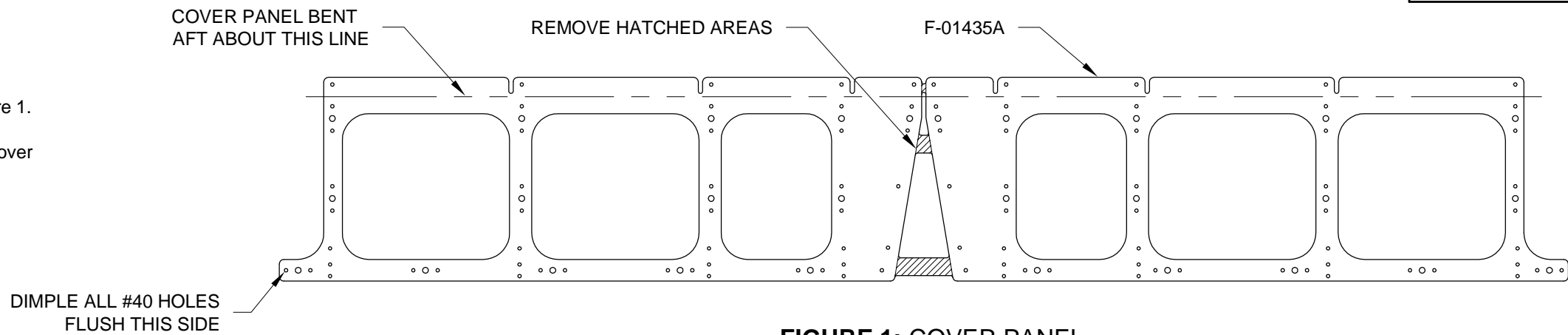


FIGURE 1: COVER PANEL
(VIEW FRONT SIDE LOOKING AFT, SHOWN FLAT)

Step 3: Rivet the F-01435A-L & -R Cover Panels to the F-01499-L & -R Cover Angle Brackets as shown in Figure 2.

Step 4: Rivet the F-01435A-L & -R Cover Panels to the F-01435-L & -R Cover Bases and F-01438-L & -R Cover Ribs as shown in Figure 2.

Step 5: Rivet the nutplates to the aft sides of the F-01499-L & -R Cover Angle Brackets and F-01438-L & -R Cover Ribs as shown in Figure 2.

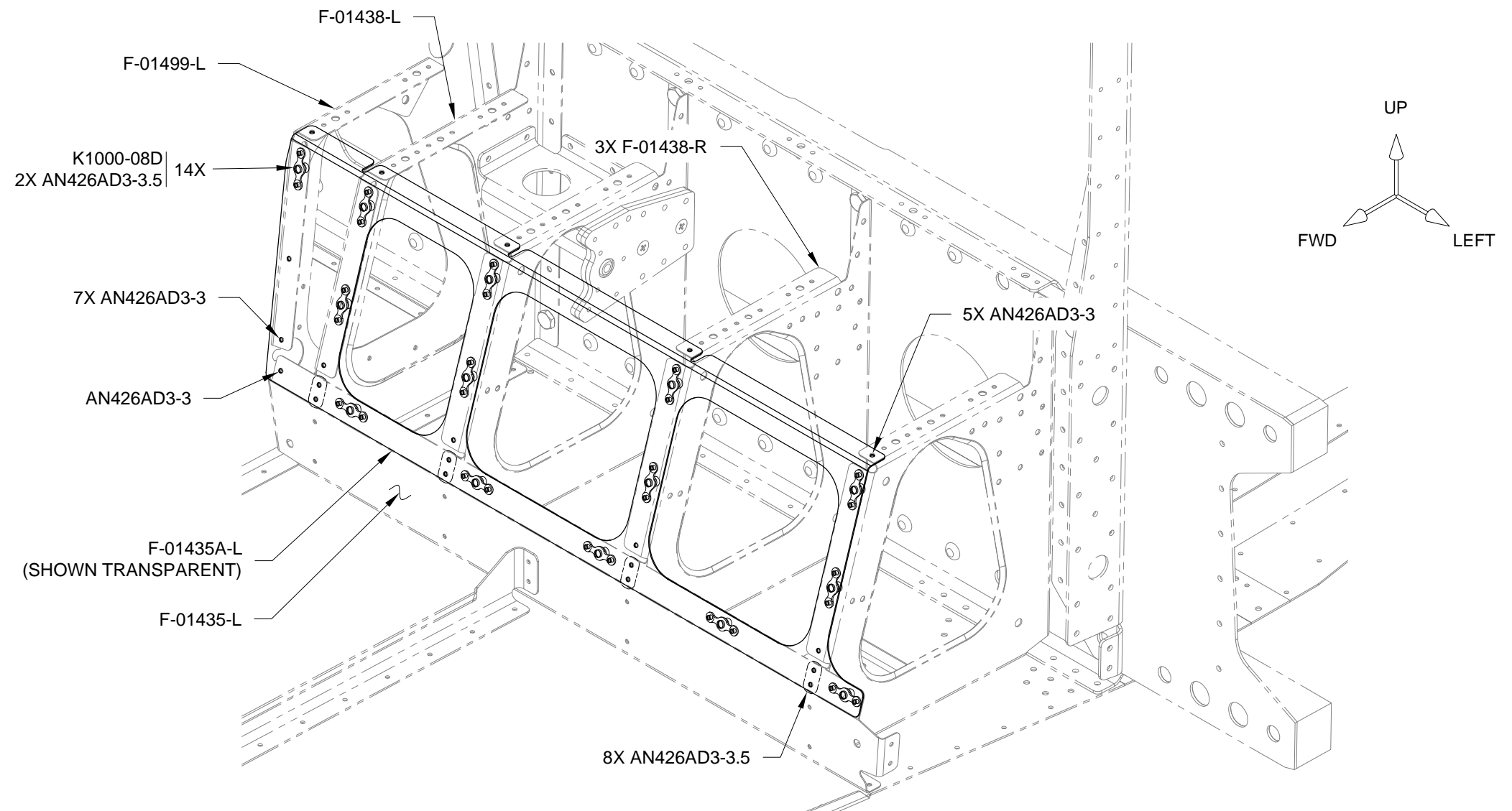
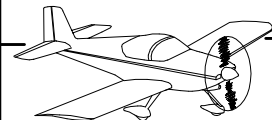


FIGURE 2: INSTALL COVER PANEL
(LEFT SIDE SHOWN)



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