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REVISION DESCRIPTION:

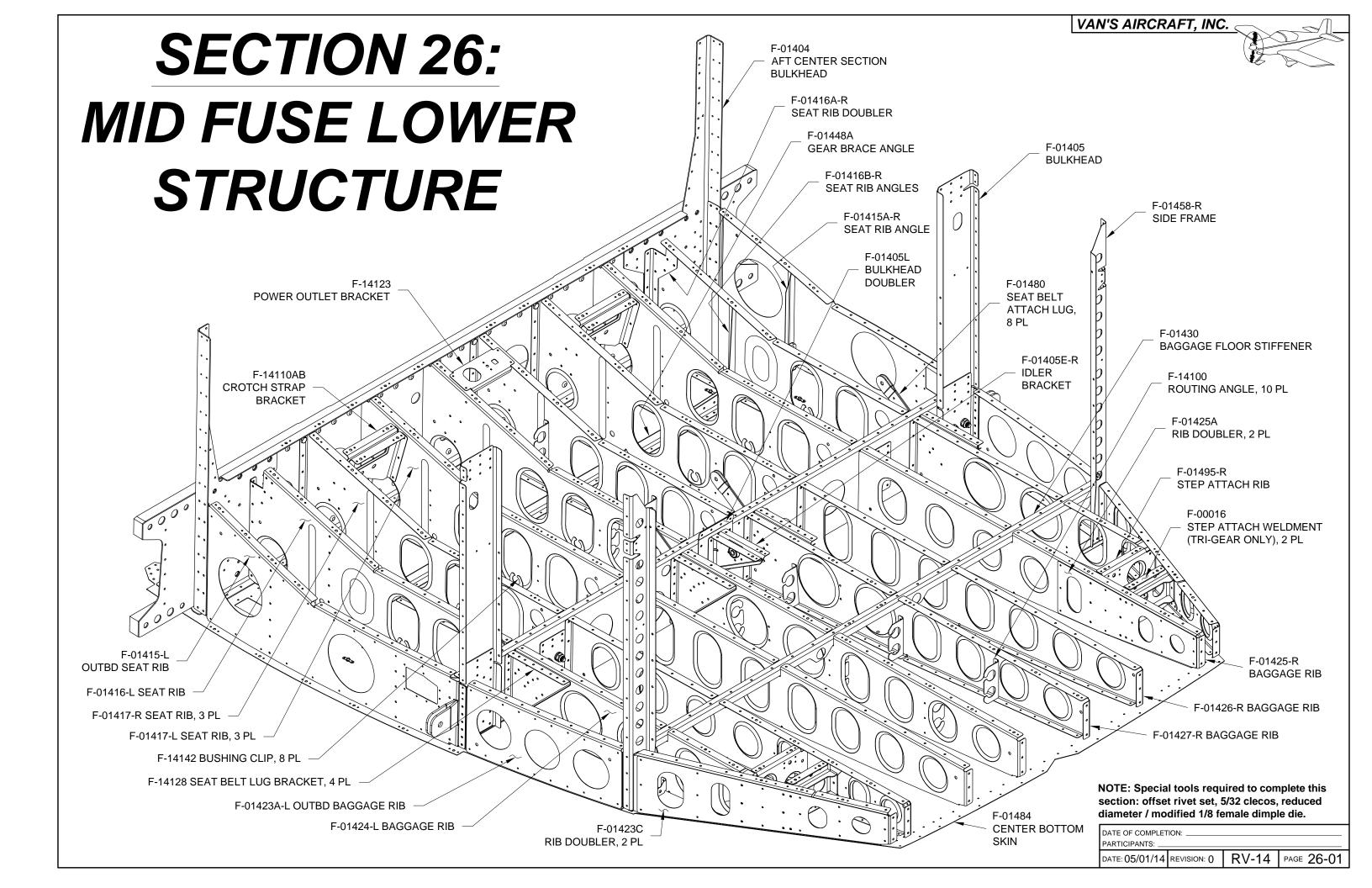
Page: 26-10 MEMO: Added "NOTE: Taildragger builders: if installing the optional F-00018-L & -R Tail Dragger Steps, ignore the remaining steps on this page."

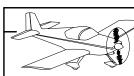
Page: 26-11 REV 3: Added Step 8 (was Step 1 on 26-14). Remaining steps repaginated.

In Figure 1, added "Break These Edges" callout.

Page: 26-14 REV 1: Removed Step 1. Remaining steps repaginated.

Page: 26-17 MEMO: Added "NOTE: Taildragger builders may choose to perform steps marked "Tri-Gear Only" on this page to allow for installation of the optional F-00018-L & -R Tail Dragger Steps."





Step 1: Rivet one F-01423C Rib Doubler to each of the F-01423B-L & -R Outbd Baggage Ribs as shown in Figure 1.

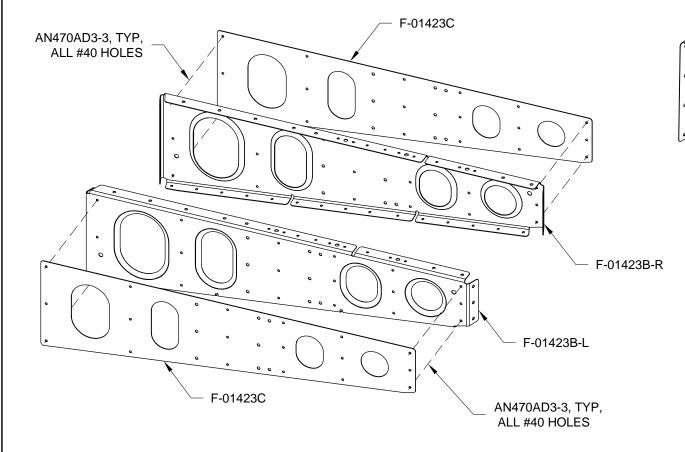


FIGURE 1: OUTBOARD BAGGAGE RIBS

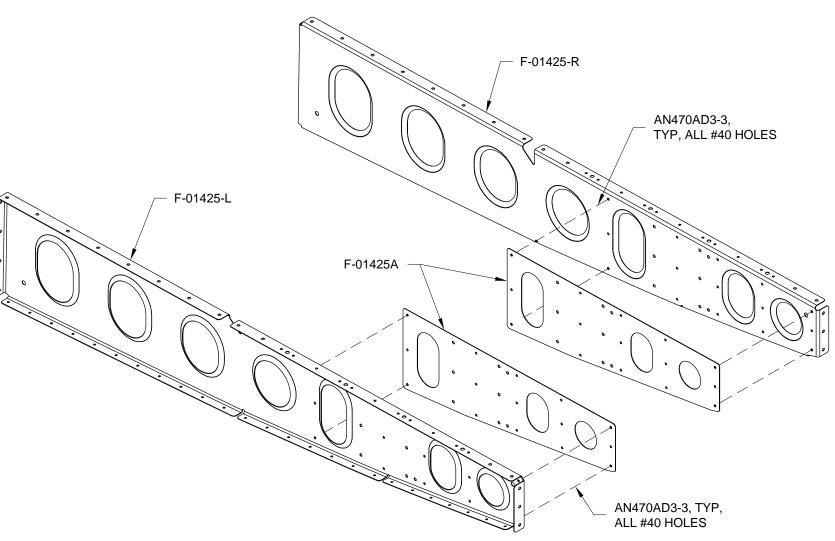
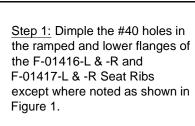
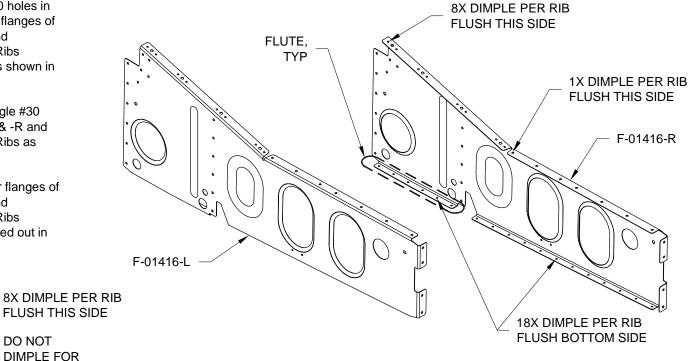


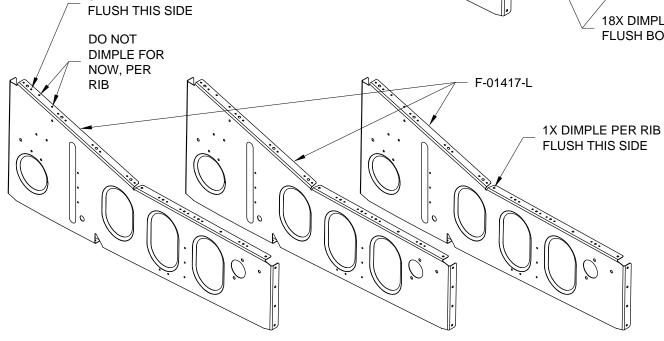
FIGURE 2: BAGGAGE RIBS

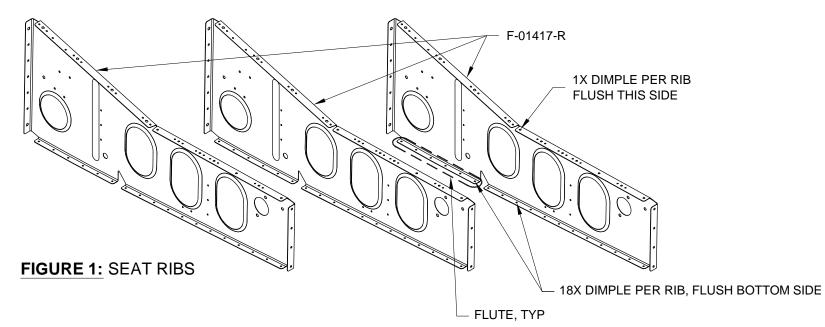


Step 2: Dimple the single #30 hole in the F-01416-L & -R and F-01417-L & -R Seat Ribs as shown in Figure 1.

Step 3: Flute the lower flanges of the F-01416-L & -R and F-01417-L & -R Seat Ribs between the holes called out in Figure 1.





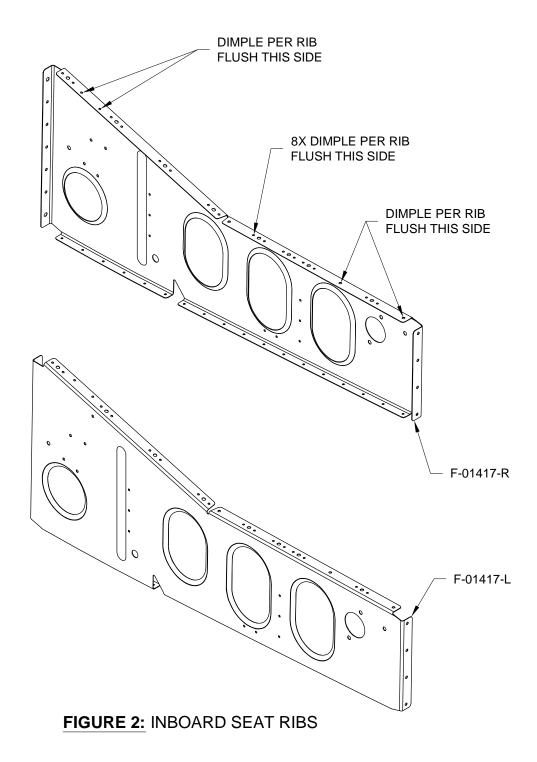


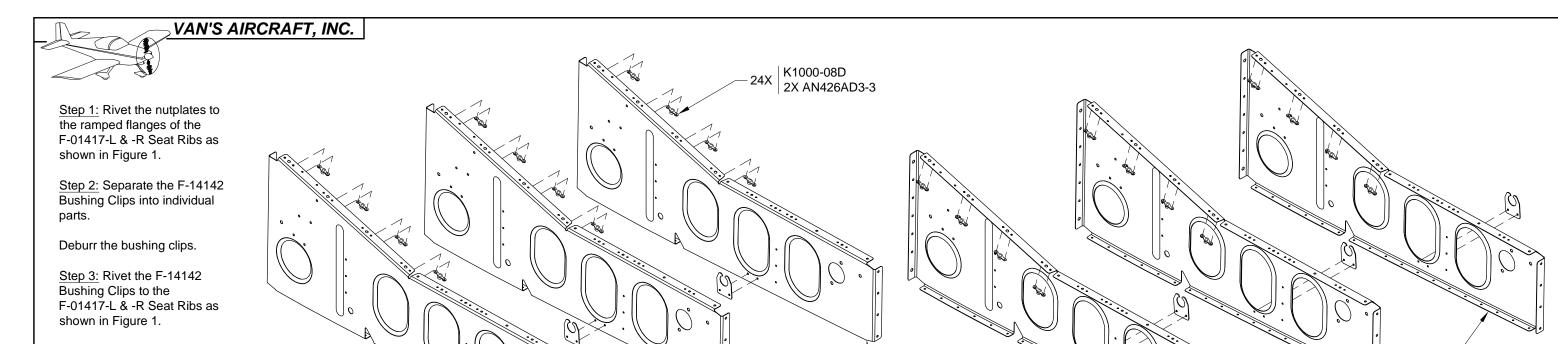
Step 4: Select one F-01417-L and one F-01417-R Seat Rib.

Dimple the #40 holes in the upper flanges of the F-01417-L & -R Seat Ribs as shown in Figure 2.

Dimple the two #30 holes in the non-ramped upper flange of the Seat Ribs as shown in Figure 2.

Hereafter refer to these two ribs as the F-01417-L & -R Inboard Seat Ribs.





F-01417-L

FIGURE 1: RIVET NUTPLATES & CLIPS TO RIBS

Step 4: Rivet the nutplates to the flanges of the F-01416-L & -R Seat Ribs as shown in Figure 2.

AN470AD3-3,

6X F-14142

Step 5: Separate the F-01416A-L & -R Seat Rib Doublers.

Step 6: Rivet the seat rib doublers to the seat ribs as shown.

Step 7: Rivet the F-14142 Bushing Clips to the F-01416-L & -R Seat Ribs as shown in Figure 2.

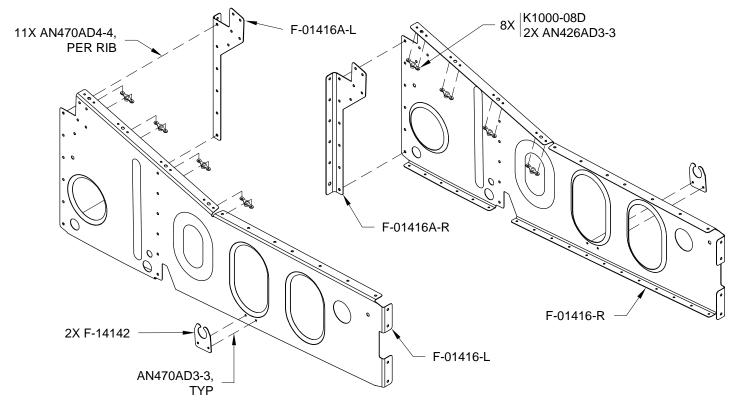


FIGURE 2: RIVET NUTPLATES & DOUBLERS TO RIBS

Step 9: Locate the F-14100 Routing Angles.

Step 9: Locate the two F-01417-L & -R Inboard Seat Ribs.

Rivet the Routing Angles to the Inboard Seat Ribs as shown in Figure 3.

AN470AD3-3, TYP

F-01417-L

F-01417-R

FIGURE 3: RIVET ROUTING ANGLES TO RIBS

F-01417-R

Step 3: Rivet the nutplates to both Crotch Strap Assemblies as shown in Figure 3.

4X | K1000-08D | 2X AN426AD3-3

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

Step 1: Separate the F-14110 Crotch Strap Brackets as shown in Figure 1.

Dimple the #40 holes in the crotch strap brackets as shown in Figure 1.

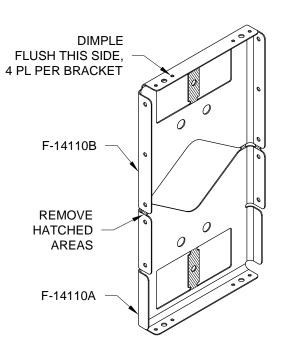
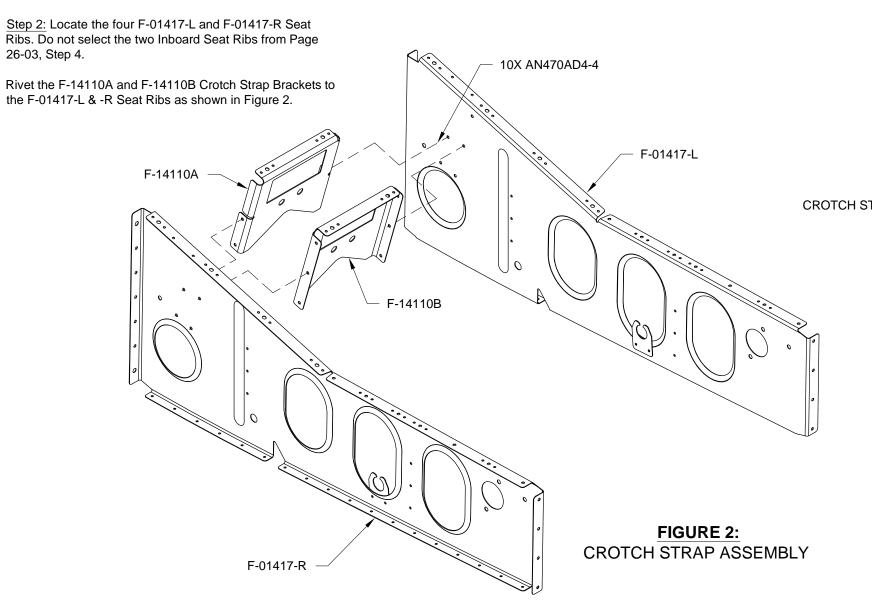
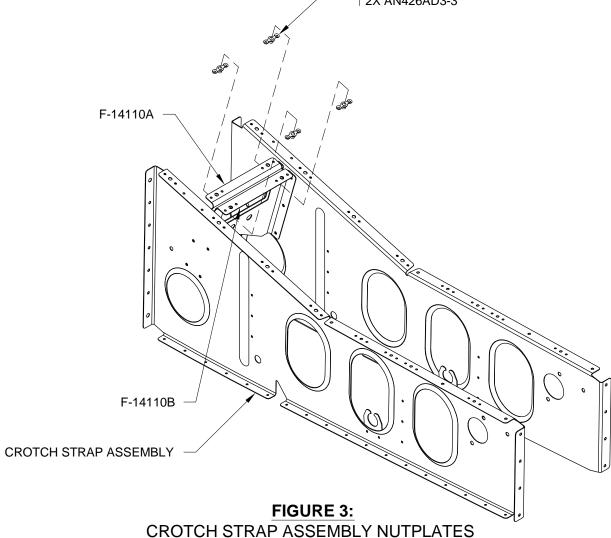
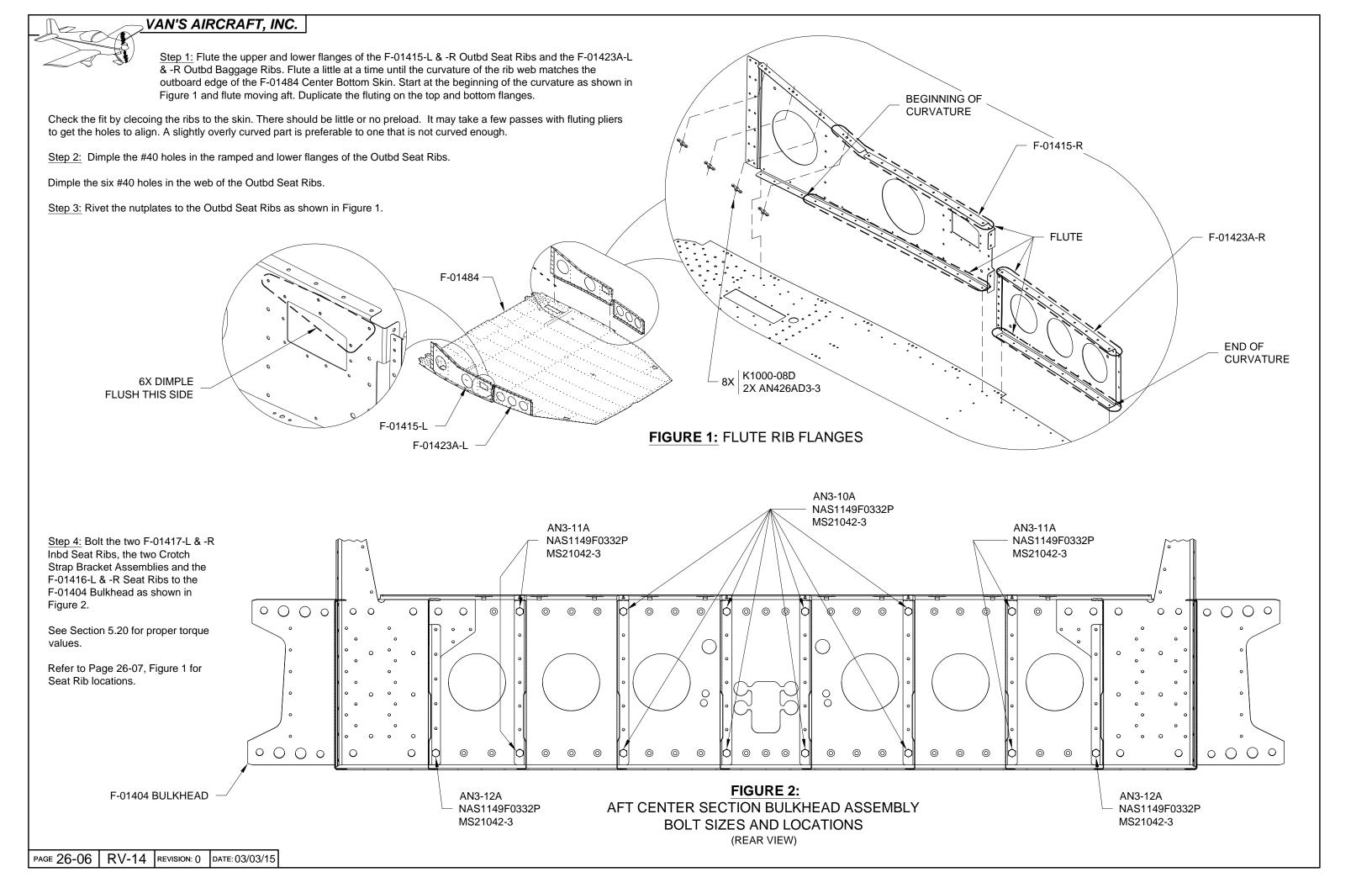
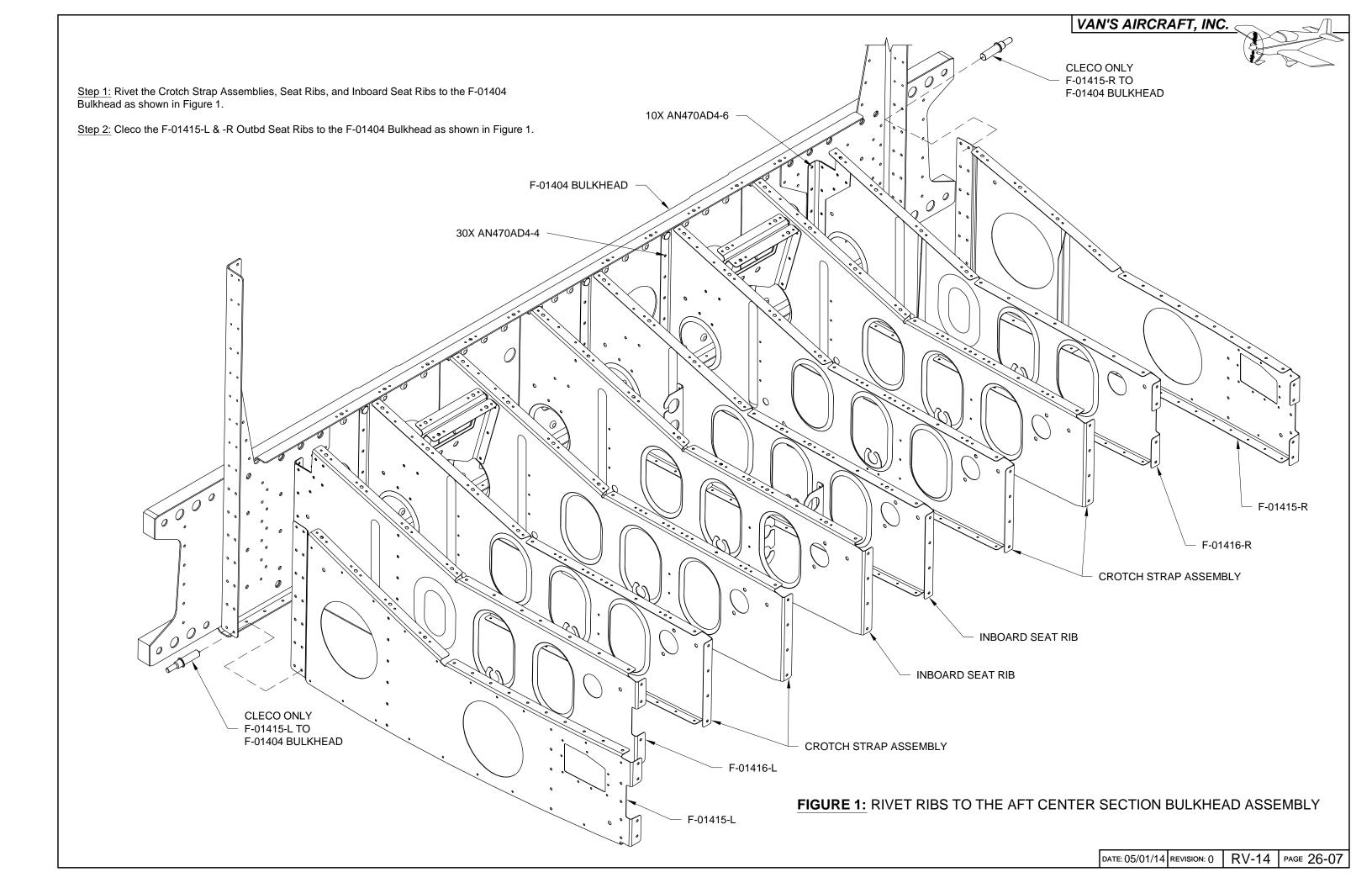


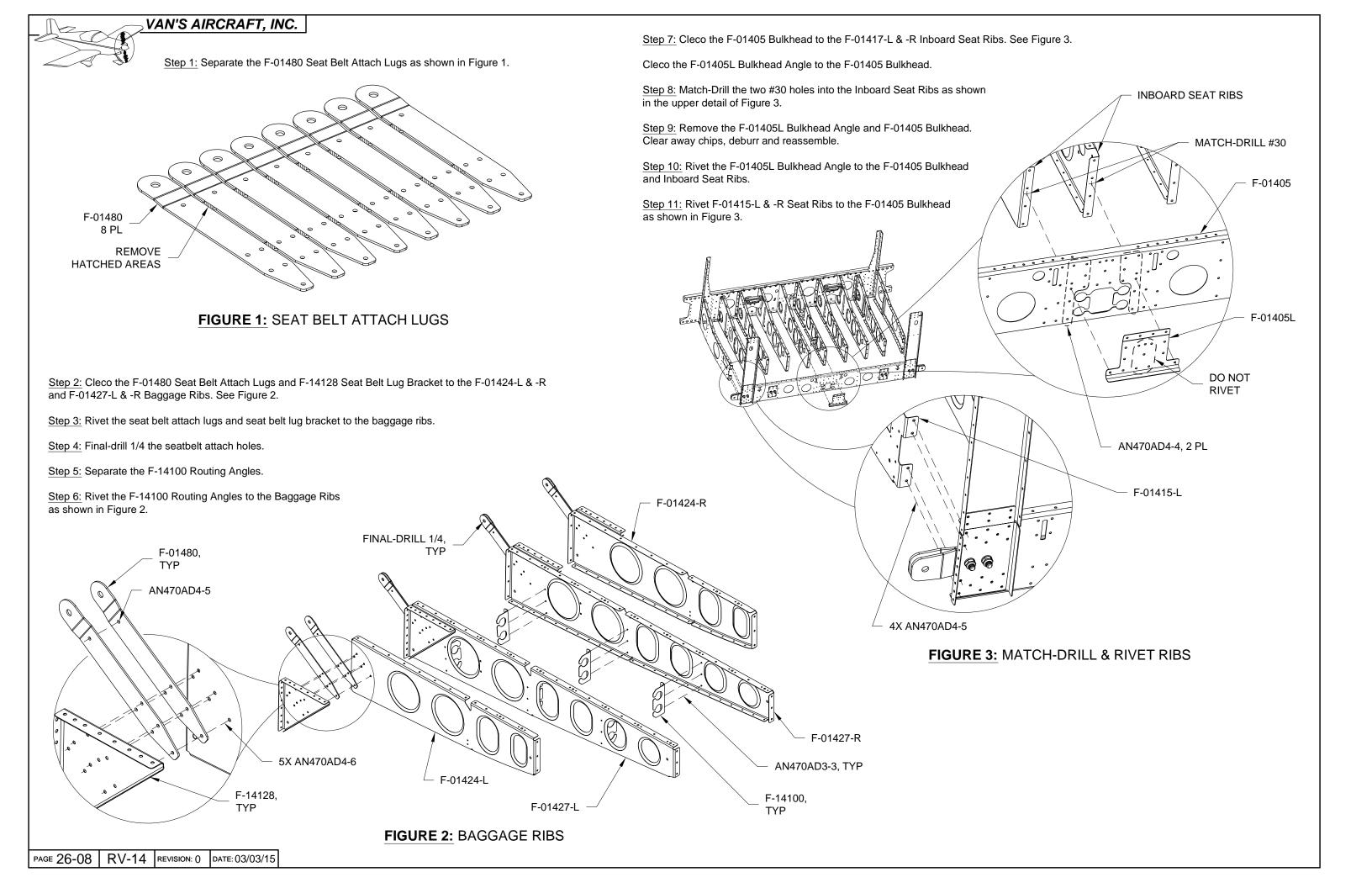
FIGURE 1: SEPARATE CROTCH STRAP BRACKETS











VAN'S AIRCRAFT, INC. Step 1: Separate and deburr the F-01405E Idler Brackets into individual parts as shown in 3X REMOVE HATCHED AREAS Figure 1. F-01405E-R Step 2: Dimple the #40 holes in the F-01405E-L & -R Idler Brackets where indicated in F-01405E-L Figure 2. BEND LINE Step 3: Rivet nutplates to the F-01405E-L & -R Idler Brackets as shown in Figure 2. Step 4: Bend a flange on the F-01405E-L & -R Idler Brackets as shown in Figure 2. 2X DIMPLE #40 FLUSH THIS SIDE Step 5: Trim and deburr the VA-146 Bearing flange as shown in Figure 3. Step 6: Cleco together the F-01405E-L & -R Idler Brackets and VA-146 F-01405E-L Bearing as shown in Figure 4. FIGURE 1: SEPARATE BRACKETS BEND UP 45° Step 7: Final-Drill #30 the holes indicated in Figure 4. FLANGE WIDTH = 1/4 [6.4mm] BEND RADIUS 1/16 [1.6mm] Disassemble, clear away debris and reassemble. K1000-08D 2X AN426AD3-3.5 Step 8: Rivet together the F-01405E-L & -R Idler Brackets and VA-146 Bearing as shown in Figure 4. FIGURE 2: BEND FLANGE Refer to hereafter as the Idler Bracket Assembly. (FLANGE SHOWN BENT) Step 9: Cleco then rivet the Idler Bracket Assembly to the F-01405 Bulkhead as shown in Figure 4. F-01405E-R FINAL DRILL #30 IN ASSEMBLY 0 REMOVE HATCHED AREA 3/16 [4.7 mm] 5X AN470AD4-5 VA-146 VA-146 FIGURE 3: TRIM FLANGE F-01405L F-01405 F-01405E-L LEFT AN470AD4-5 SHOP HEAD THIS SIDE FIGURE 4: BRACKET ASSEMBLY INSTALLATION DATE: 03/03/15 REVISION: 0 RV-14 PAGE 26-09



NOTE: Refer to Figure 1 for the following steps. Call-outs on this page are mirrored about the aircraft centerline.

Step 1: (Tri-Gear Only) Cleco the F-01483-L & -R Forward Bottom Skins to the F-01484 Center Bottom Skin.

Step 2: (Tri-Gear Only) Match-Drill #30 the F-01483-L & -R Forward Bottom Skins using the inside corners of rectangular hole in the F-01484 Center Bottom Skin as quides.

Step 3: (Tri-Gear Only) Trace the gear leg cutout onto the F-01483-L & -R Forward Bottom Skins.

Step 4: (Tri-Gear Only) Match-Drill #22 the F-01483-L & -R Forward Bottom Skins.

Step 5: (Tri-Gear Only) Use a step drill to enlarge the #22 holes to 11/16 in the F-01484 Center Bottom Skin and F-01483-L & -R Forward Bottom Skins where indicated.

Step 6: (Tri-Gear Only) Remove clecos.

Step 7: (Tri-Gear Only) Cut out the rectangular area in the F-01483-L & -R Forward Bottom Skins using a die grinder.

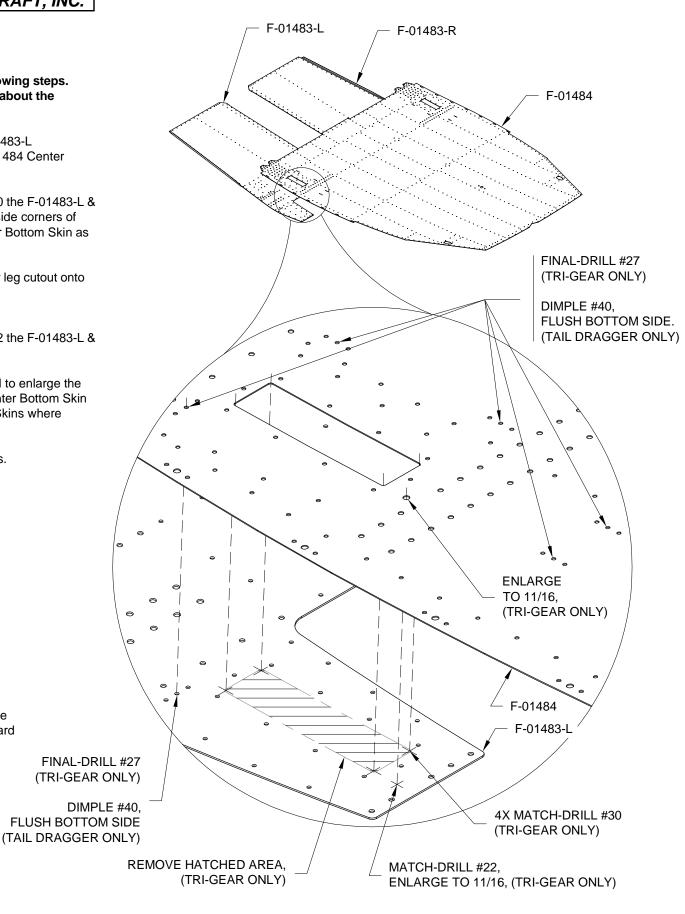
Step 8: (Tri-Gear Only) Deburr the edges of the cutouts in the F-01483-L & -R Forward Bottom Skins.

Step 9: (Tri-Gear Only) Deburr the edges of the 11/16 hole in the forward bottom skins and in the center bottom skin.

Step 10: (Tail Dragger Only) Dimple the #40 holes in the F-01483-L & -R Forward Bottom Skins for the head of an AN426AD3 rivet where indicated.

Step 11: (Tail Dragger Only) Dimple the #40 holes in the F-01484 Center Bottom Skin for the head of an AN426AD3 rivet where indicated.

Step 12: (Tri-Gear Only) Final-Drill #27 the holes indicated in Figure 1.



NOTE: Taildragger builders: if installing the optional F-00018-L & -R Tail Dragger Steps, ignore the remaining steps on this page.

Step 13: (Tail Dragger Only) Cleco the F-01484A Cover Plates to the F-01484 Center Bottom Skin as shown in Figure 2.

Step 14: (Tail Dragger Only) Match-Drill the #40 hole into the F-01484 Center Bottom Skin using the cover plate as a guide. Remove and deburr.

Step 15: (Tail Dragger Only) Dimple the #40 holes in the cover plates forming left and right hand parts.

Step 16: (Tail Dragger Only) Dimple the #40 holes in the F-01484 Center Bottom Skin where

Step 17: (Tail Dragger Only) Rivet the F-01484A-L & -R Cover Plates to the F-01484 Center Bottom Skin only where indicated in Figure 2.

Step 18: (Tail Dragger Only) Fill two open holes with called out rivets where indicated in

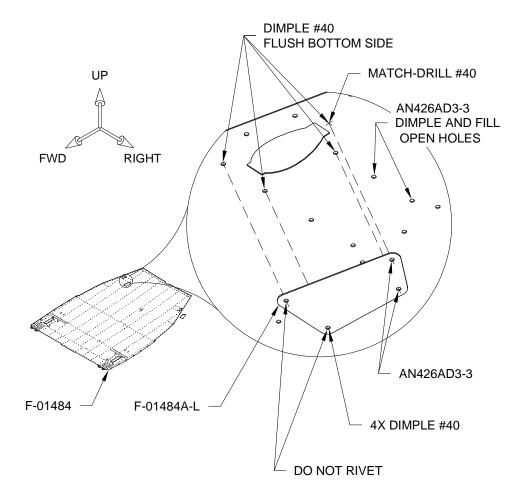


FIGURE 2: COVER PLATE INSTALLATION (TAIL DRAGGER ONLY)

FIGURE 1: FORWARD & CENTER BOTTOM SKINS

NOTE: The two F-01443 Center Section Lower Doublers are countersunk on opposite sides, forming left-hand and right-hand parts. Call-outs on this page are mirrored about the aircraft centerline.

Refer to Figure 1 for the following steps.

<u>Step 1:</u> Cleco the F-01443 Center Section Lower Doublers back to back (for additional pilot support) then machine countersink for a dimpled .025 skin.

F-14140

NOTE ORIENTATION

Step 2: Separate the F-14140 Skin Stiffeners as shown.

Step 3: Dimple the #40 holes in the F-14140 Skin Stiffeners.

Step 4: (Tri-Gear Only) Dimple the nutplates.

AN426AD3-3, EACH STIFFENER

Step 5: Final-Drill #19 the 14 screw holes in the sides of the F-01484 Center Bottom Skin as shown and carefully deburr both sides.

DO NOT RIVET

EACH STIFFENER

Step 6: Use a step drill to enlarge the holes #40 hole called-out in the right detail view in Figure 1.

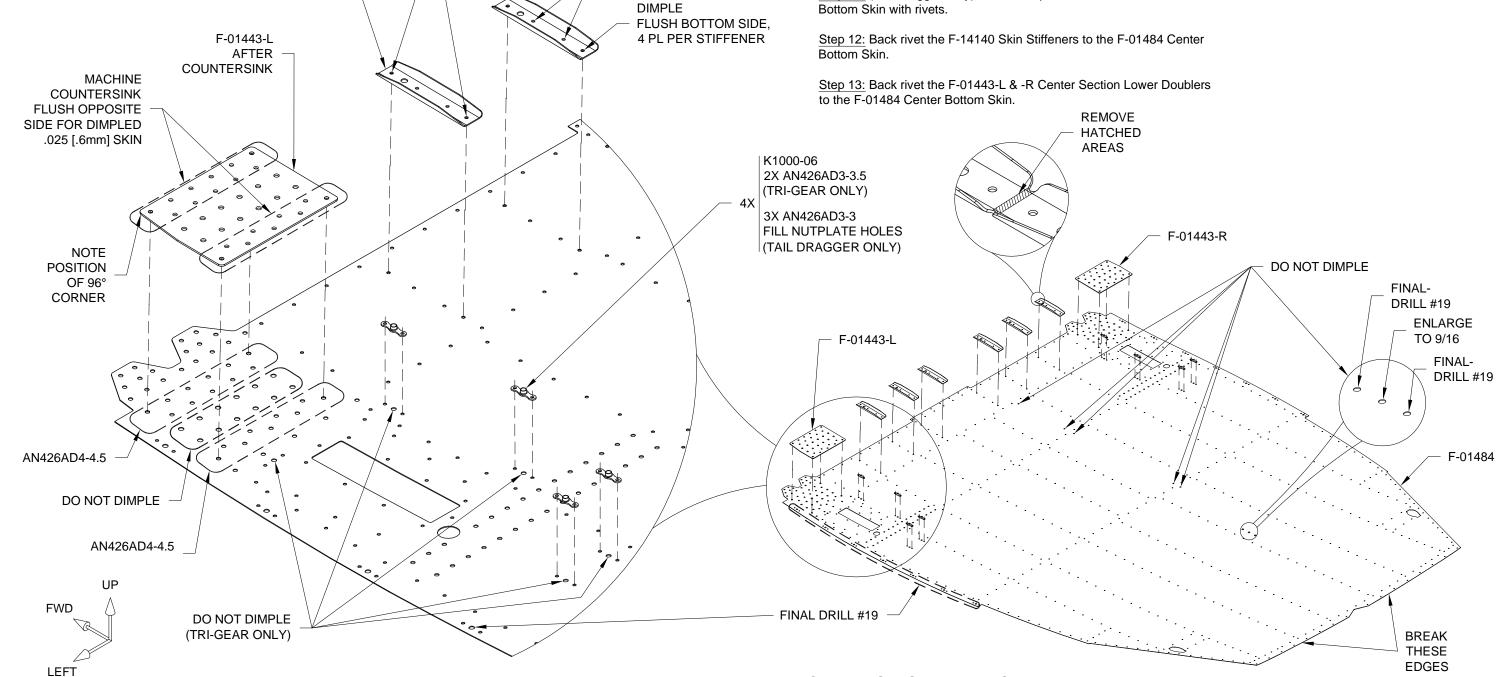
<u>Step 7:</u> Final-Drill #19 the two holes called out in the right detail view in Figure 1.

Step 8: Break the aft edge of the F-01484 Center Bottom Skin upward as shown in Figure 1.

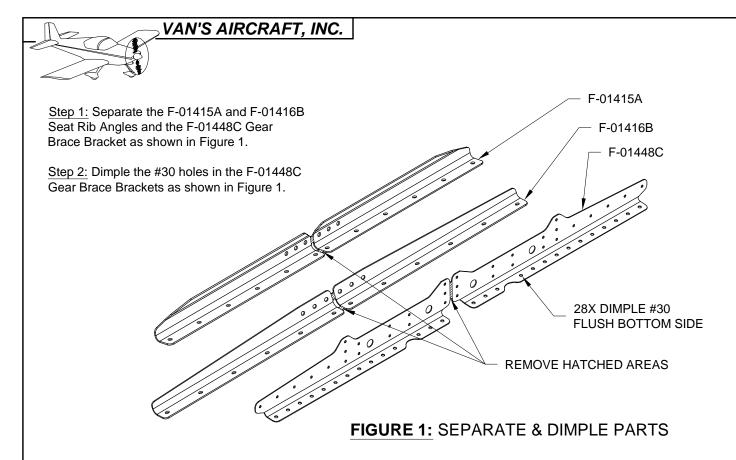
<u>Step 9</u>: Dimple the #30 and #40 holes in the F-01484 Center Bottom Skin flush on the bottom side except where noted otherwise.

Step 10: (Tri-Gear Only) Rivet the nutplates to the F-01484 Center Bottom Skin.

Step 11: (Tail Dragger Only) Fill the nutplate holes in the F-01484 Center Bottom Skin with rivets.



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Step 5: Cleco together the F-01448C-L & -R Gear Brace Brackets, F-01448B Gear Brace Bars, and F-01448A Gear Brace Angle as shown in Figure 3.

Step 4: Straighten the F-01448B Gear Brace Bars using a hammer and bench vise.

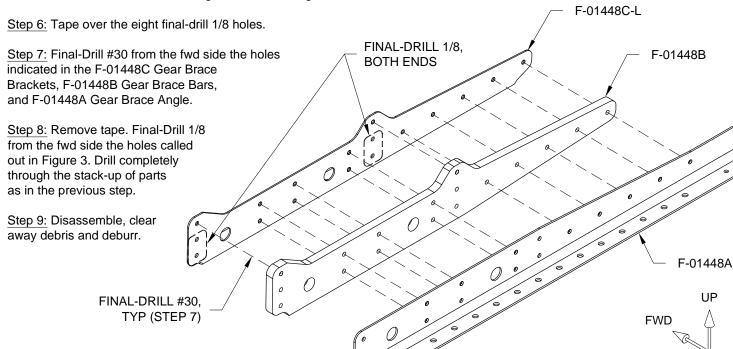
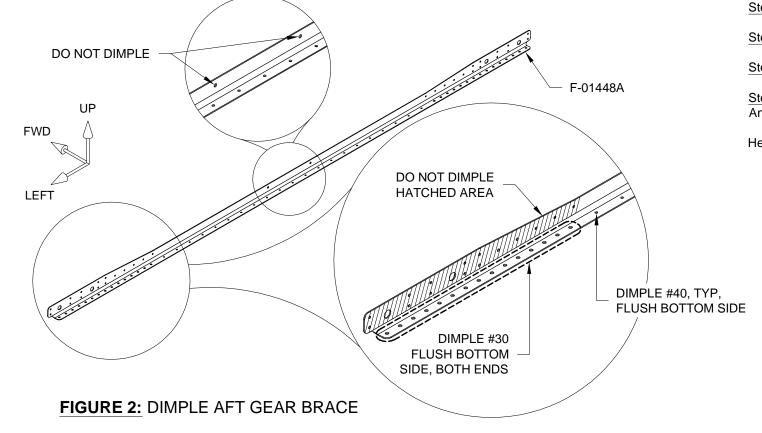


FIGURE 3: FINAL-DRILL

LEFT

Step 3: Dimple only the called out #30 and #40 holes in the F-01448A Aft Gear Brace as shown in Figure 2.

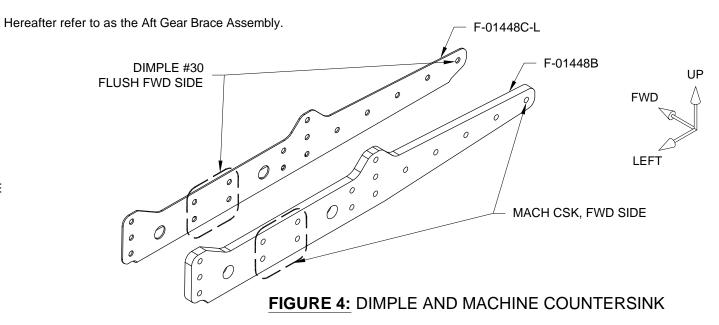


Step 10: Dimple the #30 holes in the F-01448C-L & -R Gear Brace Brackets as shown in Figure 4.

Step 11: Machine countersink the F-01448B Gear Brace Bars for the dimpled .032 [0.8 mm] F-01448C-L & -R Gear Brace Brackets.

Step 12: Prime the F-01448B Gear Brace Bars.

<u>Step 13:</u> Cleco together the F-01448C-L & -R Gear Brace Brackets, F-01448B Gear Brace Bars and the F-01448A Gear Brace Angle as shown in Figure 3 above.



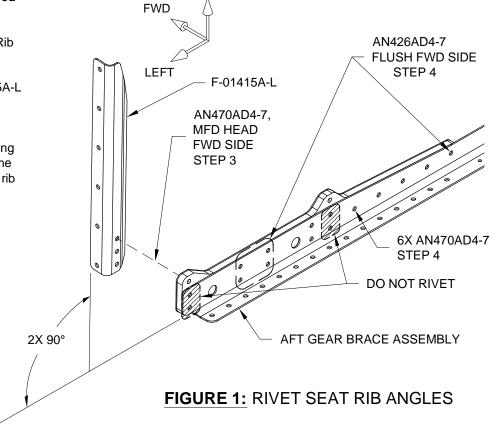
NOTE: Refer to Figure 1 for the following steps. Call-outs on this page are mirrored about the aircraft centerline.

Step 1: Cleco the F-01415A-L & -R Seat Rib Angles to the Aft Gear Brace Assembly.

Step 2: Set the initial angle of the F-01415A-L & -R Seat Rib Angles to Aft Gear Brace Assembly to the angle shown.

Step 3: Partially set the single rivet attaching the F-01415A-L & -R Seat Rib Angles to the Aft Gear Brace Assembly so that the seat rib angles may still be rotated.

Step 4: Rivet together the Aft Gear Brace Assembly. See Figure 1 for exceptions.



Gear Brace Assembly.

Step 14: Partially set the single

& -R Seat Rib Angles to the Aft

Gear Brace Assembly so that

the angles may still be rotated.

Step 16: Clamp the F-01416B-L & -R Seat Rib Angle securely to the Aft Gear Brace Assembly.

Step 17: Final-Drill #30 from the

to the F-01416B-L & -R Seat Rib

Step 18: Check the angles one

clamp and run a #30 drill through

Step 19: Rivet the F-01416B-L

& -R Seat Rib Angles to the

Aft Gear Brace Assembly.

Step 15: Check that the F-01416B-L & -R Seat

Rib Angles are parallel

to the F-01415A-L Seat Rib Angles. Adjust

as necessary.

Angles.

once again.

rivet attaching the F-01416B-L

NOTE: Refer to Figure 2 for the following steps. Call-outs are mirrored about the aircraft centerline.

Step 5: Check the angle of the F-01415A-L & -R Seat Rib Angles to the Aft Gear Brace Assembly as shown and adjust as necessary.

Step 6: Clamp the F-01415A-L & -R Seat Rib Angles securely to the Aft Gear Brace Assembly.

Step 7: Final-Drill #30 from the fwd side the 1/8 holes common to the F-01415A-L & -R Seat Rib Angles.

Step 8: Check the angles one final time. If adjustment is required clamp and run a #30 drill through once again.

Step 9: Rivet the F-01415A-L & -R Seat Rib Angles to the Aft Gear Brace Assembly.

Step 10: Ream the indicated holes in the Aft Gear Brace Assembly from the fwd side.

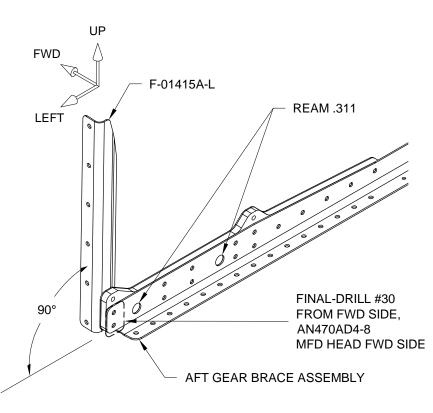


FIGURE 2: FINAL GEAR BRACE ASSEMBLY

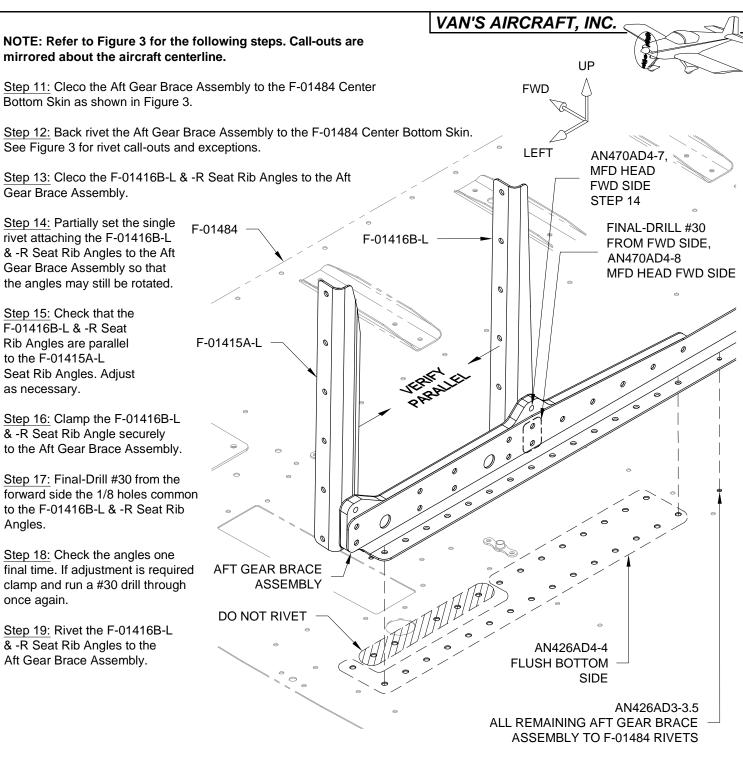


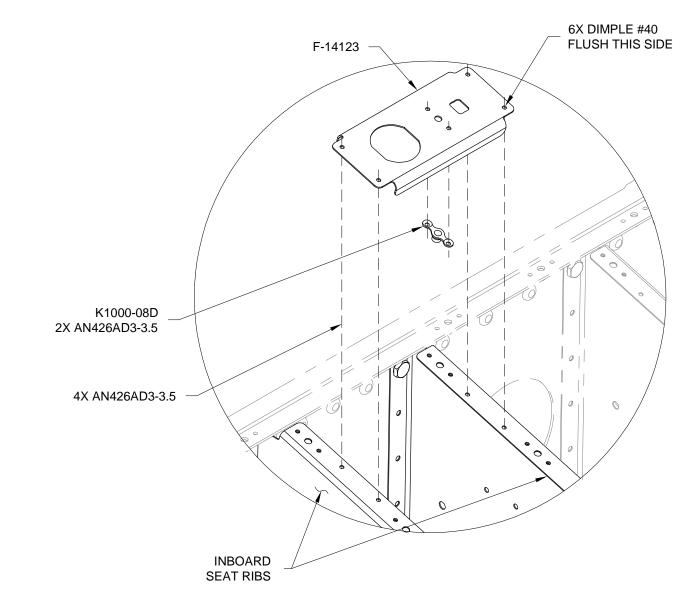
FIGURE 3: RIVET AFT GEAR BRACE ASSEMBLY TO SKIN

Refer to Detail A for the following steps.

Step 1: Dimple the six #40 holes on the F-14123 Power Outlet Bracket.

Step 2: Rivet the nutplate to the bottom surface of the F-14123 Power Outlet Bracket.

Step 3: Rivet the F-14123 Power Outlet Bracket to the Inboard Seat Ribs.



DETAIL A: POWER OUTLET BRACKET INSTALLATION (SEE PAGE 26-14, FIGURE 1)

Step 4: Rivet the F-01416B-R Seat Rib Angle to the F-01416-R Seat Rib as shown in Figure 1.

Step 5: Repeat Step 4 for the left side.

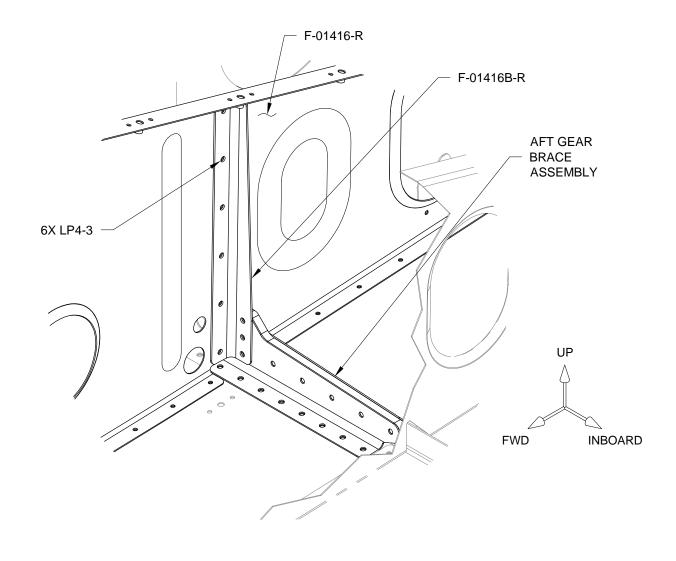
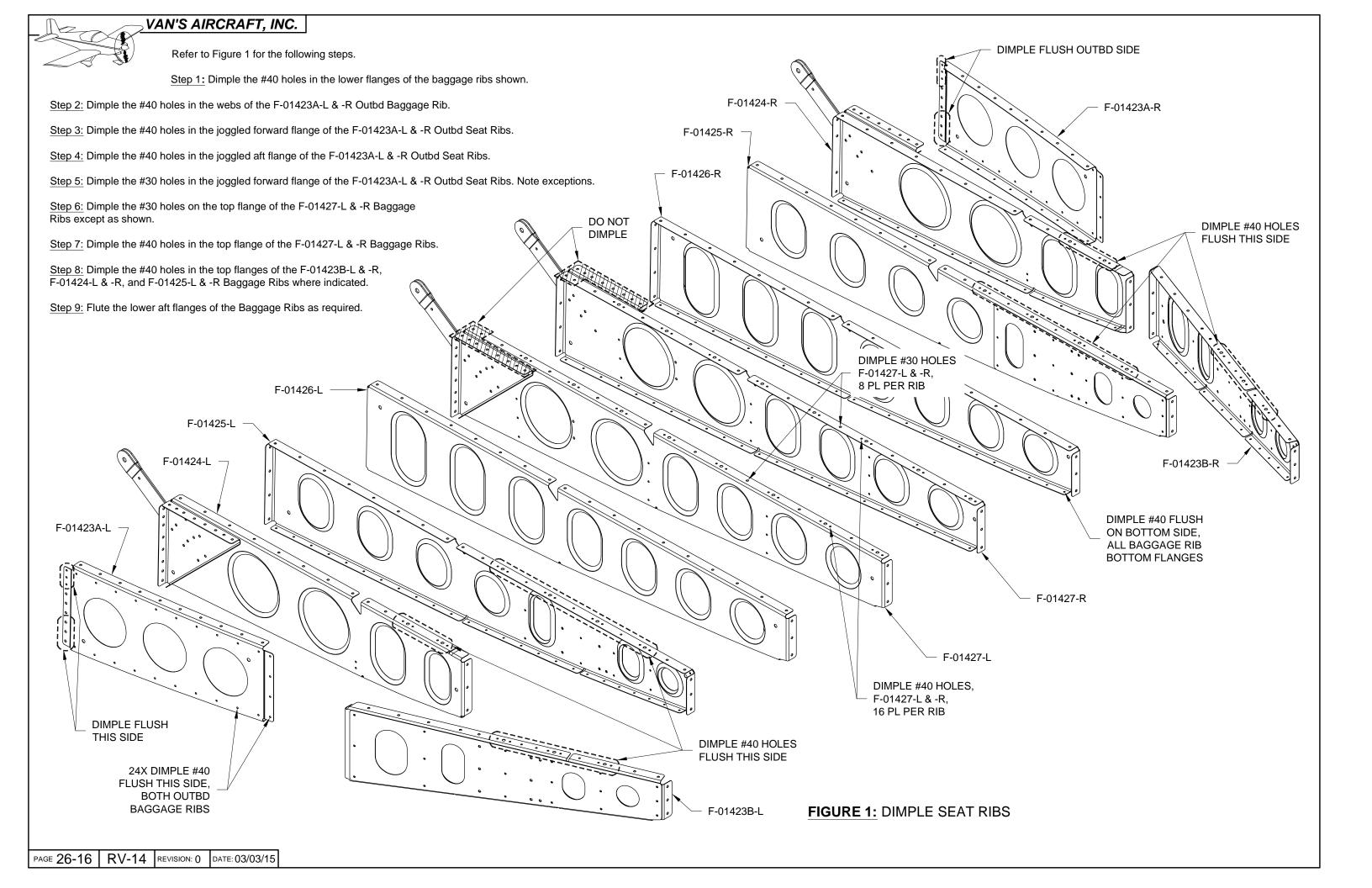


FIGURE 1: RIVET AFT GEAR BRACE ASSEMBLY TO RIBS (RIGHT SIDE SHOWN)



NOTE: Taildragger builders may choose to perform steps marked "Tri-Gear Only" on this page to allow for installation of the optional F-00018-L & -R Tail Dragger Steps.

Step 1: (Tri-Gear Only) Separate the F-14145 Step Attach Angles as shown in Figure 1.

 $\underline{\text{Step 2:}}$ (Tri-Gear Only) Dimple the #40 holes in the step attach angles as shown in Figure 1.

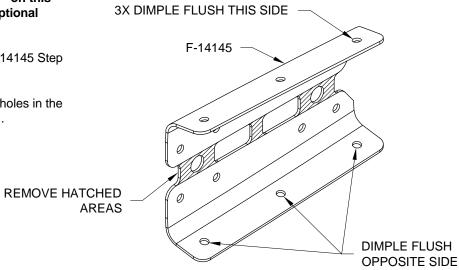


FIGURE 1: STEP ATTACH ANGLES

Step 3: (Tri-Gear Only) Final-Drill 1/4 the holes in the F-00016-L & -R Step Attach Weldments as shown in Figure 2.

<u>Step 4:</u> (Tri-Gear Only) Machine countersink the holes in the F-00016-L & -R Step Attach Weldments to fit the head of an AN426AD3 rivet. See Figure 2.

Step 5: (Tri-Gear Only) Rivet the F-14145-L & -R Step Attach Angles to the F-00016-L & -R Step Attach Weldments. Since the AN470AD3-5 is a bit long for this application 1/32 [0.8 mm] may be removed before installation.

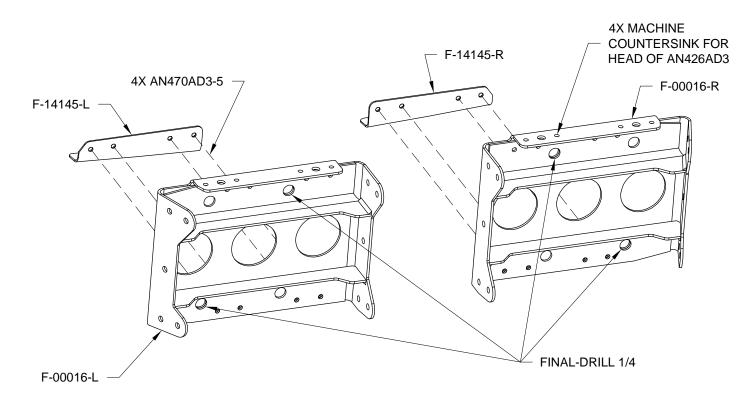


FIGURE 2: STEP ATTACH WELDMENTS

Step 6: (Tri-Gear Only) Cleco the F-00016-L Step Attach Weldment to the F-01423B-L Outboard Baggage Rib as shown in Figure 3.

Step 7: (Tri-Gear Only) Final-Drill #30 the holes in the F-00016-L as shown in Figure 3.

<u>Step 8:</u> (Tri-Gear Only) Rivet the left and right step attach weldments to the left and right outboard baggage ribs as shown in Figure 3.

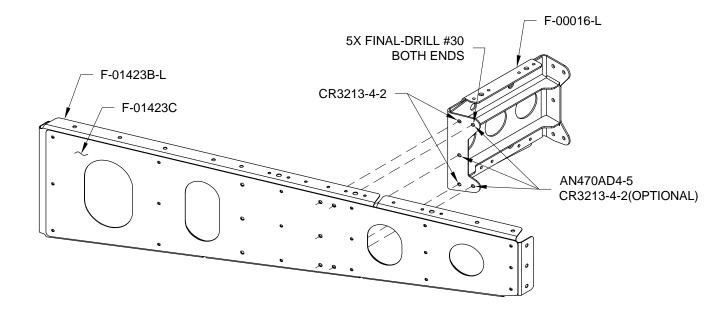
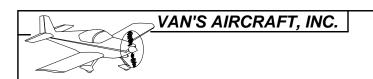


FIGURE 3: LEFT STEP ATTACH ASSEMBLY



Step 1: Separate the F-01495AB Step Attach Rib Doubler as shown in Figure 1.

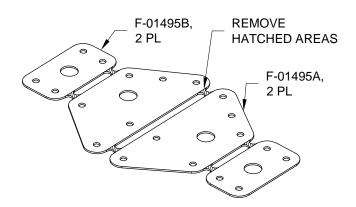


FIGURE 1: STEP ATTACH RIB DOUBLERS

Step 2: Rivet the F-01495A and F-01495B Step Attach Rib Doublers to the F-01495-L & -R Step Attach Ribs as shown in Figure 2.

Step 3: Dimple the #40 holes in the upper and lower flanges of the F-01495-L & -R Step Attach Ribs.

Step 4: Rivet the nutplates to the step attach ribs as shown.

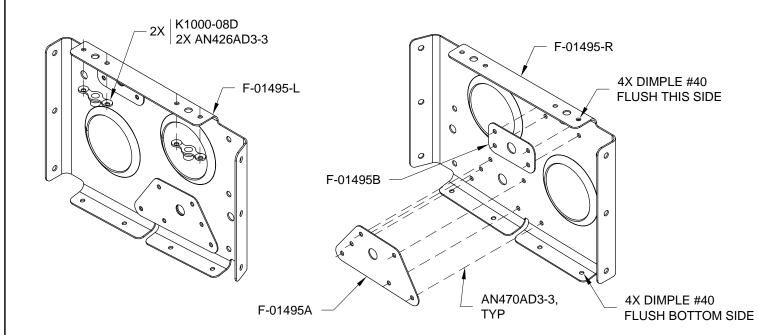


FIGURE 2: RIVET RIB DOUBLERS & NUTPLATES

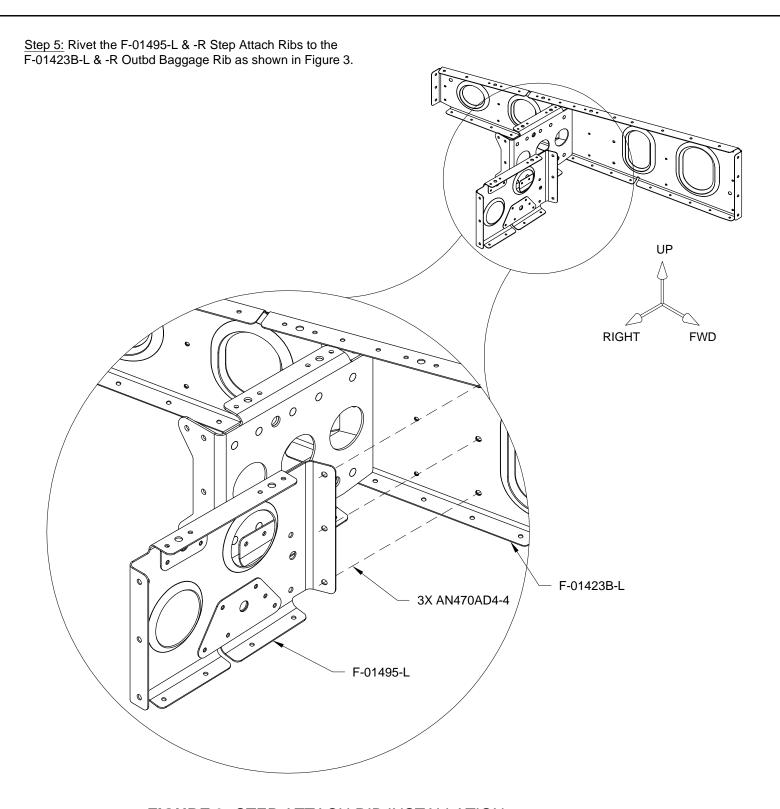
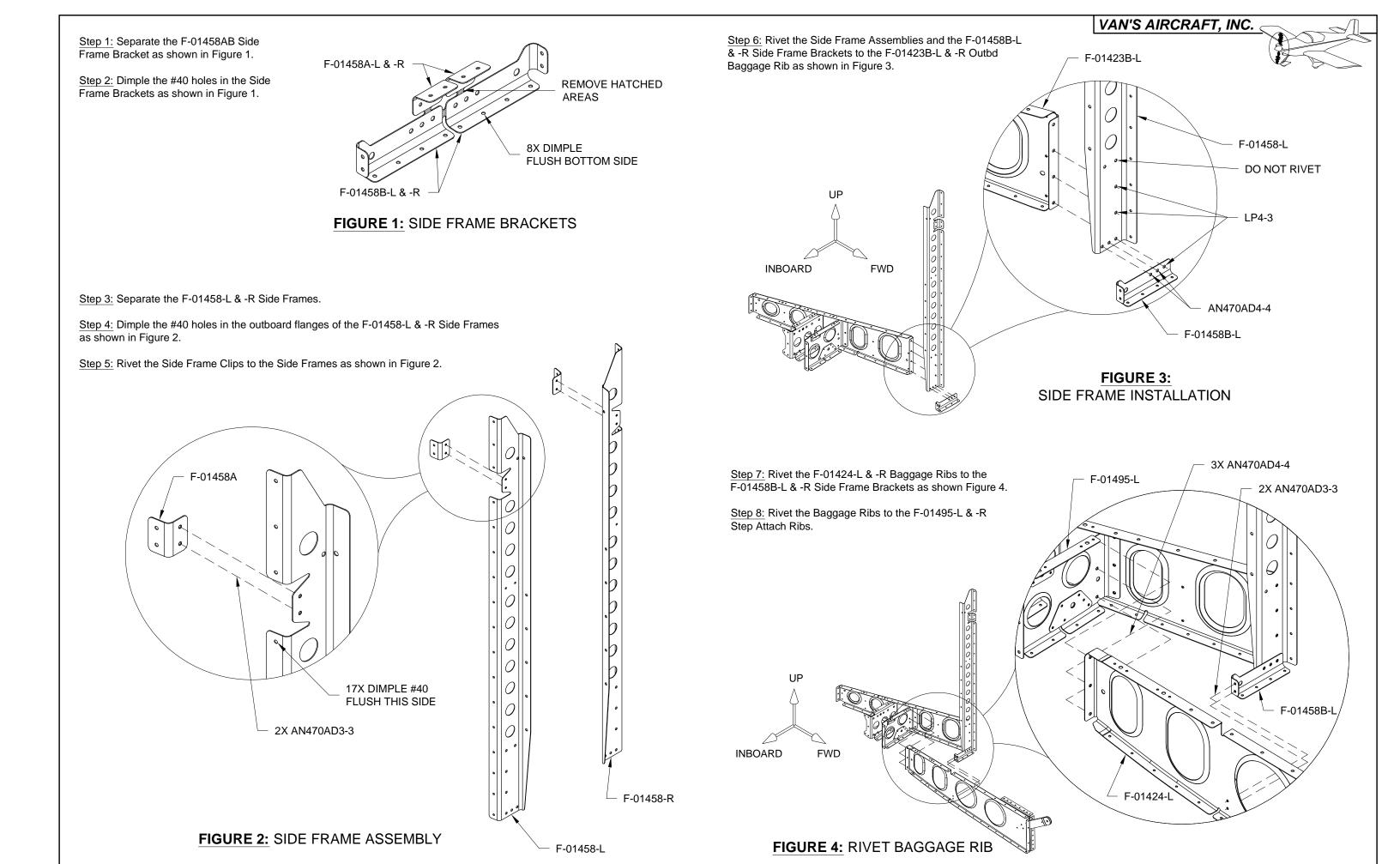
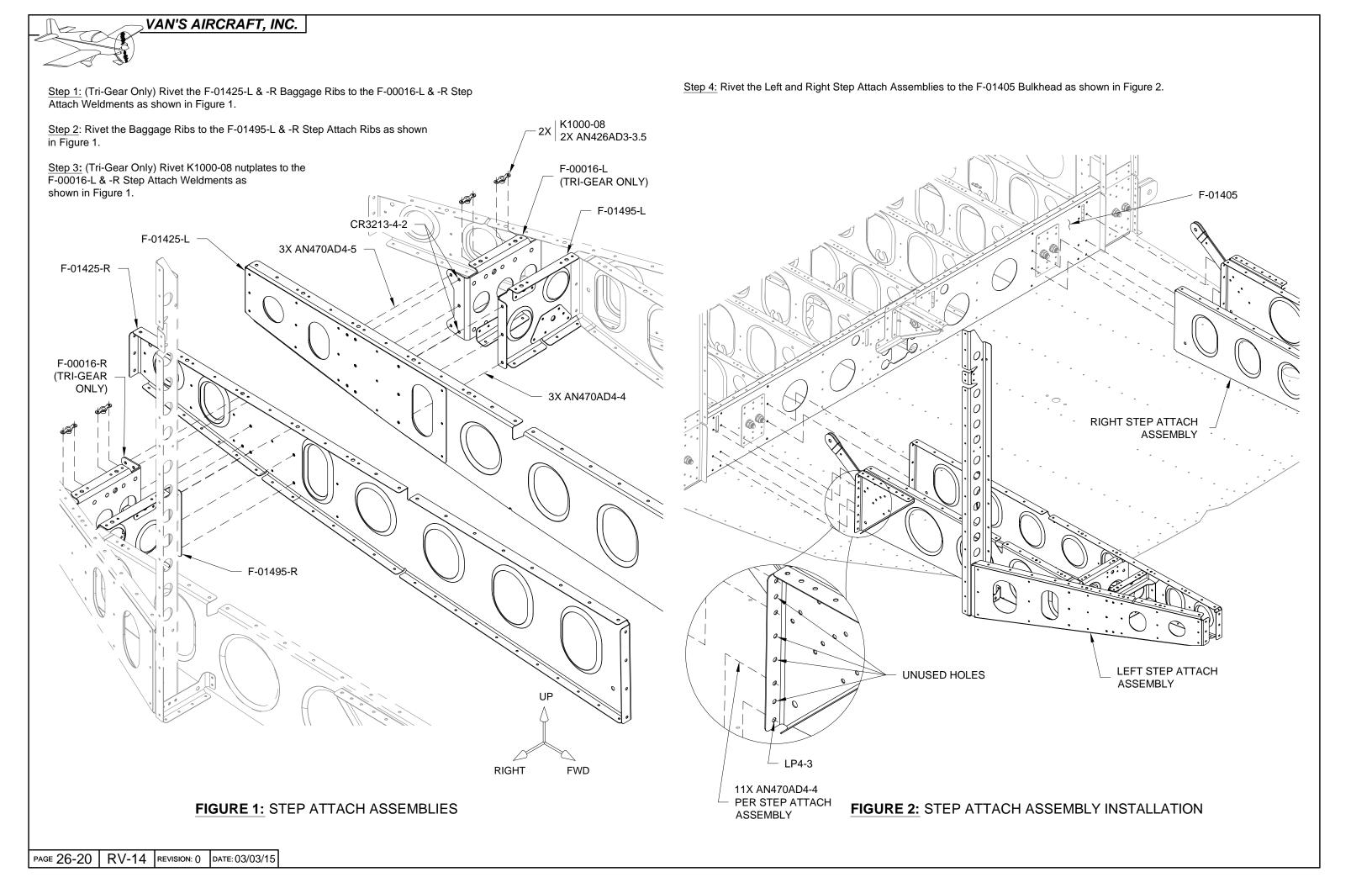


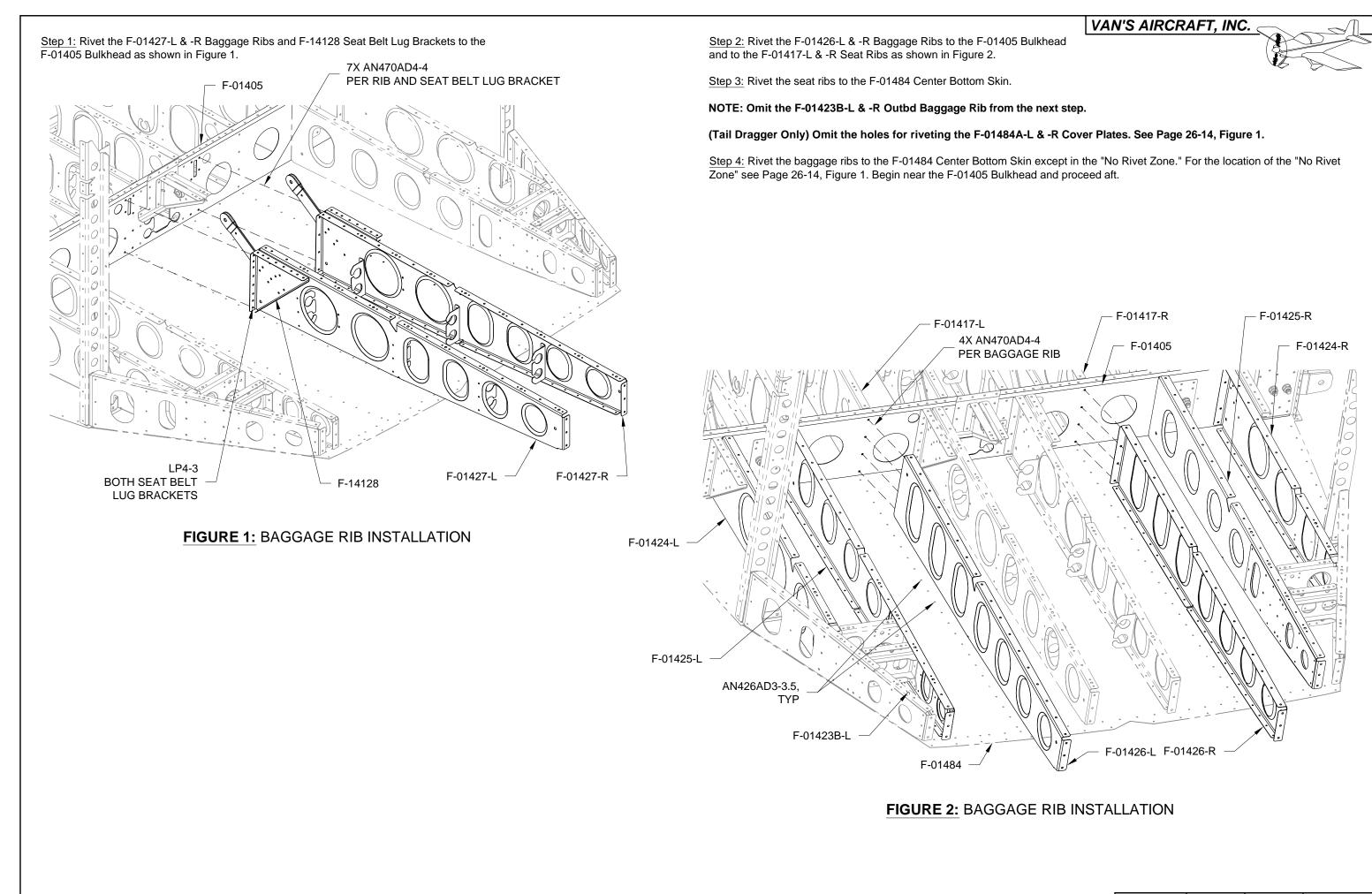
FIGURE 3: STEP ATTACH RIB INSTALLATION



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DATE: 03/03/15 REVISION: 0





NOTE: If a reduced diameter 1/8 female dimple die is not available a standard diameter die may be modified as described below.

<u>Step 1:</u> Grind a shoulder on a standard diameter 1/8 female dimple die as shown in Figure 1.

Radius the corner formed on the die face as shown in Figure 1.

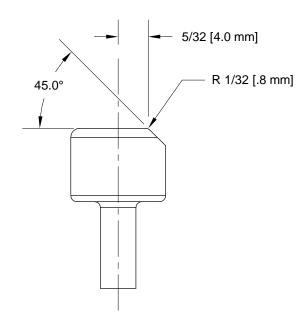


FIGURE 1: DIMPLE DIE MODIFICATION

Step 5: Rivet the F-01430 Baggage Floor Stiffener to the F-01458-L Side Frame and F-01423B-L Outbd Baggage Rib as shown in Figure 3.

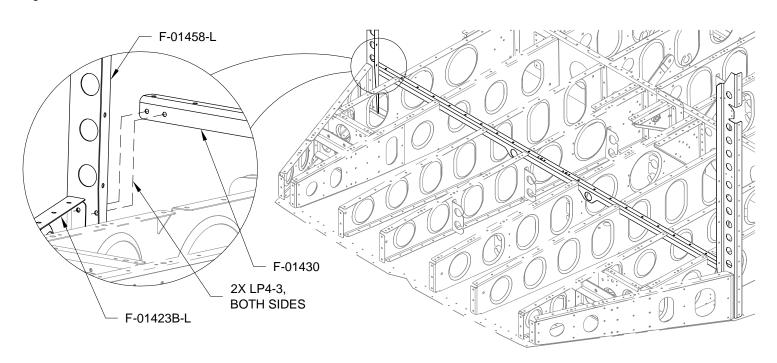


FIGURE 3: INSTALL FLOOR STIFFENER

<u>Step 2:</u> Dimple the two #30 holes where indicated in the F-01430 Baggage Floor Stiffener using a reduced diameter female dimple die or the modified die described in Step 1. See Figure 2.

Step 3: Dimple the #40 nutplate attach holes in the Baggage Floor Stiffener as shown in Figure 2.

Step 4: Rivet the nutplates to the F-01430 Baggage Floor Stiffener as shown in Figure 2.

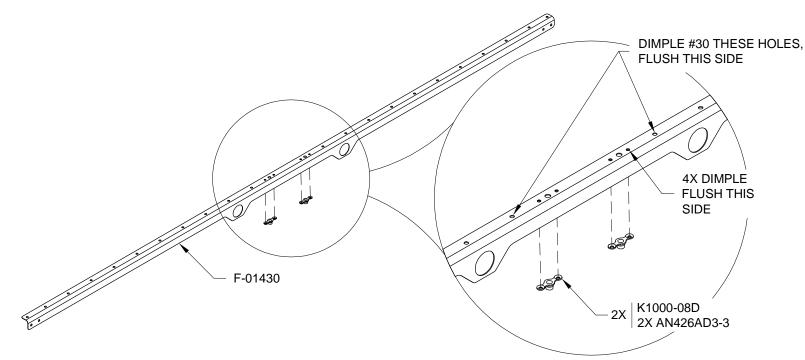


FIGURE 2: RIVET NUTPLATES TO THE FLOOR STIFFENER

Step 6: Cleco the F-01423A-L Outbd
Baggage Rib to the F-01405D-L
Bulkhead Side Channel and to the
F-01458-L Side Frame. See Figure 4.

Step 7: Rivet the Outboard Baggage
Rib to the F-01484 Center Bottom
Skin only.

F-01405D-L

CLECO ONLY

AN426AD3-3.5,
TYP

F-01458-L

FIGURE 4: OUTBOARD BAGGAGE RIB INSTALLATION

CLECO ONLY