

Step 1: Remove the F-1051C Aft Fuselage Tunnel Cover Assembly. See Section 35, Page 6.

Step 2: Disconnect all flap motor wiring and position sensor equipment if installed.

Step 3: Remove the hardware attaching the existing flap motor to the bracket and to the flap crank and remove it. See Figure 1 detail views.

NOTE: Use care when drilling out rivets to allow holes to be reused. Refer to Section 5 for more information.

Step 4: Remove the rivets attaching the F-1066A Bracket and F-1066C-L & -R Reinforcing Angles to the F-1016F-L & -R Inboard Footwell Ribs. See Figure 2.

Remove the bracket and angles as a unit and discard.

OP-64: RV-10 FLAP MOTOR RETROFIT

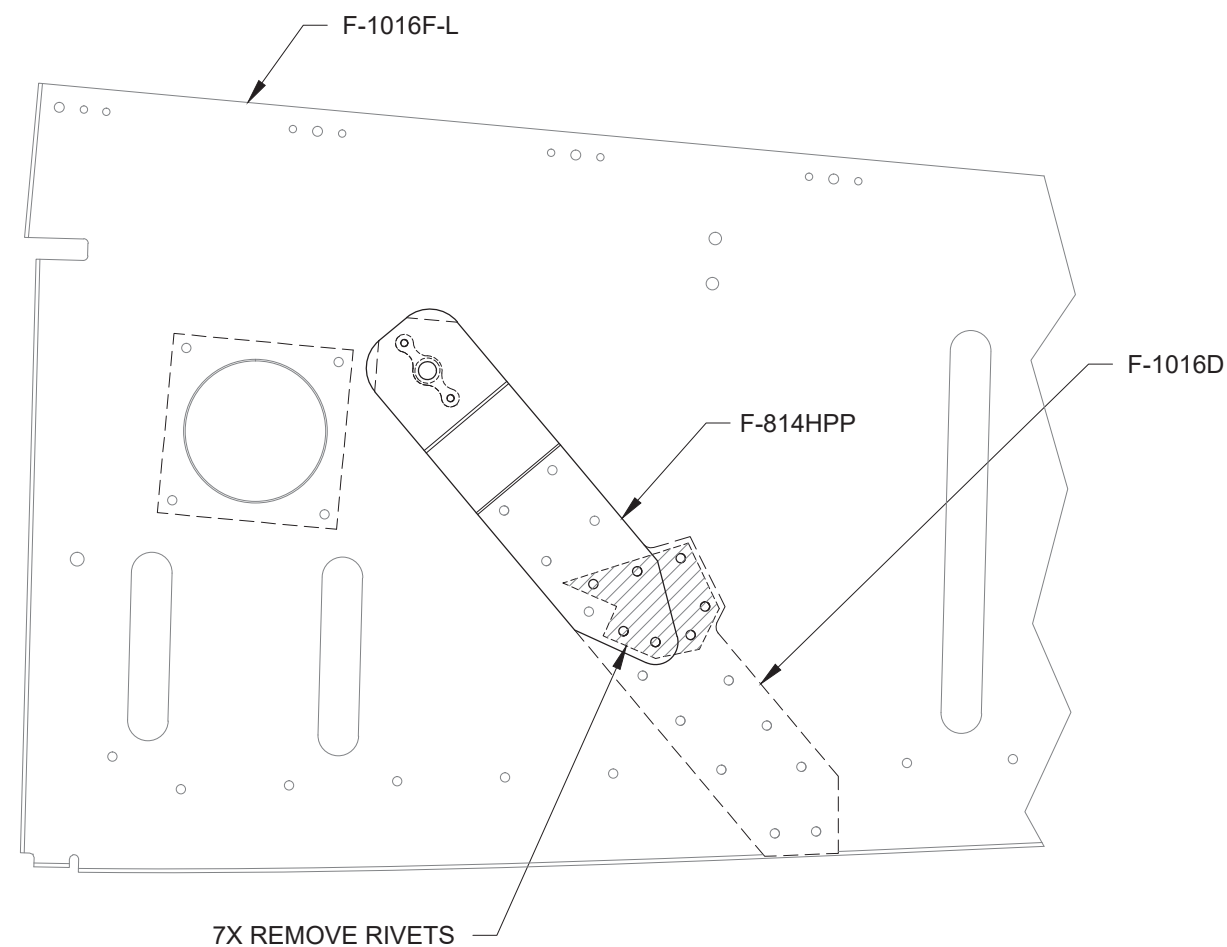
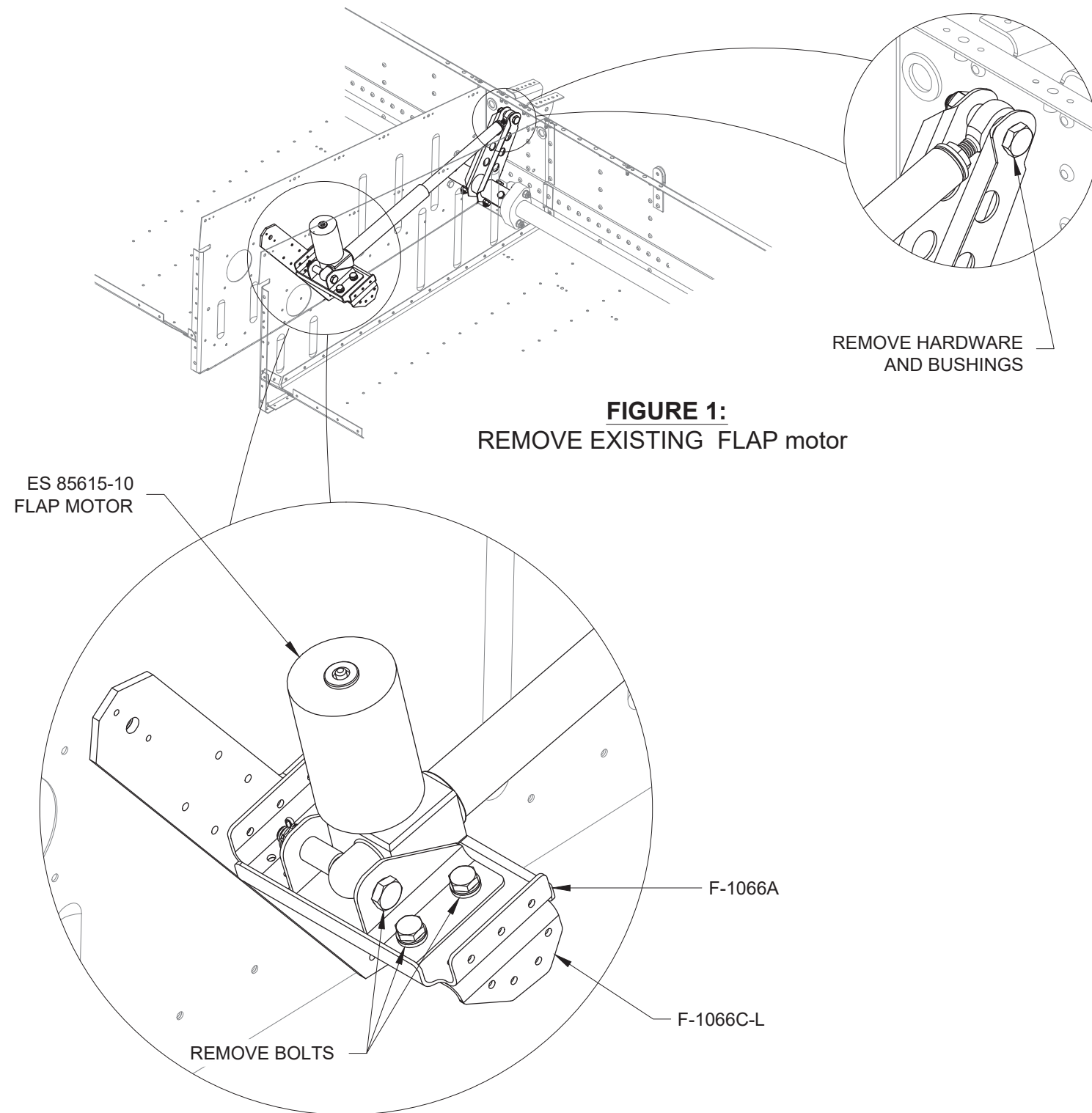


FIGURE 2: REMOVE RIVETS FROM BRACKET & ANGLES
(VIEW FROM OUTBD LOOKING INBD. SOME PARTS OMITTED FOR CLARITY)

Step 1: Separate and deburr the F-1066F Flap Motor Tray Shims.

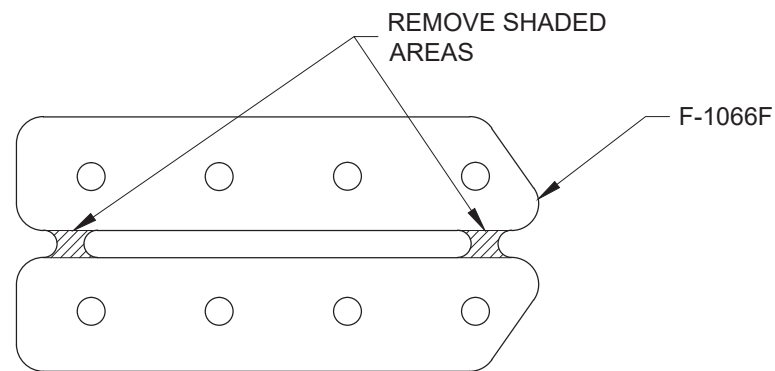


FIGURE 1: SEPARATE FLAP MOTOR TRAY SHIMS

Step 2: Separate and deburr the F-1066B-2 Angle into the F-1066B-2-L and F-1066B-2-R as shown in Figure 2.

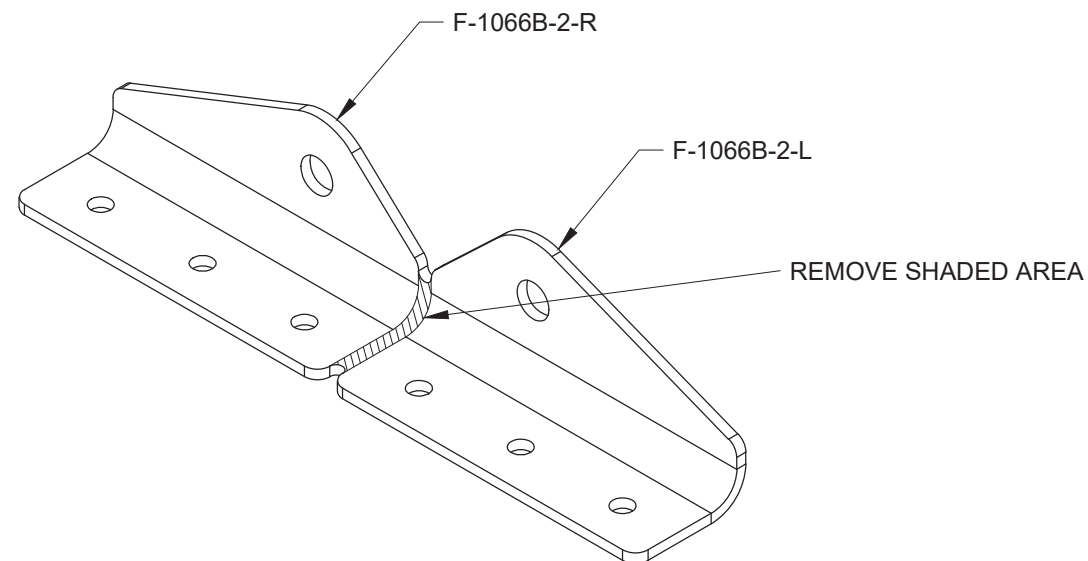


FIGURE 2: SEPARATE FLAP MOTOR ATTACH ANGLES

Step 3: Separate and deburr the F-1066C-2 Reinforcing Angles into F-1066C-2-L & -R as shown in Figure 3. Identify and mark them 'L' and 'R'.

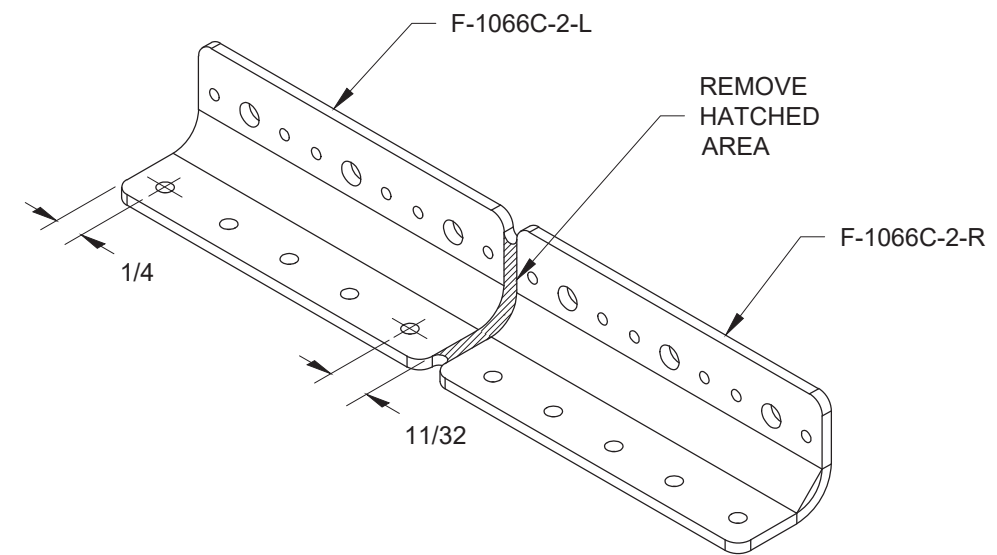


FIGURE 3: SEPARATE REINFORCING ANGLES

Step 4: Machine countersink the nutplate attach holes in F-1066C-2-L & -R as shown in Figure 4.

Step 5: Prime all parts if/as desired.

Step 6: Rivet the nutplates to the angles as shown in Figure 4.

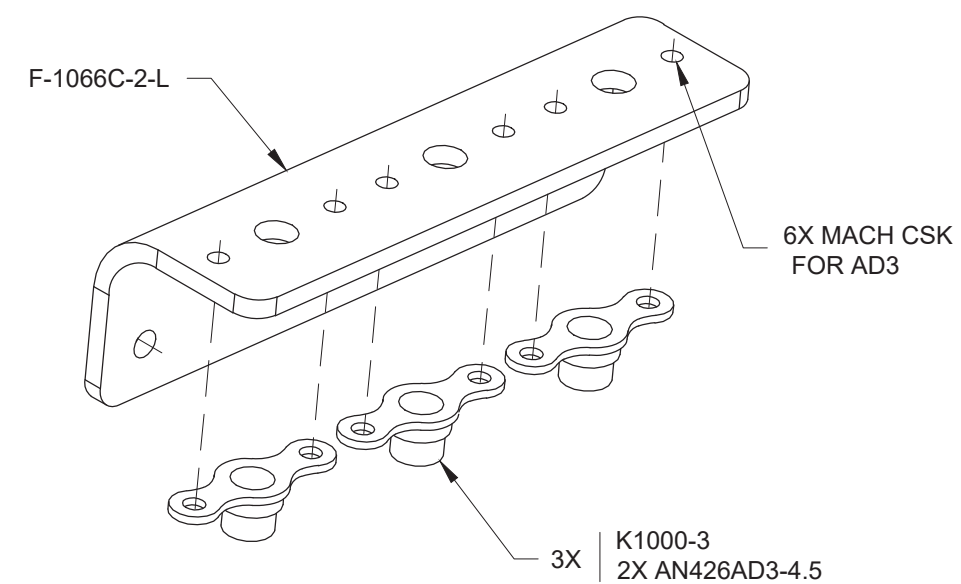
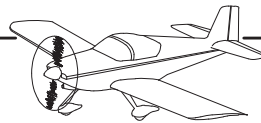


FIGURE 4: RIVET NUTPLATES TO ANGLES



Step 1: Position TOOL-00100 Flap Motor Retro-10 as shown in Figure 1.

Step 2: Pin the TOOL-00100 in place by inserting the called out bolt and screw as shown.

Step 3: Clamp the tool firmly to the F-1016F-L INBD Footwell Rib.

Step 4: Match-Drill #30 the four holes indicated into the F-1016F-L using the TOOL-00100 as a guide.

Step 5: Remove the tool and deburr the holes.

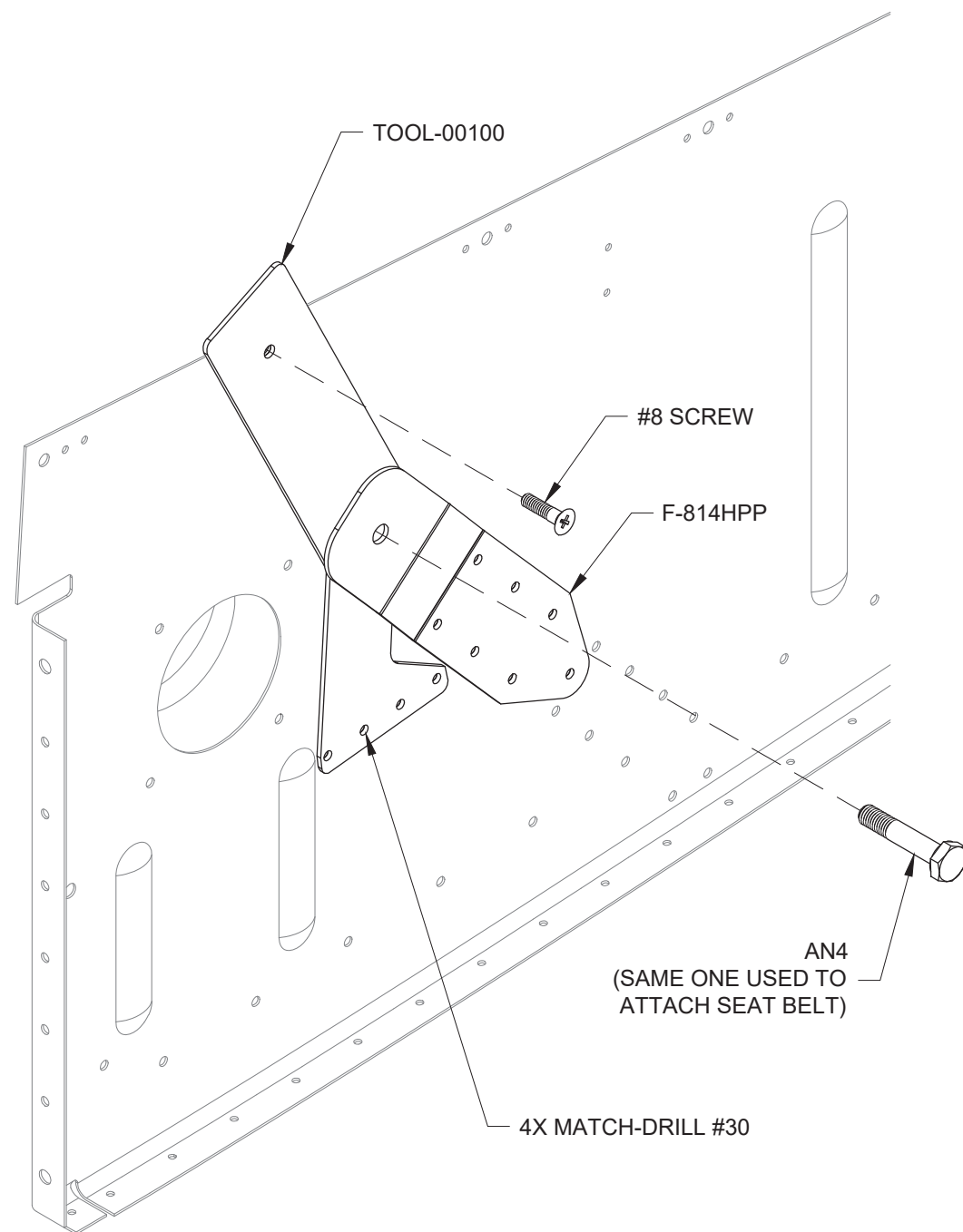


FIGURE 1: MATCH-DRILL INBOARD FOOTWELL RIBS

Step 6: Cleco the F-1066C-2-L Reinforcing Angle and F-1066F Flap Motor Tray Shim to the F-1016F-L INBD Footwell Rib as shown in Figure 2.

NOTE: Place the shop head on the inboard side for all rivets called out in Figure 2.

Step 7: Rivet the F-1066C-2-L and F-1066F to the F-1016F-L using the rivets called out in Figure 2.

Step 8: Rivet the F-1066C-2-L and the F-1016D to the F-1016F-L using the rivet called out in Figure 2.

Step 9: Rivet the empty holes in the F-1016D and F-1016F-L using the rivets called out in Figure 2.

Repeat Steps 1-9 for the F-1016F-R INBD Footwell Rib.

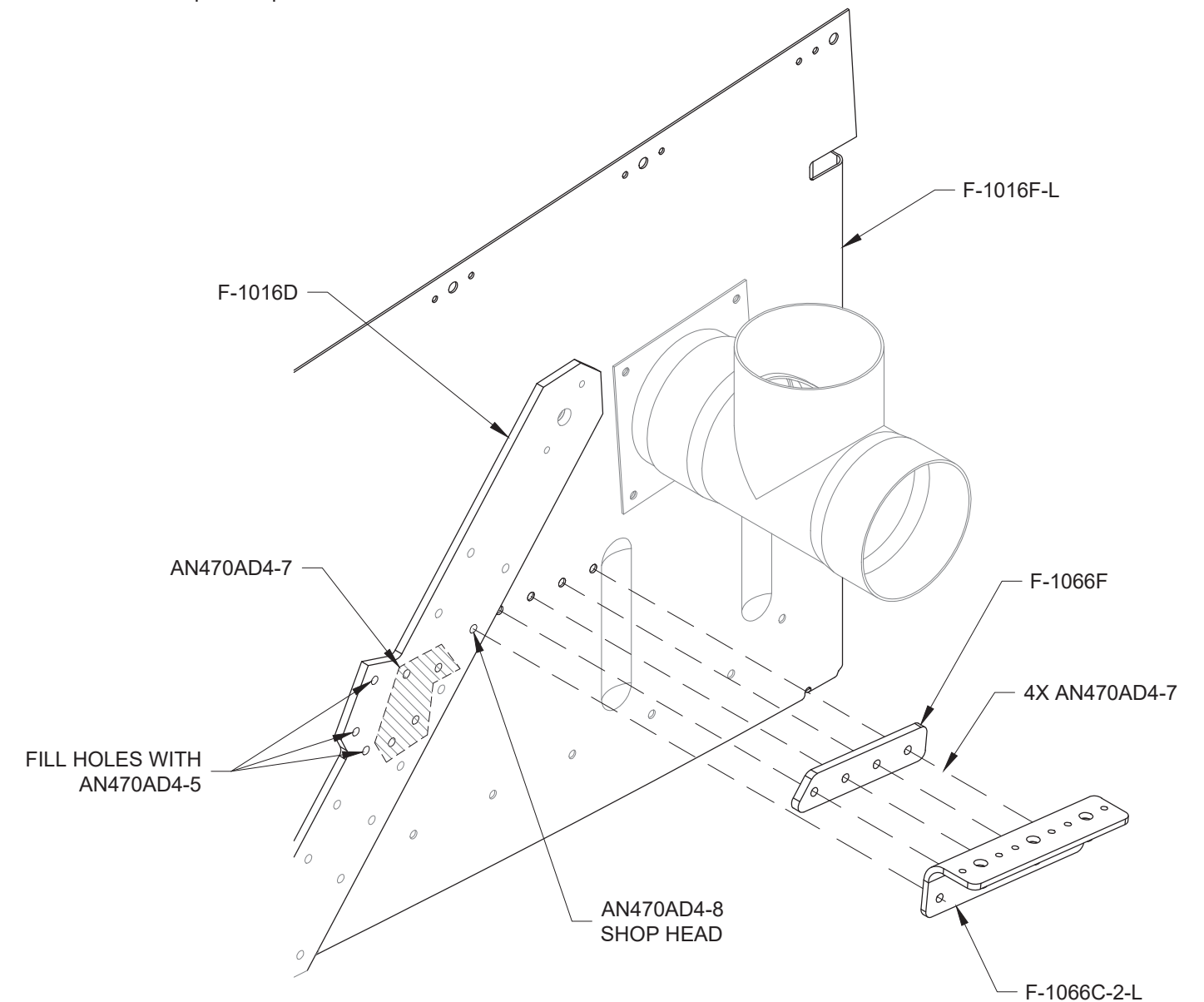


FIGURE 2: RIVET SHIM & ANGLE TO RIB

Step 1: Install the jam nut onto the rod end bearing then add a drop of Blue Loctite to the rod end threads and install the rod end into the ES-FA-PA-270-12-5 Flap Motor shaft as shown in Figure 1.

WARNING: At least seven rod end bearing threads must engage the flap motor shaft.

NOTE: Refer to Figure 3 for flap motor wiring definition

Step 2: With the flap motor shaft extended to its maximum length, adjust the rod end bearing to achieve the center to center distance shown in Figure 2. Tighten the jam nut against the face of the motor shaft while keeping the rod end bearing face vertical as shown in Figure 2.

Step 3: Assemble the ES-FA-PA-270-12-5 Flap Motor, F-1066B-2-L and F-10966B-2-R using the hardware and bushings called out in Figure 1.

Step 4: Tighten the castle nut just enough to remove end play but not so much as to add friction. The cotter pin will be installed later.

Refer to this assembly hereafter as the Flap Motor Assembly.

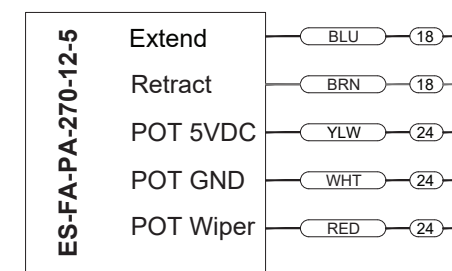
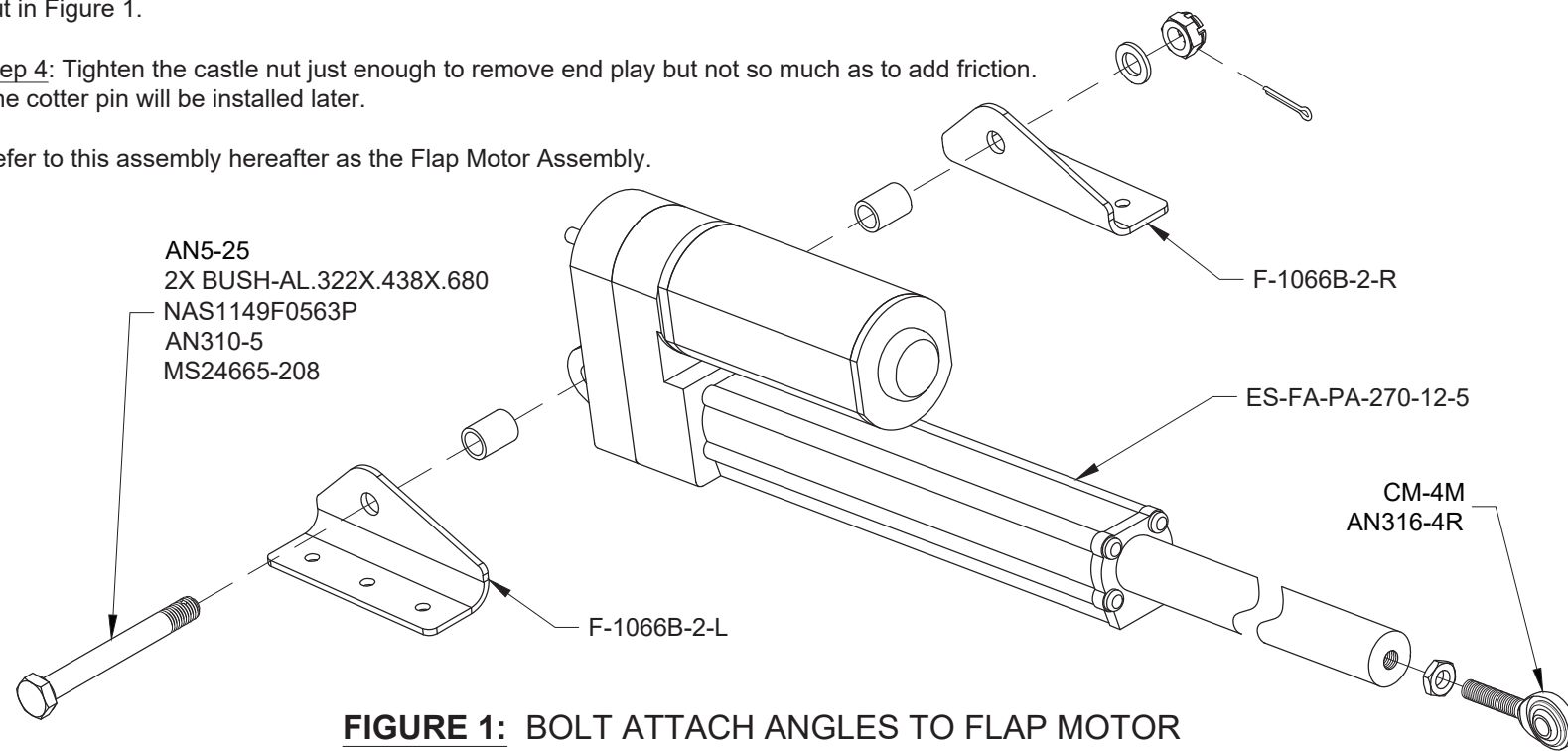


FIGURE 3: FLAP MOTOR WIRING

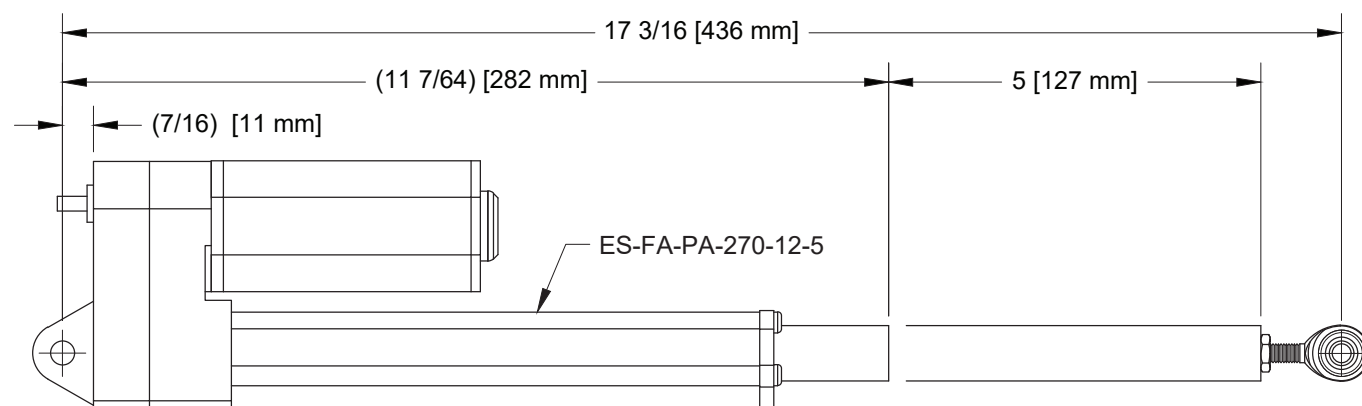
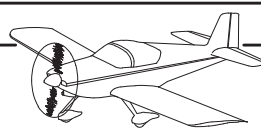


FIGURE 2: FLAP MOTOR EXTENDED & RETRACTED LENGTHS



Step 1: Lower the F-1066A-1 Flap Motor Bracket into position on top of the F-1066C-2-L and F-1066C-2-R Reinforcing Angles and align the six 3/16 holes as shown in Figure 1.

Step 2: Lower the Flap Motor Assembly onto the F-1066A-1 and bolt in place using the hardware called out in Figure 1.

Step 3: Check for excessive friction and end play. When satisfied install the cotter pin from Page 64-04, Figure 1.

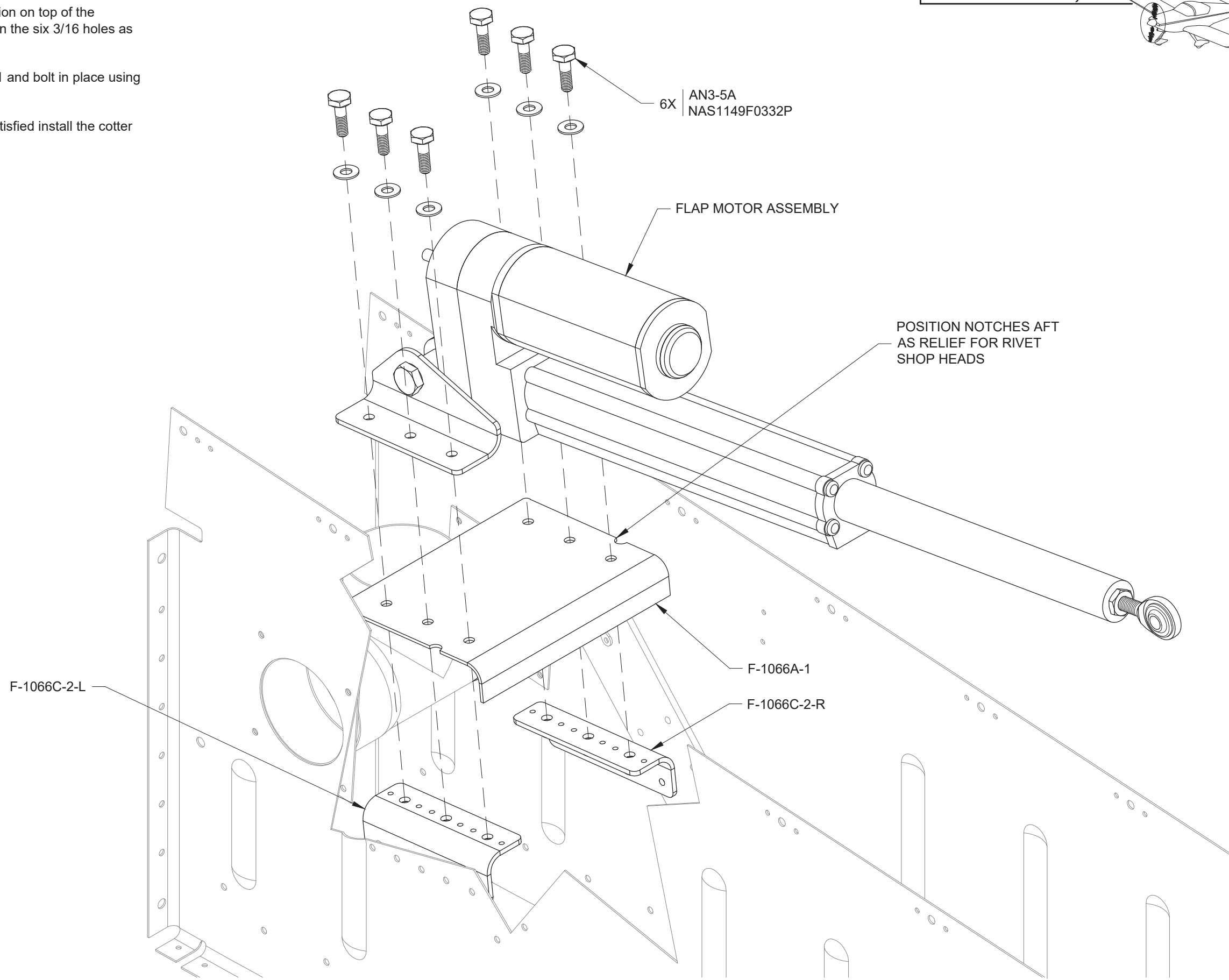


FIGURE 1: FLAP MOTOR INSTALLATION
(SOME PARTS NOT SHOWN FOR CLARITY)

NOTE: It is not necessary to safety wire the rod end to the flap motor shaft because the motor design prevents the shaft from rotating.

Step 1: Bolt the rod end bearing into the WD-1013A Flap Crank using the hardware shown in Figure 1.

CAUTION: After completing the electrical connections run the flaps up and down several times checking for interference and for proper operation before flight.

End of section.

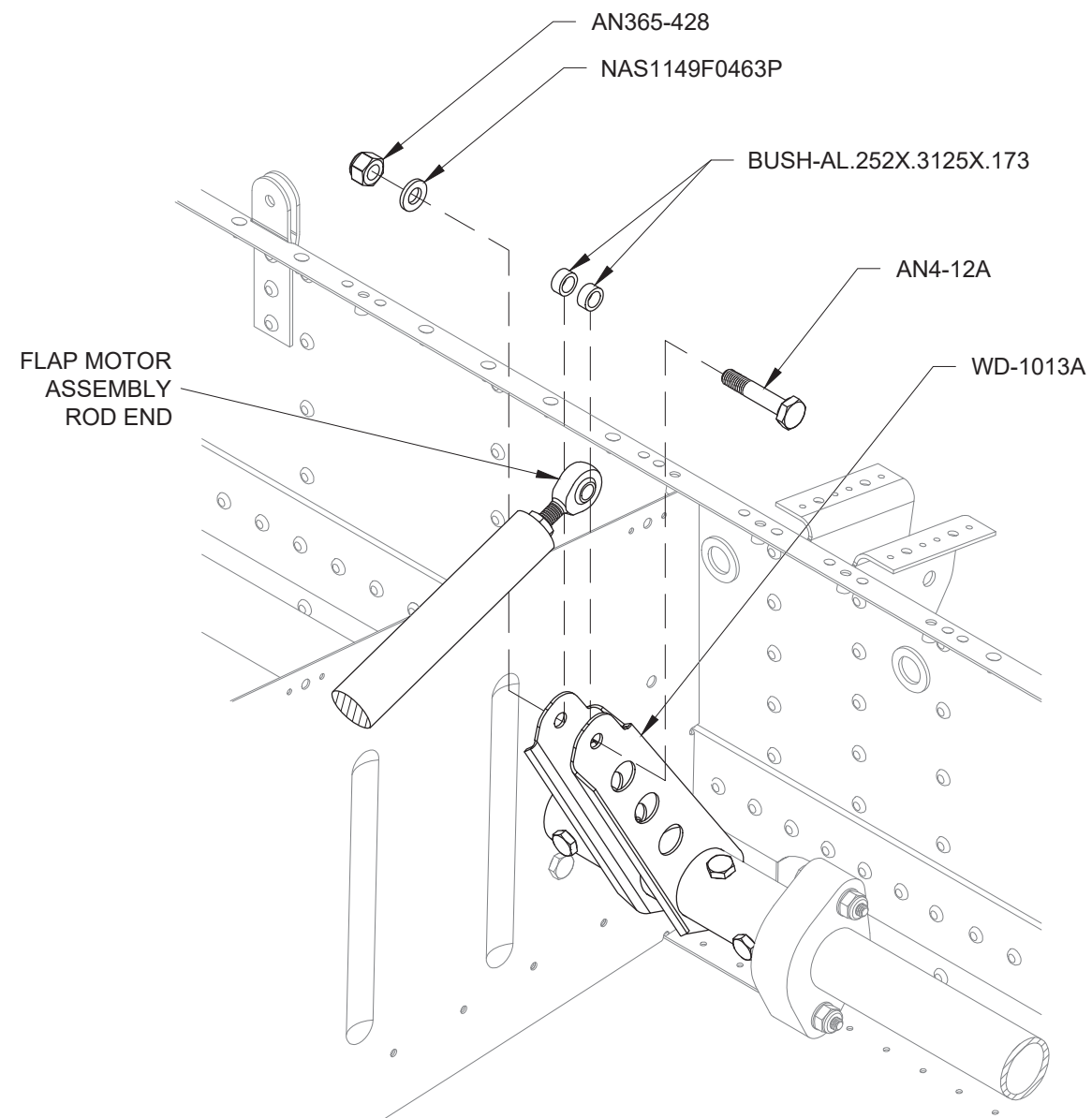


FIGURE 1:
FLAP MOTOR ROD END TO FLAP CRANK INSTALLATION
 (SOME PARTS NOT SHOWN FOR CLARITY)