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INSTRUCTIONS for CONTINUED AIRWORTHINESS

for FLITESTEP[®] KIT

206-322-100
206-322-101

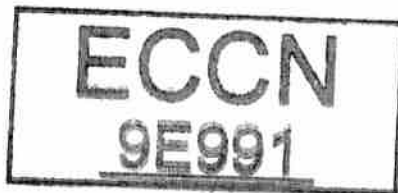
And

FLOATSTEP[™] KITS

206-303-100
206-303-101
206-303-400
206-303-401

FOR

BELL HELICOPTER TEXTRON MODEL 206A AND 206B HELICOPTERS



Report Number AA-01160

Revision B

March 1, 2006

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LOG OF REVISIONS

Revision	Date	Description	Pages
-	12/28/01	Original Release	All
A	06/06/03	Revised: Table 6 Parts Breakdown Figures 6 and 7	23 30, 31
B	03/01/06	Reformatted, reorganized document	All
		Added accessory Egress Tool Kit 099-845-001 effectivity	All
		Revised Section 1.0, Introduction	7
		Revised Section 1.1, Distribution	7
		Revised Section 2.0, Description	7
		Revised Section 3.1, Preflight Inspection	7
		Revised Section 3.2, 300 Hour / Annual Inspection	8
		Revised Section 3.3.2, Corrosion Repair Criteria for Mounting Bracket Location	9
		Revised MIL-S-8802 to AMS-S-8802	10, 12, 13, 14
		Revised MIL-P-23377 to MIL-PRF-23377	10, 12, 13, 14
		Revised Section 3.5, Adjustments	15
		Revised Table 3, Troubleshooting	16-18
		Retitled Section 5.0 as 5.0, Removal and Replacement Information: Flitestep® Kit / Floatstep™ Kit	19
		Revised Section 5.3, Removal – Floatstep™ Kit, Step 1	19
		Revised Section 5.4, Removal – Floatstep™ Step Assembly, Steps 1 and 3	20
		Revised Section 5.7, Installation – Floatstep™ Kit, Step 3	21
		Added Section 6, Removal and Replacement Information: Egress Tool; renumbered subsequent sections	23-24
		Revised Section 7.0, Structural Fastener Data	25
		Revised Section 12.0, Weight and Balance	26
		Revised Section 13, Parts Breakdown: Reorganized Tables 4 thru 7 into Tables 4 and 5; added new Table 6	27-30
		Revised, reorganized Figures 1 thru 8; added Figures 9 thru 13	31-43
		Revised Appendix A, Inspection Record	44-45

LIST OF EFFECTIVE PAGES

All pages contained herein are at latest revision shown in Log of Revisions.

LIST OF EFFECTIVE PAGES

1 – 45

TABLE OF CONTENTS

<u>Identification</u>	<u>Title</u>	<u>Page</u>
1.0	Introduction	7
1.1	Distribution	7
2.0	Description	7
3.0	Maintenance Instructions	7
3.1	Preflight Inspection	7
3.2	300 Hour/Annual Inspection	8
3.3	Repair	9
3.4	Cleaning Requirements	15
3.5	Adjustments	15
4.0	Troubleshooting Information	16
5.0	Removal and Replacement Information: Flitestep® Kit / Floatstep™ Kit	19
5.1	Removal – Flitestep® Kit	19
5.2	Removal – Flitestep® Step Assembly	19
5.3	Removal – Floatstep™ Kit	19
5.4	Removal – Floatstep™ Step Assembly	20
5.5	Installation – Flitestep® Kit	20
5.6	Installation – Flitestep® Step Assembly	20
5.7	Installation – Floatstep™ Kits	21
5.8	Installation – Floatstep™ Step Assembly	22
6.0	Removal and Replacement Information: Egress Tool Kit	23
6.1	Removal – Egress Tool	23
6.2	Installation – Egress Tool	24
7.0	Structural Fastener Data	25
8.0	Special Tools Needed	25
9.0	Recommended Overhaul Periods	25
10.0	Airworthiness Limitations	25
11.0	Revision	25
12.0	Weight and Balance	26
12.1	Flitestep® Kit 206-322-101	26
12.2	Flitestep® Kit 206-322-100	26
12.3	Floatstep™ Kit 206-303-101 / 206-303-100	26
12.4	Floatstep™ Kit 206-303-401 / 206-303-400	26
13.0	Parts List	27
Appendix A	300 Hour / Annual Inspection Record	44

TABLE OF CONTENTS

<u>List of Tables</u>	<u>Title</u>	<u>Page</u>
Table 1	Damage and Repair Limits	8
Table 2	Torque Values	15
Table 3	Troubleshooting	16
Table 4	Parts Breakdown, 206-322-101 Flitestep® Kit	27
Table 5	Parts Breakdown, 206-322-100 Flitestep® Kit	28
Table 6	Parts Breakdown, Floatstep™ Kit, 206-303-101 Floatstep™ Kit, 206-303-401 Floatstep™ Kit,	29
Table 7	Parts Breakdown, Floatstep™ Kit, 206-303-100 Floatstep™ Kit, 206-303-400 Floatstep™ Kit,	30
Table 8	Parts Breakdown, Egress Tool 099-845-001	30
<u>List of Figures</u>	<u>Title</u>	<u>Page</u>
Figure 1	Flitestep® / Floatstep™ Location	31
Figure 2	Flitestep® Assembly (206-322-100)	32
Figure 3	Flitestep® Assembly (206-322-101)	33
Figure 4	Floatstep™ Assemblies (206-303-100 / 206-303-101)	34
Figure 5	Floatstep™ Assemblies (206-303-400 / 206-303-401)	35
Figure 6	Floatstep™ Kit – Float Guards	36
Figure 7	Fastener Tightening Pattern	37
Figure 8	Flitestep® / Floatstep™ Bracket Location	38
Figure 9	Floatstep™ Float Guard Location	39
Figure 10	Egress Tool Mounting Location	40
Figure 11	Egress Tool Installation (Aircraft w/o Interior Trim)	41
Figure 12	Egress Tool Installation (Aircraft w/ Interior Trim)	42
Figure 13	Egress Tool Installation (Aircraft w/ Interior Trim w/o Foam Backing)	43

1.0 INTRODUCTION

These instructions contain the information necessary to inspect and maintain the **AERONAUTICAL ACCESSORIES, INC. FLITESTEP® KIT 206-322-101 (206-322-100)** and **FLOATSTEP™ KITS 206-303-101 (206-303-100)** (for aircraft with Pan Style Pop-Out Floats) and **206-303-401 (206-303-400)** (for aircraft with Lightweight Pop-Out Floats) and supplied accessory **EGRESS TOOL KIT 099-845-001** on Bell Helicopter Textron model 206A and 206B helicopters.

1.1 DISTRIBUTION

These instructions are provided with each Flitestep® Kit / Floatstep™ Kit. Any airworthiness or flight safety revisions will be immediately made available to all affected owners.

2.0 DESCRIPTION

The Aeronautical Accessories, Inc. Flitestep® Kit / Floatstep™ Kits provide an access step mounted externally to the forward and aft crosstube to assist crew and passengers entering and exiting an aircraft equipped with high skid landing gear or emergency floatation landing gear.

3.0 MAINTENANCE INSTRUCTIONS**3.1 PREFLIGHT INSPECTION**

Flitestep® / Floatstep™ Kits shall receive a Preflight Visual Check. Inspect for proper installation of hardware, any unusual wear patterns, corrosion, and/or damage (scratches, nicks, dents). Ensure the damage limits presented in Table 1 are not exceeded. Replace parts as required.

NOTE

Removal of Flitestep® / Floatstep™ from helicopter is not required for inspection. If any damage is noted during the Preflight Check, refer to Section 3.3 Repair or Section 4.0 Troubleshooting Information.

The Preflight Check consists of the following items:

1. Inspect the Step Brackets, Clamp Brackets, and Step Assemblies for nicks, scratches, dents, corrosion, or cracks.

NOTE

Particular care should be taken to inspect in the areas of the bolts and screws, in the Step Assemblies and Brackets.

NOTE

The indications of corrosion are 1) corrosion deposits (a white or gray powder on aluminum), 2) pits in the aluminum surface, 3) blisters, bulging, or flaking of protective coatings.

2. Inspect the attaching fasteners for security and condition of safety wire.
3. Verify Egress Tool flashlight illuminates.
4. Verify security of Egress Tool attachment.

TABLE 1 – DAMAGE AND REPAIR LIMITS

Component	Maximum Allowable Damage And Repair Limits (Damage and corrosion may be repaired as noted in Section 3.3 Repair, if it does not exceed these limits.)	
	Scratches/Nicks/Dents And Corrosion	Cracks
Clamp Bracket	Up to a depth of .050", refer to 3.3.1.	None
Step Bracket	Up to a depth of .050", refer to 3.3.1.	None
Step Assembly	Damage (in places other than fastener locations) to a maximum depth of .010" see 3.3.1.	None
	Damage to a maximum depth of .050" in Step Bracket fastener locations, see 3.3.2.	None
	Damage to a maximum depth of .035" in Float Guard fastener locations see 3.3.3.	None
Float Guard	To a depth of .020", refer to 3.3.1	None

3.2 300 HOUR / ANNUAL INSPECTION

The Flitestep® / Floatstep™ Kits shall receive a 300 Hour or Annual Inspection, whichever comes first, consisting of the following items:

1. Complete the Preflight Check listed above.
2. Remove safety wire and check the torque values on the screws and bolts per Table 2. Re-torque fasteners as required. Install new safety wire (.032 diameter) as shown in Figure 7.
3. Replace Egress Tool batteries.
4. Utilize the Inspection Record in Appendix A to document Inspection completion.

3.3 REPAIR

3.3.1 BASIC REPAIR CRITERIA

Repair damage (scratches, nicks, dents) and corrosion as follows:

1. Lightly polish the affected area using Scotch-Brite pads. Ensure the limits presented in Table 1 are not exceeded. Take care to remove as little of the component protective coatings as possible.
2. After corrosion or damage repair, clean repaired area with isopropyl alcohol. Brush Alodine bare aluminum areas per MIL-C-5541, or equivalent, and paint area to match existing finish.

3.3.2 CORROSION REPAIR CRITERIA FOR MOUNTING BRACKET LOCATION

The following procedure is applicable to Flitestep® / Floatstep™ Kits with a maximum total corrosion damage depth of .050" (adding up any damage from both sides of the vertical web). Refer to Figure 8 for hardware identification.

NOTE

If corrosion damage is found on a single side of the step only and the depth of the damage does not exceed .015", a single Doubler bonded over the damage zone may be used alone for this repair without the addition of the four corner fasteners indicated in the following repair procedure.

NOTE

If corrosion damage is found on one or both sides of the step, and the total depth of the damage added from both sides does not exceed .035", two Doublers, one bonded to each side over the damage zones, may be used for this repair without the addition of the four corner fasteners indicated in the following repair procedure.

NOTE

Flitestep® / Floatstep™ Kits with corrosion damage exceeding .050" will not be suitable for repair and should be replaced as required.

3.3.2.1 MATERIAL REQUIREMENTS

The following materials shall be procured to perform this modification:

- a. Structural Adhesive: Magnobond 6398 A&B
- b. Doubler Material: 7075-T6 Aluminum sheet, .063" thick
- c. Paint Stripper
- d. Isopropyl Alcohol
- e. Alodine per MIL-C-5541
- f. Primer: Epoxy Polyamide per MIL-PRF-23377
- g. Paint: Imron 555X
- h. Stainless Steel Safety Wire, .032" diameter
- i. 2" aircraft grade aluminum tape
- j. AN4H5A Bolts (Qty: 4)
- k. NAS1149D0463J Washers (Qty: 8)
- l. MS21042L4 Nuts (Qty: 4)
- m. Anticorrosion Waxwrap (NSN 8030-01-438-4077, product of TaskMaster)
- n. Sealant per AMS-S-8802

3.3.2.2 REPAIR PROCEDURE**NOTE**

This procedure is written to repair corrosion at a single bracket location. If the second bracket location is also exhibiting signs of corrosion, perform the same corrective actions.

1. Remove the Flitestep® / Floatstep™ from the Bracket Assemblies mounted on the helicopter's crosstubes by cutting the safety wire and removing the four fasteners at each end. Do not remove the Bracket Assemblies. Discard removed fasteners.
2. Remove the rubber pad bonded between the Flitestep® / Floatstep™ and the Step Bracket Assembly.

NOTE

If the surface is scratched during removal of the rubber pad, clean the surface with isopropyl alcohol and allow to dry. Brush Alodine the damaged area and allow to dry. Prime and paint repaired surface.

3. Using a wire brush, or Scotch Brite pad, remove corrosion from affected areas of Flitestep® / Floatstep™. Remove only the material necessary to eliminate the corrosion, to a maximum total depth of .050" adding the depth of pits from both sides of step if corrosion is present.
4. Fabricate the two Doublers as shown in Figure 8. Locate one of the Doublers on the step centered on the slot pattern as shown in Figure 8. Select two of the hole locations noted in Figure 8 and drill #40 holes. Install clecos to secure the Doubler to the step. Transfer the slot pattern in the step onto the Doubler using a marker. Remove the Doubler and neatly drill out the slot pattern as marked above. Match drill the matching Doubler to the hole pattern in the first. Re-cleco the Doublers to the step and finish drilling the remaining fastener holes as shown in Figure 8, enlarging the corner fastener holes to ¼" (.249" – .255" diameter).
5. Mask off the area around the Doublers with 2" aircraft grade aluminum tape. Remove the Doublers.
6. Use an aviation grade paint stripper to remove paint and primer coats from the contacting areas of the step and Doublers (inside of the masked off zone). Avoid removing anodize coating.

WARNING

**STRICTLY FOLLOW MANUFACTURER'S INSTRUCTIONS
WHEN APPLYING AND REMOVING PAINT STRIPPER.**

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7. Clean all bare aluminum areas of the step and Doublers with isopropyl alcohol and allow to dry. Brush Alodine the Doublers and bare aluminum portions of the Flitestep® / Floatstep™ per MIL-C-5541, or equivalent, and allow to dry.
8. Apply structural adhesive (Magnobond 6398 A&B) to the contacting surfaces of the Doublers and the Flitestep® / Floatstep™. Secure the Doublers to the Flitestep® / Floatstep™ with Clecos and install the fasteners as shown in Figure 8. Orient bolts with the nuts to the inboard side of the step and torque to 50 – 70 in-lbs. Clean any excess squeezed out adhesive from around the doublers after installation of fasteners. Apply 5 – 10 pounds of pressure using weights or clamps between the four fasteners locations and allow to cure (24 hrs. min.).
9. Remove aluminum masking tape and prime repair zones with Epoxy Polyamide per MIL-PRF-23377. Apply two coats of Imron 555X paint to match existing finish.
10. Apply Anticorrosion Waxwrap (NSN 8030-01-438-4077) to the contacting surface of the Step Bracket Assembly, where the rubber pad was removed.
11. Re-install the Flitestep® / Floatstep™ onto the Bracket Assemblies with new fasteners installed wet with sealant (AMS-S-8802). Refer to parts list for the appropriate fastener for your kit.
12. Torque fasteners to 50 – 70 in-lbs, and install .032" diameter safety wire. Carefully apply sealant (AMS-S-8802) completely over fasteners and safety wire to prevent further corrosion.
13. Repair complete.

3.3.3 CORROSION REPAIR CRITERIA FOR FLOATGUARD FASTENER LOCATION

The following procedure is applicable to Floatstep™ Kits with a maximum total corrosion damage depth of .035" (adding up any damage from both sides of the vertical web). Refer to Figure 9 for hardware identification.

NOTE

If corrosion damage is found on a single side of the step only and the depth of the damage does not exceed .015", a single Doubler bonded over the damage zone may be used alone for this repair without the addition of the second Doubler indicated in the following repair procedure.

3.3.3.1 MATERIAL REQUIREMENTS

The following materials shall be procured to perform this modification:

- a. Structural Adhesive: Magnobond 6398 A&B
- b. Doubler Material: 7075-T6 Aluminum sheet, .063" thick
- c. Paint Stripper
- d. Isopropyl Alcohol
- e. Alodine per MIL-C-5541
- f. Primer: Epoxy Polyamide per MIL-PRF-23377
- g. Paint: Imron 555X
- h. 2" aircraft grade aluminum tape
- i. MS21069L3 Nut Plate (Qty: 1)
- j. MS20426AD3-X Rivets (Qty: 2)
- k. Sealant per AMS-S-8802

3.3.3.2 REPAIR PROCEDURE**NOTE**

This procedure is written to repair corrosion at a single Float Guard to Floatstep™ fastener location. If the other Float Guard Nut Plate locations are also exhibiting signs of corrosion, perform the same corrective actions.

1. Remove the Float Guard from the Floatstep™ Assembly, and retain hardware.
2. Carefully drill out the two rivets retaining the old Nut Plate.
3. After the Nut Plate is removed, use a wire brush, or Scotch Brite pad, to remove corrosion from the affected areas of Floatstep™. Remove only the material necessary to eliminate the corrosion, to a maximum total depth of .035" adding the depth of pits from both sides of step if corrosion is present.

4. Fabricate the two Doublers as shown in Figure 9. Locate one of the Doublers on the step centered over the Nut Plate location. Match drill the two rivet hole locations and the #10 (.193" – .199" diameter) center hole location from the step into the Doubler. Match drill the second Doubler to the hole pattern in the first. Countersink only the outboard side of the rivet holes, as shown in Figure 9.
5. Mask off the area around the Doublers with 2" aircraft grade aluminum tape. Remove the Doublers.
6. Use an aviation grade paint stripper to remove paint and primer coats from the contacting areas of the step and Doublers (inside of the masked off zone). Avoid removing anodize coating.

WARNING**STRICTLY FOLLOW MANUFACTURER'S INSTRUCTIONS
WHEN APPLYING AND REMOVING PAINT STRIPPER.**

7. Clean all bare aluminum areas of the step and Doublers with isopropyl alcohol and allow to dry. Brush Alodine the Doublers and bare aluminum portions of the Floatstep™ per MIL-C-5541, or equivalent, and allow to dry.
8. Apply structural adhesive (Magnobond 6398 A&B) to the contacting surfaces of the Doublers and the Floatstep™. Secure the Doublers to the Floatstep™ and install the new Nut Plate with Rivets as shown in Figure 9. Install the rivets wet with adhesive. Clean any excess squeezed out adhesive from around the doublers after installation of Nut Plate. Apply 5 – 10 pounds of pressure to the Doublers using weights or clamps and allow to cure (24 hrs. min.).
9. Remove aluminum masking tape and prime repair zones with Epoxy Polyamide per MIL-PRF-23377. Apply two coats of Imron 555X paint to match existing finish.
10. Re-install the Float Guard onto the Floatstep™ with the retained hardware installed wet with sealant (AMS-S-8802). If replacements are necessary or additional screw length is required, refer to parts list for the appropriate fastener for your kit and upgrade or replace as required. Make a notation on the appropriate parts list of any changes made.
11. Tighten the screw (MS27039-1-XX) fastening the Float Guard to the Floatstep with a .005" feeler gauge between the shoulder washer and the Float Guard. Do not over tighten (20 in-lbs maximum). Carefully apply sealant (AMS-S-8802) completely over both sides of fasteners to prevent further corrosion.
12. Repair complete.

3.4 CLEANING REQUIREMENTS

Any dirt, sand, or debris should be cleaned from the Flitestep® / Floatstep™ using a mild, nonabrasive soap. Wipe surfaces dry with a nonabrasive cloth or paper before cleaning agent evaporates.

3.5 ADJUSTMENTS

Adjustments of the Flitestep® / Floatstep™ Kits are not required as long as bracket locations, part stack-up, and torque on all fasteners is maintained in accordance with Figures 2 thru 6 and Table 2.

TABLE 2 – TORQUE VALUES

Fastener Size	Torque (In-Lbs)
10-32*	25 – 40
1/4-28	50 – 70

NOTE

For the upper fasteners of the forward and aft Float Guards only, if equipped, tighten the upper fastener with a .005" feeler gauge between the Shoulder Washer and the Float Guard as shown in Figure 6. Do not over tighten (20 inch pounds maximum) as these joints require freedom of movement along the slots.

4.0 TROUBLESHOOTING INFORMATION

TABLE 3 — TROUBLESHOOTING

Problem	Probable Cause	Remedy
Flitestep® / Floatstep™ is loose or vibrates.	Fasteners loose, damaged, or missing.	Check torque and part stack-up on all fasteners according to Figures 2 thru 5. Ensure safety wire is installed on the bolts in accordance with Figure 7.
	Rubber Pads damaged or misplaced.	Check orientation, stack-up, and condition of all pads. Re-align or replace pads as required.
	Flitestep® / Floatstep™ has slipped down the crosstube to a point where tube taper allows Clamp Bracket and Step Bracket to make contact.	Adjust the brackets along the crosstubes (see Figure 2 or 3 for Flitestep® and Figure 4 or 5 for Floatstep™) so that the spacing above the skid gear saddle is as noted in the figures. There should be a gap between the bracket halves of not less than .010" (this does not apply to replacement Pads, trim them as required for best fit). Lightly abrade crosstube with scotch-brite or 180 grit (or finer) paper in Pad contact zone. Do Not Remove Primer. Wipe clean with alcohol. Remove bracket, half at a time, and apply a thin coat of 099-050-172 (Alt: 099-050-138) to each rubber pad. Ensure that the Pads are glued to the brackets and the tubes and that the Step Assembly remains level where relocated for proper installation. <u>WARNING</u> FOLLOW MFG'S SAFETY GUIDELINES, WHILE USING ADHESIVE. BEFORE TIGHTENING, ENSURE SCREWS ARE IN PLACE AND THREADS HAVE ENGAGED. Tighten the four screws in each bracket in an "X" pattern so that the gap between the brackets is reduced evenly. Torque screws to 25 – 40 inch pounds.

TABLE 3 — TROUBLESHOOTING

Problem	Probable Cause	Remedy
Flitestep® / Floatstep™ brackets move along crosstubes but are not loose.	The adhesive has broken loose between the Pads and the crosstubes allowing the Flitestep® / Floatstep™ to slip, while still clamped to the tube.	Remove the screws between the Clamp Brackets and the Step Brackets. At this point, the Flitestep® / Floatstep™ will be loose from the forward and aft crosstube except for any remaining adhesive used to bond the rubber pads to the brackets and the crosstubes. Carefully loosen the pads from the crosstubes, using a plastic scraper. Do Not scratch or damage the crosstube during the removal process. WARNING DO NOT USE A METAL TOOL SUCH AS A PUTTY KNIFE TO REMOVE THE CLAMP ASSEMBLIES. Adjust the brackets along the crosstubes (see Figure 2 or 3 for Flitestep® and Figure 4 or 5 for Floatstep™) so that the spacing above the skid gear saddle is as noted in the figures. There should be a gap between the bracket halves of not less than .010" (this does not apply to replacement Pads, trim them as required for best fit). Lightly abrade crosstube with scotch-brite or 180 grit (or finer) paper in Pad contact zone. Do Not Remove Primer. Wipe clean with alcohol. Remove bracket, half at a time, and apply a thin coat of 099-050-172 (Alt: 099-050-138) to each rubber pad. Ensure that the Pads are glued to the brackets and the tubes and that the Step Assembly remains level where relocated for proper installation. WARNING FOLLOW MFG'S SAFETY GUIDELINES, WHILE USING ADHESIVE. BEFORE TIGHTENING, ENSURE SCREWS ARE IN PLACE AND THREADS HAVE ENGAGED. Tighten the four screws in each bracket in an "X" pattern so that the gap between the brackets is reduced evenly. Torque screws to 25 – 40 inch pounds.

TABLE 3 — TROUBLESHOOTING

Problem	Probable Cause	Remedy
Float Guard is loose or vibrates	Fasteners are loose, damaged, or missing.	Check torque and part stack-up on all fasteners according to Figures 5 and 6. Ensure safety wire is installed on the bolts in accordance with Figure 7. NOTE For the upper fasteners of the forward and aft Float Guards only, tighten the upper fastener with a .005 inch feeler gauge between the Shoulder Washer and the Float Guard as shown in Figure 6. Do not over tighten (20 in-lbs maximum) as these joints require freedom of movement along the slots.
	Float Guard is damaged allowing inadvertent movement.	Evaluate condition of Float Guard for cracks or other damage in accordance with Table 1 – Damage and Repair Limits. Replace parts as required.
Float Guard is interfering with stowed or deployed float bags.	Float Guard is deformed allowing inadvertent contact with float bags.	Evaluate condition of Float Guard for cracks and shape in accordance with Table 1 – Damage and Repair Limits and Figures 5 and 6. Reshape or replace parts as required.

5.0 REMOVAL AND REPLACEMENT INFORMATION:
FLITESTEP® KIT / FLOATSTEP™ KIT**5.1 REMOVAL – FLITESTEP® KIT**

1. Carefully remove the Screws and Washers between the Clamp Brackets and the Step Brackets. At this point the Flitestep® will be loose from the forward and aft crosstube, except for the glue used to bond the rubber pads to the brackets and the crosstubes. Carefully loosen the pads from the crosstubes, using a plastic scraper. Do Not scratch or damage the crosstube during the removal process.

WARNING

**DO NOT USE A METAL TOOL SUCH AS A PUTTY KNIFE
TO REMOVE THE BRACKETS.**

2. Removal complete.

5.2 REMOVAL – FLITESTEP® STEP ASSEMBLY

1. Remove the safety wire from the Bolts in the Forward and Aft Step Bracket locations and discard.
2. Remove the Bolts and the Washers from the Forward and Aft Step Bracket locations and retain for later re-installation.
3. Remove the Step.
4. Removal complete.

5.3 REMOVAL – FLOATSTEP™ KIT

1. If equipped with Float Guards, remove the hardware fastening the upper and lower ends of the forward and aft Float Guards, and retain parts.
2. Carefully remove the Screws and Washers between the Clamp Brackets and Step Brackets. At this point the Floatstep™ will be loose from the forward and aft crosstube, except for the glue used to bond the rubber pads to the brackets and crosstubes. Carefully loosen the pads from the crosstubes using a plastic scraper. Do Not scratch or damage the crosstube during the removal process.

WARNING

**DO NOT USE A METAL TOOL SUCH AS A PUTTY KNIFE
TO REMOVE THE BRACKETS.**

3. Removal complete.

5.4 REMOVAL – FLOATSTEP™ STEP ASSEMBLY

1. If equipped with Float Guards, remove hardware fastening the upper and lower ends of the forward and aft Float Guards and retain parts.
2. Remove the safety wire from the Bolts in the Forward and Aft Step Bracket locations and discard the wire.
3. Remove the Step by loosening and removing the Bolts and Washers from the Forward and Aft Step Bracket locations. Retain parts for later re-installation.
4. Removal complete.

5.5 INSTALLATION – FLITESTEP® KIT

1. Adjust the brackets along the crosstubes so that the Step is 16.0" above the ground with the helicopter resting on the landing gear.
2. Mark the location of the brackets on the tubes. To permanently attach the Flitestep® to the crosstubes lightly abrade crosstube with scotch-brite or 180-grit (or finer) paper in Pad contact zone. Do Not Remove Primer. Wipe clean with alcohol. Remove bracket half at a time and apply a thin coat of 099-050-172 (Alt: 099-050-138) to each rubber pad. Ensure that the Pads are glued to the brackets and the tubes and that the Step Assembly remains level where previously marked for proper installation.

WARNING

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WHILE USING ADHESIVE.**

3. Before tightening, ensure screws are in place and threads have engaged. Tighten the four screws in each bracket in an "X" pattern so that the gap between the brackets is reduced evenly. Torque screws to 25 – 40 inch pounds.
4. Installation complete.

5.6 INSTALLATION – FLITESTEP® STEP ASSEMBLY

1. Install the Step with the Bolts and Washers for the Forward and Aft Step Bracket locations as shown in Figure 2 or 3. Before tightening, ensure screws are in place and threads have engaged.
2. Tighten the four bolts in each Step Bracket in an "X" pattern so that the gap is reduced evenly. Torque bolts to 50 – 70 inch pounds.
3. Install new Safety Wire (.032 diameter) in the Bolts in the Forward and Aft Step Bracket locations oriented as shown in Figure 7.
4. Installation complete.

5.7 INSTALLATION – FLOATSTEP™ KITS

1. Position the Floatstep Brackets along the crosstubes so the Step Assembly is level (parallel to the ground). The top of the Step should be 16" above the ground, as shown in Figure 1.
2. Mark the Bracket positions on both crosstubes. Temporarily tighten (10 – 15 in-lbs) in an "X" pattern, the Bolts which secure the Brackets to the Step Assembly. Note that the mounting holes are slotted to accommodate variation in skid gear.
3. If equipped with Float Guards, install hardware as shown in Figures 5 and 6, fastening the lower ends of the forward and aft Float Guards. The Screw (MS27039-1-12) at the lower end of the forward Float Guard replaces the inboard float bag screw located 9.5 inches away from the front edge of the forward crosstube saddle. The Screw (MS27039-1-12) at the lower end of the aft Float Guard replaces the inboard float bag screw located 11.5 inches away from the rear edge of the forward crosstube saddle.

NOTE

Adjust the vertical positioning of the step as required to attach the upper end of Float Guard to the Floatstep as shown in Figure 6. The upper end of the guard is slotted to allow for movement with the step. Tighten the screw (MS27039-1-10) with a .005 inch feeler gauge between the shoulder washer and Float Guard. Do not over tighten (20 inch pounds maximum).

4. To permanently attach Floatstep™ to crosstubes, lightly abrade crosstube with scotch-brite or 180-grit (or finer) paper in Pad contact zones. **Do Not Remove Primer.** Wipe clean with alcohol. Remove bracket half at a time and apply a thin coat of 099-050-172 (Alt: 099-050-138) to each rubber pad. Ensure that the pads are glued to the brackets and the tubes, and that the Step Assembly remains level where previously marked for proper installation.

WARNING

**FOLLOW MANUFACTURER'S SAFETY GUIDELINES
WHILE USING ADHESIVE.**

5. Before tightening, ensure screws are in place and threads have engaged. Tighten the four screws in each bracket in an "X" pattern so that the gap between the brackets is reduced evenly. Torque screws to 25 – 40 inch pounds.
6. Installation complete.

5.8 INSTALLATION – FLOATSTEP™ STEP ASSEMBLY

1. Install the Step with the Bolts and Washers for the Forward and Aft Step Bracket locations as shown in Figures 4 thru 6. Before tightening, ensure screws are in place and threads have engaged.
2. Tighten the four bolts in each Step Brackets in an “X” pattern so that the gap is reduced evenly. Torque bolts to 50 – 70 inch pounds.
3. Install a new Safety Wire (.032 diameter) in the Bolts in the Forward and Aft Step Bracket locations oriented as shown in Figure 7.
4. Install the Float Guards per Figures 1, 5, and 6. The Screw (MS27039-1-12) at the lower end of the forward Float Guard replaces the inboard float bag screw located 9.5 inches away from the front edge of the forward crosstube saddle. The Screw (MS27039-1-12) provided at the lower end of the aft Float Guard replaces the inboard float bag screw located 11.5 inches away from the rear edge of the forward crosstube saddle.
5. Installation complete

**6.0 REMOVAL AND REPLACEMENT INFORMATION:
EGRESS TOOL KIT****6.1 REMOVAL – EGRESS TOOL****6.1.1 AIRCRAFT NOT EQUIPPED WITH INTERIOR TRIM.**

1. Remove Egress Tool (099-845-101) from Clamps (099-845-123).
2. Remove Screws (MS27039-1-08) and Washers (NAS1149D0332K) securing Clamps (099-845-123) and Spacer Assemblies (099-845-103) to aircraft. Retain hardware for reuse.
3. Egress Tool removal complete.

6.1.2 AIRCRAFT EQUIPPED WITH INTERIOR TRIM WITHOUT FOAM BACKING.

1. Remove Egress Tool (099-845-101) from Clamps (099-845-123).
2. Remove Screws (MS27039-1-08) and Washers (NAS1149D0332K) securing Clamps (099-845-123) and Spacer Assemblies (099-845-103) to aircraft. Retain hardware for reuse.
3. If required, remove interior trim to gain access to Nut Plates (MS21059L3).
4. Egress Tool removal complete.

6.1.3 AIRCRAFT EQUIPPED WITH INTERIOR TRIM WITH FOAM BACKING.

1. Remove Egress Tool (099-845-101) from Clamps (099-845-123).
2. Remove Screws (MS27039-1-10) and Washers (NAS1149D0332K) securing Clamps (099-845-123) to aircraft. Retain hardware for reuse.
3. If required, remove interior trim to gain access to Nut Plates (MS21059L3) and Spacer Assemblies (099-845-103).
4. Egress Tool removal complete.

6.2 INSTALLATION – EGRESS TOOL**6.2.1 AIRCRAFT NOT EQUIPPED WITH INTERIOR TRIM. SEE FIGURE 11.**

1. Assemble as shown, using Spacer Assemblies (099-845-103) Clamps (099-845-123), Washers (NAS1149D0332K) and Screws (MS27039-1-08).
2. Torque Screws (MS27039-1-08) 20 – 25 in-lbs.
3. Insert Egress Tool (099-845-101) into Clamps (099-845-123).
4. Egress Tool installation complete.

**6.2.2 AIRCRAFT EQUIPPED WITH INTERIOR TRIM WITH FOAM BACKING.
SEE FIGURE 12.**

1. If interior trim previously removed, assemble Foam Backing and Spacer Assembly (099-845-103) as shown in figure. If interior trim not previously removed, proceed to step 3, otherwise, reinstall removed interior trim.
2. Assemble Clamps (099-845-123), Washers (NAS1149D0332K) and Screws (MS27039-1-10).
3. Torque Screws (MS27039-1-10) 20 – 25 in-lbs.
4. Insert Egress Tool (099-845-101) into Clamps (099-845-123).
5. Egress Tool Installation complete.

**6.2.3 AIRCRAFT EQUIPPED WITH INTERIOR TRIM WITHOUT FOAM BACKING.
SEE FIGURE 13.**

1. If interior trim previously removed, reinstall interior trim. If interior trim not previously removed, proceed to step 2.
2. Assemble Clamps (099-845-123), Washers (NAS1149D0332K) and Screws (MS27039-1-10).
3. Torque Screws (MS27039-1-10) 20 – 25 in-lbs.
4. Insert Egress Tool (099-845-101) into Clamps (099-845-123).
5. Egress Tool Installation complete.

7.0 STRUCTURAL FASTENER DATA

Refer to Table 2 for torque values. For hardware identification see Tables 4 thru 8 and Figures 1 thru 13.

8.0 SPECIAL TOOLS NEEDED

Torque Wrench

9.0 RECOMMENDED OVERHAUL PERIODS

No component overhaul required for this type design change.

10.0 AIRWORTHINESS LIMITATIONS

No airworthiness limitations associated with this type design change.

11.0 REVISION

A Log of Revision section is included in these instructions and will be utilized to document all changes. Change recommendations should be submitted to:

Aeronautical Accessories Inc.
P.O. Box 3689
Bristol, TN 37625-3689

12.0 WEIGHT AND BALANCE**12.1 FLITESTEP® KIT 206-322-101**

Net change after Bell step removed:

Weight Change:	+10.5 lbs
Station:	111.9
Lateral Arm:	0

Total Change:

Weight Change:	+18.5 lbs
Station:	98.5
Lateral Arm:	0

12.2 FLITESTEP® KIT 206-322-100

Net change after Bell step removed:

Weight Change:	+11.0 lbs
Station:	111.9
Lateral Arm:	0

Total Change:

Weight Change:	+19.0 lbs
Station:	98.5
Lateral Arm:	0

12.3 FLOATSTEP™ KIT 206-303-101 / 206-303-100

Net change with no step previously installed:

Weight Change:	+18.5 lbs
Station:	98.5
Lateral Arm:	0

Net change after Bell step removed:

Weight Change:	+10.5 lbs
Station:	117.9
Lateral Arm:	0

12.4 FLOATSTEP™ KIT 206-303-401 / 206-303-400

Net change with no step previously installed:

Weight Change:	+17.5 lbs
Station:	100.2
Lateral Arm:	0

Net change after Bell step removed:

Weight Change:	-1.0 lbs
Station:	100.2
Lateral Arm:	0

13.0 PARTS BREAKDOWN

- 13.1** Table 4 contains Parts Breakdown data for Flitestep® Kit 206-322-101. Table 5 contains Parts Breakdown data for superseded Flitestep® Kit 206-322-100. Table 6 contains Parts Breakdown data for Floatstep™ Kits 206-303-101 and 206-303-401. Table 7 contains Parts Breakdown data for superseded Floatstep™ Kits 206-303-100 and 206-303-400. Table 8 contains Parts Breakdown data for accessory Egress Tool Kit 099-845-001. The column Availability Code (AV Code) specifies the procurement status for each part.

The codes to identify if a part is procurable, procedure details to get an assembly or local manufacture code are as follows:

AV Code	Details
0	Nonprocurable part
1	Procurable part
2	Procure as detail parts only
3	Procurable as Next Higher Assembly
4	Local manufacture. Contact AAI Product Support Engineering (PSE)
5	Part replacement requires a fixture or special equipment. Contact AAI PSE
6	Non-stock procurable part

TABLE 4 – PARTS BREAKDOWN, 206-322-101 FLIGHTSTEP® KIT

Item No.	Qty	Part Number	Description	AV Code
4-1	1	206-307-001	Step L/H	3
4-2	1	206-307-002	Step R/H	3
4-3	2	206-300-101	Clamp Bracket Assembly	1
4-4	2	206-300-211	Clamp Bracket Assembly	1
4-5	2	206-300-125	Step Bracket Assembly	1
4-6	2	206-300-227	Step Bracket Assembly	1
4-7	16	MS27039-1-11	Screw	1
4-8	16	NAS1149D0332J	Washer	1
4-9	16	AN4H5A	Bolt	1
4-10	32	NAS1149D0463J	Washer	1
4-11	16	MS27039-4-08	Screw	1
4-12	1	099-050-172 (Alt: 099-050-138)	Adhesive, Superglue (Loctite 49504) (EA9320NA)	1
--	2	206-300-019	Pad	1
--	2	206-300-032	Pad	1
--	1	099-845-001	Egress Tool Kit	1

TABLE 5 – PARTS BREAKDOWN, 206-322-100 FLIGHTSTEP® KIT

Item No.	Qty	Part Number	Description	AV Code
--	1	206-322-001	Step Assembly L/H	0
--	1	206-322-002	Step Assembly R/H	0
5-1	1	206-322-015	Step L/H	3
5-2	1	206-322-016	Step R/H	3
5-3	1	206-322-003	Bracket Assembly – Left Forward	0
5-4	1	206-322-004	Bracket Assembly – Right Forward	0
5-5	1	206-322-005	Bracket Assembly – Left Aft	0
5-6	1	206-322-006	Bracket Assembly – Right Aft	0
5-7	1	206-322-007	Plate Assembly – Left Forward	0
5-8	1	206-322-008	Plate Assembly – Right Forward	0
5-9	1	206-322-009	Plate Assembly – Left Aft	0
5-10	1	206-322-010	Plate Assembly – Right Aft	0
5-11	16	AN4-4A	Bolt	1
5-12	8	AN4-11A	Bolt	1
5-13	8	AN4-12A	Bolt	1
5-14	48	NAS1149D0416J	Washer	1
5-15	16	MS27039-4-08	Screw	1
5-16	16	NAS1149D0463J	Washer	1
--	1	206-322-011	Aft Plate Pad	0
--	1	206-322-012	Forward Plate Pad	0

TABLE 6 – PARTS BREAKDOWN, FLOATSTEP™ KIT
206-303-101 FLOATSTEP™ KIT 206-303-401 FLOATSTEP™ KIT

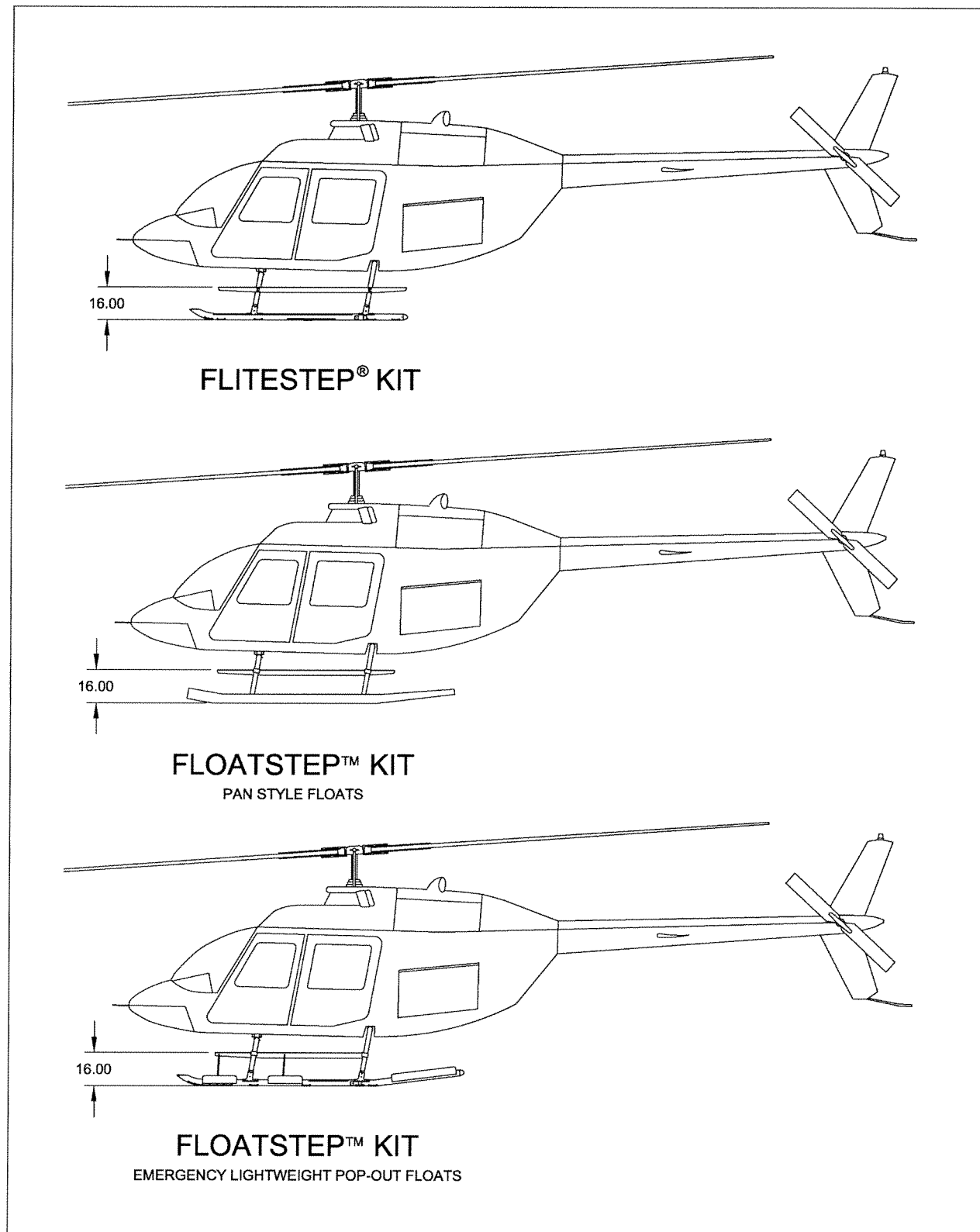
Item No.	Qty -101	Qty -401	Part Number	Description	AV Code
6-1	1		206-301-005	Step L/H	3
6-2	1		206-301-006	Step R/H	3
6-3		1	206-301-117	Step Assembly L/H	3
6-4		1	206-301-118	Step Assembly R/H	3
6-5	2	2	206-300-101	Clamp Bracket Assembly	1
6-6	2	2	206-300-211	Clamp Bracket Assembly	1
6-7	2		206-300-109	Step Bracket Assembly	1
6-8	2	2	206-300-113	Step Bracket Assembly	1
6-9		2	206-300-123	Step Bracket Assembly	1
6-10		2	206-304-003	Float Guard	1
6-11		2	206-304-005	Float Guard	1
6-12		4	MS27039-1-10	Screw	1
6-13	16	16	MS27039-1-11	Screw	1
6-14	16	16	AN4H5A	Bolt	1
6-15	16	24	NAS1149D0332J	Washer	1
6-16		8	NAS1149D0363J	Washer	1
6-17	16	32	NAS1149D0463J	Washer	1
6-18	8		CR3243-6-3	Rivet	1
6-19		4	MS27039-1-12	Screw	1
6-20		16	MS27039-4-08	Screw	1
6-21		4	206-304-121	Shoulder Washer	1
6-22		4	350-905-005	Washer	1
6-23	1	1	099-050-172 (Alt: 099-050-138)	Adhesive, Superglue (Loctite 49504) (EA9320NA)	1
--	1	1	099-845-001	Egress Tool Kit	1

TABLE 7 – PARTS BREAKDOWN, FLOATSTEP™ KIT
206-303-100 FLOATSTEP™ KIT 206-303-400 FLOATSTEP™ KIT

Item No.	Qty -100	Qty -400	Part Number	Description	AV Code
6-1	1		206-301-005	Step L/H	3
6-2	1		206-301-006	Step R/H	3
7-1		1	206-301-107	Step Assembly L/H	3
7-2		1	206-301-108	Step Assembly R/H	3
6-5	2	2	206-300-101	Clamp Bracket Assembly	1
6-7	2		206-300-109	Step Bracket Assembly	1
6-6	2	2	206-300-211	Clamp Bracket Assembly	1
6-8	2	2	206-300-113	Step Bracket Assembly	1
6-9		2	206-300-123	Step Bracket Assembly	1
6-10		2	206-304-003	Float Guard	1
6-11		2	206-304-005	Float Guard	1
6-12		4	MS27039-1-10	Screw	1
6-13	16	16	MS27039-1-11	Screw	1
7-3	16	16	NAS6704-3	Bolt	1
7-4	16	24	AN960JD10L	Washer	1
7-5		8	AN960JD10	Washer	1
7-6	16	32	AN960JD416	Washer	1
6-18	8		CR3243-6-3	Rivet	1
6-19		4	MS27039-1-12	Screw	1
6-20		16	MS27039-4-08	Screw	1
6-21		4	206-304-121	Shoulder Washer	1
6-22		4	350-905-005	Washer	1
6-23	1	1	099-050-172 (Alt: 099-050-138)	Adhesive, Superglue (Loctite 49504) (EA9320NA)	1

TABLE 8 – PARTS BREAKDOWN
099-845-001 EGRESS TOOL KIT

Qty	Part Number	Description	AV Code
1	099-845-101	Egress Tool Assembly	1
2	099-845-103	Spacer Assembly	1
2	099-845-123	Clamp	1
2	MS21059L3	Nut Plate	1
4	CCR264SS-3-2	Rivet	1
2	MS27039-1-08	Screw	1
2	MS27039-1-10	Screw	1
2	NAS1149D0332K	Washer	1

**FIGURE 1 – FLITESTEP® / FLOATSTEP™ LOCATION****AERONAUTICAL ACCESSORIES, INC.**

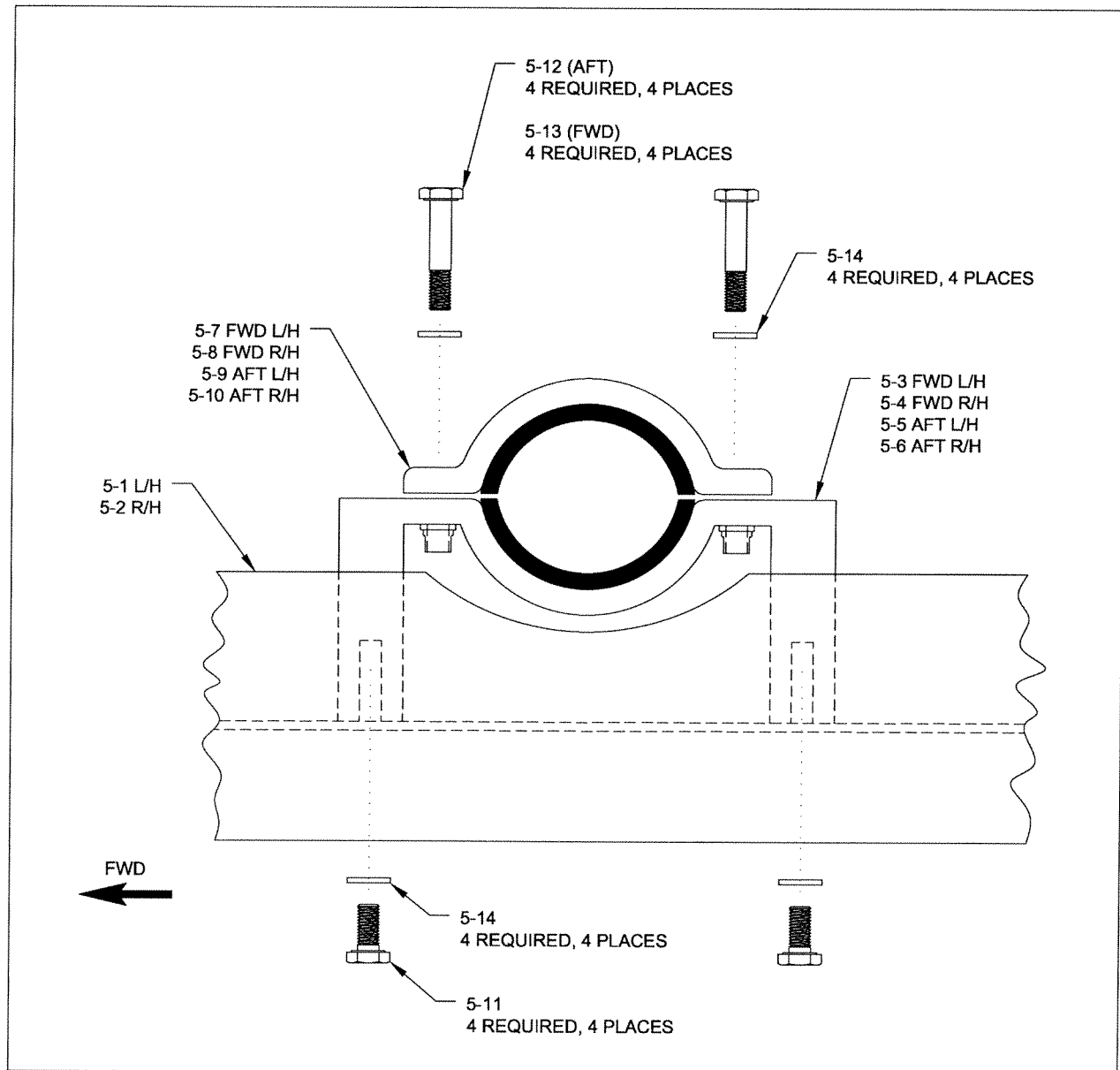


FIGURE 2 – FLITESTEP® ASSEMBLY (206-322-100)

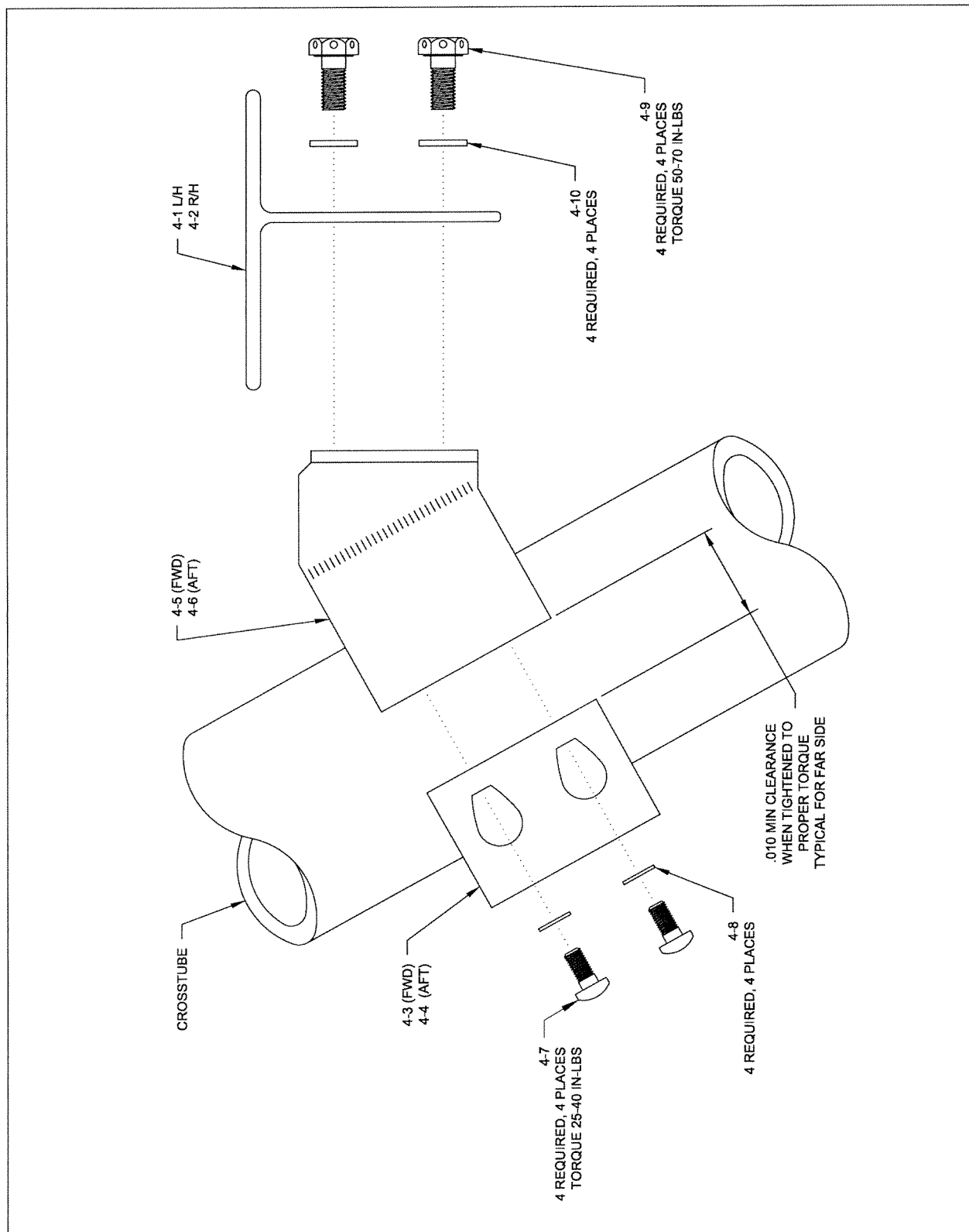


FIGURE 3 – FLITESTEP® ASSEMBLY (206-322-101)

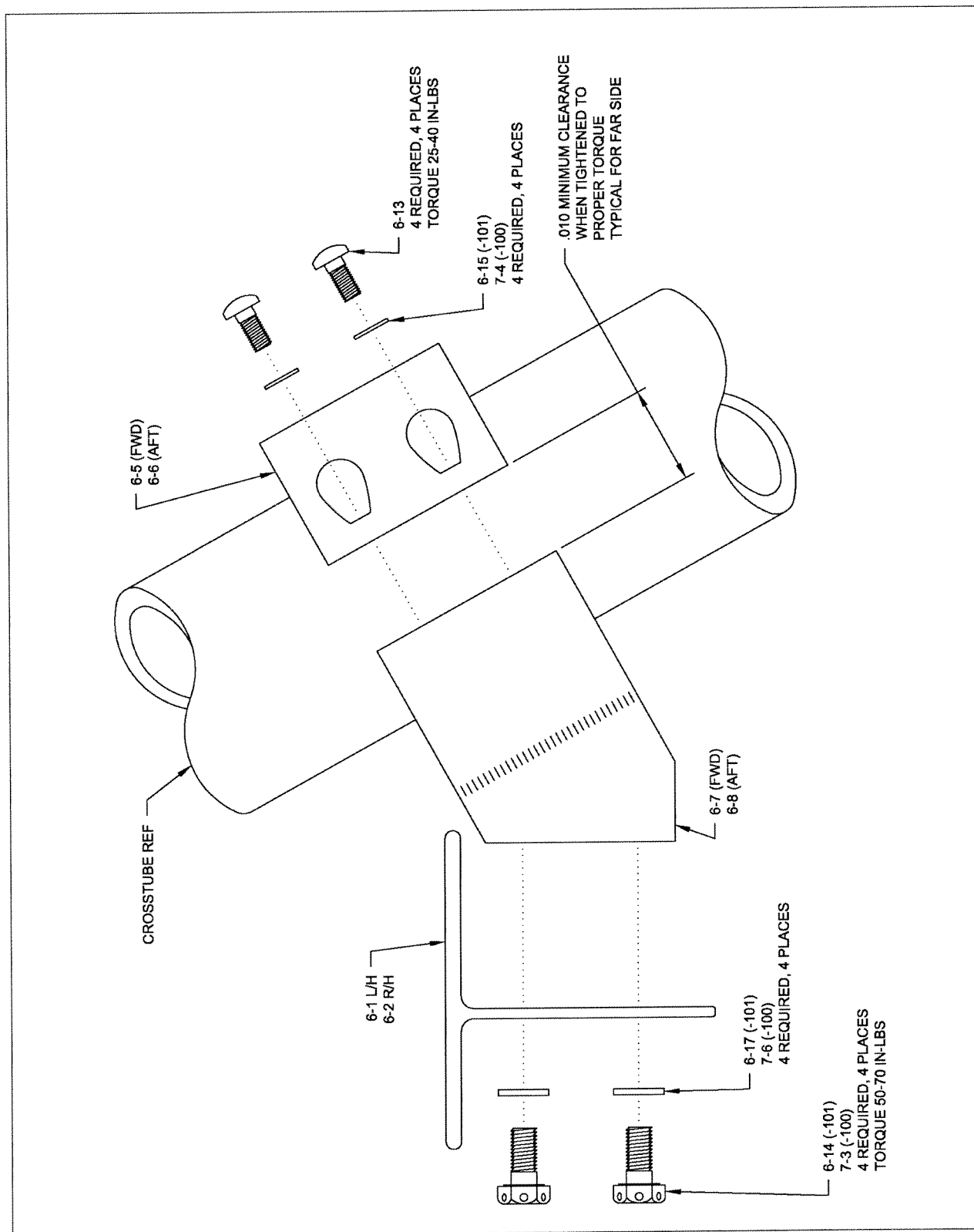


FIGURE 4 – FLOATSTEP™ ASSEMBLIES (206-303-100 / 206-303-101)

AERONAUTICAL ACCESSORIES, INC.

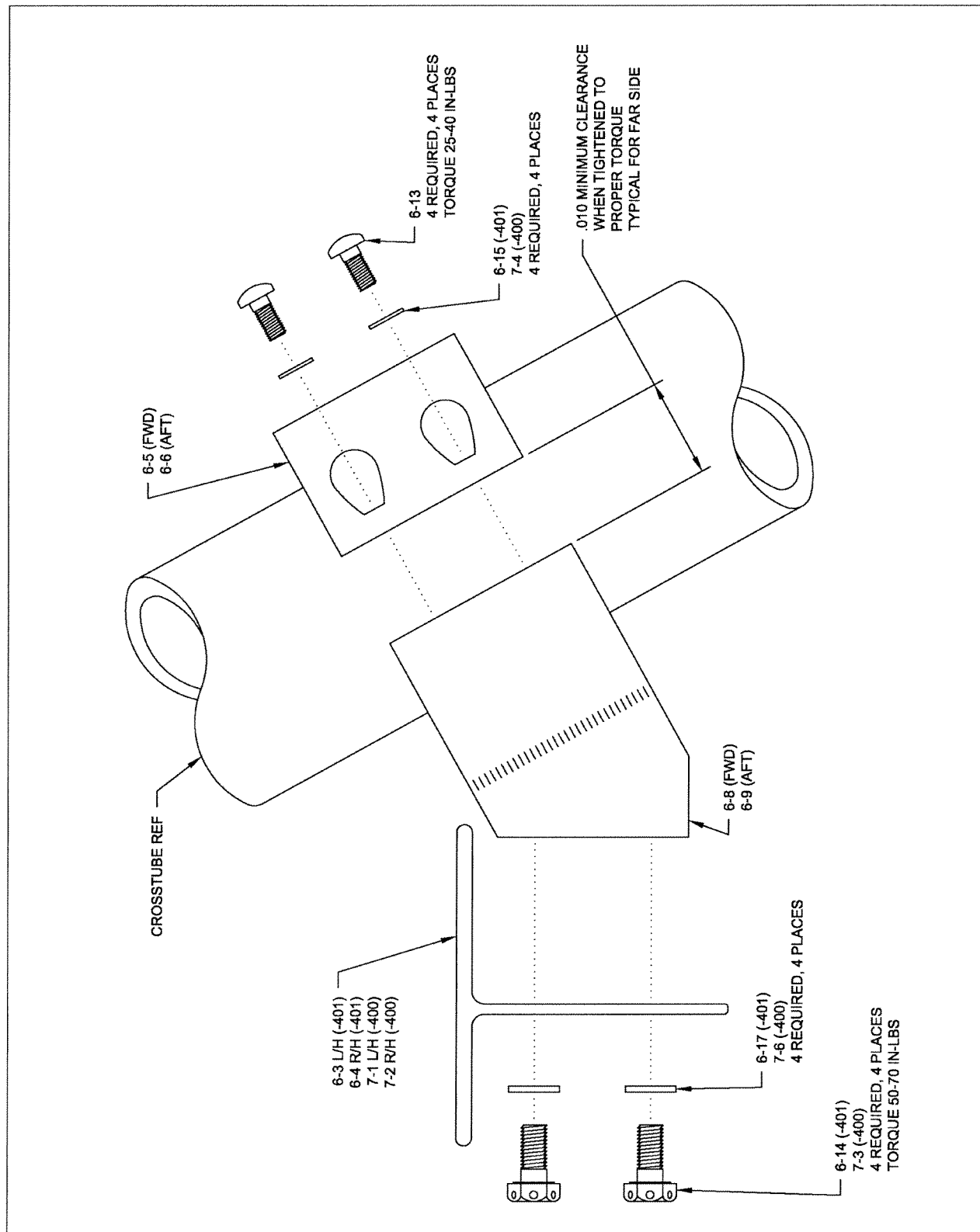
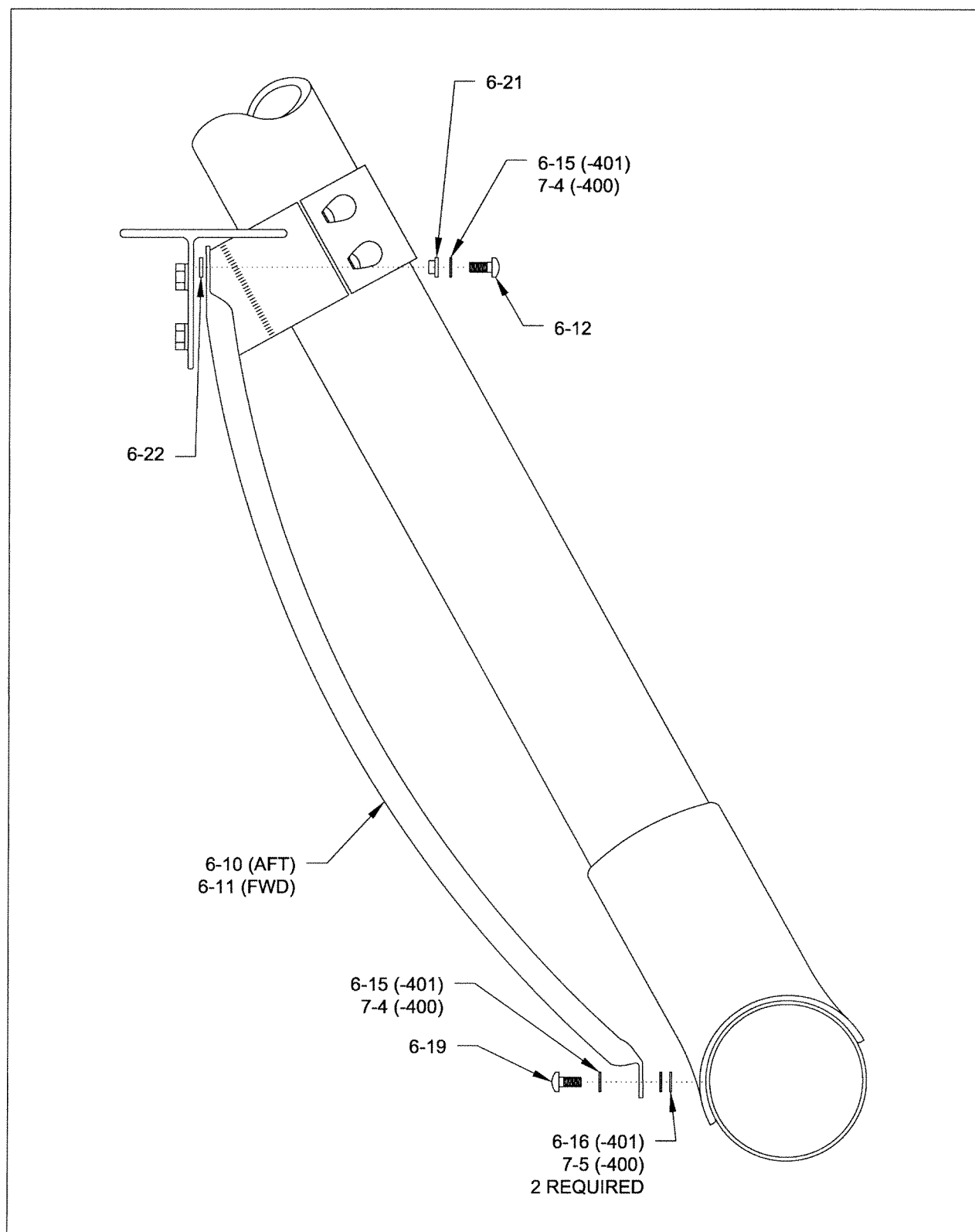
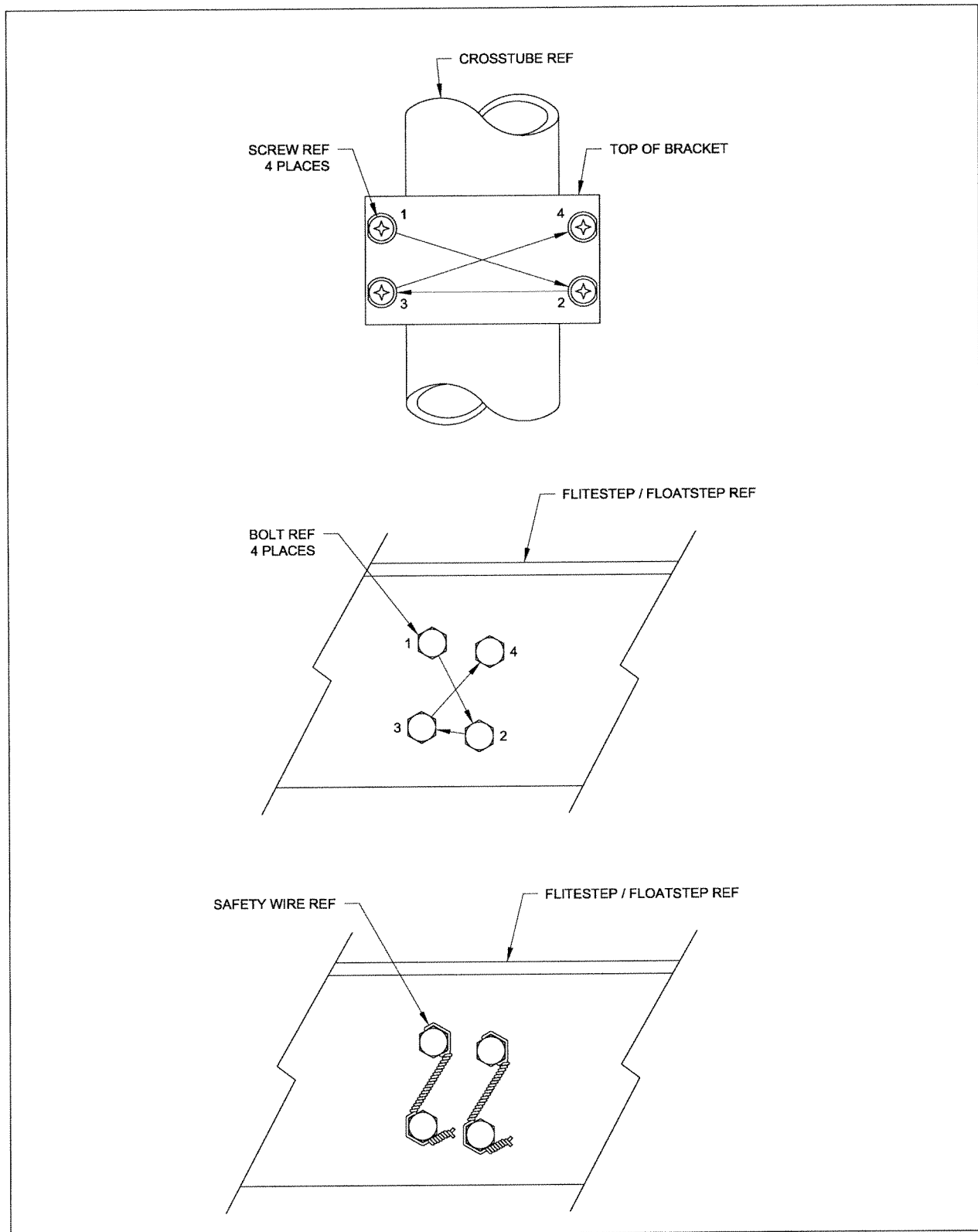


FIGURE 5 – FLOATSTEP™ ASSEMBLIES (206-303-400 / 206-303-401)

AERONAUTICAL ACCESSORIES, INC.

**FIGURE 6 – FLOATSTEP™ KIT – FLOAT GUARDS****AERONAUTICAL ACCESSORIES, INC.**

**FIGURE 7 – FASTENER TIGHTENING PATTERN****AERONAUTICAL ACCESSORIES, INC.**

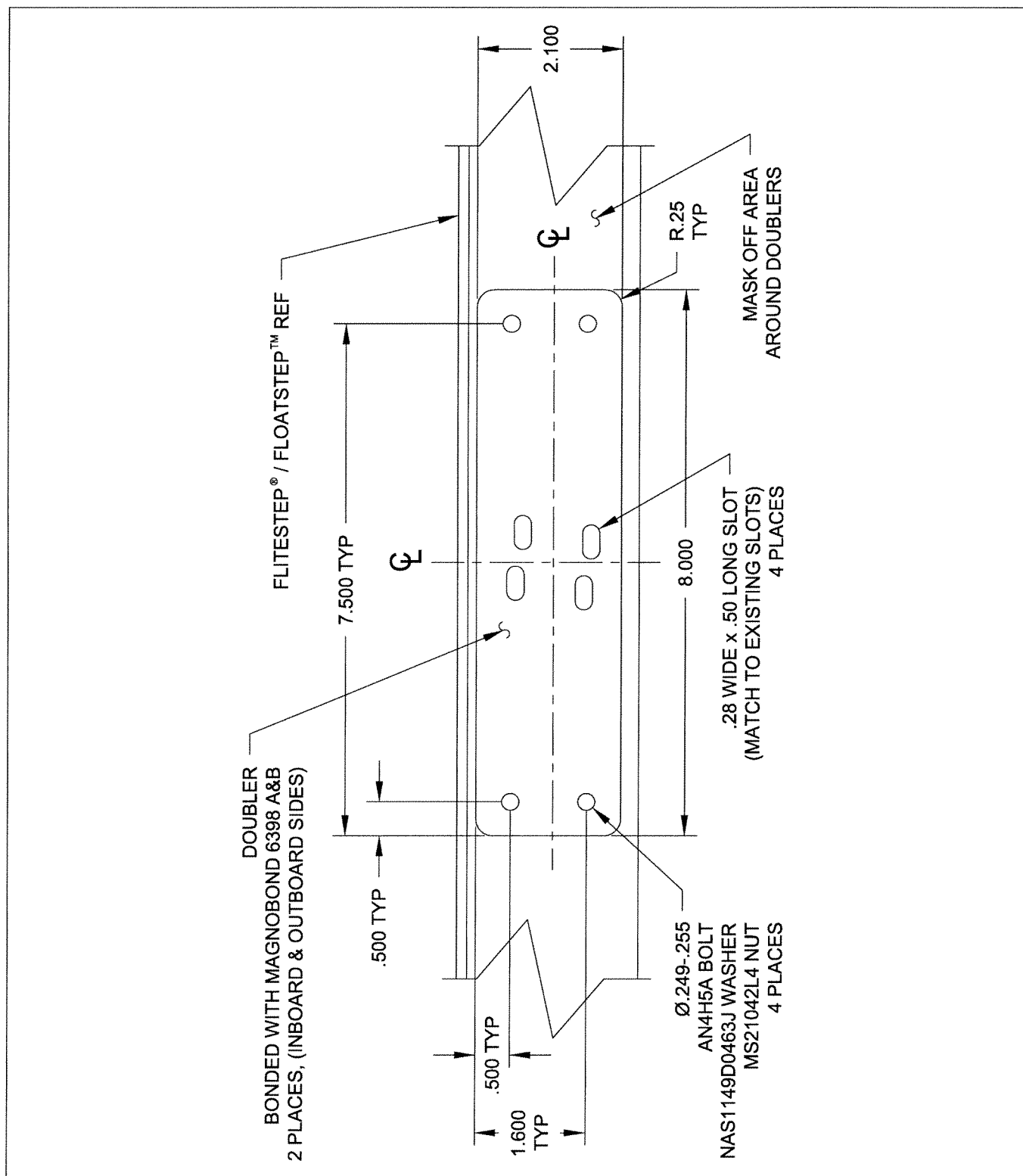


FIGURE 8 – FLITESTEP® / FLOATSTEP™ BRACKET LOCATION REPAIR

AERONAUTICAL ACCESSORIES, INC.

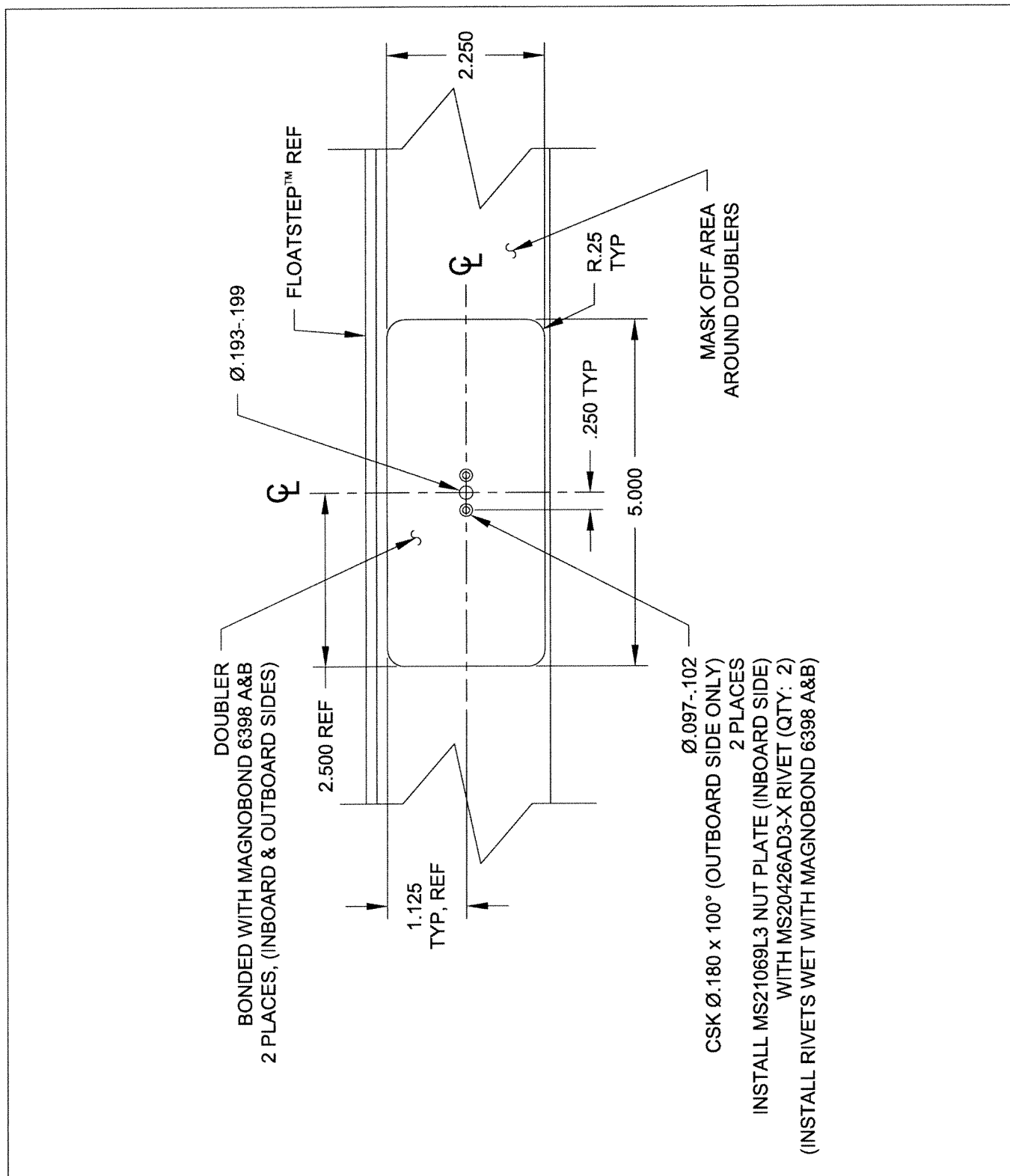


FIGURE 9 – FLOATSTEP™ FLOAT GUARD LOCATION REPAIR

AERONAUTICAL ACCESSORIES, INC.

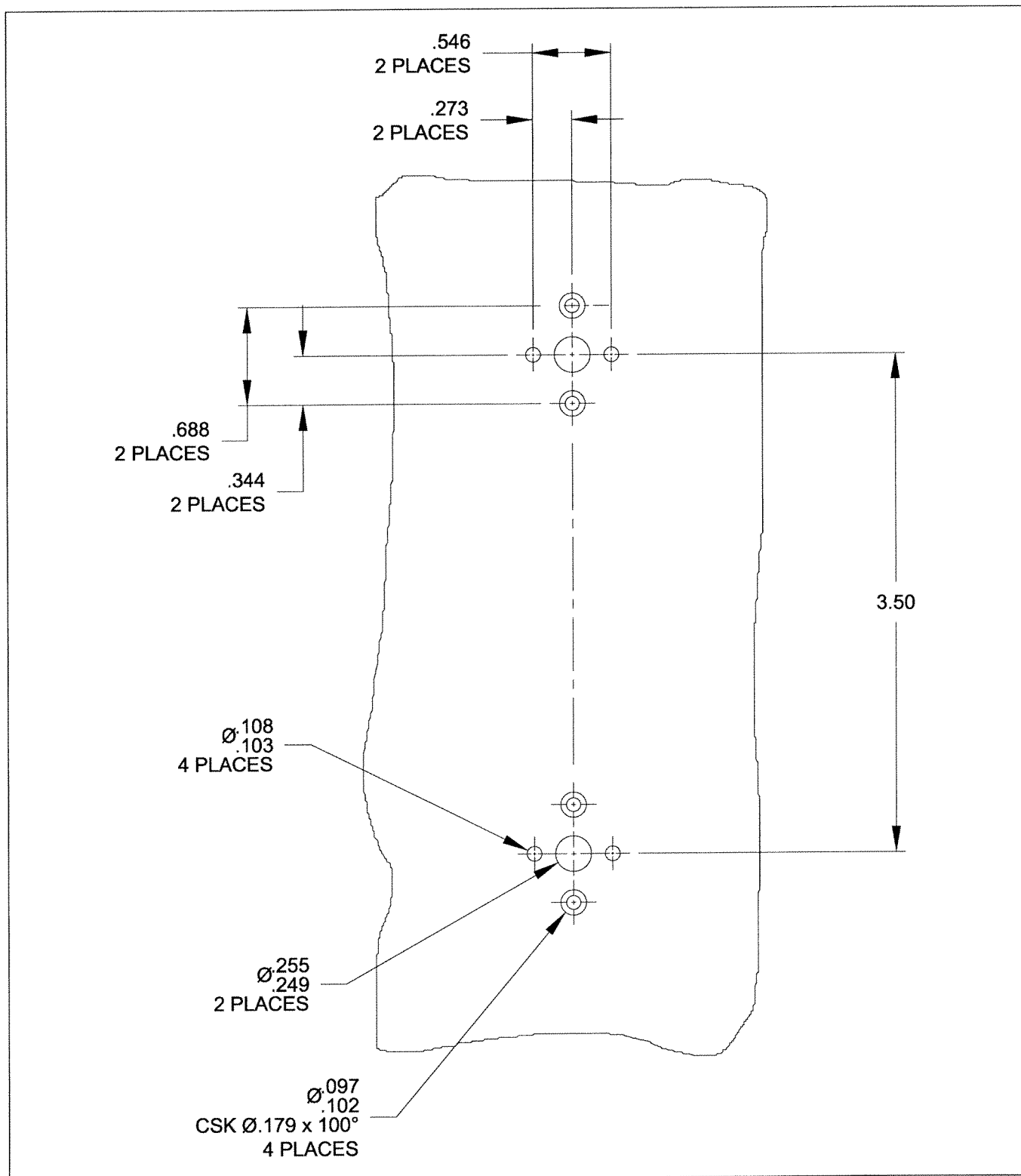
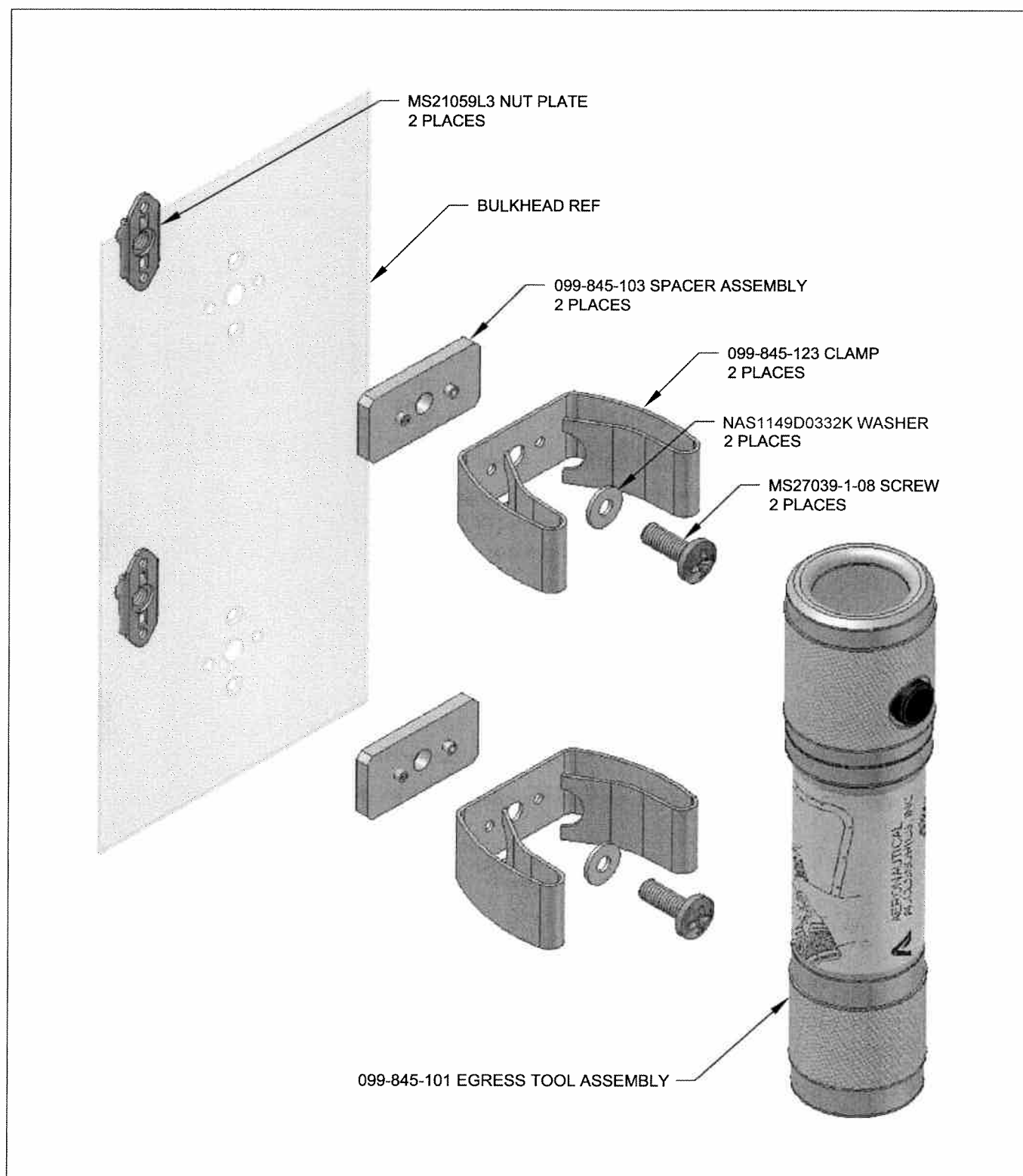
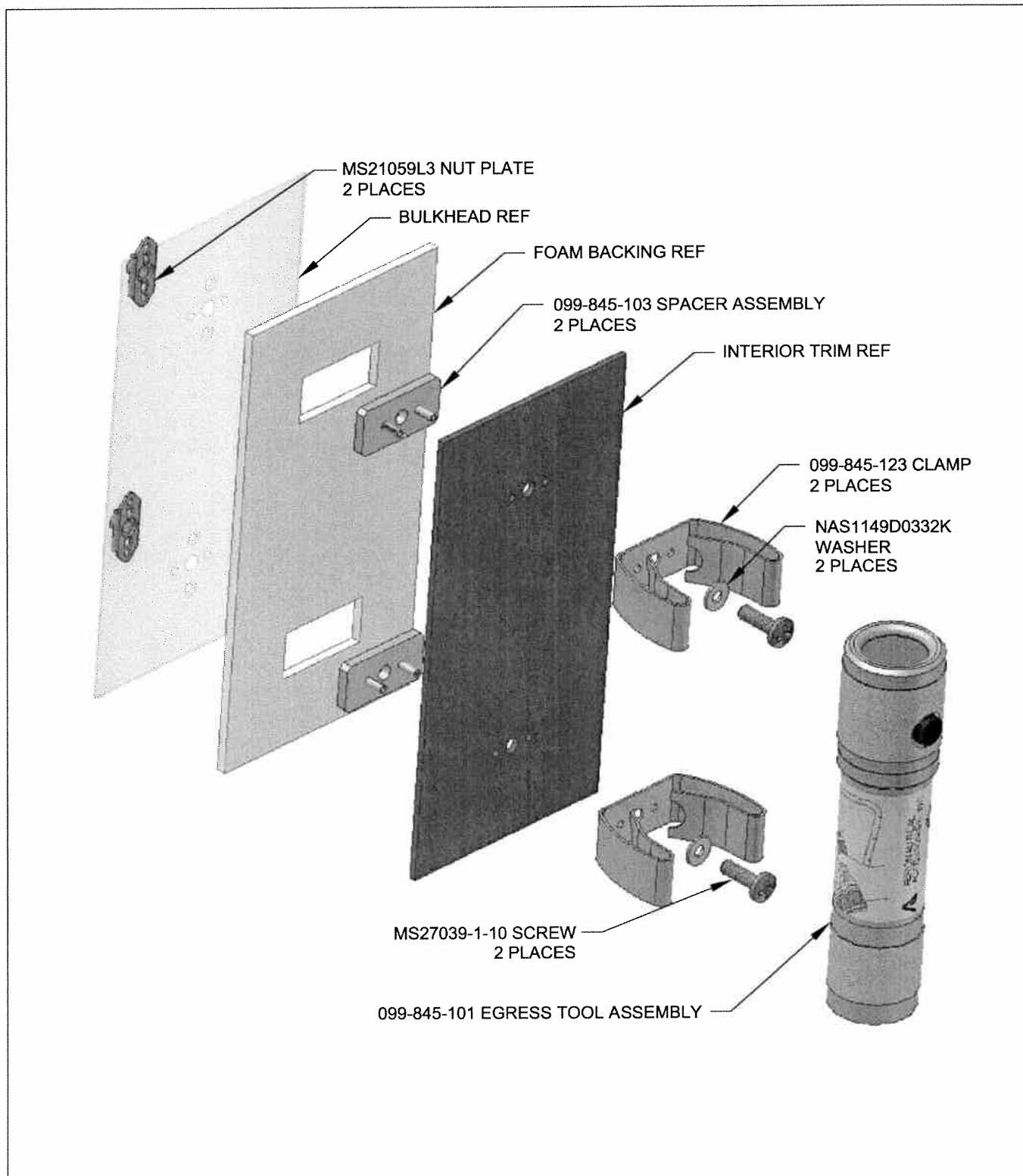


FIGURE 10 – EGRESS TOOL MOUNTING HOLE PATTERN

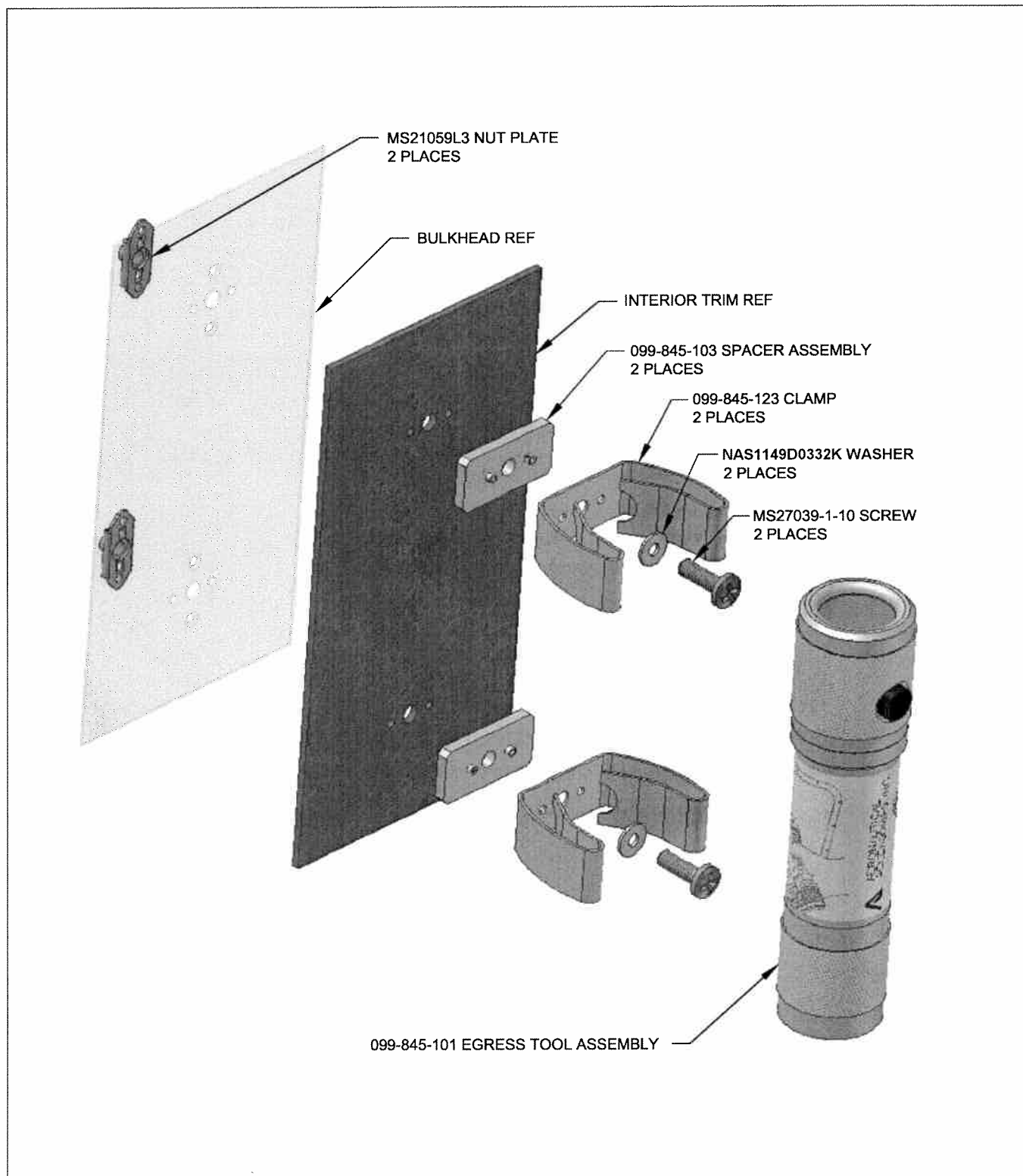
AERONAUTICAL ACCESSORIES, INC.

**FIGURE 11 – EGRESS TOOL INSTALLATION (AIRCRAFT W/O INTERIOR TRIM)****AERONAUTICAL ACCESSORIES, INC.**



**FIGURE 12 – EGRESS TOOL INSTALLATION
(AIRCRAFT W/ INTERIOR TRIM W/ FOAM BACKING)**

AERONAUTICAL ACCESSORIES, INC.



**FIGURE 13 – EGRESS TOOL INSTALLATION
(AIRCRAFT W/ INTERIOR TRIM W/O FOAM BACKING)**

AERONAUTICAL ACCESSORIES, INC.

APPENDIX A

300 Hour / Annual Inspection Record

Work Order Number: _____
Registration Number: _____
Serial Number: _____
Total Time: _____
Date: _____

Inspect the Flitestep® / Floatstep™ Kit for the following conditions in accordance with Section 3.2, 300 Hour / Annual Inspection:

1. Inspect the Step Brackets, Clamp Brackets, and Step Assemblies for nicks, scratches, dents, corrosion, or cracks. _____

NOTE

Particular care should be taken to inspect in the areas of the bolts and screws, in the Step Assemblies and Brackets.

NOTE

The indications of corrosion are: 1) corrosion deposits (a white gray powder on aluminum, and amber or brown powder on steel), 2) pits in the part surfaces, 3) blisters on the part surfaces.

2. Remove safety wire and check the torque values on the attaching fasteners per Table 2. Re-torque fasteners as required. Install new safety wire (.032 diameter) as shown in Figure 7. _____
3. Replace Egress Tool batteries. _____

Signature _____ A & P No. _____

Signature _____ Inspector _____