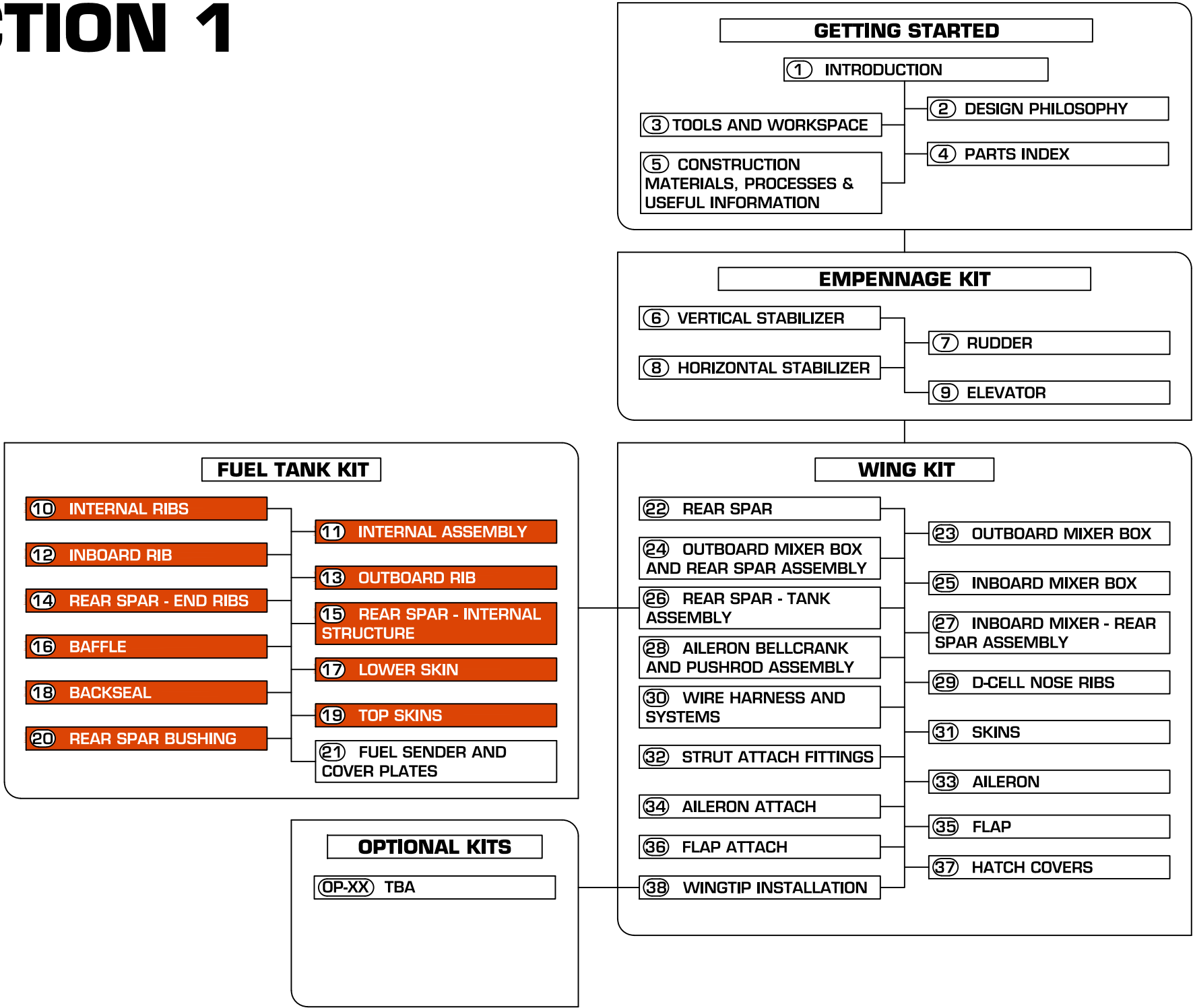
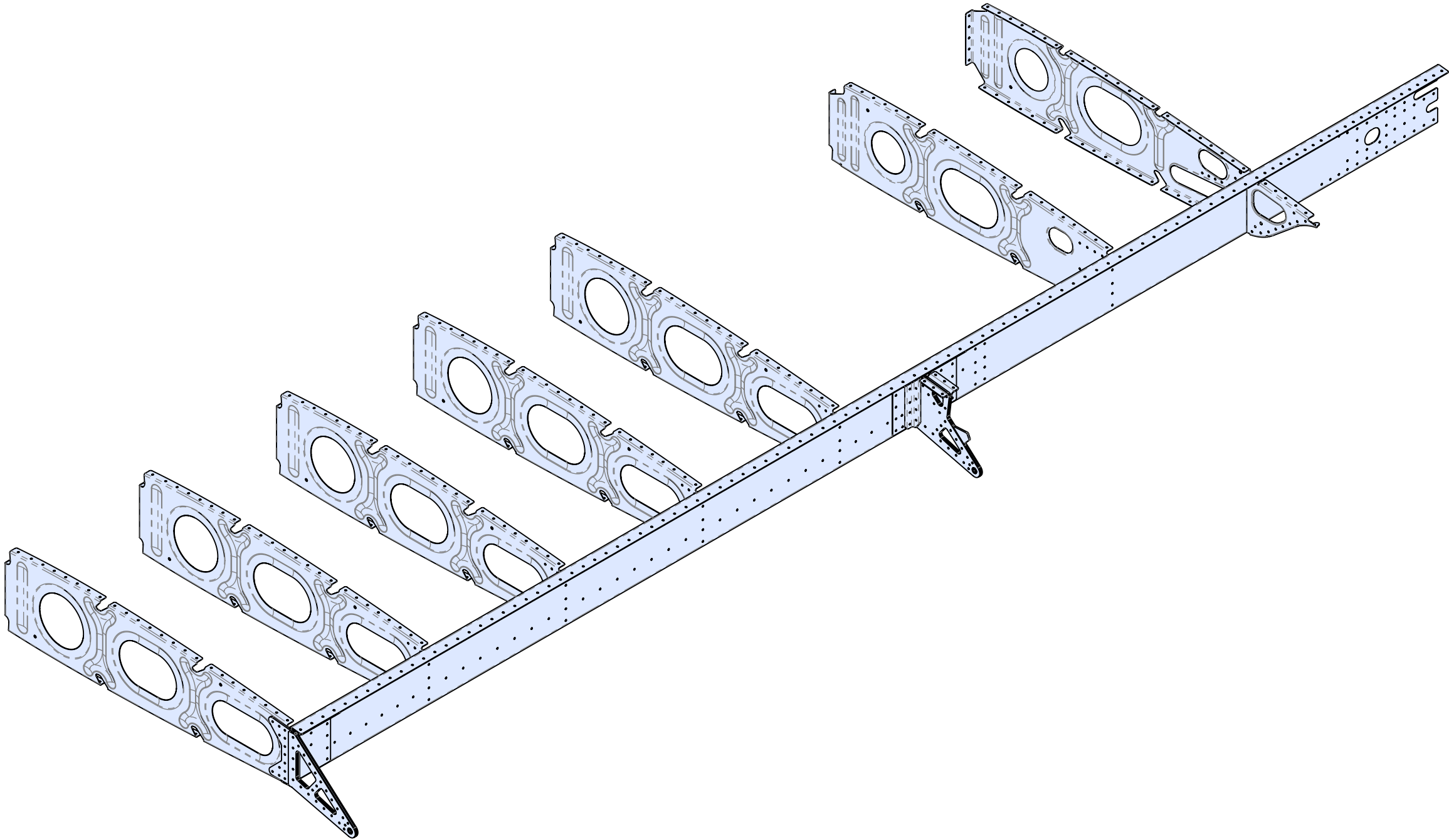


SECTION 1



SECTION 22



W-15500
REAR SPAR

ASSM PARTS LIST					
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-L ASSM QTY.	-R ASSM QTY.
1	COM-3-5	SPHERICAL BEARING	N /A	2	2
2	W-15007A-001	SPAR, AFT WING	.050 2024-T3 ALCLAD SHEET	1	-
3	W-15007A-002	SPAR, AFT WING	.050 2024-T3 ALCLAD SHEET	-	1
4	W-15007B-001	DOUBLER, AFT SPAR	.050 2024-T3 ALCLAD SHEET	1	-
5	W-15007B-002	DOUBLER, AFT SPAR	.050 2024-T3 ALCLAD SHEET	-	1
6	W-15007C-001	DOUBLER, AFT SPAR	.050 2024-T3 ALCLAD SHEET	1	-
7	W-15007C-002	DOUBLER, AFT SPAR	.050 2024-T3 ALCLAD SHEET	-	1
8	W-15007E-001	STIFFENER, AFT SPAR	.063 2024-T3 ALCLAD SHEET	1	-
9	W-15007E-002	STIFFENER, AFT SPAR	.063 2024-T3 ALCLAD SHEET	-	1
10	W-15011C-001	RIB, WING	.025 2024-T3 ALCLAD SHEET	-	1
11	W-15011C-002	RIB, WING	.025 2024-T3 ALCLAD SHEET	1	-
12	W-15011E-001	RIB, WING	.025 2024-T3 ALCLAD SHEET	1	-
13	W-15011E-002	RIB, WING	.025 2024-T3 ALCLAD SHEET	-	1
14	W-15012-001	RIB, WING	.025 2024-T3 ALCLAD SHEET	-	5
15	W-15012-002	RIB, WING	.025 2024-T3 ALCLAD SHEET	5	-
16	W-15014C-001	FLAP TRACK COVE RIB OTBD	.025 2024-T3 ALCLAD SHEET	-	1
17	W-15014C-002	FLAP TRACK COVE RIB OTBD	.025 2024-T3 ALCLAD SHEET	1	-
18	W-15015A-001	BRKT, INBD AILERON WING	.125 2024-T3 ALCLAD SHEET	1	1
19	W-15015B-001	BRKT, INBD AILERON WING	.063 2024-T3 ALCLAD SHEET	1	1
20	W-15015B-002	BRKT, INBD AILERON WING	.063 2024-T3 ALCLAD SHEET	1	1
21	W-15015C-001	ANGLE, AILERON ATTACH	AA6-3/4X3/4X1/8	1	1
22	W-15015C-002	ANGLE, AILERON ATTACH	AA6-3/4X3/4X1/8	1	1
23	W-15015D-001	ANGLE, AILERON ATTACH	AA6-3/4X3/4X1/8	1	-
24	W-15015D-002	ANGLE, AILERON ATTACH	AA6-3/4X3/4X1/8	-	1
25	W-15016A-001	BRKT, OTBD AILERON WING	.125 2024-T3 ALCLAD SHEET	1	1
26	W-15016B-001	BRKT, OTBD AILERON WING	.063 2024-T3 ALCLAD SHEET	1	1
27	W-15016B-002	BRKT, OTBD AILERON WING	.063 2024-T3 ALCLAD SHEET	1	1
28	AN426AD4-7	RIVET, SOLID COUNTERSUNK	ALUMINUM	41	41
29	AN470AD4-4	RIVET, SOLID	ALUMINUM	15	15
30	AN470AD4-5	RIVET, SOLID	ALUMINUM	2	2
31	AN470AD4-5.5	RIVET, SOLID	ALUMINUM	13	13
32	AN470AD4-6	RIVET, SOLID	ALUMINUM	4	4
33	AN470AD4-7	RIVET, SOLID	ALUMINUM	10	10
34	AN470AD4-9	RIVET, SOLID	ALUMINUM	5	5
35	AN470AD4-11	RIVET, SOLID	ALUMINUM	5	5
36	LP4-3	RIVET, BLIND	ALUMINUM	26	26

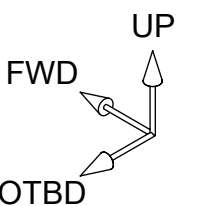
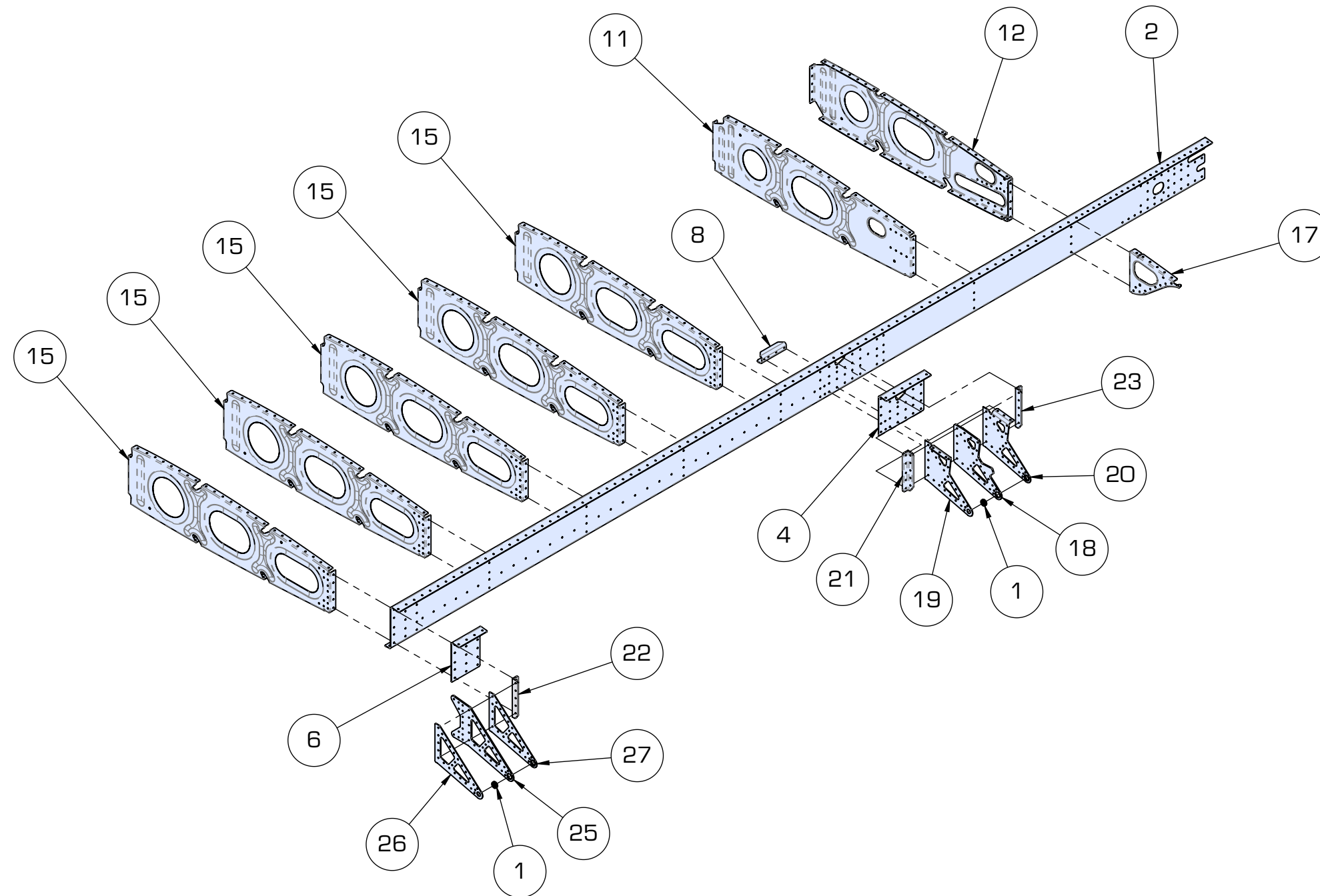


NOTE: Except where separate instructions and/or figures exist for both left and right sides of the aircraft, only the left side parts, assemblies, or installations will be shown.

It is the builder's choice as to whether to complete all steps for the left side before repeating those steps for the right side or to complete each step for both left and right sides before moving to the next step.

BOM NOTE: Cherrymax blind rivets (grip as required) may be used (except as noted) in place of AN470AD4 rivets.

W-15500 ASSEMBLY



W-15500 ASSEMBLY

Applicable Section References:

- **Section 5.1** - Aluminum Priming & Painting
- **Section 5.2** - Edge Finishing, Hole Deburring & Scratch Removal
- **Section 5.3** - Marking Parts
- **Section 5.4** - Setting & Inspecting Solid & Blind Rivet Heads, Finished Rivet Standards
- **Section 5.5** - Countersinking Holes
- **Section 5.12** - Vinyl Coating
- **Section 5.13** - Fluting
- **Section 5.13.1** - Straightening Thick Aluminum Parts
- **Section 5.26** - Hardware Reference

Tools Used This Section:

- Countersink Micro Stop Cage with #30 Piloted, 100° Machine Countersink Cutter
- Riveting Gun
- Bucking Bar
- Protruding Head Rivet Set
- Flush Head Rivet Set
- Deburring Tools
- Bench Vise
- Rivet Squeezer
- Spring clecos: 1/8 [VANS PN# TOOL CL18]
- Fluting tools
- Rivet Puller
- Socket for bearing installation

Part Preparation:

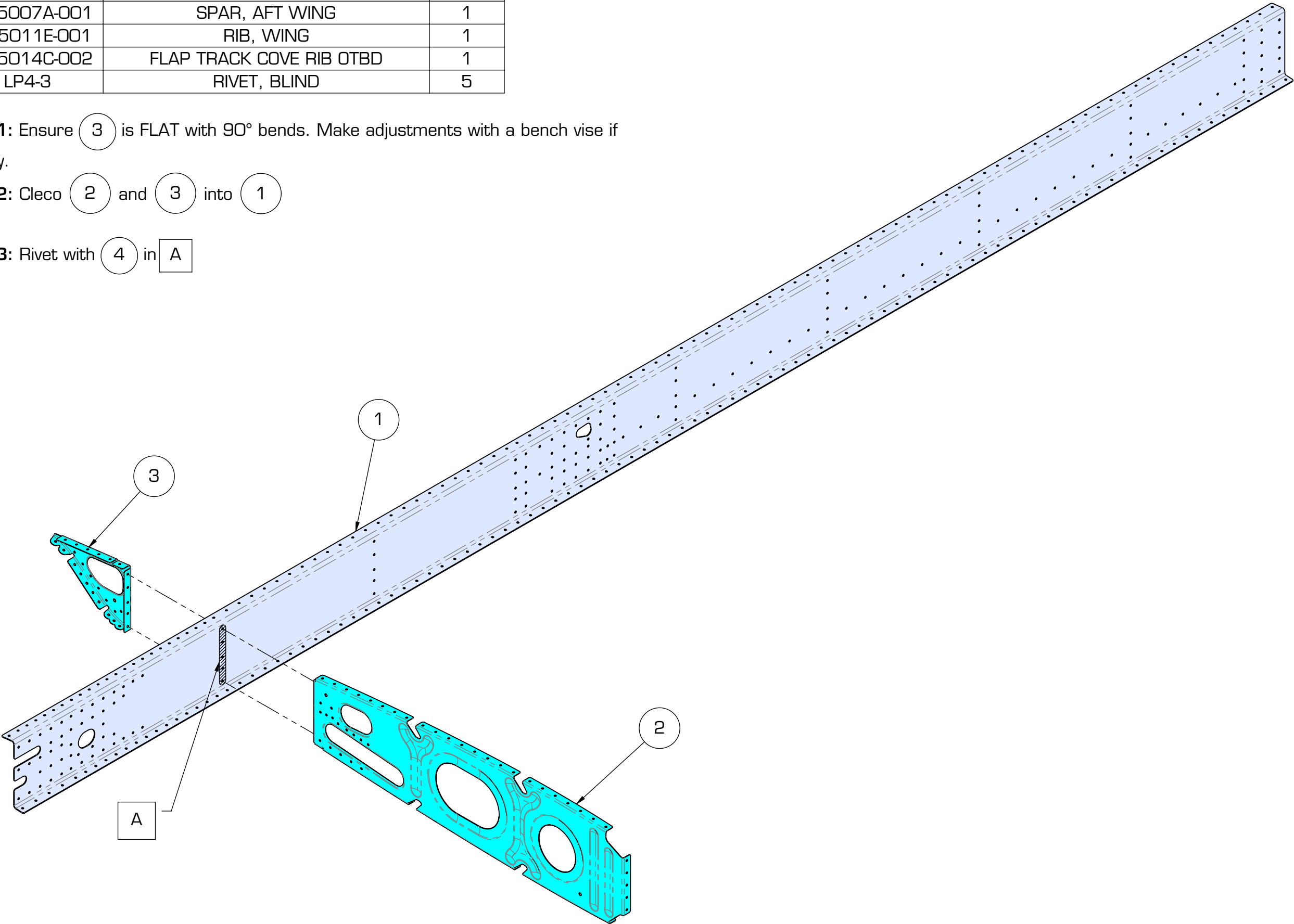
- ☐ **Step 1:** Layout all parts
- ☐ **Step 2:** Deburr edges and holes in and around all parts
- ☐ **Step 3:** Flute and straighten all rib flanges
- ☐ **Step 4:** Prime all parts as required

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15011E-001	RIB, WING	1
3	W-15014C-002	FLAP TRACK COVE RIB OTBD	1
4	LP4-3	RIVET, BLIND	5

☐ **Step 1:** Ensure (3) is FLAT with 90° bends. Make adjustments with a bench vise if necessary.

☐ **Step 2:** Cleco (2) and (3) into (1)

☐ **Step 3:** Rivet with (4) in A

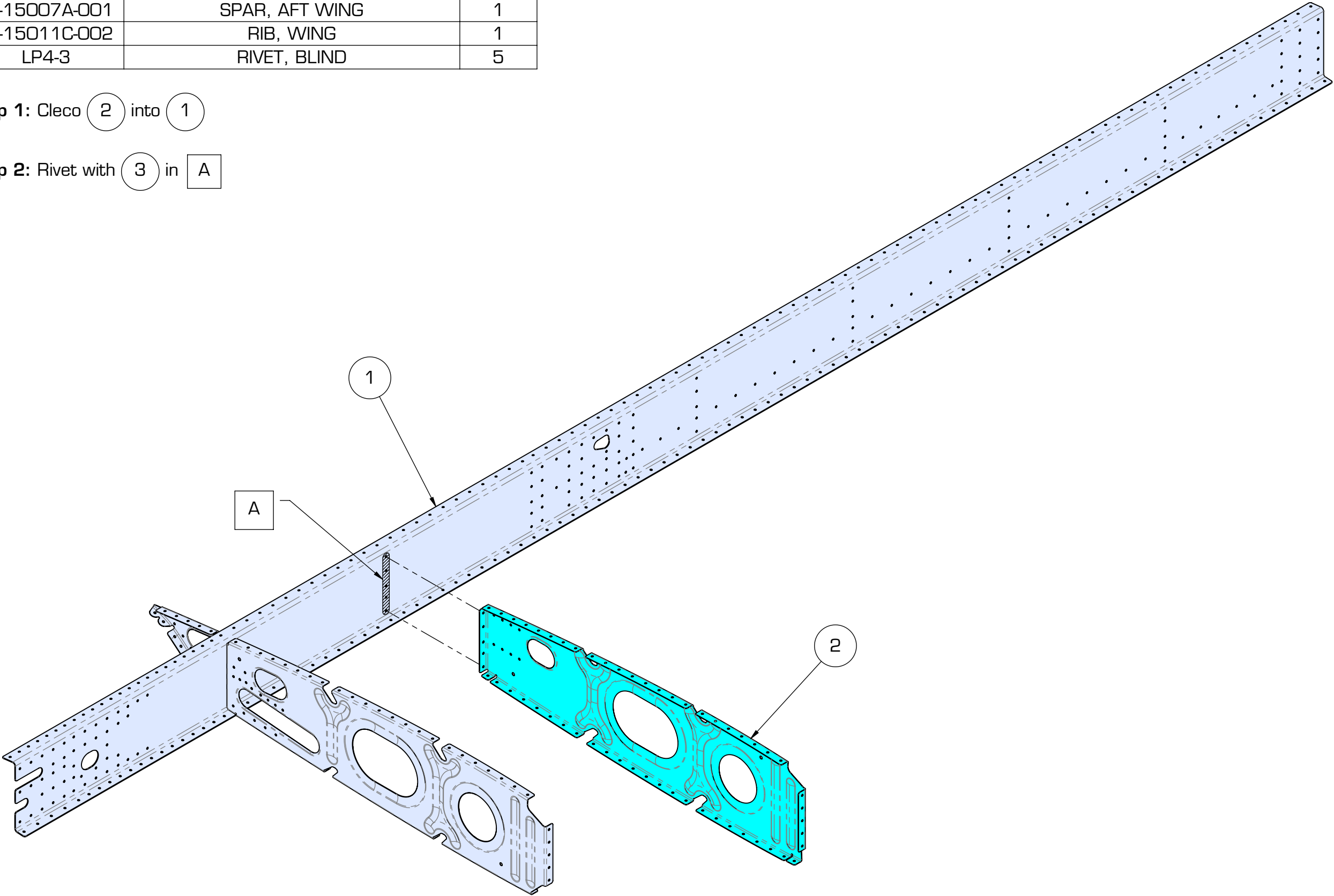


W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15011C-002	RIB, WING	1
3	LP4-3	RIVET, BLIND	5

☐ **Step 1:** Cleco 2 into 1

☐ **Step 2:** Rivet with 3 in A



W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15015B-001	BRKT, INBD AILERON WING	1

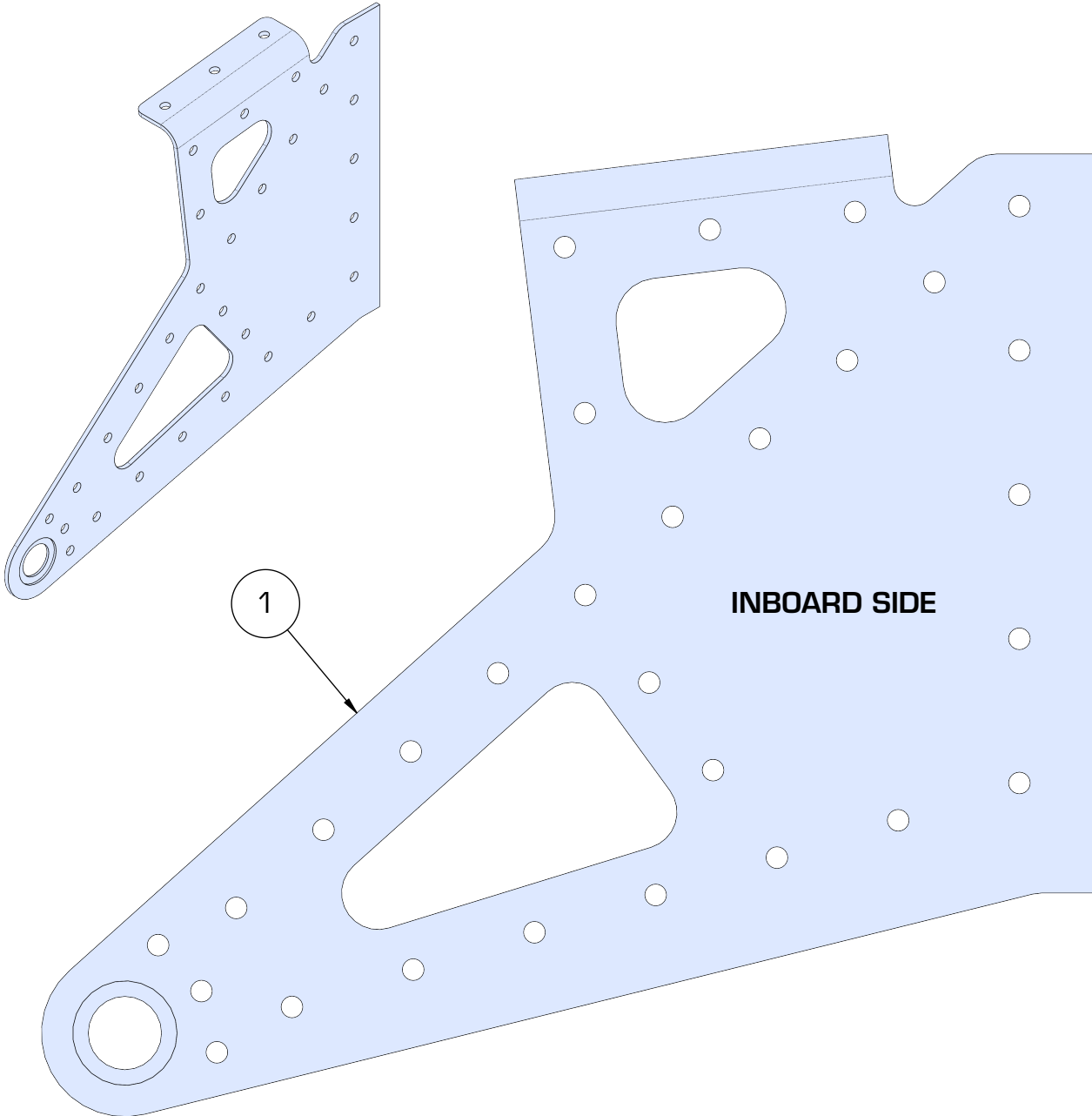
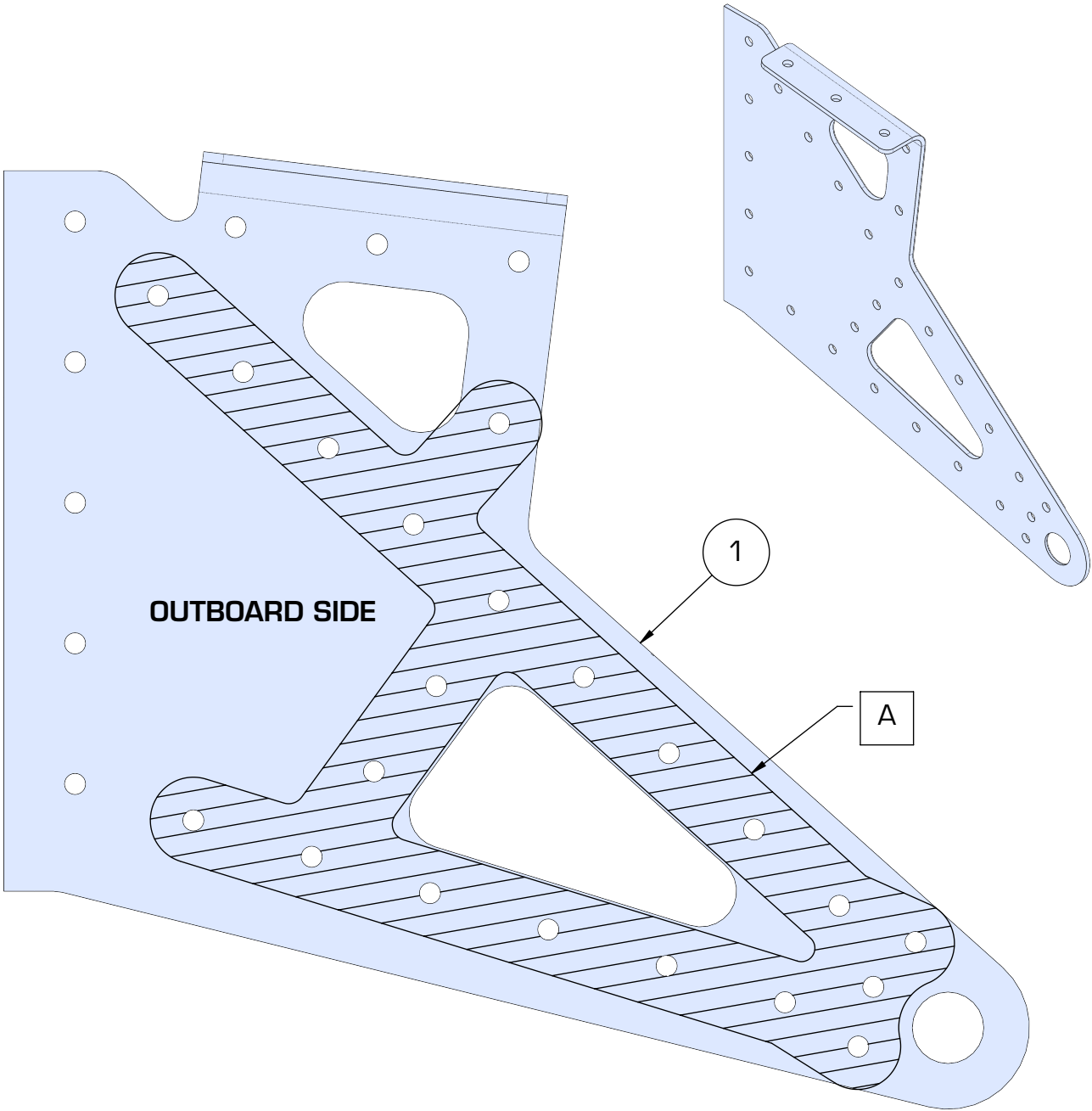
- ☐

Step 1:

Ensure 1 is **FLAT** with 90° bends. Make adjustments in bench vise if necessary.
- ☐

Step 2:

#30 Machine Countersink **Outboard Side** of 1 for **AN426AD4** rivets in A

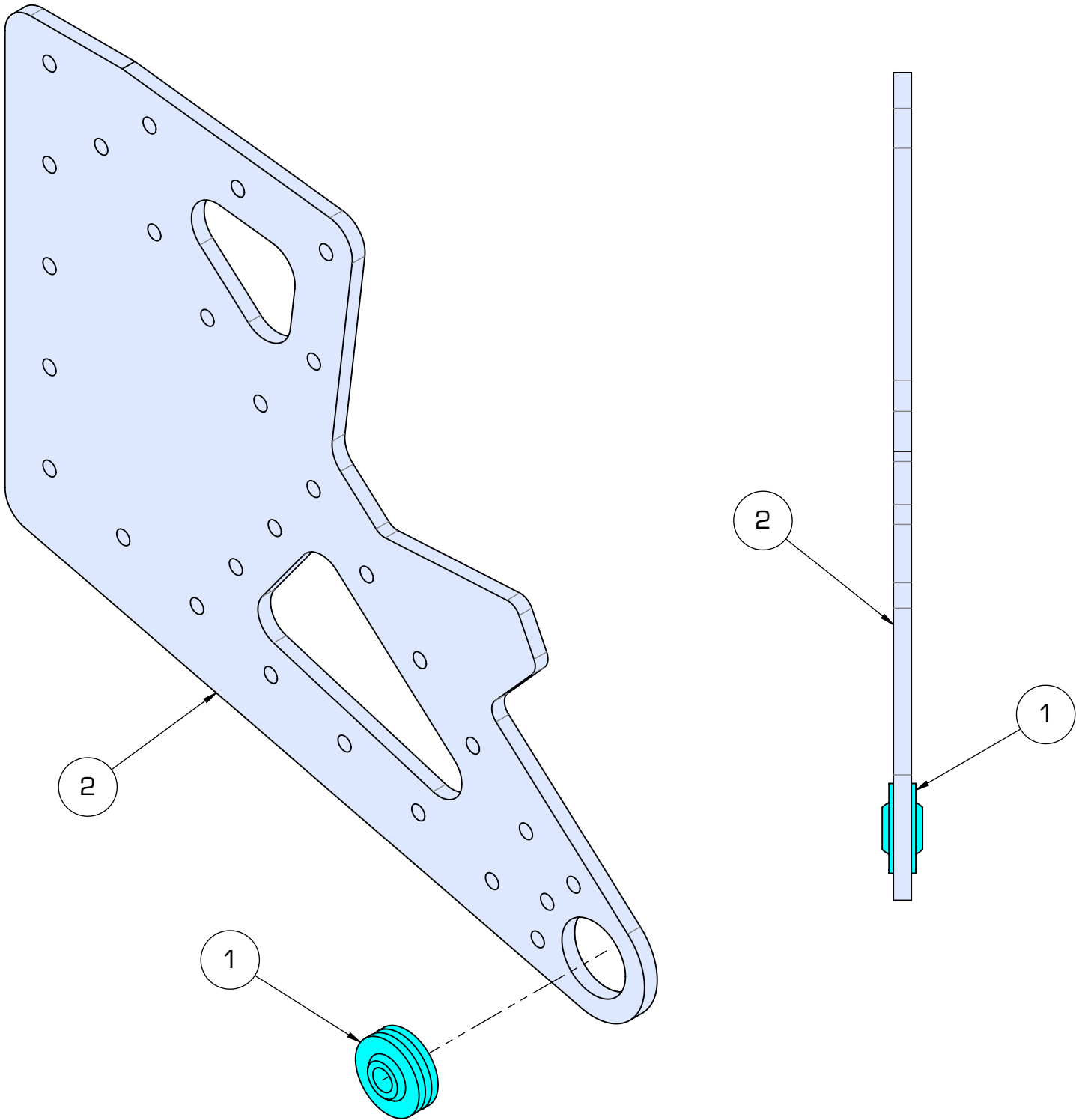
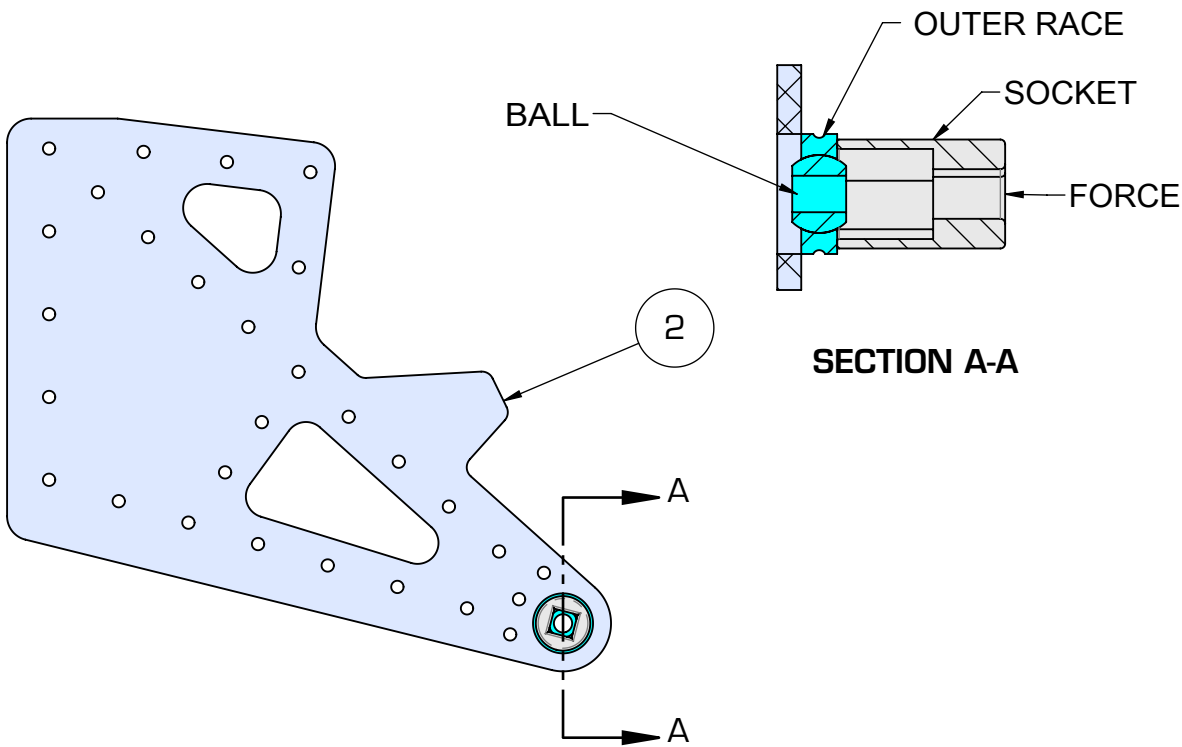


ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	COM-3-5	SPHERICAL BEARING	1
2	W-15015A-001	BRKT, INBD AILERON WING	1

NOTE: Apply force to bearing **Outer Race Only**, taking care not to damage the ball. Tools for driving bearings may be available, but many are not designed for spherical bearings. A simple solution can usually be found in a correctly sized socket from the builder's socket wrench set. Select a size that best fits the outer race. Deep sockets also afford more leverage to better align the bearing as it is driven into its journal.

☐ **Step 1:** Ensure 2 is **FLAT**. Make adjustments with a bench vise if necessary.

☐ **Step 2:** Install 1 centered into 2



W-15500 ASSEMBLY

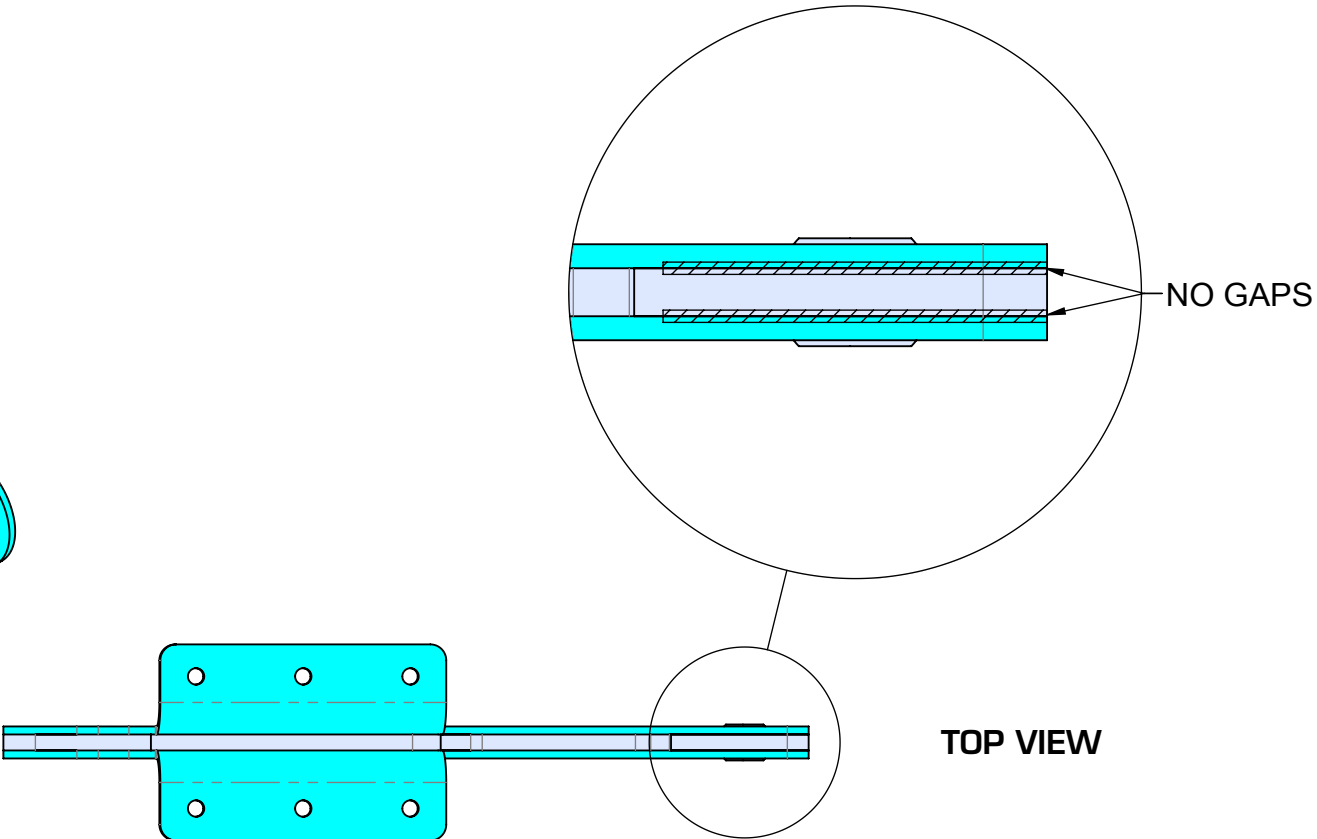
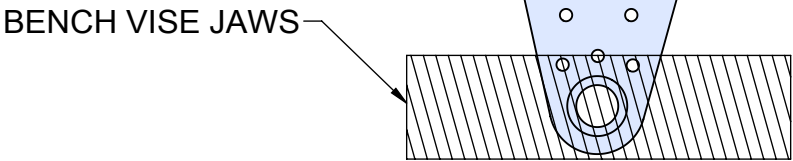
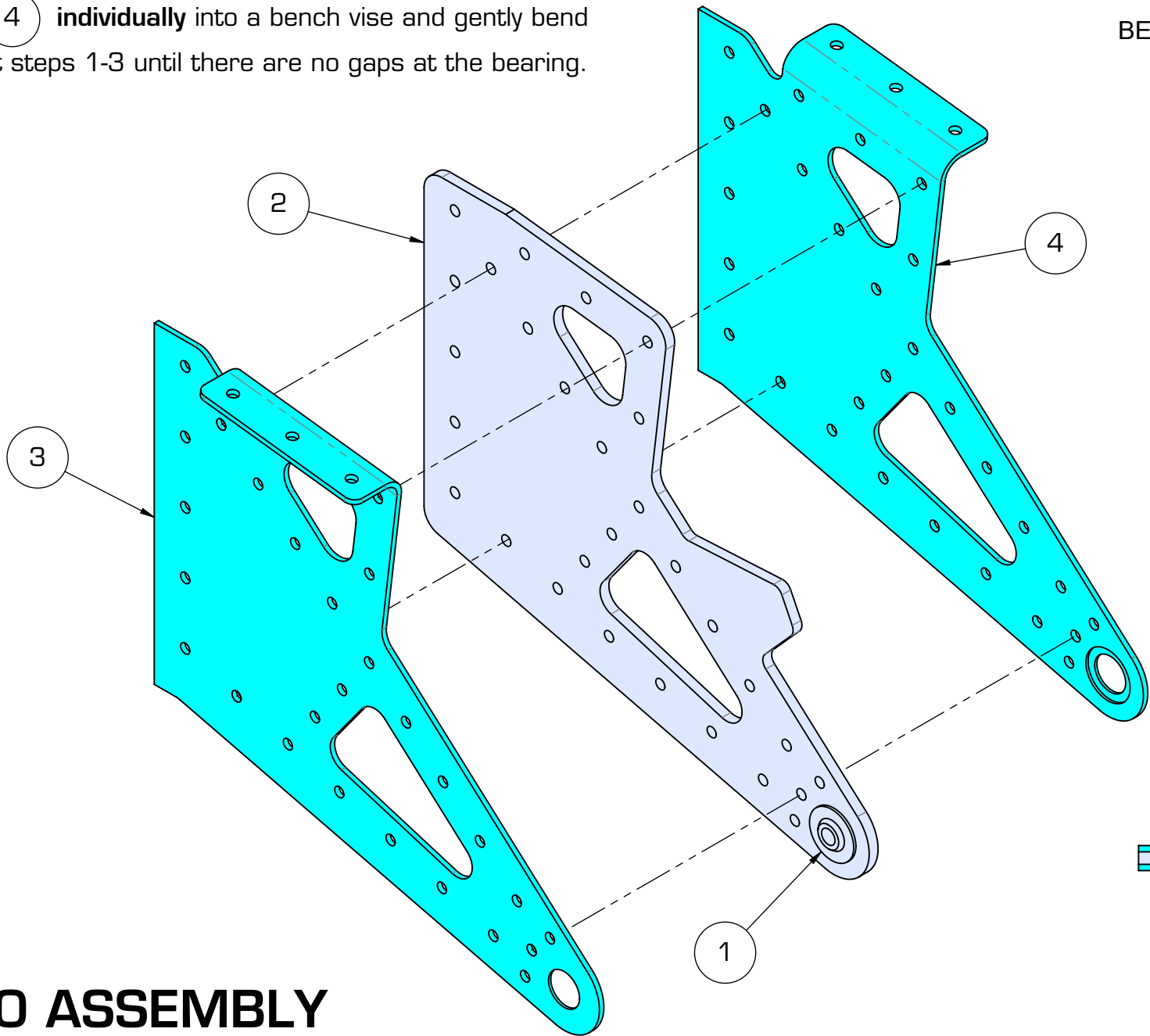
ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	COM-3-5	SPHERICAL BEARING	1
2	W-15015A-001	BRKT, INBD AILERON WING	1
3	W-15015B-001	BRKT, INBD AILERON WING	1
4	W-15015B-002	BRKT, INBD AILERON WING	1

CAUTION: Do not place assembly in vise as this will ruin the bearing.

☐ **Step 1:** Cleco (3) and (4) to (2) capturing (1)

☐ **Step 2:** Check for gaps.

☐ **Step 3:** If gaps are present, adjust the ends of the brackets by placing (3) or (4) **individually** into a bench vise and gently bend as needed. Repeat steps 1-3 until there are no gaps at the bearing.

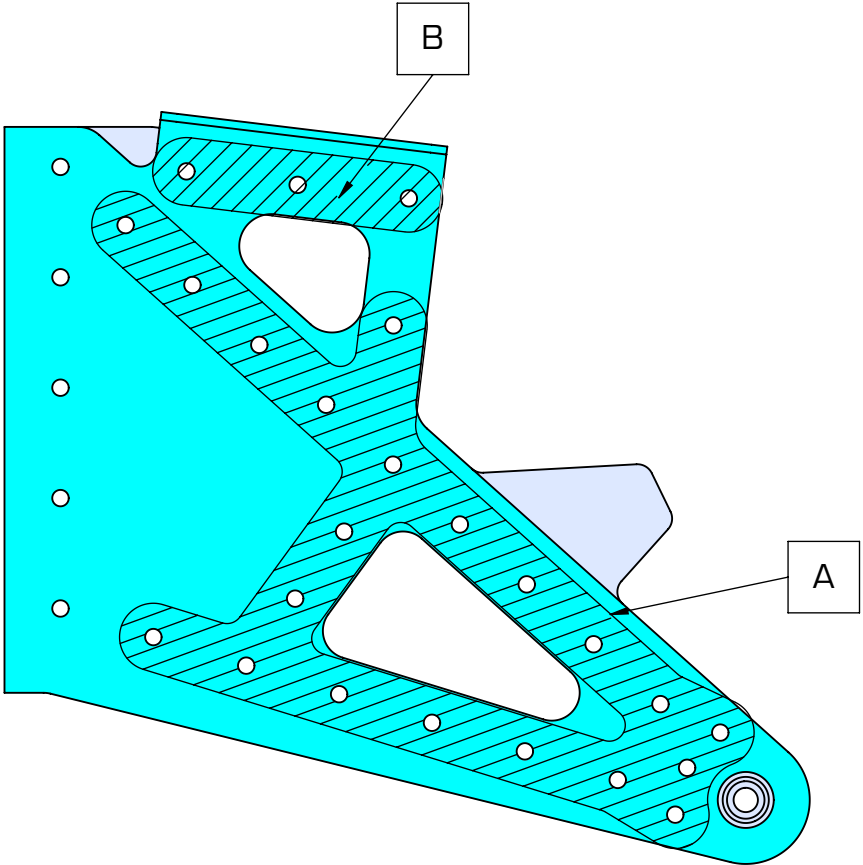
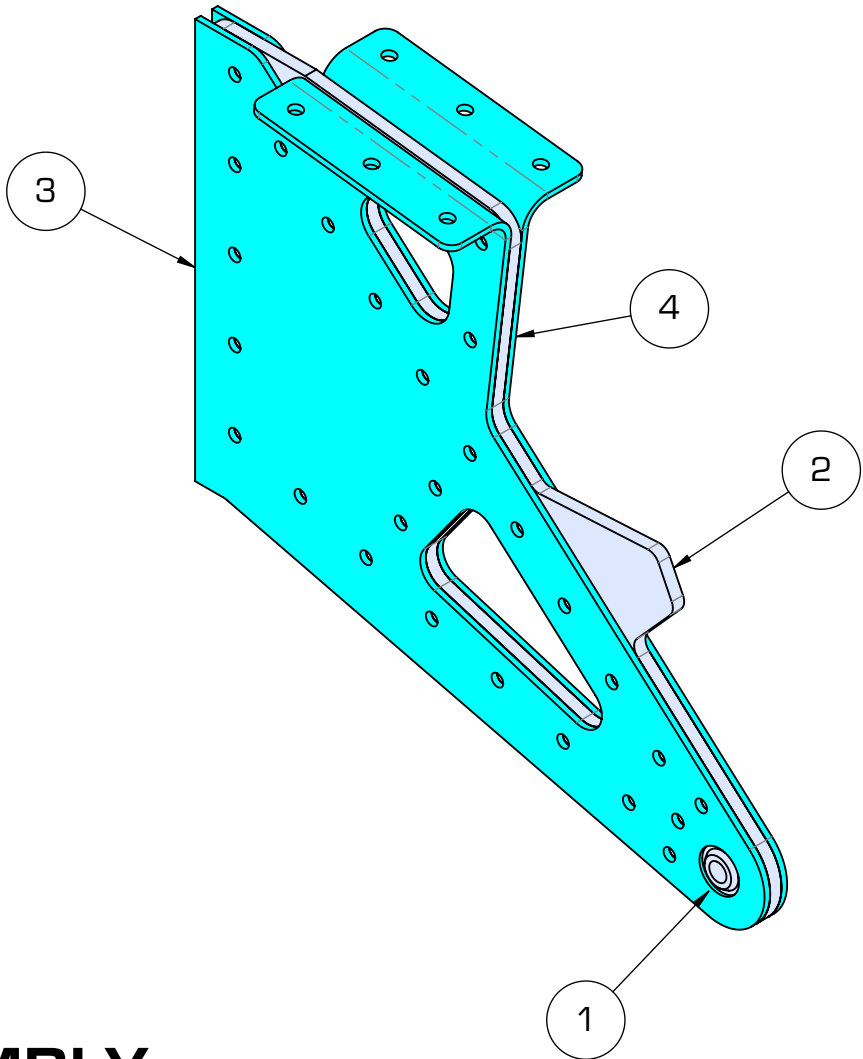


W-15500 ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	COM-3-5	SPHERICAL BEARING	1
2	W-15015A-001	BRKT, INBD AILERON WING	1
3	W-15015B-001	BRKT, INBD AILERON WING	1
4	W-15015B-002	BRKT, INBD AILERON WING	1
5	AN426AD4-7	RIVET, SOLID COUNTERSUNK	21
6	AN470AD4-7	RIVET, SOLID	3

☐ **Step 1:** Rivet with 5 in A from the Outboard side.

☐ **Step 2:** Rivet with 6 in B



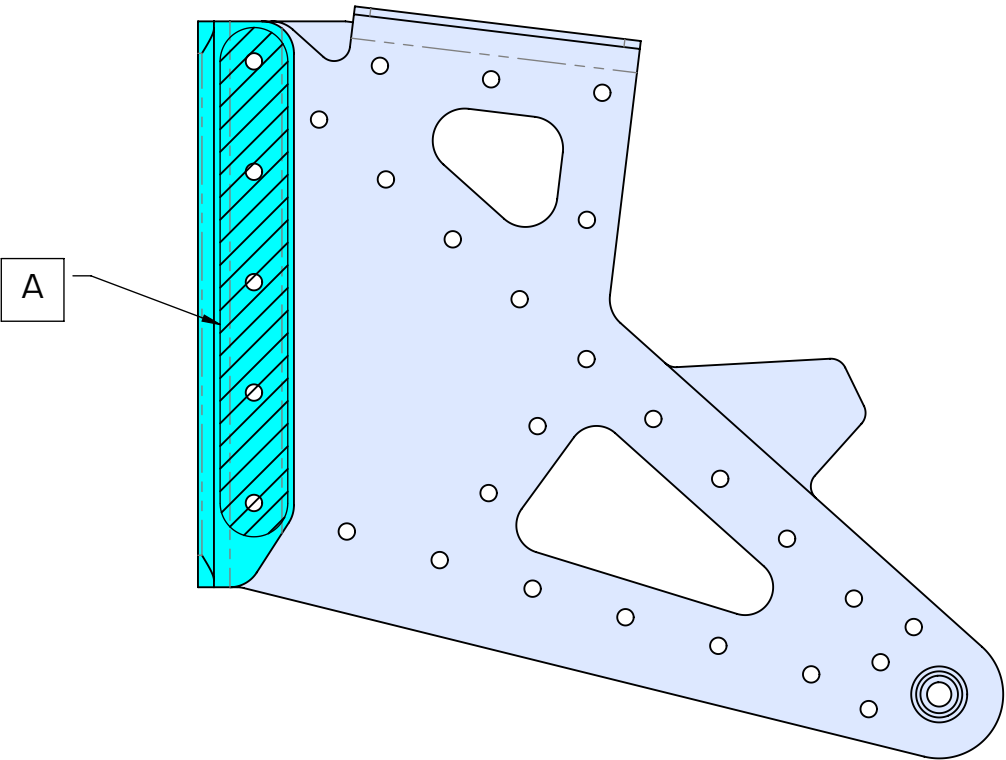
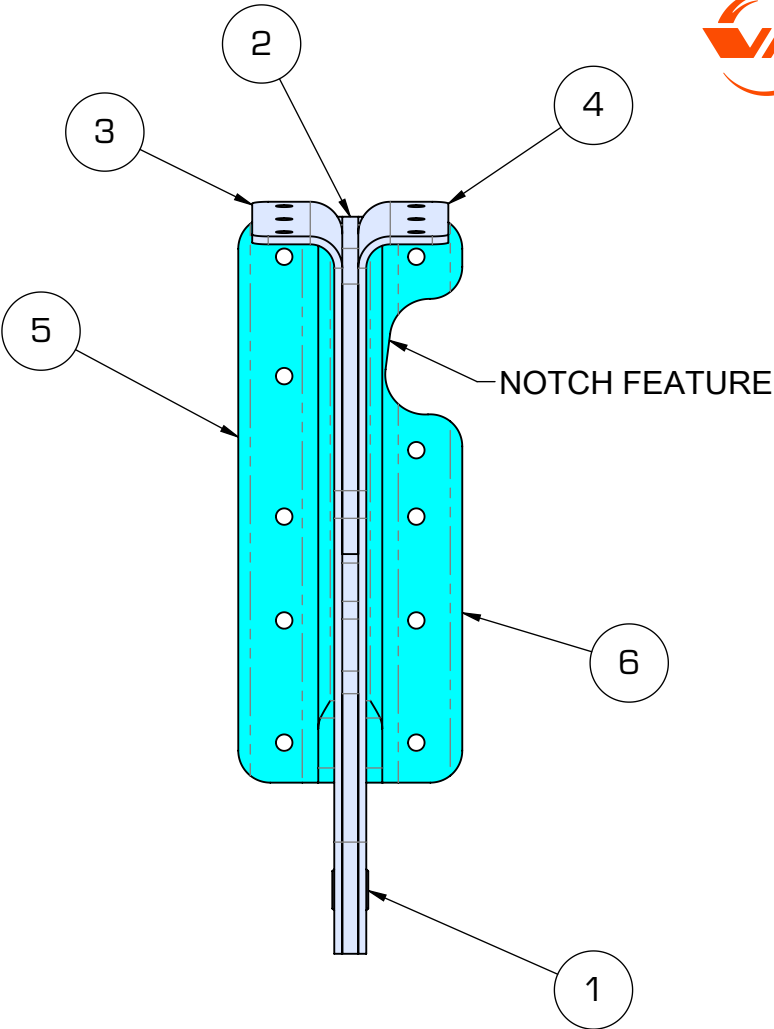
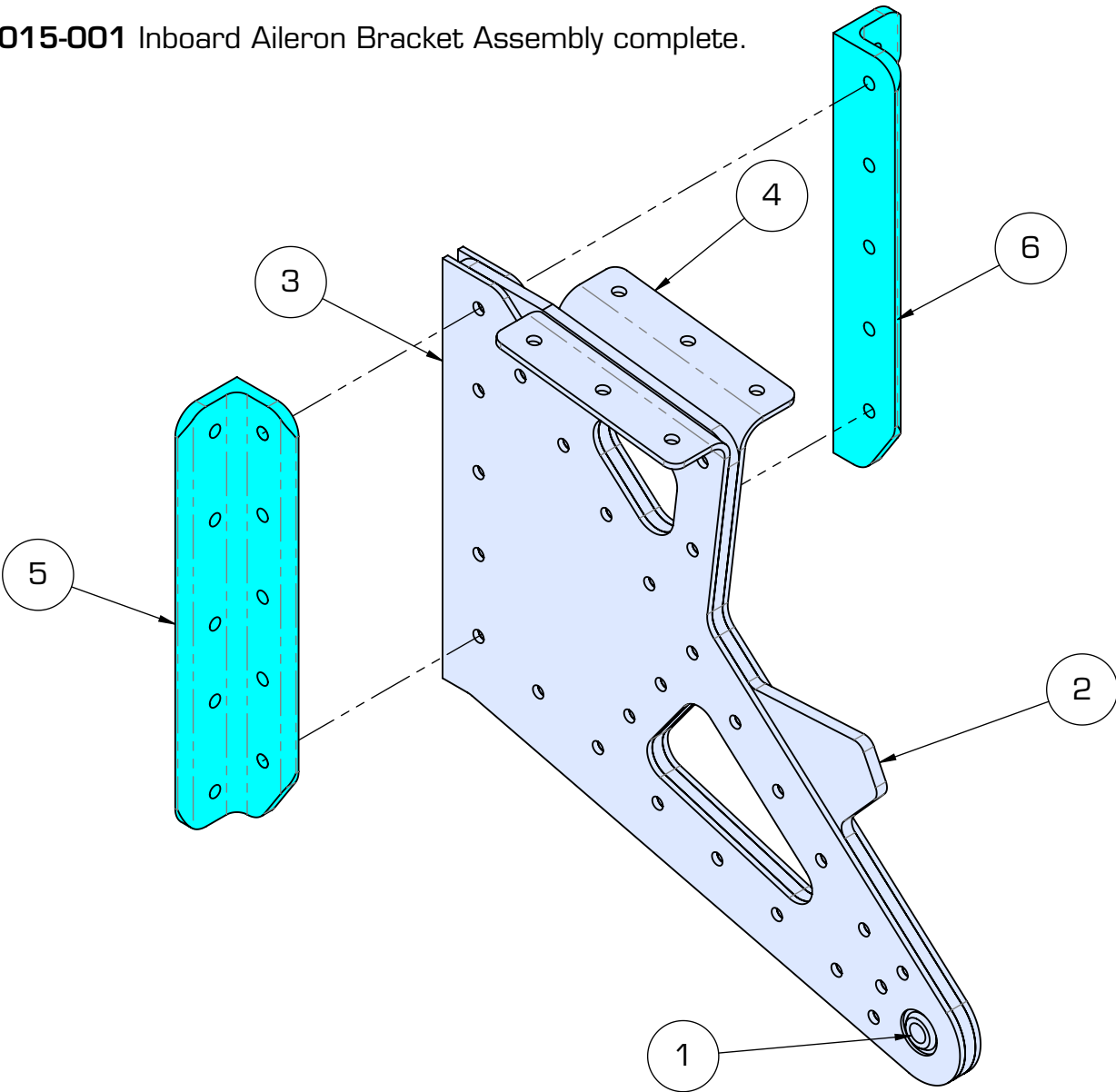
OUTBOARD VIEW
LOOKING INBOARD

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	COM-3-5	SPHERICAL BEARING	1
2	W-15015A-001	BRKT, INBD AILERON WING	1
3	W-15015B-001	BRKT, INBD AILERON WING	1
4	W-15015B-002	BRKT, INBD AILERON WING	1
5	W-15015C-001	ANGLE, AILERON ATTACH	1
6	W-15015D-001	ANGLE, AILERON ATTACH	1
7	AN470AD4-11	RIVET, SOLID	5

☐ **Step 1:** Cleco (5) and (6) to the (1) (2) (3) (4) riveted assembly.

☐ **Step 2:** Rivet with (7) in A

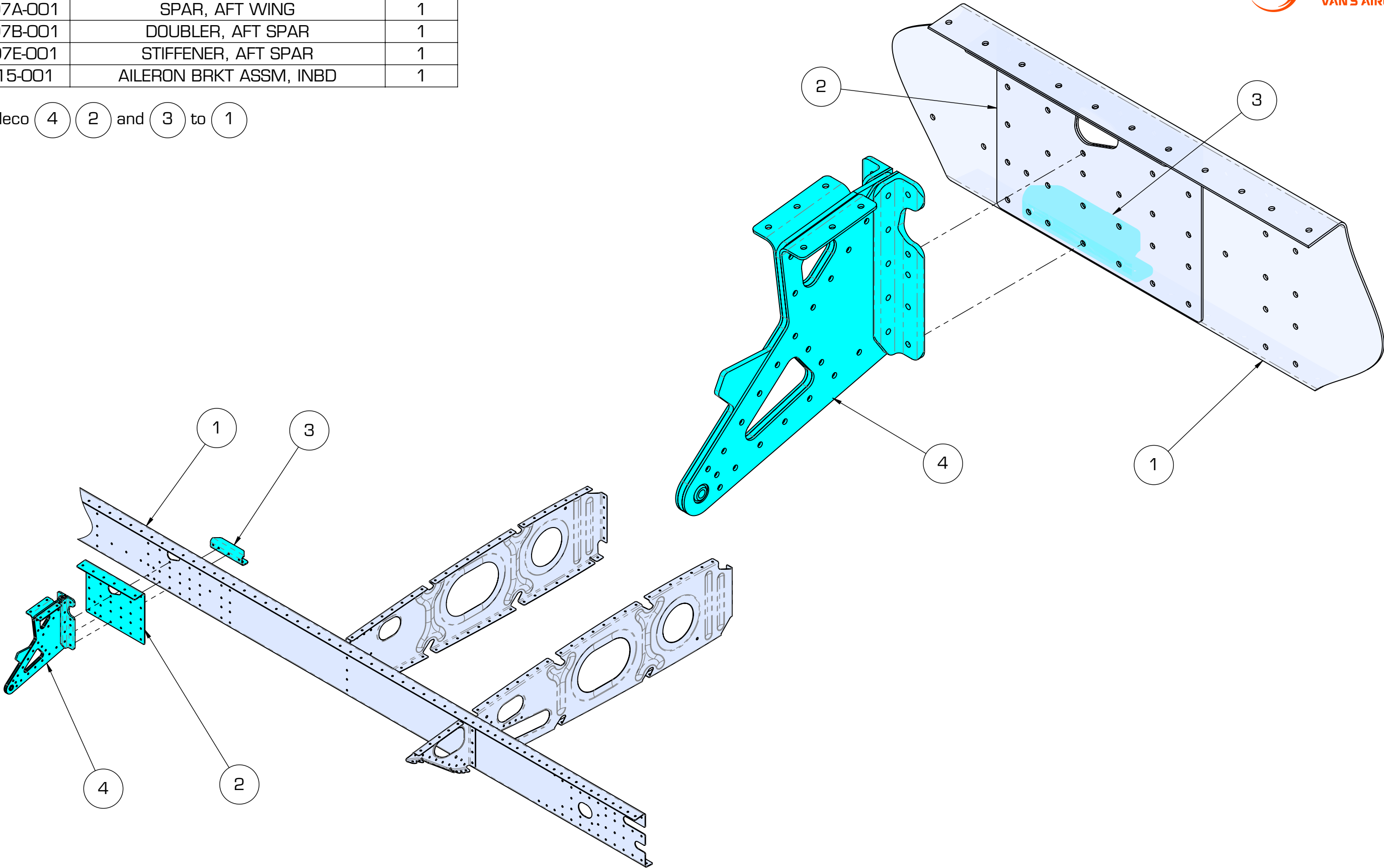
W-15015-001 Inboard Aileron Bracket Assembly complete.



W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15007B-001	DOUBLER, AFT SPAR	1
3	W-15007E-001	STIFFENER, AFT SPAR	1
4	W-15015-001	AILERON BRKT ASSM, INBD	1

☐ **Step 1:** Cleco 4 2 and 3 to 1



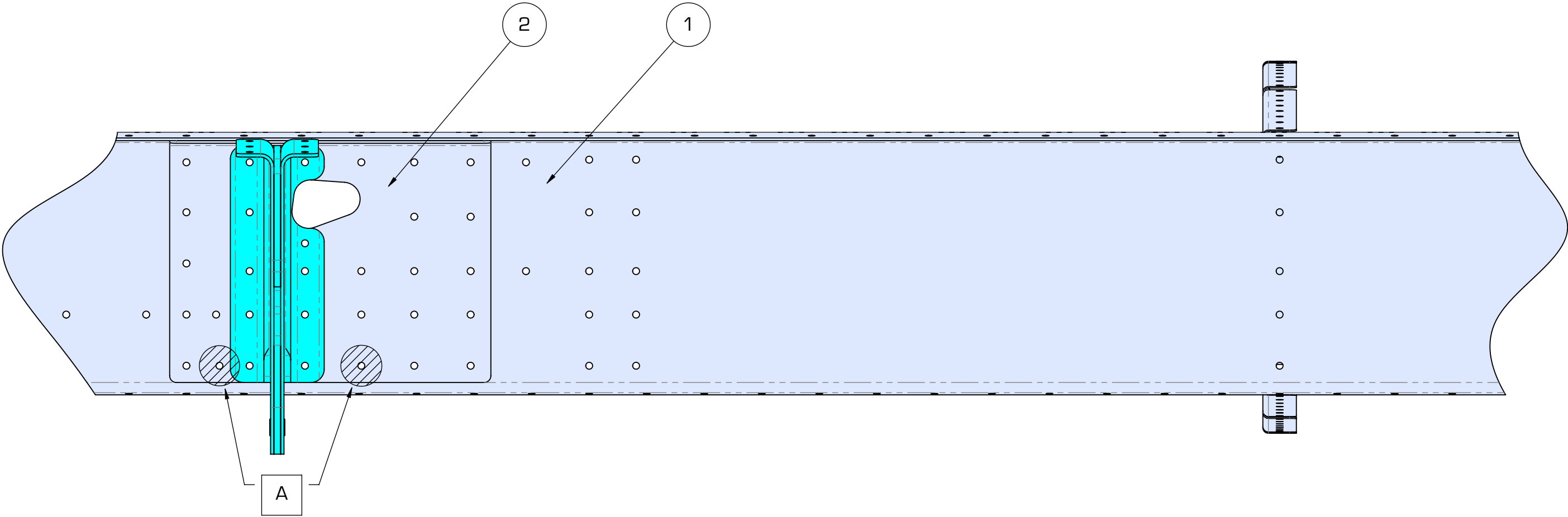
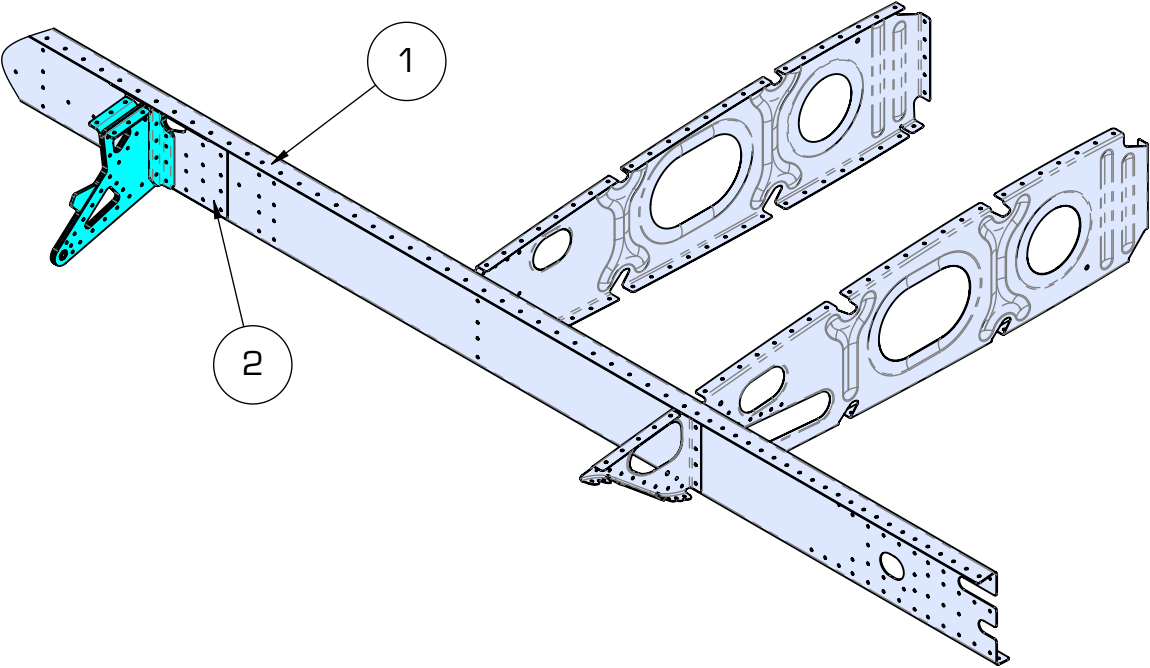
W-15500 ASSEMBLY

ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15007B-001	DOUBLER, AFT SPAR	1
3	W-15007E-001	STIFFENER, AFT SPAR	1
4	AN470AD4-5	RIVET, SOLID	2

NOTE: 3 is not visible behind 1. See page 22-12 for reference.

☐ **Step 1:** Rivet 2 and 3 to 1 with 4 in A

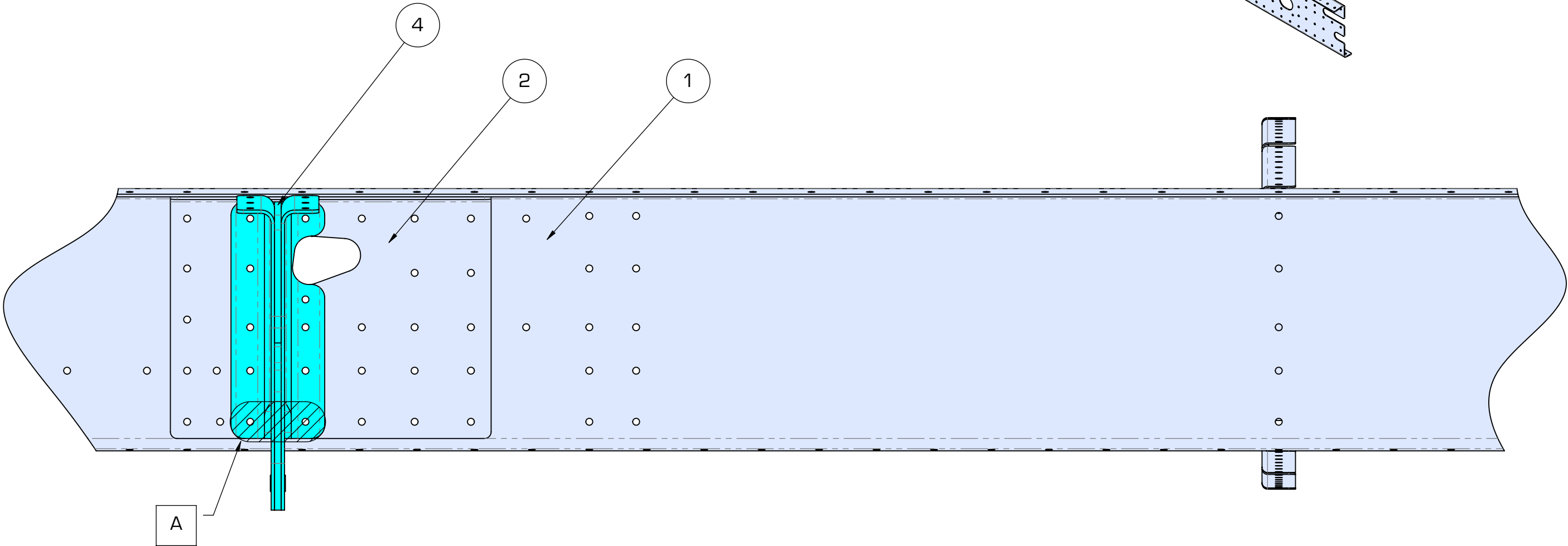
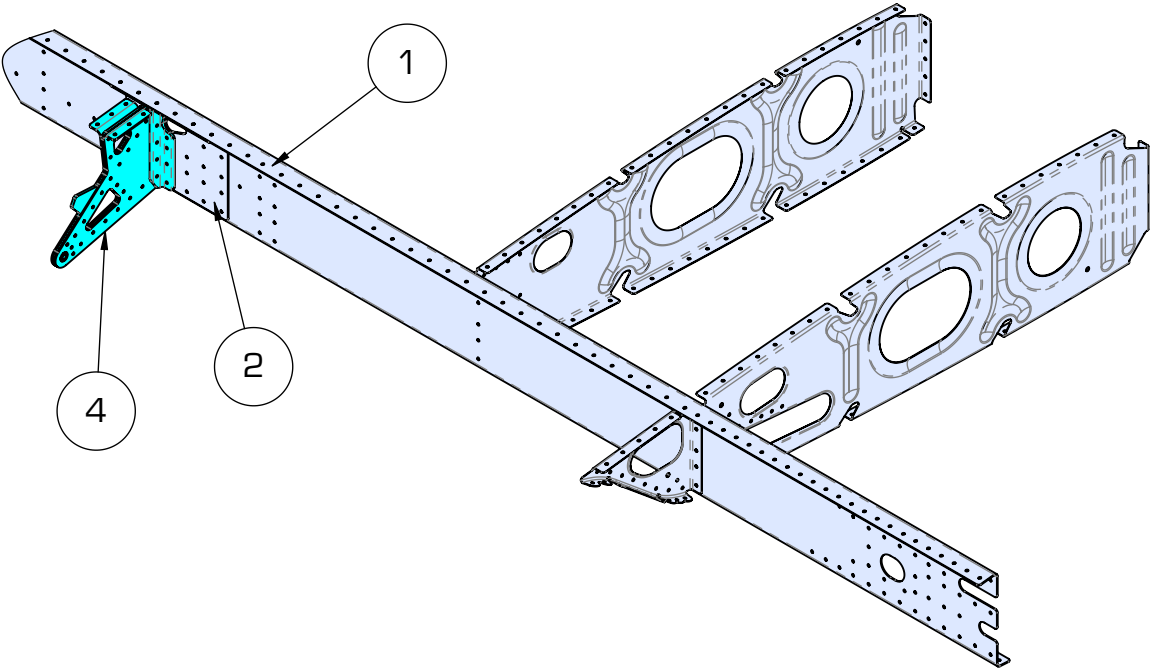


W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15007B-001	DOUBLER, AFT SPAR	1
3	W-15007E-001	STIFFENER, AFT SPAR	1
4	W-15015-001	AILERON BRKT ASSM, INBD	1
5	AN470AD4-7	RIVET, SOLID	2

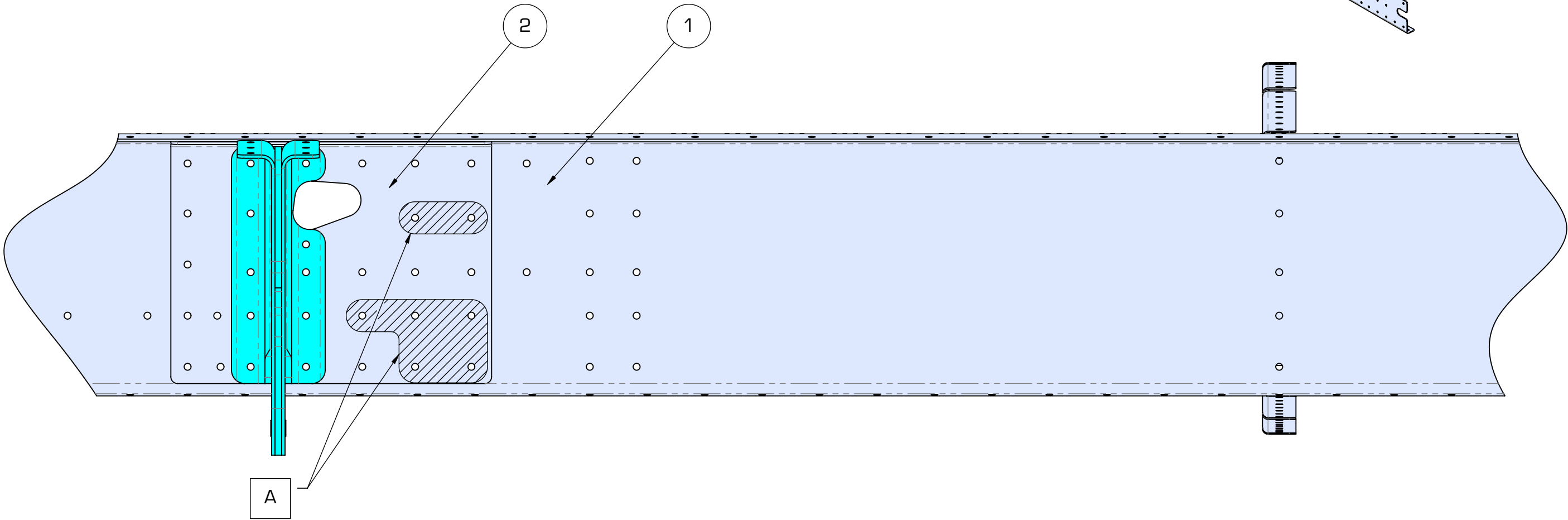
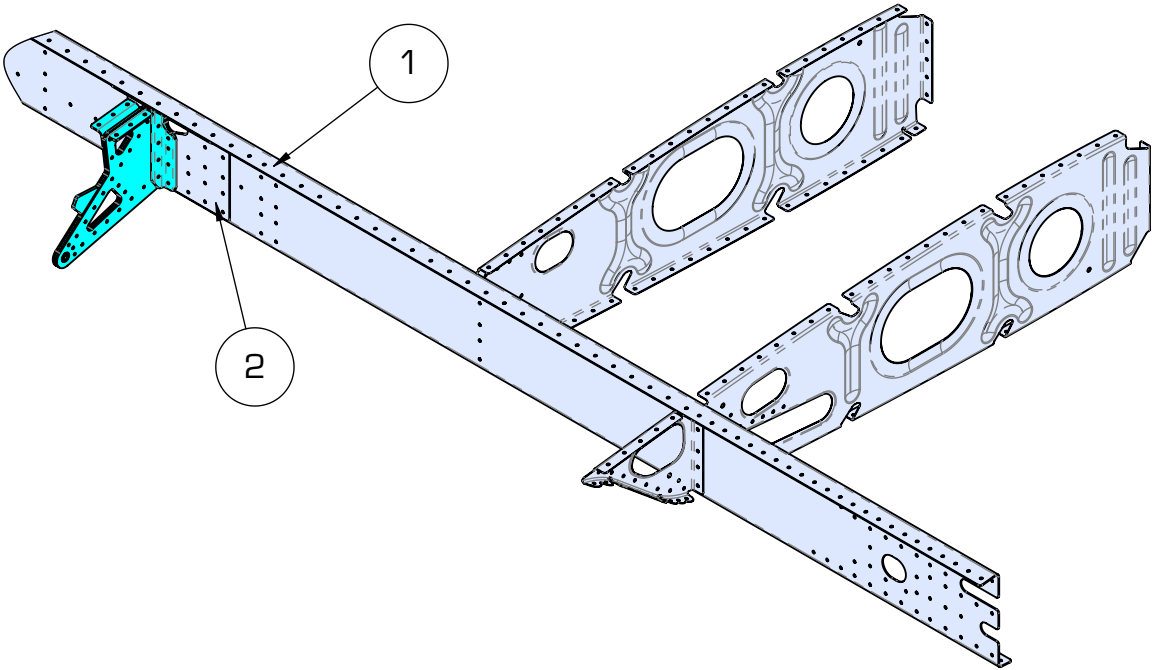
NOTE: 3 not visible behind 1. See page 22-12 for reference.

☐ **Step 1:** Rivet 4 2 and 3 to 1 with 5 in A



ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15007B-001	DOUBLER, AFT SPAR	1
3	AN470AD4-4	RIVET, SOLID	7

☐ **Step 1:** Rivet 2 to 1 with 3 in A



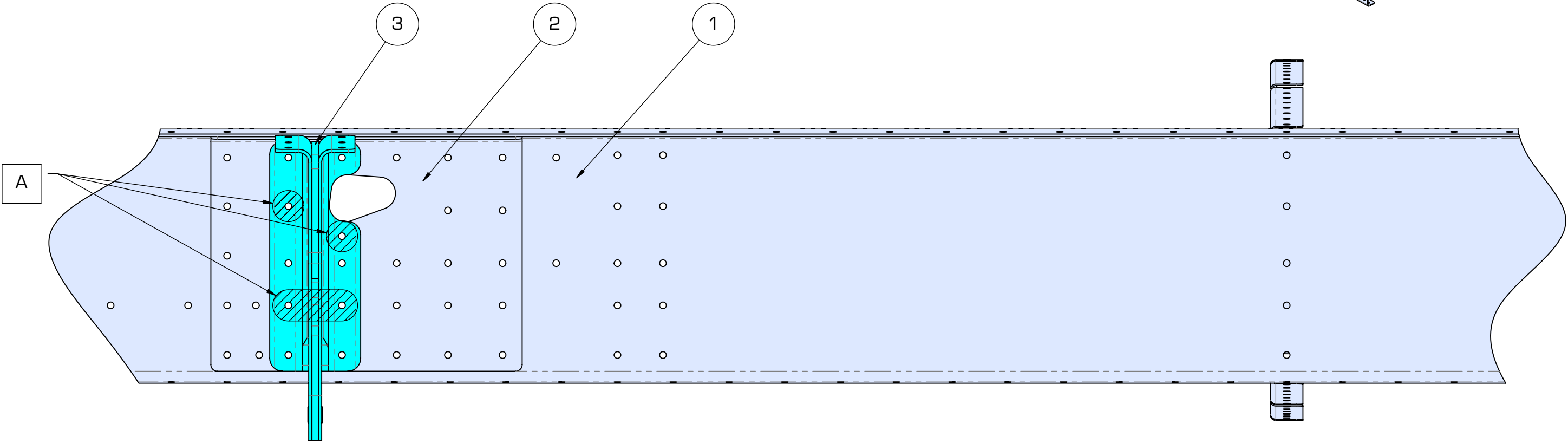
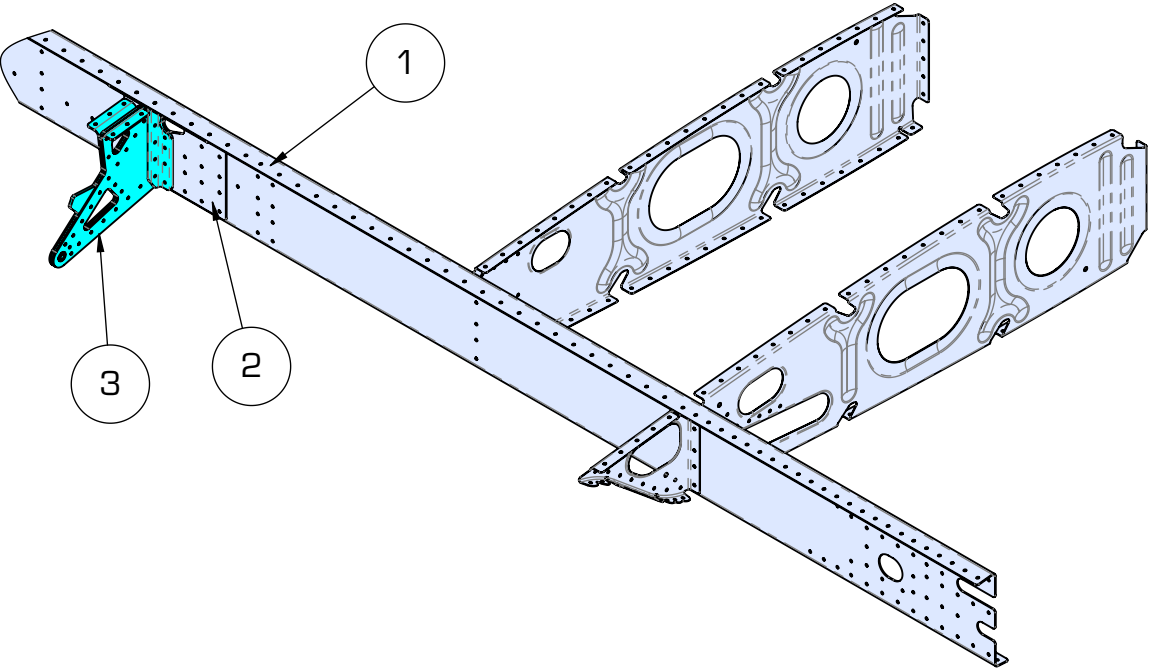
W-15500 ASSEMBLY

ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15007B-001	DOUBLER, AFT SPAR	1
3	W-15015-001	AILERON BRKT ASSM, INBD	1
4	AN470AD4-6	RIVET, SOLID	4



Step 1: Rivet 3 and 2 to 1 with 4 in A

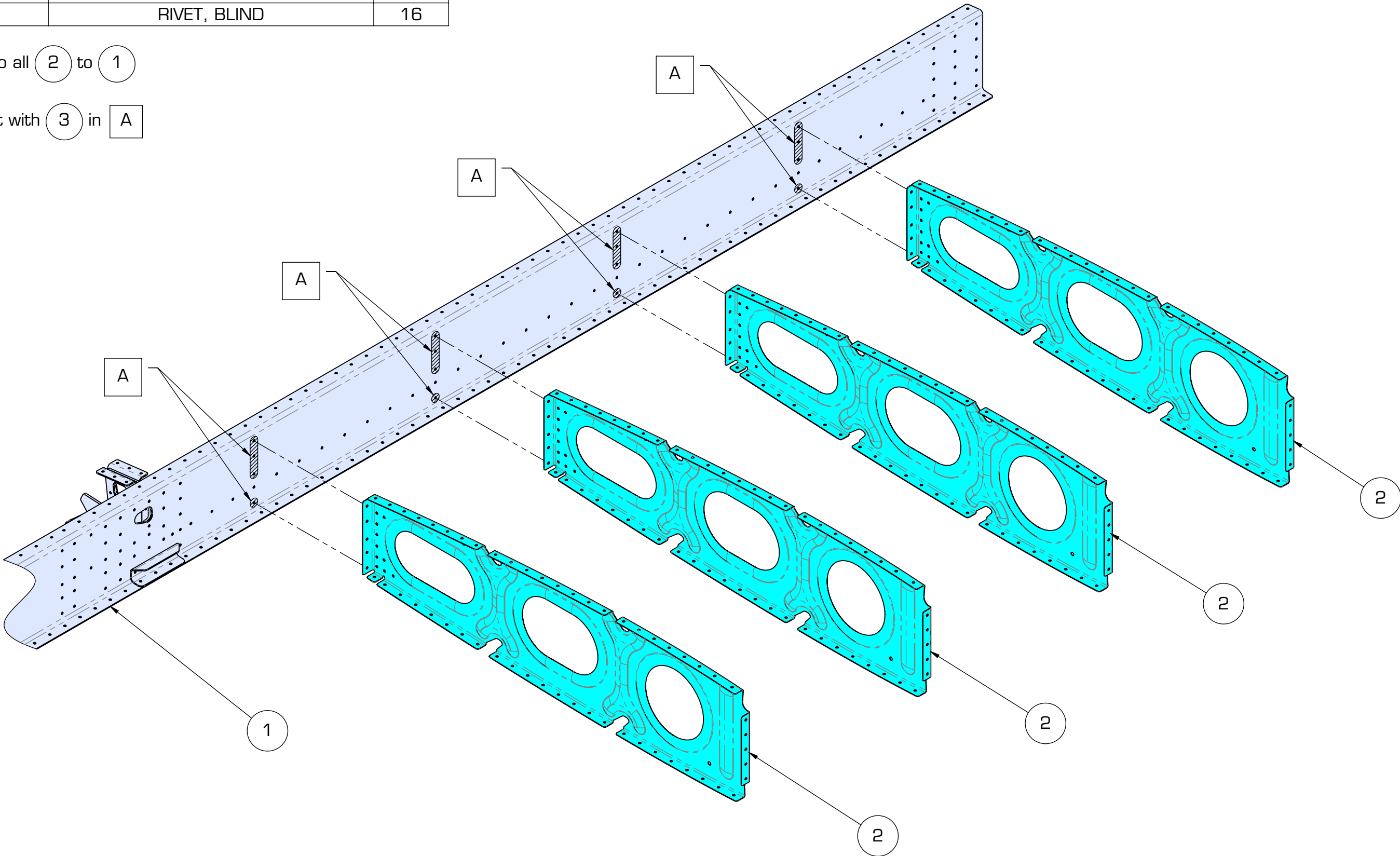


W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15012-002	RIB, WING	4
3	LP4-3	RIVET, BLIND	16

☐ **Step 1:** Cleco all (2) to (1)

☐ **Step 2:** Rivet with (3) in A



W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15016B-002	BRKT, OTBD AILERON WING	1

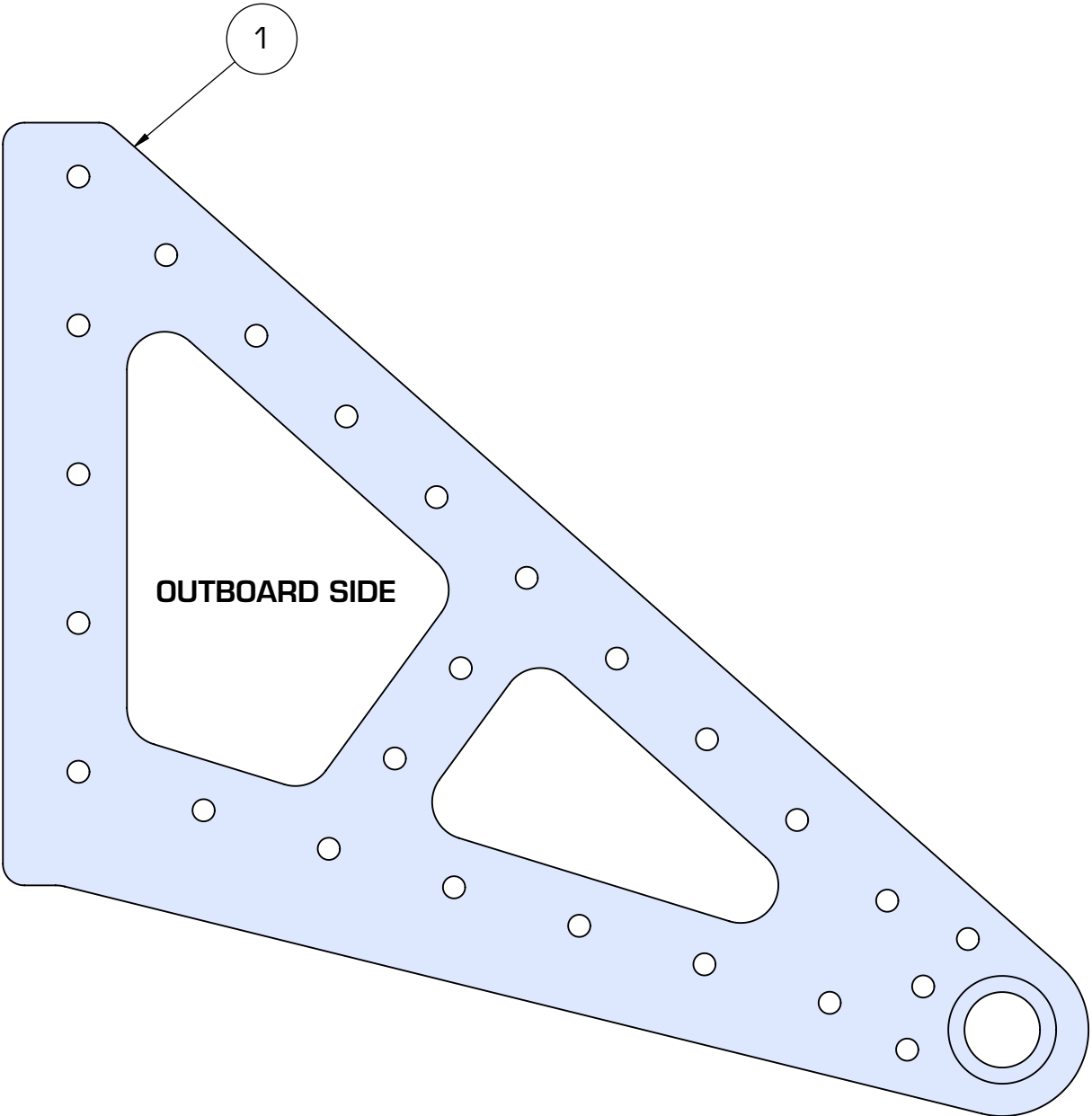
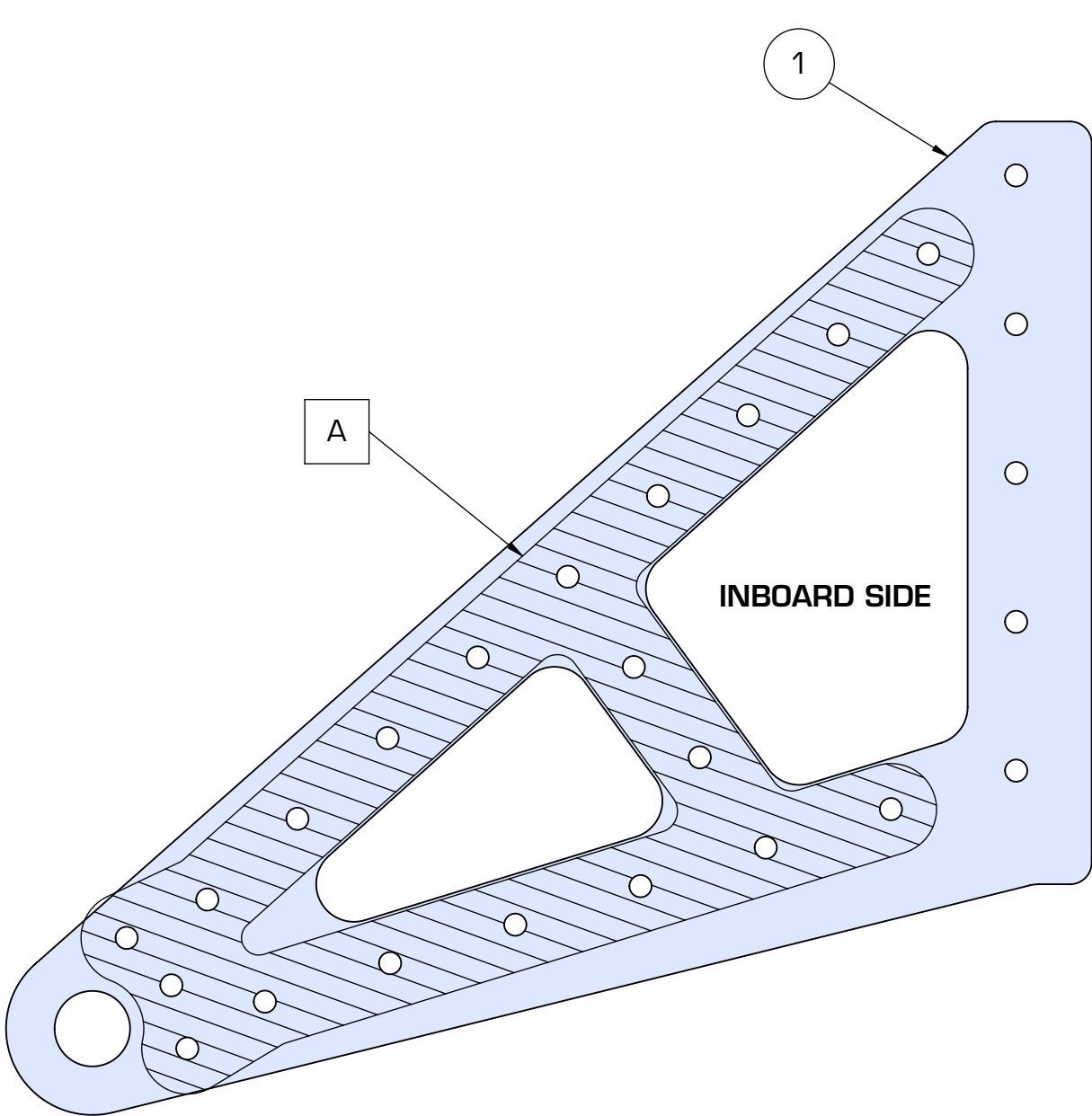
- ☐

Step 1:

Ensure 1 is **FLAT**. Make adjustments in bench vise if necessary.
- ☐

Step 2:

#30 Machine Countersink **Inboard Side** of 1 for **AD426AD4** rivets in A

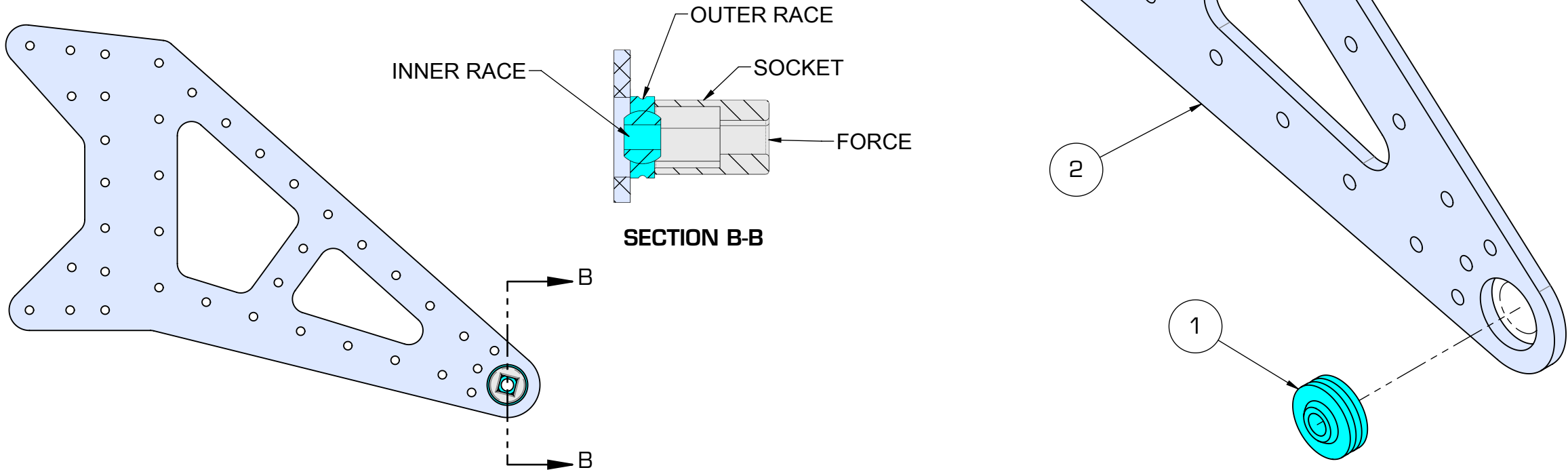


ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	COM-3-5	SPHERICAL BEARING	1
2	W-15016A-001	BRKT, OTBD AILERON WING	1

NOTE: Apply force to bearing **Outer Race Only**, taking care not to damage the ball. Tools for driving bearings may be available, but many are not designed for spherical bearings. A simple solution can usually be found in a correctly sized socket from the builder's socket wrench set. Select a size that best fits the outer race. Deep sockets also afford more leverage to better align the bearing as it is driven into its journal.

☐ **Step 1:** Ensure (2) is **FLAT**. Make adjustments with a bench vise if necessary.

☐ **Step 2:** Install (1) centered into (2)



W-15500 ASSEMBLY

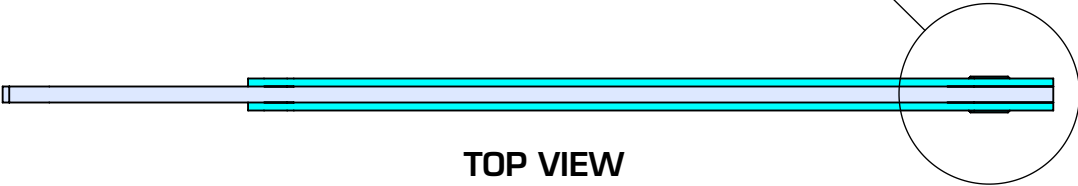
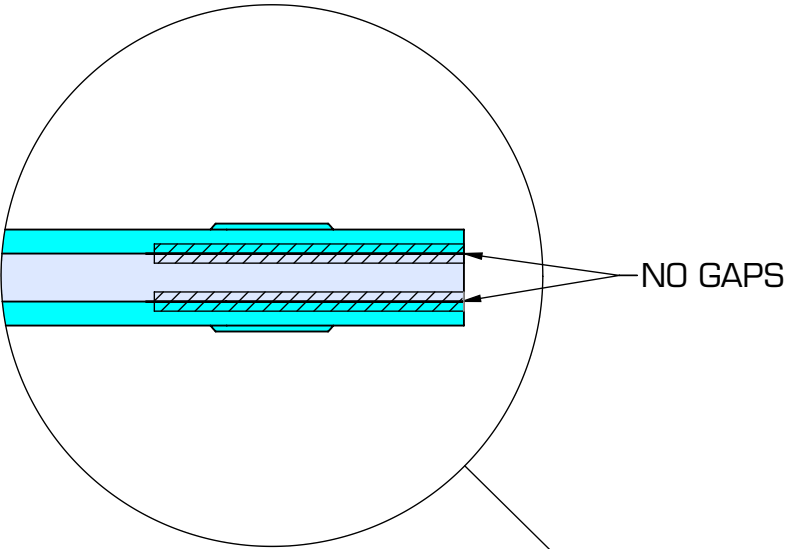
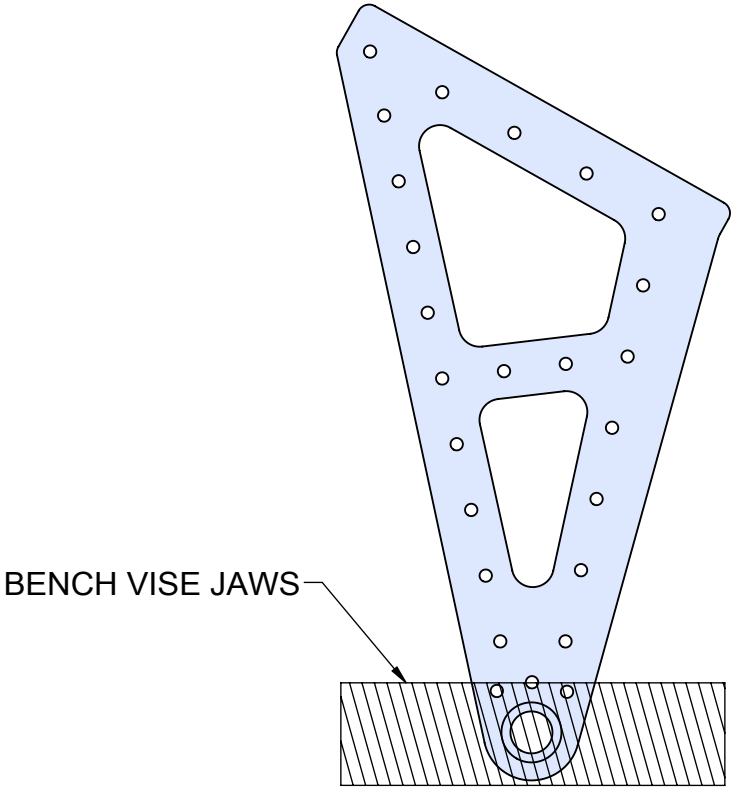
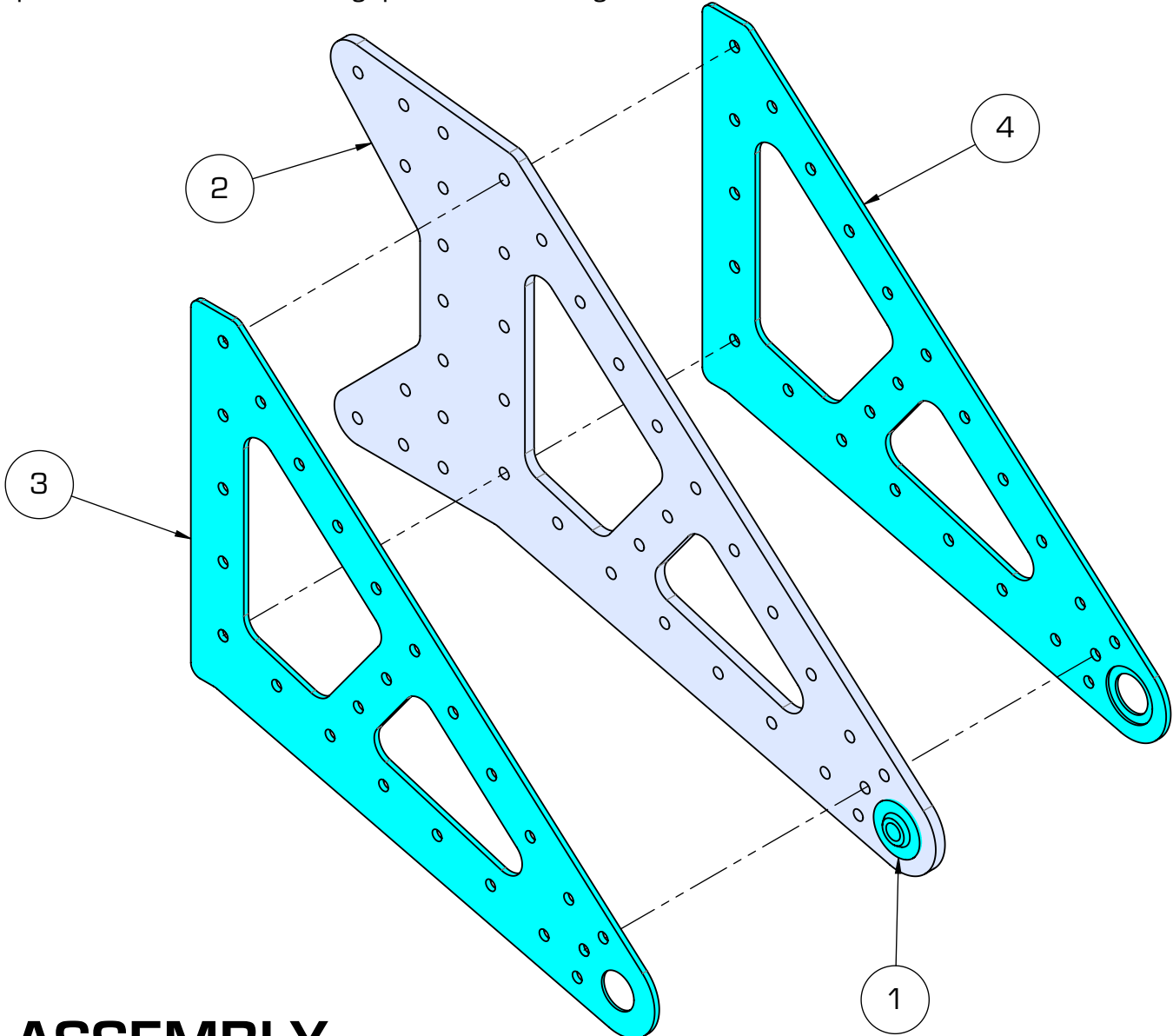
ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	COM-3-5	SPHERICAL BEARING	1
2	W-15016A-001	BRKT, OTBD AILERON WING	1
3	W-15016B-001	BRKT, OTBD AILERON WING	1
4	W-15016B-002	BRKT, OTBD AILERON WING	1

CAUTION: Do not place assembly in vise as this will ruin the bearing.

☐ **Step 1:** Cleco (3) and (4) to (2) capturing (1)

☐ **Step 2:** Check for gaps.

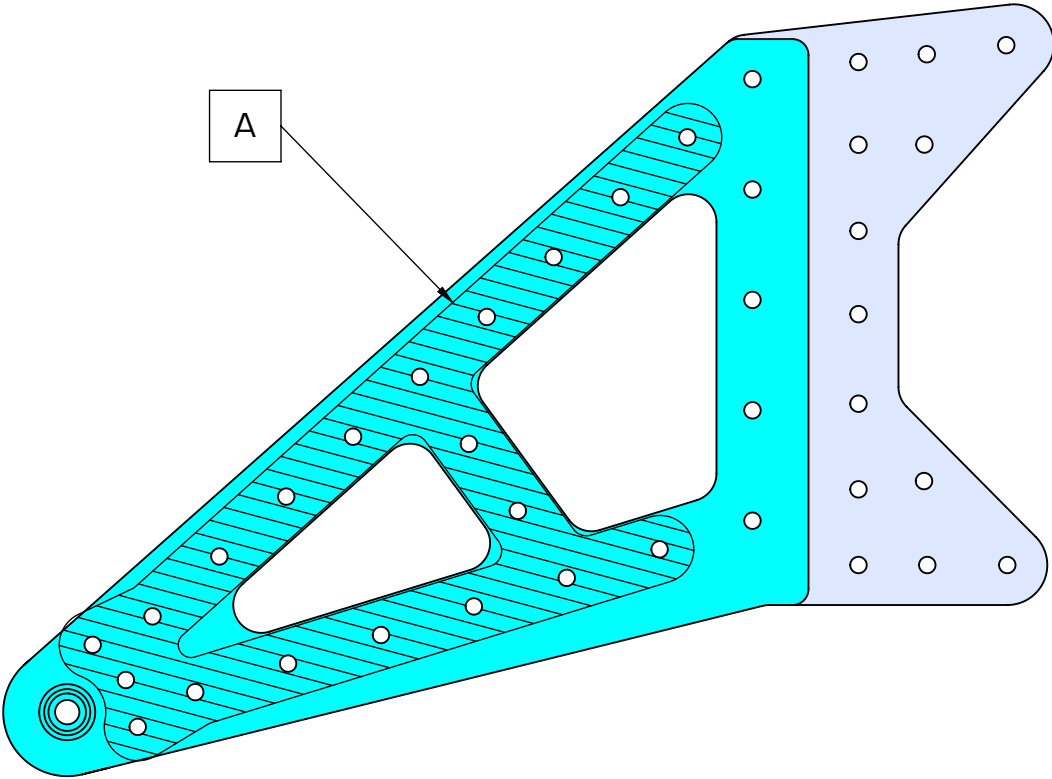
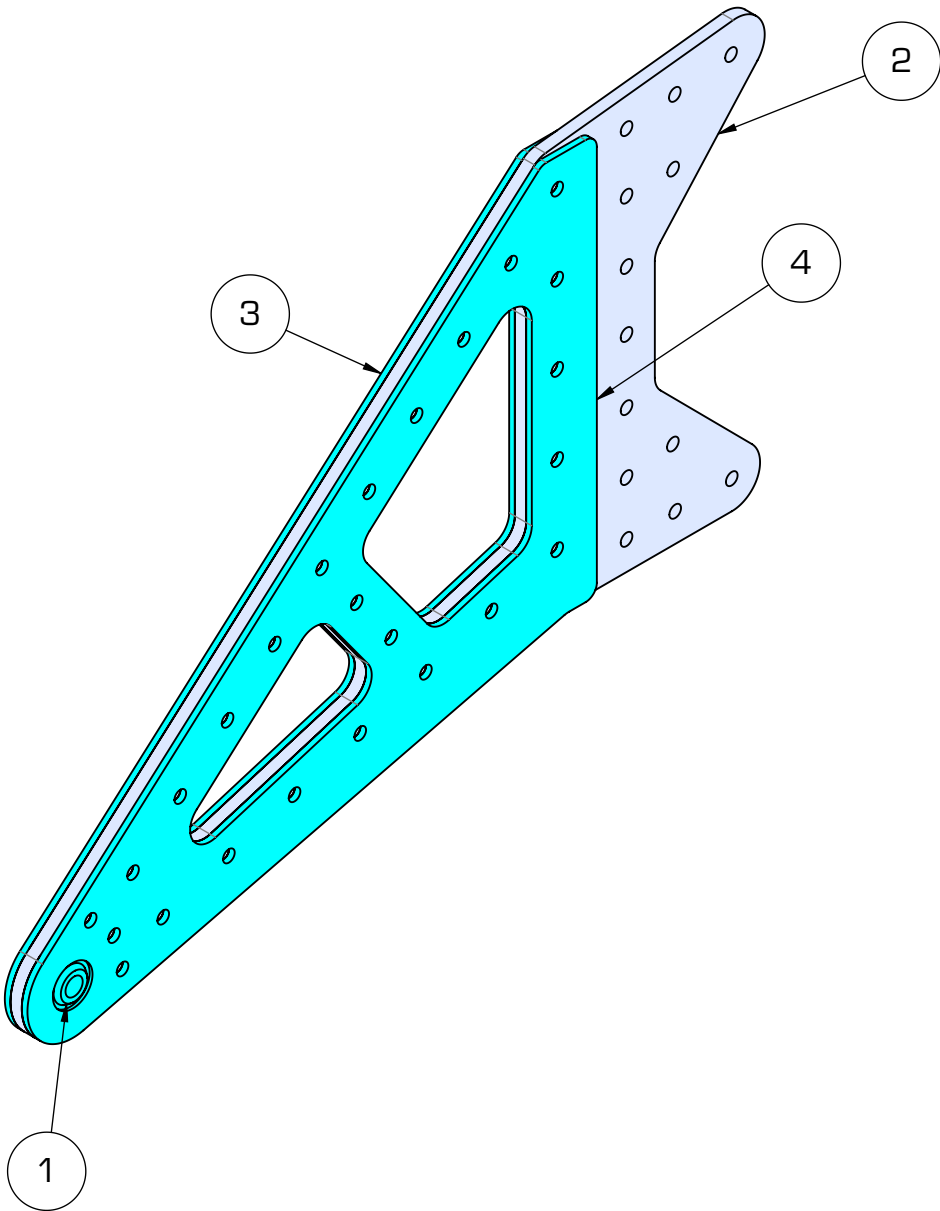
☐ **Step 3:** If gaps are present, adjust the ends of the brackets by placing (3) or (4) **individually** into a bench vise and gently bend as needed. Repeat steps 1-3 until there are no gaps at the bearing.



W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	COM-3-5	SPHERICAL BEARING	1
2	W-15016A-001	BRKT, OTBD AILERON WING	1
3	W-15016B-001	BRKT, OTBD AILERON WING	1
4	W-15016B-002	BRKT, OTBD AILERON WING	1
5	AN426AD4-7	RIVET, SOLID COUNTERSUNK	20

☐ **Step 1:** Rivet with 5 in A countersinks facing **Inboard**.



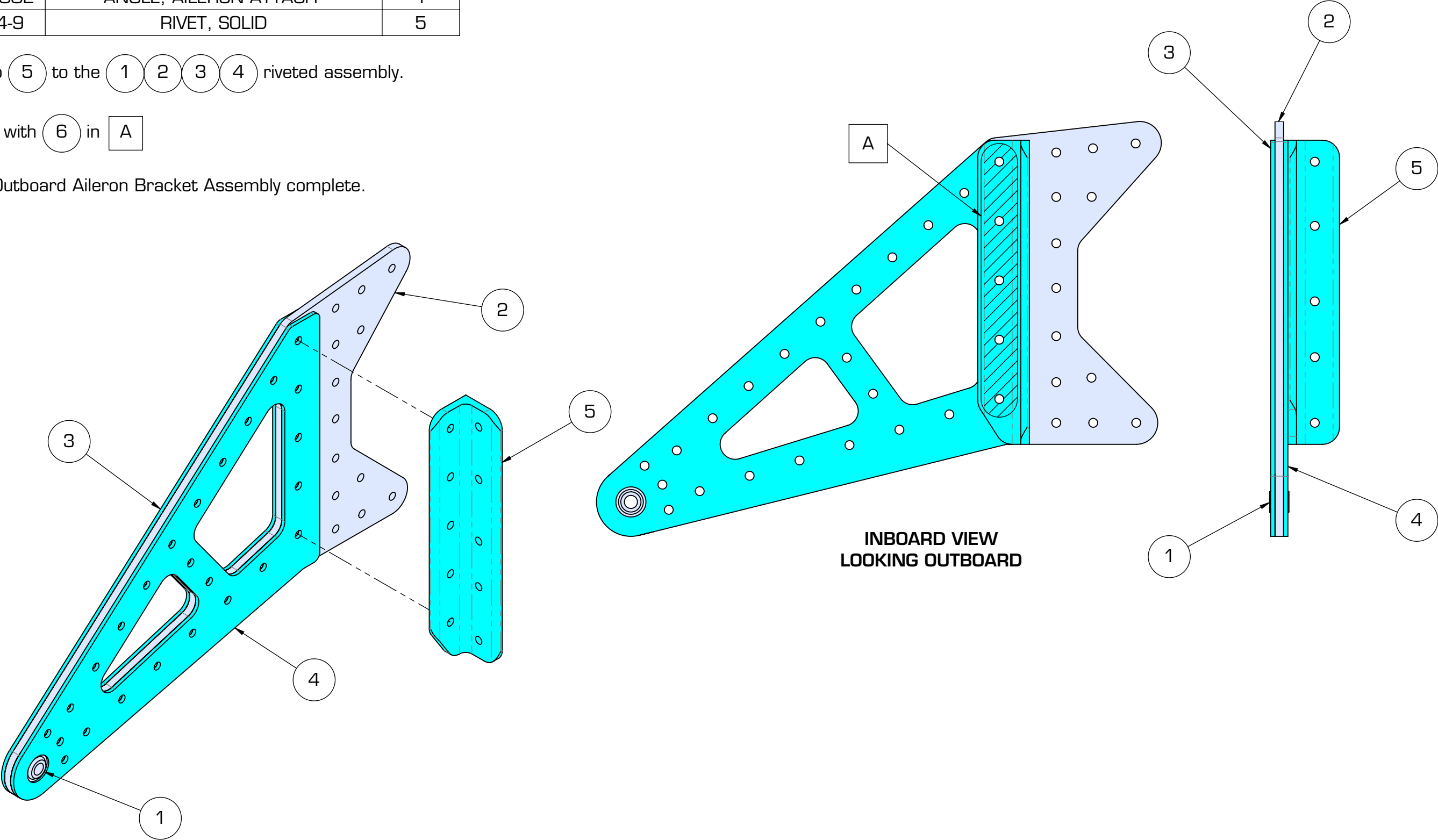
INBOARD VIEW
LOOKING OUTBOARD

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	COM-3-5	SPHERICAL BEARING	1
2	W-15016A-001	BRKT, OTBD AILERON WING	1
3	W-15016B-001	BRKT, OTBD AILERON WING	1
4	W-15016B-002	BRKT, OTBD AILERON WING	1
5	W-15015C-002	ANGLE, AILERON ATTACH	1
6	AN470AD4-9	RIVET, SOLID	5

☐ **Step 1:** Cleco (5) to the (1) (2) (3) (4) riveted assembly.

☐ **Step 2:** Rivet with (6) in A

W-15016-001 Outboard Aileron Bracket Assembly complete.

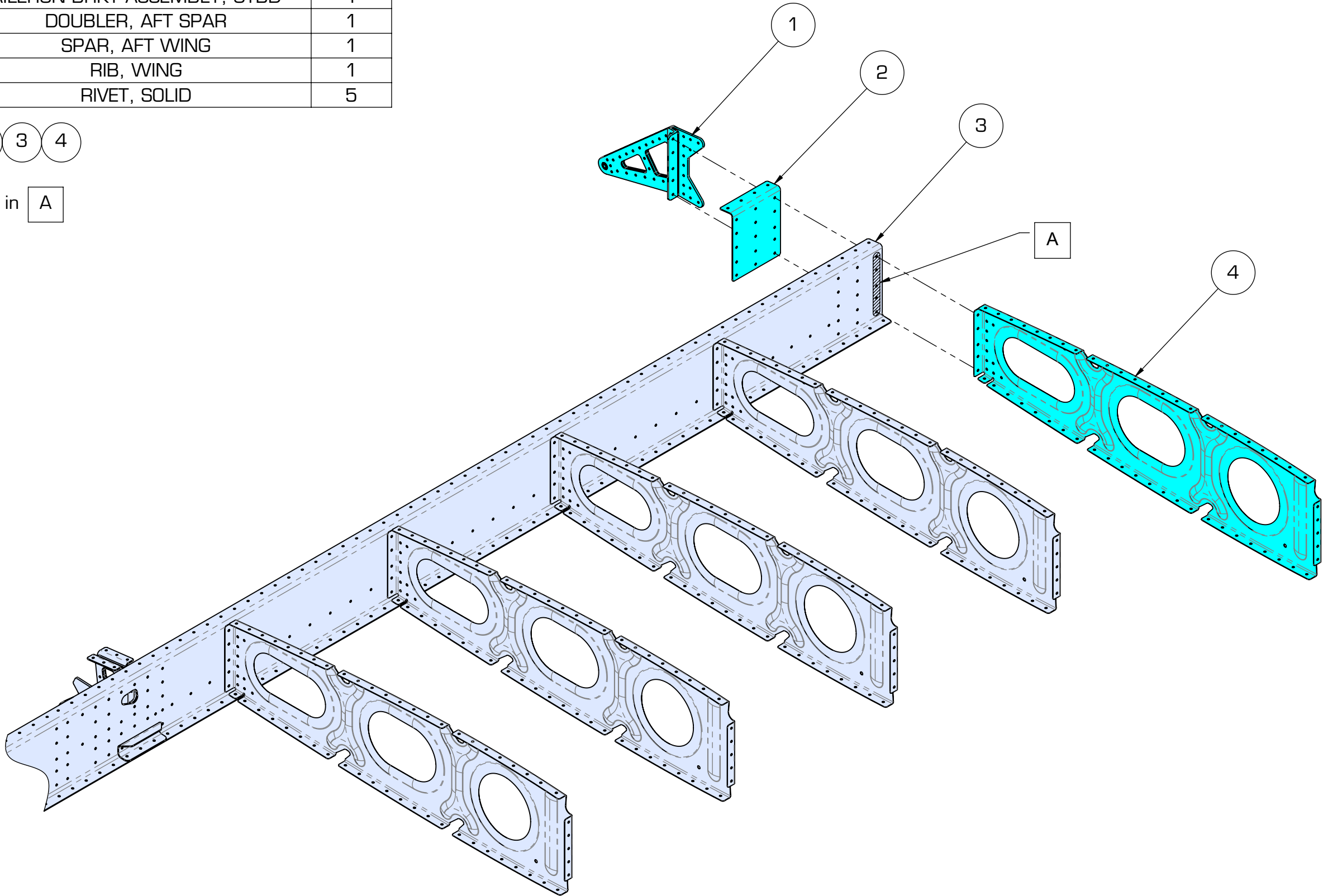


W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15016-001	AILERON BRKT ASSEMBLY, OTBD	1
2	W-15007C-001	DOUBLER, AFT SPAR	1
3	W-15007A-001	SPAR, AFT WING	1
4	W-15012-002	RIB, WING	1
5	AN470AD4-7	RIVET, SOLID	5

☐ Step 1: Cleco 1 2 3 4

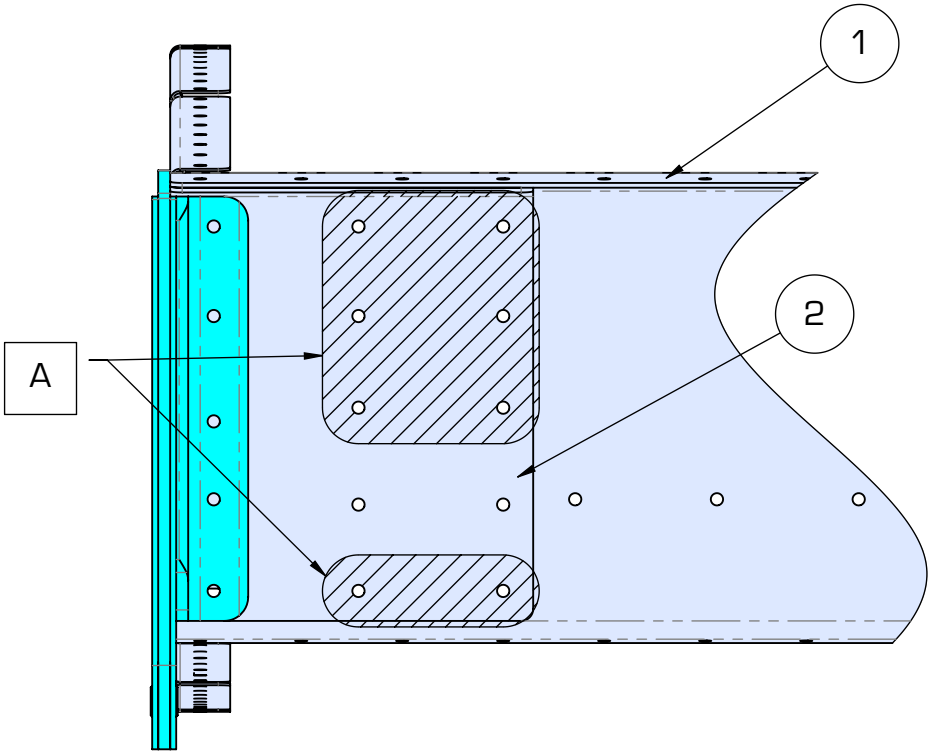
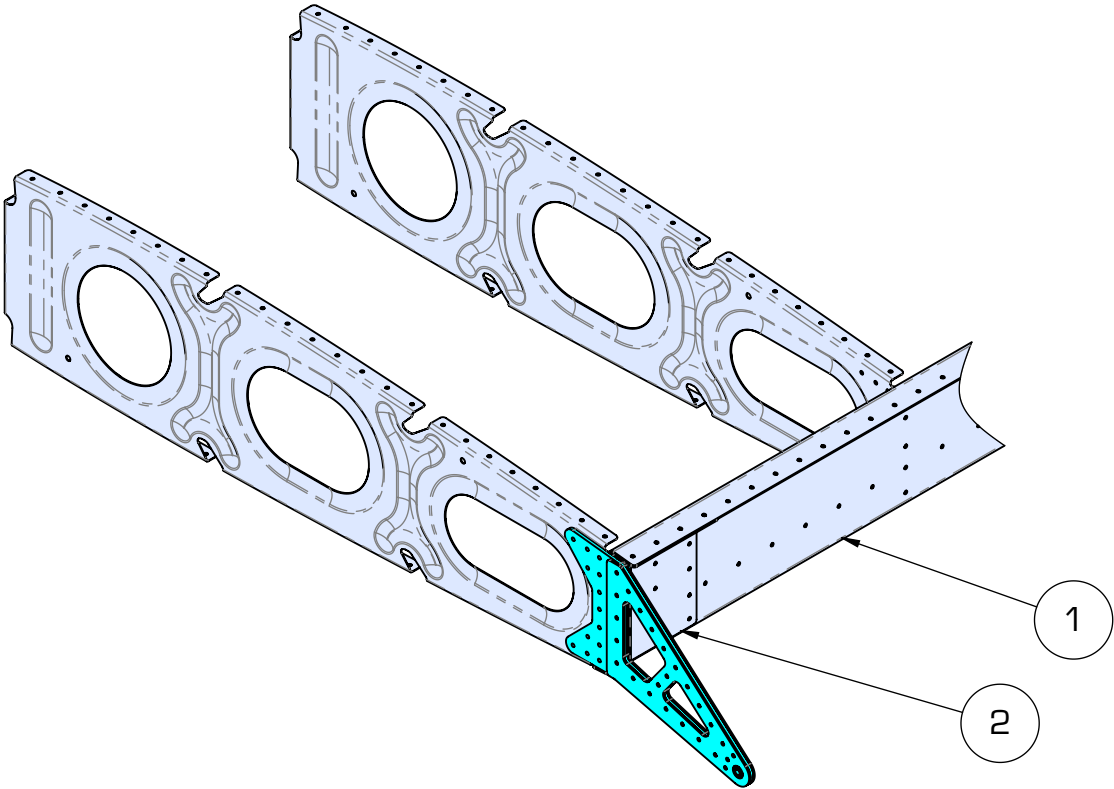
☐ Step 2: Rivet with 5 in A



W-15500 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15007A-001	SPAR, AFT WING	1
2	W-15007C-001	DOUBLER, AFT SPAR	1
3	AN470AD4-4	RIVET, SOLID	8

☐
Step 1: Rivet 2 to 1 with 3 in A



ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15012-002	RIB, WING	1
2	W-15016-001	AILERON BRKT ASSEMBLY, OTBD	1
3	AN470AD4-5.5	RIVET, SOLID	13

☐

Step 1:

Rivet

2

to

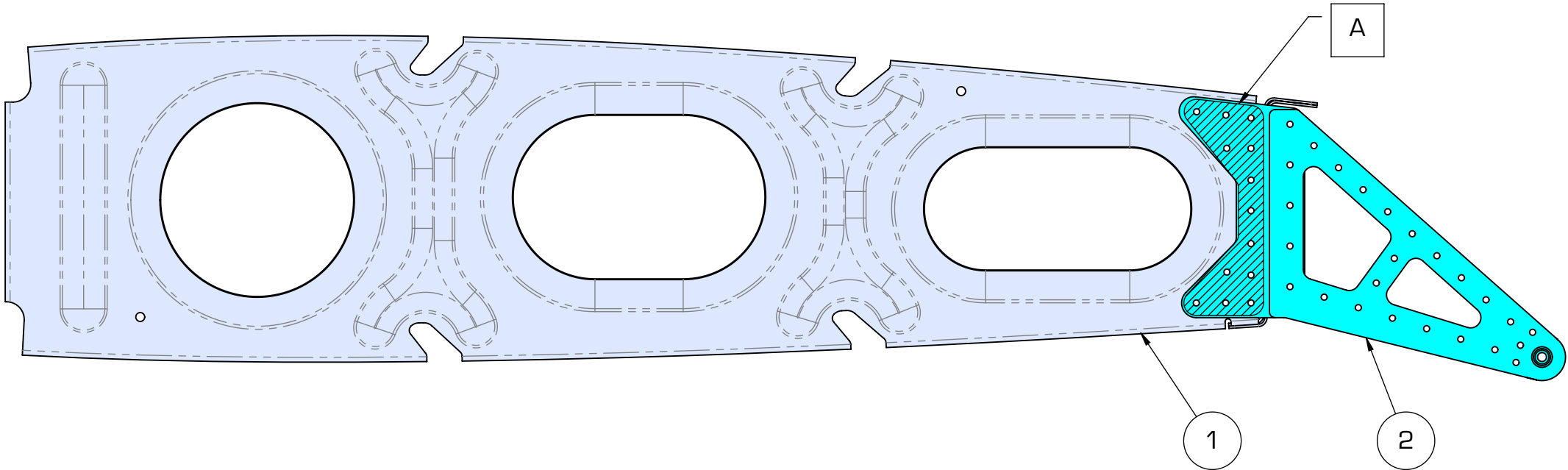
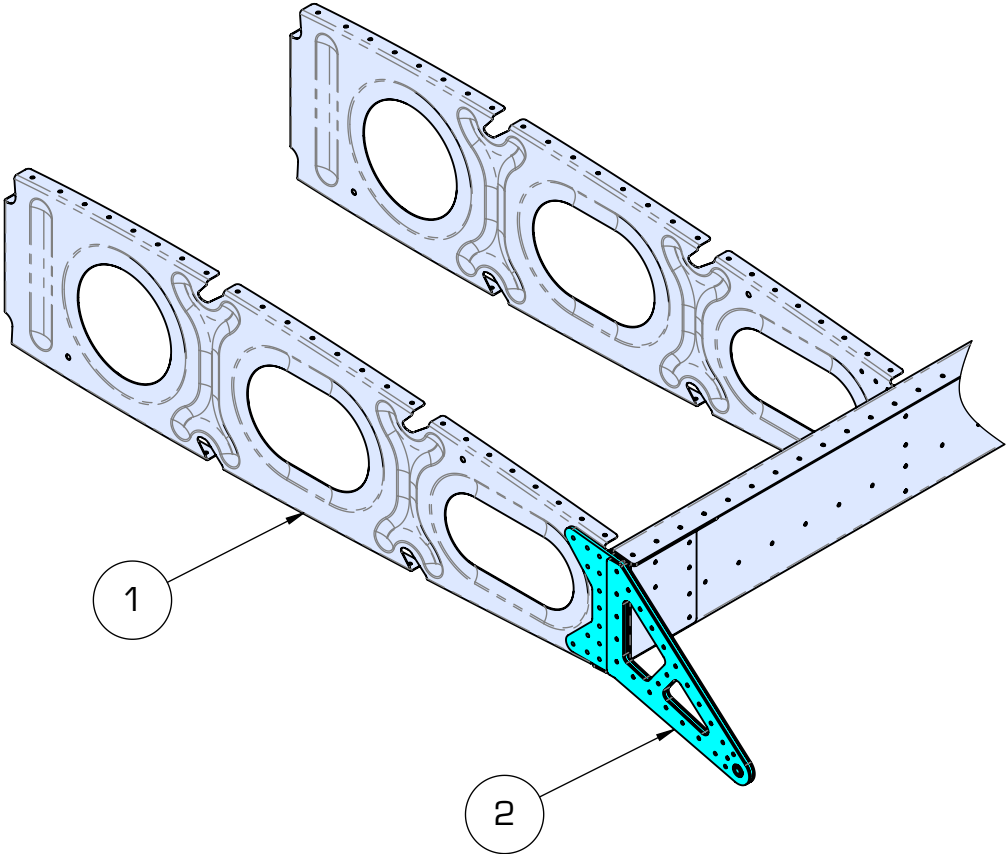
1

with

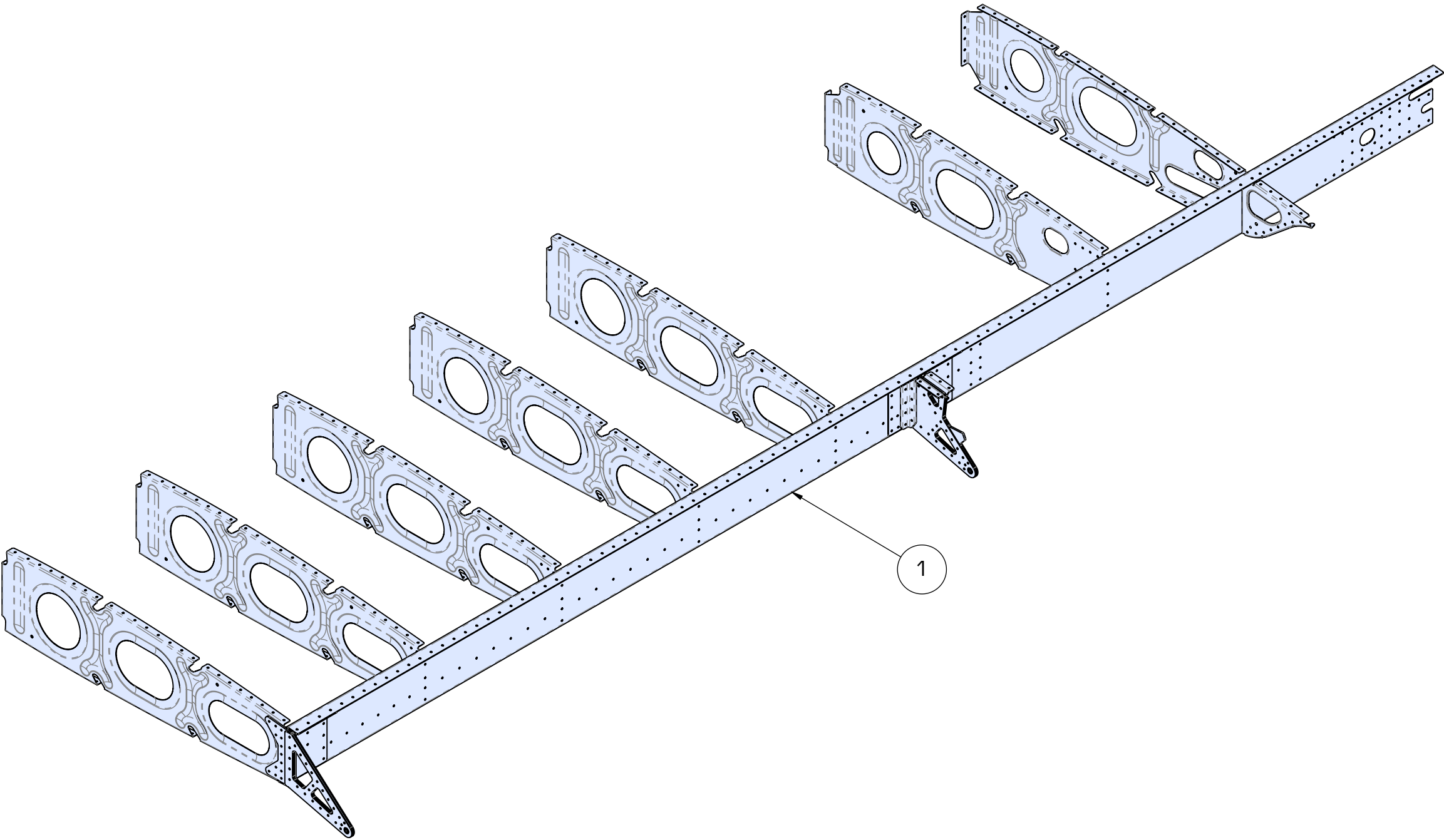
3

in

A



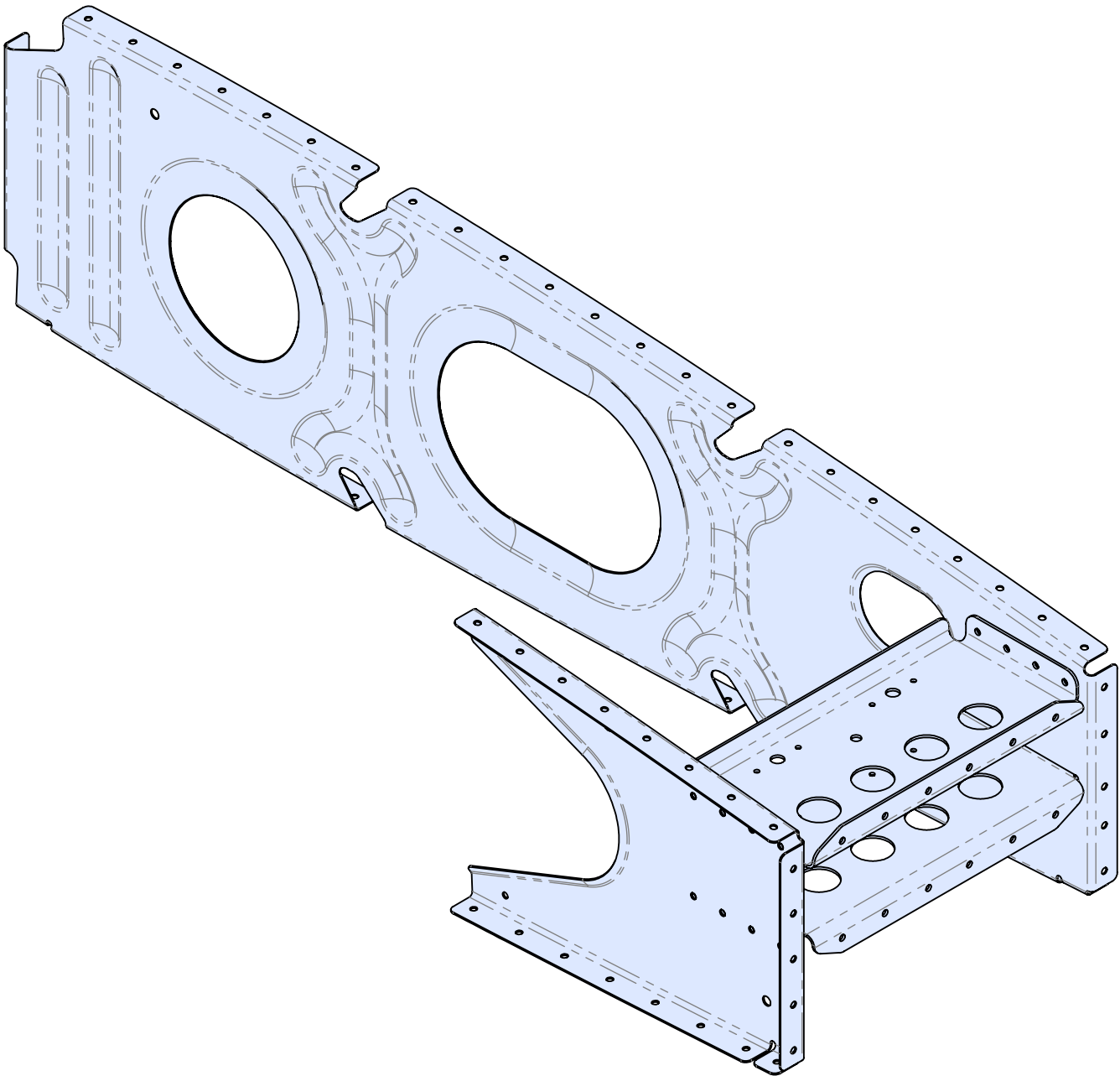
ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15500-001	REAR SPAR	1



W-15500 ASSEMBLY

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SECTION 23



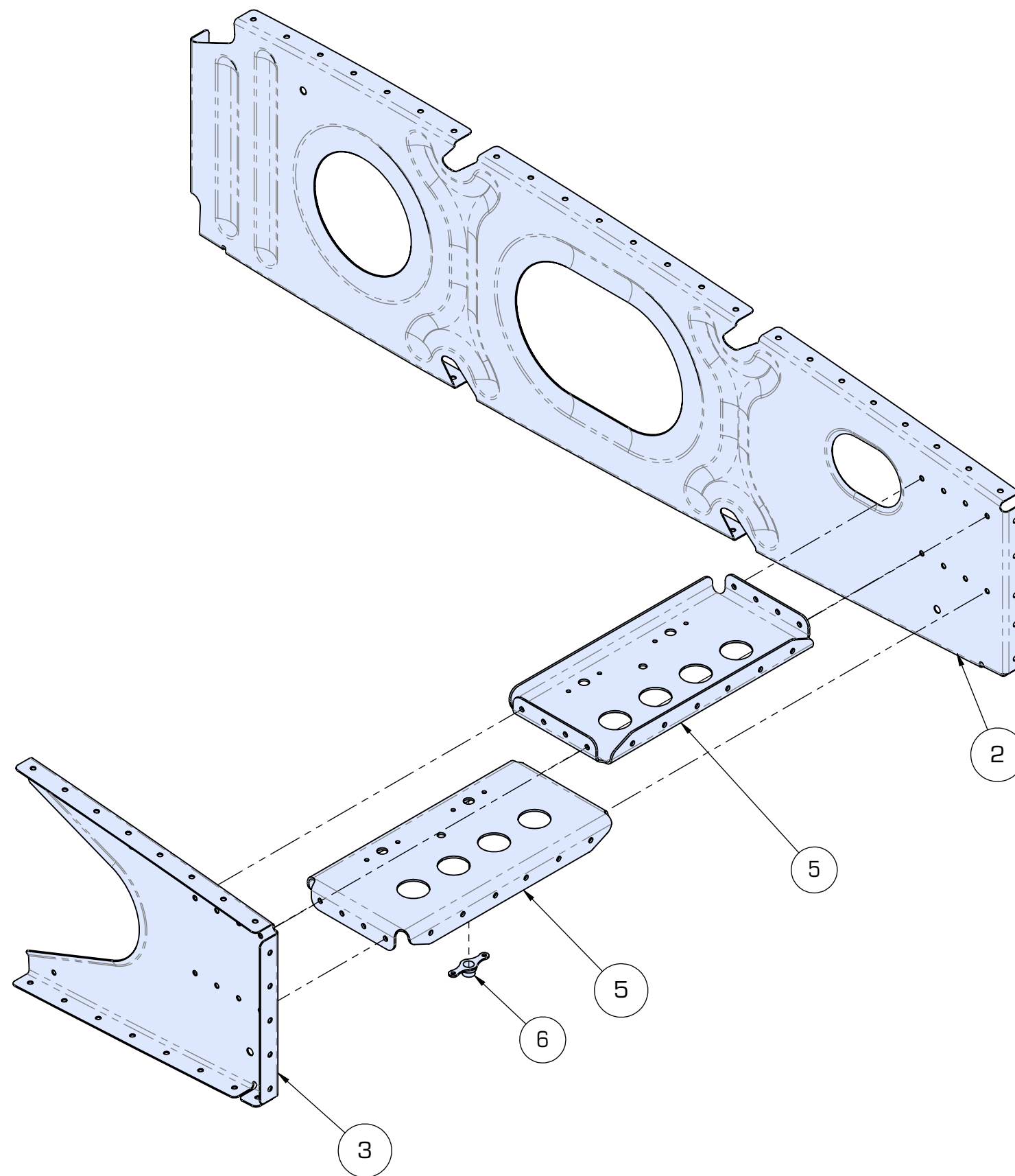
W-15501
OUTBOARD MIXER BOX

ASSM PARTS LIST					
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-L ASSM QTY.	-R ASSM QTY
1	W-15011C-001	RIB, WING	.025 2024-T3 ALCLAD SHEET	-	1
2	W-15011C-002	RIB, WING	.025 2024-T3 ALCLAD SHEET	1	-
3	W-15011D-001	WING RIB, AIL BELLCRANK	.032 2024-T3 ALCLAD SHEET	1	-
4	W-15011D-002	WING RIB, AIL BELLCRANK	.032 2024-T3 ALCLAD SHEET	-	1
5	W-15024-001	BELLCRANK PLATE, AIL, OTBD	.050 2024-T3 ALCLAD SHEET	2	2
6	K1000-4	NUTPLATE	STEEL	1	1
7	LP4-3	RIVET, BLIND	ALUMINUM	16	16
8	NAS1097AD3-3.5	RIVET, SOLID COUNTERSUNK	ALUMINUM	2	2



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

It is the builder's choice as to whether to complete all steps for the left side before repeating those steps for the right side or to complete each step for both left and right sides before moving to the next step.



W-15501 ASSEMBLY

GENERAL NOTES AND COMMON REFERENCES



Applicable Section References:

- **Section 5.1** - Aluminum Priming & Painting
- **Section 5.2** - Edge Finishing, Hole Deburring & Scratch Removal
- **Section 5.3** - Marking Parts
- **Section 5.4** - Setting & Inspecting Solid & Blind Rivet Heads, Finished Rivet Standards
- **Section 5.5** - Countersinking Holes
- **Section 5.13** - Fluting
- **Section 5.16** - Installing Nutplates
- **Section 5.26** - Hardware Reference

Tools Used This Section:

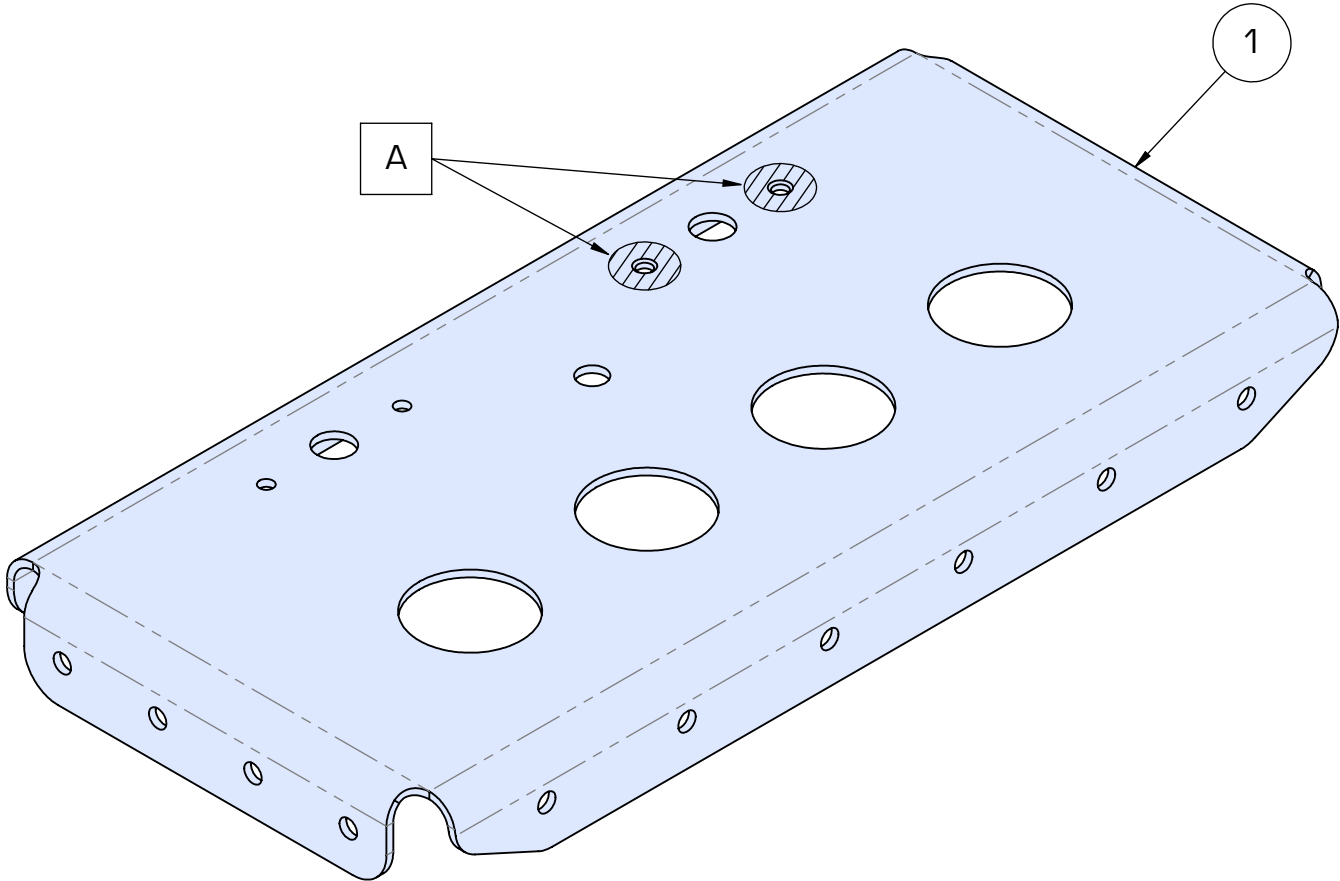
- Rivet Squeezer
- Rivet Puller
- #40 Countersink
- Spring Clecos: 3/32 [VANS PN# TOOL CL332]
- Spring Clecos: 1/8 [VANS PN# TOOL CL18]
- Deburring Tools
- Fluting Tools

Part Preparation:

- ☐ **Step 1:** Layout all parts
- ☐ **Step 2:** Deburr edges and holes in and around all parts
- ☐ **Step 3:** Flute and straighten all rib flanges
- ☐ **Step 4:** Prime all parts as required

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15024-001	BELLCRANK PLATE, AIL, OTBD	1

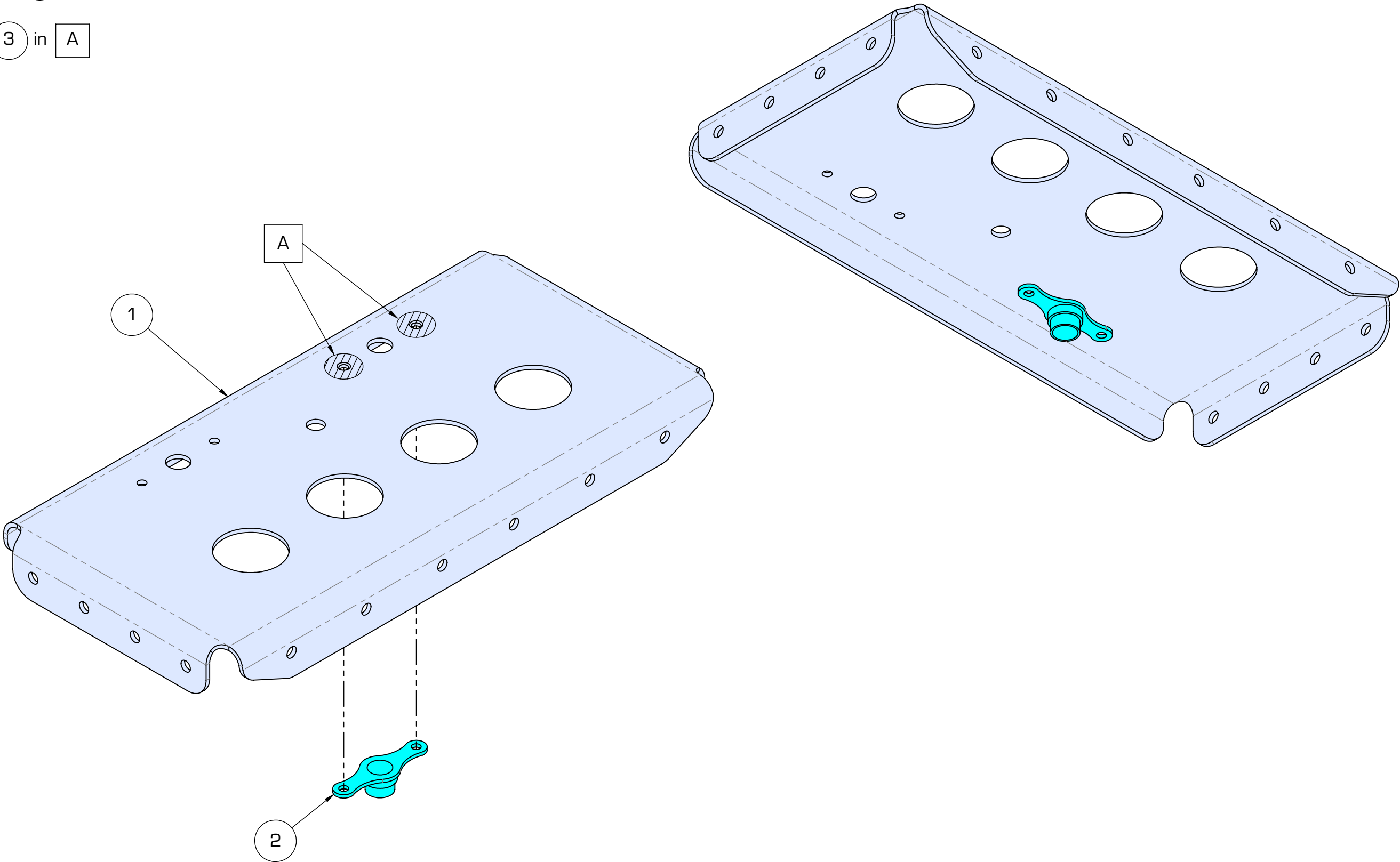
☐ **Step 1:** #40 Machine Countersink 1 for **NAS1097AD3** rivets in A



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15024-001	BELLCRANK PLATE, AIL, OTBD	1
2	K1000-4	NUTPLATE	1
3	NAS1097AD3-3.5	RIVET, SOLID COUNTERSUNK	2

☐ **Step 1:** Cleco 1 to 2

☐ **Step 2:** Rivet with 3 in A

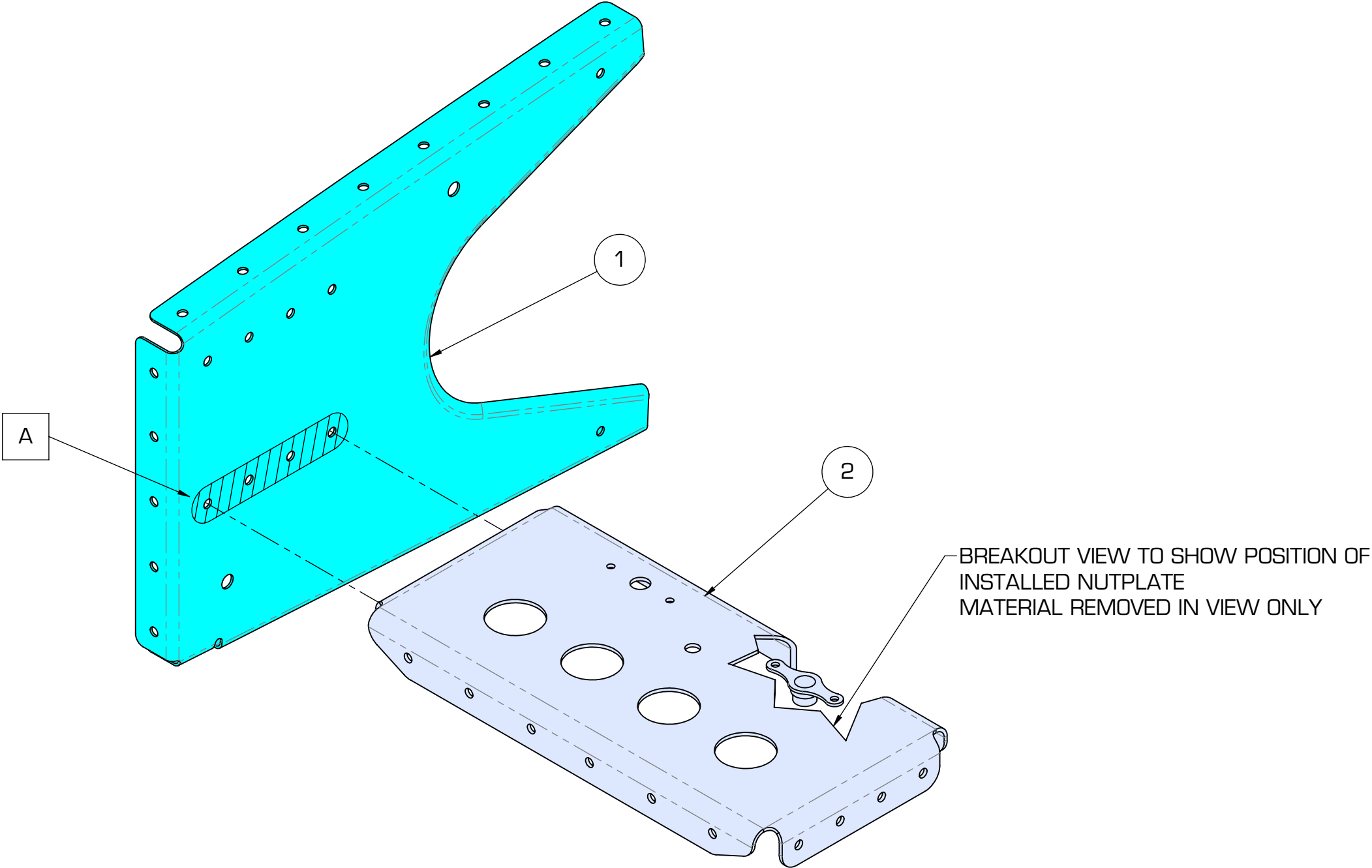


W-15501 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15011D-001	WING RIB, AIL BELLCRANK	1
2	W-15024-001	BELLCRANK PLATE, AIL, OTBD	1
3	LP4-3	RIVET, BLIND	4

☐ **Step 1:** Cleco 1 to 2

☐ **Step 2:** Rivet with 3 in A

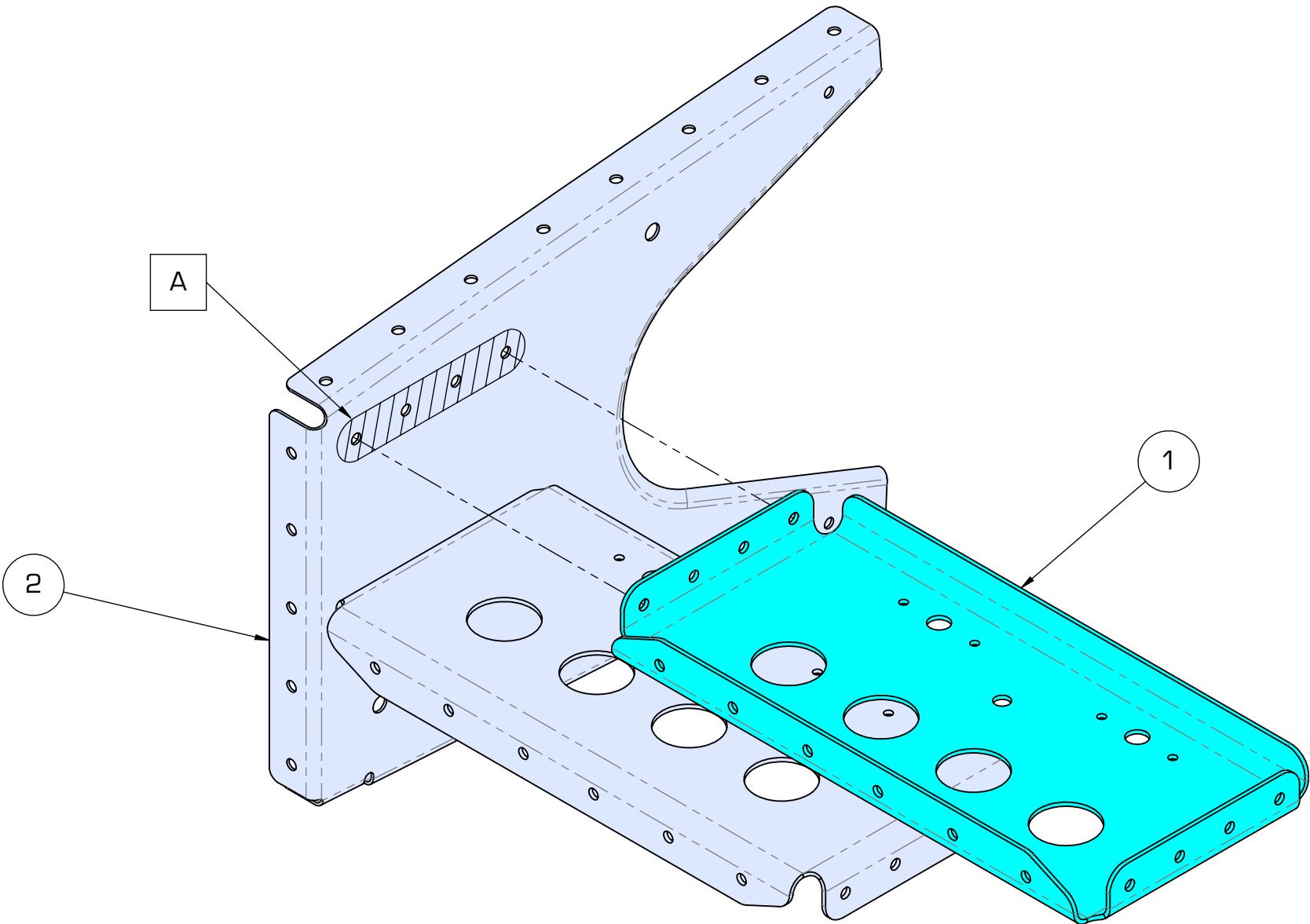


W-15501 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15024-001	BELLCRANK PLATE, AIL, OTBD	1
2	W-15011D-001	WING RIB, AIL BELLCRANK	1
3	LP4-3	RIVET, BLIND	4

☐ **Step 1:** Cleco 1 to 2

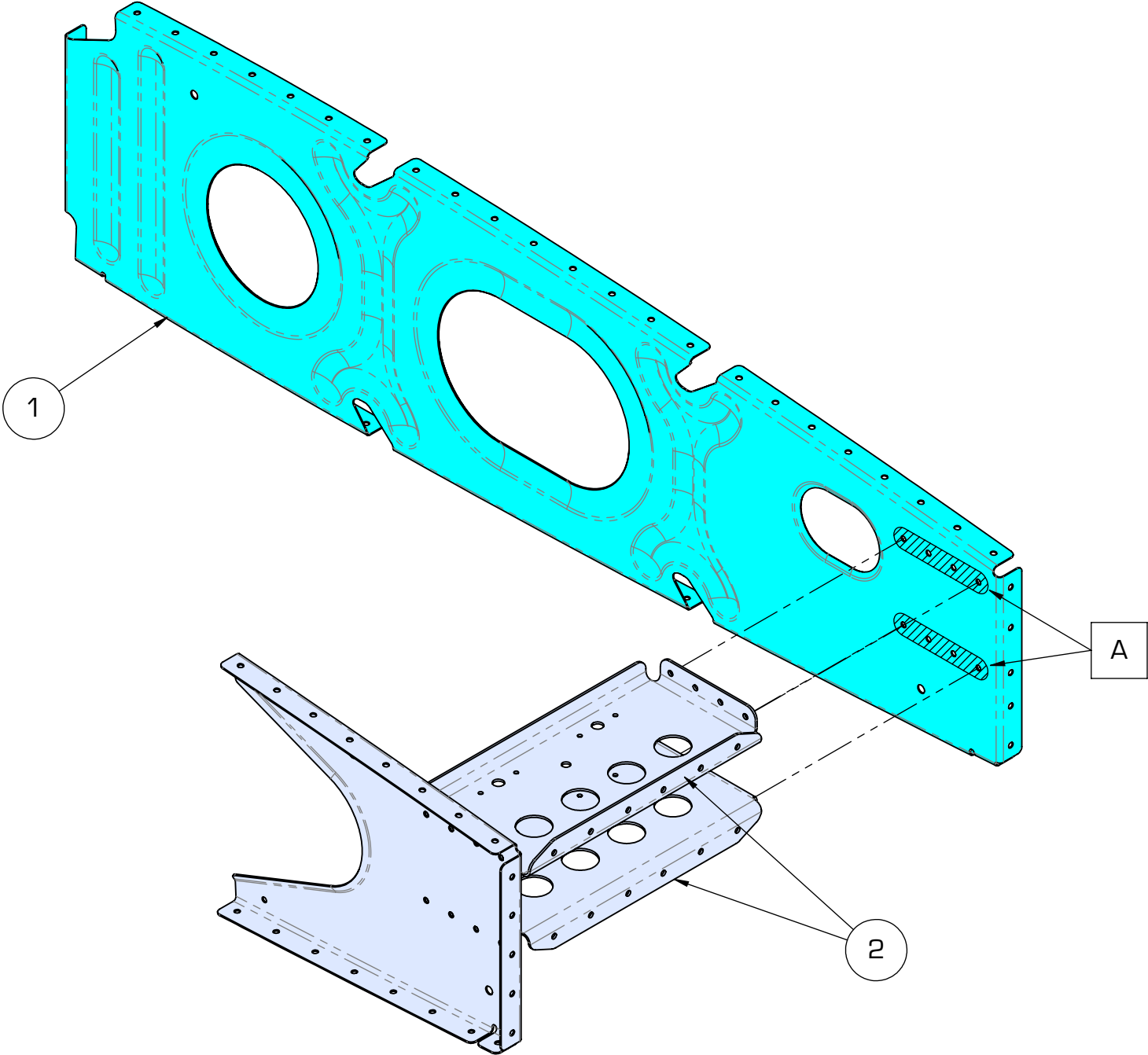
☐ **Step 2:** Rivet with 3 in A



ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15011C-002	RIB, WING	1
2	W-15024-001	BELLCRANK PLATE, AIL, OTBD	2
3	LP4-3	RIVET, BLIND	8

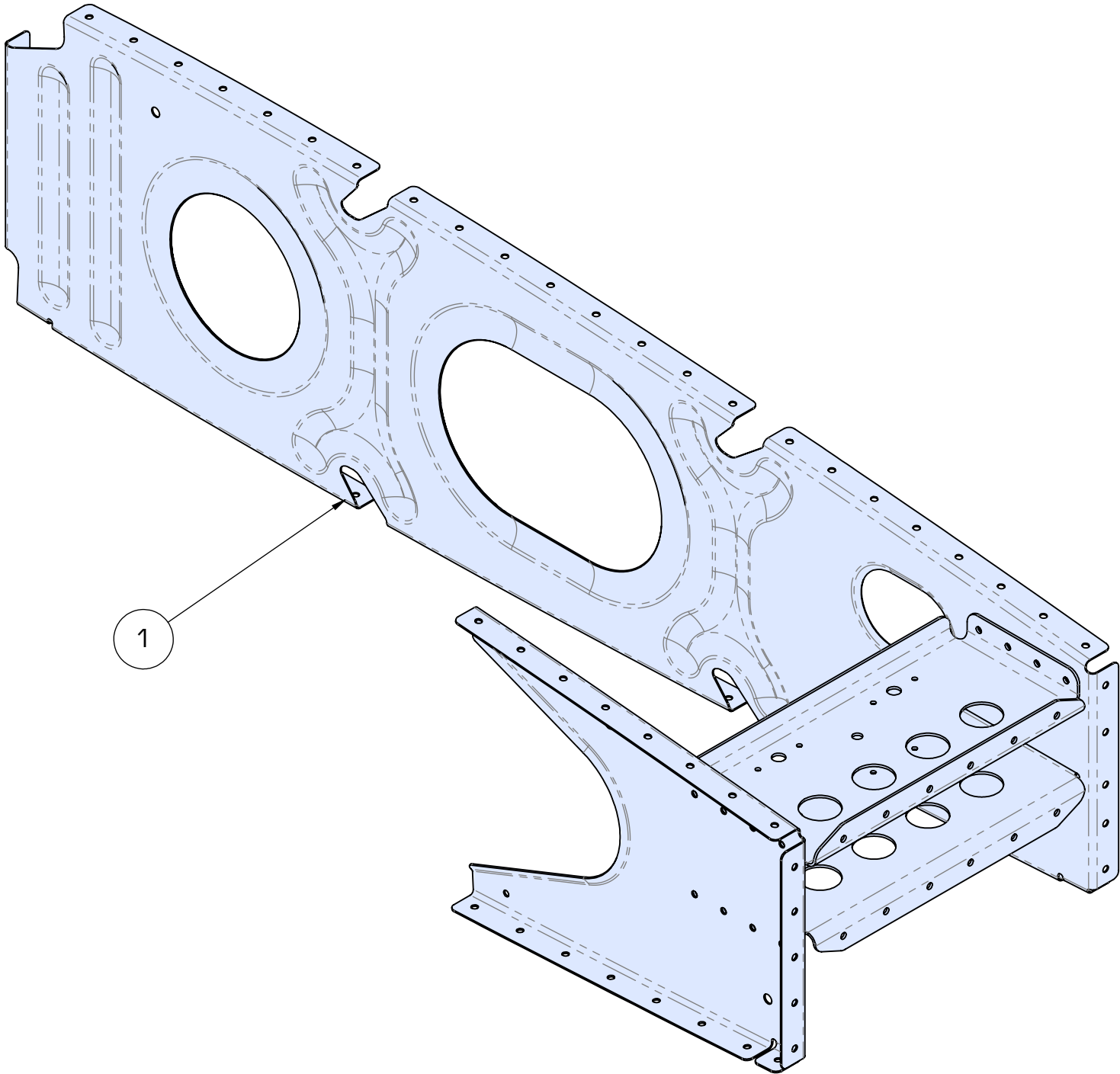
☐ **Step 1:** Cleco 1 to 2

☐ **Step 2:** Rivet with 3 in A



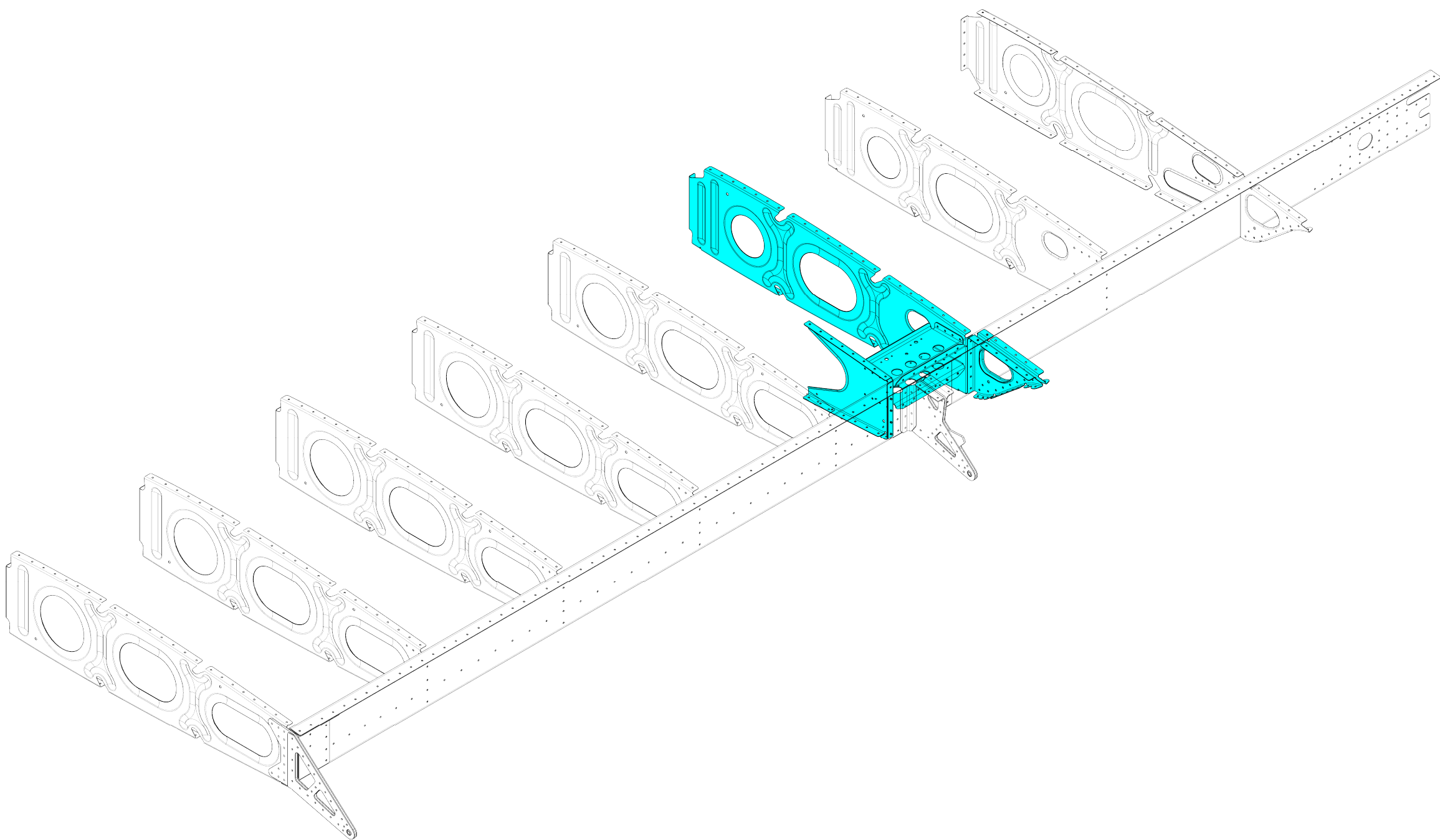
W-15501 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15501-001	OUTBOARD MIXER BOX	1



W-15501 ASSEMBLY

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W-15503
OUTBOARD MIXER BOX AND REAR SPAR ASSEMBLY

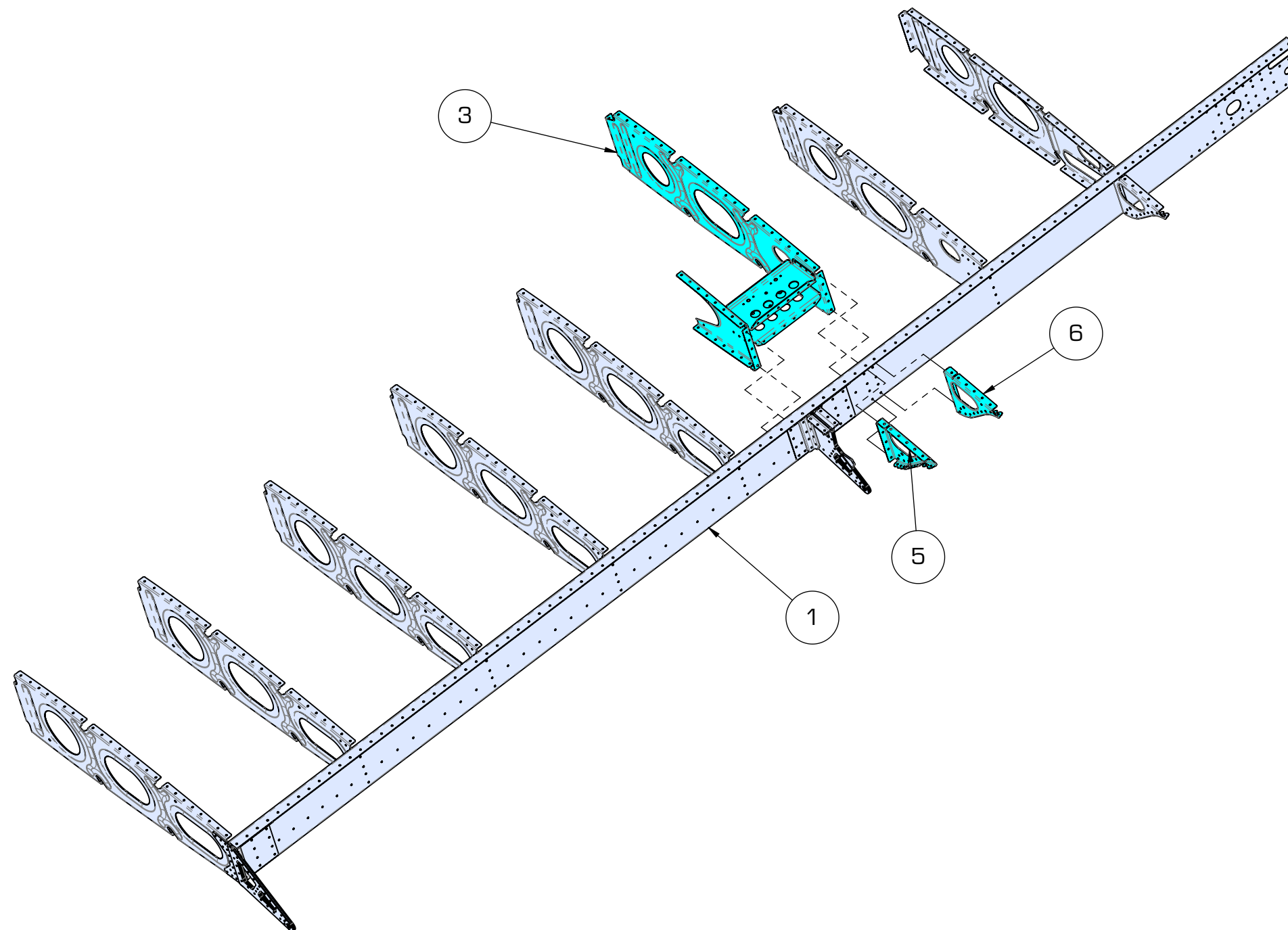
ASSM PARTS LIST					
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-L ASSM QTY.	-R ASSM QTY.
1	W-15500-001	REAR SPAR OUTBOARD ASSEMBLY	SEE PARTS LIST	1	-
2	W-15500-002	REAR SPAR OUTBOARD ASSEMBLY	SEE PARTS LIST	-	1
3	W-15501-001	MIXER BOX SUBASSM, AIL, OTBD	SEE PARTS LIST	1	-
4	W-15501-002	MIXER BOX SUBASSM, AIL, OTBD	SEE PARTS LIST	-	1
5	W-15014C-001	FLAP TRACK COVE RIB , OTBD	.025 2024-T3 ALCLAD SHEET	1	1
6	W-15014C-002	FLAP TRACK COVE RIB, OTBD	.025 2024-T3 ALCLAD SHEET	1	1
7	AN470AD4-5	RIVET, SOLID	ALUMINUM	10	10
8	AN470AD4-7	RIVET, SOLID	ALUMINUM	4	4
9	LP4-3	RIVET, BLIND	ALUMINUM	12	12

BOM NOTE: Cherrymax blind rivets (grip as required) may be used (except as noted) in place of AN470AD4 rivets.



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

It is the builder's choice as to whether to complete all steps for the left side before repeating those steps for the right side or to complete each step for both left and right sides before moving to the next step.



W-15503 ASSEMBLY

Applicable Section References:

- **Section 5.1** - Aluminum Primer & Painting
- **Section 5.2** - Edge Finishing, Hole Deburring & Scratch Removal
- **Section 5.3** - Marking Parts
- **Section 5.4** - Riveting & Inspection
- **Section 5.12** - Vinyl Coating
- **Section 5.13** - Fluting
- **Section 5.26** - Hardware Reference

Tools Used This Section:

- Rivet Squeezer
- Spring Clecos: 1/8 [VANS PN# TOOL CL18]
- Rivet Gun
- Bucking Bars
- Fluting Plier

Part Preparation:

- ☐ **Step 1:** Layout all parts
- ☐ **Step 2:** Deburr edges and holes in and around all parts
- ☐ **Step 3:** Prime all parts as required
- ☐ **Step 4:** Flute Item #5 and Item #6. See Detail A pages 5 & 6.

ASSM PARTS LIST

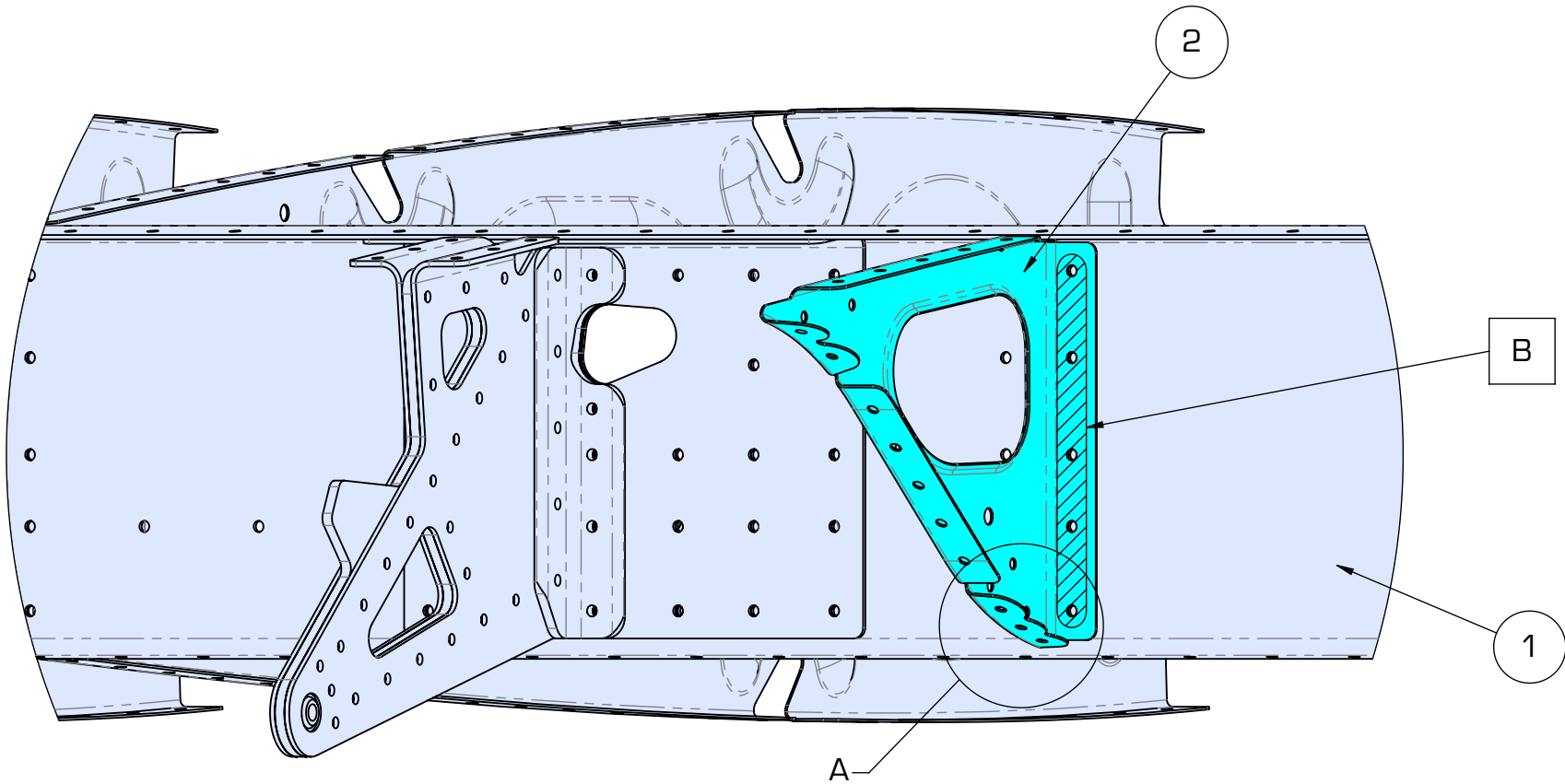
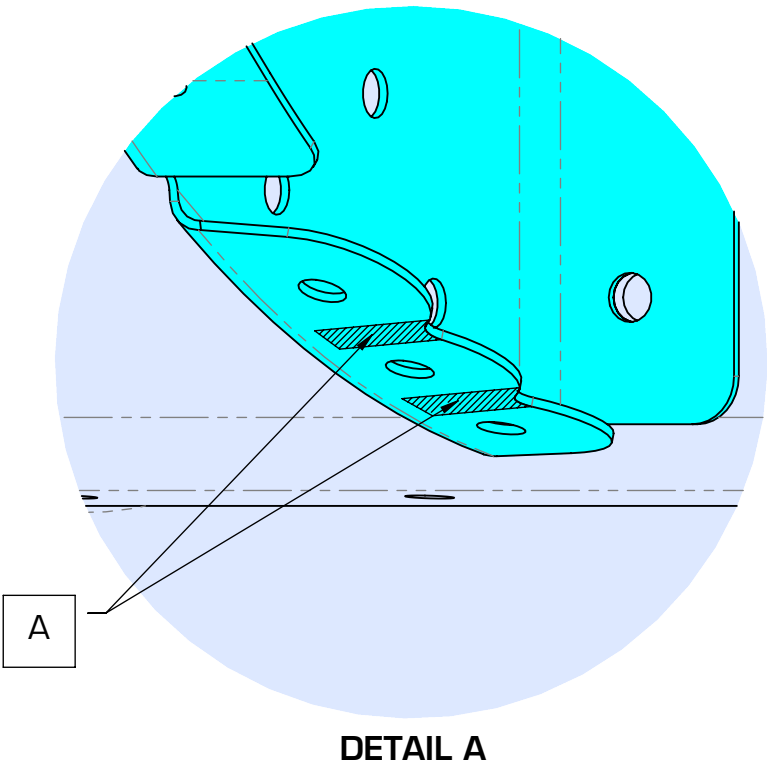
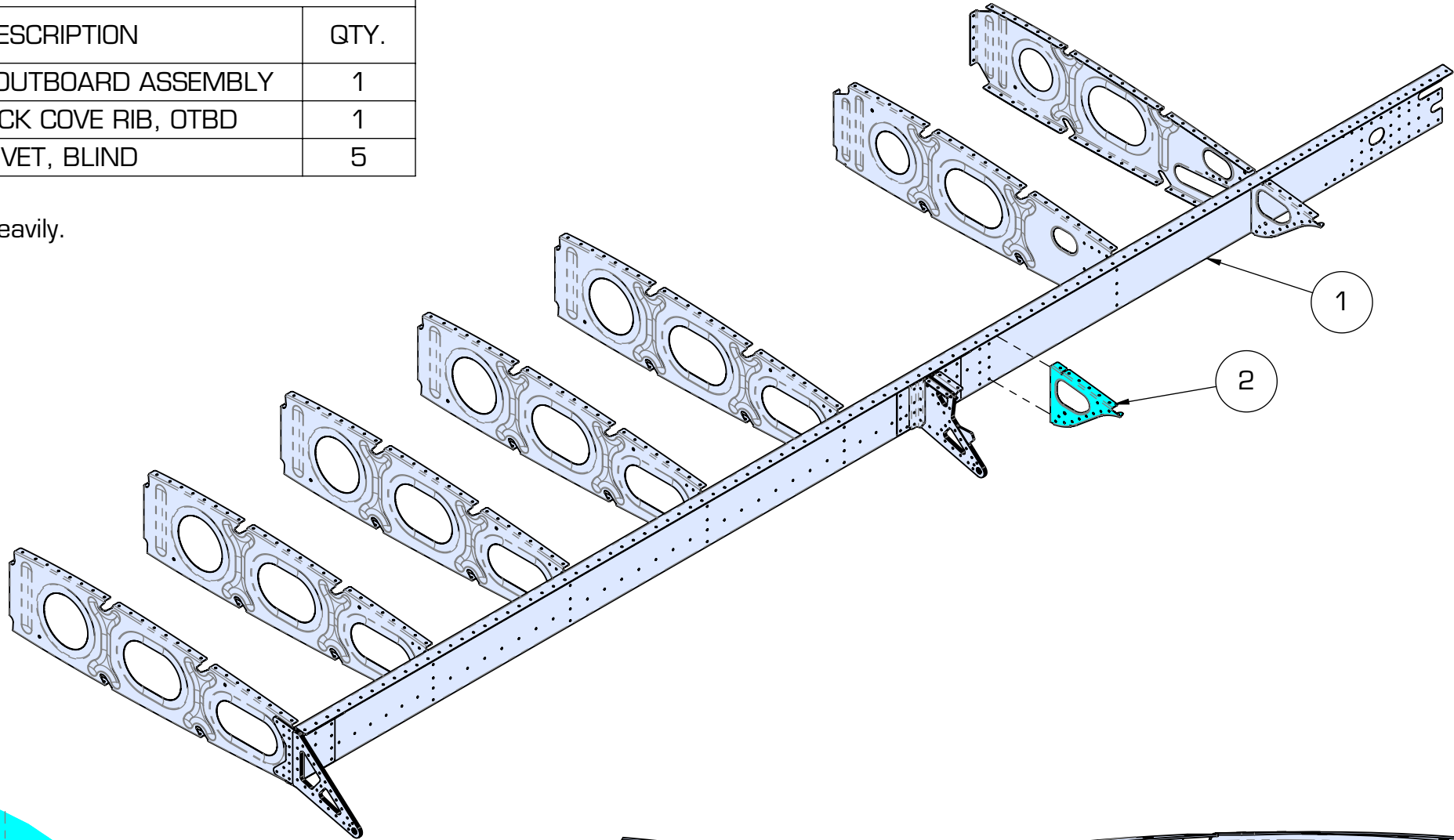
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15500-001	REAR SPAR OUTBOARD ASSEMBLY	1
2	W-15014C-002	FLAP TRACK COVE RIB, OTBD	1
3	LP4-3	RIVET, BLIND	5



☐ **Step 1:** Flute (2) at A in **Detail A** heavily.

☐ **Step 2:** Cleco (2) to (1)

☐ **Step 3:** Rivet with (3) at B



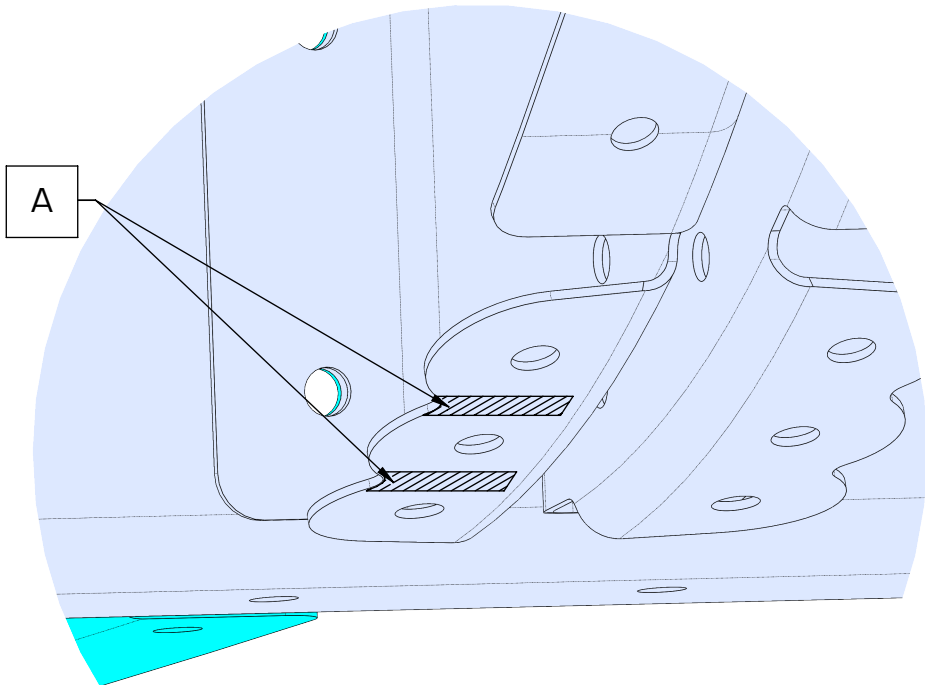
W-15503 ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15500-001	REAR SPAR OUTBOARD ASSEMBLY	1
2	W-15014C-001	FLAP TRACK COVE RIB, OTBD	1
3	W-15501-001	MIXER BOX SUBASSM, AIL, OTBD	1
4	LP4-3	RIVET, BLIND	7

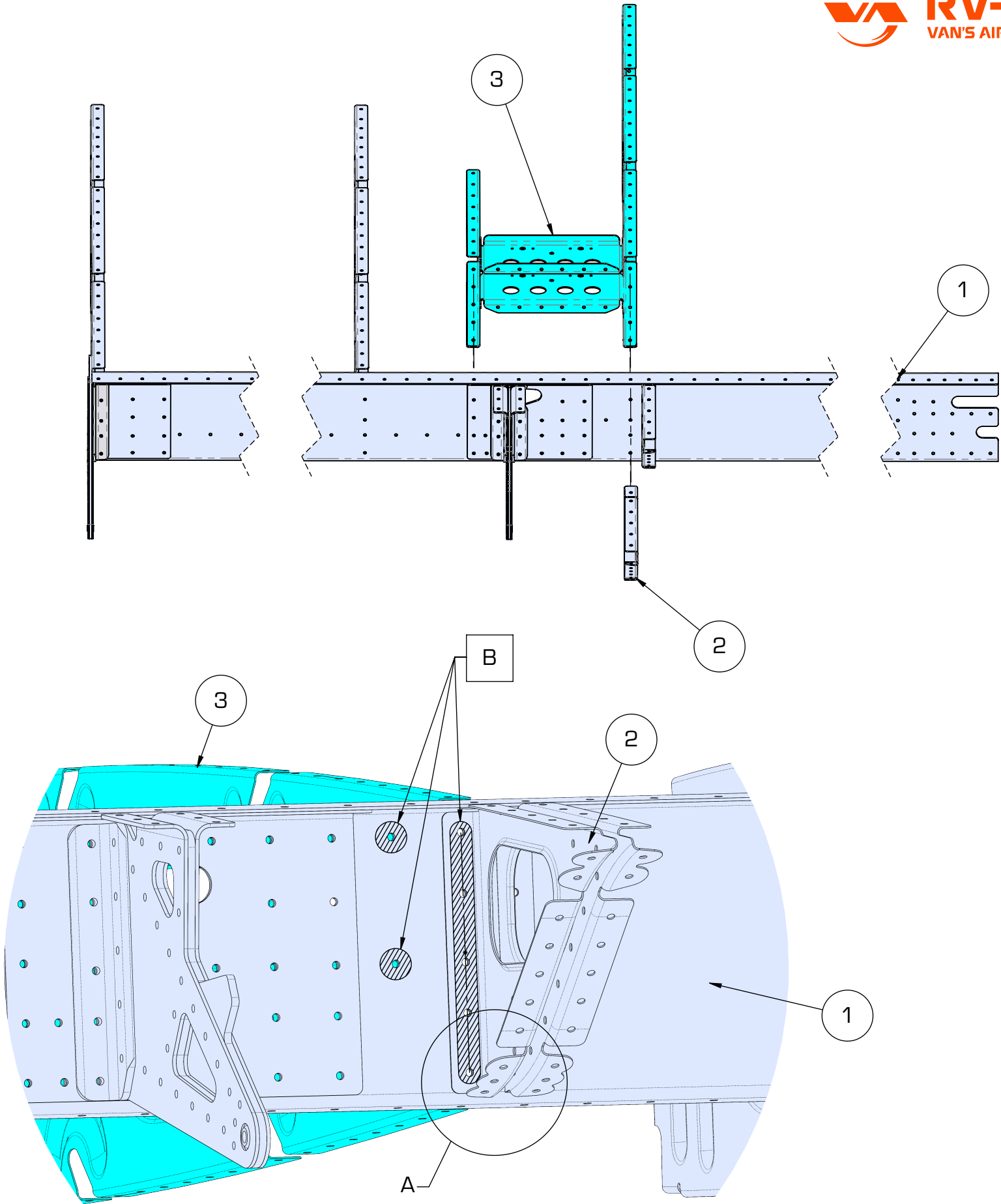
☐ **Step 1:** Flute 2 at A in Detail A heavily.

☐ **Step 2:** Cleco 1 to 2 and 3

☐ **Step 3:** Rivet with 4 at B



DETAIL A



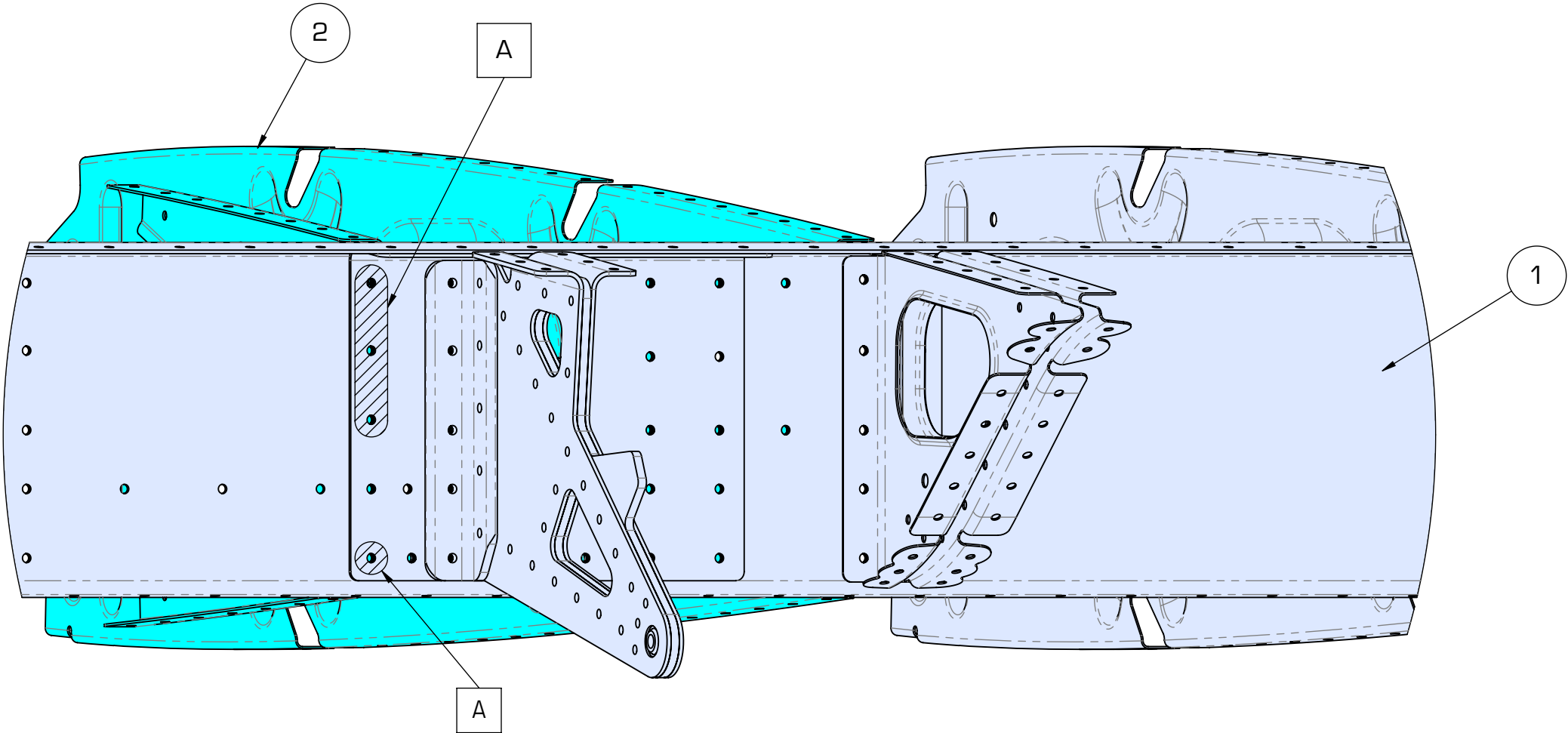
W-15503 ASSEMBLY

ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15500-001	REAR SPAR OUTBOARD ASSEMBLY	1
2	W-15501-001	MIXER BOX SUBASSM, AIL, OTBD	1
3	AN470AD4-5	RIVET, SOLID	4



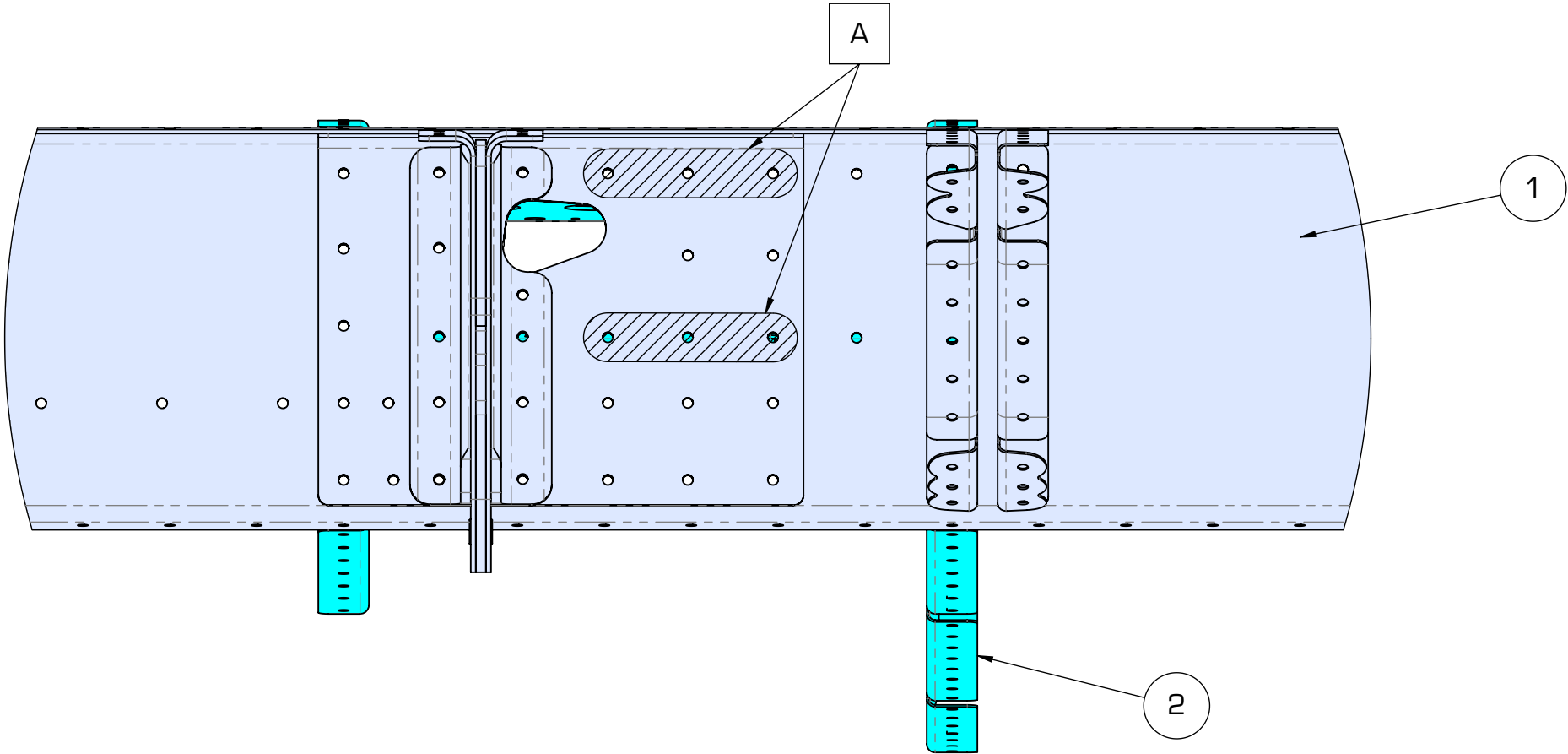
☐ **Step 1:** Rivet with 3 at A



W-15503 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15500-001	REAR SPAR OUTBOARD ASSEMBLY	1
2	W-15501-001	MIXER BOX SUBASSM, AIL, OTBD	1
3	AN470AD4-5	RIVET, SOLID	6

☐ **Step 1:** Rivet with 3 at A

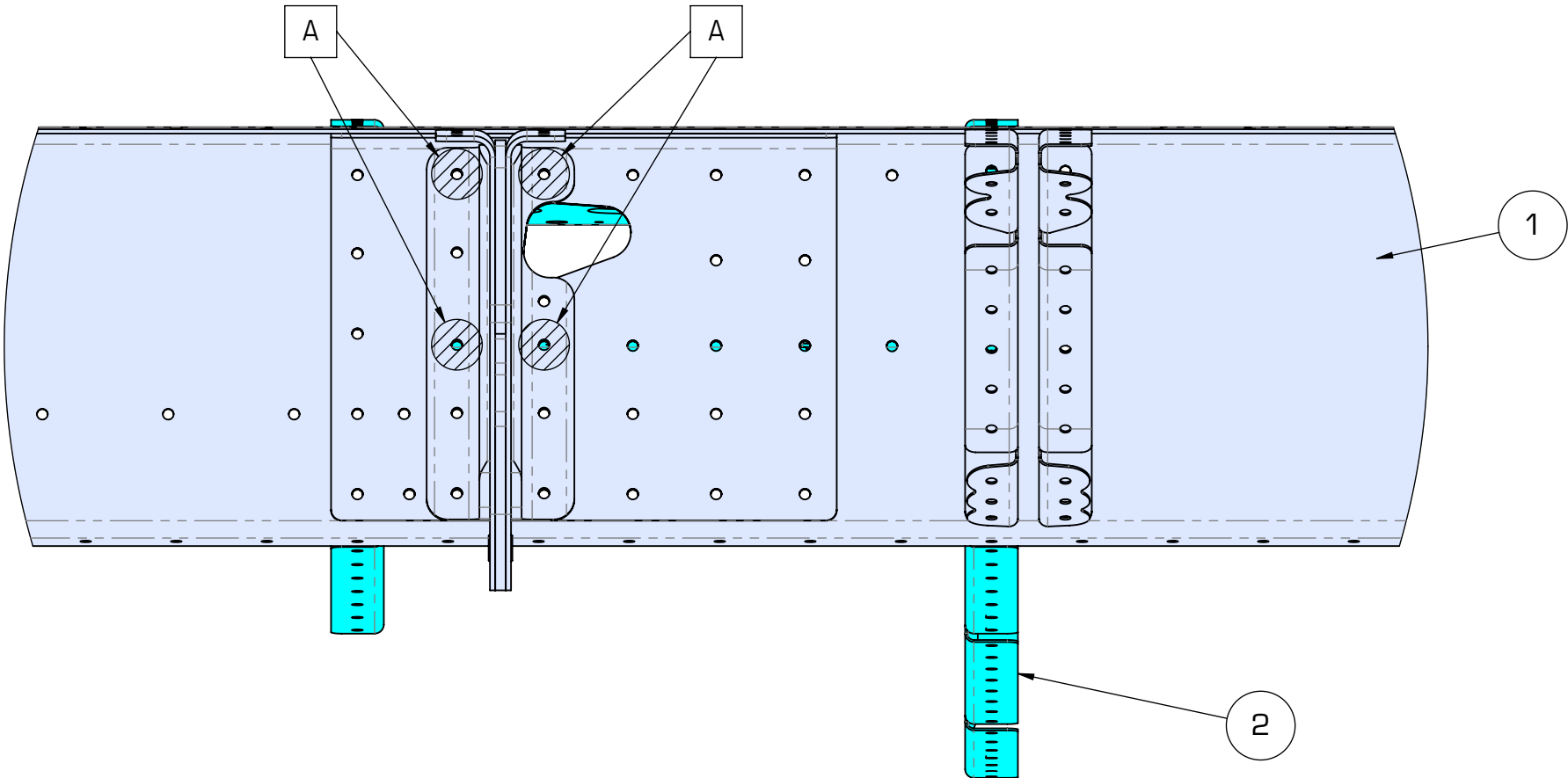


W-15503 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15500-001	REAR SPAR OUTBOARD ASSEMBLY	1
2	W-15501-001	MIXER BOX SUBASSM, AIL, OTBD	1
3	AN470AD4-7	RIVET, SOLID	4

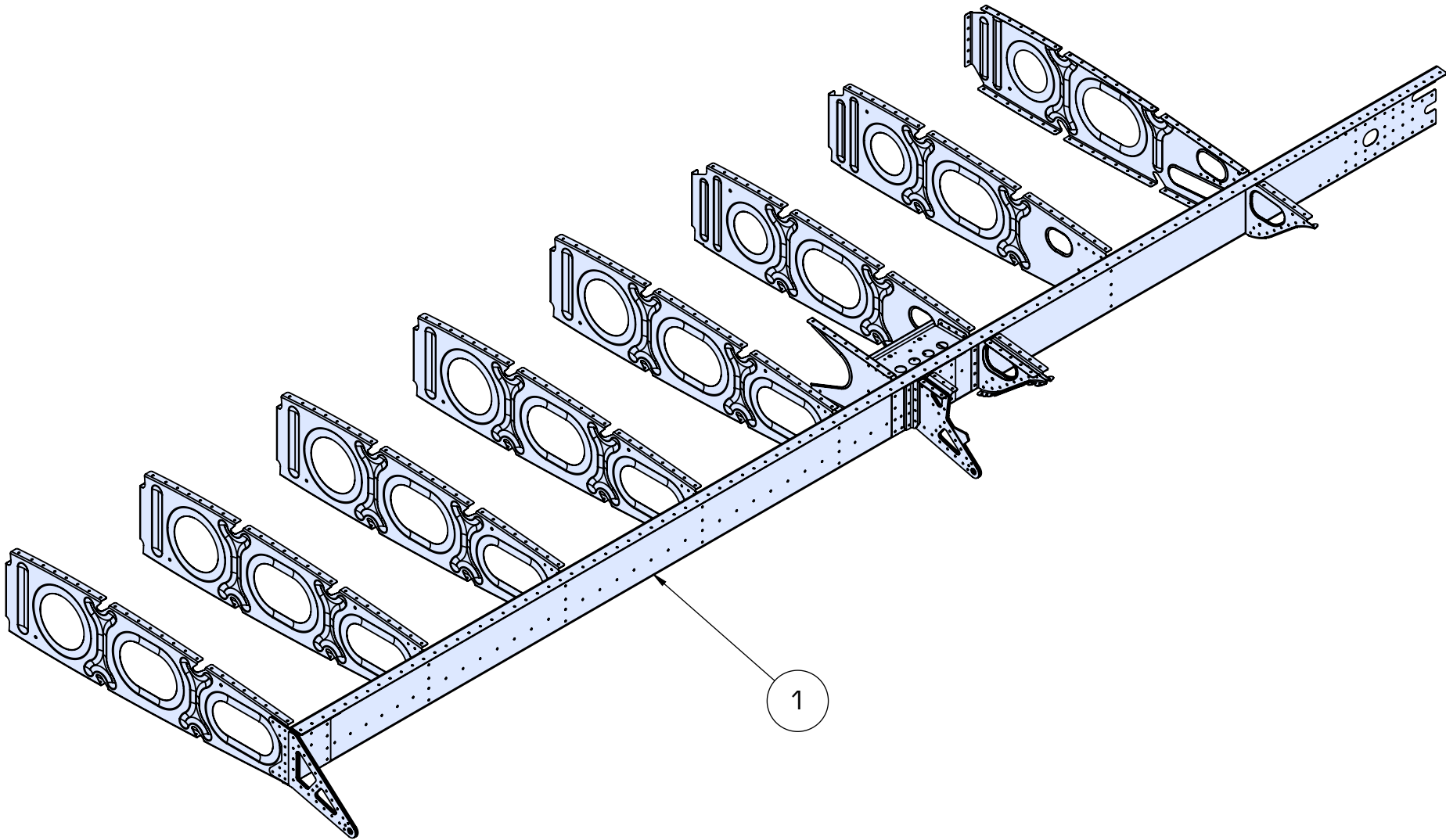
NOTE: Cherrymax blind rivets may NOT be used in place of **AN470AD4** rivets.

☐ **Step 1:** Rivet with 3 at A



W-15503 ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15503	OUTBOARD MIXER BOX AND REAR SPAR ASSEMBLY	1



W-15503 ASSEMBLY

BUILDER 1	NAME	SIGNATURE	DATE
BUILDER 2	NAME	SIGNATURE	DATE
START DATE	DATE		
END DATE	DATE		
HOURS	QTY		
INSPECTED BY	NAME	SIGNATURE	DATE



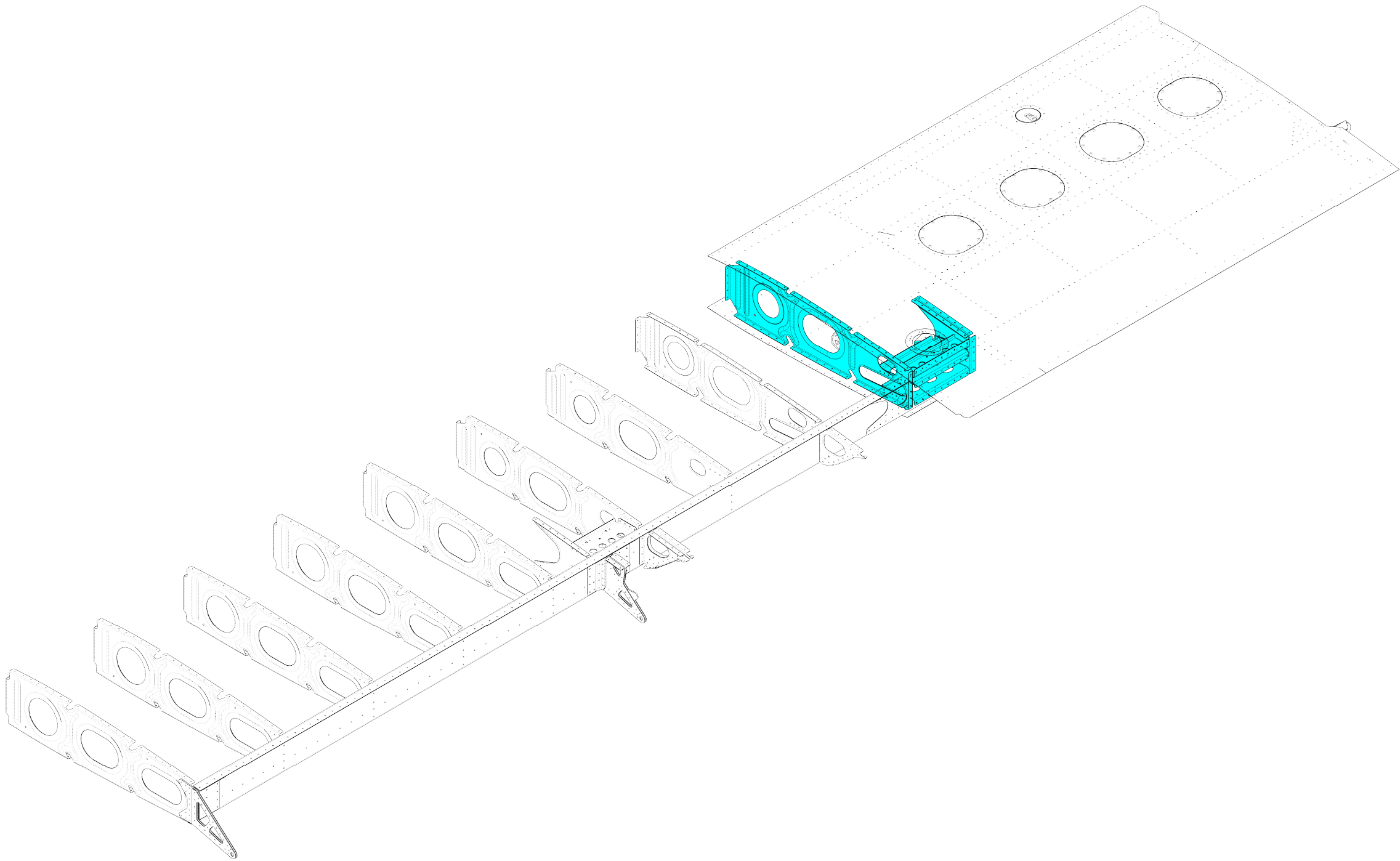
MODIFICATIONS	
REPAIRS	
ISSUES	

NAME	SIGNATURE	DATE
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W-15503 ASSEMBLY

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SECTION 25



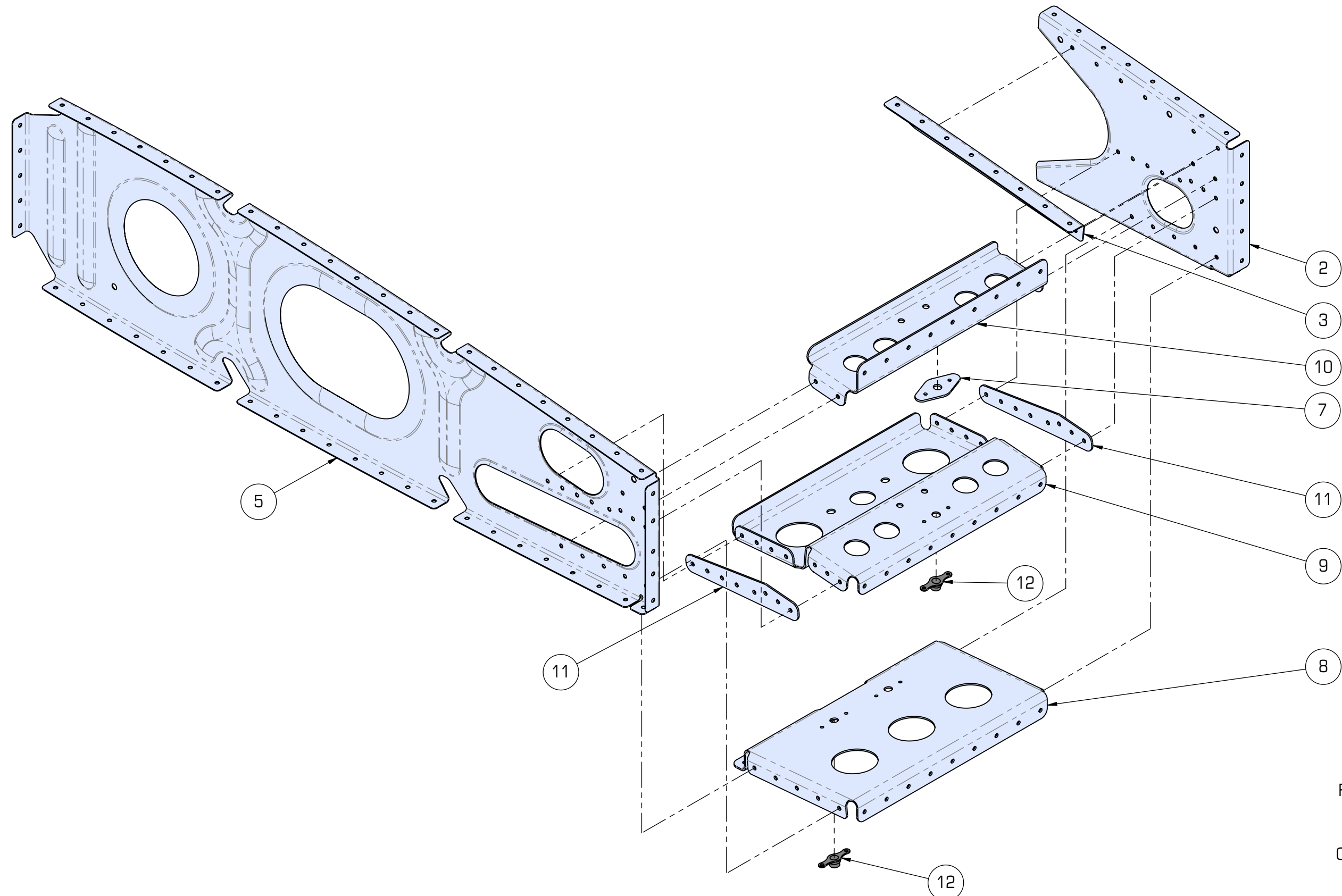
W-15504
INBOARD MIXER BOX

ASSM PARTS LIST					
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-L ASSM QTY	-R ASSM QTY
1	W-15011A-001	WING RIB, AIL BELLCRANK	.032 2024-T3 ALCLAD SHEET	-	1
2	W-15011A-002	WING RIB, AIL BELLCRANK	.032 2024-T3 ALCLAD SHEET	1	-
3	W-15011B-001	WING RIB STIFFENER	.032 2024-T3 ALCLAD SHEET	1	-
4	W-15011B-002	WING RIB STIFFENER	.032 2024-T3 ALCLAD SHEET	-	1
5	W-15011E-001	RIB, WING	.025 2024-T3 ALCLAD SHEET	1	-
6	W-15011E-002	RIB, WING	.025 2024-T3 ALCLAD SHEET	-	1
7	W-15021-001	DIAMOND SPACER, BELLCRANK	.063 2024-T3 ALCLAD SHEET	1	1
8	W-15028-001	PLATE, LWR FLAP BELLCRANK	.050 2024-T3 ALCLAD SHEET	1	1
9	W-15029-001	BELLCRANK PLATE, FLAP UPPER	.050 2024-T3 ALCLAD SHEET	1	1
10	W-15035-001	BRKT, INBD UPR AILERON BELLCRANK	.050 2024-T3 ALCLAD SHEET	1	1
11	W-15036-001	PLATE, INBD BELLCRANK SPACER	.050 2024-T3 ALCLAD SHEET	2	2
12	K1000-4	NUTPLATE	STEEL	2	2
13	NAS1097AD3-3.5	RIVET, SOLID COUNTERSUNK	ALUMINUM	4	4
14	NAS1097AD3-4	RIVET, SOLID COUNTERSUNK	ALUMINUM	2	2
15	LP4-3	RIVET, BLIND	ALUMINUM	36	36



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

It is the builder's choice as to whether to complete all steps for the left side before repeating those steps for the right side or to complete each step for both left and right sides before moving to the next step.



W-15504 ASSEMBLY

Applicable Section References:

- **Section 5.1** - Aluminum Priming & Painting
- **Section 5.2** - Edge Finishing, Hole Deburring & Scratch Removal
- **Section 5.3** - Marking Parts
- **Section 5.4** - Setting & Inspecting Solid & Blind Rivet Heads, Finished Rivet Standards
- **Section 5.5** - Countersinking Holes
- **Section 5.13** - Fluting
- **Section 5.16** - Installing Nutplates
- **Section 5.26** - Hardware Reference

Tools Used This Section:

- Rivet Squeezer
- Rivet Puller
- #40 Countersink
- Spring Clecos: 3/32 [VANS PN# TOOL CL332]
- Spring Clecos: 1/8 [VANS PN# TOOL CL18]
- Deburring tools
- Fluting tools

Part Preparation:

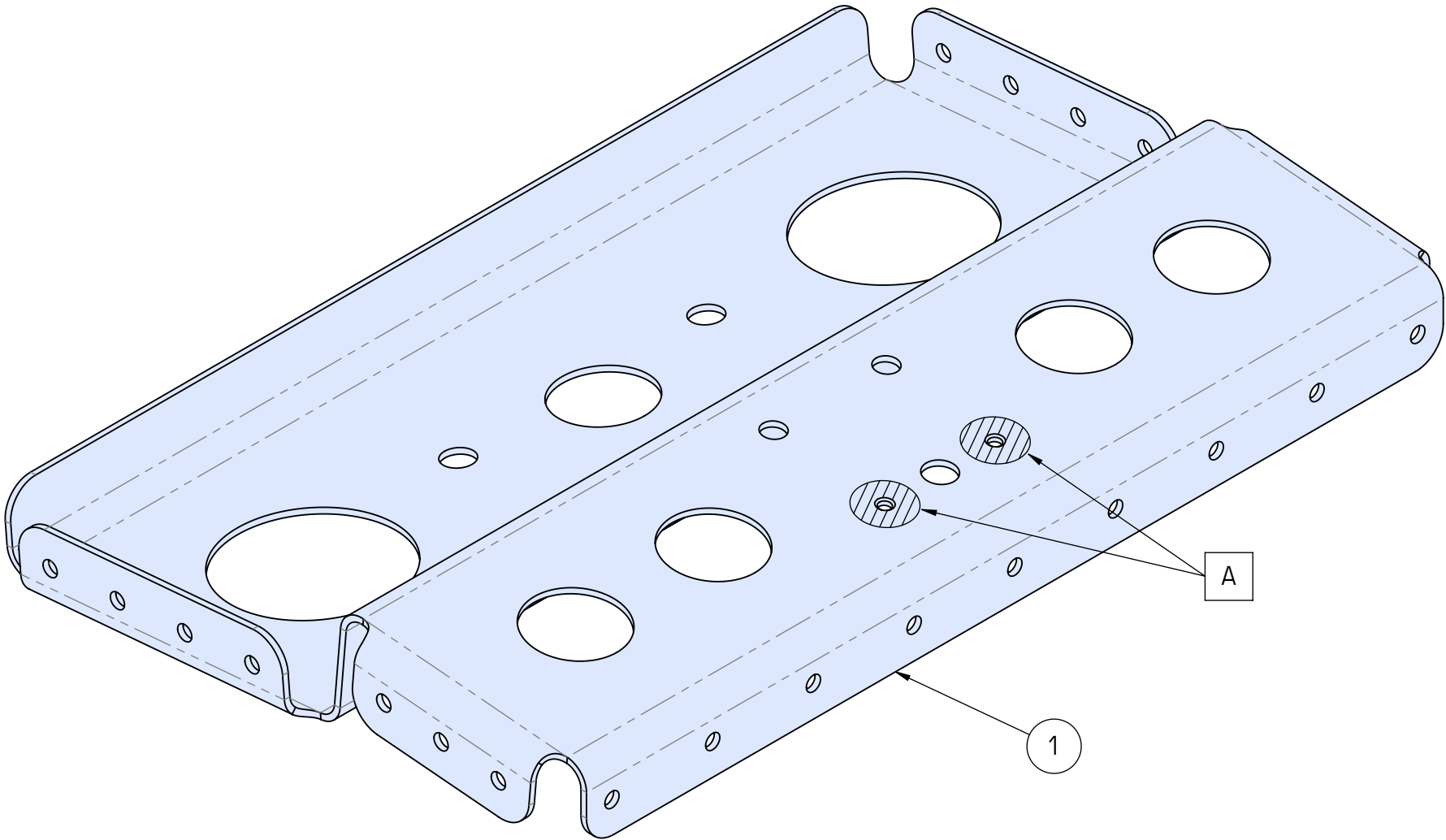
- ☐ **Step 1:** Layout all parts
- ☐ **Step 2:** Deburr edges and holes around all parts
- ☐ **Step 3:** Flute and straighten all rib flanges
- ☐ **Step 4:** Prime all parts as required

ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15029-001	BELLCRANK PLATE, FLAP UPPER	1



☐ Step 1: #40 Machine Countersink (1) for **NAS1097AD3** rivets at A in orientation shown.

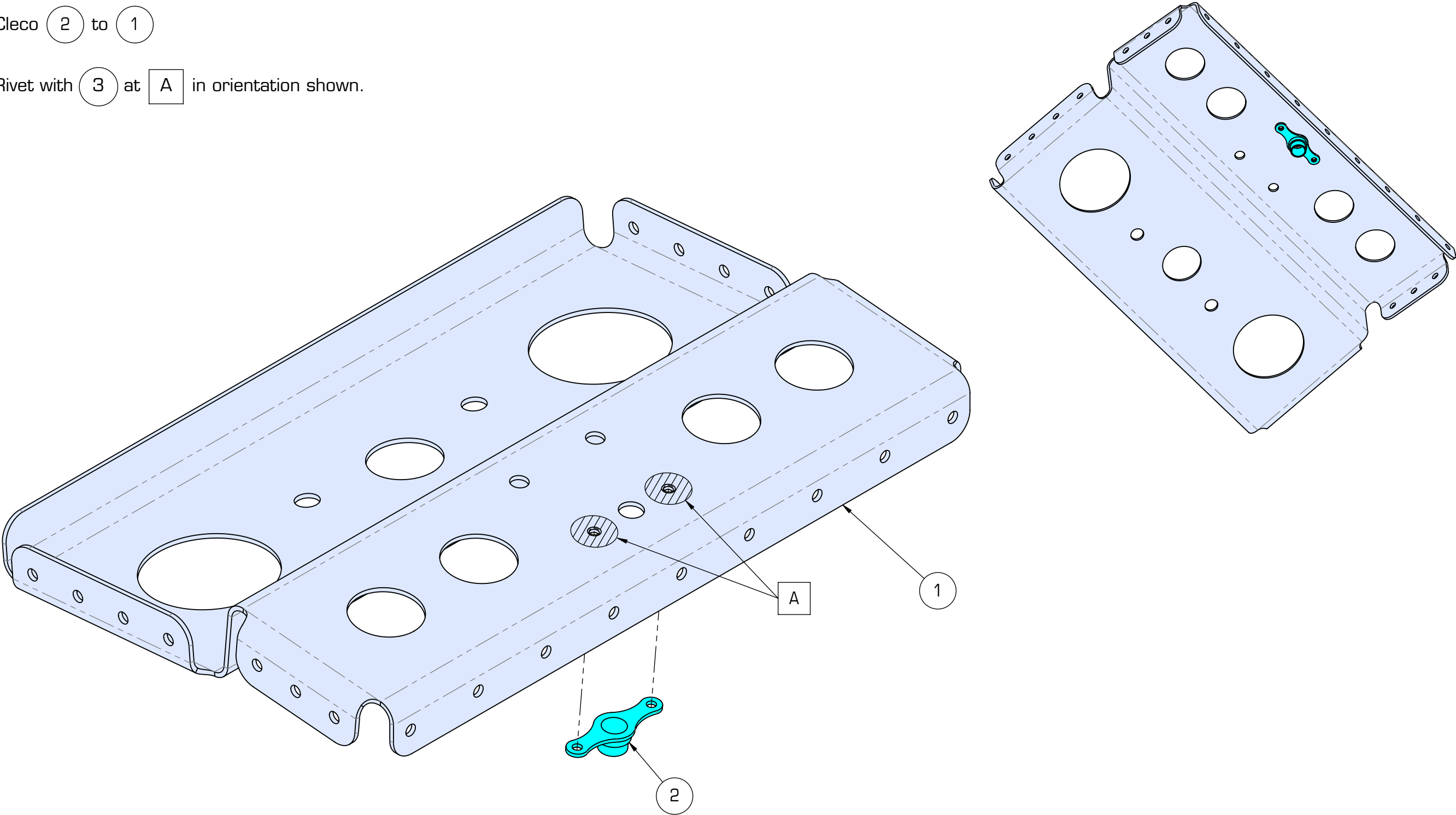


W-15504 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15029-001	BELLCRANK PLATE, FLAP UPPER	1
2	K1000-4	NUTPLATE	1
3	NAS1097AD3-3.5	RIVET, SOLID COUNTERSUNK	2

☐ **Step 1:** Cleco 2 to 1

☐ **Step 2:** Rivet with 3 at A in orientation shown.



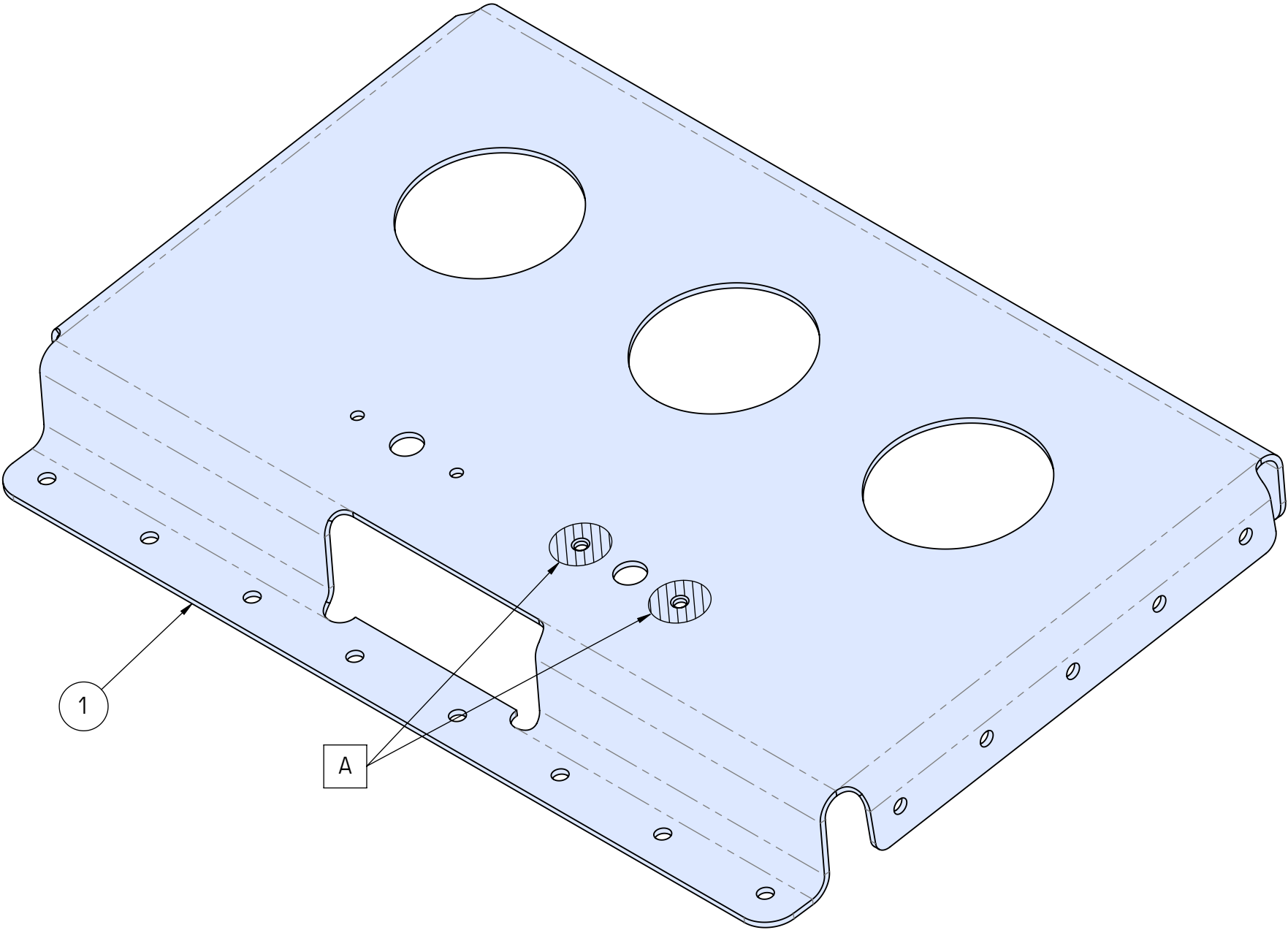
W-15504 ASSEMBLY

ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15028-001	PLATE, LWR FLAP BELLCRANK	1



☐ **Step 1:** #40 Machine Countersink (1) for **NAS1097AD3** rivets at (A) in orientation shown.



W-15504 ASSEMBLY

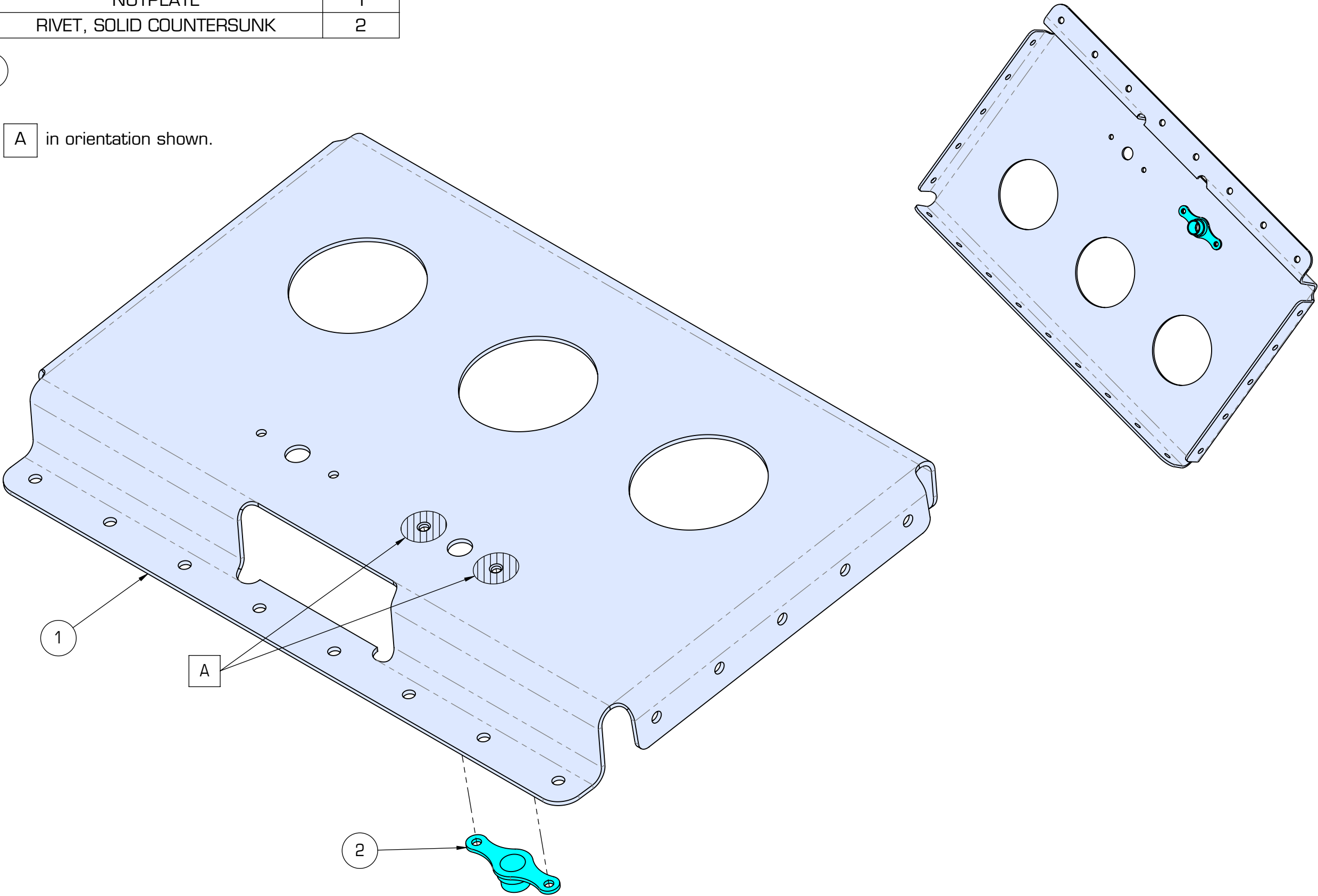
ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15028-001	PLATE, LWR FLAP BELLCRANK	1
2	K1000-4	NUTPLATE	1
3	NAS1097AD3-3.5	RIVET, SOLID COUNTERSUNK	2



☐ **Step 1:** Cleco (2) to (1)

☐ **Step 2:** Rivet with (3) at A in orientation shown.



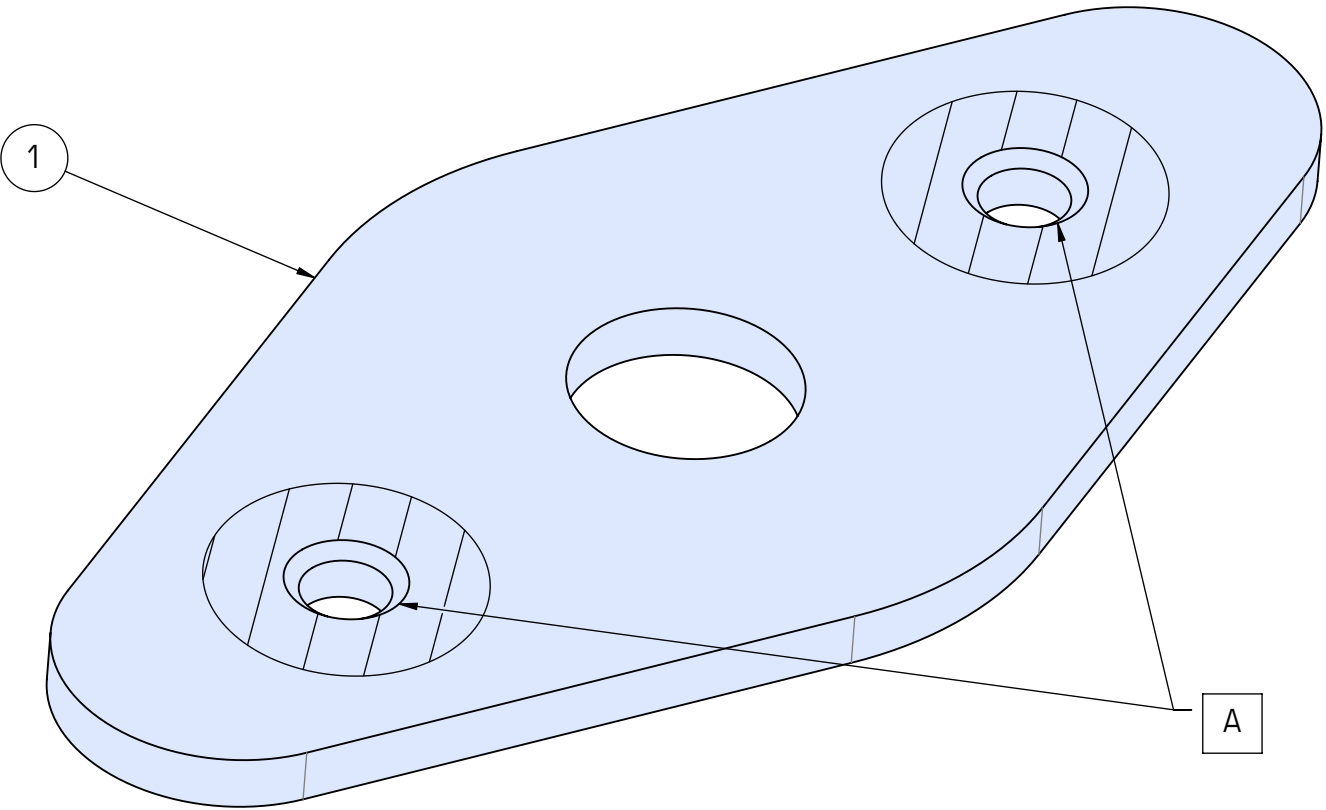
W-15504 ASSEMBLY

ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15021-001	DIAMOND SPACER, BELLCRANK	1



☐ **Step 1:** #40 Machine Countersink 1 for **NAS1097AD3** rivets at A



W-15504 ASSEMBLY

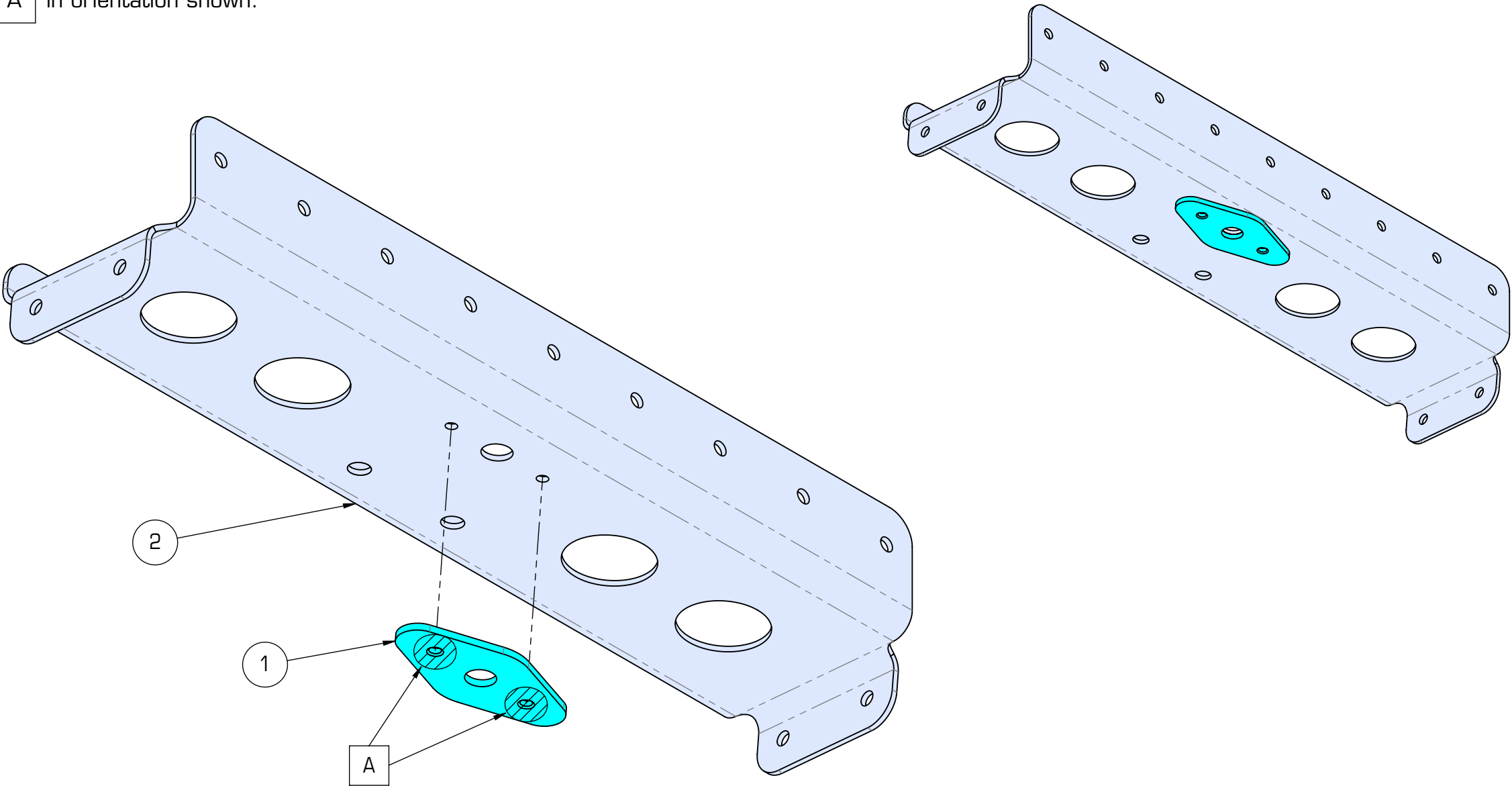
ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15021-001	DIAMOND SPACER, BELLCRANK	1
2	W-15035-001	BRKT, INBD UPR AILERON BELLCRANK	1
3	NAS1097AD3-4	RIVET, SOLID COUNTERSUNK	2



☐ **Step 1:** Cleco 1 to 2

☐ **Step 2:** Rivet with 3 at A in orientation shown.

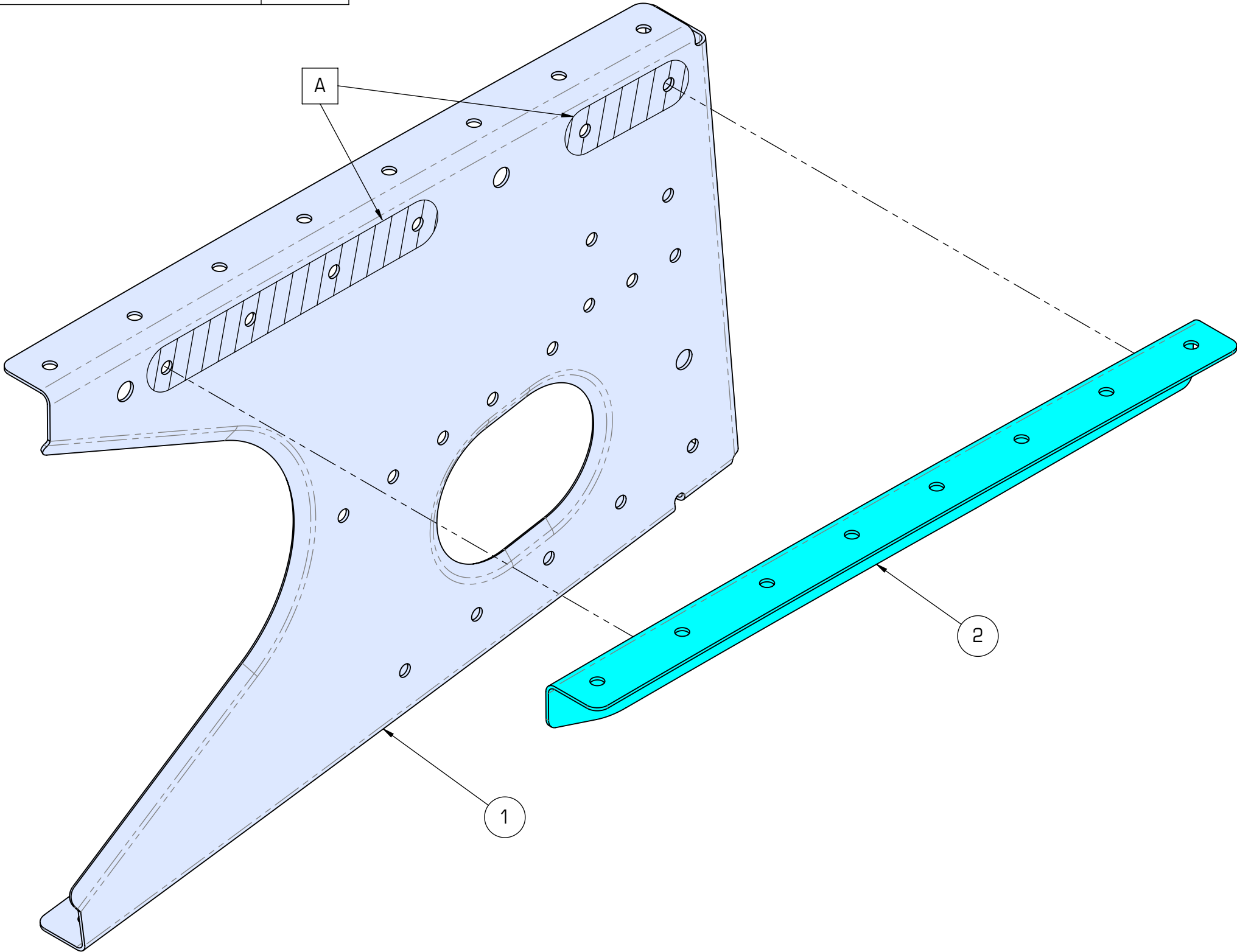


W-15504 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15011A-002	WING RIB, AIL BELLCRANK	1
2	W-15011B-001	WING RIB STIFFENER	1
3	LP4-3	RIVET, BLIND	6

☐
Step 1: Cleco 2 to 1

☐
Step 2: Rivet with 3 at A

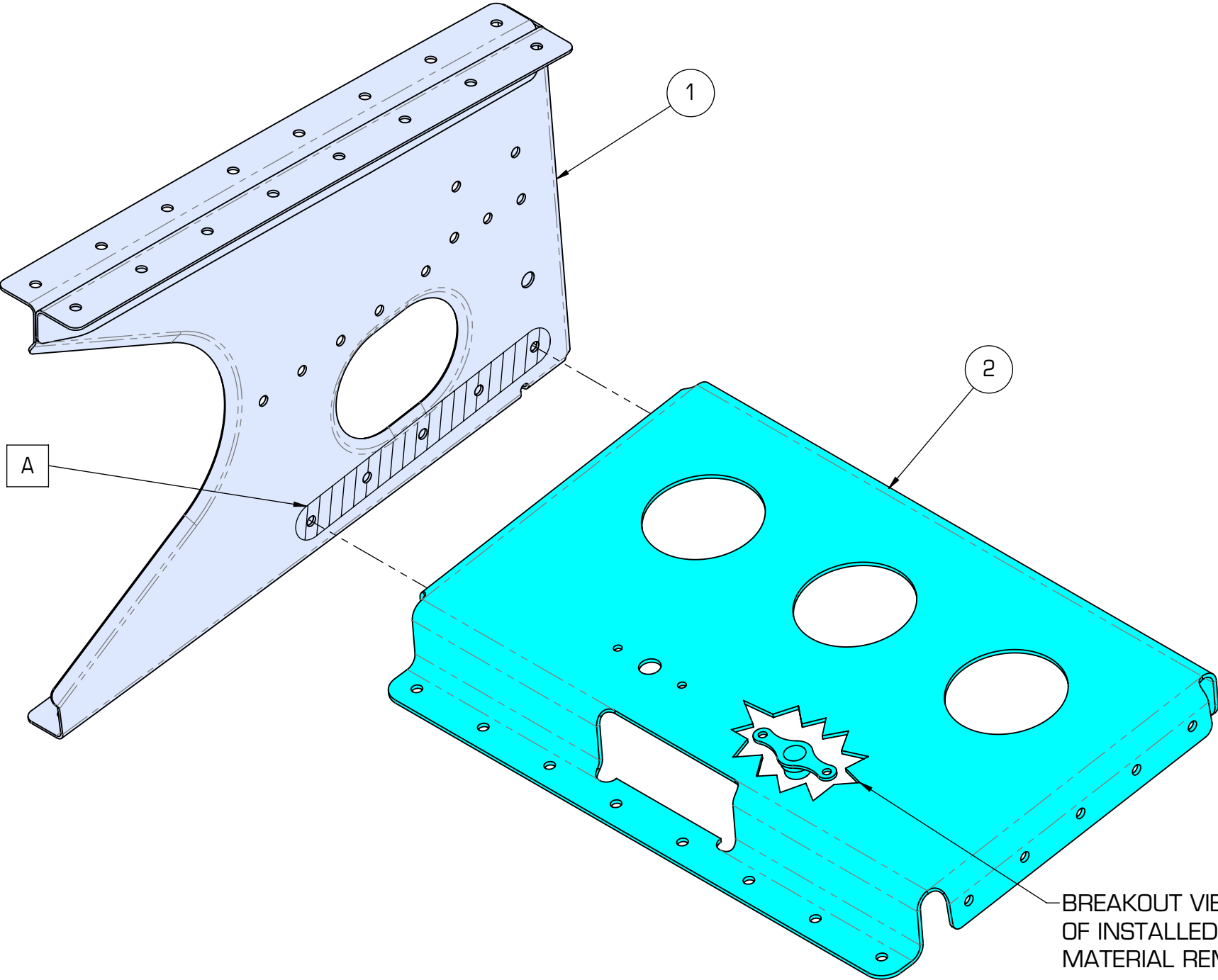


W-15504 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15011A-002	WING RIB, AIL BELLCRANK	1
2	W-15028-001	PLATE, LWR FLAP BELLCRANK	1
3	LP4-3	RIVET, BLIND	5

☐ **Step 1:** Cleco 2 to 1

☐ **Step 2:** Rivet with 4 at A

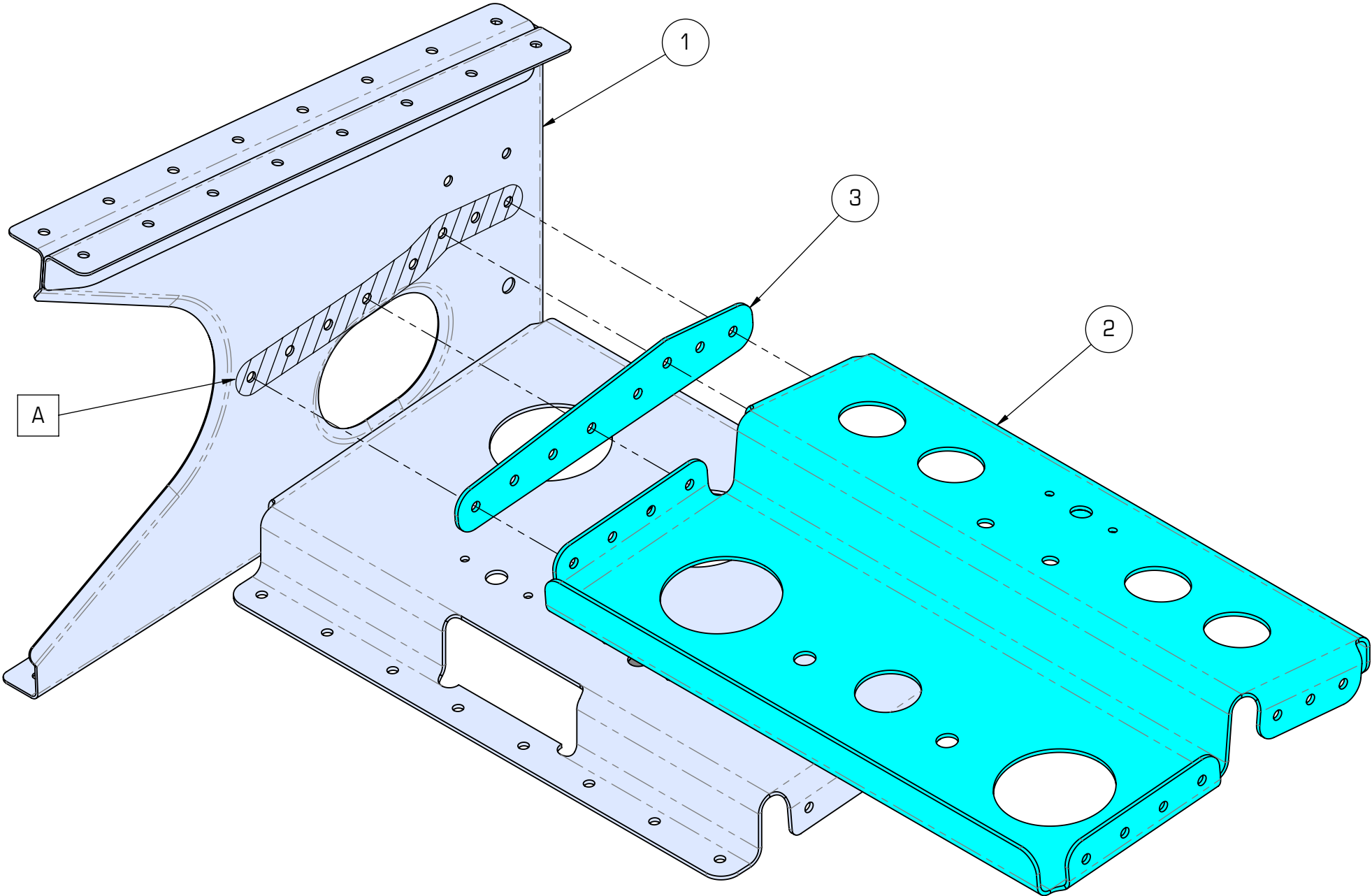


W-15504 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15011A-002	WING RIB, AIL BELLCRANK	1
2	W-15029-001	BELLCRANK PLATE, FLAP UPPER	1
3	W-15036-001	PLATE, INBD BELLCRANK SPACER	1
4	LP4-3	RIVET, BLIND	8

☐ **Step 1:** Cleco 1 2 and 3 together.

☐ **Step 2:** Rivet with 4 at A

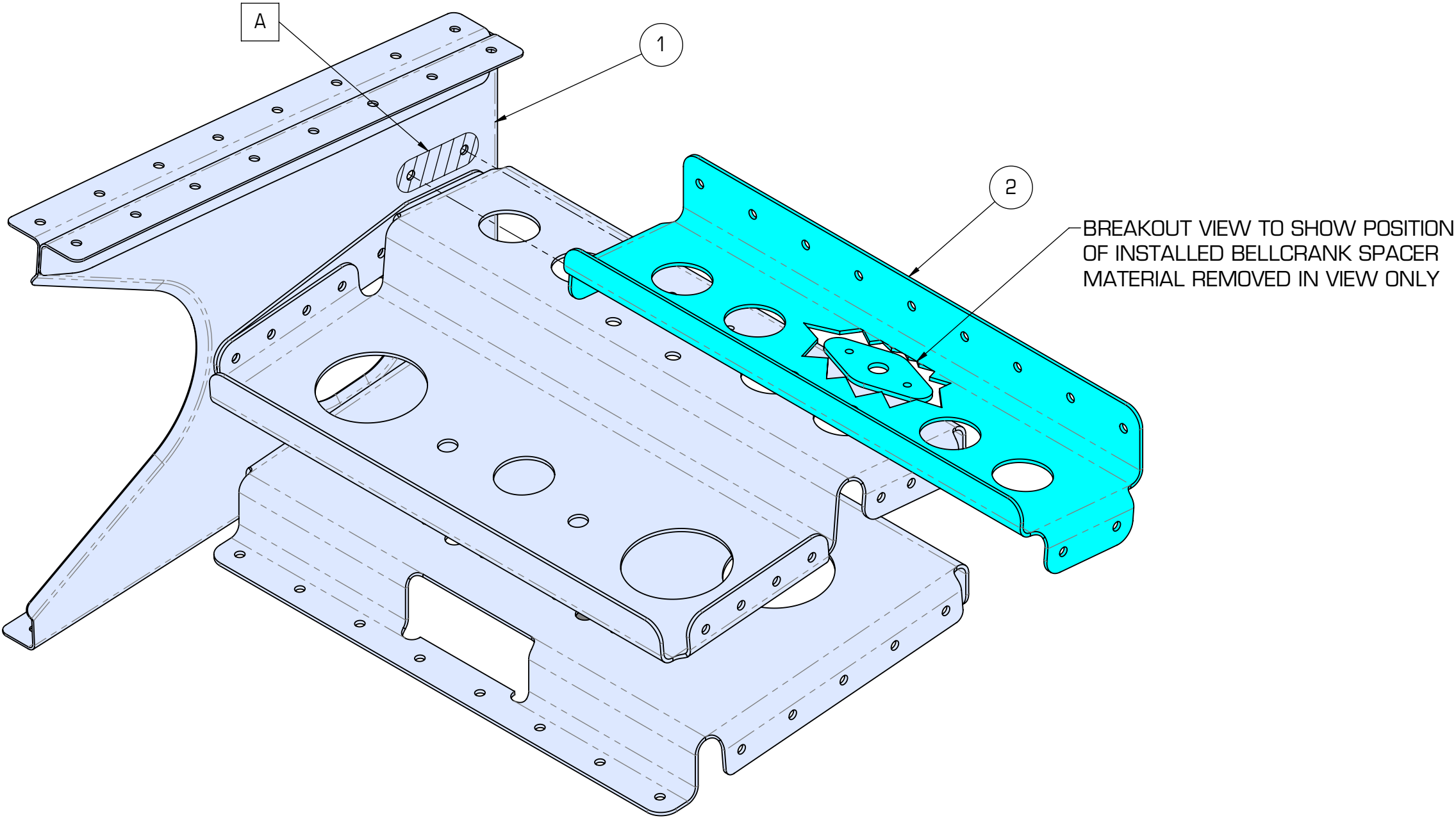


W-15504 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15011A-002	WING RIB, AIL BELLCRANK	1
2	W-15035-001	BRKT, INBD UPR AILERON BELLCRANK	1
3	LP4-3	RIVET, BLIND	2

☐ **Step 1:** Cleco (2) to (1)

☐ **Step 2:** Rivet with (3) at A

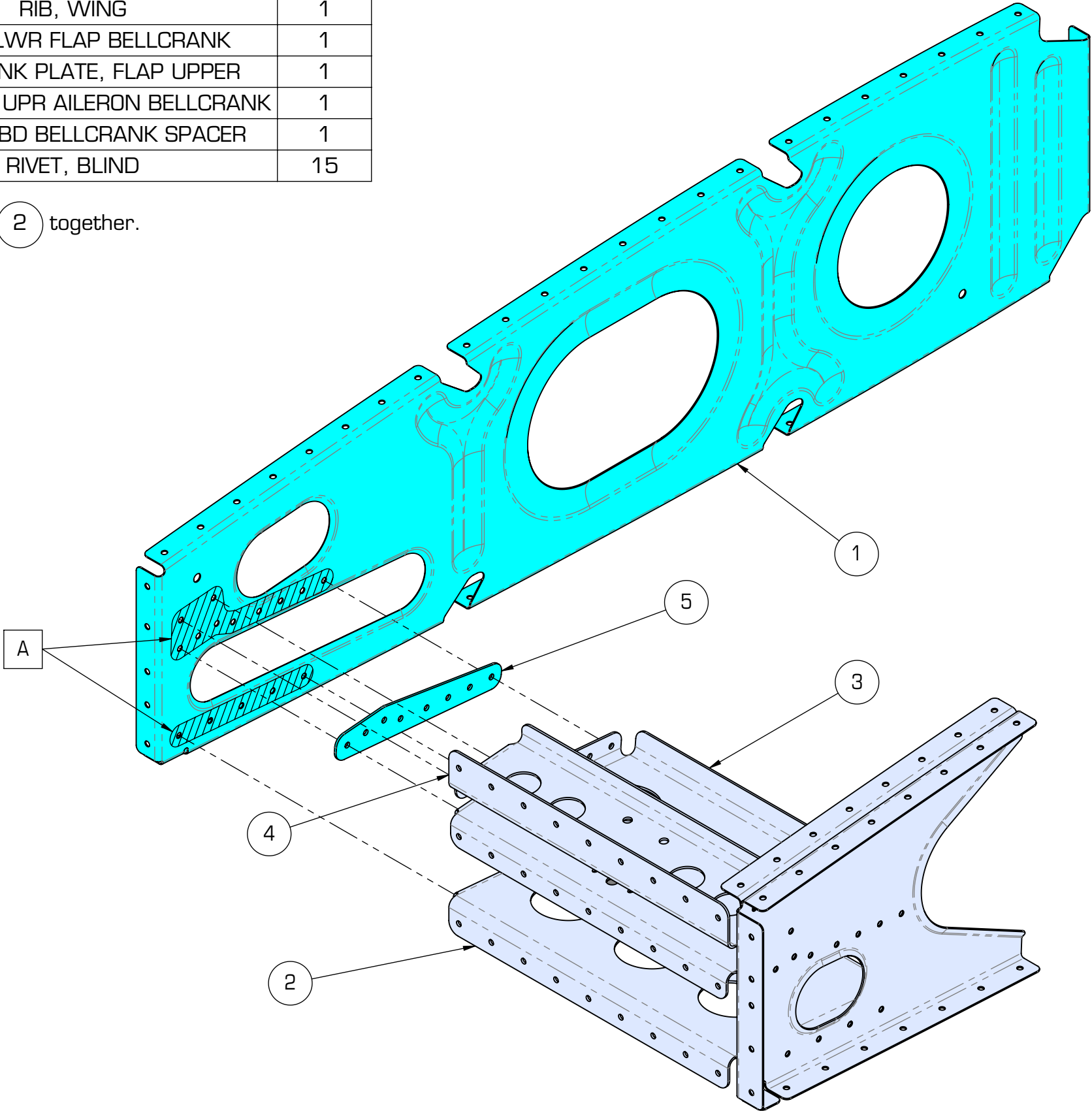


W-15504 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15011E-001	RIB, WING	1
2	W-15028-001	PLATE, LWR FLAP BELLCRANK	1
3	W-15029-001	BELLCRANK PLATE, FLAP UPPER	1
4	W-15035-001	BRKT, INBD UPR AILERON BELLCRANK	1
5	W-15036-001	PLATE, INBD BELLCRANK SPACER	1
6	LP4-3	RIVET, BLIND	15

☐
Step 1: Cleco 1 5 4 3 and 2 together.

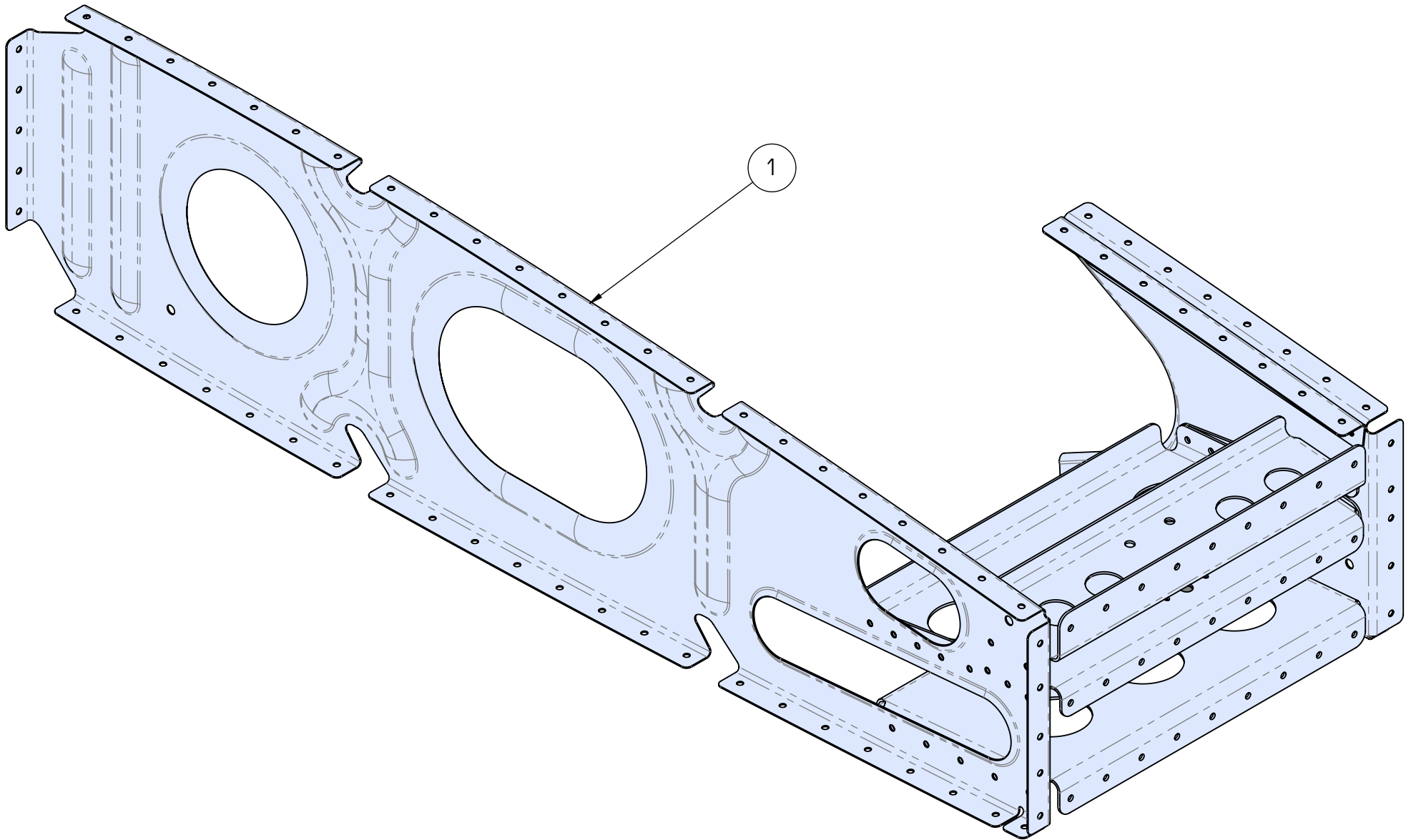
☐
Step 2: Rivet with 6 at A



W-15504 ASSEMBLY

ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15504-001	INBOARD MIXER BOX	1



W-15504 ASSEMBLY

BUILDER 1

BUILDER 2

START DATE

END DATE

HOURS

INSPECTED BY

NAME

NAME

DATE

DATE

QTY

NAME

SIGNATURE

SIGNATURE

SIGNATURE

DATE

DATE

DATE



MODIFICATIONS

REPAIRS

ISSUES

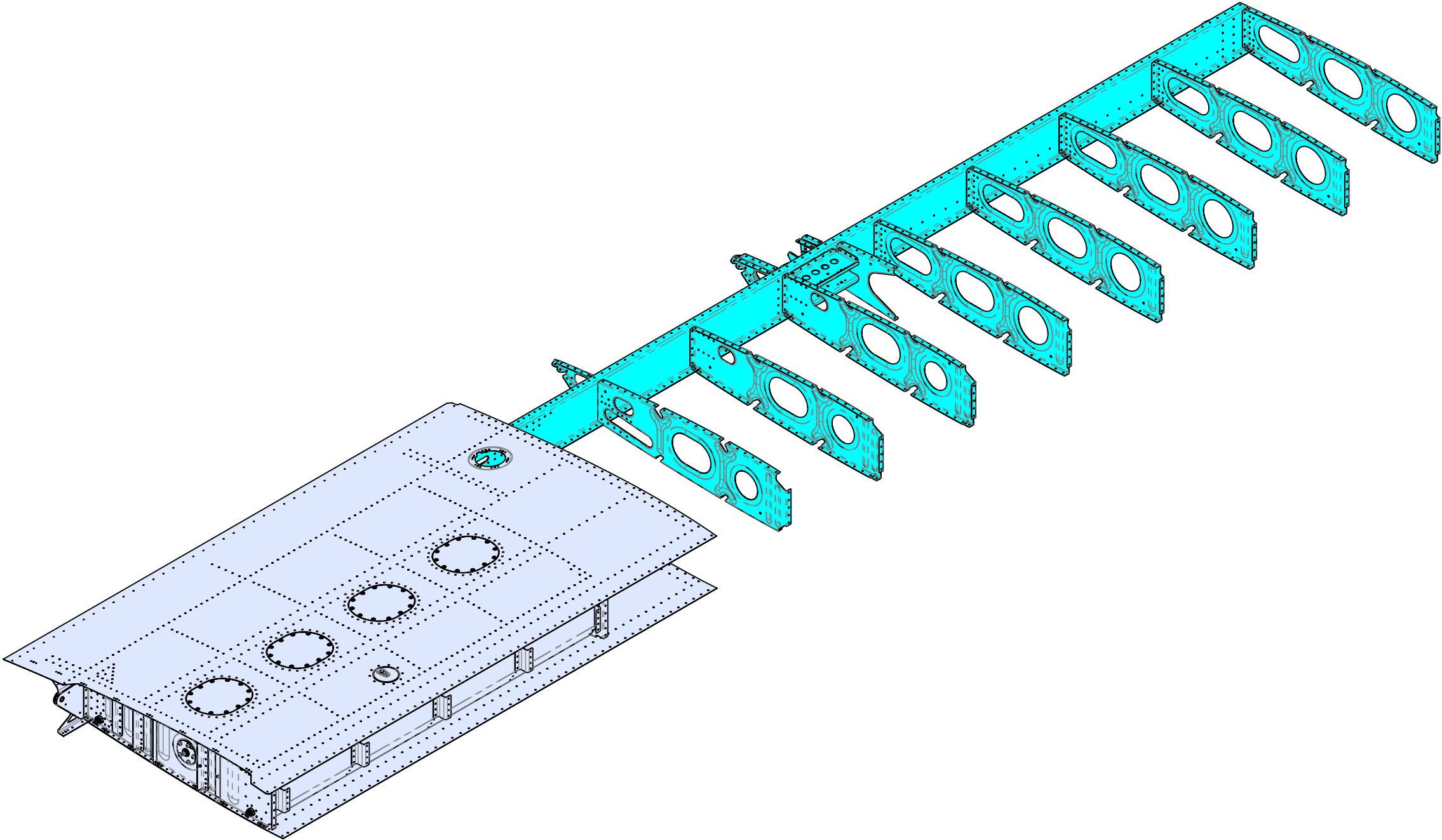
NAME

SIGNATURE

DATE

W-15504 ASSEMBLY

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W-15505
REAR SPAR-TANK ASSEMBLY

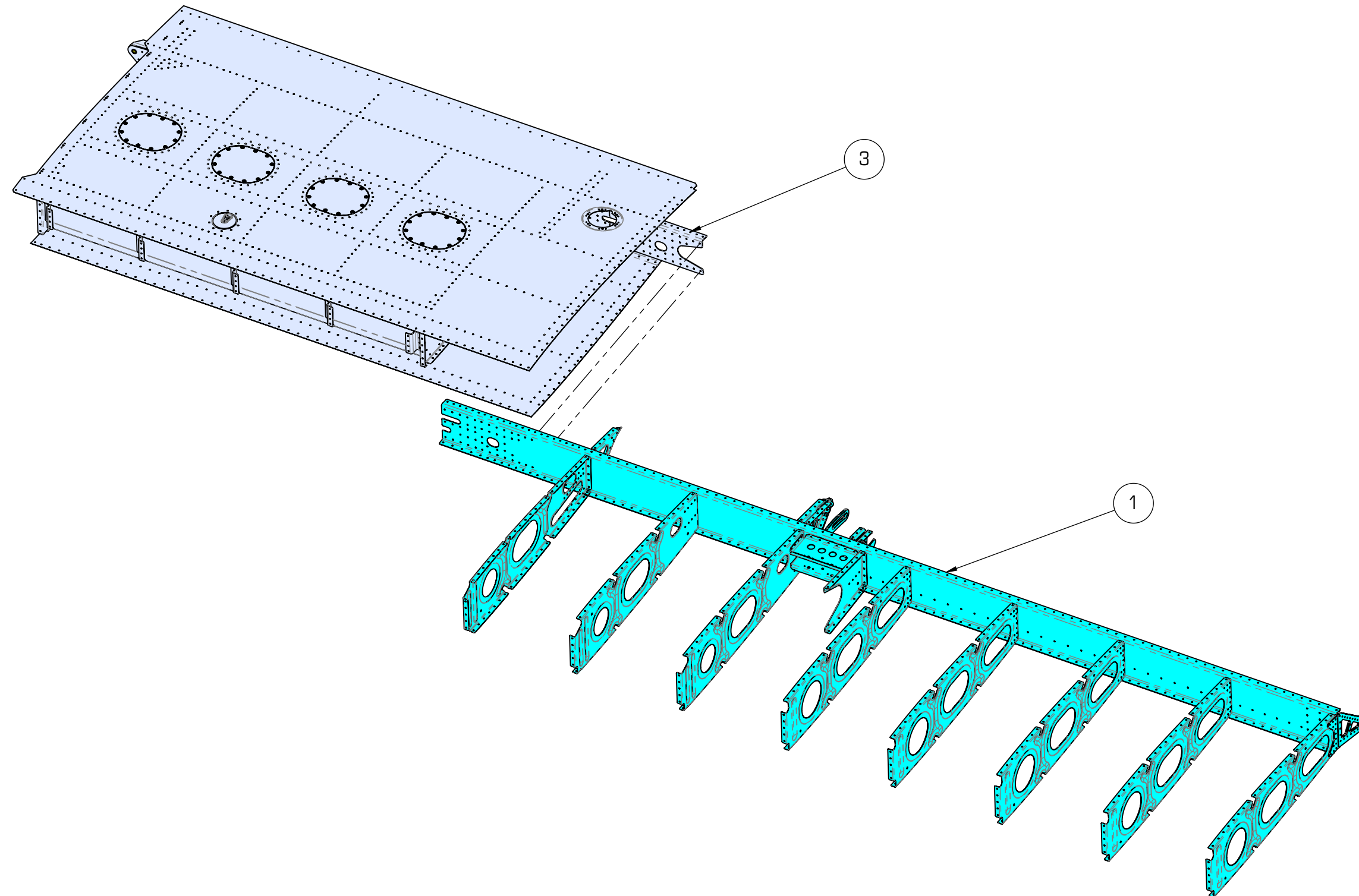
ASSM PARTS LIST					
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-L ASSM QTY.	-R ASSM QTY
1	W-15503-001	SPAR SUBASSM, REAR, OTBD, LEFT	SEE PARTS LIST	1	-
2	W-15503-002	SPAR SUBASSM, REAR, OTBD, RIGHT	SEE PARTS LIST	-	1
3	T-15509-001	TANK SUBASSM, WING, LEFT	SEE PARTS LIST	1	-
4	T-15509-002	TANK SUBASSM, WING, RIGHT	SEE PARTS LIST	-	1
5	AN470AD4-4	SOLID RIVET	ALUMINUM	33	33

BOM NOTE: Cherrymax blind rivets (grip as required) may be used (except as noted) in place of AN470AD4 rivets.



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

It is the builder's choice as to whether to complete all steps for the left side before repeating those steps for the right side or to complete each step for both left and right sides before moving to the next step.



W-15505 ASSEMBLY

GENERAL NOTES AND COMMON REFERENCES



Applicable Section References:

- **Section 5.4** - Setting & Inspecting Solid Rivets, Finished Rivet Standards

Tools Used This Section:

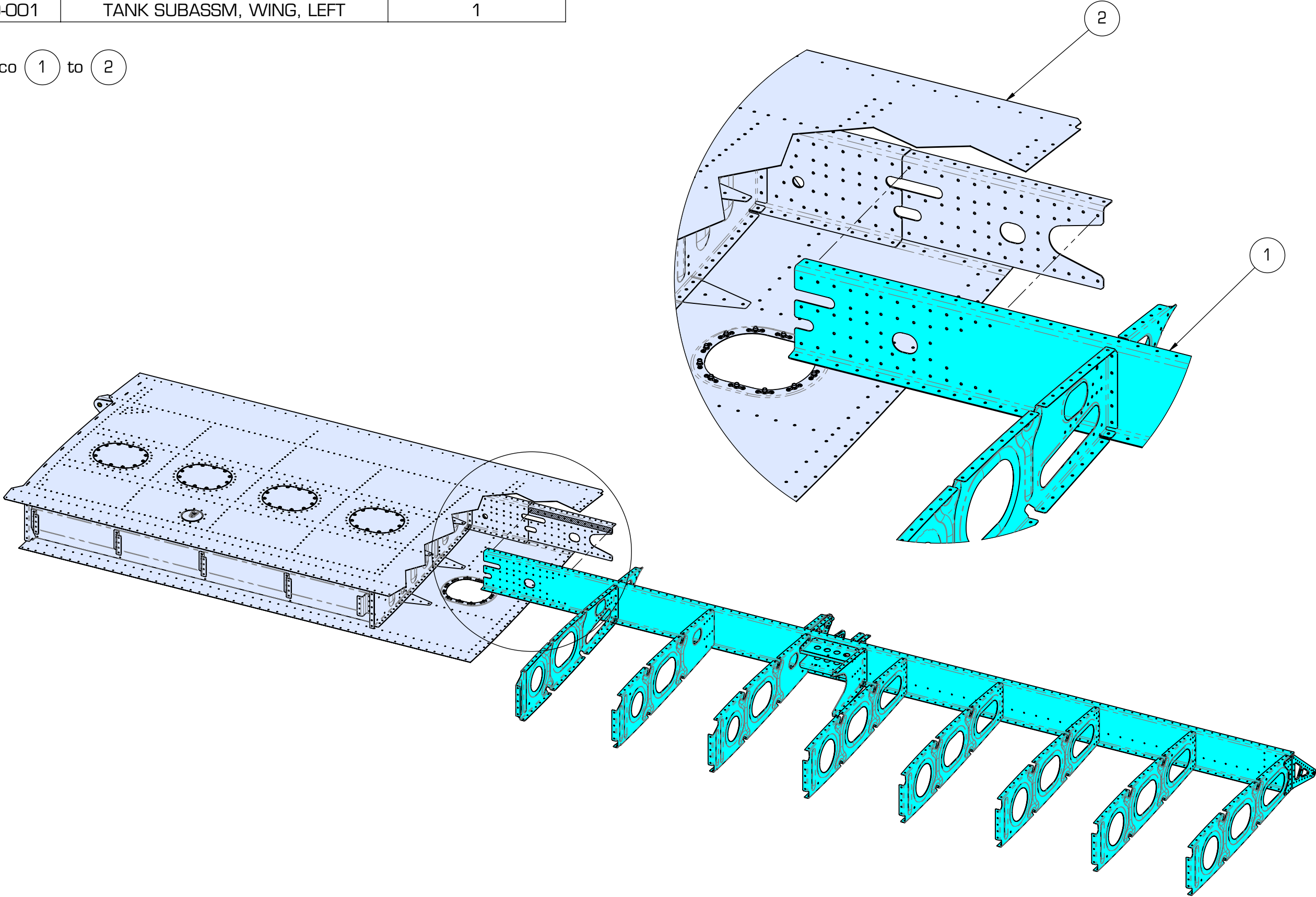
- Spring Clecos: 1/8 inch [VANS PN# TOOL CL332]
- Riveting Gun
- Bucking Bar

Part Preparation:

- ☐ **Step 1:** Layout all parts
- ☐ **Step 2:** Place assemblies on table(s) with aileron and flap brackets hanging off edge.

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15503-001	SPAR SUBASSM, REAR, OTBD, LEFT	1
2	T-15509-001	TANK SUBASSM, WING, LEFT	1

☐ **Step 1:** Cleco 1 to 2

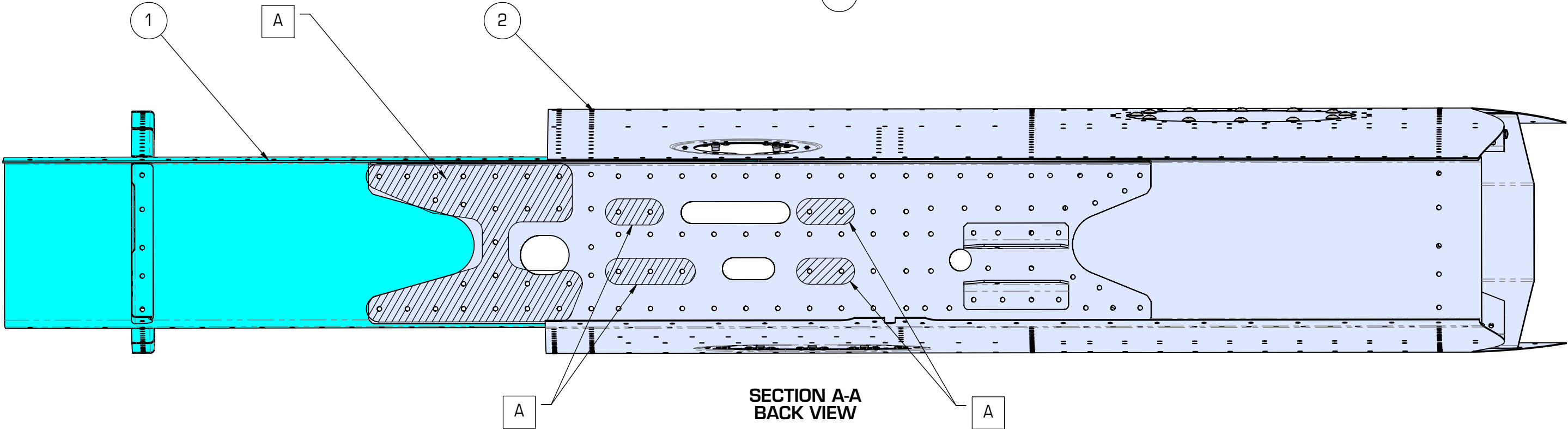
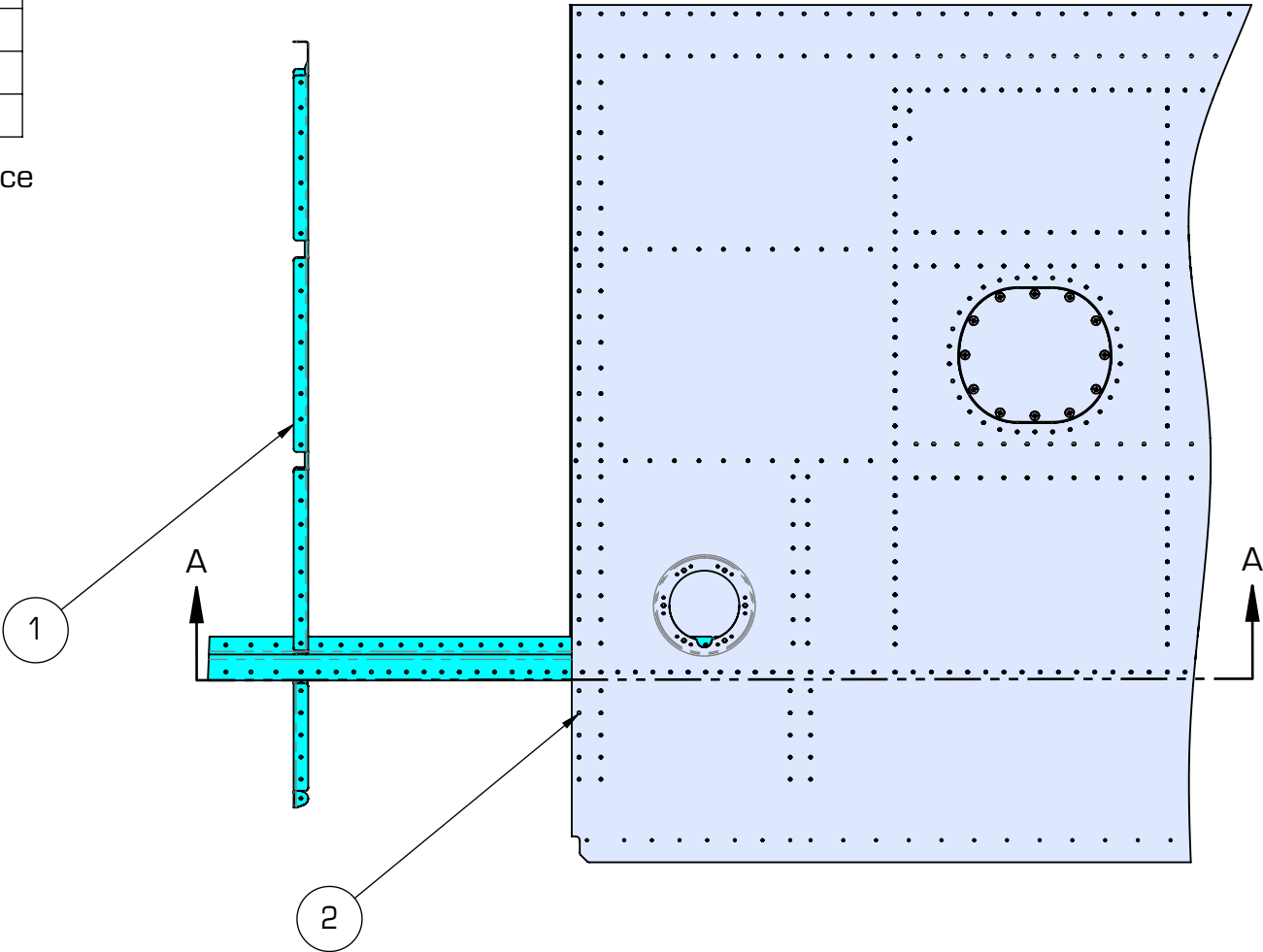


W-15505 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15503-001	SPAR SUBASSM, REAR, OTBD, LEFT	1
2	T-15509-001	TANK SUBASSM, WING, LEFT	1
3	AN470AD4-4	SOLID RIVET	33

NOTE: Cherrymax blind rivets (grip as required) may be used (except as noted) in place of AN470AD4 rivets.

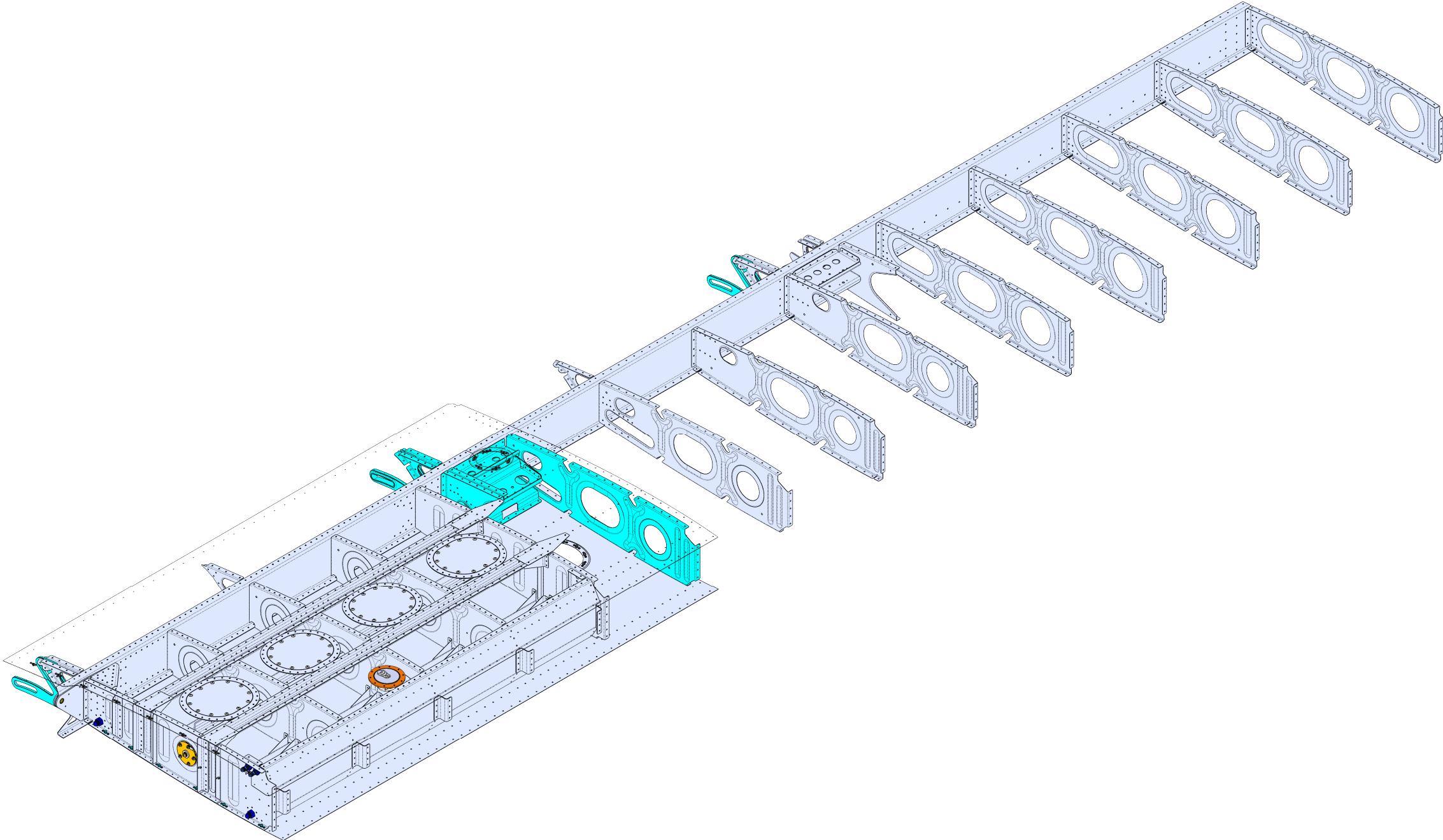
☐ **Step 1:** Rivet ① to ② with ③ in A



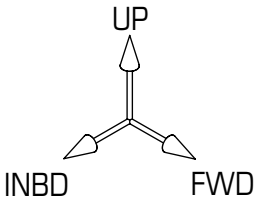
W-15505 ASSEMBLY

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SECTION 27



W-15506
INBOARD MIXER - REAR SPAR ASSEMBLY



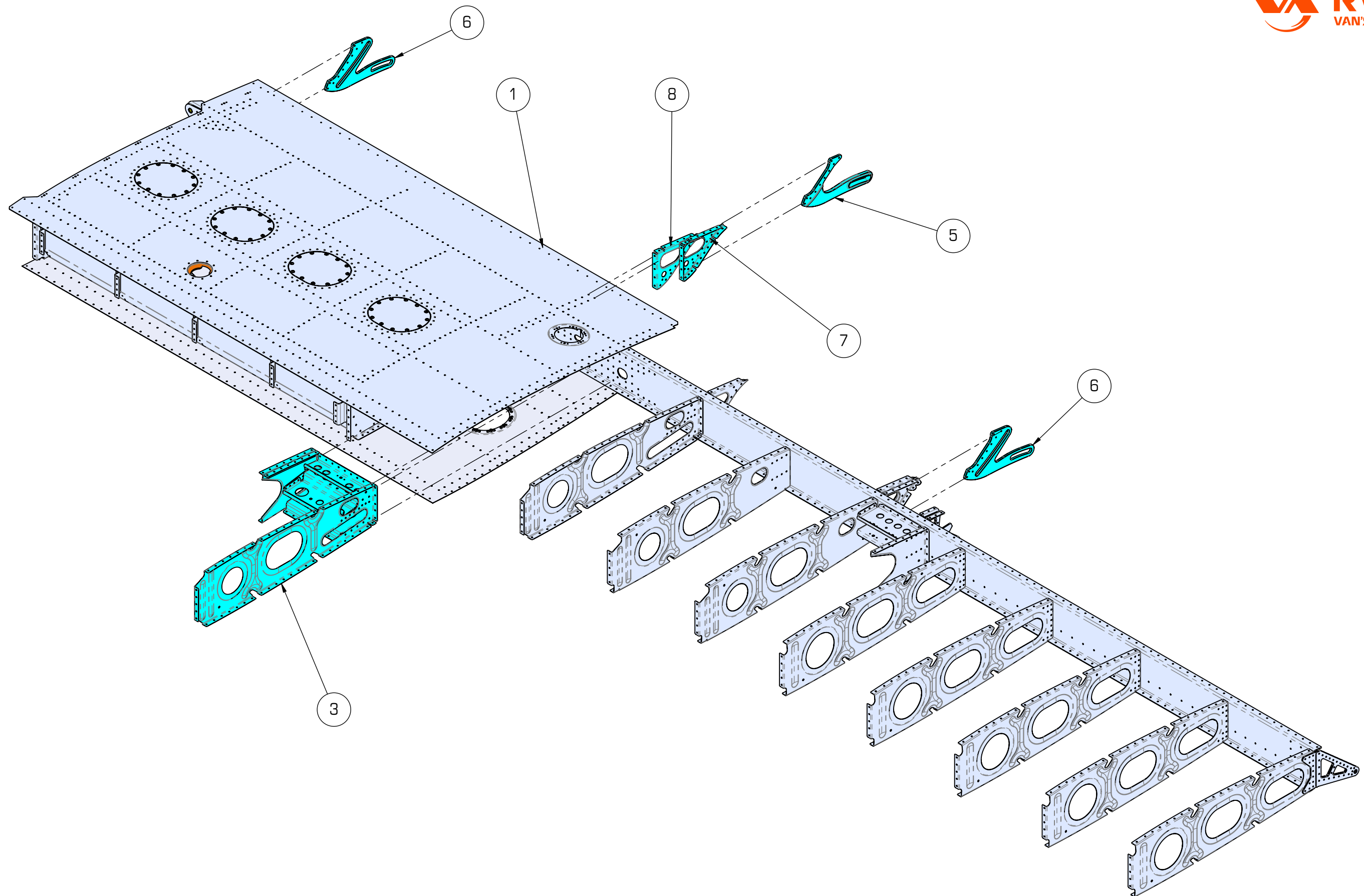
ASSM PARTS LIST					
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-L ASSM QTY.	-R ASSM QTY.
1	W-15505-001	REAR-SPAR TANK ASSEMBLY	SEE PARTS LIST	1	-
2	W-15505-002	REAR-SPAR TANK ASSEMBLY	SEE PARTS LIST	-	1
3	W-15504-001	INBOARD MIXER BOX	SEE PARTS LIST	1	-
4	W-15504-002	INBOARD MIXER BOX	SEE PARTS LIST	-	1
5	W-15034-001	FLAP TRACK, MID	2024-T351	1	1
6	W-15033-001	FLAP TRACK, END	2024-T351	2	2
7	W-15014B-001	COVE RIB, FLAP TRACK, MID	.032 2024-T3 ALCLAD SHEET	1	1
8	W-15014B-002	COVE RIB, FLAP TRACK, MID	.032 2024-T3 ALCLAD SHEET	1	1
9	AN470AD4-8	RIVET, SOLID	ALUMINUM	30	30
10	CR3213-4-3	RIVET, CHERRYMAX	STEEL	39	39

BOM NOTE: Cherrymax blind rivets (grip as required) may be used (except as noted) in place of AN470AD4 rivets.



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

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W-15506 ASSEMBLY

GENERAL NOTES AND COMMON REFERENCES



Applicable Section References:

- **Section 5.1** - Aluminum Priming & Painting
- **Section 5.2** - Edge Finishing, Hole Deburring & Scratch Removal
- **Section 5.3** - Marking Parts
- **Section 5.4** - Inspecting Solid & Blind Rivet heads, finished rivet standards.
- **Section 5.12** - Vinyl Coating
- **Section 5.13** - Fluting
- **Section 5.26** - Hardware Reference

Tools Used This Section:

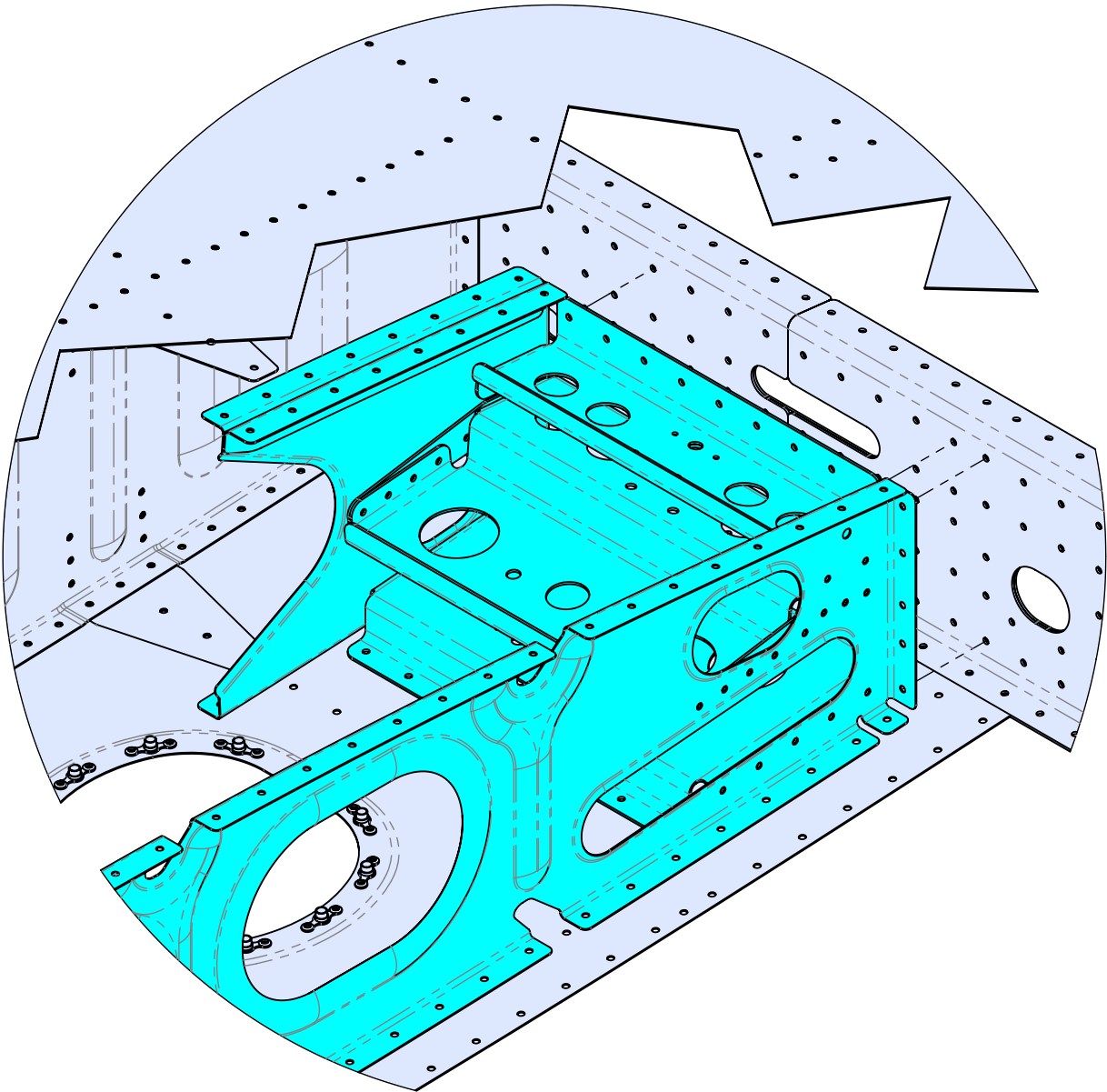
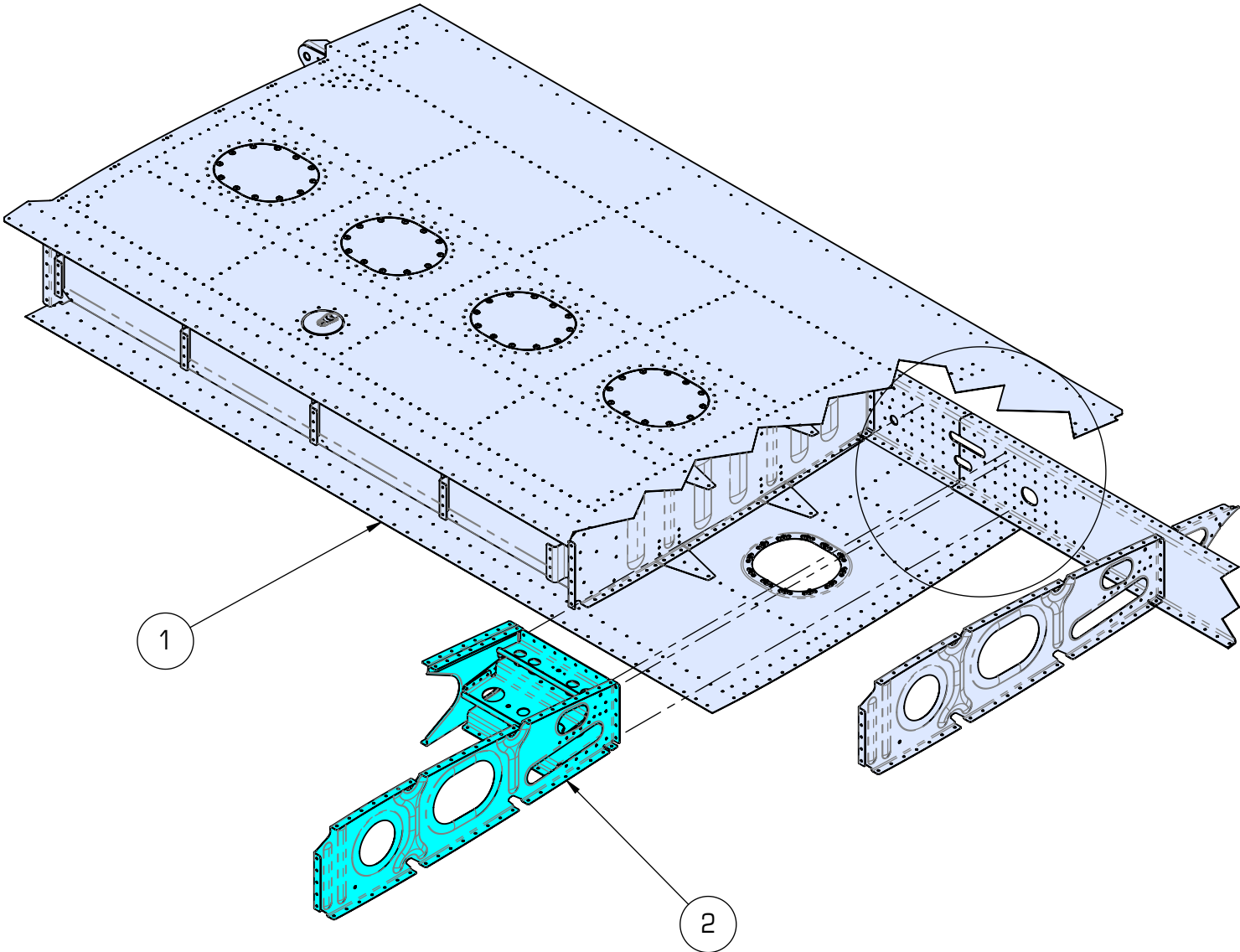
- Rivet Puller
- Rivet Gun
- Bucking Bar
- Deburring Tools
- Rivet Squeezer
- Protruding Head Rivet Set
- Spring clecos: 1/8 [VANS PN# TOOL CL18]
- Fluting tools
- Rivet Puller

Part Preparation:

- ☐ **Step 1:** Layout all parts
- ☐ **Step 2:** Deburr edges and drilled holes in all parts
- ☐ **Step 3:** Flute and straighten all rib flanges
- ☐ **Step 4:** Prime all parts as required

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15505-001	REAR-SPAR TANK ASSEMBLY	1
2	W-15504-001	INBOARD MIXER BOX	1

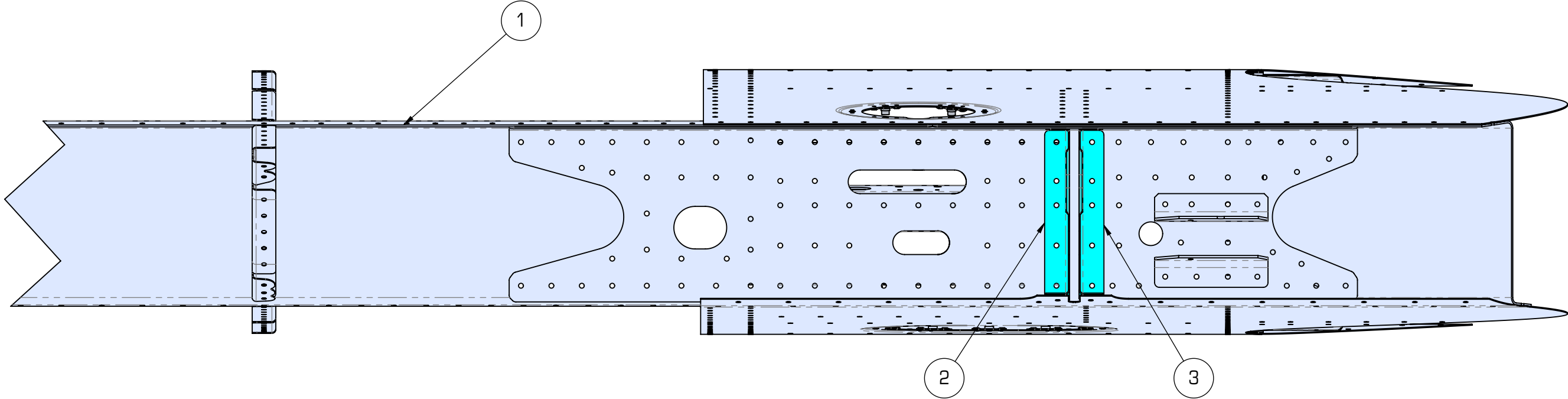
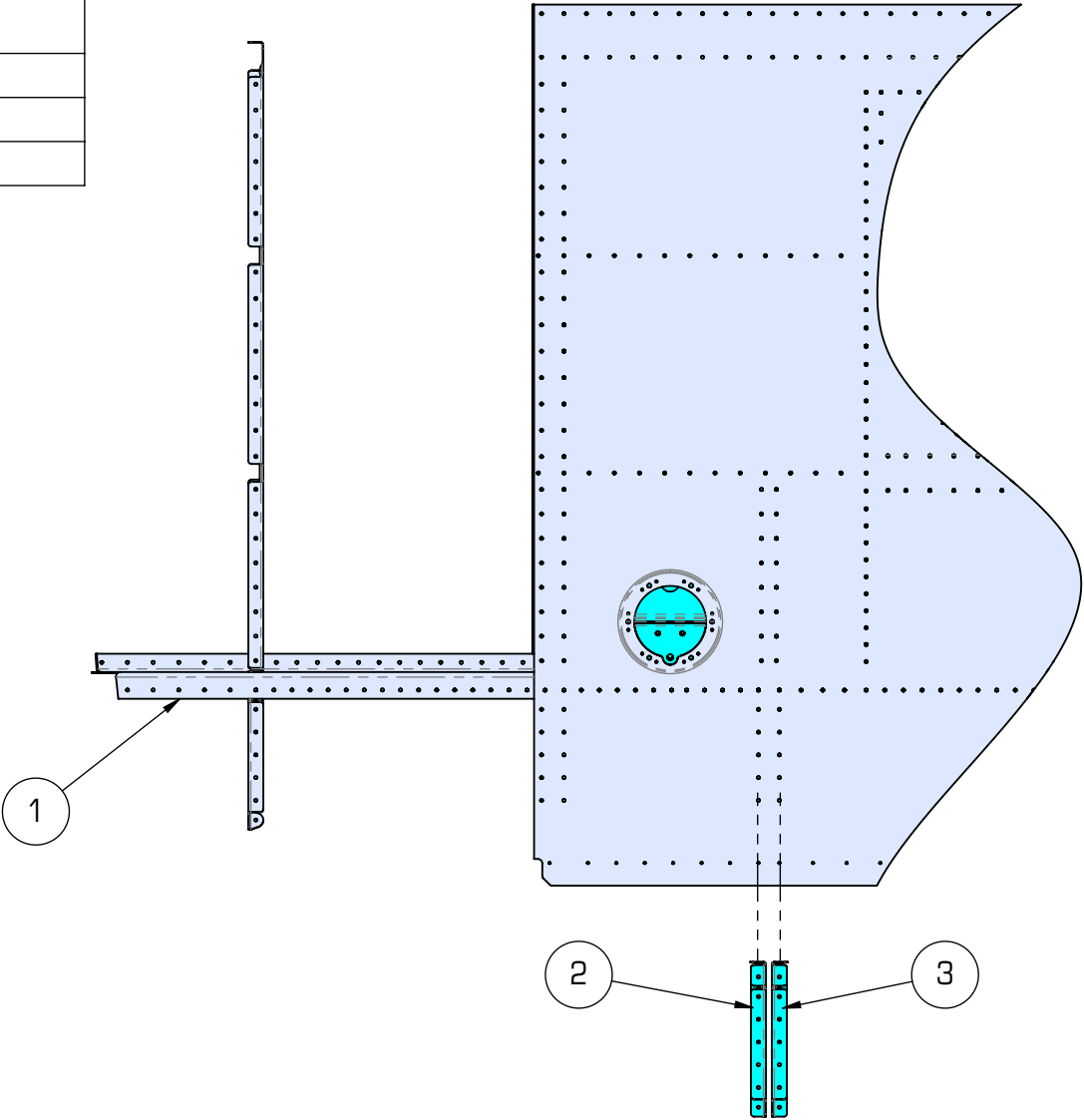
☐ Step 1: Cleco
 2 to 1



W-15506 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15505-001	REAR-SPAR TANK ASSEMBLY	1
2	W-15014B-001	COVE RIB, FLAP TRACK, MID	1
3	W-15014B-002	COVE RIB, FLAP TRACK, MID	1

☐ **Step 1:** Cleco 1 2 and 3



W-15506 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15505-001	REAR-SPAR TANK ASSEMBLY	1
2	W-15504-001	INBOARD MIXER BOX	1
3	W-15014B-001	COVE RIB, FLAP TRACK, MID	1
3	W-15014B-002	COVE RIB, FLAP TRACK, MID	1
5	CR3213-4-3	RIVET, CHERRYMAX	39

☐
Step 1: Cleco and Rivet

1

2

3

 and

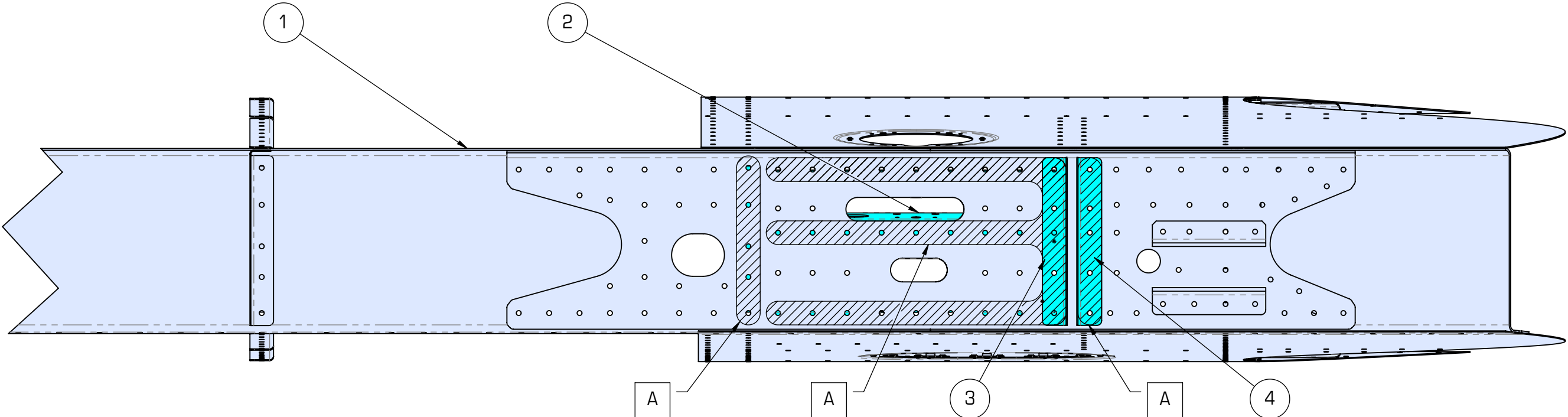
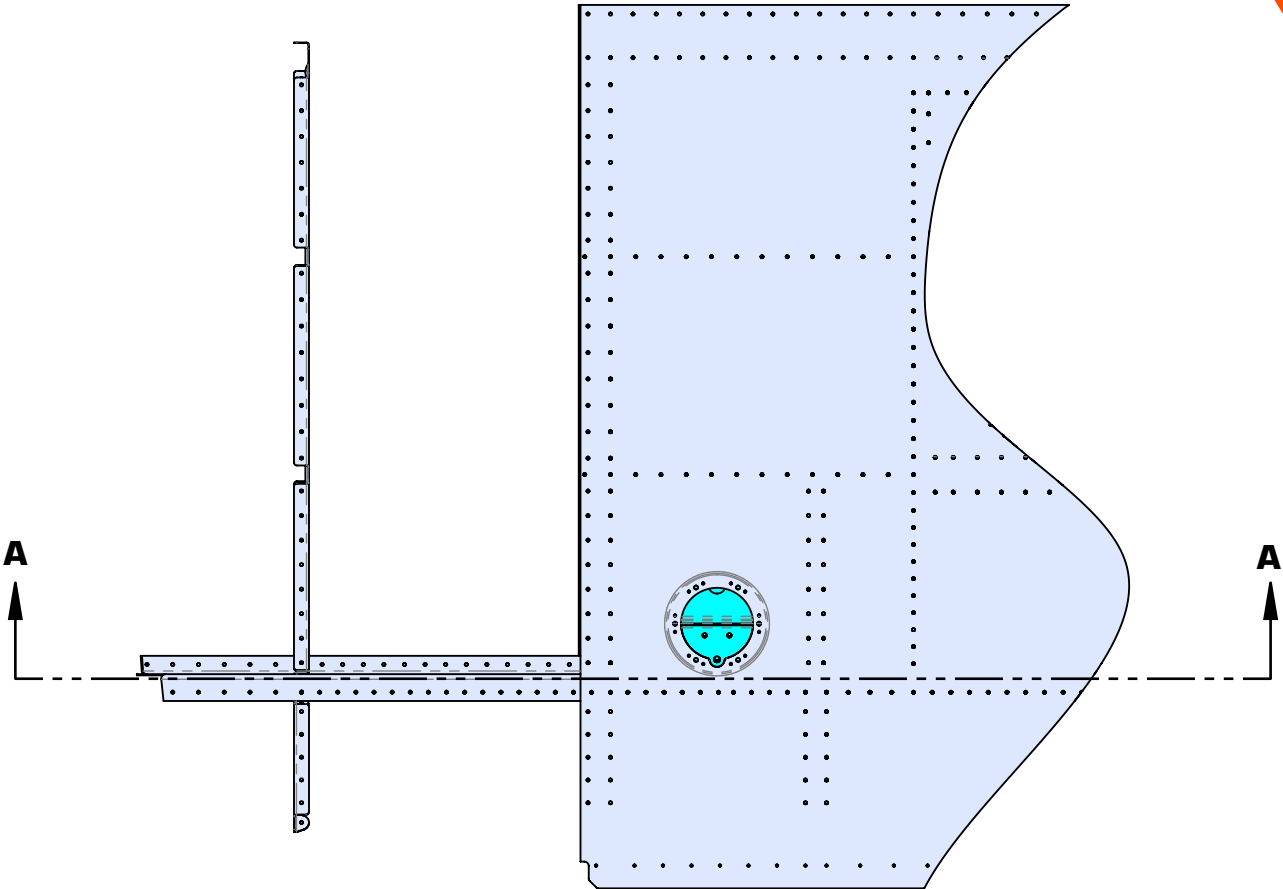
4

 with

5

 in

A



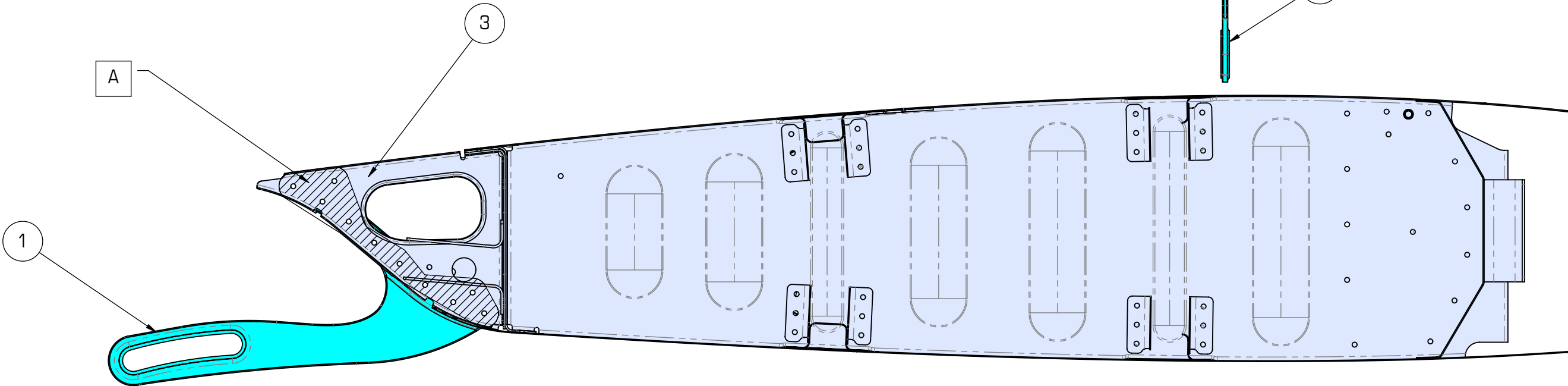
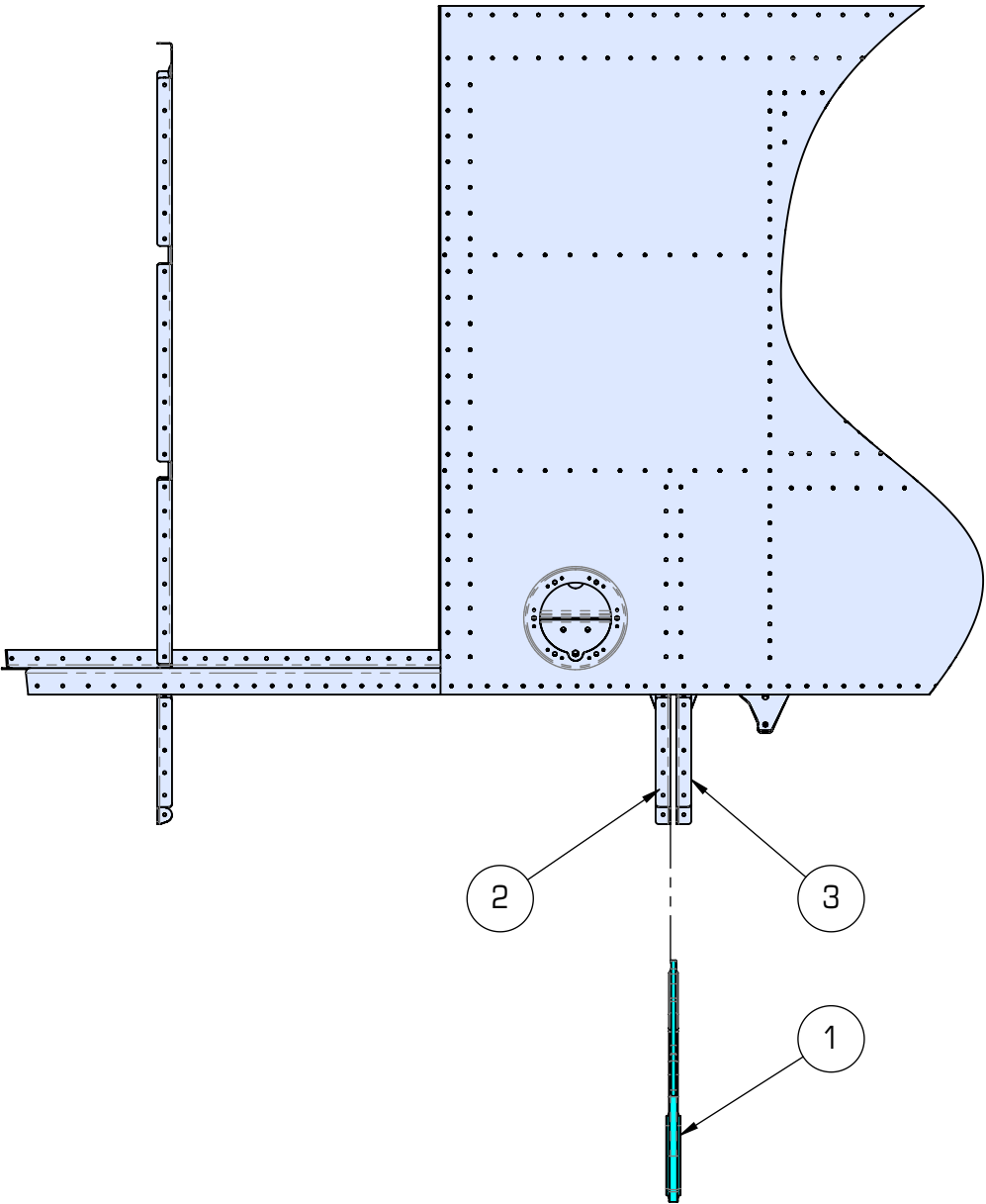
SECTION A-A

AFT VIEW

W-15506 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15034-001	FLAP TRACK, MID	1
2	W-15014B-001	COVE RIB, FLAP TRACK, MID	1
3	W-15014B-002	COVE RIB, FLAP TRACK, MID	1
4	AN470AD4-8	RIVET, SOLID	10

☐ **Step 1:** Cleco and Rivet 1 2 and 3 with 4 in A



SIDE VIEW

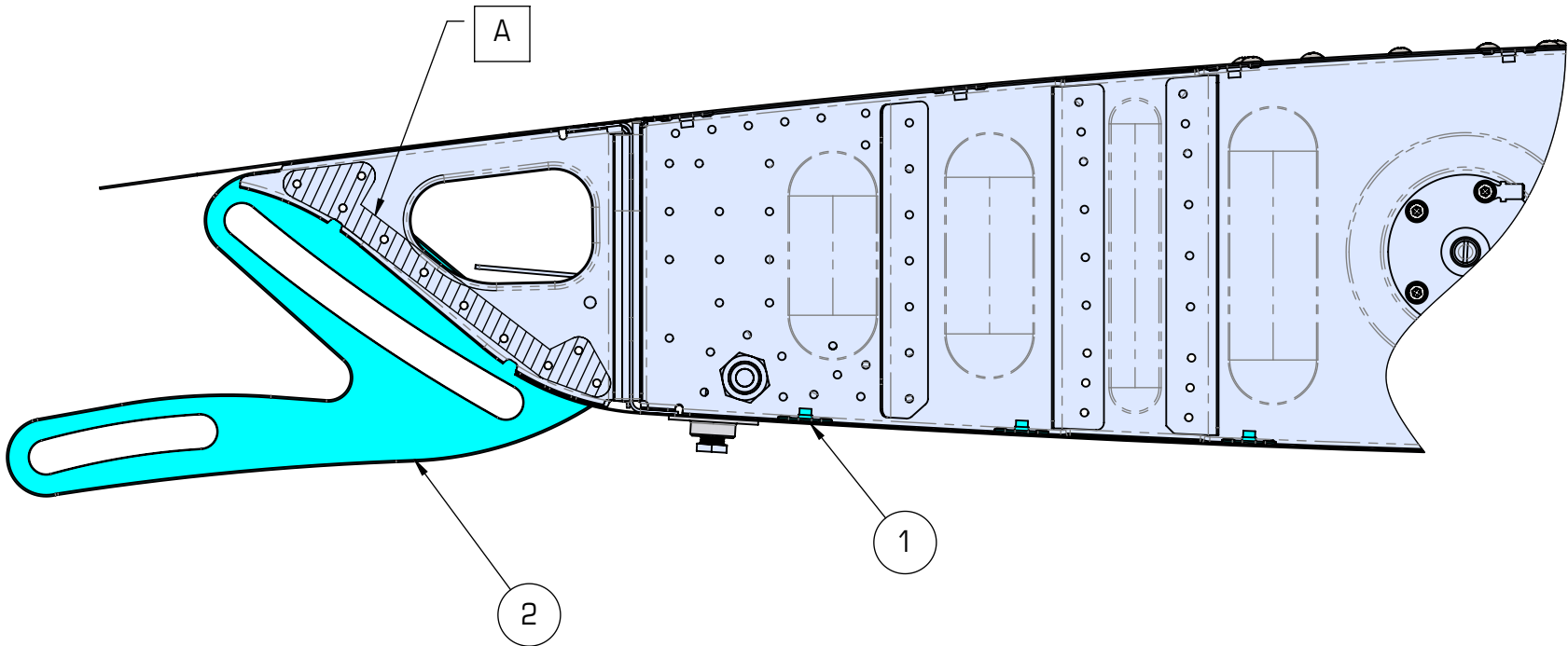
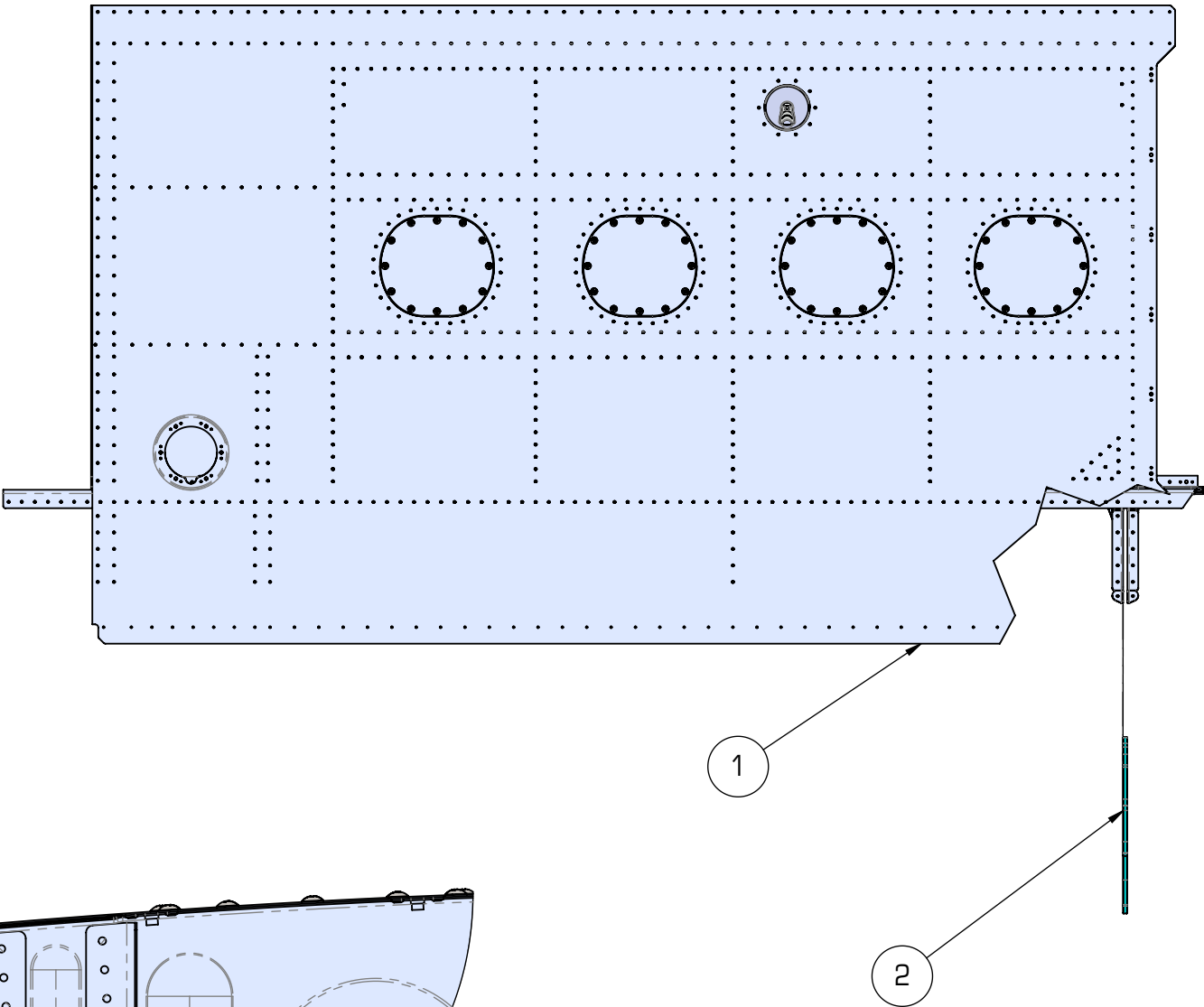
W-15506 ASSEMBLY

ASSM PARTS LIST			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	T-15509-001	TANK SUBASSM, WING, LEFT	1
2	W-15033-001	TRACK, FLAP	1
3	AN470AD4-8	SOLID RIVET	10

NOTE: Due to the difficulty of riveting area A, it is recommended that a long reach yoke be utilized.

☐ **Step 1:** Cleco 2 and 1

☐ **Step 2:** Rivet 2 and 1 with 3 in A



W-15506 ASSEMBLY

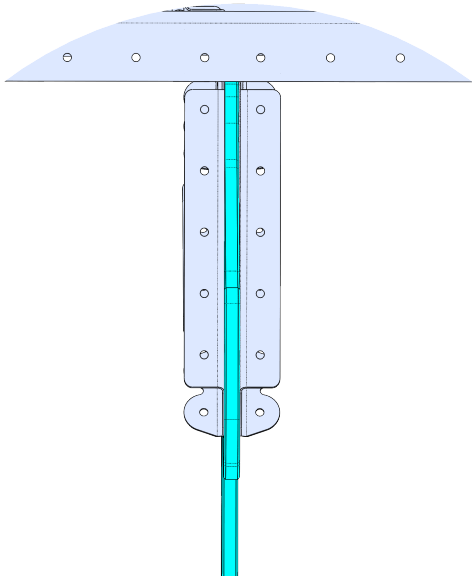
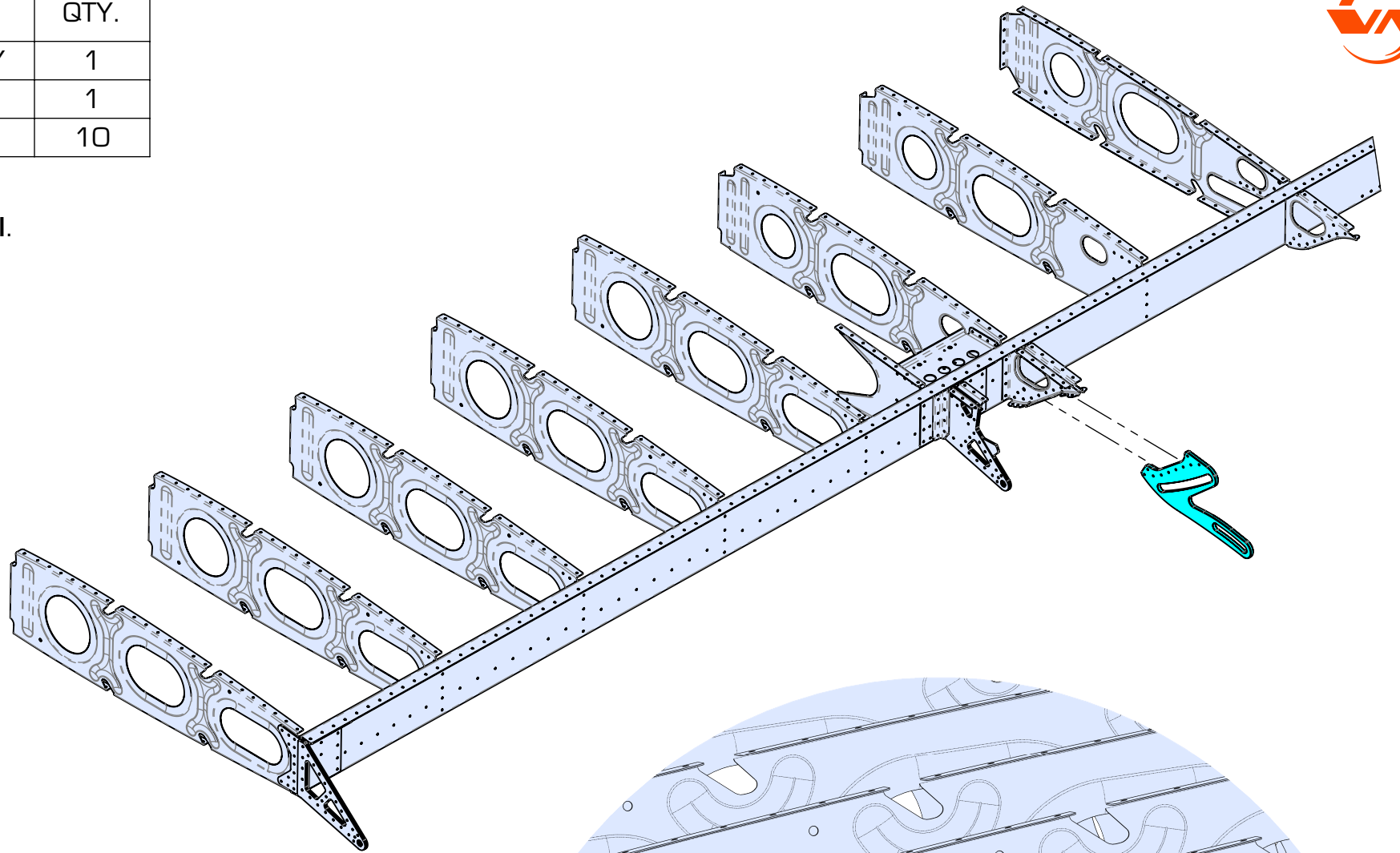
ASSM PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	W-15500-001	REAR SPAR OUTBOARD ASSEMBLY	1
2	W-15033-001	TRACK, FLAP	1
3	AN470AD4-8	RIVET, SOLID	10

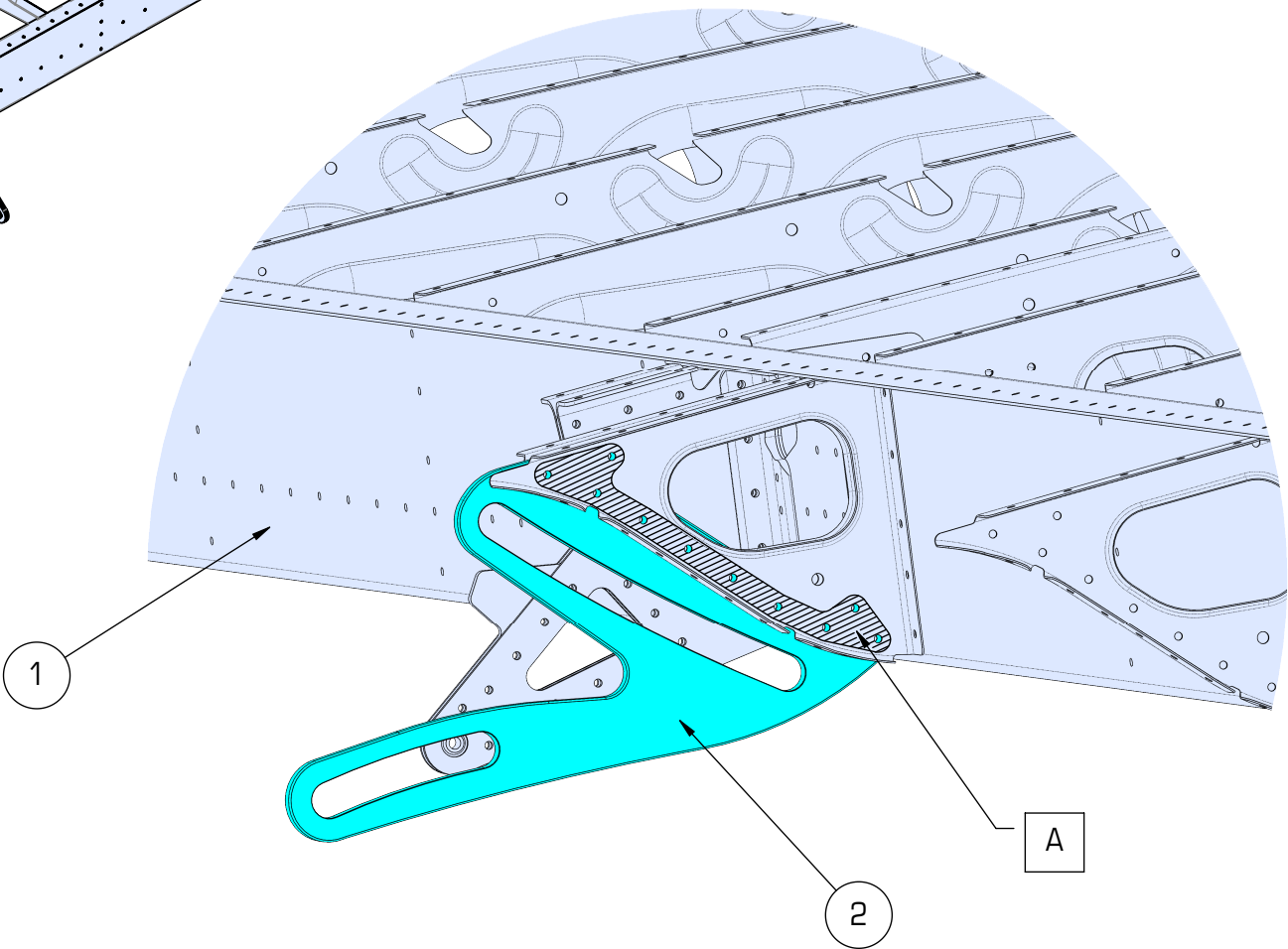
☐ **Step 1:** Insert (2) into (1) as shown in the **Alignment Detail**.

☐ **Step 2:** Cleco (3) to (1)

☐ **Step 3:** Rivet with (3) at A



ALIGNMENT DETAIL



W-15506 ASSEMBLY

BUILDER 1	NAME	SIGNATURE	DATE
BUILDER 2	NAME	SIGNATURE	DATE
START DATE	DATE		
END DATE	DATE		
HOURS	QTY		
INSPECTED BY	NAME	SIGNATURE	DATE



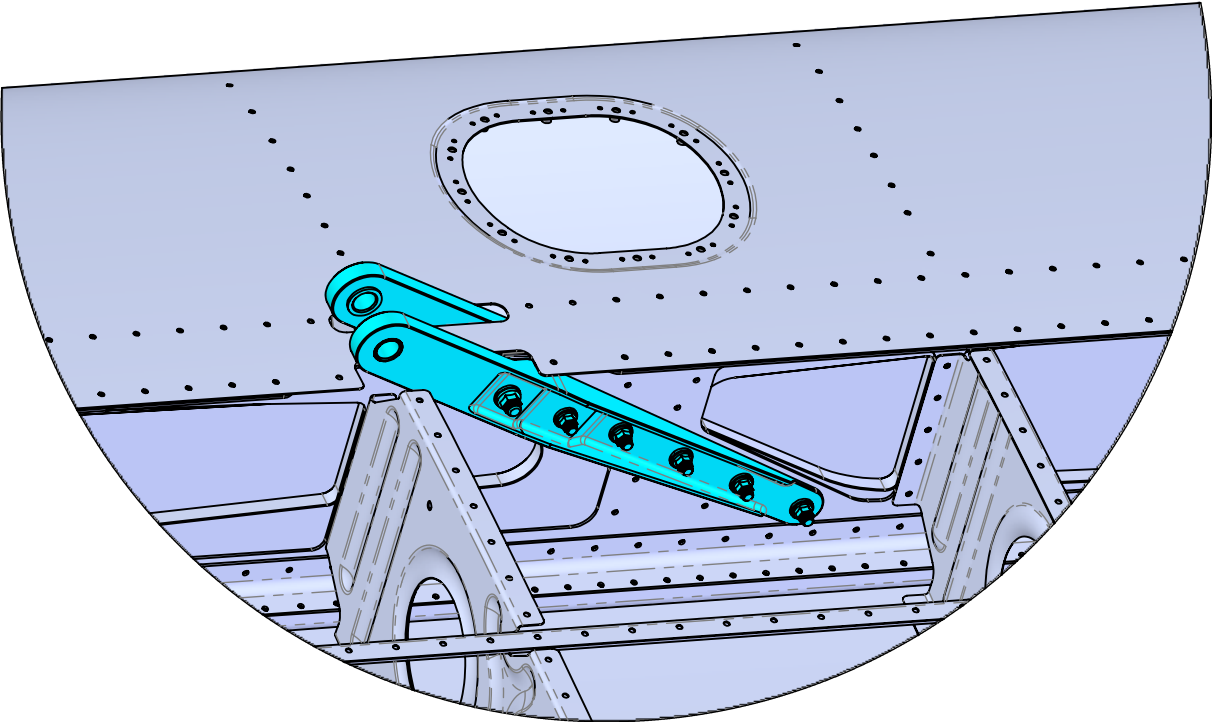
MODIFICATIONS	
REPAIRS	
ISSUES	

NAME	SIGNATURE	DATE
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W-15506 ASSEMBLY

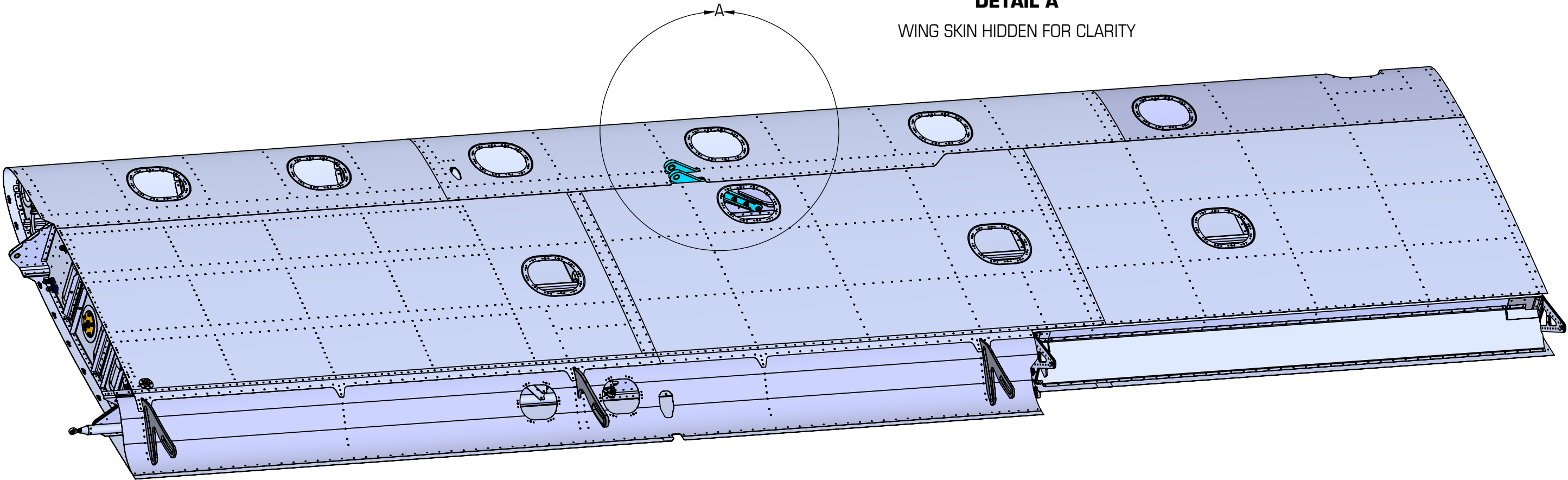
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SECTION 32



DETAIL A

WING SKIN HIDDEN FOR CLARITY



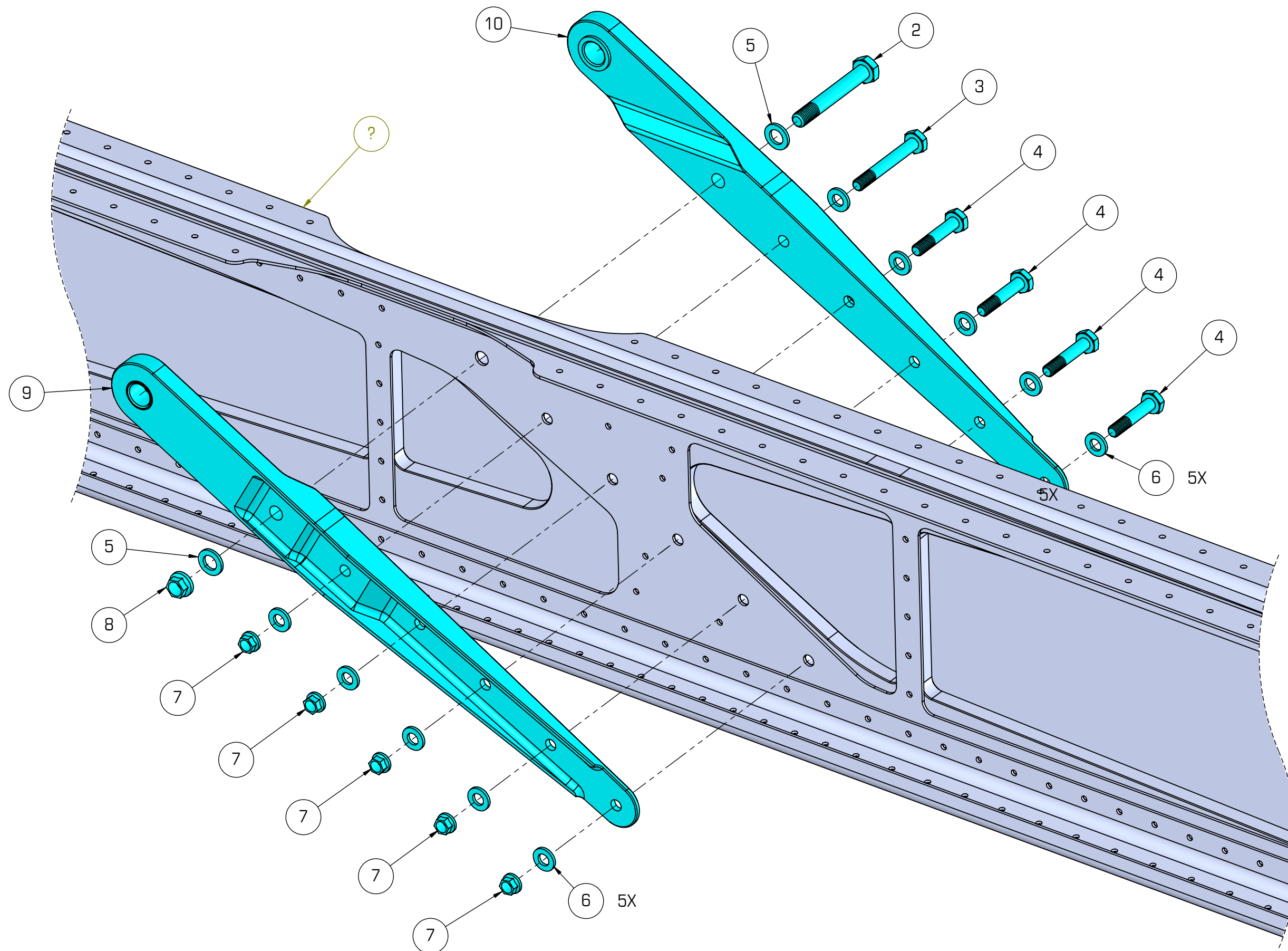
W-15511
STRUT ATTACH FITTINGS

ASSM PARTS LIST					
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-L ASSM QTY	-R ASSM QTY
1	W-15510-001	AILERON & FLAP COVE SKINS	SEE PARTS LIST	1	1
2	AN5-21A	AN5-21A BOLT	CADMIUM PLATED STEEL	1	1
3	AN4-17A	AN4-17A BOLT	CADMIUM PLATED STEEL	1	1
4	AN4-12A	AN4-12A BOLT	CADMIUM PLATED STEEL	4	4
5	NAS1149FO563P	FLAT WASHER, 5/16" ID	1020/1025 CARBON STEEL	2	2
6	NAS1149FO463P	FLAT WASHER, 1/4" ID	1020/1025 CARBON STEEL	10	10
7	MS21042-4	METAL LOCKNUT, 1/4-28	CADMIUM PLATED STEEL	5	5
8	MS21042-5	METAL LOCKNUT, 5/16-24	CADMIUM PLATED STEEL	1	1
9	W-15045-001	FITTING ASSY, WING, STRUT ATTACH	SEE PARTS LIST	1	1
10	W-15045-002	FITTING ASSY, WING, STRUT ATTACH	SEE PARTS LIST	1	1



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W-15511 ASSEMBLY

Applicable Section References:

- Section 5.20 - Nut & Bolt Torques
- Section 5.26 - Hardware Reference

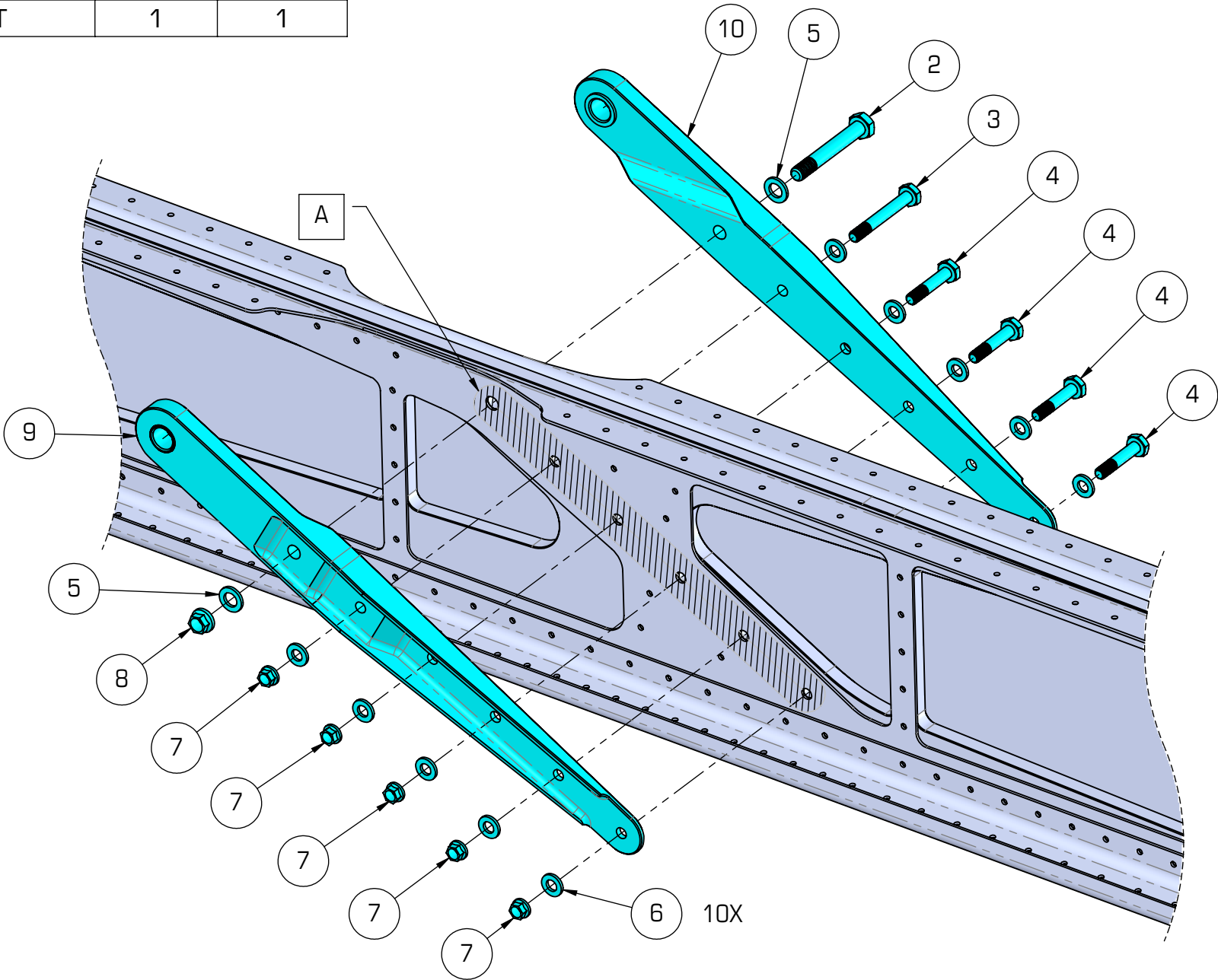
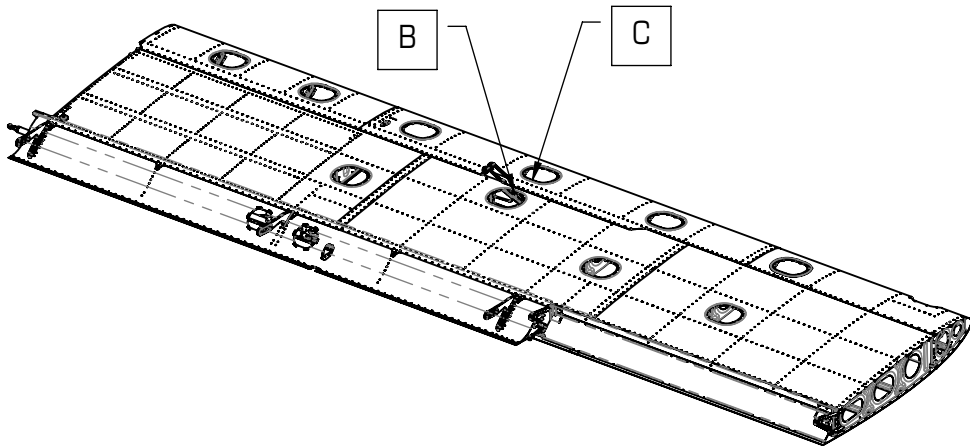
Tools Used This Section:

- Calibrated Torque Wrench
- 7/16" Socket
- 7/16" Wrench
- 1/2" Socket
- 1/2" Wrench

- ☐ **Step 1:** Layout all parts.
- ☐ **Step 2:** Deburr edges and drilled holes in Spar Subassembly.
- ☐ **Step 3:** Prime all parts as required.

ASSM PARTS LIST					
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-L ASSM QTY	-R ASSM QTY
1	W-15510-001	AILERON & FLAP COVE SKINS	SEE PARTS LIST	1	1
2	AN5-21A	AN5-21A BOLT	CADMIUM PLATED STEEL	1	1
3	AN4-17A	AN4-17A BOLT	CADMIUM PLATED STEEL	1	1
4	AN4-12A	AN4-12A BOLT	CADMIUM PLATED STEEL	4	4
5	NAS1149FO563P	FLAT WASHER, 5/16" ID	1020/1025 CARBON STEEL	2	2
6	NAS1149FO463P	FLAT WASHER, 1/4" ID	1020/1025 CARBON STEEL	10	10
7	MS21042-4	METAL LOCKNUT, 1/4-28	CADMIUM PLATED STEEL	5	5
8	MS21042-5	METAL LOCKNUT, 5/16-24	CADMIUM PLATED STEEL	1	1
9	W-15045-001	FITTING ASSY, WING, STRUT ATTACH	SEE PARTS LIST	1	1
10	W-15045-002	FITTING ASSY, WING, STRUT ATTACH	SEE PARTS LIST	1	1

- ☐ **Step 1:** Inspect fasteners for Damage, Corrosion, or Contamination.
- ☐ **Step 2:** Ensure Wing Strut Attach Fittings (9), (10) are oriented as shown.
- ☐ **Step 3:** Loosely Assemble Strut Attachment Fittings (9), (10) at A using bolt/nut assemblies at both ends of Strut Attachment Fittings.
- ☐ **Step 4:** Loosely assemble remaining fasters prior to applying torque.
- ☐ **Step 5:** Torque all bolt/nut assemblies.
- ☐ **Step 6:** Mark a torque line with torque seal to indicate torque has been applied to each fastener.



W-15511 ASSEMBLY

BUILDER 1	NAME	SIGNATURE	DATE
BUILDER 2	NAME	SIGNATURE	DATE
START DATE	DATE		
END DATE	DATE		
HOURS	QTY		
INSPECTED BY	NAME	SIGNATURE	DATE



MODIFICATIONS	
REPAIRS	
ISSUES	

NAME	SIGNATURE	DATE
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W-15511 ASSEMBLY