

Temporary Maintenance Instruction TMI 139-540

Middle bonded floor panel assy P/N 3G5340A02434 installation

AW139 Helicopters S/N 31598

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The present TMI will be evaluated for its introduction in the standard set of Technical Publication.

If no further notice is received, the present document expires on: 2022-03-05.

2021-03-05

Introduction

This TMI provides the instructions and requirements to perform installation of the Middle bonded floor panel assy P/N 3G5340A02434 in the baggage compartment area.

Middle bonded floor panel assy P/N 3G5340A02434 installation

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References

Table 1 References

Data Module	Title
CSRP-A-51-00-00-00A-013A-D	List of consumables for repairs - Numeric index
CSRP-A-51-21-01-02A-257A-D	Polyurethane paint (MIL-PRF-85285) - Paint and apply marking
CSRP-A-51-42-00-00A-720A-D	Potted Inserts - Install procedure
CSRP-A-51-22-01-00A-258A-D	Preparation of metallic bonding surfaces - Other procedure to clean
AMP 39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance.
AMP 39-A-06-41-00-00A-010A-A	Access doors and panels - General data
AMP 39-A-20-10-09-00A-920A-A	Bonded studs - Replacement
AMP 39-A-20-10-19-00A-920A-A	Plastic loom support - Replacement
AMP 39-A-30-62-02-00A-520A-K	Number 1 auto transformer-rectifier unit - Remove procedure
AMP 39-A-30-62-02-00A-720A-K	Number 1 auto transformer-rectifier unit - Install procedure
AMP 39-A-30-62-03-00A-520A-K	Number 2 auto transformer-rectifier unit - Remove procedure
AMP 39-A-30-62-03-00A-720A-K	Number 2 auto transformer-rectifier unit - Install procedure
AMP 39-C-33-47-03-00A-520A-K	Strobe light power supply - Remove procedure
AMP 39-C-33-47-03-00A-720A-K	Strobe light power supply - Install procedure
AMP 39-A-34-43-01-00A-520A-K	EGPWS computer - Remove procedure
AMP 39-A-34-43-01-00A-720A-K	EGPWS computer - Install procedure
AMP 39-A-52-72-01-00A-520A-A	Left/right baggage compartment door microswitch - Remove procedure
AMP 39-A-52-72-01-00A-720A-A	Left/right baggage compartment door microswitch - Install procedure

Table 2 Access Point

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Zone ID	Data Module
No Zones	

Preliminary requirements

Required conditions

Table 4 Required conditions

Condition	Data Module/Technical Publication
None	

Support equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Ground saddle	N/A	2

Note:

1. Refer also to IETP for the Support Equipment tools required to comply with the Data Module referenced in Procedure and in Required conditions.

Supplies

Table 6 Supplies

Nomenclature	Identification No.	Qty
1. Adhesive 199-05-002 Type II Class 2	EA934NA (C397)	AR
2. Adhesive 199-05-002 Type II Class 3	EA 956 (C193)	AR
3. Adhesive	EC-2216 (C058)	AR
4. Conductive Silicone Adhesive	Soliani C.A.NG.2.5 OZ COD. 22.0002	AR
5. Sealant 199-05-004 Type II Class B-2	Proseal 890 (C465)	AR
6. Sealant AWMS05-001 type I class B grade 2	MC-780 B-1/2	AR
7. Sealant AWMS05-001 type I class C grade 1	MC-780 Type I Class C I.	AR
8. Paint polyurethane	MIL-PRF-85285	AR
9. Stud bonded	A366A3E12C	4
	A388A3E16C	4
10. Plastic support	A630A31	4

11. Insert	NAS1836-08-15M	4
	NAS1832-3-4	2

Note:

1. Refer also to IETP for the Supplies required to comply with the Data Module referenced in Procedure and in Required conditions.
2. Refer also to Figures and relevant Rivet list for P/N of applicable rivets.

Spares

<i>Table 7 Spares</i>		
Nomenclature	Identification No.	Qty
1. Mided floor panel assy	3G5340A02434 (Note 1)	1
2. External doubler	3G5340A00951	2
3. Internal doubler	3G5340A00851	2
4. Pan fitting	3G5340A00751	2
5. Gasket	3G5310A03951	12
6. Bonding layer	3G5315A92051	1

Note (1): Manufacturing P/N 3G5340A02434M01 can be supplied as alternative.

Safety conditions

No Safety Condition.

NOTES

- A. Place an identification tag on all components that are re-usable, including the attaching hardware that has been removed to gain access to the modification area and adequately protect them until their later re-use.
- B. During drilling operations pay extreme attention in order to prevent instruments, cables and hosing damage. After drilling, clean the area and remove sharp edges. Apply on bare metal a light film of primer unless the hole is used for ground connection.
- C. Before installing new rivets check for holes condition; if holes condition is not suitable use oversize rivets. If necessary install rivets with different grips.
- D. All riveting and de-riveting in accordance with the IETP CSRP.
- E. All Hi-Lok fasteners installed and removed in accordance with IETP CSRP.
- F. Use aliphatic naphtha to degrease. Cleaned surfaces shall be allowed to air dry for at least 30 minutes before bonding.
- G. All dimensions are in mm.

Procedure

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with AMP DM 39-A-34-43-01-00A-520A-K, remove the EGPWS computer.
3. In accordance with AMP DM 39-A-30-62-02-00A-520A-K and 39-A-30-62-03-00A-520A-K, remove the Number 1 and Number 2 auto transformer-rectifier unit computers.
4. In accordance with AMP DM 39-A-52-72-01-00A-520A-A, remove the LH/RH baggage compartment door microswitch.
5. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, remove the LH/RH baggage doors (access panel 183AL).
6. In accordance with AMP DM 39-C-33-47-03-00A-520A-K, remove the Strobe light power supply.
7. Remove the float hoses and cables installed on baggage floor panel assy.

NOTE

The cabin floor panels need to be installed during the activity.

8. Support the rear fuselage and the tailboom locating suitable saddles at STA 8700 and STA 11020.
9. Referring to Figure 11, remove the baggage door frame additional metallic protection.
10. Referring to Figure 1 thru Figure 2, remove the door locking supporting devices at STA 7200 and STA 8150.

11. Referring to Figure 3 thru Figure 6:
 - 11.1. Figure 11 remove the gasket installed around the LH door in order to get access to the lower frame and part of the vertical frames at STA 7200 and STA 8150;
 - 11.2. remove the rivets connecting the LH door lower frame to surrounding structure;
 - 11.3. access to LH vertical frames at STA7200 and STA8150 and remove a number of rivets sufficient to allow removal of the LH door lower frame;
 - 11.4. repeat steps from 11.1 to 11.3 on RH side.
12. Referring to Figure 7 thru Figure 10, remove the rivets connecting the fuselage structure to the baggage floor panel assy, then remove it.

NOTE

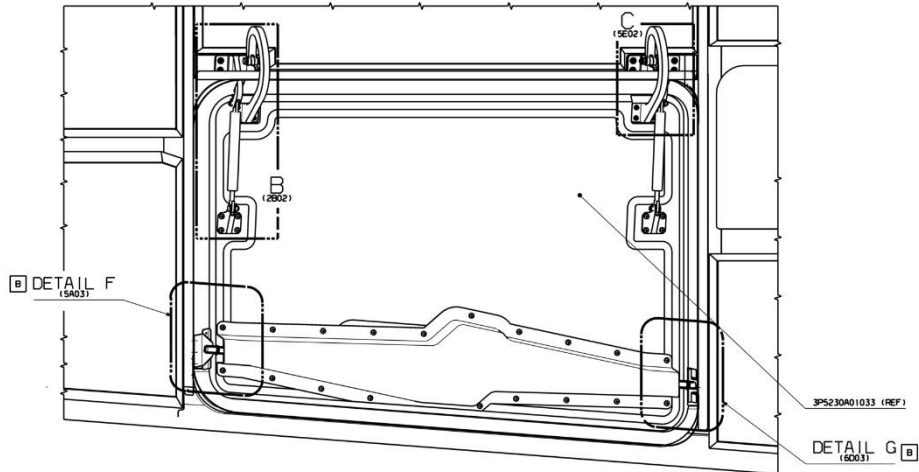
Performing step 12, it is possible to cut the baggage floor panels assy corners to ease its removal, then, inspect the structure to assure that no damage occurred.

13. In accordance with CSRP-A-51-42-00-00A-720A-D, referring to Figure 15, install on new baggage floor panel assy the insert P/N NAS1832-3-4 (qty.2).
14. Referring to Figure 18:
 - 14.1. in accordance with CSRP-A-51-42-00-00A-720A-D, install on new baggage floor panel assy the insert P/N NAS1836-08-15M (qty.4) using Adhesive 199-05-002 Type 2 Class 2;
 - 14.2. in accordance with CSRP-A-51-22-01-00A-258A-D, prepare new baggage floor panel assy surface to assure proper ground contact and install the bonding layer P/N 3G5315A92051;
 - 14.3. apply a fillet of Sealant AWMS05-001 type I class B grade 2.
15. Referring to Figure 12 thru Figure 14, in the position shown in Detail D:
 - 15.1. trim the new baggage floor panel assy;
 - 15.2. using Adhesive 199-05-002 Type II Class 2, bond the pan fitting P/N 3G5340A00751 (qty. 2), the internal doubler P/N 3G5340A00851 (qty. 2) and the external doubler P/N 3G5340A00951 (qty. 2);
 - 15.3. drill holes to diameter 7.01 – 7.13 mm through the panel (3.1 mm max misalignment of the hole from center);
 - 15.4. seal holes with Adhesive 199-05-002 Type II Class 2.
16. Referring to Figure 12 and Figure 14, install the gasket P/N 3G5310A03951 (qty. 12), using EC 2216.
17. Referring to CSRP-A-51-21-01-02A-257A-D, paint the upper surface of the baggage panel using MIL-PRF-85285 polyurethane paint (colour FED-STD-595 No.36231).
18. Referring to Figure 7 thru Figure 10, install the new baggage floor panel assy on the fuselage structure using rivets recalled on figures.
19. With reference to AMP DM 39-A-20-10-19-00A-920A-A and Figure 17, install on new baggage floor panel assy the plastic support P/N A630A31 (qty. 4) using Adhesive 199-05-002 Type 2 Class 3.
20. In accordance with AMP DM 39-A-20-10-09-00A-920A-A, referring to Figure 16, install on new baggage floor panel assy the stud bonded P/N A388A3E16C (qty.4).

21. In accordance with AMP DM 39-A-20-10-09-00A-920A-A, referring to Figure 19, install on new baggage floor panel assy the stud bonded P/N A366A3E12C (qty.4).
22. Referring to Figure 3 thru Figure 6:
 - 22.1. bond the LH door lower frame using Sealant AWMS05-001 type I class C grade 1;
 - 22.2. install the rivets connecting the LH door lower frame and LH vertical frames at STA7200 and STA8150 to surrounding structure;
 - 22.3. bond the gasket using Conductive Silicone Adhesive Soliani C.A.NG.2.5 OZ COD. 22.0002.
 - 22.4. repeat steps from 22.1 to 22.3 on RH side.
23. Referring to Figure 1 thru Figure 2, install the baggage door locking supporting devices at STA 7200 and STA 8150.
24. Referring to Figure 11, install the baggage door frame additional metallic protection, sealing with Sealant 199-05-004 Type II Class B-2.
25. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, install the LH/RH baggage doors (access panel 183AL).
26. In accordance with AMP DM 39-A-52-72-01-00A-720A-A, install the LH/RH baggage compartment door microswitch.
27. Install on new baggage floor panel assy the float hoses and cables removed at step 7.
28. In accordance with AMP DM 39-C-33-47-03-00A-720A-K, install the Strobe light power supply.
29. In accordance with AMP DM 39-A-30-62-02-00A-720A-K and 39-A-30-62-03-00A-720A-K, install the Number 1 and Number 2 auto transformer-rectifier unit computers.
30. In accordance with AMP DM 39-A-34-43-01-00A-720A-K, install the EGPWS computer.

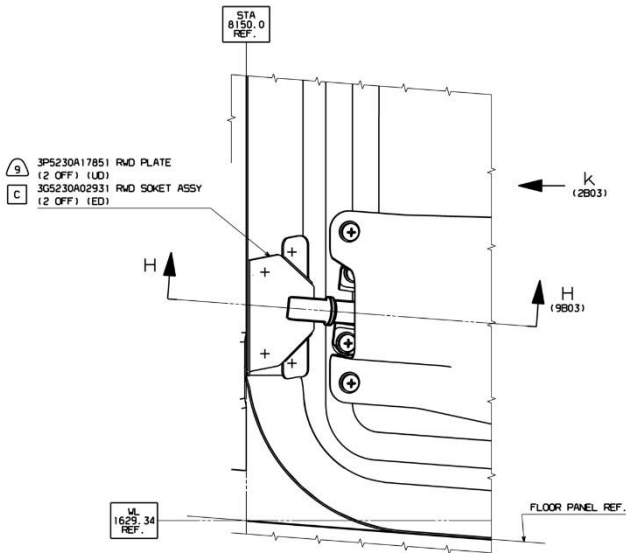
Requirements after job completion

1. Return A/C to flight configuration.

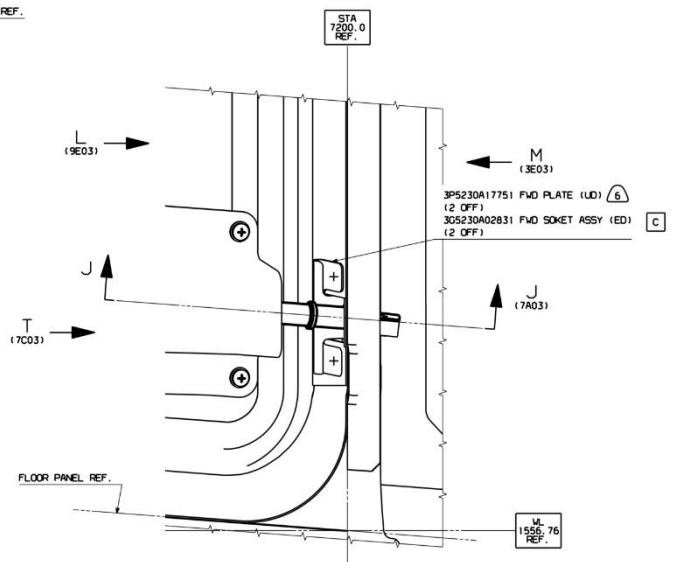


VIEW LOOKING OUTBOARD

ON THIS SHEET SHOWN ONLY LEFT SIDE
RIGHT SIDE SIMMETRICAL EXCEPT WHERE IS SPECIFIED



DETAIL F (OF02)
SIMMETRICAL BOTH SIDE



DETAIL G (6E02)
SIMMETRICAL BOTH SIDE

Figure 1 – Baggage door locking installation – General view

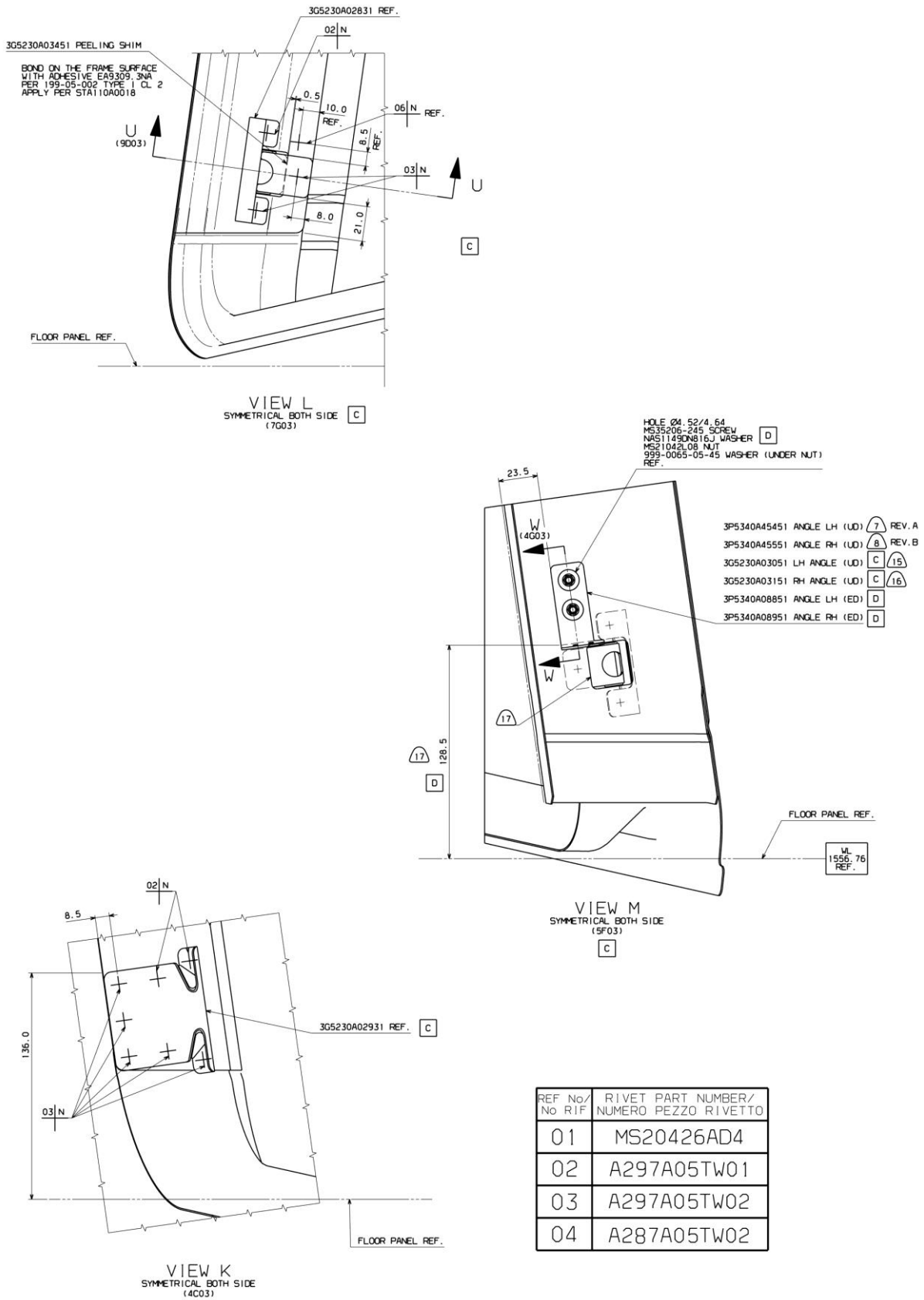
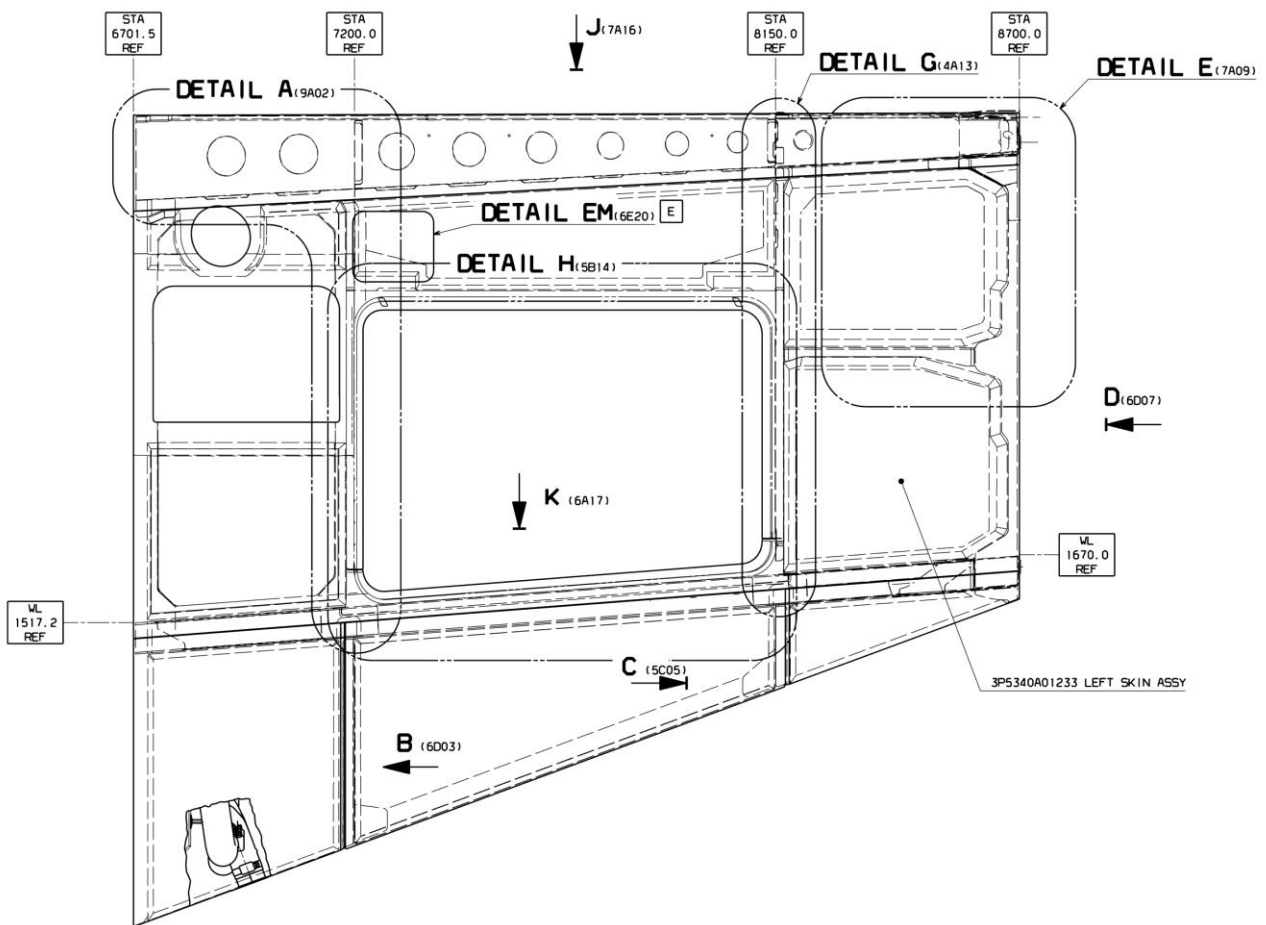


Figure 2 – Baggage door locking installation – Detailed view and rivet list for Figure 1 thru Figure 2



REF No/ No RIF	RIVET PART NUMBER/ NUMERO PEZZO RIVETTO	REF No/ No RIF	RIVET PART NUMBER/ NUMERO PEZZO RIVETTO	REF No/ No RIF	RIVET PART NUMBER/ NUMERO PEZZO RIVETTO	REF No/ No RIF	RIVET PART NUMBER/ NUMERO PEZZO RIVETTO
01	MS20426AD4	10	MS20470AD5	19	A299A05TW04	28	NAS1097U4-3
02	MS20470AD4	11	NAS9302BNS-4-02	20	A297A05TW05	29	NASM90354S0503
03	NAS1720C4L1P	12	NAS9301E-5-03	21	A297A05TW06	30	NASM90354S0603
04	NAS1720C4L2P	13	A298A04TW02	22	A298A05TW05		
05	AS46789-508	14	A297A04TW04	23	A299A05TW08		
06	MS20427M3-4	15	A297A04TW03	24	A297A04TW05		
07	A297A04TW01	16	A298A04TW03	25	NAS9301BNS-4-02		
08	A298A05TW03	17	A298A04TW04	26	A297A05TW04		
09	A297A04TW02	18	A299A05TW03	27	MS90353S0607		

Figure 3 – Baggage door frame installation – General view and rivet list for Figure 4 thru Figure 6

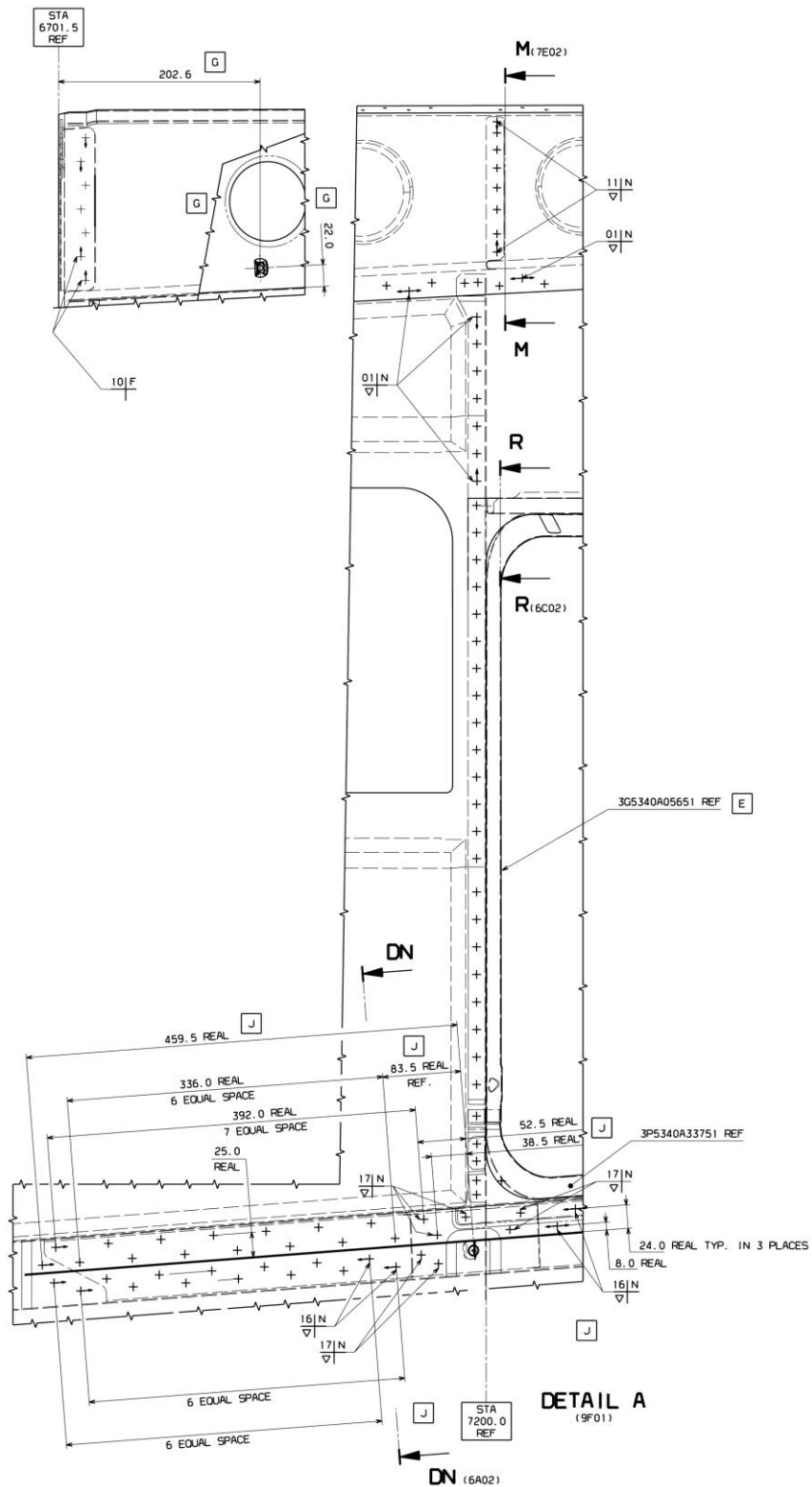


Figure 4 – Baggage door frame installation – Detailed view

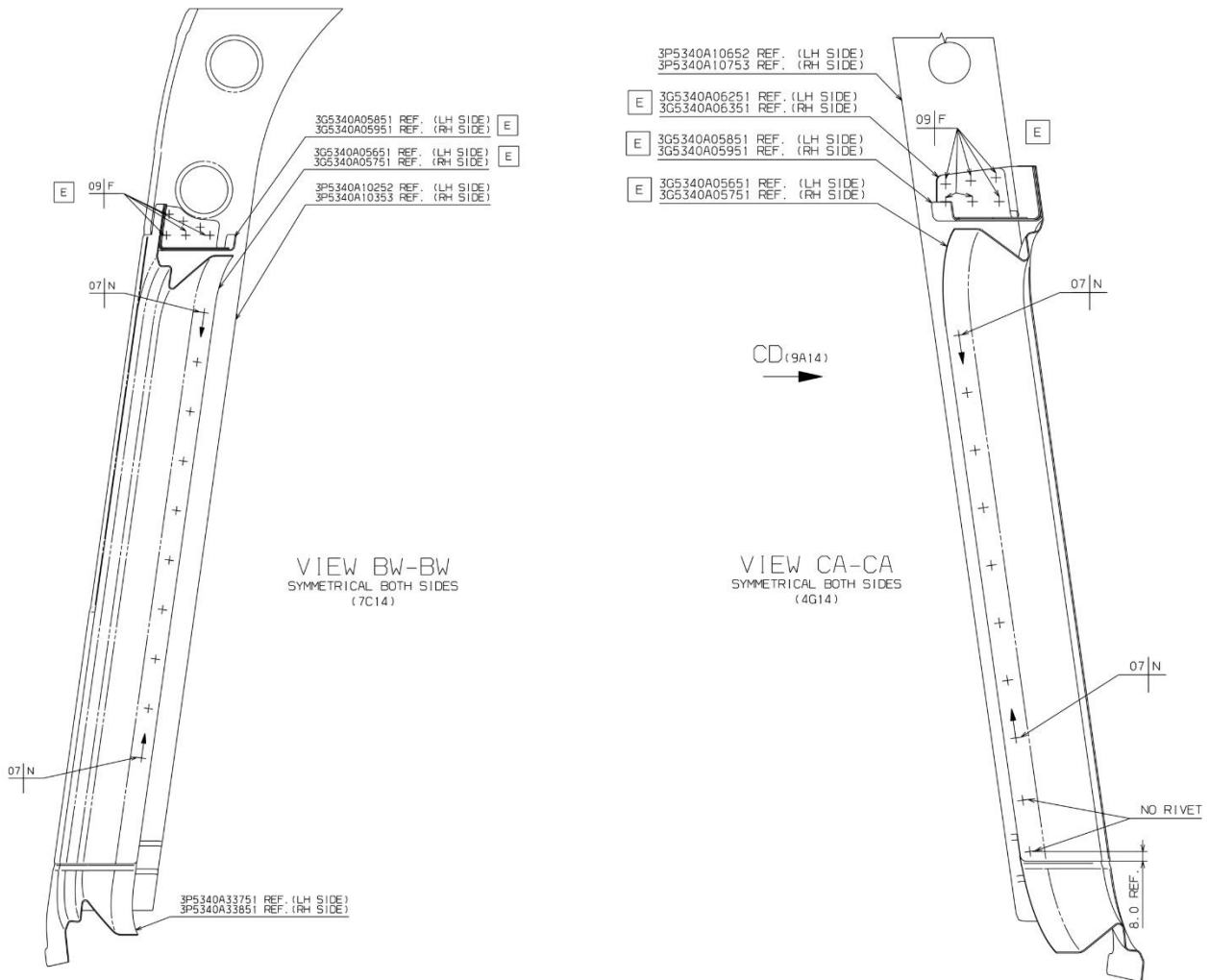
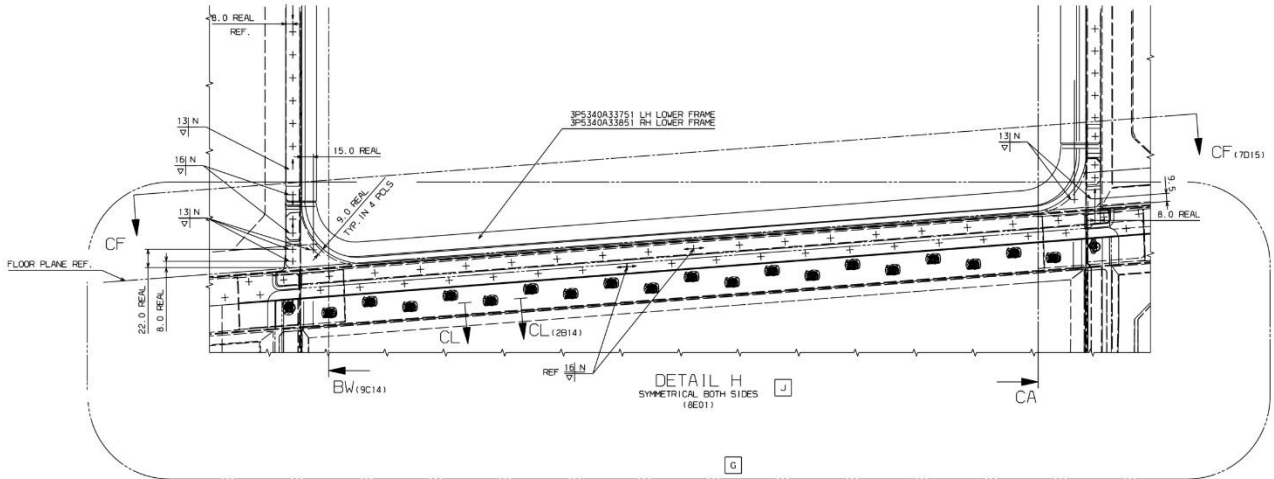
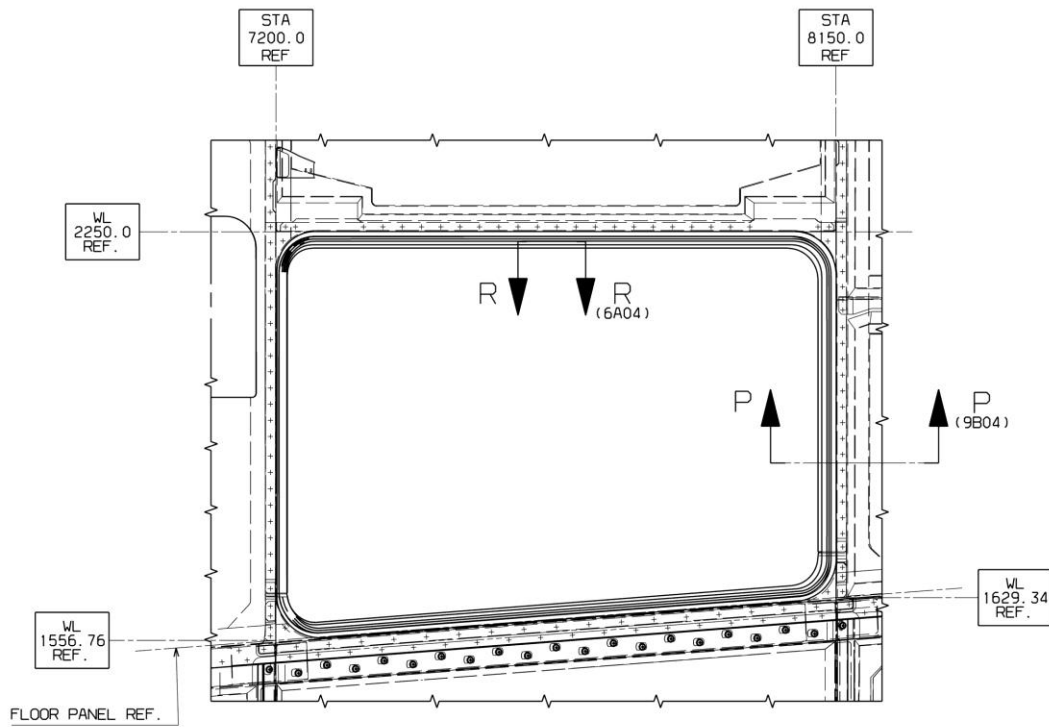


Figure 5 – Baggage door frame installation – Frontal and lateral view

Figure 7Figure 10



DETAIL N
(6D01)
BAGGAGE DOOR OMITTED FOR CLARITY
SIMMETRICAL BOTH SIDE

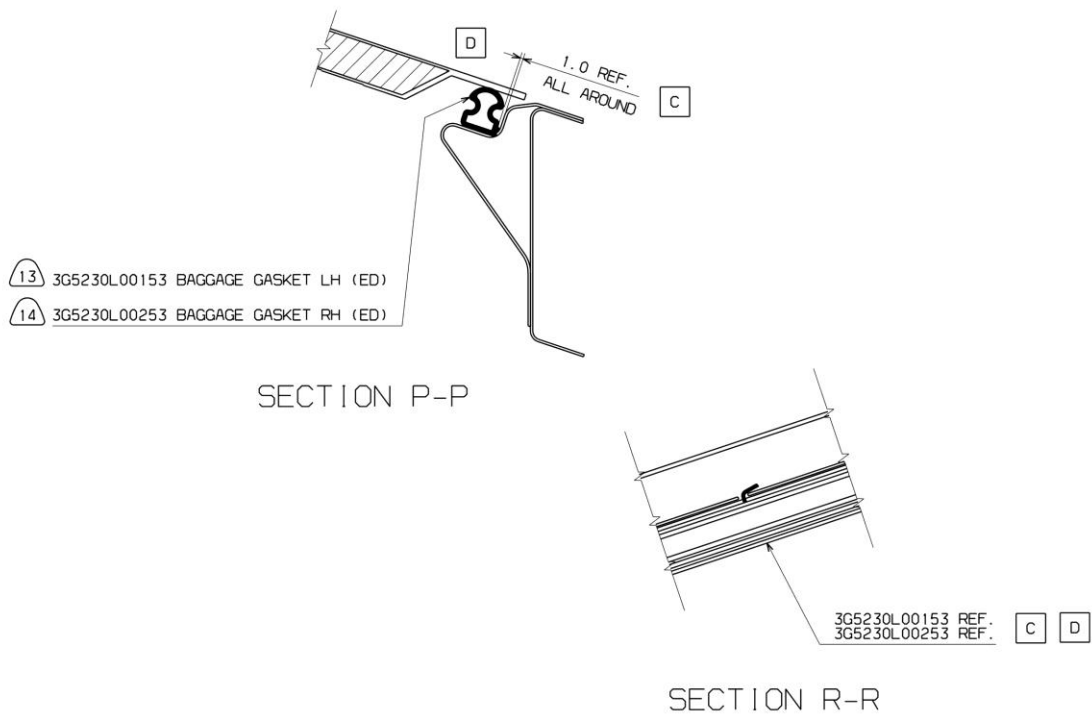
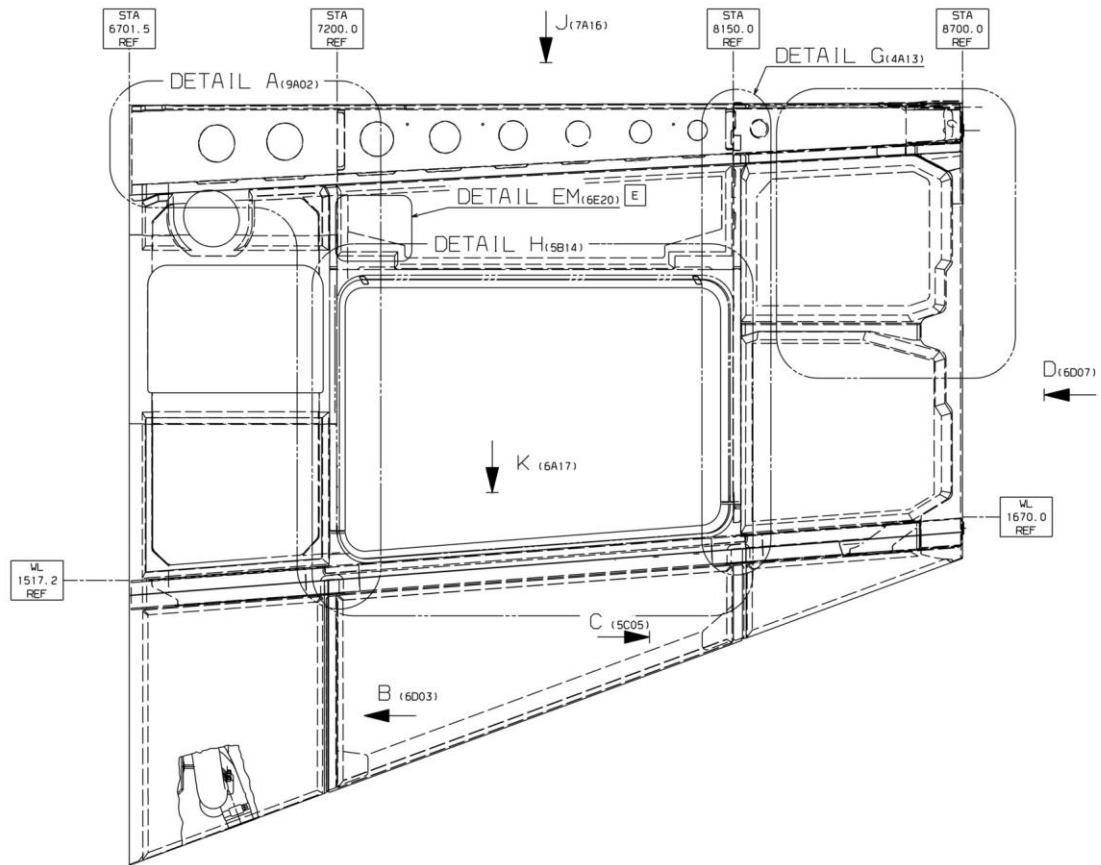


Figure 6 – Baggage door frame gasket installation



REF No/ No RIF	RIVET PART NUMBER/ NUMERO PEZZO RIVETTO	REF No/ No RIF	RIVET PART NUMBER/ NUMERO PEZZO RIVETTO	REF No/ No RIF	RIVET PART NUMBER/ NUMERO PEZZO RIVETTO	REF No/ No RIF	RIVET PART NUMBER/ NUMERO PEZZO RIVETTO
01	MS20426AD4	10	MS20470AD5	19	A299A05TW04	28	NAS1097U4-3
02	MS20470AD4	11	NAS9302BNS-4-02	20	A297A05TW05	29	NASM90354S0503
03	NAS1720C4LP	12	NAS9301E-5-03	21	A297A05TW06	30	NASM90354S0603
04	NAS1720C4L2P	13	A298A04TW02	22	A298A05TW05		
05	A546789-508	14	A297A04TW04	23	A299A05TW08		
06	MS20427M3-4	15	A297A04TW03	24	A297A04TW05		
07	A297A04TW01	16	A298A04TW03	25	NAS9301BNS-4-02		
08	A298A05TW03	17	A298A04TW04	26	A297A05TW04		
09	A297A04TW02	18	A299A05TW03	27	MS90353S0607		

Figure 7 – Panel assy installation – General view and rivet list for Figure 8 thru Figure 9

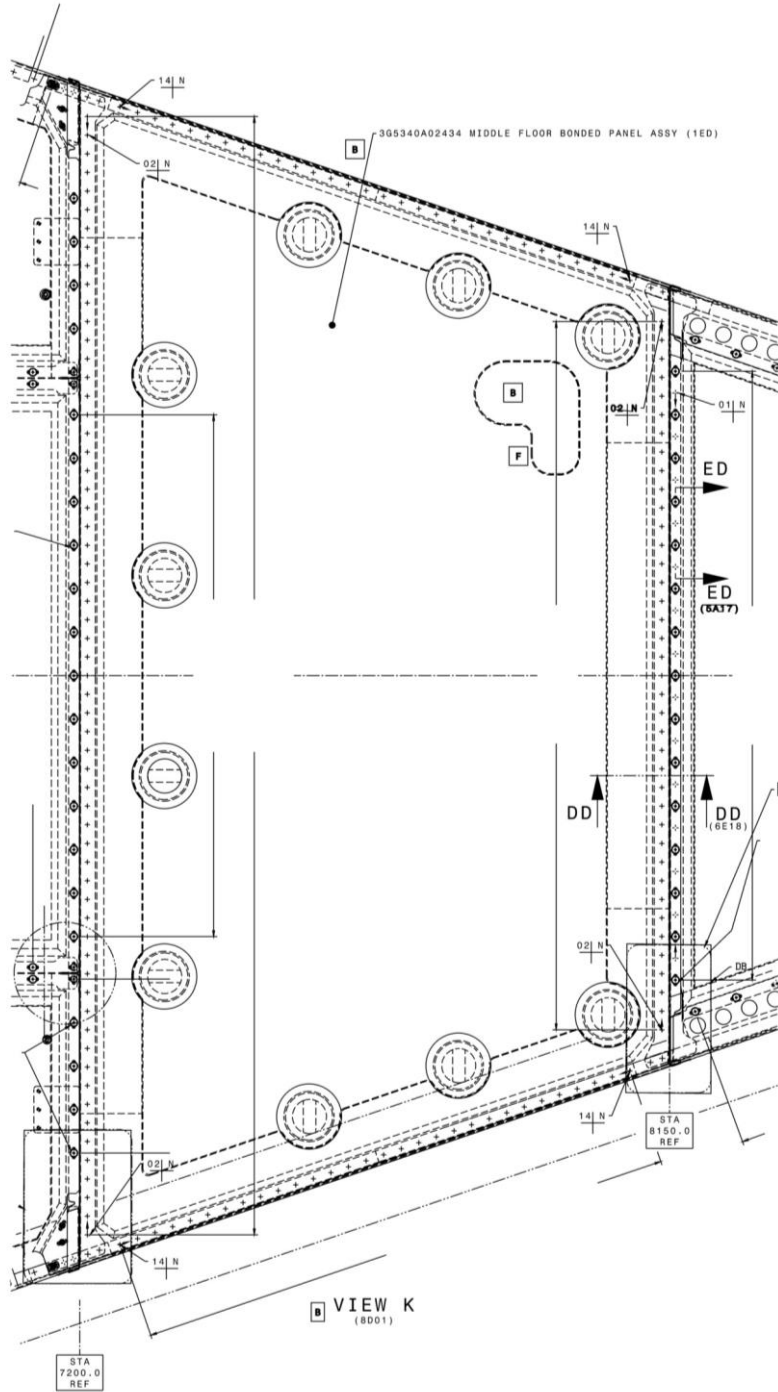
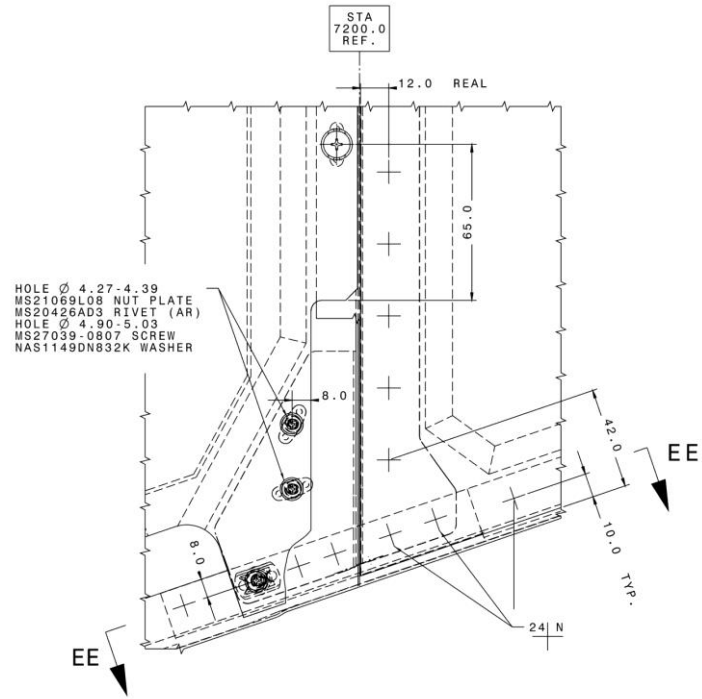


Figure 8 – Panel assy installation – Detailed view



DETAIL DA
 SYMMETRICAL BOTH SIDE

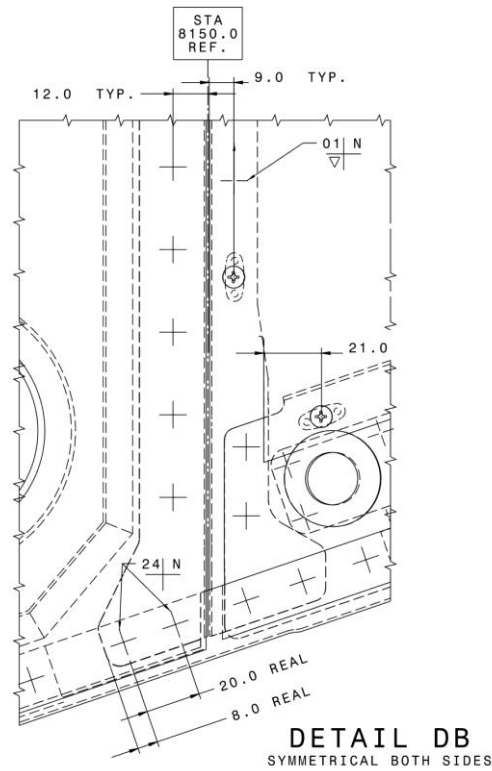


Figure 9 – Panel assy installation – Detailed view

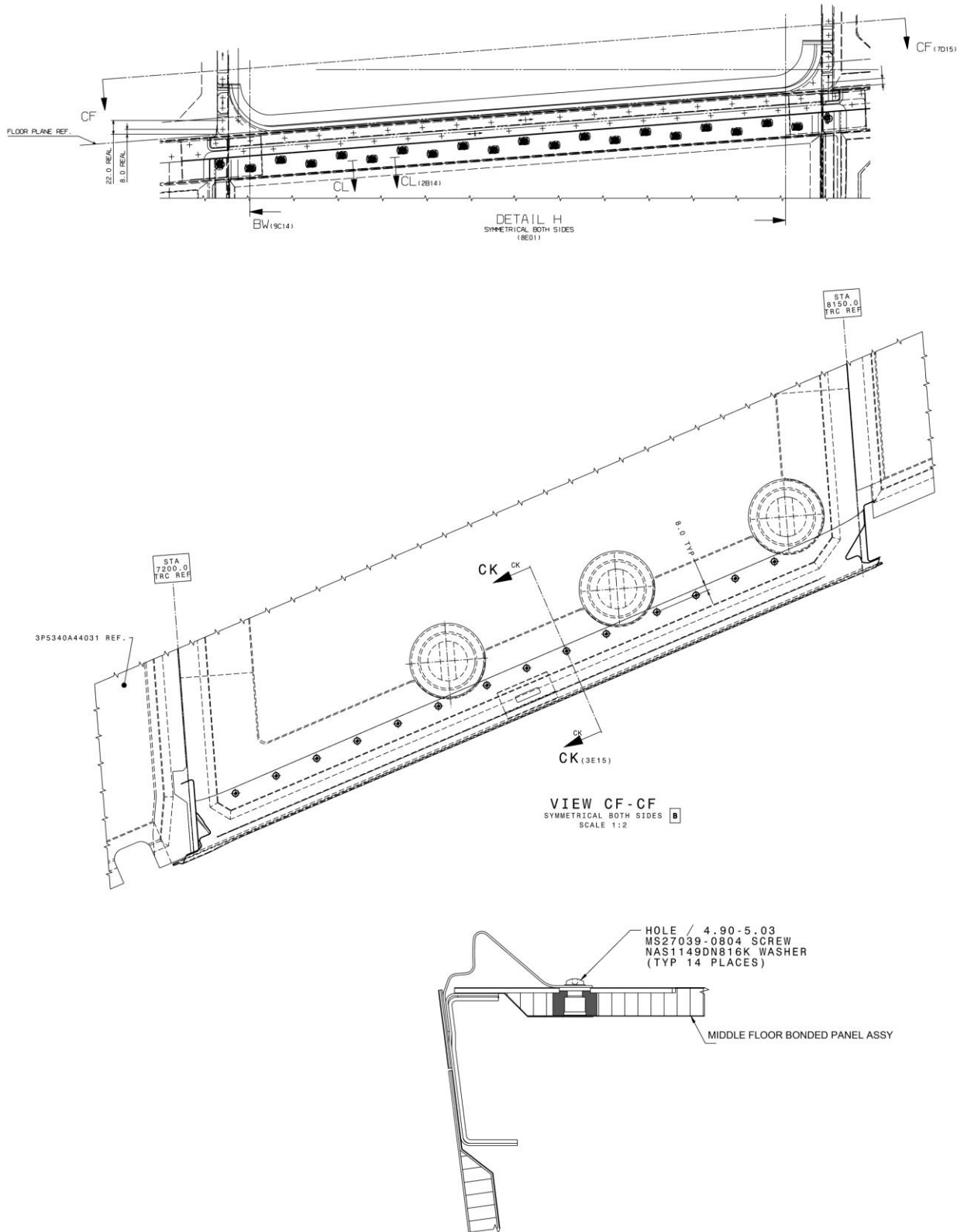


Figure 10 – Panel assy installation – Detailed view

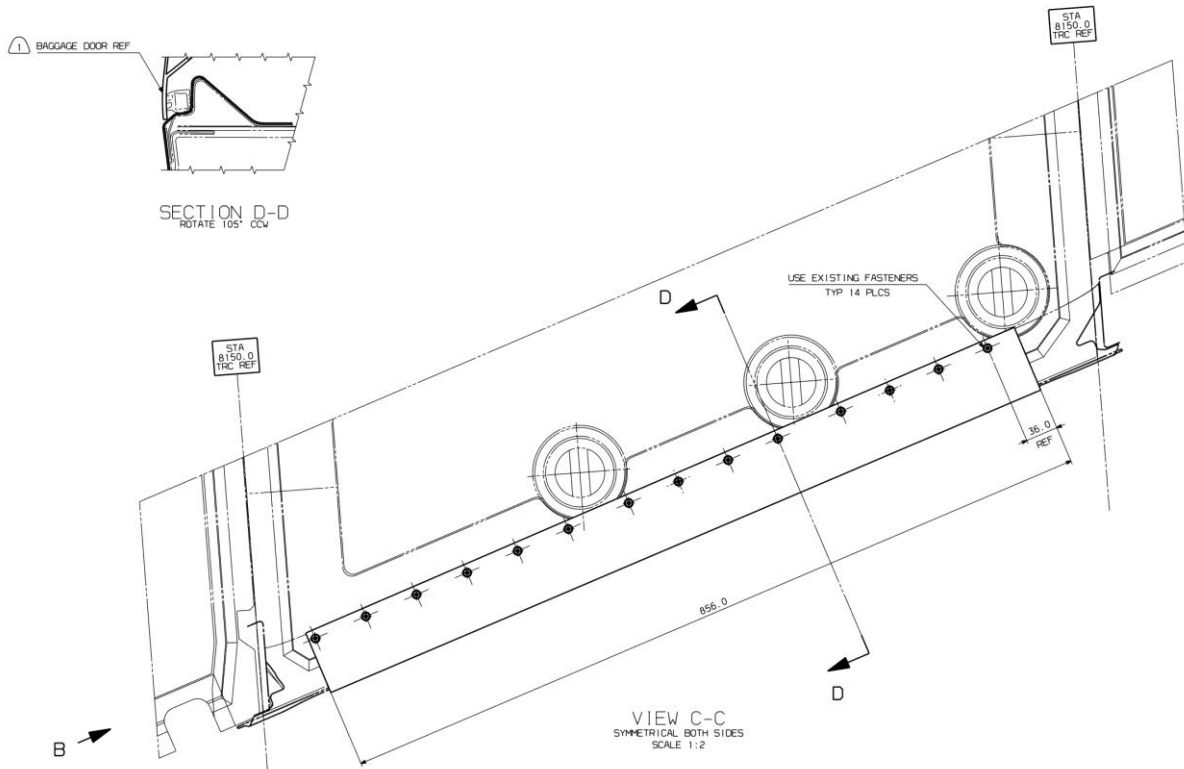
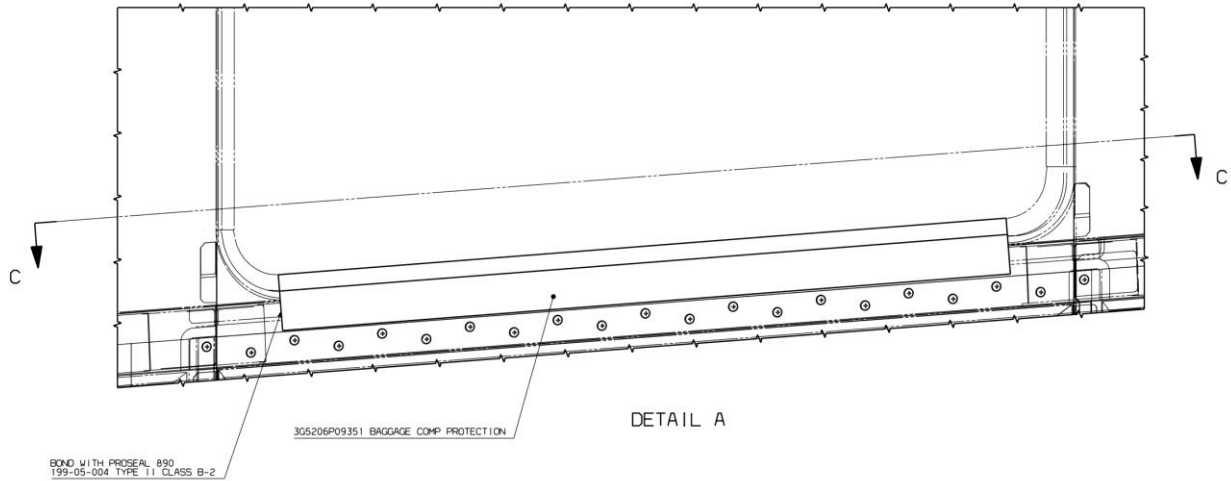


Figure 11 – Baggage door frame additional metallic protection

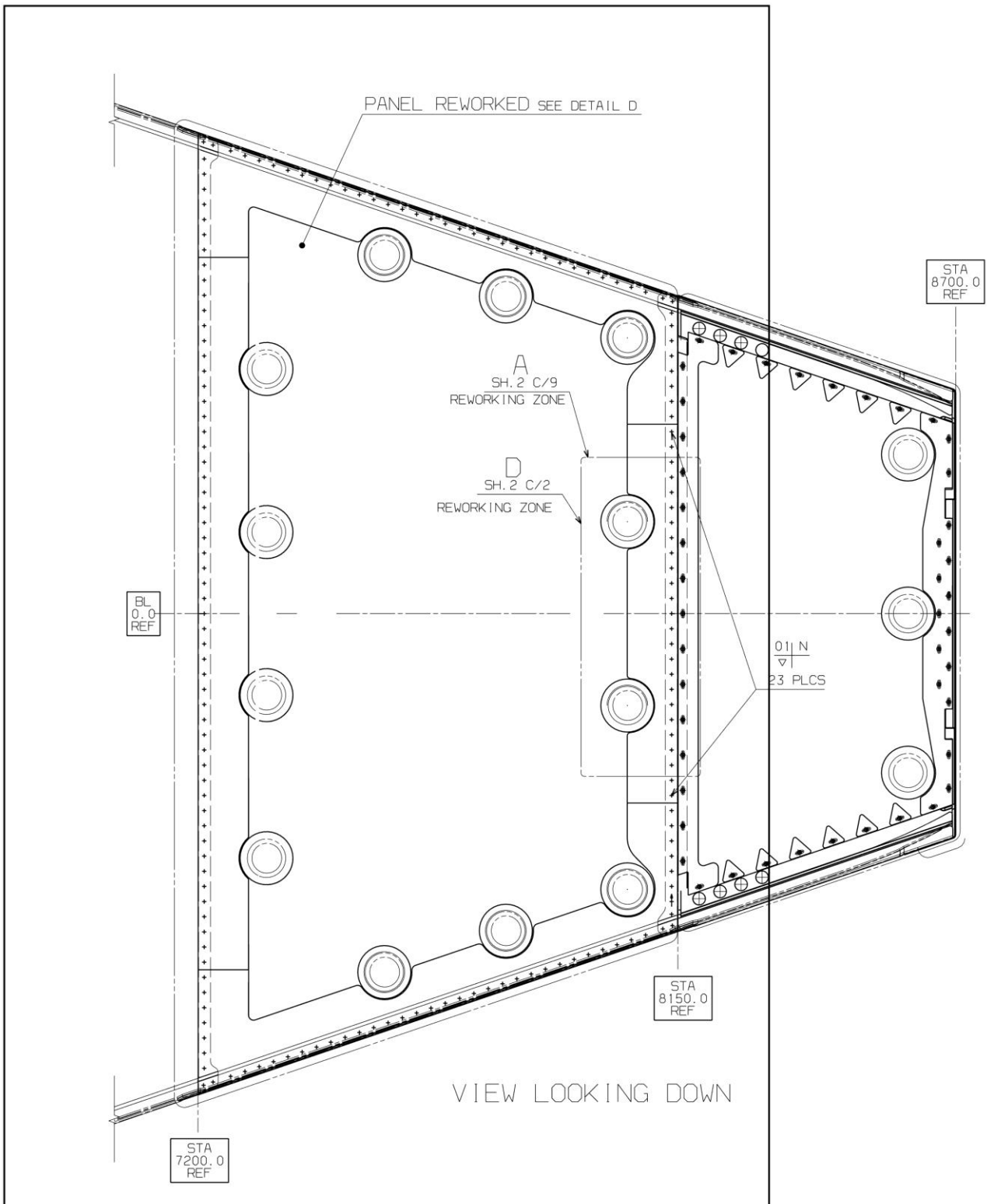
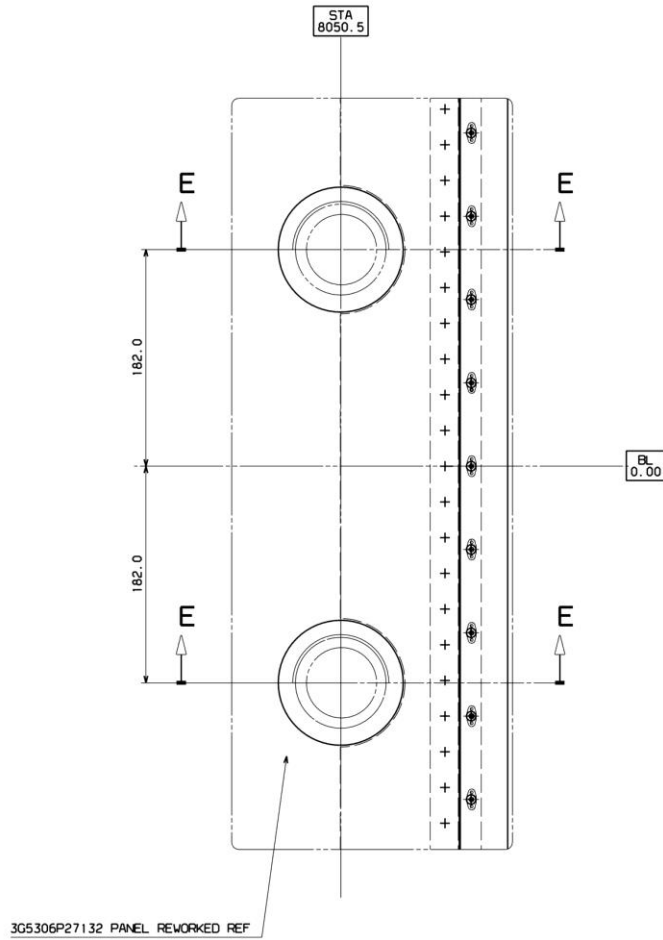


Figure 12 – Panel assy additional anchor points installation – General



B DETAIL D SH. 1 E/8

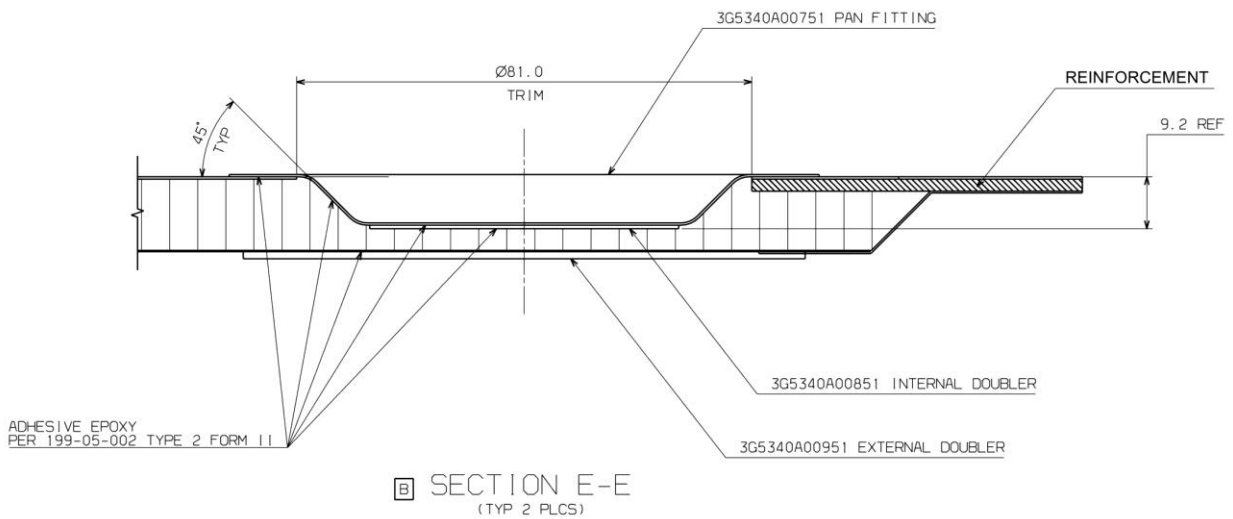


Figure 13 – Panel assy additional anchor points installation – Detailed view

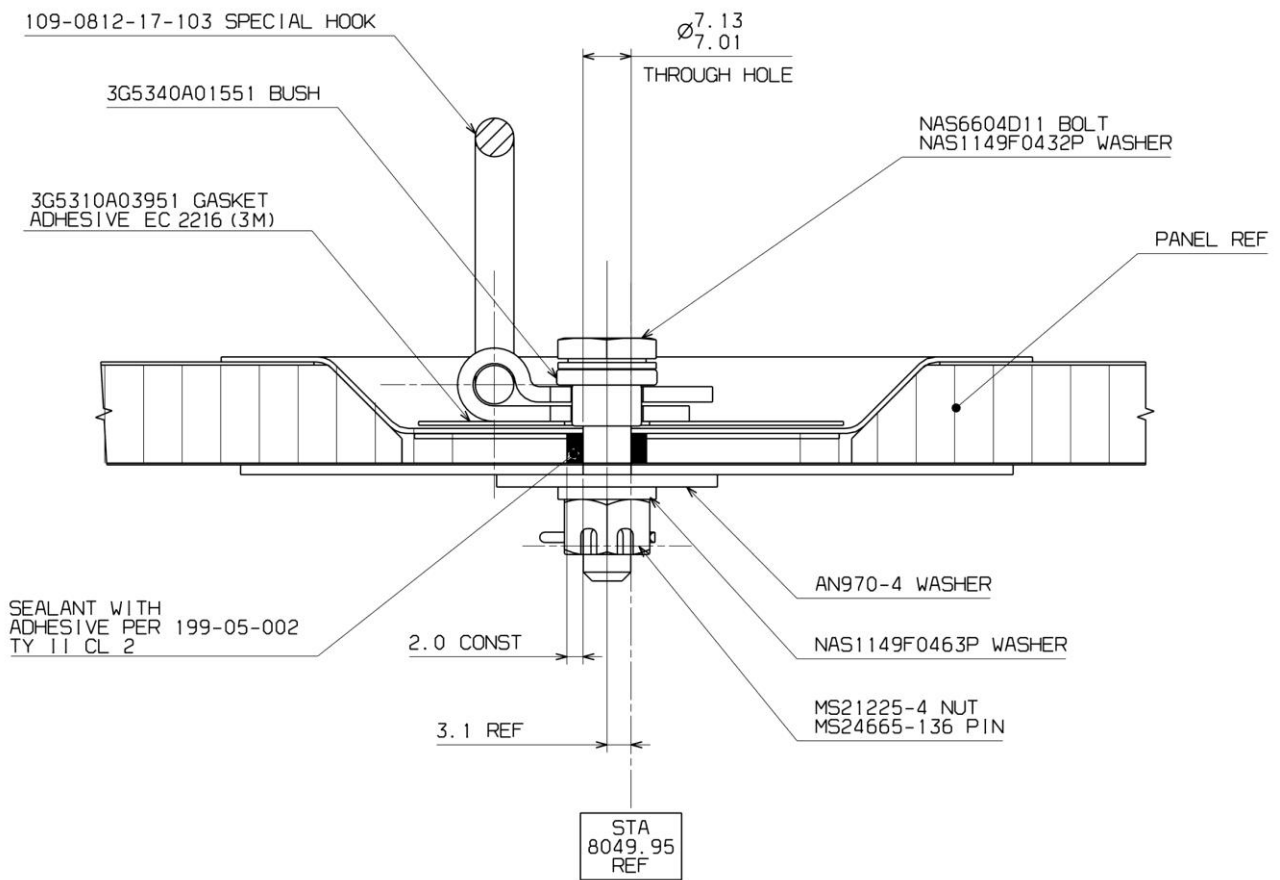


Figure 14 – Panel assy additional anchor points installation – Detailed view

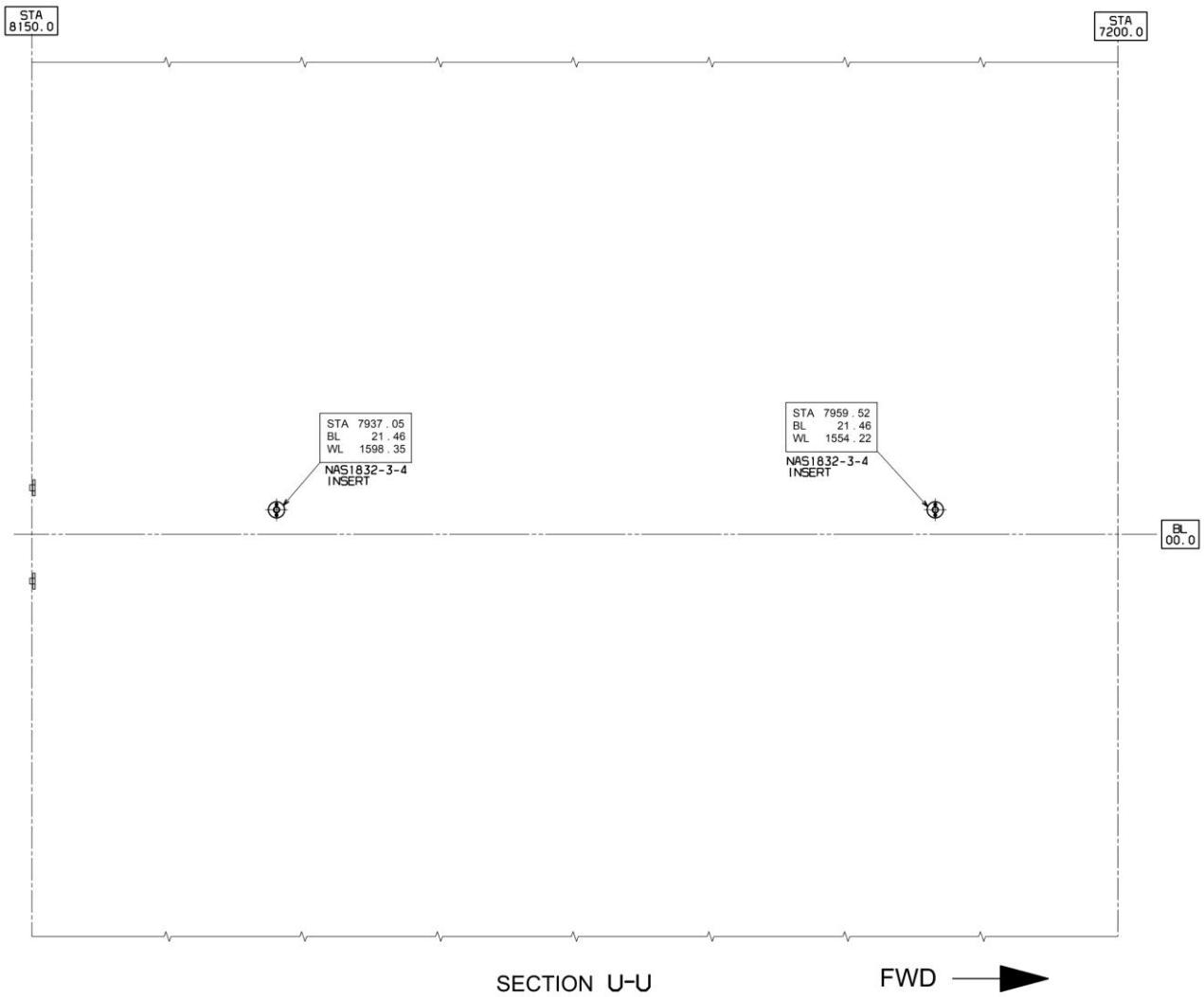
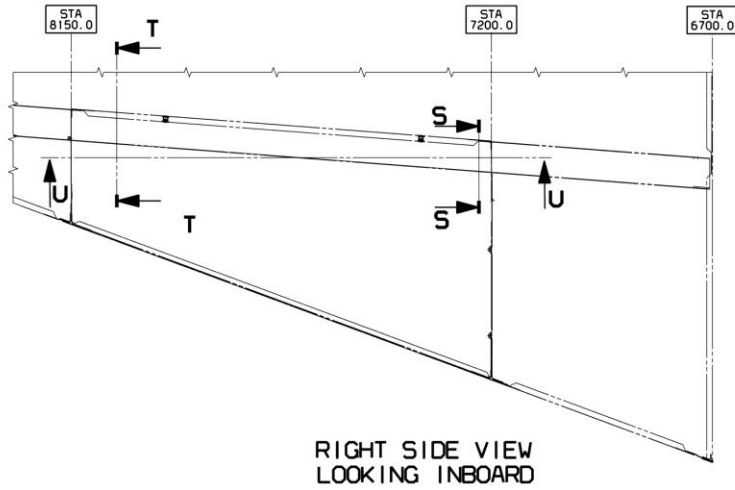
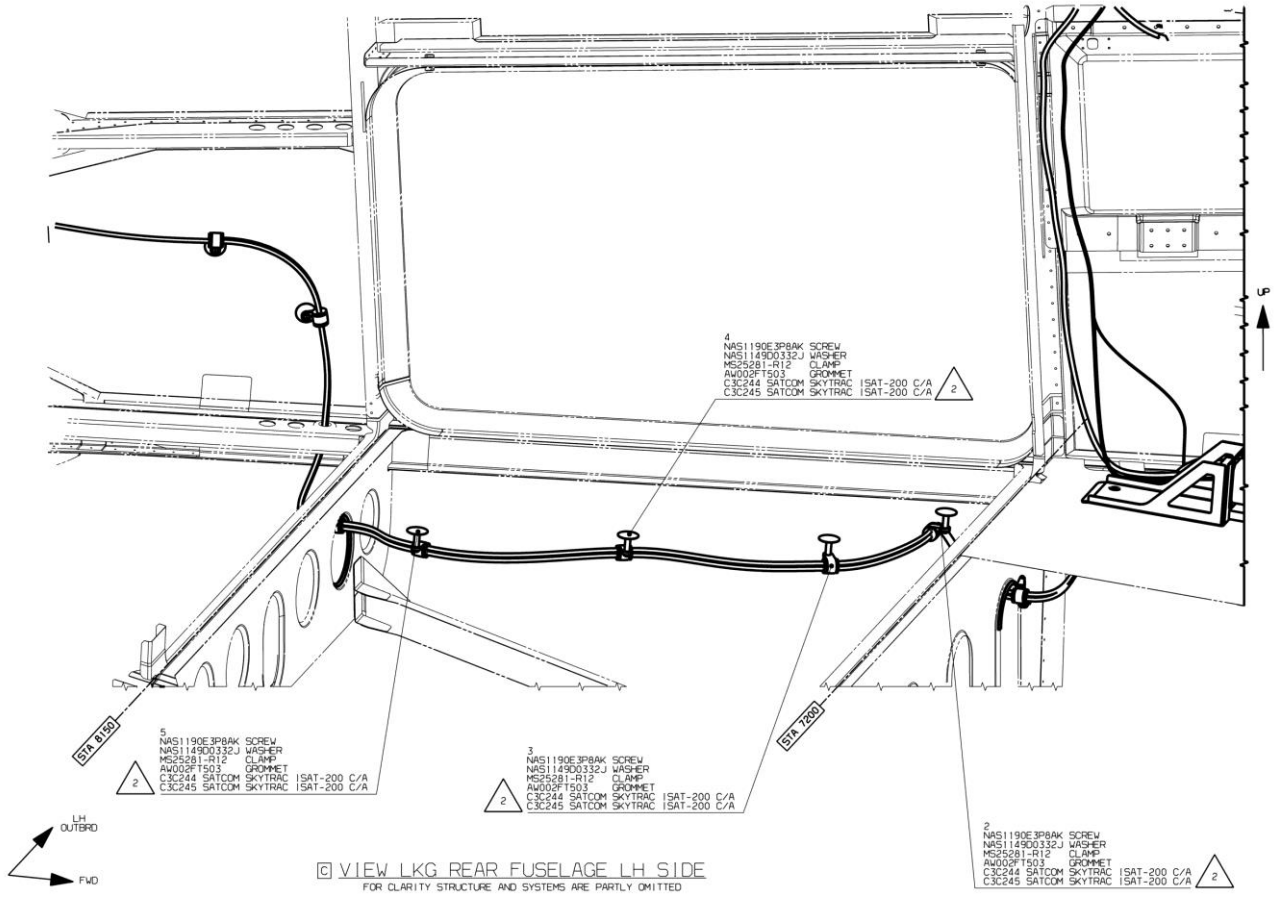


Figure 15 – Float hose provision installation



LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION	NOTE
1	AW001TL3A08	7199	-793	1399	90°	2
2	A388A3E16C	7282	-678	1550	-	2
3	A388A3E16C	7409	-482	1560	-	2
4	A388A3E16C	7689	-350	1581	-	2
5	A388A3E16C	7985	-214	1603	-	2
6	AW001TL3A06	8151	-360	1582	180°	2
7	A388A3E06C	8394	-491	1929	-	2
8	AW001TL3A06	8699	-325	1946	0°	2
9	A388A3E06C	8266	-550	1814	-	2

Figure 16 – Skytrac cable provision installation

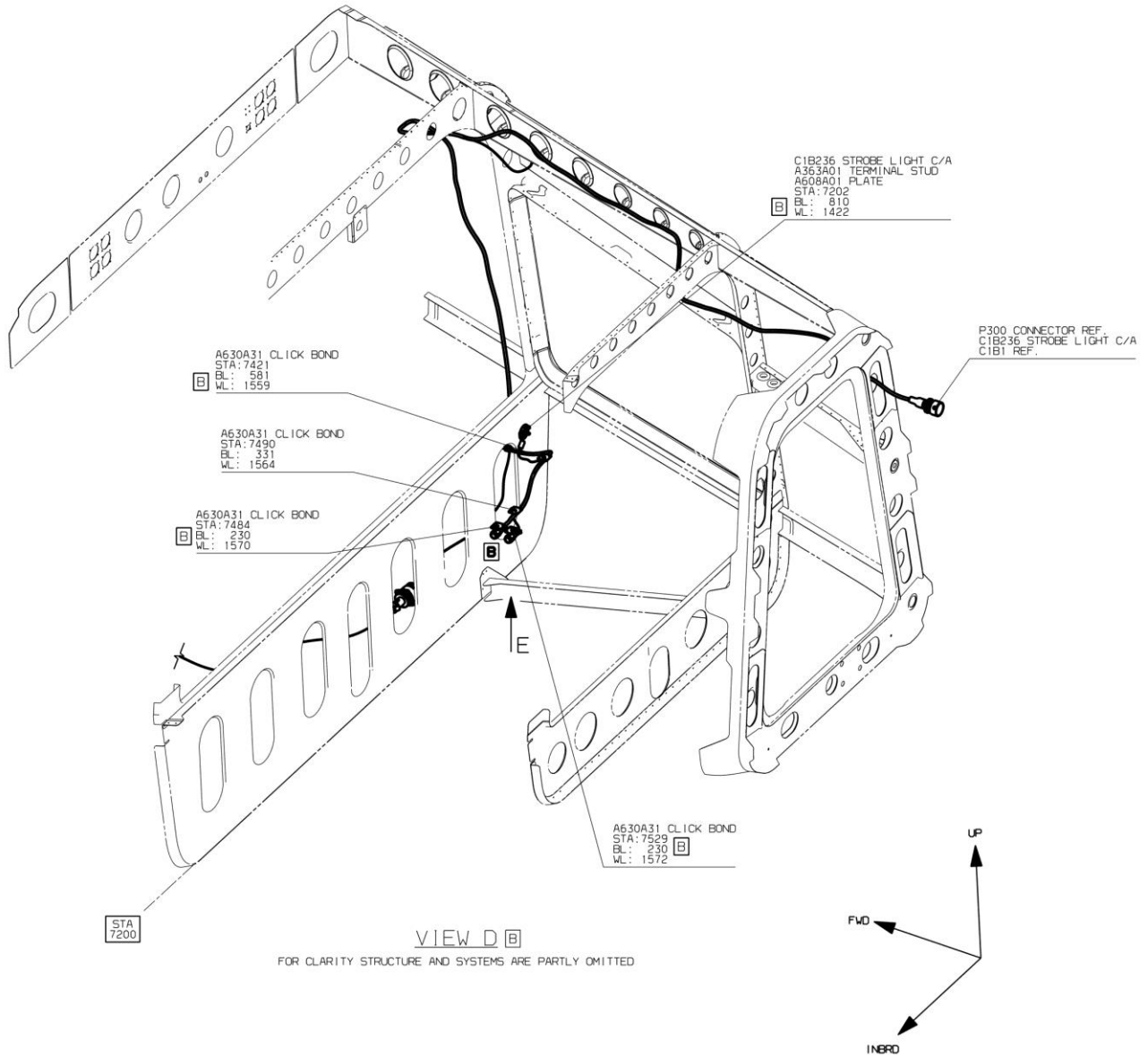


Figure 17 – Strobe light cable provision installation

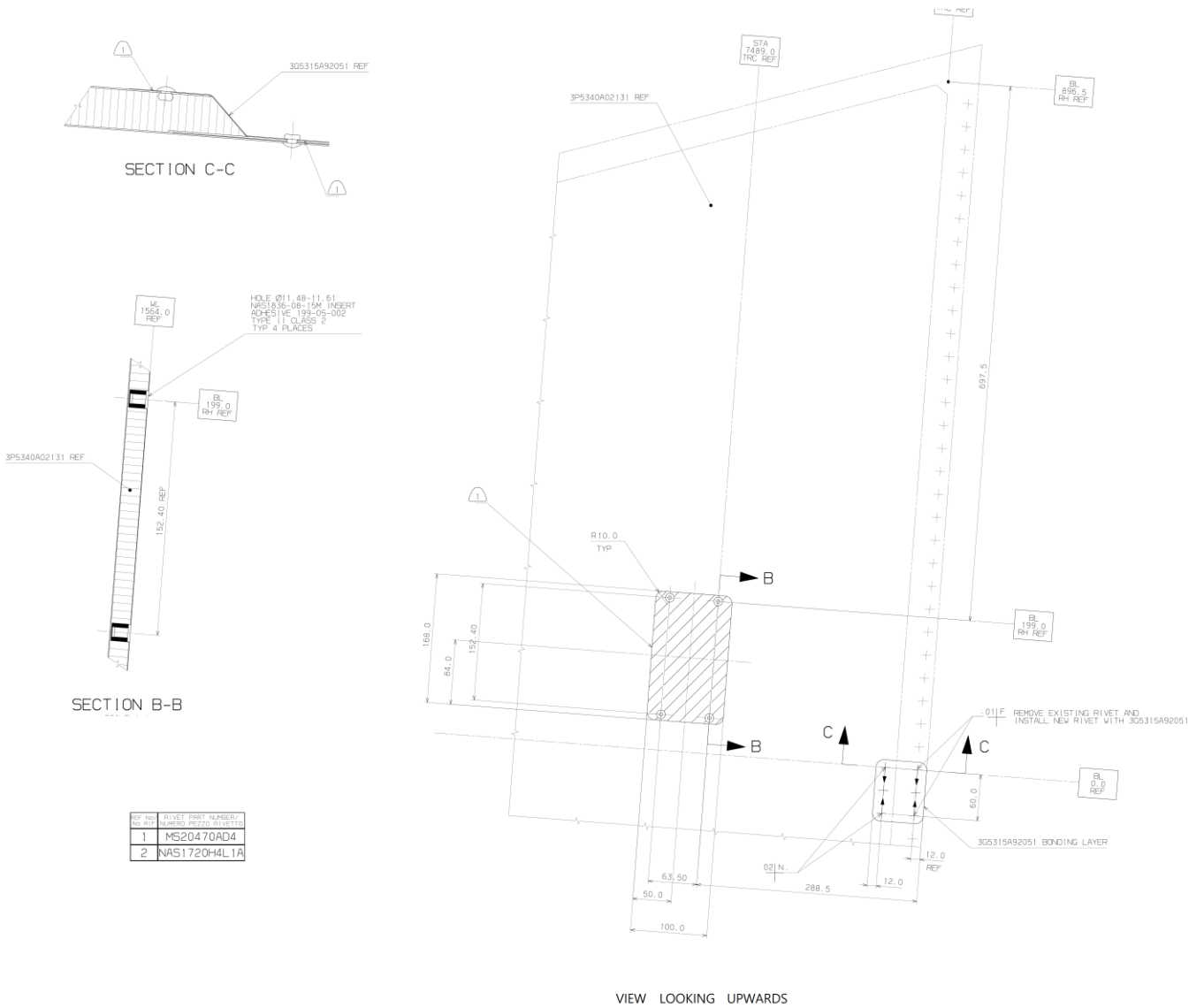
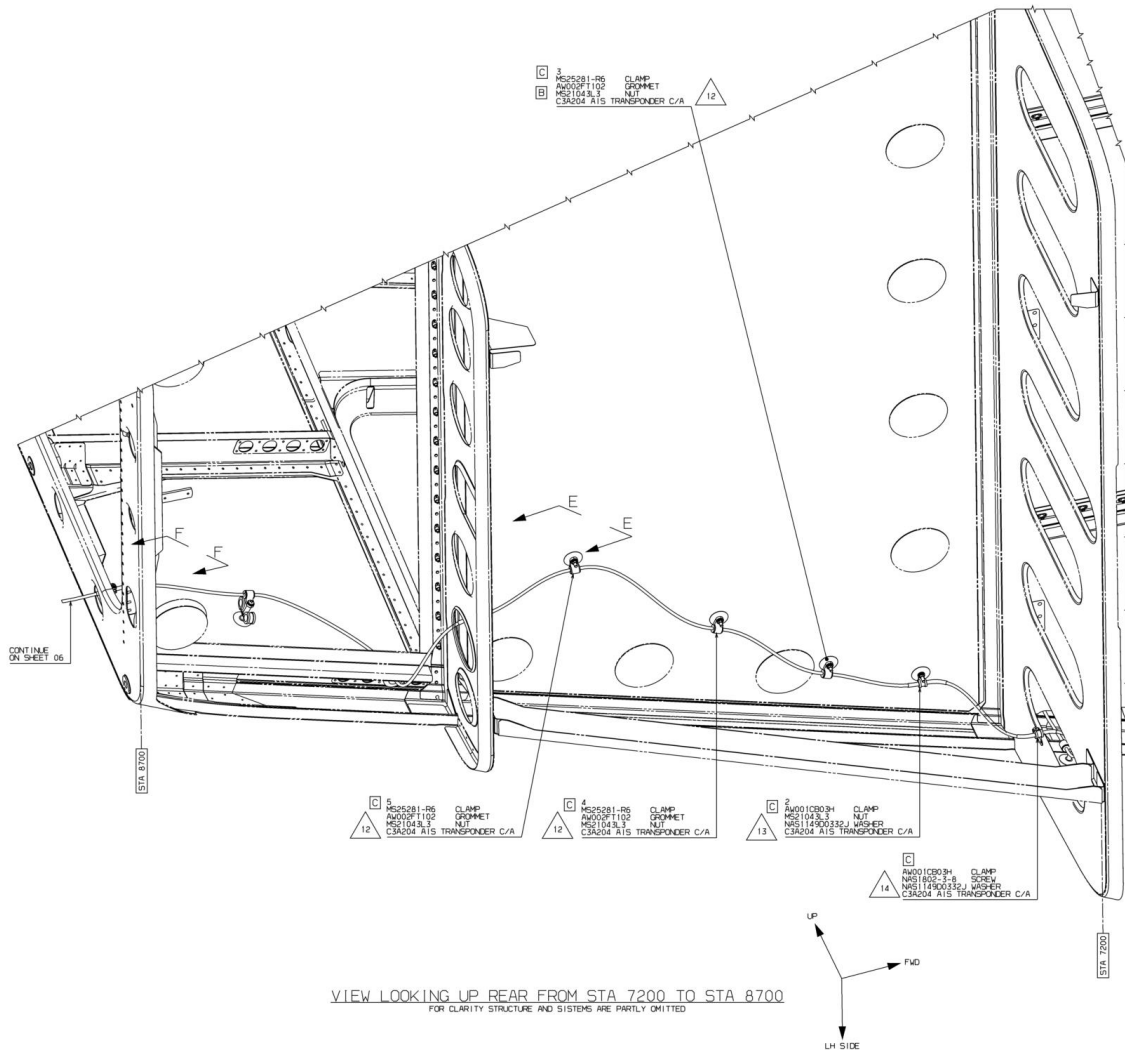


Figure 18 – Strobe light power supply provision installation



LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION	NOTE
1						
2	A366A3E12C	7339	-779	1553		2
3	A366A3E12C	7496	-711	1565		2
4	A366A3E12C	7683	-550	1578		2
5	A366A3E12C	7931	-337	1597		2

Figure 19 – AIS transponder cable provision installation