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**SERVICE BULLETIN**

**N° 139-503**

**DATE:** November 17, 2021

**REV. :** /

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**TITLE**

**ATA 00 – INTERIOR RECONFIGURATION FROM UTILITY TO VIP**

**REVISION LOG**

First issue

## **1. PLANNING INFORMATION**

### **A. EFFECTIVITY**

AW139 helicopter S/N 31706.

### **B. COMPLIANCE**

At Customer's option.

### **C. CONCURRENT REQUIREMENTS**

N.A.

### **D. REASON**

This Service Bulletin is issued in order to provide the necessary instruction on how to perform the reconfiguration of Pakistan Army helicopter S/N 31706.

### **E. DESCRIPTION**

Leonardo helicopter has developed a dedicated Service Bulletin in order to reconfigure the internal passenger cabin of helicopter S/N 31706.

Modifications introduced are the following:

Part I provides all necessary instructions for the completion of passenger cabin liners provision P/N 3G2580A03513 and the pilot cabin liners provision P/N 3G2580A10611.

Part II provides all necessary instructions on how to install the kit soundproofing standard P/N 3G2580F00113. This system improves passenger comfort reducing noise levels and distribution in all flight conditions. The system minimizes cabin noise and vibration levels using a self-supported separation barrier between the passenger cabin and the fuselage, allowing normal conversations between passengers without using headsets. The kit installation requires the installation of damping, soundproofing and acoustic insulation materials.

Part III provides all necessary instructions for the following installation:

- door step installation P/N 3G2500A1814;
- limo window structural provision P/N 3G5310A08011;
- structural provision for electrical cables P/N 3G5310A06916;
- VIP cabin interface electrical provision P/N 4G2520A00314.

## F. APPROVAL

The technical content of this Service Bulletin is approved under the authority of DOA nr. EASA.21.J.005. For helicopters registered under other Aviation Authorities, before applying the Service Bulletin, applicable Aviation Authority approval must be checked within Leonardo Helicopters customer portal.

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives. If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

## G. MANPOWER

To comply with this Service Bulletin the following Maintenance-Man-Hours (MMH) are deemed necessary:

Part I: approximately one-hundred and fifty (150) MMH;

Part II: approximately one-hundred and fifty (150) MMH;

Part III: approximately one-hundred (100) MMH;

MMH are based on hands-on time and can change with personnel and facilities available.

## H. WEIGHT AND BALANCE

### PART I

WEIGHT (Kg)	ARM (mm)	MOMENT (Kgmm)
		1.71
LONGITUDINAL BALANCE	4491.91	7681.17
LATERAL BALANCE	0	0

### PART II

WEIGHT (Kg)	ARM (mm)	MOMENT (Kgmm)
		60
LONGITUDINAL BALANCE	4600	276000
LATERAL BALANCE	0	0

**PART III**

<b>WEIGHT (Kg)</b>	<b>ARM (mm)</b>	<b>8.26</b>	<b>MOMENT (Kgmm)</b>
<b>LONGITUDINAL BALANCE</b>	4368		36079.68
<b>LATERAL BALANCE</b>	60		495.6

**I. REFERENCES**

Following Data Modules refer to AMP:

**1) PUBLICATIONS**

<b><u>DATA MODULE</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>PART</u></b>
DM01 39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance.	All
DM02 39-A-06-41-00-00A-010A-A	Access doors and panels - General data.	All
DM03 39-A-11-00-01-00A-720A-A	Decal – Install procedure	II
DM04 CSRP-A-51-21-02-01A-257A-D	Epoxy primer (MIL-PRF-23377) - Paint and apply marking	III
DM05 CSRP-A-51-42-00-00A-720A-D	Potted inserts - Install procedure	III

**2) ACRONYMS**

AMD	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
CB	Circuit Breaker
CSRP	Common Structural Repair Publication
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
FH	Flight Hours
ITEP	Illustrated tool and equipment publication
LHD	Leonardo Helicopters
MMH	Maintenance Man Hours
P/N	Part Number
SB	Service Bulletin
S/N	Serial Number

**3) ANNEX**

N.A.

**J. PUBLICATIONS AFFECTED**

N.A.

**K. SOFTWARE ACCOMPLISHMENT SUMMARY**

N.A.

## 2. MATERIAL INFORMATION

### A. REQUIRED MATERIALS

#### 1) PARTS

##### PART I

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
<b>1</b>	<b>3G2580A03513</b>		<b>PASSENGERS CABIN LINERS PROVISION</b>	<b>REF</b>	.		-
2	3G2506P00363		Omega	2	..		-
3	3G2580A03631		Bracket assy window panel	2	..		-
4	3G2580A03632		Bracket assy LH	1	..		-
5	3G2580A03633		Bracket assy LH	1	..		-
6	3G2580A03634		Bracket assy RH	1	..		-
7	3G2580A34651		Shim	2	..		-
8	3G2580A38351		Shim	1	..		-
9	3G2580A38352		Peeling shim	1	..		-
10	3G2580A55331		Bracket assy RH	1	..		-
11	3G2580A04031		Shock absorber support assy	24	..		-
12	3G2580A04131		Bracket assy AFT panel	6	..		-
13	3G2580A04331		Joint assy aft lower panel	2	..		-
14	A407A08C1P		Anchor nut	6	..		-
15	A428A08C08		Screw	4	..		-
16	A984A060A		Support shock mount	40	..		-
17	MS21069L3		Nut	14	..		-
18	MS21073L3		Nut	2	..		-
19	MS21075L3	MS21075L3N	Nut	6	..		-
20	MS24694-S49		Screw	4	..		-
21	MS27039-1-06		Screw	12	..		-
22	MS27039-1-09		Screw	22	..		-
23	NAS1149D0332K		Washer	22	..		-
24	NAS1474A3		Nut plate	12	..		-
25	NAS1832-3-4M		Insert	8	..		-
26	NAS1835C3M		Insert	1	..		-
27	AS9301B-4-03		Rivet	0.1 Kg	..		-
28	A297A04TW03		Rivet	0.1 Kg	..		-
29	AGS2067-306		Rivet	0.1 Kg	..		-
30	MS20426AD3		Rivet	0.1 Kg	..		-
<b>31</b>	<b>3G2580A10611</b>		<b>PILOT CABIN LINERS PROVISION</b>	<b>REF</b>	.		-
32	3G2580A10851		RH angle	1	..		-
33	3G2580A10951		LH angle	1	..		-
34	3G2580A62131		Support assy LH	1	..		-
35	3G2580A62231		Support assy RH	1	..		-
36	A407A08C1P		Nut	2	..		-
37	A407A3C2P		Nut	12	..		-
38	A900A3C2-02		Nut	2	..		-
39	AGS2067-306		Rivet	0.1 Kg	..		-
40	AN3-5A		Bolt	2	..		-
41	MS20426AD5-7		Rivet	0.1 Kg	..		-
42	MS21069L3		Nut	2	..		-
43	MS27039-0809		Screw	2	..		-

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
44	NAS1149BN816H		Washer	2	..		-
45	NAS1149D0316K		Washer	2	..		-
46	NAS9302B-4-02		Rivet	0.1 Kg	..		-

## **PART II**

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
<b>47</b>	<b>3G2580F00113</b>		<b>KIT SOUNDPROOFING STANDARD</b>	<b>REF</b>	.		-
<b>48</b>	<b>3G2580A21531</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	..		-
49	3G2580A21551		Cover STA3120 soundproofing	1	...		-
50	3G2580A21552		Cover STA3120 soundproofing	1	...		-
51	3G2580A21553		Cover STA3120 soundproofing	1	...		-
52	3G2580A21554		Cover STA3120 soundproofing	1	...		-
53	3G2580A21555		Cover STA3120 soundproofing	1	...		-
54	3G2580A21556		Cover STA3120 soundproofing	1	...		-
55	3G2580A21557		Cover STA3120 soundproofing	1	...		-
56	3G2580A21558		Cover STA3120 soundproofing	1	...		-
57	3G2580A21559		Cover STA3120 soundproofing	1	...		-
58	3G2580A21560		Cover STA3120 soundproofing	1	...		-
59	3G2580A21561		Cover STA3120 soundproofing	1	...		-
60	3G2580A21562		Cover STA3120 soundproofing	1	...		-
61	3G2580A21563		Cover STA3120 soundproofing	1	...		-
62	3G2580A21564		Cover STA3120 soundproofing	1	...		-
63	3G2580A21565		Cover STA3120 soundproofing	1	...		-
64	3G2580A21566		Cover STA3120 soundproofing	1	...		-
65	3G2580A21567		Cover STA3120 soundproofing	1	...		-
66	3G2580A21568		Cover STA3120 soundproofing	1	...		-
67	3G2580A21569		Cover STA3120 soundproofing	1	...		-
68	3G2580A21591		Cover STA3120 soundproofing	1	...		-
<b>69</b>	<b>3G2580A21633</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	..		-
70	3G2580A21602		Soundproofing	1	...		-
71	3G2580A21603		Soundproofing	1	...		-
72	3G2580A21651		Soundproofing	1	...		-
73	3G2580A21652		Soundproofing	1	...		-
74	3G2580A21653		Soundproofing	1	...		-
75	3G2580A21654		Soundproofing	1	...		-
76	3G2580A21655		Soundproofing	1	...		-
77	3G2580A21656		Soundproofing	1	...		-
78	3G2580A21657		Soundproofing	1	...		-
79	3G2580A21658		Soundproofing	1	...		-

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
80	3G2580A21659		Soundproofing	1	...		-
81	3G2580A21660		Soundproofing	1	...		-
82	3G2580A21662		Soundproofing	1	...		-
83	3G2580A21663		Soundproofing	1	...		-
84	3G2580A21665		Soundproofing	1	...		-
85	3G2580A21666		Soundproofing	1	...		-
86	3G2580A21668		Soundproofing	1	...		-
87	3G2580A21669		Soundproofing	1	...		-
88	3G2580A21692		Soundproofing	1	...		-
89	3G2580A21693		Soundproofing	1	...		-
90	3G2580A21695		Soundproofing	1	...		-
91	3G2580A21696		Soundproofing	1	...		-
92	3G2580A21698		Soundproofing	1	...		-
93	3G2580A21699		Soundproofing	1	...		-
<b>94</b>	<b>3G2580A21731</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	..		-
95	3G2580A21751		Soundproofing	1	...		-
96	3G2580A21752		Soundproofing	1	...		-
97	3G2580A21753		Soundproofing	1	...		-
98	3G2580A21754		Soundproofing	1	...		-
99	3G2580A21755		Soundproofing	1	...		-
100	3G2580A21756		Soundproofing	1	...		-
<b>101</b>	<b>3G2580A21833</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	..		-
102	3G2580A21863		Soundproofing	1	...		-
103	3G2580A21864		Soundproofing	1	...		-
<b>104</b>	<b>3G2580A22331</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	..		-
105	3G2580A22354		Soundproofing	1	...		-
106	3G2580A22355		Soundproofing	1	...		-
107	3G2580A22356		Soundproofing	1	...		-
108	3G2580A22357		Soundproofing	1	...		-
<b>109</b>	<b>3G2580A23331</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	..		-
110	3G2580A23351		Soundproofing	1	...		-
111	3G2580A23352		Soundproofing	1	...		-
112	3G2580A23353		Soundproofing	1	...		-
113	3G2580A23354		Soundproofing	1	...		-
114	3G2580A23355		Soundproofing	1	...		-
115	3G2580A23356		Soundproofing	1	...		-
116	3G2580A23357		Soundproofing	1	...		-
117	3G2580A23358		Soundproofing	1	...		-
<b>118</b>	<b>3G2580A24533</b>		<b>SOUNDPROOFING CABINET ASSY</b>	<b>REF</b>	..		-
119	3G2580A24553		Soundproofing	1	...		-
120	3G2580A24554		Soundproofing	1	...		-
121	3G2580A24559		Soundproofing	1	...		-
122	3G2580A24560		Soundproofing	1	...		-
<b>123</b>	<b>3G2580A32131</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	..		-
124	3G2580A32151		Soundproofing	18	...		-
125	3G2580A32152		Soundproofing	34	...		-
126	3G2580A32153		Soundproofing	1	...		-
127	3G2580A32154		Soundproofing	1	...		-
128	3G2580A32155		Soundproofing	1	...		-
129	3G2580A32156		Soundproofing	1	...		-
130	3G2580A32157		Soundproofing	1	...		-
131	3G2580A32158		Soundproofing	1	...		-
132	3G2580A32159		Soundproofing	3	...		-
133	3G2580A32160		Soundproofing	3	...		-
<b>134</b>	<b>3G2580A33131</b>		<b>SUMP SOUNDPROOFING</b>	<b>REF</b>	..		-



#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
135	3G2580A33151		Soundproofing	1	...		-
136	3G2580A33152		Soundproofing	1	...		-
137	3G2580A33153		Soundproofing	1	...		-
138	3G2580A33154		Soundproofing	1	...		-
139	3G2580A33155		Soundproofing	1	...		-
140	3G2580A33156		Soundproofing	1	...		-
141	3G2580A33157		Soundproofing	1	...		-
142	3G2580A33158		Soundproofing	1	...		-
<b>143</b>	<b>3G2580A34531</b>		<b>CONTROL ROD COVER SOUNDPROOFING ASSY</b>	<b>REF</b>	<b>..</b>		<b>-</b>
144	3G2580A34551		Soundproofing	1	...		-
145	3G2580A34552		Soundproofing	1	...		-
146	3G2580A34553		Soundproofing	1	...		-
147	3G2580A34554		Soundproofing	1	...		-
148	3G2580A34555		Soundproofing	1	...		-
149	3G2580A34556		Soundproofing	1	...		-
150	3G2580A34557		Soundproofing	1	...		-
151	3G2580A34558		Soundproofing	1	...		-
152	3G2580A34559		Soundproofing	1	...		-
153	3G2580A34560		Soundproofing	1	...		-
154	3G2580A34561		Soundproofing	1	...		-
155	3G2580A34562		Soundproofing	1	...		-
156	3G2580A34563		Soundproofing	1	...		-
157	3G2580A34564		Soundproofing	1	...		-
158	3G2580A34565		Soundproofing	1	...		-
159	3G2580A34566		Soundproofing	1	...		-
160	3G2580A34567		Soundproofing	1	...		-
161	3G2580A34568		Soundproofing	1	...		-
<b>162</b>	<b>3G2580A39631</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	<b>..</b>		<b>-</b>
163	3G2580A39651		Soundproofing	1	...		-
164	3G2580A39652		Soundproofing	1	...		-
165	3G2580A39653		Soundproofing	1	...		-
166	3G2580A39654		Soundproofing	1	...		-
167	3G2580A39655		Soundproofing	1	...		-
168	3G2580A39656		Soundproofing	1	...		-
169	3G2580A39657		Soundproofing	1	...		-
170	3G2580A39658		Soundproofing	1	...		-
171	3G2580A39659		Soundproofing	1	...		-
172	3G2580A39660		Soundproofing	1	...		-
173	3G2580A39661		Soundproofing	1	...		-
174	3G2580A39696		Soundproofing	1	...		-
175	3G2580A39697		Soundproofing	1	...		-
176	3G2580A39698		Soundproofing	1	...		-
<b>177</b>	<b>3G2580A47431</b>		<b>SOUNDPROOFING ASSY</b>	<b>REF</b>	<b>..</b>		<b>-</b>
178	3G2580A47451		Soundproofing	1	...		-
179	3G2580A47452		Soundproofing	1	...		-

### PART III

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
<b>180</b>	<b>4G5332F00118</b>		<b>KIT VIP PROVISION DELUXE</b>	<b>REF</b>	<b>.</b>		<b>-</b>
<b>181</b>	<b>3G2500A01814</b>		<b>DOOR STEP INSTALLATION</b>	<b>REF</b>	<b>..</b>		<b>-</b>
182	3G2500A01634		Door step RH assy	1	...		-
183	3G2500A01734		Door step LH assy	1	...		-
184	AN525-10R8		Screw	6	...		-

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
185	MS24694-C50		Screw	10	...		-
186	MS24694-C58		Screw	12	...		-
187	MS24694-C62		Screw	2	...		-
<b>188</b>	<b>3G5310A08011</b>		<b>LIMO WINDOW STRUCTURAL PROVISION</b>	<b>REF</b>	..		-
189	3G5310A07151		Reinforcement, LH	1	...		-
190	3G5310A07251		Reinforcement, RH	1	...		-
191	999-5000-30-107		Insert	8	...		-
192	MS20426AD3-7		Rivet	0.1 Kg	...		-
193	MS20470AD4-6		Rivet	0.1 Kg	...		-
194	MS21069L3		Nut	6	...		-
195	MS21069L5		Nut	1	...		-
<b>196</b>	<b>4G2520A00314</b>		<b>VIP CABIN INTERFACE ELECTRICAL PROVISION</b>	<b>REF</b>	..		-
197	3G9A02B46501		Vip cabin interface C/A (A2B465)	1	...		-
198	3G9B01A78401		Vip cabin interface C/A (B1A784)	1	...		-
199	3G9B01A78601		Vip cabin interface C/A (B1A786)	1	...		-
200	3G9B01A79801		Vip cabin interface C/A (B1A798)	1	...		-
201	3G9B01B79801		Vip cabin interface C/A (B1B798)	1	...		-
202	3G9B01B80001		Vip cabin interface C/A (B1B800)	1	...		-
203	3G9B01B80101		Vip cabin interface C/A (B1B801)	1	...		-
204	3G9B02A82001		Vip cabin interface C/A (B2A820)	1	...		-
205	3G9B02B48301		Vip cabin interface C/A (B2B483)	1	...		-
206	3G9B02B48501		Vip cabin interface C/A (B2B485)	1	...		-
207	A364A3		Ground stud	1	...		-
208	A608A02		Plate	1	...		-
209	MS20470AD4-7		Rivet	0.1 Kg	...		-
210	A388A3E10C		Standoff	1	...		-
211	A388A3E12C75		Standoff	1	...		-
212	A388A3E14C75		Standoff	1	...		-
213	A388A3E18C75		Standoff	2	...		-
214	A584A02		Nipple, electrical terminal	4	...		-
215	AW001CB03H		Clamp	3	...		-
216	AW001CB04H		Clamp	3	...		-
217	AW001CB08H		Clamp	5	...		-
218	AW001CB10H		Clamp	1	...		-
219	AW001CL001-N6		Support	1	...		-
220	ED300CB489		Decal	1	...		-
221	ED300CB491		Decal	1	...		-
222	ED300GS2027		Decal	1	...		-
223	ED300J2245		Decal	1	...		-
224	ED300J2247		Decal	1	...		-
225	ED300J2339		Decal	1	...		-
226	ED300J2341		Decal	1	...		-
227	M85049/95-10A-A		Plate	1	...		-
228	M85049/95-14A-A		Plate	1	...		-
229	M85049/95-18A-A		Plate	1	...		-
230	M85049/95-20A-A		Plate	2	...		-
231	M85049/95-25A-A		Plate	1	...		-

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
232	A414A03C224A2		Support	1	...		-
233	MS21043-3		Nut	1	...		-
234	MS25244-25		Circuit breaker	1	...		-
235	MS25244-50		Circuit breaker	1	...		-
236	MS9592-010		Bracket	1	...		-
237	NAS1149D0332J		Washer	6	...		-
238	NAS1149DN416J		Washer	12	...		-
239	NAS1190E3P12AK		Screw	2	...		-
240	NAS1190E3P6AK		Screw	4	...		-
241	NAS1190E3P8AK		Screw	1	...		-
242	NAS1802-04-6		Screw	4	...		-
243	NAS1802-06-7		Screw	8	...		-
244	NAS1802-3-11		Screw	1	...		-
245	NAS1802-3-7		Screw	2	...		-
246	NAS43DD3-20N		Spacer	2	...		-
247	A582A		Nomex sleeve	AR	...		-
248	A236A		Edging	AR	...		-
<b>249</b>	<b>3G5310A70513</b>		<b>VIP C/A EXTENSION STRUCTURAL PROVISION</b>	<b>REF</b>	...		-
250	3G5316A63153		Bracket	1	....		-
251	MS20426AD3-3-5		Rivet	8	....		-
252	MS21069L3		Nut	4	....		-
253	MS27039-1-07		Screw	4	....		-
254	NAS1149D0332K		Washer	4	....		-
<b>255</b>	<b>3G5310A06916</b>		<b>STRUCTURAL PROVISION FOR ELECTRICAL CABLES</b>	<b>REF</b>	..		-
256	AGS4719-407		Rivet	0.1 Kg	...		-
257	AGS4719-409		Rivet	0.1 Kg	...		-
258	A414A03C224A2		Support	1	...		-
259	A415A205A226A		Support	1	...		-
260	NAS1149DN832J		Washer	4	...		-
261	NAS1836-08-13		Insert	4	...		-
262	999-0500-89-106		Bracket	2	...		-

Refer also to IPD for the spares materials required to comply with the AMP DMs referenced in the accomplishment instructions.

## 2) CONSUMABLES

The following consumable materials, or equivalent, are necessary to accomplish this Service Bulletin:

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
263	MMM-A-132 Type 1, Class 3 199-05-002 Ty. II Cl. 2 Code No. 900004603	Adhesive EA934NA (C057)	AR	(1)	I, III
264	MMM-A-132, Type 2, Class II 199-05-002, Type I, Class 2 Code No. 900000581	Adhesive EA9309.3NA (C021)	AR	(1)	I, III
265	TT-N-95, Type II / Code No. 531055030	Aliphatic Naphtha (C059)	AR	(1)	All
266	ASTM D740, Type I / Code No. 32002675	Methyl-Ethyl-Ketone (C005)	AR	(1)	All
267	Commercial	Gloves	AR	(1)	All
268	CCC-C-46 / Code No. 42501025	Soft lint-free cloth (C011)	AR	(1)	All

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
269	TT-I-735, Grade A	Isopropyl alcohol (C039)	AR	(1)	All
270	MIL-PRF-680, Type II Code No. 505405407	Cleaning solvent Ardrox 5503 (C010)	AR	(1)	All
271	Commercial	Scotch YR3633	AR	(1)	II

Refer also to AMDI for the consumable materials required to comply with the AMP DM referenced in the accomplishment instructions.

### 3) LOGISTIC MATRIX

N.A.

#### NOTE

(1) Item to be procured as local supply.

### B. SPECIAL TOOLS

Refer to ITEP for the special tools required to comply with the AMP DM referenced in the accomplishment instructions.

### C. INDUSTRY SUPPORT INFORMATION

Customization.

### **3. ACCOMPLISHMENT INSTRUCTIONS**

#### **GENERAL 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) Shape the cables in order to prevent interference with the structure and the other existing installations, using where necessary suitable lacing cords.
- c) Exercise extreme care during drilling operations to prevent instruments, cables and hoses damage.
- d) After drilling, remove all swarf and sharp edges. Apply on bare metal a light film of primer unless the hole is used for ground connection.
- e) During the installation of bonding braids or components requiring grounding, clean the surface structure in order to obtain a good ground contact.
- f) Let adhesive cure at room temperature for at least 24 hours unless otherwise specified.
- g) Exposed thread surface and nut must be protected using a layer of tectyl according to MIL-C-16173 grade I.
- h) All lengths are in mm.

#### **PART I**

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-06-41-00-00A-010A-A and with reference to Figures 1 thru 13, gain access to the area affected by the installation and perform the completion of passengers cabin liners provision P/N 3G2580A03513 as described in the following procedure:
  - 2.1 With reference to Figure 1 Left Side view and Figure 4 View G, drill n°7 holes  $\varnothing$  5.51÷5.64 on the structure.
  - 2.2 With reference to Figure 1 Left Side view and Figure 4 View G, install n°7 anchor

- nuts P/N MS21069L3 by means of n°14 rivets P/N AGS2067-306.
- 2.3 With reference to Figure 1 Left Side view, Figure 2 Section B-B and View C, drill n°6 holes  $\varnothing$  8.00 in the position indicated.
  - 2.4 With reference to Figure 1 Left Side view, Figure 2 Section B-B and View C, install n°6 shock absorbers P/N A984A060A by means of n°12 rivets P/N A297A04TW03.
  - 2.5 With reference to Figure 1 Left Side view, Figure 2 Section A-A and Detail AJ install bracket assy P/N 3G2580A03631 and shim P/N 3G2580A34651 by means of n°3 screws P/N MS27039-1-09 and n°3 washers P/N NAS1149D0332K according to previously installed anchor nuts.
  - 2.6 Perform steps 2.1 thru 2.5 on the helicopter right side.
  - 2.7 With reference to Figure 3 View D, Section AB-AB and Detail AH, install bracket assy LH P/N 3G2580A03632 in the indicated position by means of means of n°4 screws P/N MS27039-1-09 and n°4 washers P/N NAS1149D0332K according to existing anchor nuts.
  - 2.8 With reference to Figure 5 Section AA-AA and Detail AK, install bracket assy LH P/N 3G2580A03633 and shim P/N 3G2580A38351 by means of n°4 screws P/N MS27039-1-09 and n°4 washers P/N NAS1149D0332K according to previously installed anchor nuts.
  - 2.9 With reference to Figure 3 View D, Section AB-AB and Detail AH, install bracket assy RH P/N 3G2580A55331 in the indicated position by means of n°4 screws P/N MS27039-1-09 and n°4 washers P/N NAS1149D0332K according to existing anchor nuts.

**NOTE**

Suitably adjust thickness of the peeling shim  
P/N 3G2580A38352 for the correct installation of the  
bracket assy RH P/N 3G2580A03634.

- 2.10 With reference to Figure 1 Left Side view, Figure 5 Section AD-AD and Detail AL, install bracket assy RH P/N 3G2580A03634 and shim P/N 3G2580A38352 by means of n°4 screws P/N MS27039-1-09 and n°4 washers P/N NAS1149D0332K according to previously installed anchor nuts.
- 2.11 With reference to Figure 1 Side View and Figure 6 Section P-P, drill n°1 hole  $\varnothing$  5.55÷5.69 on left frame assy STA 3900.
- 2.12 With reference to Figure 6 Section P-P, install anchor nut P/N A407A08C1P on left frame assy STA 3900 by means of adhesive EA9309.3NA (C021) (LH side).
- 2.13 Perform steps 2.11 and 2.12 for the RH side.

- 2.14 With reference to Figure 1 Left Side view and Figure 6 Detail L, install support mount P/N A984A060A by means of n°2 rivets P/N A297A04TW03 (LH side).
- 2.15 With reference to Figure 6 Detail U, install support mount P/N A984A060A by means of n°2 rivets P/N A297A04TW03.
- 2.16 Perform steps 2.14 and 2.15 for the RH side.
- 2.17 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 7 Detail R and Section S-S, install n°4 inserts P/N NAS1832-3-4M on the side wall panel P/N 3P5335A00231 by means of adhesive EA934NA (C057).
- 2.18 With reference to Figure 7 Detail R and Section S-S, drill hole  $\varnothing$  4.90÷5.03 on left frame assy STA 3120.
- 2.19 With reference to Figure 7 Section S-S, install anchor nut P/N MS21073L3 by means of n°2 rivets P/N MS20426AD3-4.
- 2.20 Perform steps 2.17 thru 2.19 on the RH side.
- 2.21 With reference to Figure 8 Section E-E and Figure 10 Detail F Detail AM, install n°24 shock absorber support assemblies P/N 3G2580A04031 in the indicated positions by means of adhesive EA9309.3NA (C021) and n°48 rivets P/N NAS9301B-4-03.
- 2.22 With reference to Figure 8 Section E-E and Figure 10 Detail AE, if necessary trim the shock absorber support assy P/N 3G2580A04031 to prevent interference between the HL and the support assy.
- 2.23 With reference to Figure 8 Section E-E and Figure 11 Section T-T, install n°4 anchor nuts P/N A407A08C1P on cover assy P/N 3P5330A04031 by means of adhesive EA934NA (C057).
- 2.24 With reference to Figure 11 Section T-T, install n°2 omega P/N 3G2506P00363 by means of n°4 screws P/N A428A08C08 according to previously installed anchor nuts.
- 2.25 With reference to Figure 11 Section T-T, install n°2 anchor nuts P/N MS21075L3 by means of n°4 rivets P/N MS20426AD3 on n°2 omega.
- 2.26 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 11 Section N-N, install insert P/N NAS1835C3M on the lower panel assy P/N 3P5333A01831 by means of adhesive EA934NA (C057).
- 2.27 With reference to Figure 8 Section E-E and Figure 11 Section H-H, drill hole  $\varnothing$  5.74÷5.87 on the structure (LH side).
- 2.28 With reference to Figure 11 Section H-H, install anchor nut P/N MS21075L3 by means of n°2 rivets P/N AGS2067-306 (LH side).
- 2.29 Perform steps 2.27 and 2.28 for the RH side.
- 2.30 With reference to Figure 8 Section E-E, Figure 9 Section AF-AF and Detail AG,

- drill hole  $\varnothing 5.74 \div 5.87$  (LH side).
- 2.31 With reference to Figure 8 Section E-E, Figure 9 Section AF-AF and Detail AG, install anchor nut P/N MS21075L3 by means of n°2 rivets P/N AGS2067-306 with the angle position indicated in Detail AG (LH side).
  - 2.32 Perform steps 2.30 and 2.31 for the RH side.
  - 2.33 With reference to Figure 12 Section M-M and View J, install n°12 anchor nuts P/N NAS1474A3 by means of n°24 rivets P/N MS20426AD3.
  - 2.34 With reference to Figure 12 Section M-M and Detail J, install n°6 bracket assemblies P/N 3G2580A04131 by means of n°12 screws P/N MS27039-1-06 according to previously installed anchor nuts.
  - 2.35 With reference to Figure 12 Section M-M and Figure 13 View K, install n°2 aft lower panel joint assemblies P/N 3G2580A04331 by means of n°4 screws P/N MS24694-S49 in the indicated position.
3. With reference to Figures 14 and 15, perform the pilot cabin liners provision P/N 3G2580A10611 as described in the following procedure:
- 3.1 With reference to Figure 14 section B-B, section A-A, detail P and section R-R, drill n°12 holes  $\varnothing 5.74 \div 5.87$ .
  - 3.2 With reference to Figure 14 section B-B, section A-A, detail P and section R-R, install n°12 anchor nuts P/N A407A3C2P by means of EA9309.3NA adhesive.
  - 3.3 With reference to Figure 14 section U-U and section V-V, remove existing rivet P/N MS20470AD5 and install rivet P/N MS20426AD5.
  - 3.4 With reference to figure 14 section V-V, remove existing rivet P/N MS20470AD5 and install anchor nut P/N A407A08C1P by means of EA9309.3NA adhesive.
  - 3.5 With reference to Figure 14 detail T, install support assy LH P/N 3G2580A62131 by means of screw P/N MS27039-0809 and washer P/N NAS1149BN816H.
  - 3.6 With reference to Figure 14 section U-U, section V-V and detail T, repeat steps 3.3 thru 3.5 for RH side to install support assy RH P/N 3G2580A62231.
  - 3.7 With reference to Figure 15 view D, drill n°4 holes  $\varnothing 5.74 \div 5.87$ .
  - 3.8 With reference to Figure 15 view D, install n°4 anchor nut floating P/N A407A3C2P by means of EA9309.3NA adhesive.
  - 3.9 With reference to Figure 15 detail E, install RH angle P/N 3G2580A10851 by means of n°2 rivets P/N NAS9302B-4-02
  - 3.10 With reference to Figure 15 detail E, install LH angle P/N 3G2580A10951 by means of n°2 rivets P/N NAS9302B-4-02
  - 3.11 With reference to Figure 15 Detail E, drill n°4 holes  $\varnothing 4.90 \div 5.03$ .
  - 3.12 With reference to Figure 15 Detail E, install n°4 anchor nuts P/N MS21069L3 by means of n°8 rivets P/N AGS2067-306.



4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
5. Return the helicopter to flight configuration and record for compliance with Part I of this Service Bulletin on the helicopter logbook.
6. Send the attached compliance form to the following mail box:

[engineering.support.lhd@leonardocompany.com](mailto:engineering.support.lhd@leonardocompany.com)

As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

## **PART II**

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-06-41-00-00A-010A-A and with reference to Figures 16 thru 29, gain access to the area affected by the installation and remove the existing kit soundproofing P/N 3G2580F00315.
3. With reference to Figure 16 thru 29, perform the soundproofing standard installation P/N 3G2580F00113 as described in the following procedure:

### **NOTE**

In order to ensure a high adhesion of soundproofing to the helicopter structure, apply Aluminium adhesive tape "SCOTCH YR3633" (25 high) on the A199FOIL piece boundaries.

### **NOTE**

Self-adhesive damping pieces shall be completely adherent to the surfaces to be treated in order to have maximum damping effect. It shall not have air bubbles.

### **NOTE**

For a correct reinstallation of parts affected by the modification is allowed to trim the soundproofing pieces.

- 3.1 With reference to Figures 16 and Figure 17 section B-B, apply soundproofing P/N 3G2580A32155 and P/N 3G2580A32156 by means of tape "SCOTCH YR3633" (25 high).
- 3.2 With reference to Figure 16 and Figure 18 section D-D, install n°18 soundproofing A199 Foil P/N 3G2580A32151 by means of adhesive tape "SCOTCH YR3633" (25 high).
- 3.3 With reference to Figure 16 and Figure 17 section C-C, install n°3 soundproofing A199 foil P/N 3G2580A32159, n°2 soundproofing A199 foil P/N 3G2580A32160 and n°5 soundproofing A199 foil P/N 3G2580A32159 by means of adhesive tape "SCOTCH YR3633" (25 high).
- 3.4 With reference to Figure 16 and Figure 18 section G-G, install n°29 soundproofing A199 foil P/N 3G2580A32152 and n°1 soundproofing A199 foil P/N 3G2580A32160 by means of adhesive tape "SCOTCH YR3633" (25 high).
- 3.5 With reference to Figure 18 view AE, install soundproofing P/N 3G2580A32153, P/N 3G2580A32154, P/N 3G2580A032157 and P/N 3G2580A032158 by means of

- tape "SCOTCH YR3633" (25 high).
- 3.6 With reference to Figure 19 view F and Figure 20 section L-L and section K-K, install soundproofing assy P/N 3G2580A21633 by means of adhesive 2015-E were indicated.
  - 3.7 With reference to Figure 22 view H and Figure 23 section M-M, install control rod cover soundproofing assy P/N 3G2580A34531, soundproofing assy P/N 3G2580A21833 and soundproofing assy P/N 3G2580A47431.
  - 3.8 With reference to Figure 21 view E, section P-P and section R-R, install soundproofing assy P/N 3G2580A21731.
  - 3.9 With reference to Figure 24 view R, section T-T and section S-S, install soundproofing assy P/N 3G2580A21531.
  - 3.10 With reference to Figure 25 view V and Figure 26 section AF-AF and section R-R, install soundproofing assy P/N 3G2580A39631 by means of adhesive 2015-E.
  - 3.11 With reference to Figure 27, install soundproofing assy P/N 3G2580A23331 by means of adhesive 2015-E.
  - 3.12 With reference to Figure 28, install soundproofing assy P/N 3G2580A24533 and soundproofing assy P/N 3G2580A22331 by means of adhesive 2015-E.
  - 3.13 With reference to Figure 16 and Figure 29 section AE-AE, install soundproofing assy P/N 3G2580A33131 by means of adhesive 2015-E.
4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
  5. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.
  6. Send the attached compliance form to the following mail box:

[engineering.support.lhd@leonardocompany.com](mailto:engineering.support.lhd@leonardocompany.com)

As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

### **PART III**

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-06-41-00-00A-010A-A and with reference to Figures 30 thru 40, gain access to the area affected by the installation and perform the completion of installation kit vip provision deluxe P/N 4G5332F00118.
3. With reference to figure 30, perform the door step installation P/N 3G2500A01814 as described in the following procedure:
  - 3.1 With reference to figure 30 top view, remove screws P/N AN525-10R8.
  - 3.2 With reference to Figure 30, install door step LH assy P/N 3G2500A01734 by means of n°6 screws P/N MS24694-C58, n°5 screws P/N MS24694-C50, MS24694-C62 and existing n°3 screws P/N AN525-10R8 to close existing holes.
  - 3.3 With reference to Figure 30, install door step RH assy P/N 3G2500A01634 by means of n°6 screws P/N MS24694-C58, n°5 screws P/N MS24694-C50, MS24694-C62 and existing n°3 screws P/N AN525-10R8 to close existing holes.

#### **NOTE**

When performing following step 4, coordinate the holes to be drilled in the procedure with the FWD bulkhead.

4. With reference to Figures 31 and 32, perform the limo window structural provision P/N 3G5310A08011 in accordance with the following procedure:
  - 4.1 With reference to Figure 31, remove the existing bulkhead between the passengers cabin and cockpit area.
  - 4.2 With reference to Figure 31 Section A-A and Figure 32 Section B-B, countermark positions of n°8 insert holes on the central fairing assy P/N 3G5320A02732.

#### **NOTE**

Indicated positions are only for reference. If deemed necessary for a better installation and avoid interference with other existing equipment, relocation of the bulkhead is allowed.

- 4.3 With reference to Figure 32 Section B-B, drill n°8 holes  $\varnothing 9.50 \div 9.60$  holes through the central fairing assy P/N 3G5320A02732.
- 4.4 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 32 Section B-B, install n°8 inserts P/N 999-5000-30-107 by means of adhesive EA934NA (C057).
- 4.5 With reference to Figure 32 View E-E, gain access to the indicated area and trim

- the profile P/N 3P5331A11251 to allow the installation of a nut plate P/N MS21069L5.
- 4.6 In accordance with CSRP DM CSRP-A-51-21-02-01A-257A-D and with reference to Figure 32 View E-E, restore the surface treatment of the profile P/N 3P5331A11251.
  - 4.7 With reference to Figure 32 View E-E, drill n°1 hole  $\varnothing$  8.03÷8.18 hole through the cover assy P/N 3P5332A01731.
  - 4.8 With reference to Figure 32 View E-E, install n°1 nut plate P/N MS21069L5 by means of n°2 rivets P/N MS20426AD4-5.
  - 4.9 With reference to Figure 32 Detail C, drill out n°4 existing rivets and remove n°1 existing anchor nut.
  - 4.10 With reference to Figure 32 Detail C, temporarily locate the LH reinforcement P/N 3G5310A07151 on the frame at STA3120 and countermark position of n°3 nut plate holes and of n°24 rivet holes.
  - 4.11 With reference to Figure 32 Detail C and Section D-D, drill n°3 holes  $\varnothing$  4.90÷5.03 anchor nut holes and n°24  $\varnothing$  3.18÷3.43 rivet holes through the LH reinforcement P/N 3G5310A07151 and the structure.
  - 4.12 With reference to Figure 32 Detail C, install LH reinforcement P/N 3G5310A07151 by means of n°24 rivets P/N MS20470AD4-6.
  - 4.13 With reference to Figure 32 Section D-D, complete installation of LH reinforcement P/N 3G5310A07151 by means of n°3 nut plates P/N MS21069L3 and n°6 rivets P/N MS20426AD4-7.
  - 4.14 Perform again step 4.9 through step 4.13 to install the RH reinforcement P/N 3G5310A07251.
5. With reference to Figure 33, perform the structural provision for electrical cables P/N 3G5310A06916 in accordance with the following procedure:
- 5.1 With reference to Figure 33 section B-B, drill n°4 holes  $\varnothing$  11.48 ÷ 11.61.
  - 5.2 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 33 section B-B, install n°4 inserts P/N NAS1836-08-13 by means of adhesive EA934NA (C057).
  - 5.3 With reference to Figure 33 section B-B, install n°2 brackets P/N 999-0500-89-106 by means of n°4 screws P/N MS35206-243 and n°4 washers P/N NAS1149DN832J.
  - 5.4 With reference to Figure 33 section D-D, install bracket P/N A415A205A226A by means of rivets P/N AGS4719-407.
  - 5.5 With reference to Figure 33 section E-E, install bracket P/N A414A03C224A2 by means of rivets P/N AGS4719-409.

6. With reference to Table on Figure 47, remove and stow the electrical connections related to ICS kit 8 pax as indicated from the relative pin connector (columns 1 and 2).
7. With reference to Figures 34 thru 40, perform the vip cabin interface electrical provision as described in the following procedure:
  - 7.1 With reference to Figure 34, drill n°4 holes  $\varnothing 4.90 \div 5.03$  in correspondence of central rib P/N 3P5333A14451.
  - 7.2 With reference to Figure 34 section B-B, install n°4 nut-plates P/N MS21069L3 by means of n°8 rivets P/N MS20426AD3-3-5.
  - 7.3 With reference to Figure 34 view A-A and section B-B, install bracket P/N 3G5316A63153 by means of n°4 screws P/N MS27039-1-07 and n°4 washers P/N NAS1149D0332K.
  - 7.4 With reference to Figure 39 view J, at location n°1, install support P/N AW001CL001-N6 by means of EA9309.3NA adhesive.
  - 7.5 With reference to Figure 39 view J, at location n°2, install standoff P/N A388A3E10C by means of EA9309.3NA adhesive and clamp P/N AW001CB04H by means of screw P/N NAS1190E3P6AK and washer P/N NAS1149D0332J.
  - 7.6 With reference to Figure 39 view J, at location n°3, install clamp P/N AW001CB04H by means of existing hardware, screw P/N NAS1802-3-7 and washer P/N NAS1149D0032J.
  - 7.7 With reference to Figure 39 view J, at location n°4, install standoff P/N A388A3E14C75 by means of EA9309.3NA adhesive and clamp P/N AW001CB04H by means of screw P/N NAS1190E3P6AK and washer P/N NAS1149D0332J.
  - 7.8 With reference to Figure 39 section K-K, at location n°5, remove the existing hardware and install clamp P/N AW001CB03H and bracket P/N MS9592-010 by means of screw P/N NAS1802-3-11, screw P/N NAS1802-3-7, n°2 washers P/N NAS1149D0332J and nut P/N MS21043-3.
  - 7.9 With reference to Figure 39 section K-K, at location n°6, install standoff P/N A388A3E12C75 by means of EA9309.3NA adhesive and clamp P/N AW001CB03H by means of screw P/N NAS1190E3P6AK and washer P/N NAS1149D0332J.
  - 7.10 With reference to Figure 40 view M-M, at locations n°7 and 8, remove the existing screws and install n°2 spacers P/N NAS43DD3-20N and n°2 clamps P/N AW001CB08H by means of n°2 screws P/N NAS1190E3P12AK.
  - 7.11 With reference to Figure 40 view M-M, at location n°9, install standoff by means of EA9309.3NA adhesive and clamp P/N AW001CB08H by means of screw

P/N NAS1190E3P6AK and washer P/N NAS1149D0332J.

- 7.12 With reference to Figure 40 view M-M, at locations n°10 and 11, install on existing supports n°2 clamps P/N AW001CB08H.
- 7.13 With reference to Figure 40 detail N-N, at location n°12, install standoff P/N A388A3E18C75 by means of EA9309.3NA adhesive and clamp P/N AW001CB10H by means of screw P/N NAS1190E3P6AK and washer P/N NAS1149D0332J.
- 7.14 With reference to Figure 40 detail N-N, at location n°13, install terminal stud P/N A364A3 and plate P/N A608A02 by means of rivets P/N MS20470AD4-7 as required.
- 7.15 In accordance with AMP DM and with reference to Figure 40 detail N-N, install decal P/N ED300GS2027 in an area adjacent to ground stud GS2027.

#### NOTE

Use edging P/N A236A on metallic edges which can damage cable assemblies and where abrasion may occur.

Use braided tubing P/N A582A where cable assemblies chafing or contact with structure may occur.

- 7.16 With reference to Figures 35 thru 40, lay down the following cable assemblies following the existing route unless otherwise indicated on the figures:
- 3G9A02B46501 VIP Cabin Interface C/A (A2B465);
  - 3G9B01A78401 VIP Cabin Interface C/A (B1A784);
  - 3G9B01A78601 VIP Cabin Interface C/A (B1A786);
  - 3G9B01A79801 VIP Cabin Interface C/A (B1A798);
  - 3G9B01B79801 VIP Cabin Interface C/A (B1B798);
  - 3G9B01B80001 VIP Cabin Interface C/A (B1B800);
  - 3G9B01B80101 VIP Cabin Interface C/A (B1B801);
  - 3G9B02A82001 VIP Cabin Interface C/A (B2A820);
  - 3G9B02B48301 VIP Cabin Interface C/A (B2B483);
  - 3G9B02B48501 VIP Cabin Interface C/A (B2B485).

Secure the cables by means of previously installed fixing hardware, existing hardware and lacing cord.

- 7.17 With reference to Figure 38 detail F, install flange P/N M85049/95-20A-A by means of n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.
- 7.18 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 38 detail F, install decal P/N ED300J288 in an area adjacent to connector

- J288.
- 7.19 With reference to Figure 38 detail F, install flange P/N M85049/95-10A-A by means of n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.
  - 7.20 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 38 detail F, install decal P/N ED300J286 in an area adjacent to connector J286.
  - 7.21 With reference to Figure 38 detail H, install flange P/N M85049/95-18A-A by means of n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.
  - 7.22 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 38 detail H, install decal P/N ED300J2339 in an area adjacent to connector J2339.
  - 7.23 With reference to Figure 38 detail H, install support P/N A414A03C224A2 as required.
  - 7.24 With reference to Figure 40 detail N-N, install flange P/N M85049/95-25A-A by means of n°4 screws P/N NAS1802-06-7 and n°4 washers P/N NAS1149DN616J.
  - 7.25 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 40 detail N-N, install decal P/N ED300J2245 in an area adjacent to connector J2245.
  - 7.26 With reference to Figure 40 detail N-N, install flange P/N M85049/95-14A-A by means of n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.
  - 7.27 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 40 detail N-N, install decal P/N ED300J2247 in an area adjacent to connector J2247.
  - 7.28 With reference to Figure 40 detail N-N, install flange P/N M85049/95-20A-A by means of n°4 screws P/N NAS1802-06-7 and n°4 washers P/N NAS1149DN616J.
  - 7.29 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 40 detail N-N, install decal P/N ED300J2341 in an area adjacent to connector J2341.
  - 7.30 With reference to figure 39 view J, install breaker P/N MS25244-50.
  - 7.31 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 39 view J, install decal P/N ED300CB489 in an area adjacent to previously installed breaker CB489.
  - 7.32 With reference to figure 39 view J, install breaker P/N MS25244-25.
  - 7.33 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 39 view J, install decal P/N ED300CB491 in an area adjacent to previously installed breaker CB491.
  - 7.34 With reference to Figure 42 wiring diagram, remove the electrical connection of



- cable assy C/A A2B249 between junction TB104 connector TB104P1 and sectioning connector P118.
- 7.35 With reference to Figures 36, 37 and Figures 42 and 43 wiring diagram, perform the electrical connection of cable assy A2B465 between junction TB104 connector TB104P1, MRC2 connectors A8-6P1 and A8-6P3, sectioning connector P118, junction TB106 connector TB106P1 and junction TB122 connector TB122P1.
  - 7.36 With reference to Figures 36, 37 and Figures 42, 43 and 44 wiring diagram, perform the electrical connection of cable assy C/A B2B483 between sectioning connector J118, sectioning connector J288 and sectioning connector J272.
  - 7.37 With reference to Figure 37, 38 and Figure 41 wiring diagram, perform the electrical connection of cable assy C/A B1B798 between circuit breaker panel PL1P8, sectioning connector J286 and terminal board TB208P1.
  - 7.38 With reference to Figure 44 wiring diagram, remove the electrical connection of cable assy C/A B2B203 between sectioning connector P272 and passenger speaker amplifier A22 connector A22P2.
  - 7.39 With reference to Figure 38 view D and view E-E and Figure 44 wiring diagram, perform the electrical connection of C/A B2B485 between sectioning connector P272 and passenger speaker amplifier A22 connector A22P2.
  - 7.40 With reference to Figures 38, 39, 40 and Figures 45 and 46 wiring diagram, perform the electrical connection of cable assy C/A B2A820 between sectioning connector P2059, sectioning connector J2245, sectioning connector P286, sectioning connector P288 and sectioning connector J2247.
  - 7.41 With reference to Figure 39 view G, Figure 40 and Figure 41 wiring diagram, perform the electrical connection of cable assy C/A B1B801 between sectioning connector J2339 and circuit breaker CB491.
  - 7.42 With reference to Figure 39 and Figure 41 wiring diagram, perform the electrical connection of cable assy C/A B1B800 between circuit breaker CB491 and PDP2.
  - 7.43 With reference to Figure 38 view G and Figure 40 view J and Figure 41 wiring diagram , perform the electrical connection of cable assy C/A B1A786 between sectioning connector J2339 and circuit breaker CB489.
  - 7.44 With reference to Figure 39 and Figure 41 wiring diagram, perform the electrical connection of cable assy C/A B1A784 between circuit breaker CB489 and PDP1.
  - 7.45 With reference to Figure 40 and Figure 45 wiring diagram, perform the electrical connection of cable assy C/A B1A798 between sectioning connector J2341, ground stud GS2027 and sectioning connector P2339.
8. Perform a pin-to-pin continuity check of all the electrical connections made.
  9. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight

Manual, Part II, section 6).

10. Return the helicopter to flight configuration and record for compliance with Part III of this Service Bulletin on the helicopter logbook.
11. Send the attached compliance form to the following mail box:

[engineering.support.lhd@leonardocompany.com](mailto:engineering.support.lhd@leonardocompany.com)

As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

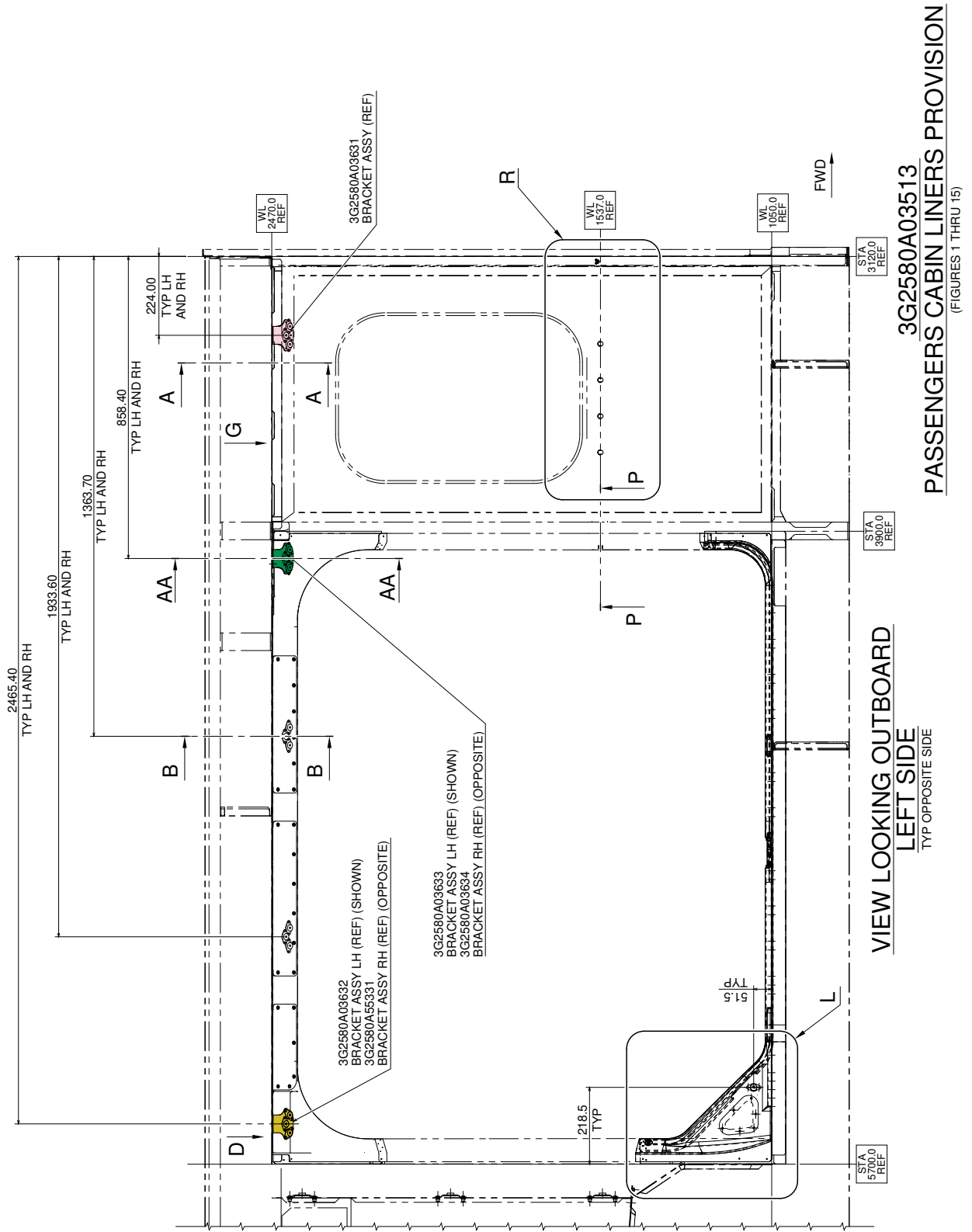
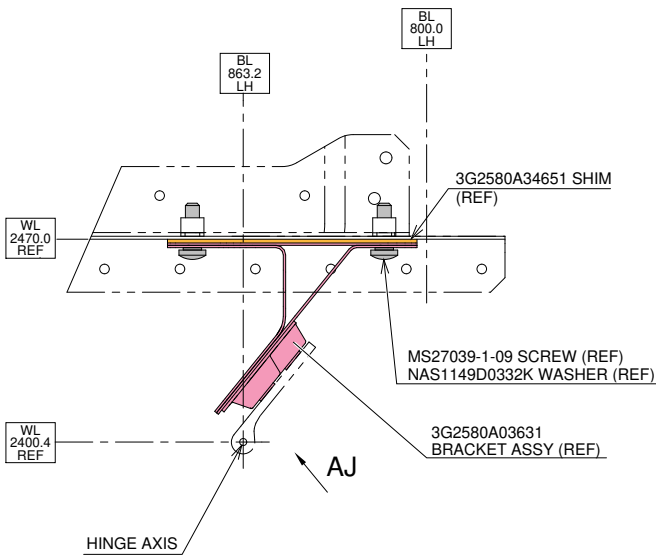
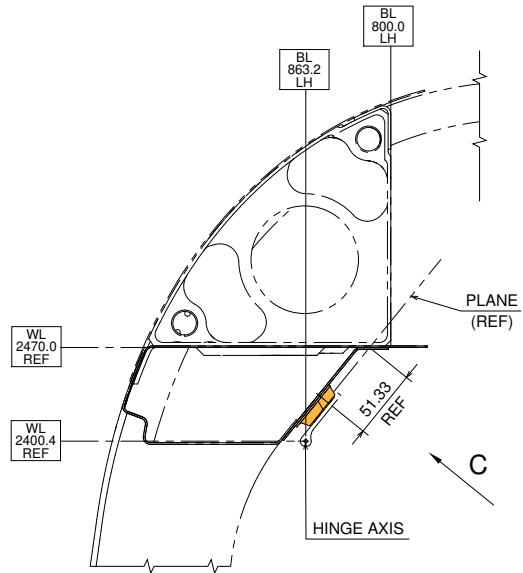


Figure 1



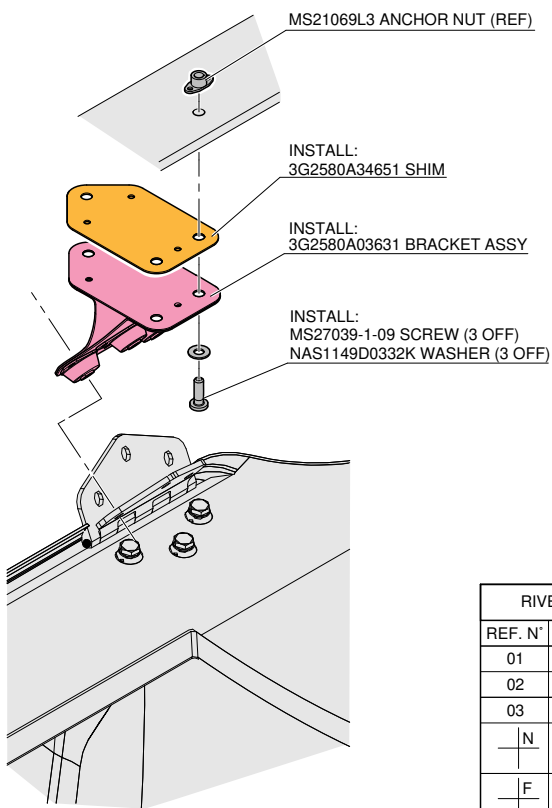
### SECTION A-A

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



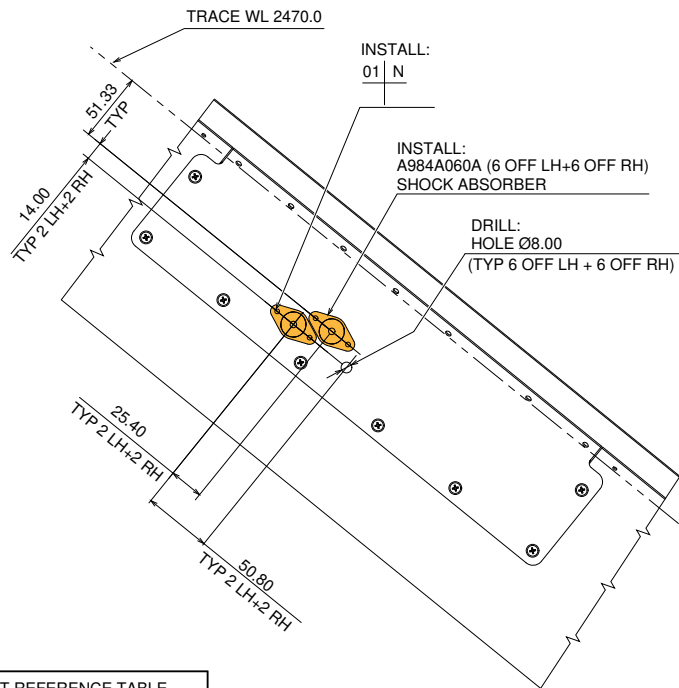
### SECTION B-B

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
(TYP 2 OFF LH+3 OFF RH)



### DETAIL AJ

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
TYP OPPOSITE SIDE

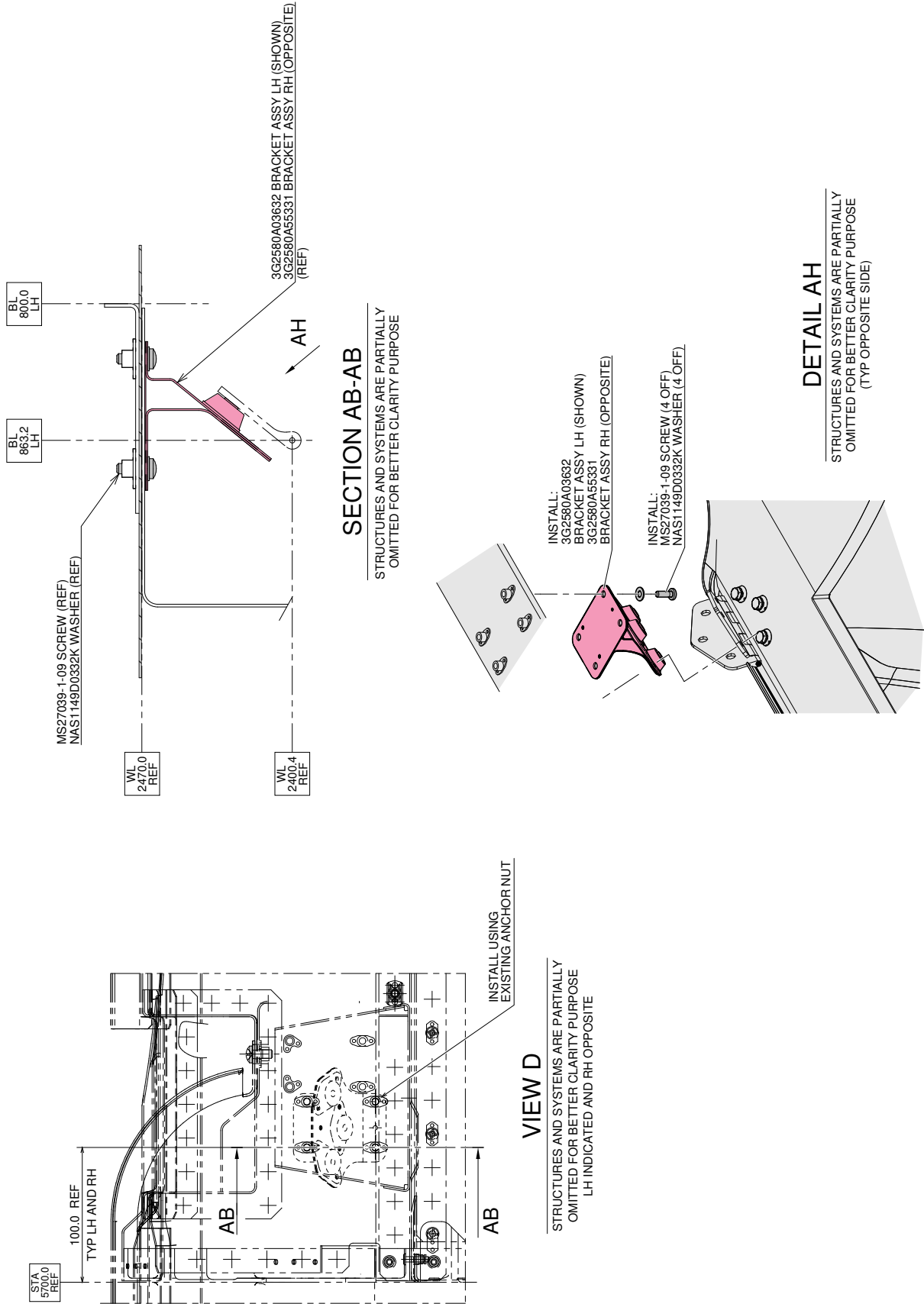


### VIEW C

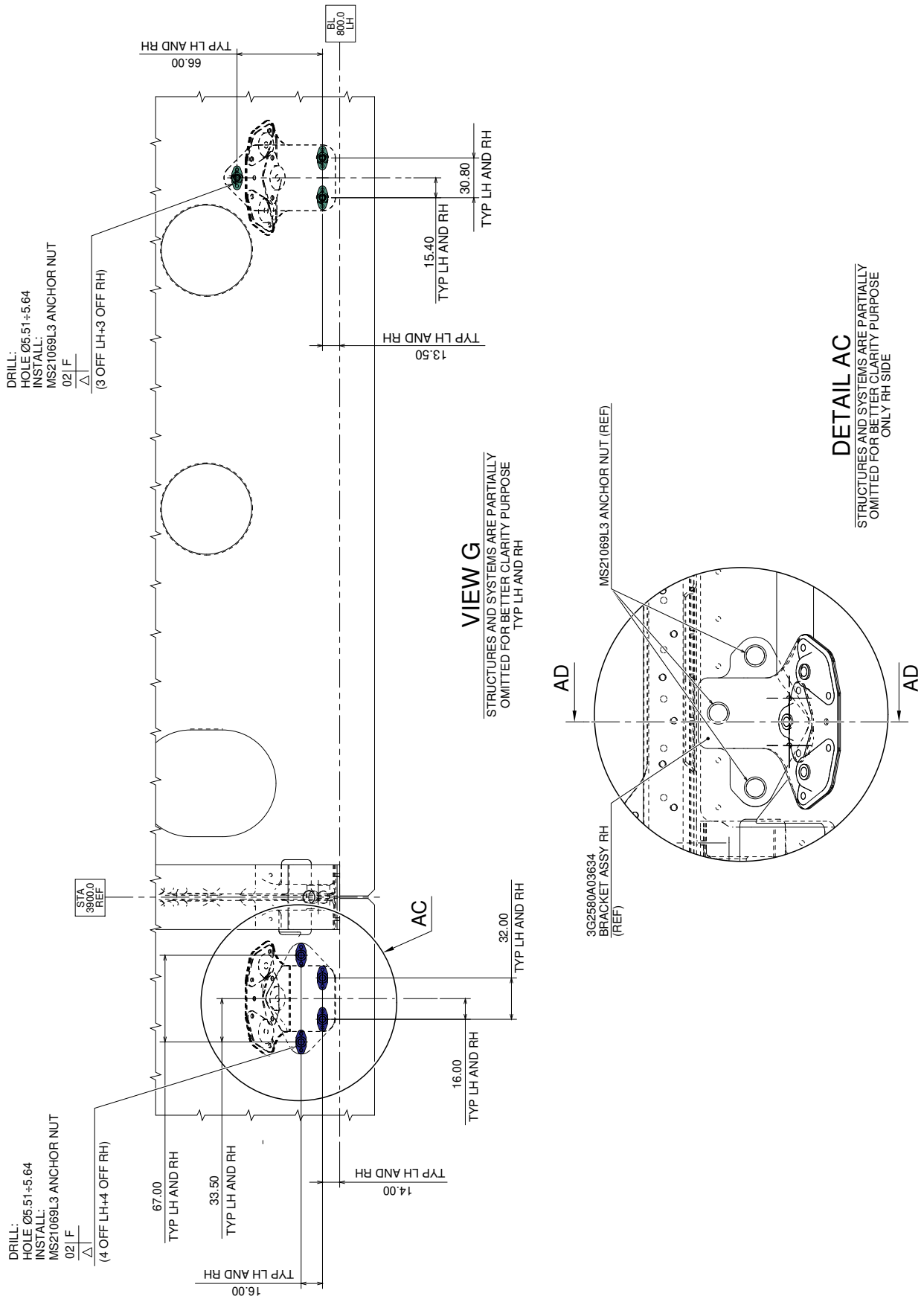
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
(TYP 2 OFF LH+2 OFF RH)

RIVET REFERENCE TABLE	
REF. N°	RIVET P/N
01	A297A04TW03
02	AGS2067-306
03	NAS9301B4-03
N	PRE-FORMED HEAD IS ON NEAR SIDE
F	PRE-FORMED HEAD IS ON FAR SIDE
▽	COUNTERSINK (100° ONLY) IS ON NEAR SIDE
△	COUNTERSINK (100° ONLY) IS ON FAR SIDE

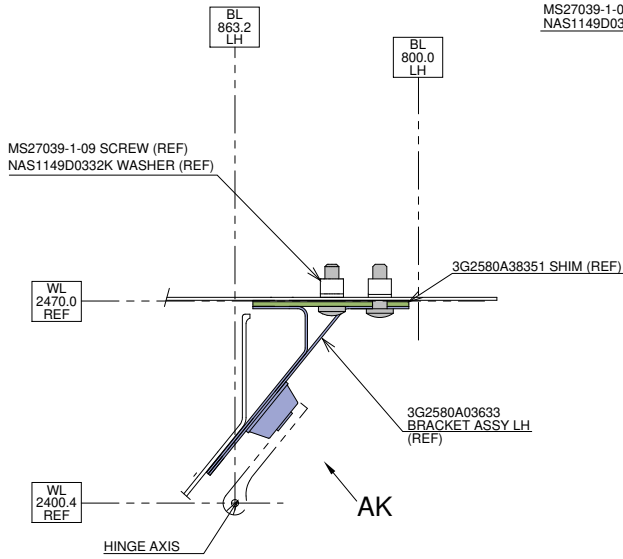
Figure 2



**Figure 3**

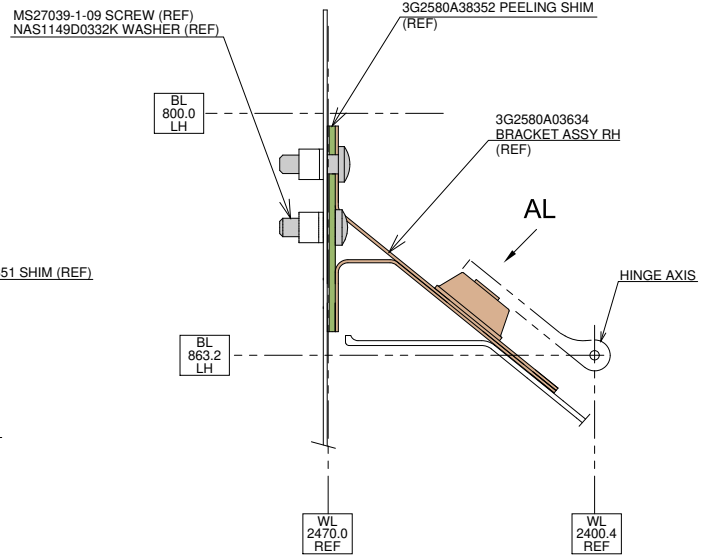


**Figure 4**



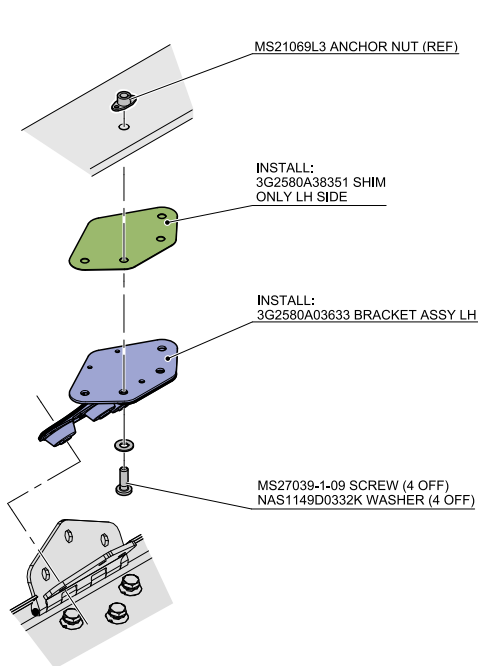
**SECTION AA-AA**

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



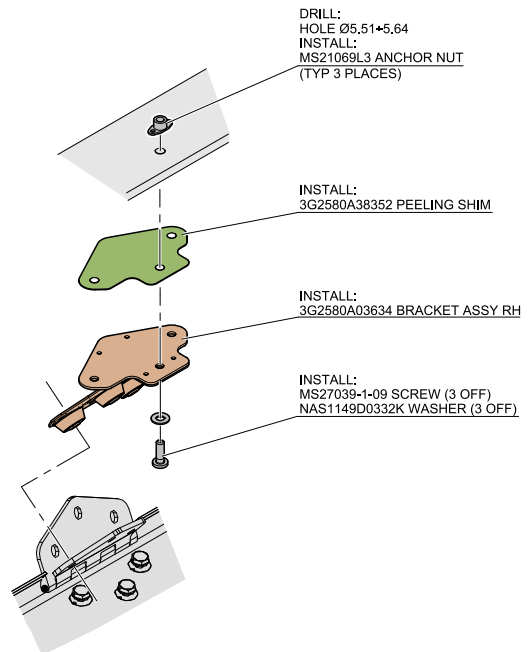
**SECTION AD-AD**

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



**DETAIL AK**

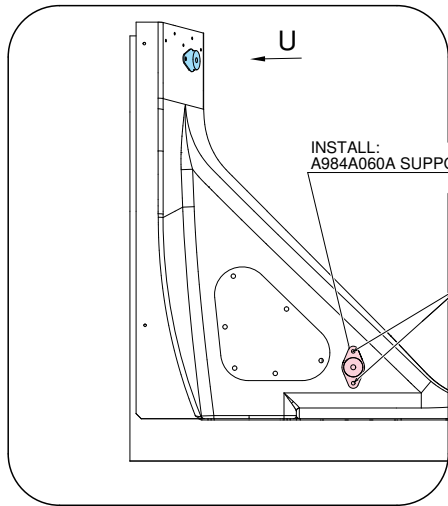
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
LH SIDE



**DETAIL AL**

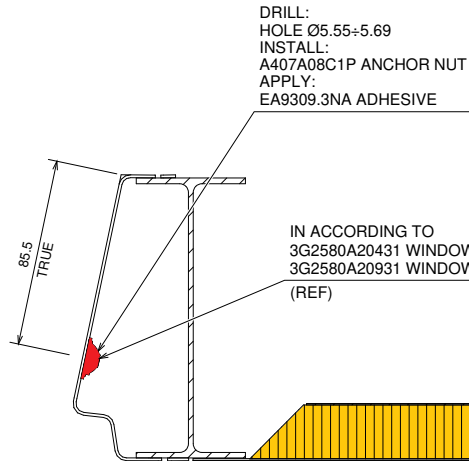
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
RH SIDE

**Figure 5**



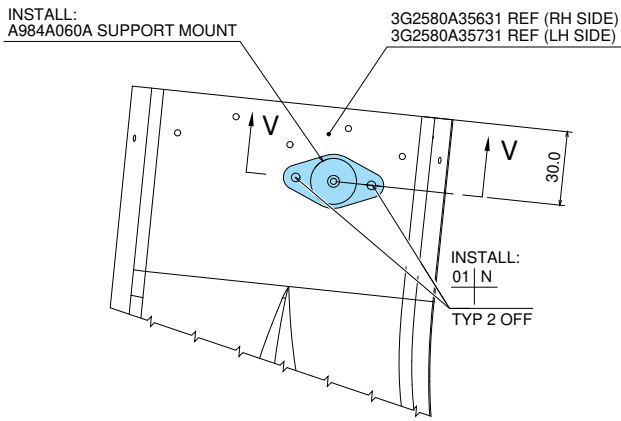
**DETAIL L**

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
RH SIDE SHOWN, SYMMETRICAL LH SIDE



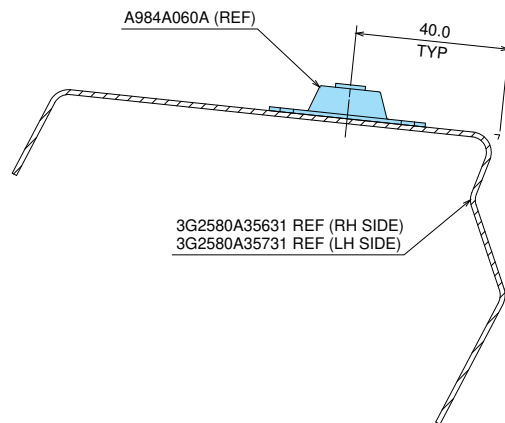
**SECTION P-P**

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



**DETAIL U**

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
RH SIDE SHOWN, SYMMETRICAL LH SIDE

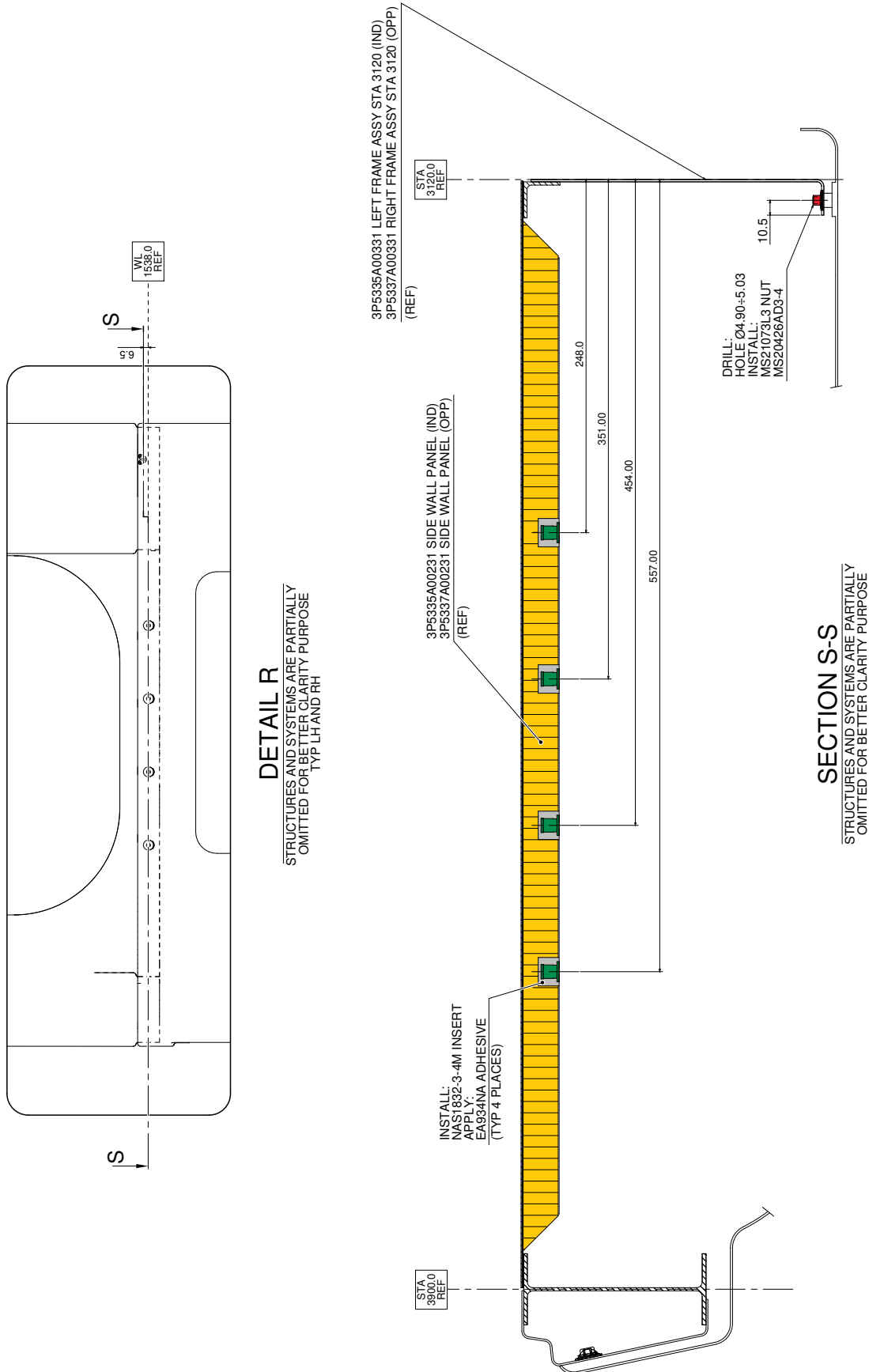


**SECTION V-V**

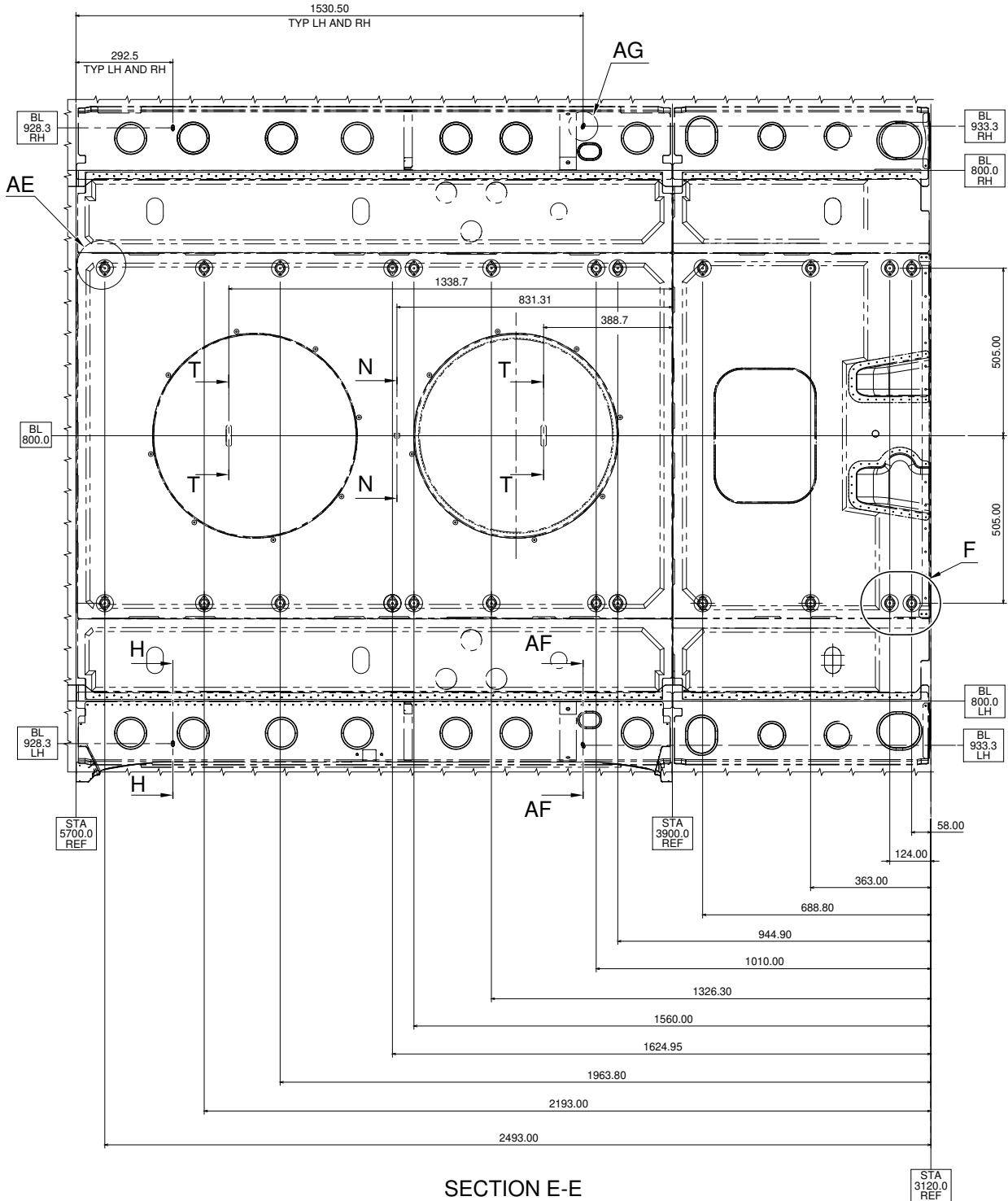
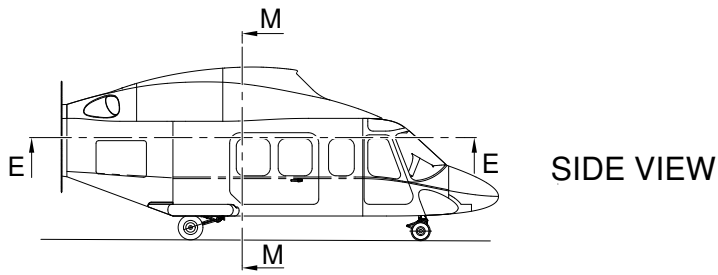
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

**Figure 6**



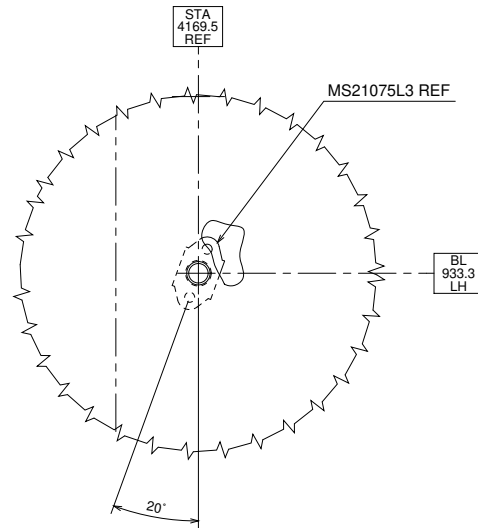


**Figure 7**



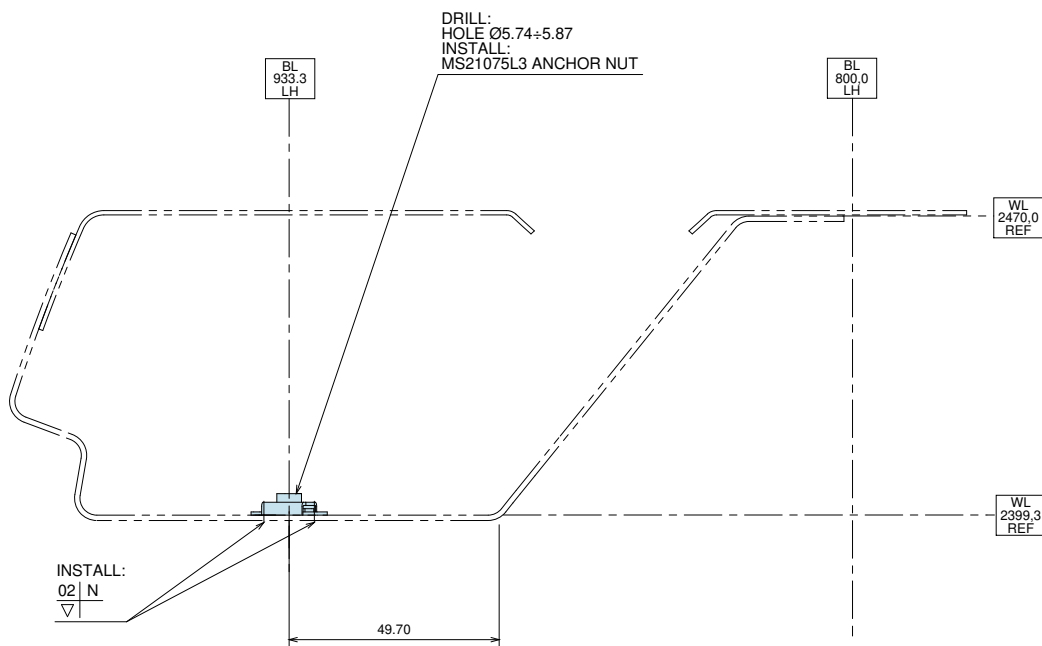
**Figure 8**

S.B. N°139-503  
DATE: November 17, 2021  
REVISION: /



**DETAIL AG**

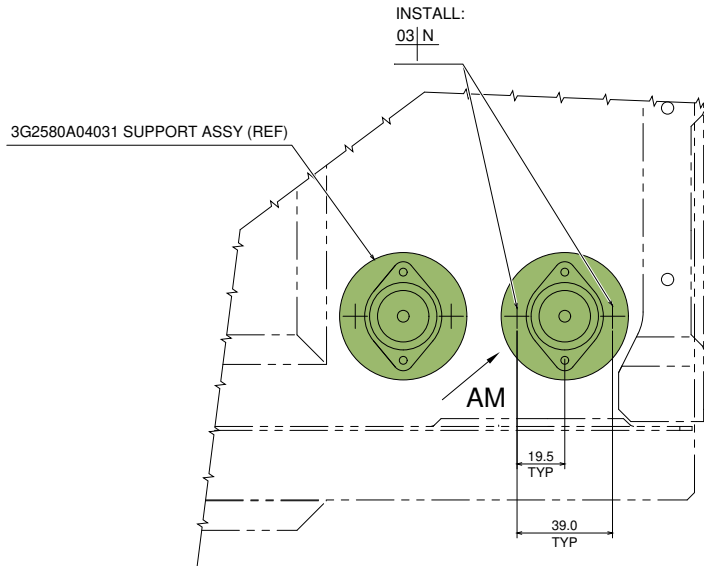
STRUCTURES AND SYSTEMS ARE PARTIALLY  
OMITTED FOR BETTER CLARITY PURPOSE  
SYMMETRICAL LH SIDE



**SECTION AF-AF**

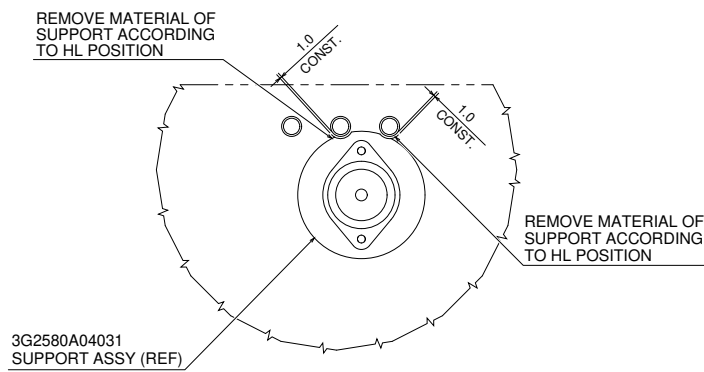
STRUCTURES AND SYSTEMS ARE PARTIALLY  
OMITTED FOR BETTER CLARITY PURPOSE  
ROTATED 90° CW  
SYMMETRICAL RH SIDE

**Figure 9**



**DETAIL F**

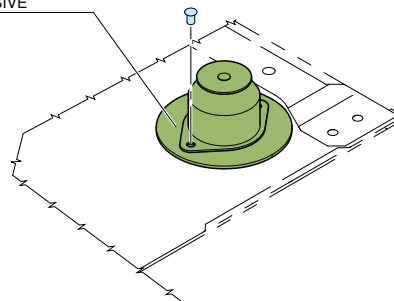
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



**DETAIL AE**

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

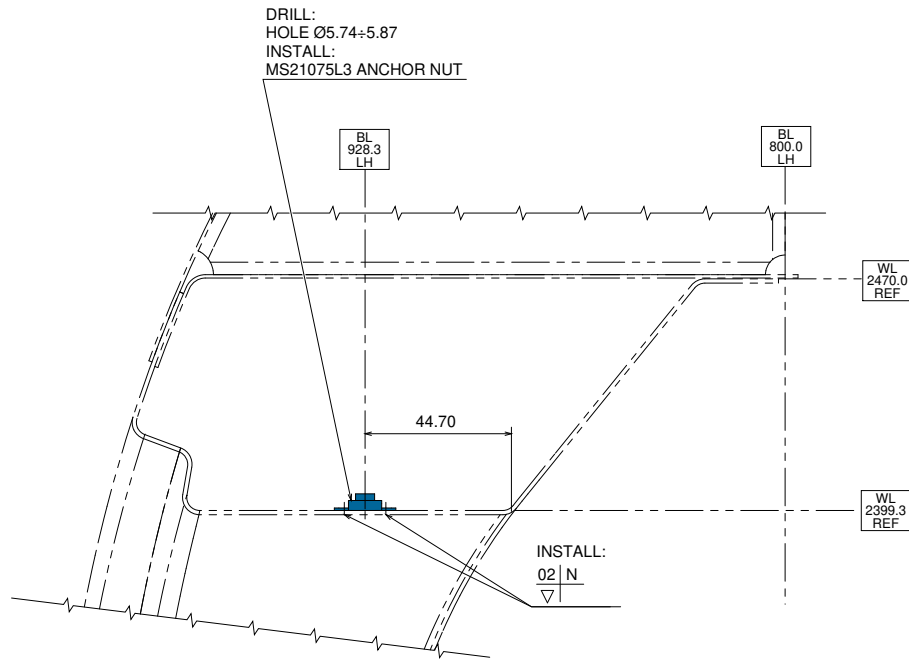
INSTALL:  
3G2580A04031 SUPPORT ASSY  
APPLY:  
EA9309.3NA ADHESIVE  
(TYP 24 OFF)



**DETAIL AM**

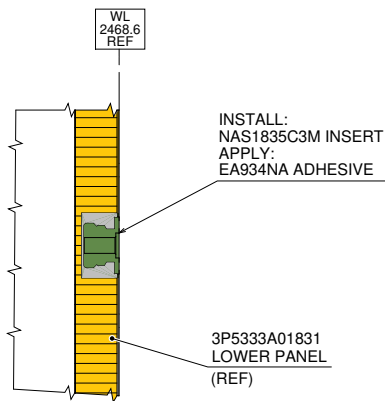
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

**Figure 10**



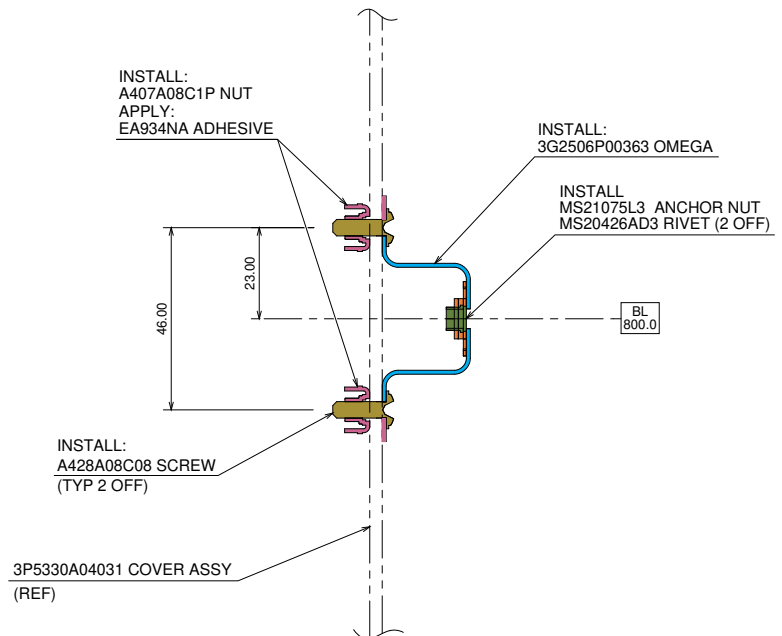
**SECTION H-H**

STRUCTURES AND SYSTEMS ARE PARTIALLY  
OMITTED FOR BETTER CLARITY PURPOSE  
ROTATED 90° CW  
TYP OPP SIDE



**SECTION N-N**

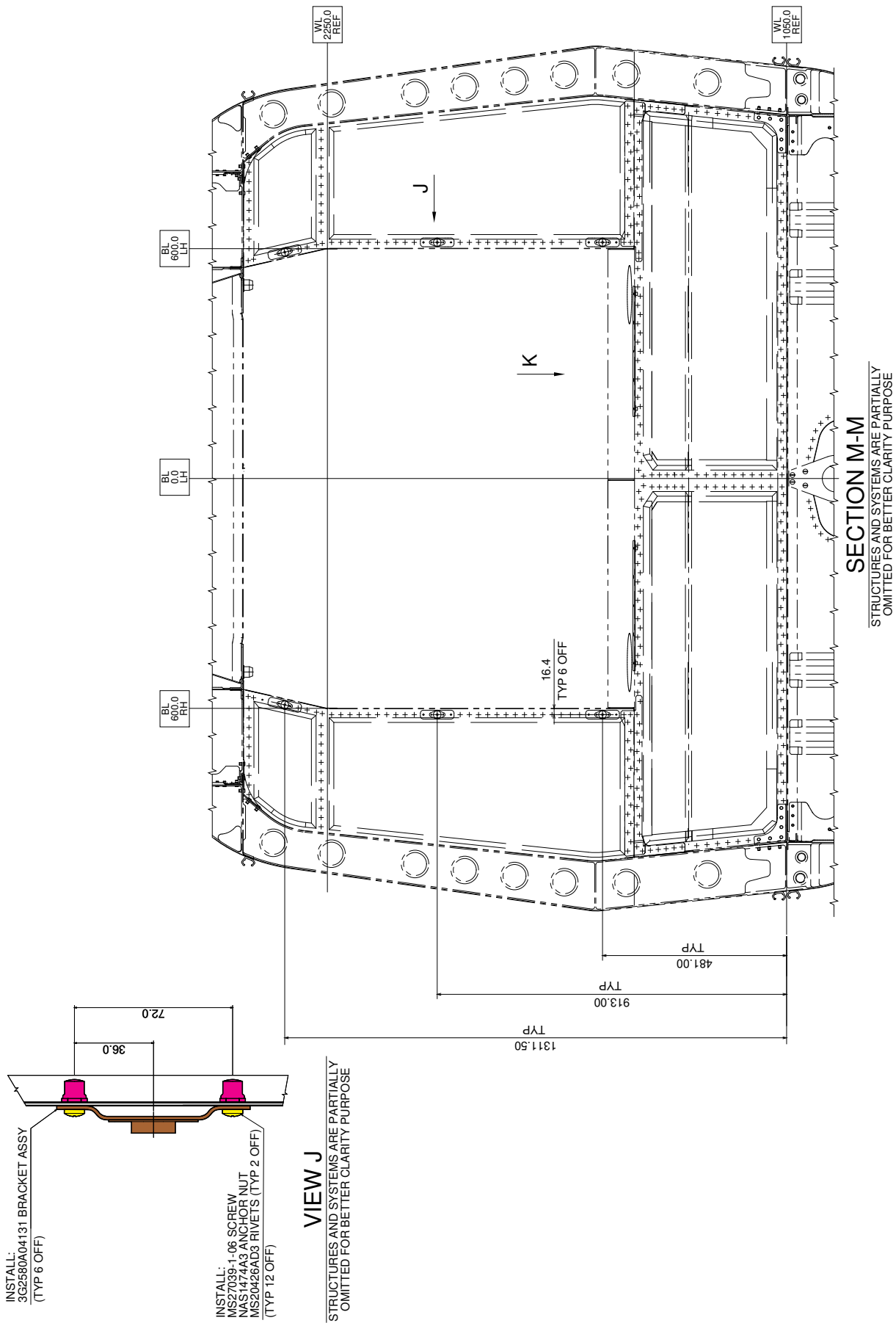
STRUCTURES AND SYSTEMS ARE PARTIALLY  
OMITTED FOR BETTER CLARITY PURPOSE



**SECTION T-T**

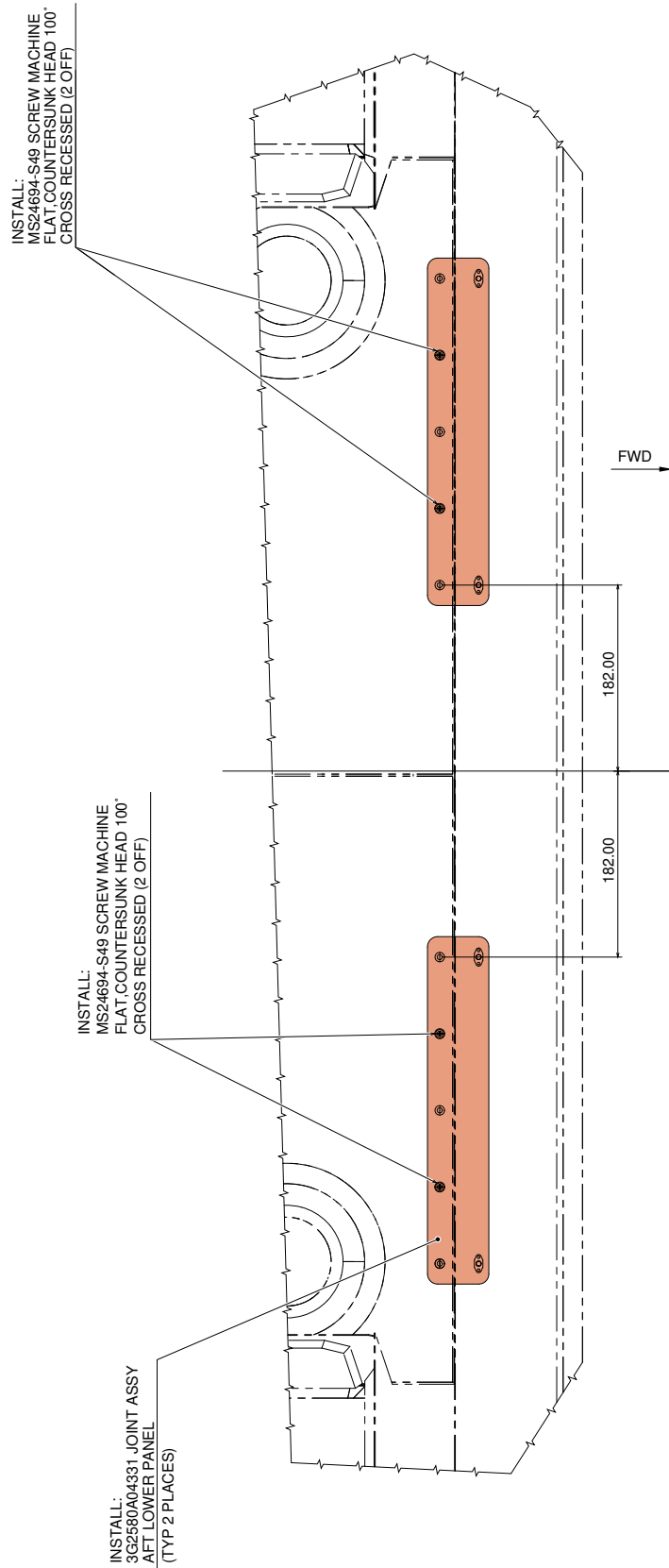
STRUCTURES AND SYSTEMS ARE PARTIALLY  
OMITTED FOR BETTER CLARITY PURPOSE

**Figure 11**



**Figure 12**

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REVISION: /



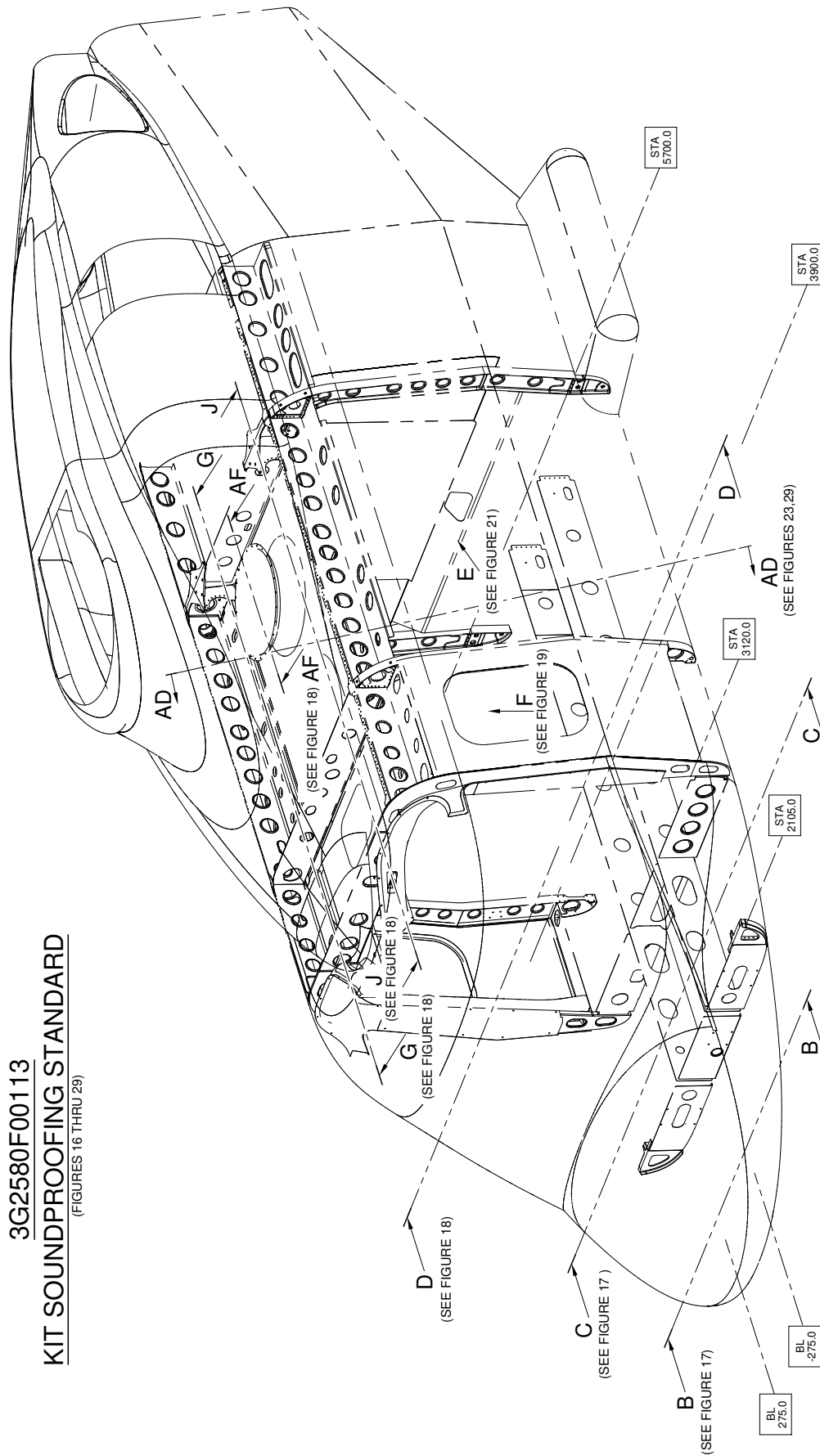
**VIEW K**  
STRUCTURES AND SYSTEMS ARE PARTIALLY  
OMITTED FOR BETTER CLARITY PURPOSE  
NORMAL TO FLOOR

**Figure 13**



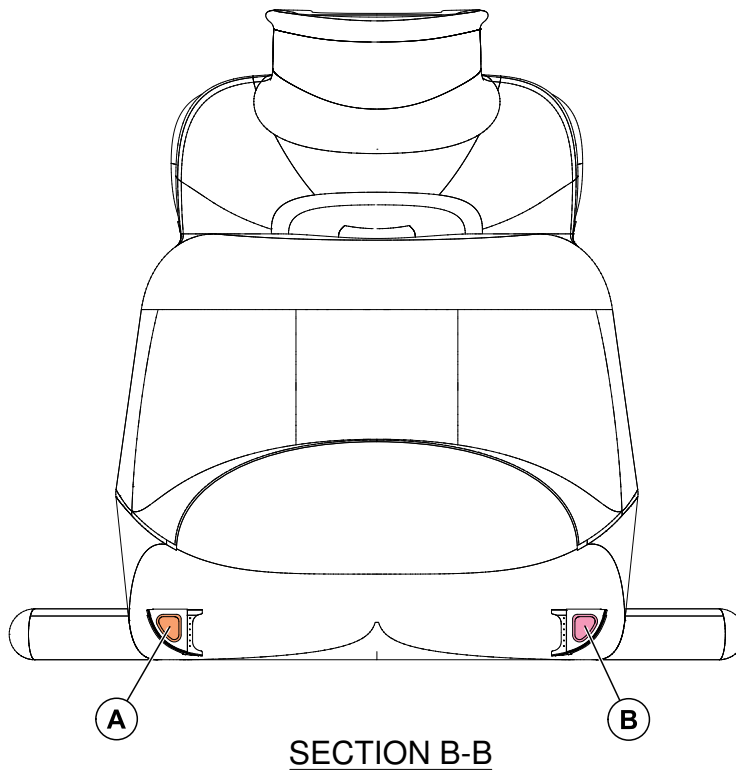




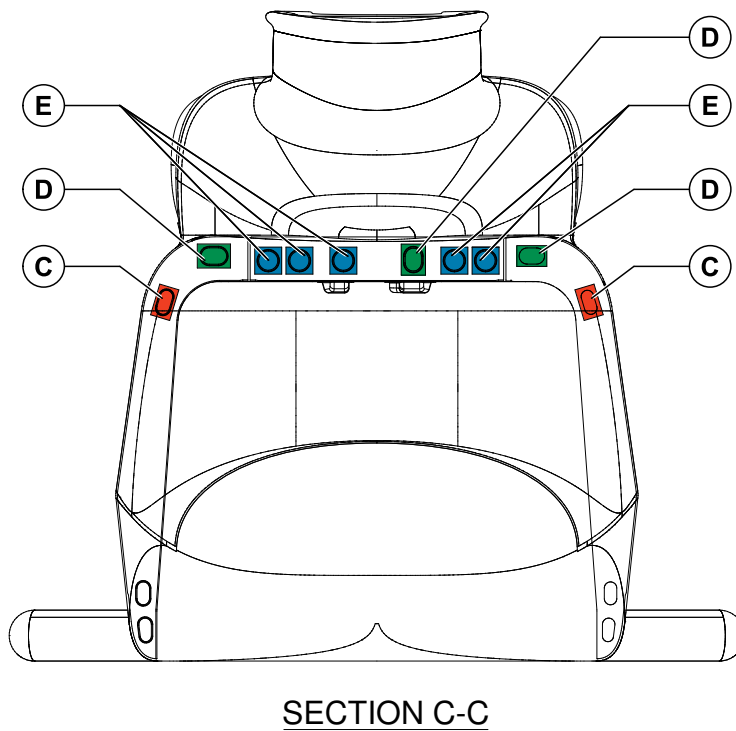


**Figure 16**

**3G2580A32131**  
**SOUNDPROOFING ASSY**

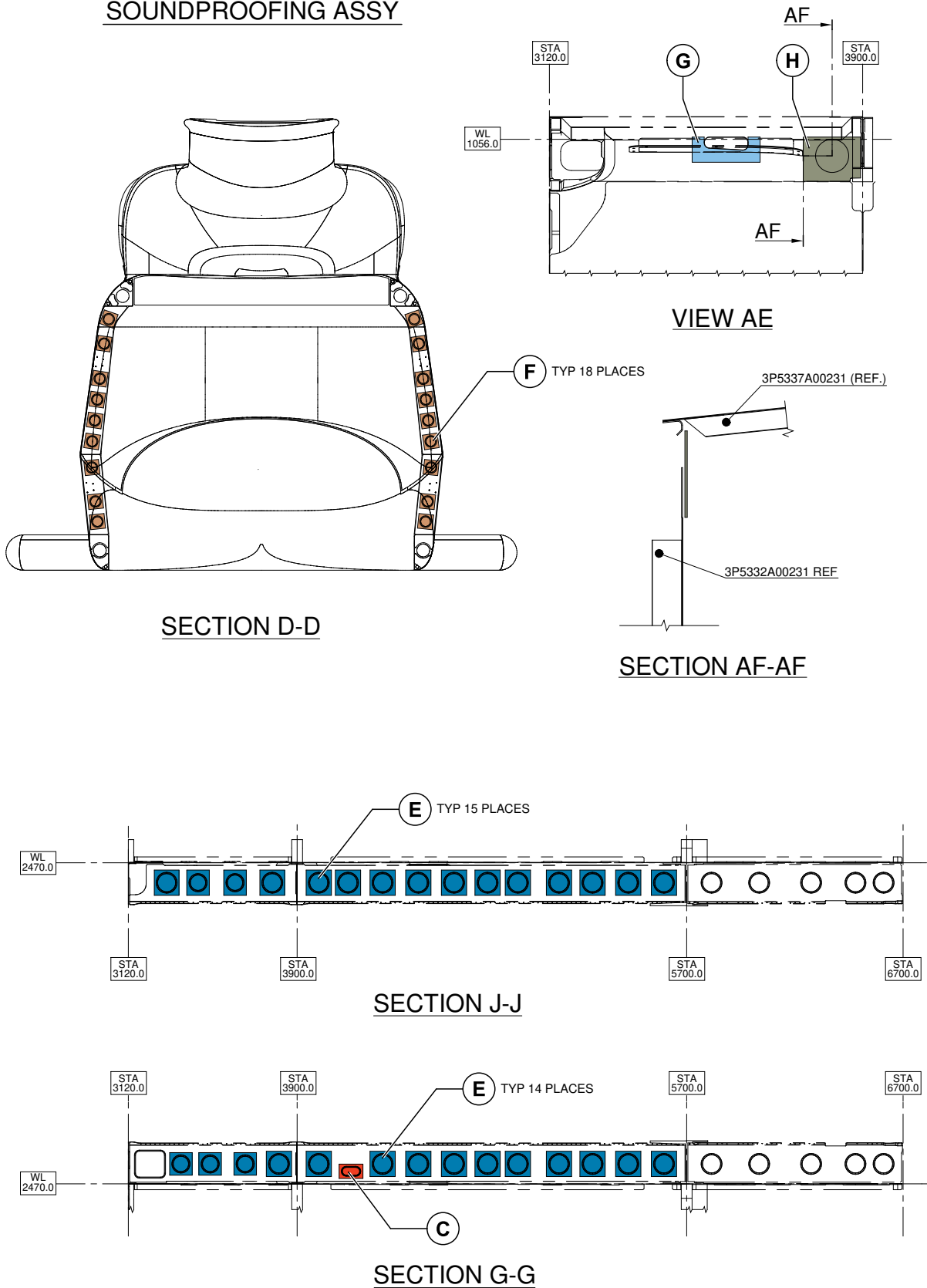


REF.	P/N DESCRIPTION
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<b>B</b>	3G2580A32156 SOUNDPROOFING
<b>C</b>	3G2580A32160 SOUNDPROOFING
<b>D</b>	3G2580A32159 SOUNDPROOFING
<b>E</b>	3G2580A32152 SOUNDPROOFING
<b>F</b>	3G2580A32151 SOUNDPROOFING
<b>G</b>	3G2580A32157 SOUNDPROOFING (SHN) 3G2580A32158 SOUNDPROOFING (OPP)
<b>H</b>	3G2580A32153 SOUNDPROOFING (SHN) 3G2580A32154 SOUNDPROOFING (OPP)



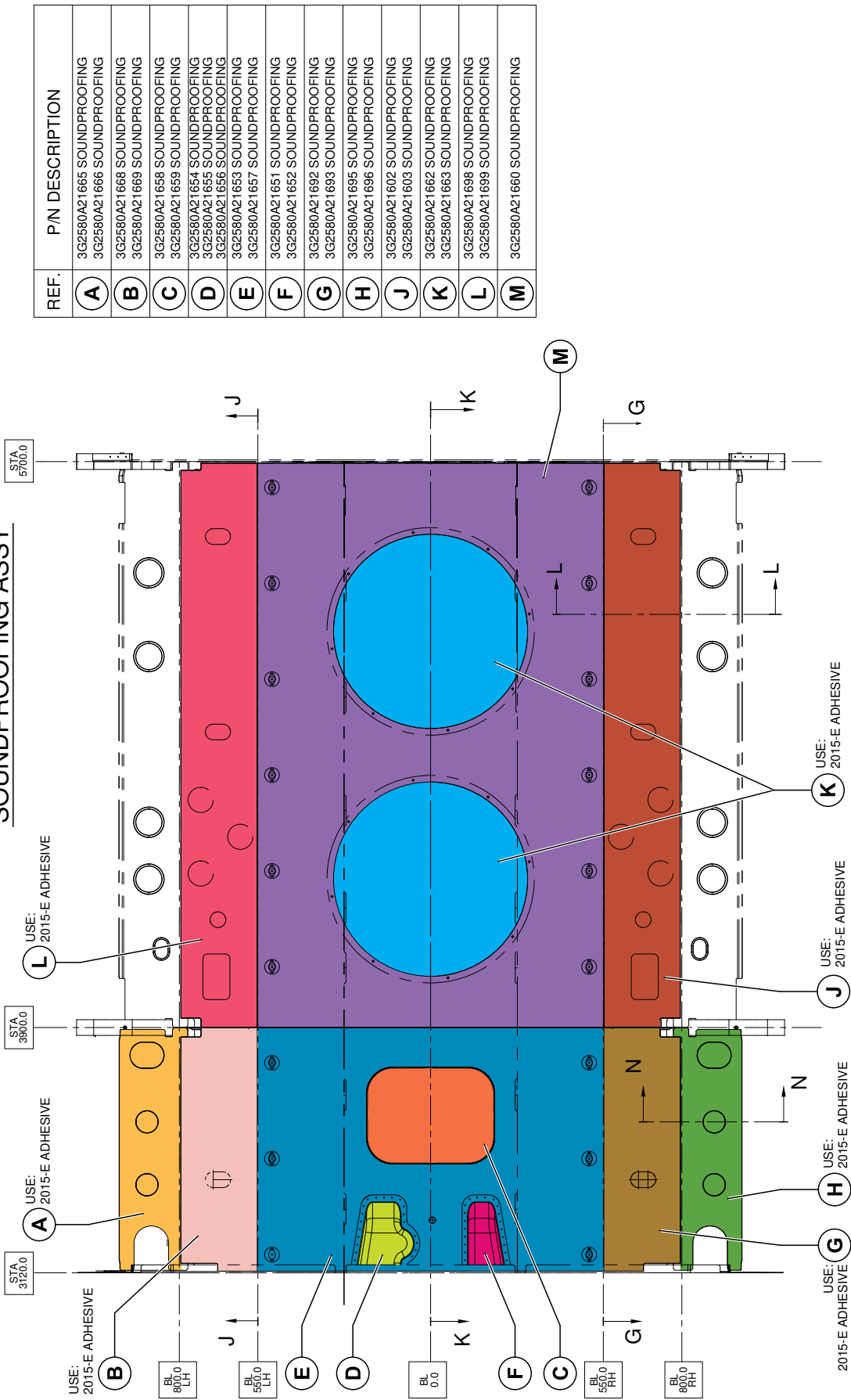
**Figure 17**

**3G2580A32131**  
**SOUNDPROOFING ASSY**



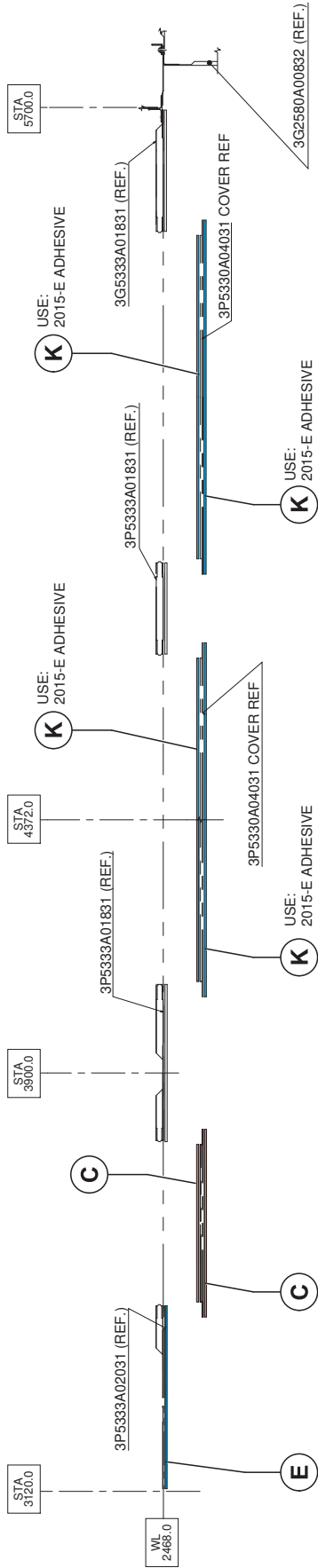
**Figure 18**

**3G2580A21633**  
**SOUNDPROOFING ASSY**

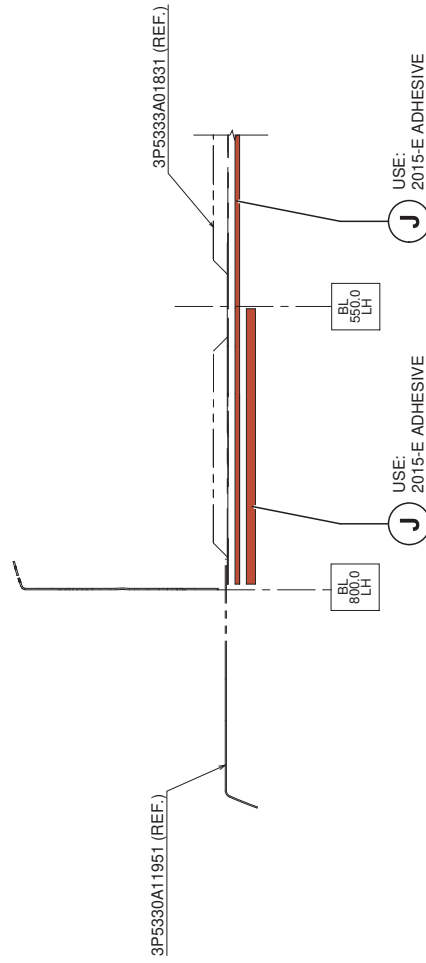


**Figure 19**

**3G2580A21633**  
**SOUNDPROOFING ASSY**



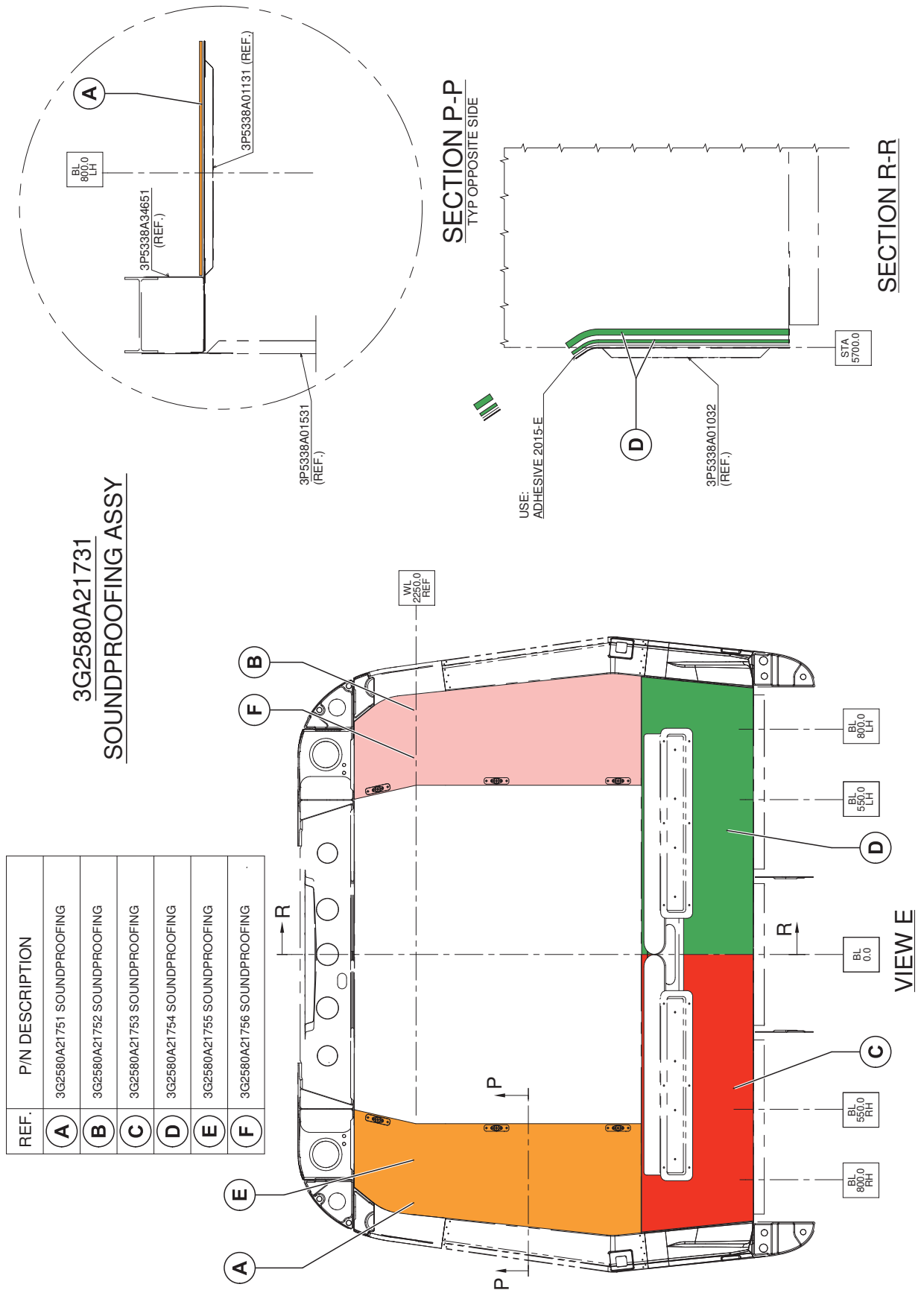
**SECTION K-K**



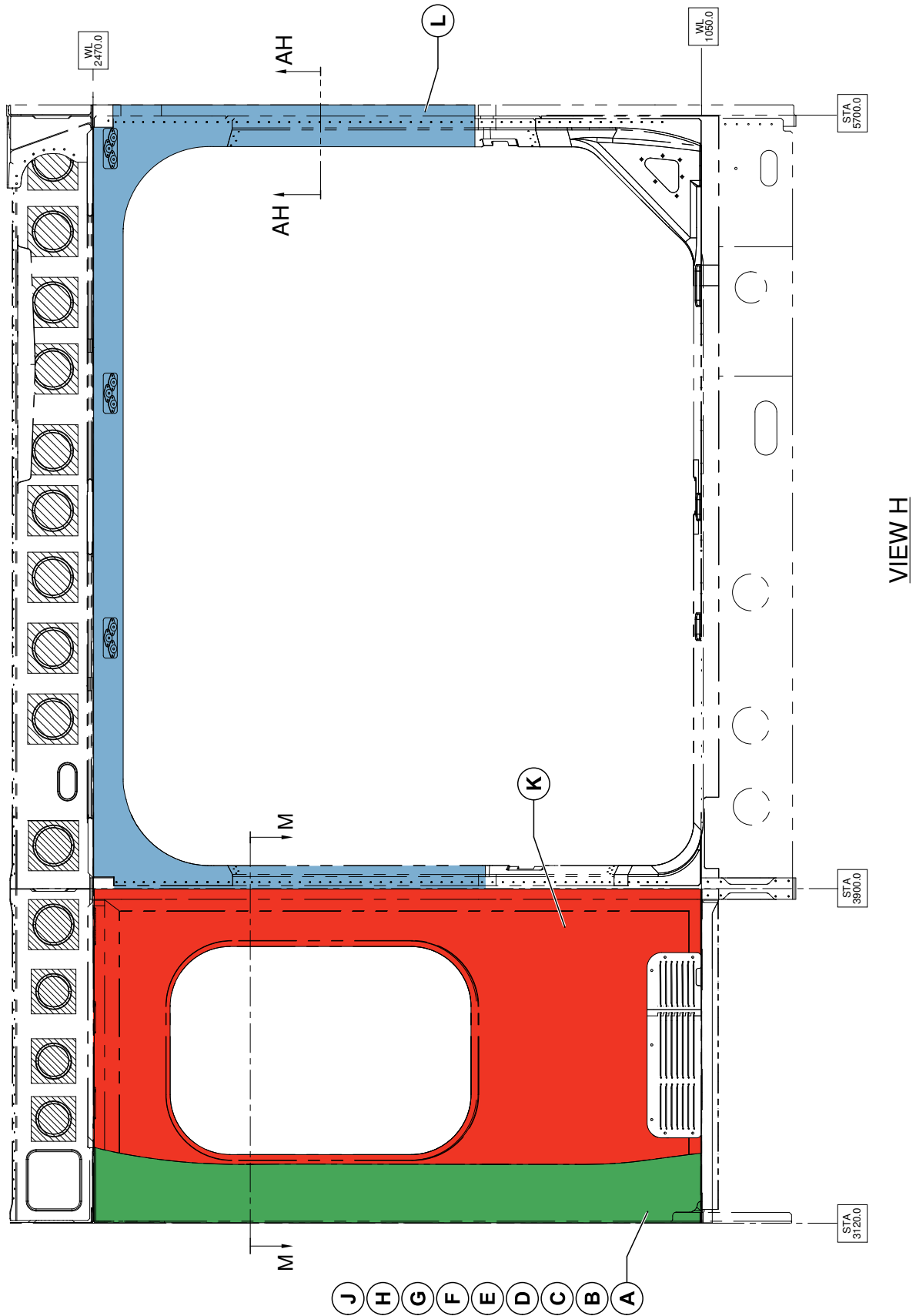
**SECTION L-L**

**Figure 20**

S.B. N°139-503  
DATE: November 17, 2021  
REVISION: /



**Figure 21**



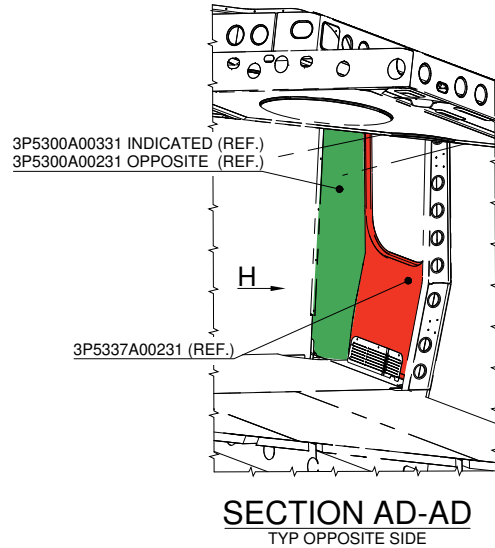
**Figure 22**

S.B. N°139-503  
DATE: November 17, 2021  
REVISION: /



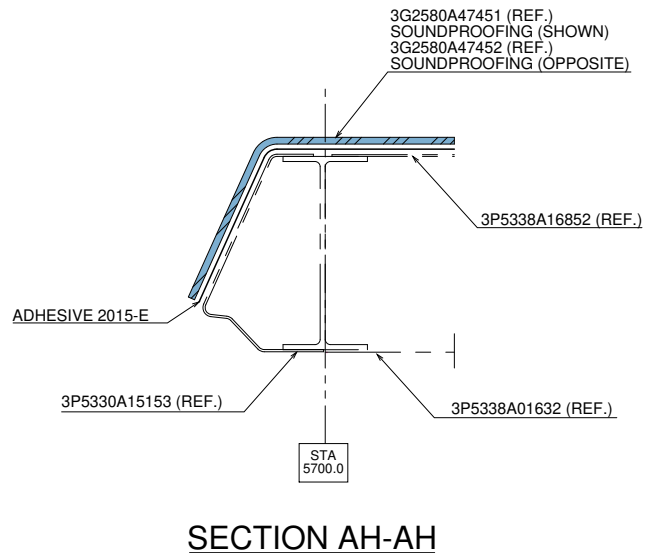
**3G2580A34531**  
**SOUNDPROOFING ASSY**

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(B)	3G2580A34553 SOUNDPROOFING (SHN) 3G2580A34554 SOUNDPROOFING (OPP)
(C)	3G2580A34555 SOUNDPROOFING (SHN) 3G2580A34556 SOUNDPROOFING (OPP)
(D)	3G2580A34557 SOUNDPROOFING (SHN) 3G2580A34558 SOUNDPROOFING (OPP)
(E)	3G2580A34559 SOUNDPROOFING (SHN) 3G2580A34560 SOUNDPROOFING (OPP)
(F)	3G2580A34561 SOUNDPROOFING (SHN) 3G2580A34562 SOUNDPROOFING (OPP)
(G)	3G2580A34563 SOUNDPROOFING (SHN) 3G2580A34564 SOUNDPROOFING (OPP)
(H)	3G2580A34565 SOUNDPROOFING (SHN) 3G2580A34566 SOUNDPROOFING (OPP)
(J)	3G2580A34567 SOUNDPROOFING (SHN) 3G2580A34568 SOUNDPROOFING (OPP)



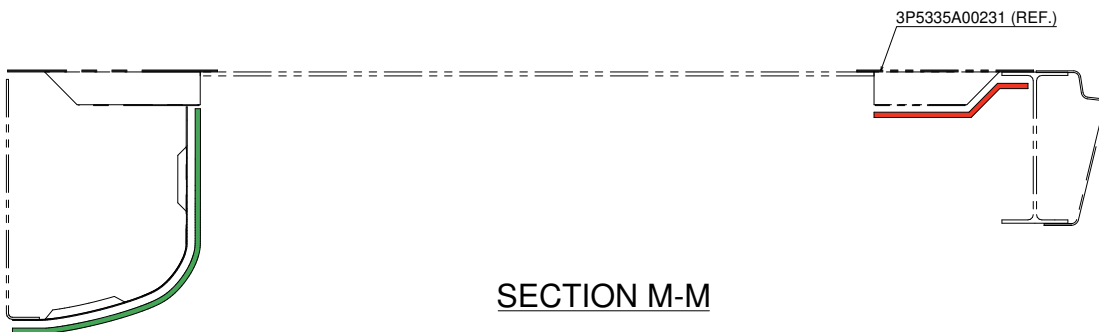
**3G2580A21833**  
**SOUNDPROOFING ASSY**

REF.	P/N DESCRIPTION
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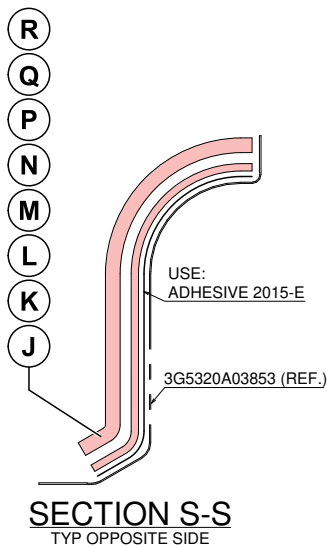
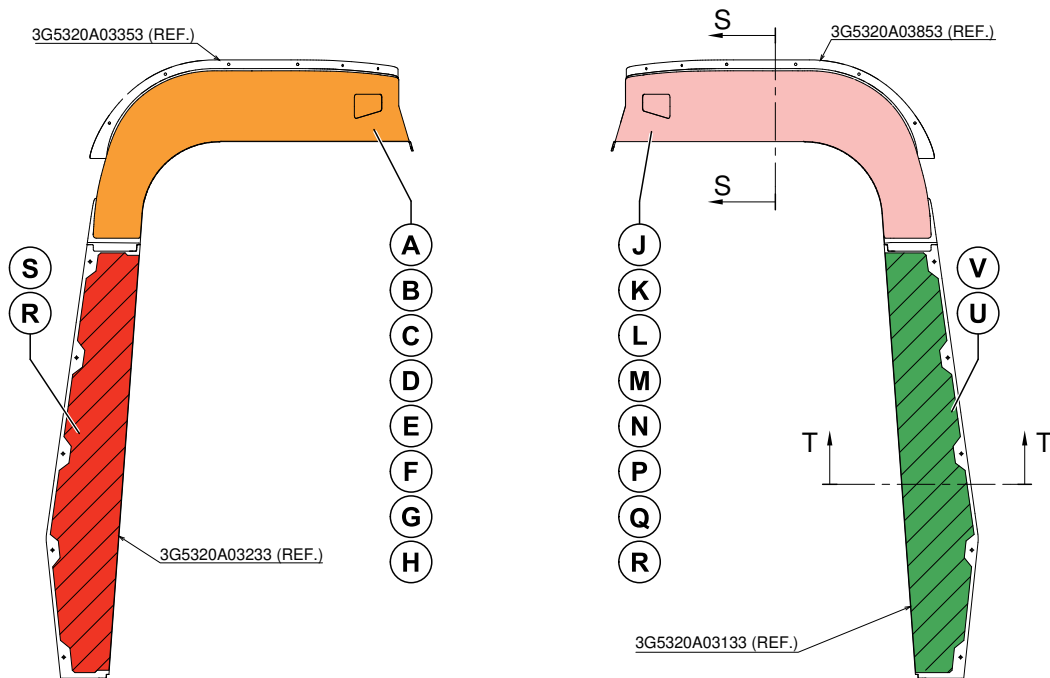
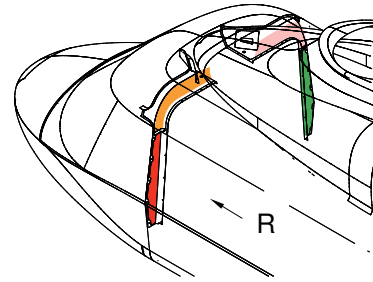
**3G2580A47431**  
**SOUNDPROOFING ASSY**

REF.	P/N DESCRIPTION
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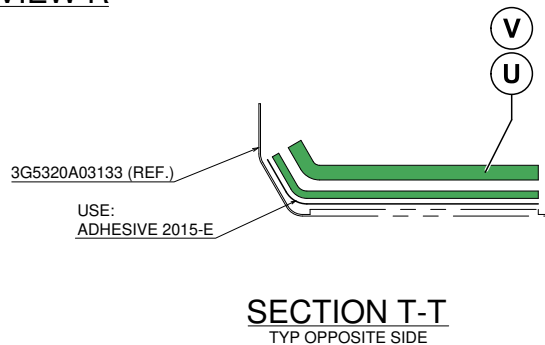


**Figure 23**

REF.	P/N DESCRIPTION	REF.	P/N DESCRIPTION
<b>A</b>	3G2580A21555 SOUNDPROOFING	<b>L</b>	3G2580A21560 SOUNDPROOFING
<b>B</b>	3G2580A21556 SOUNDPROOFING	<b>M</b>	3G2580A21562 SOUNDPROOFING
<b>C</b>	3G2580A21559 SOUNDPROOFING	<b>N</b>	3G2580A21565 SOUNDPROOFING
<b>D</b>	3G2580A21561 SOUNDPROOFING	<b>P</b>	3G2580A21566 SOUNDPROOFING
<b>E</b>	3G2580A21563 SOUNDPROOFING	<b>Q</b>	3G2580A21568 SOUNDPROOFING
<b>F</b>	3G2580A21564 SOUNDPROOFING	<b>R</b>	3G2580A21591 SOUNDPROOFING
<b>G</b>	3G2580A21567 SOUNDPROOFING	<b>S</b>	3G2580A21551 SOUNDPROOFING
<b>H</b>	3G2580A21569 SOUNDPROOFING	<b>T</b>	3G2580A21552 SOUNDPROOFING
<b>J</b>	3G2580A21557 SOUNDPROOFING	<b>U</b>	3G2580A21553 SOUNDPROOFING
<b>K</b>	3G2580A21558 SOUNDPROOFING	<b>V</b>	3G2580A21554 SOUNDPROOFING

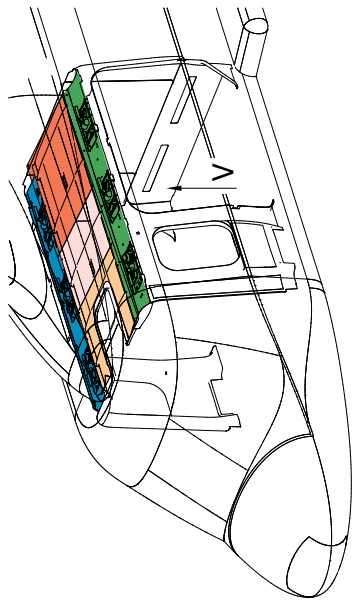


**VIEW R**



**3G2580A21531**  
**SOUNDPROOFING ASSY**

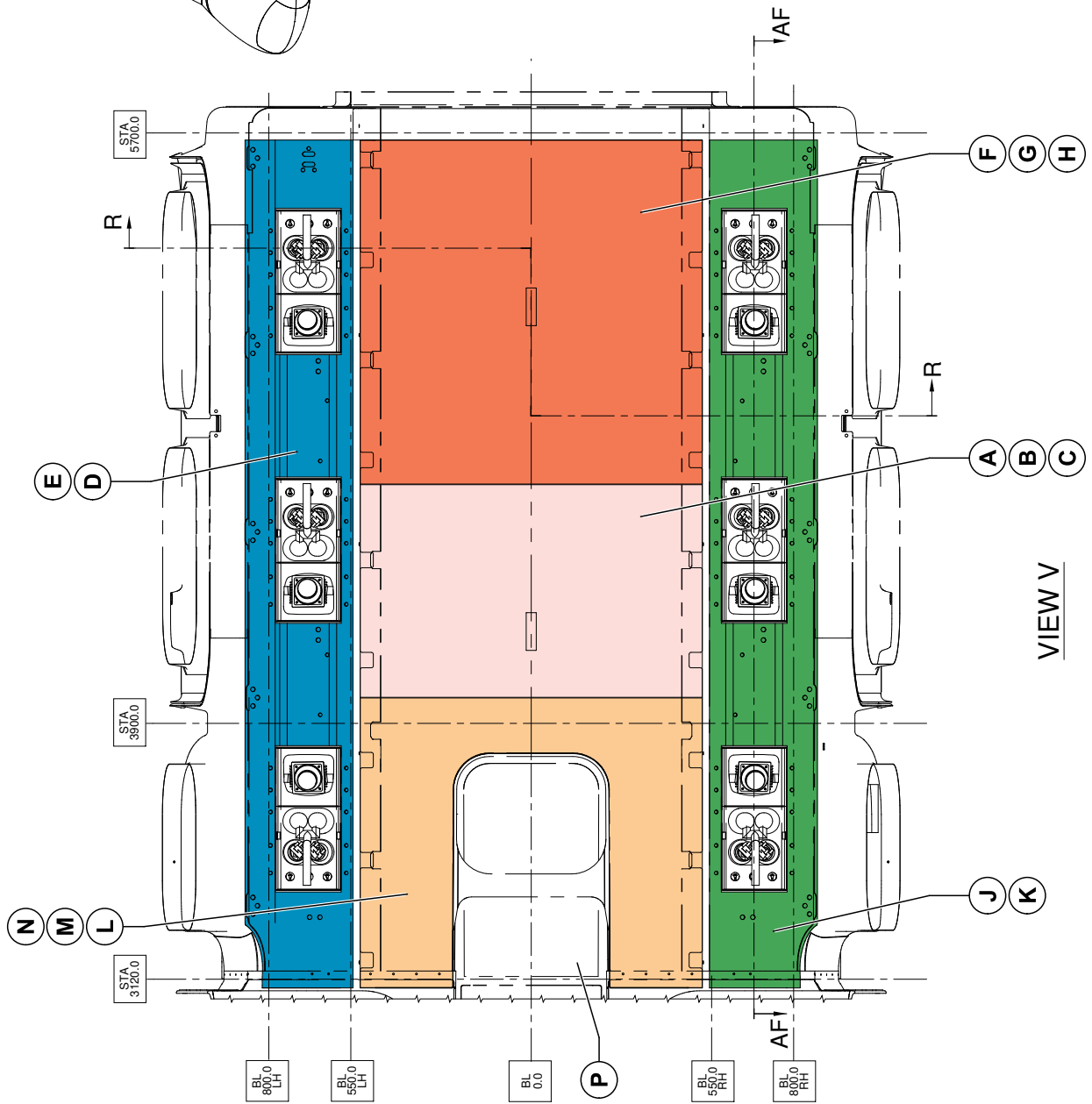
**Figure 24**



**3G2580A39631**

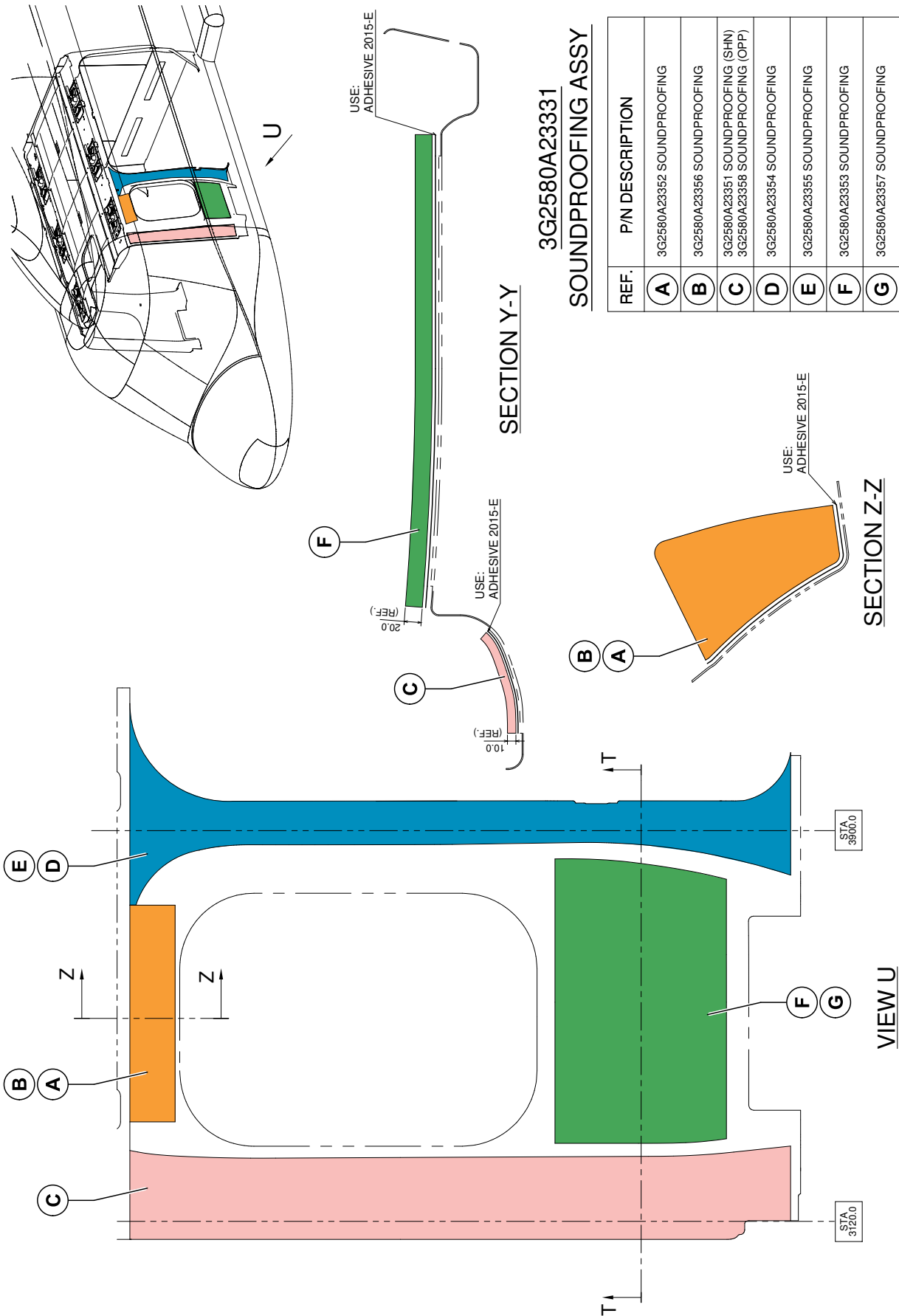
**SOUNDPROOFING ASSY**

REF.	P/N DESCRIPTION
<b>A</b>	3G2580A39637 SOUNDPROOFING
<b>B</b>	3G2580A39654 SOUNDPROOFING
<b>C</b>	3G2580A39655 SOUNDPROOFING
<b>D</b>	3G2580A39660 SOUNDPROOFING
<b>E</b>	3G2580A39661 SOUNDPROOFING
<b>F</b>	3G2580A39698 SOUNDPROOFING
<b>G</b>	3G2580A39656 SOUNDPROOFING
<b>H</b>	3G2580A39657 SOUNDPROOFING
<b>J</b>	3G2580A39658 SOUNDPROOFING
<b>K</b>	3G2580A39659 SOUNDPROOFING
<b>L</b>	3G2580A39696 SOUNDPROOFING
<b>M</b>	3G2580A39652 SOUNDPROOFING
<b>N</b>	3G2580A39653 SOUNDPROOFING
<b>P</b>	3G2580A39651 SOUNDPROOFING

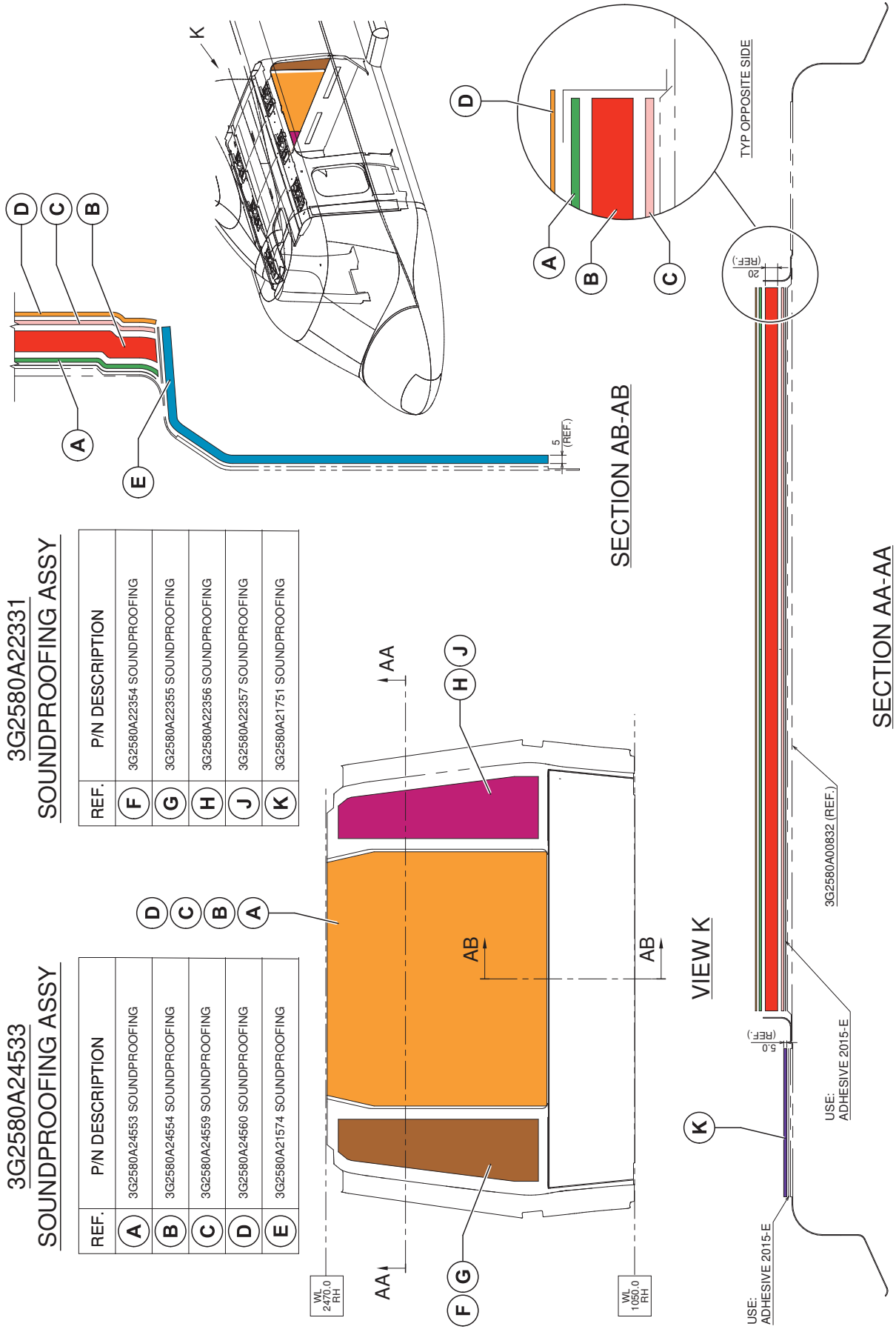


**Figure 25**





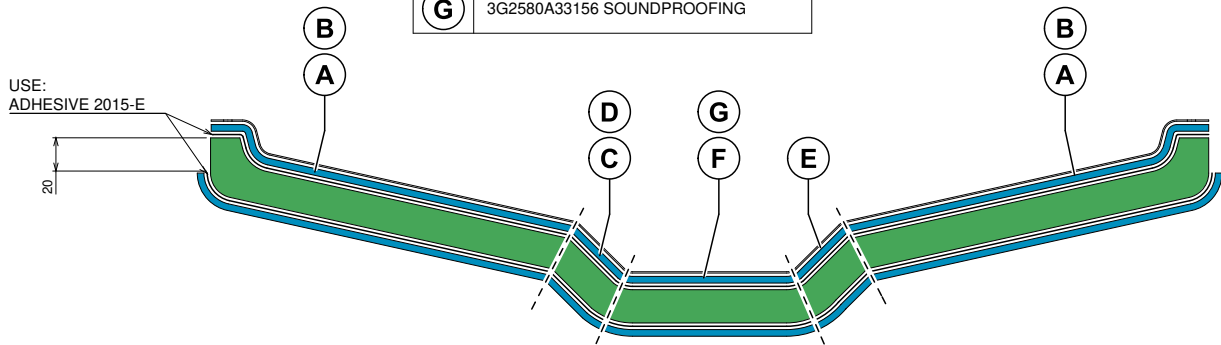
**Figure 27**



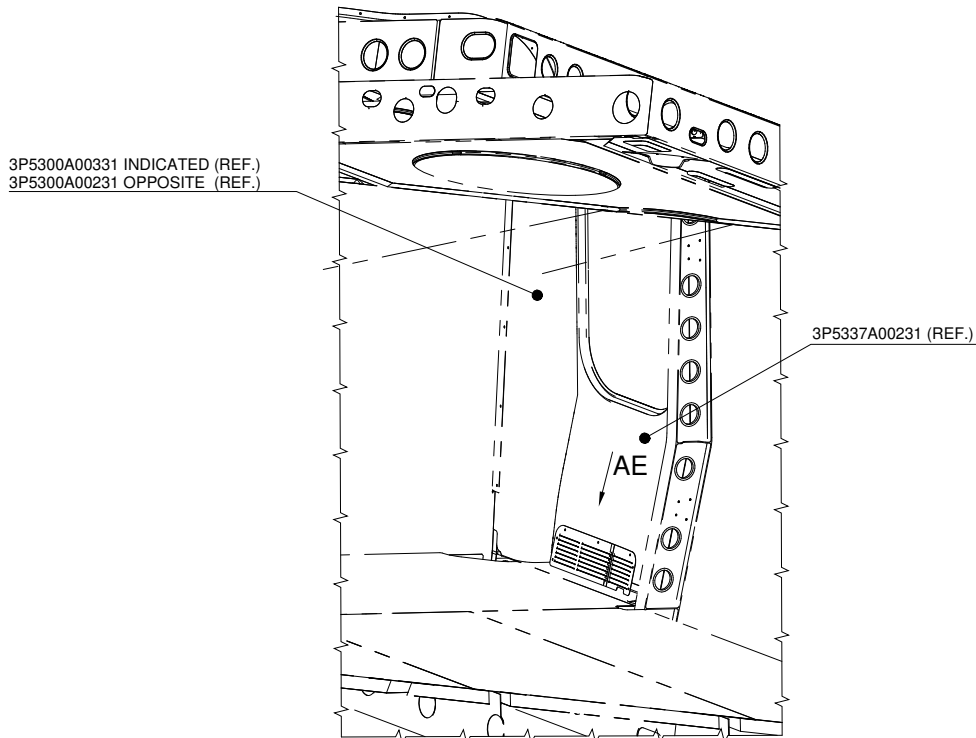
**Figure 28**

**3G2580A33131**  
**SOUNDPROOFING ASSY**

REF.	P/N DESCRIPTION
<b>(A)</b>	3G2580A33151 SOUNDPROOFING
<b>(B)</b>	3G2580A33152 SOUNDPROOFING
<b>(C)</b>	3G2580A33153 SOUNDPROOFING
<b>(D)</b>	3G2580A33154 SOUNDPROOFING
<b>(E)</b>	3G2580A33157 SOUNDPROOFING
<b>(F)</b>	3G2580A33155 SOUNDPROOFING
<b>(G)</b>	3G2580A33156 SOUNDPROOFING



**SECTION AE-AE**



**SECTION AD-AD**  
TYP OPPOSITE SIDE

**Figure 29**

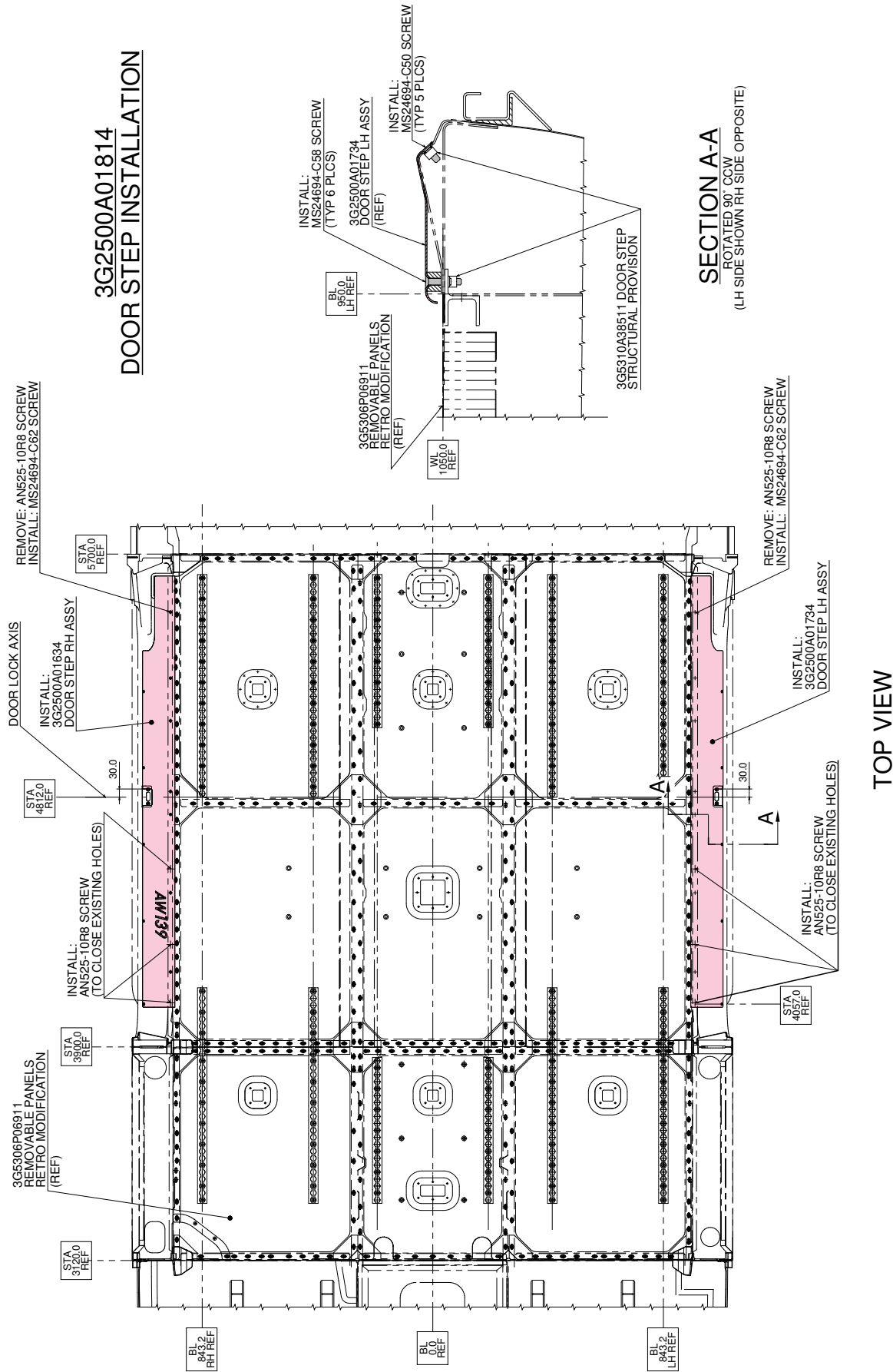
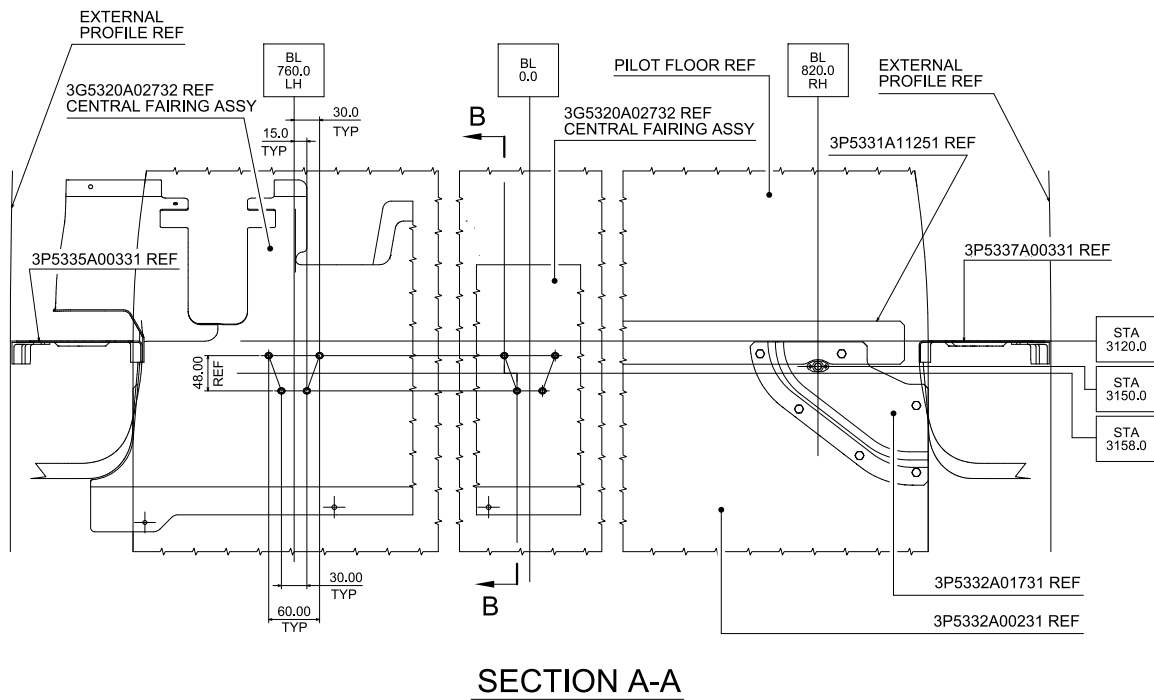
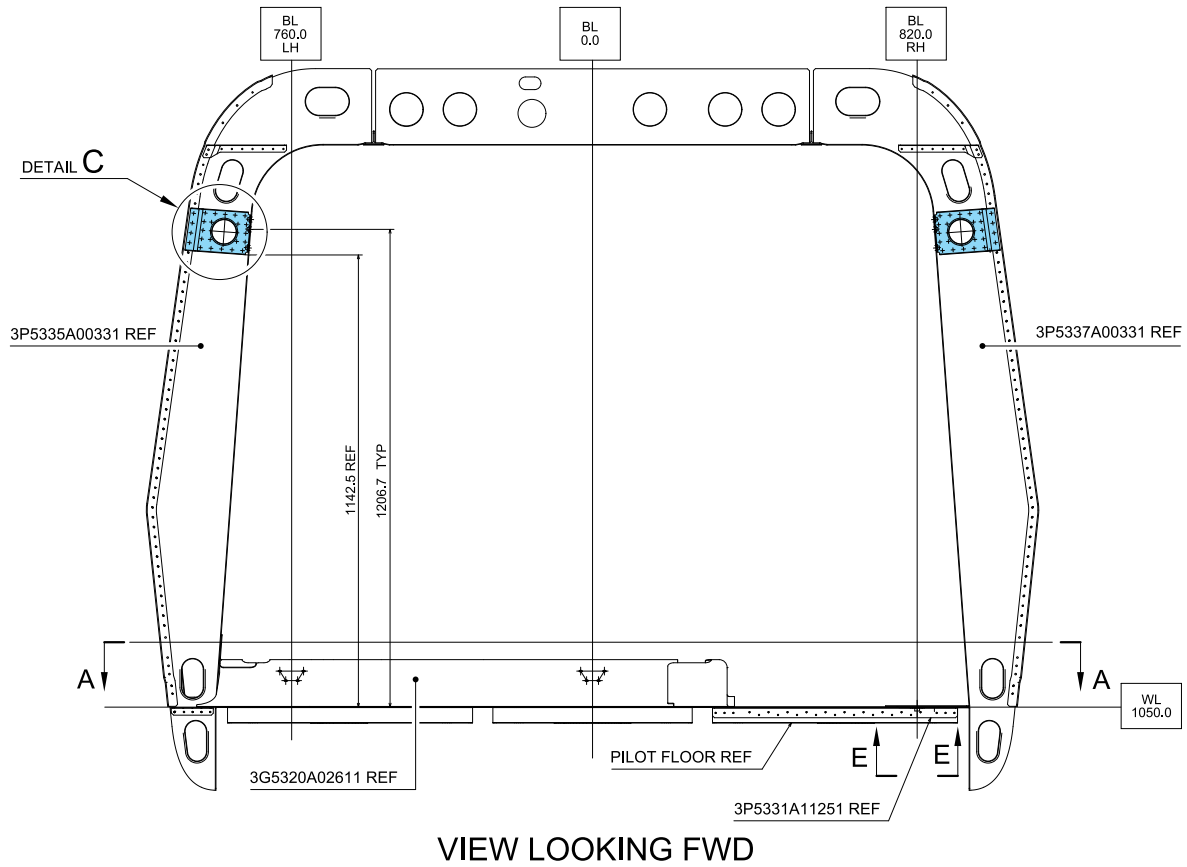


Figure 30

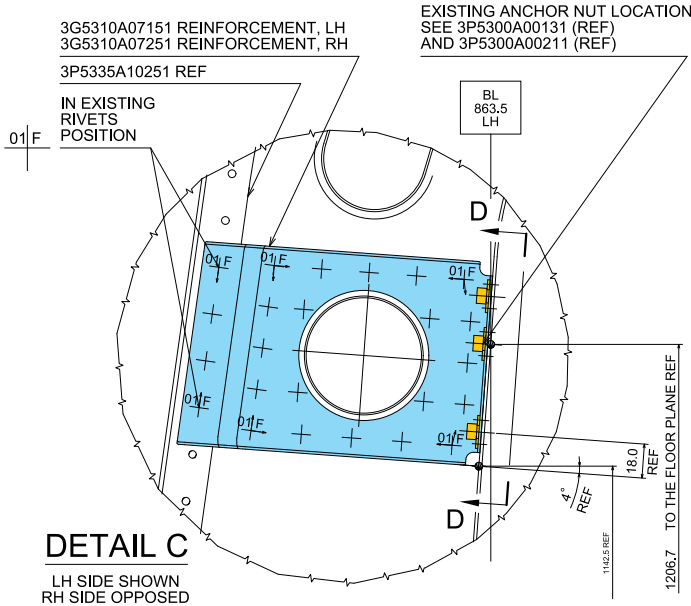


**3G5310A08011**  
**LIMO WINDOW**  
**STRUCTURAL PROVISION**



**Figure 31**

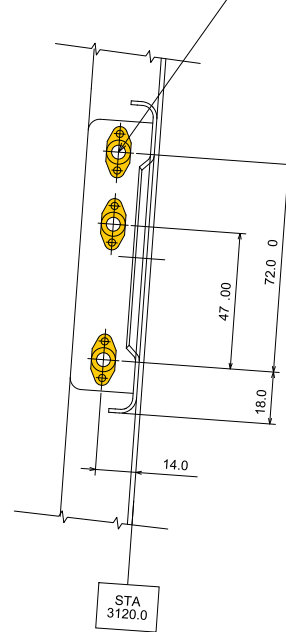
01 F MS20470AD4-6 RIVET  
HEAD ON OPPOSITE SIDE.



**DETAIL C**

LH SIDE SHOWN  
RH SIDE OPPOSED

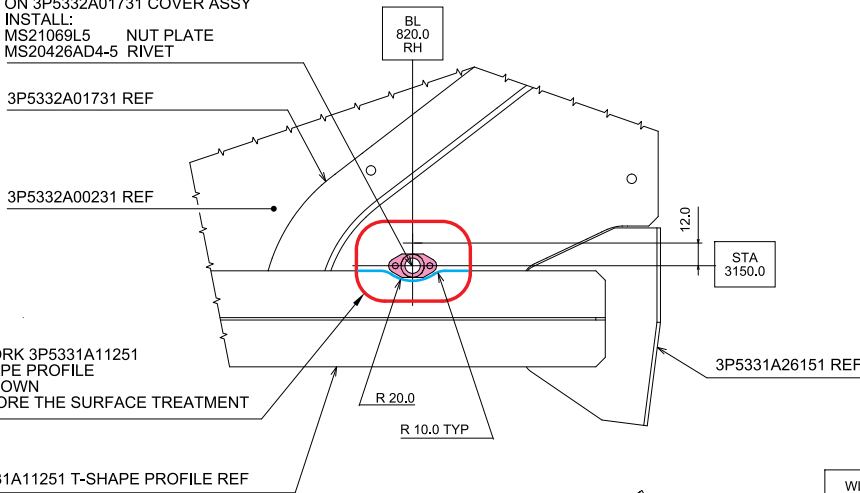
DRILL:  
ø4.90-5.03 N.3 THROUGH HOLES  
INSTALL:  
MS21069L3 NUT PLATE (3 OFF)  
MS20426AD4-7 RIVET (6 OFF)



**SECTION D-D**

LH SIDE SHOWN  
RH SIDE OPPOSED

DRILL:  
ø8.03-8.18 THROUGH HOLE  
ON 3P5332A01731 COVER ASSY  
INSTALL:  
MS21069L5 NUT PLATE  
MS20426AD4-5 RIVET

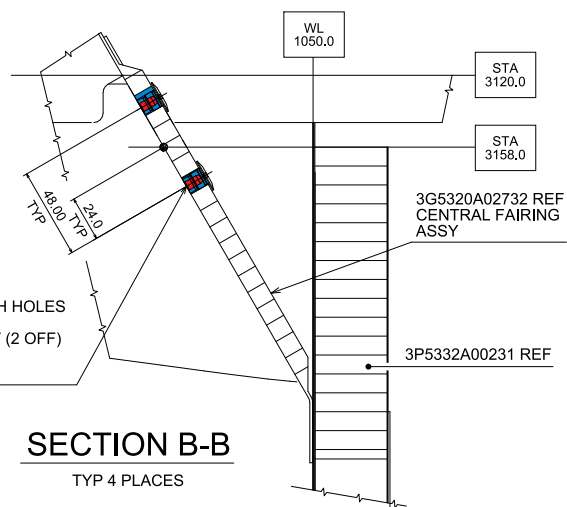


**VIEW E-E**

REWORK 3P5331A11251  
T-SHAPE PROFILE  
AS SHOWN  
RESTORE THE SURFACE TREATMENT

3P5331A11251 T-SHAPE PROFILE REF

DRILL:  
ø9.50-9.60 N.2 THROUGH HOLES  
INSTALL:  
999-5000-30-107 INSERT (2 OFF)  
USE:  
ADHESIVE EA934NA



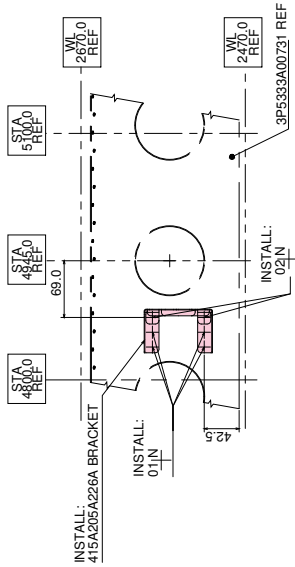
**SECTION B-B**

TYP 4 PLACES

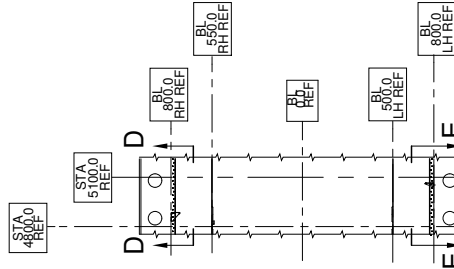
**3G5310A08011  
LIMO WINDOW  
STRUCTURAL PROVISION**

**Figure 32**

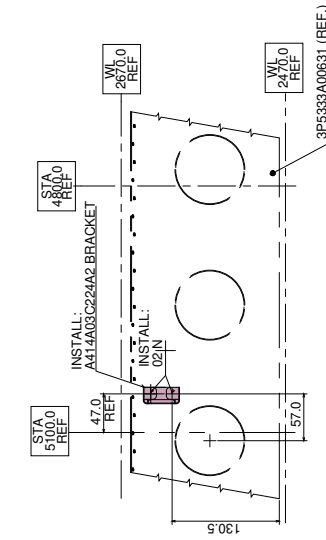
RIVET REFERENCE TABLE	
REF. N°	RIVET P/N
01	AGS4719-407
02	AGS4719-409
N	PREFORMED HEAD IS ON NEAR SIDE
F	PREFORMED HEAD IS ON FAR SIDE
▽	COUNTERSINK (100° ONLY) IS ON NEAR SIDE
△	COUNTERSINK (100° ONLY) IS ON FAR SIDE



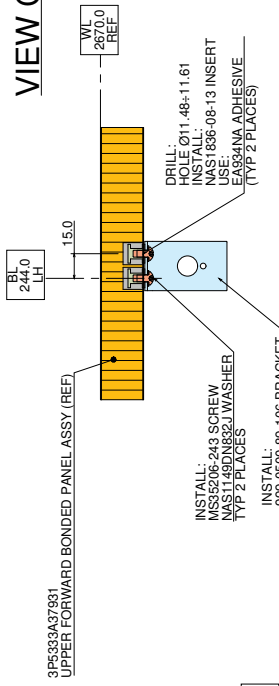
**SECTION D-D**



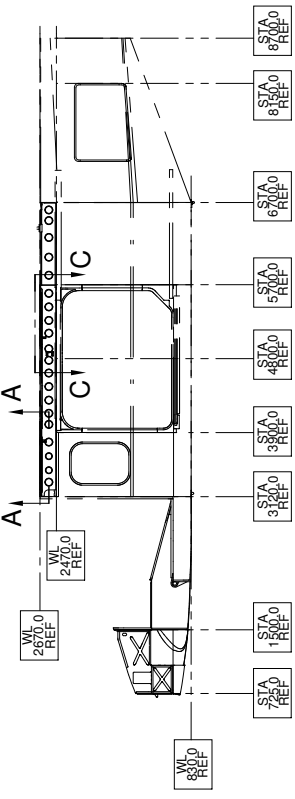
**VIEW C-C**



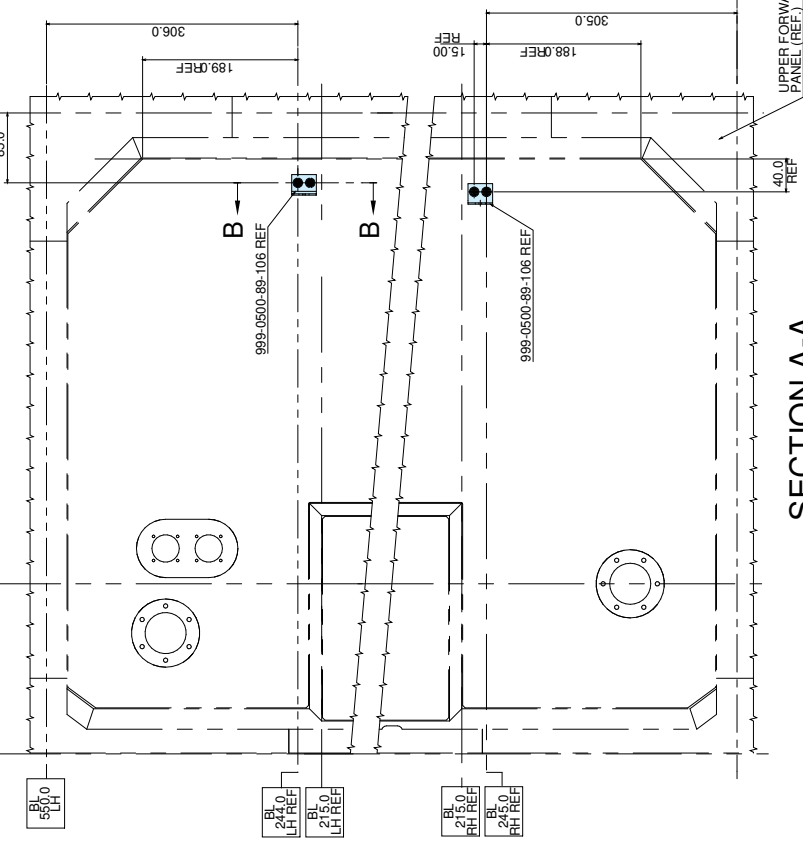
**SECTION E-E**  
ROTADED 180° CCW



**SECTION B-B**  
TYP 2 PLCS

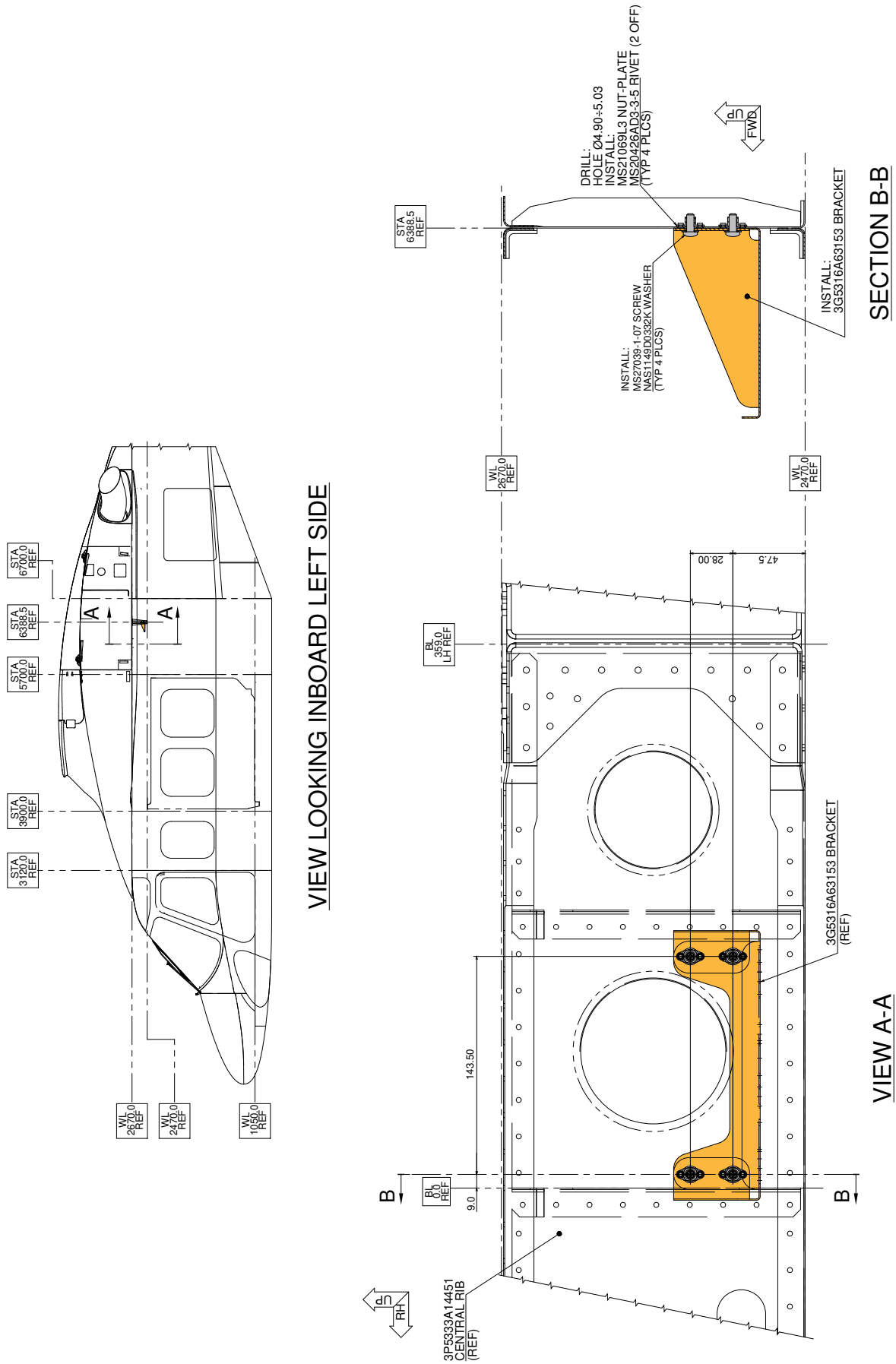


**VIEW LOOKING INBOARD LEFT SIDE**



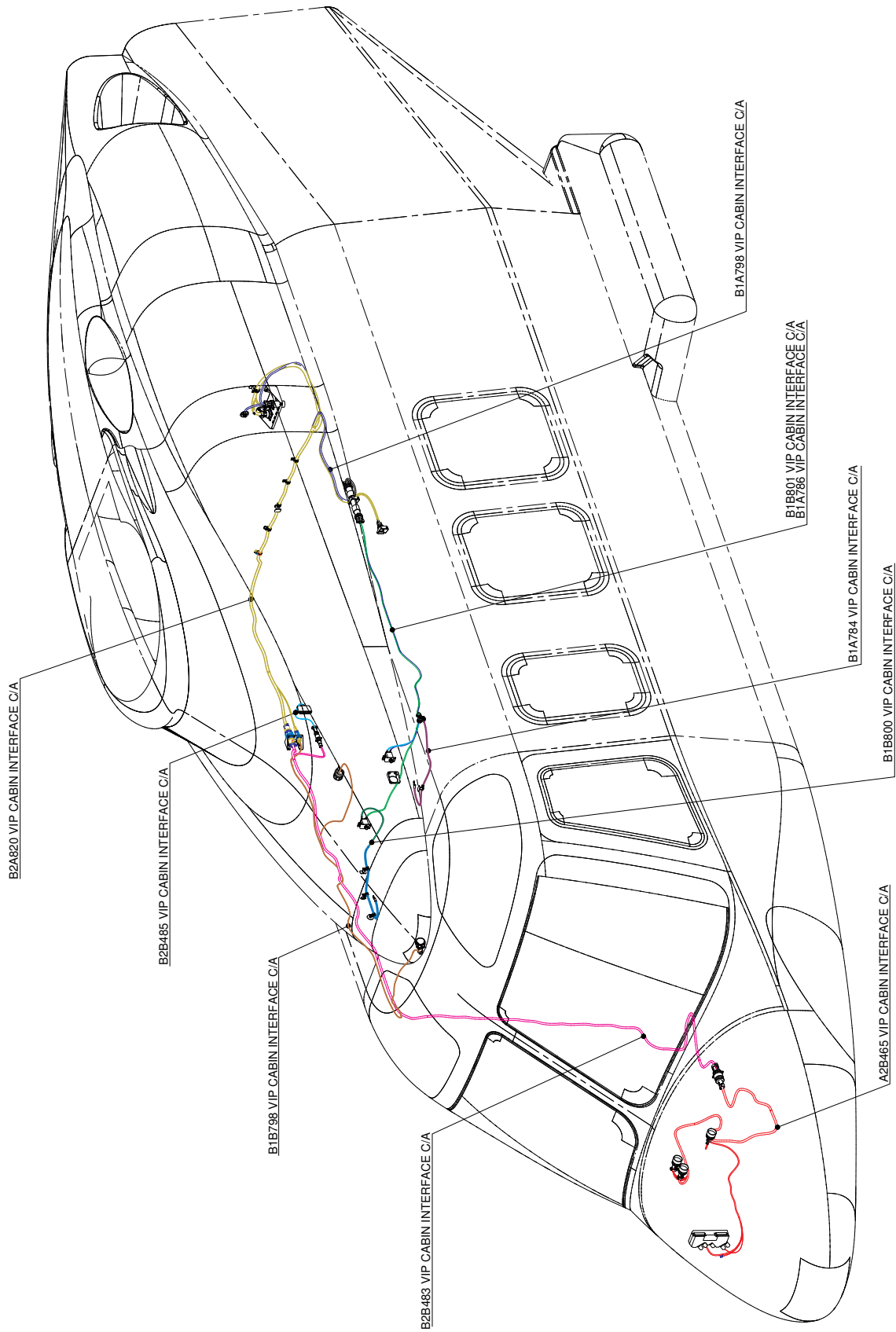
**SECTION A-A**

**Figure 33**

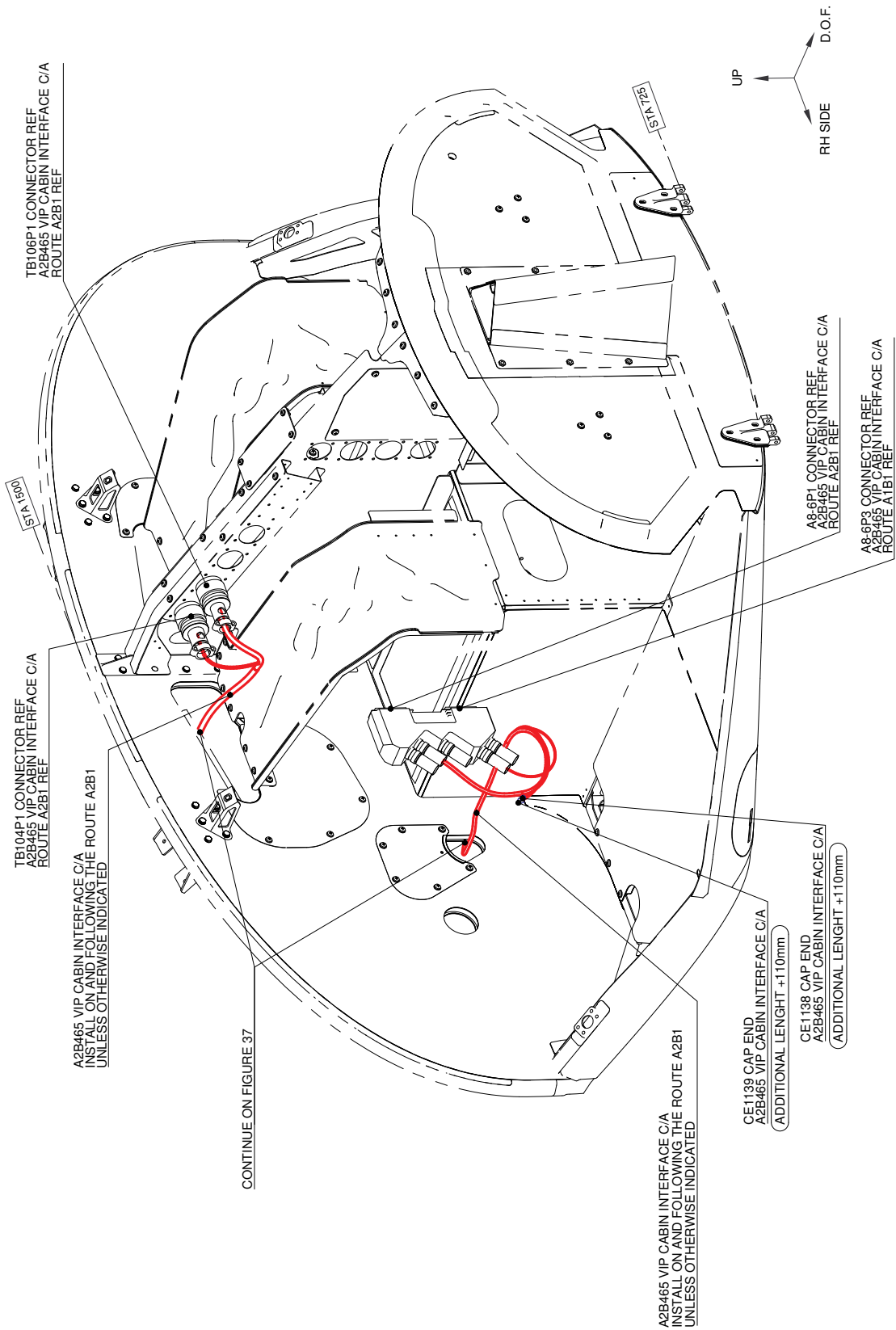


**Figure 34**

S.B. N°139-503  
DATE: November 17, 2021  
REVISION: /



**Figure 35**



**VIEW "A" LOOKING NOSE FROM STA725 TO STA1500 RH SIDE**

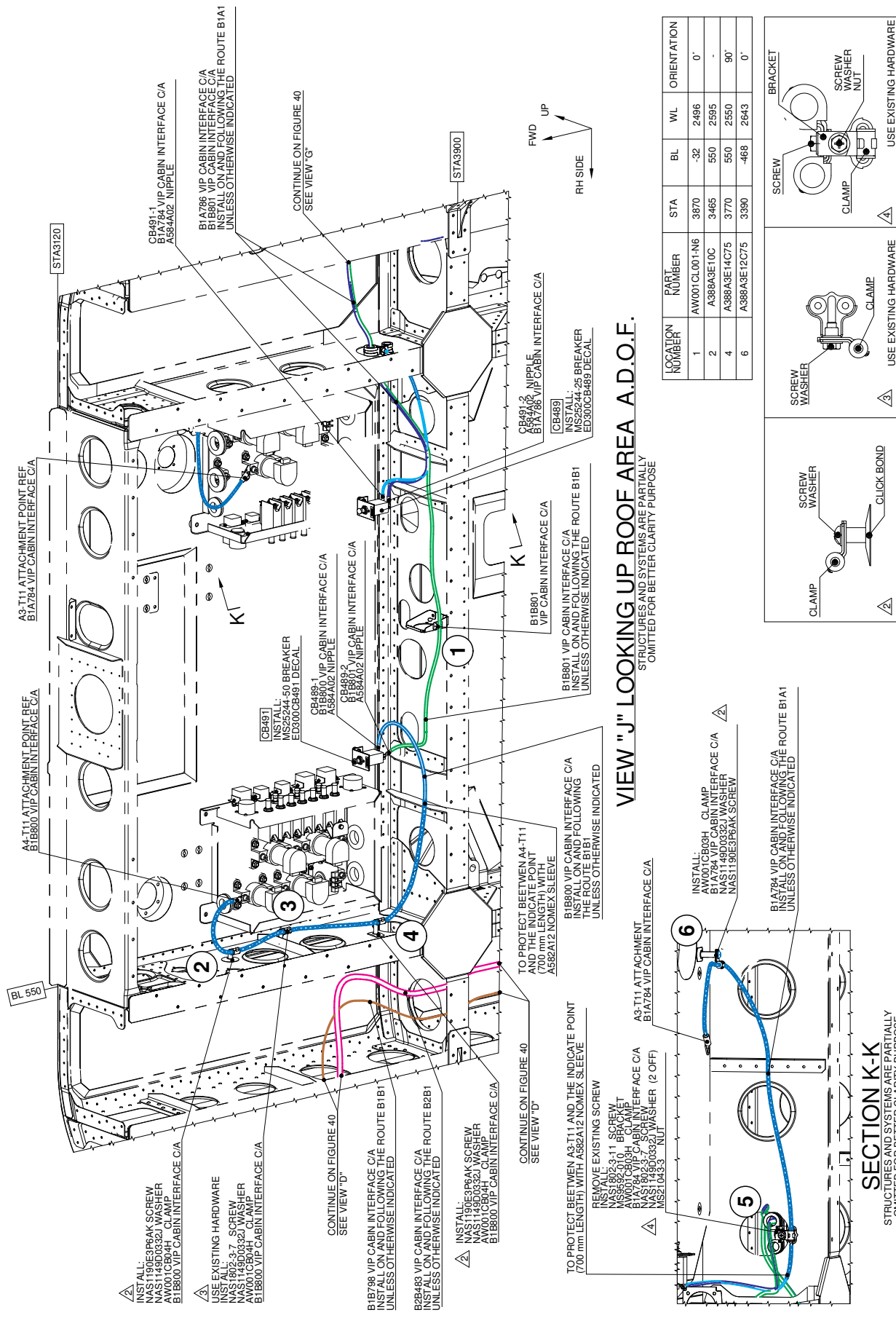
STRUCTURES AND SYSTEMS ARE PARTIALLY  
OMITTED FOR BETTER CLARITY PURPOSE

**Figure 36**



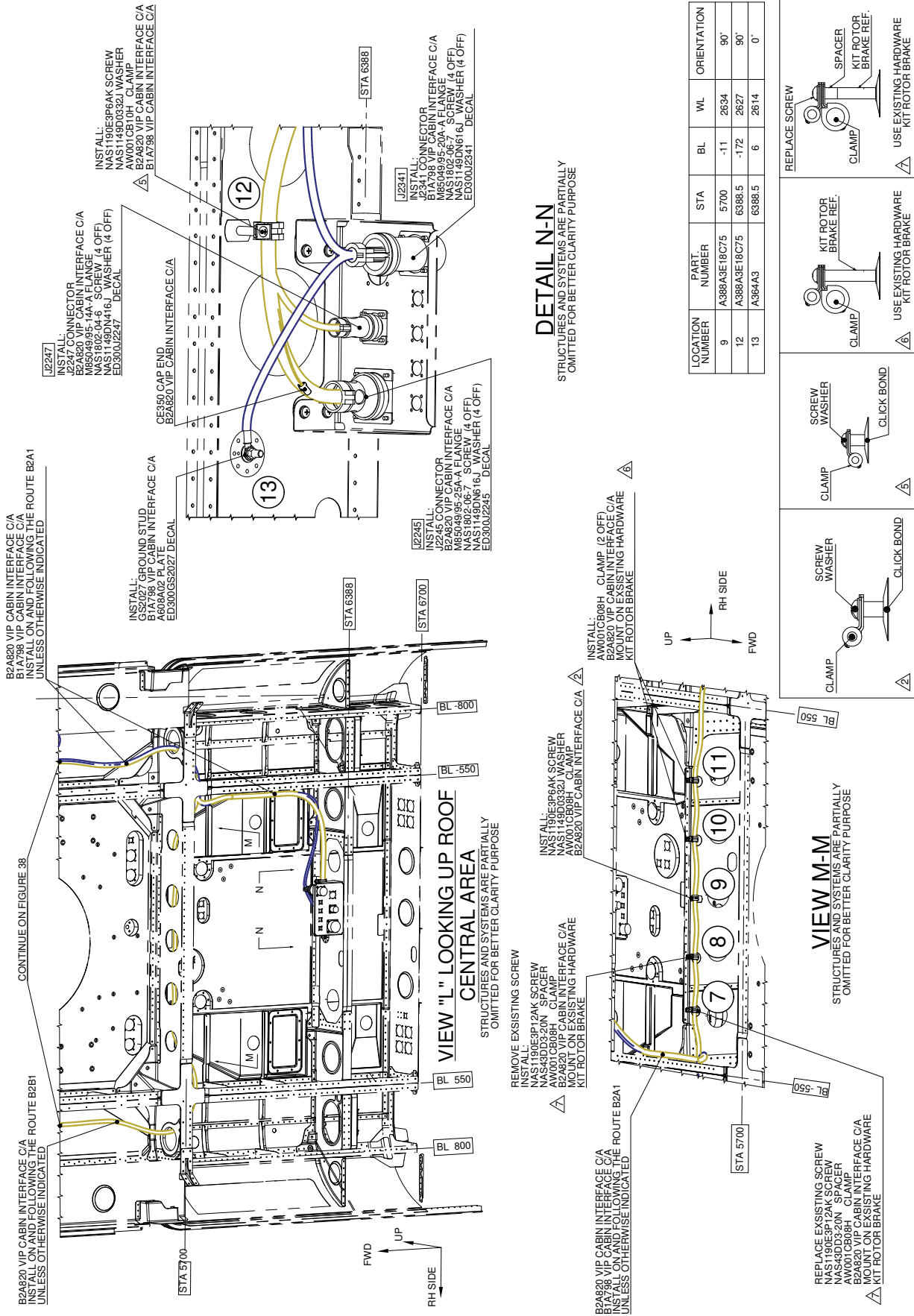






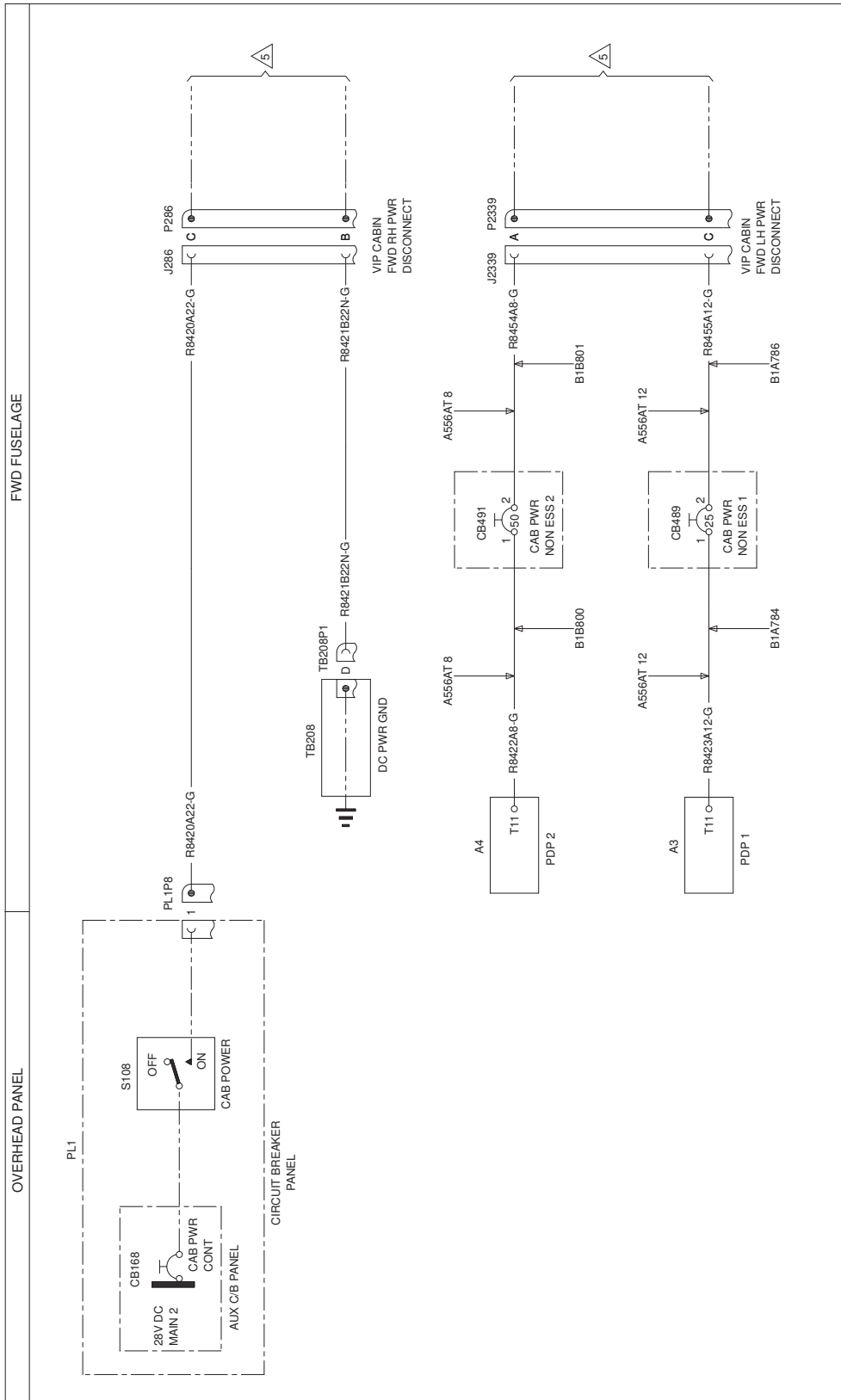
**Figure 39**

S.B. N°139-503  
DATE: November 17, 2021  
REVISION: /



**Figure 40**

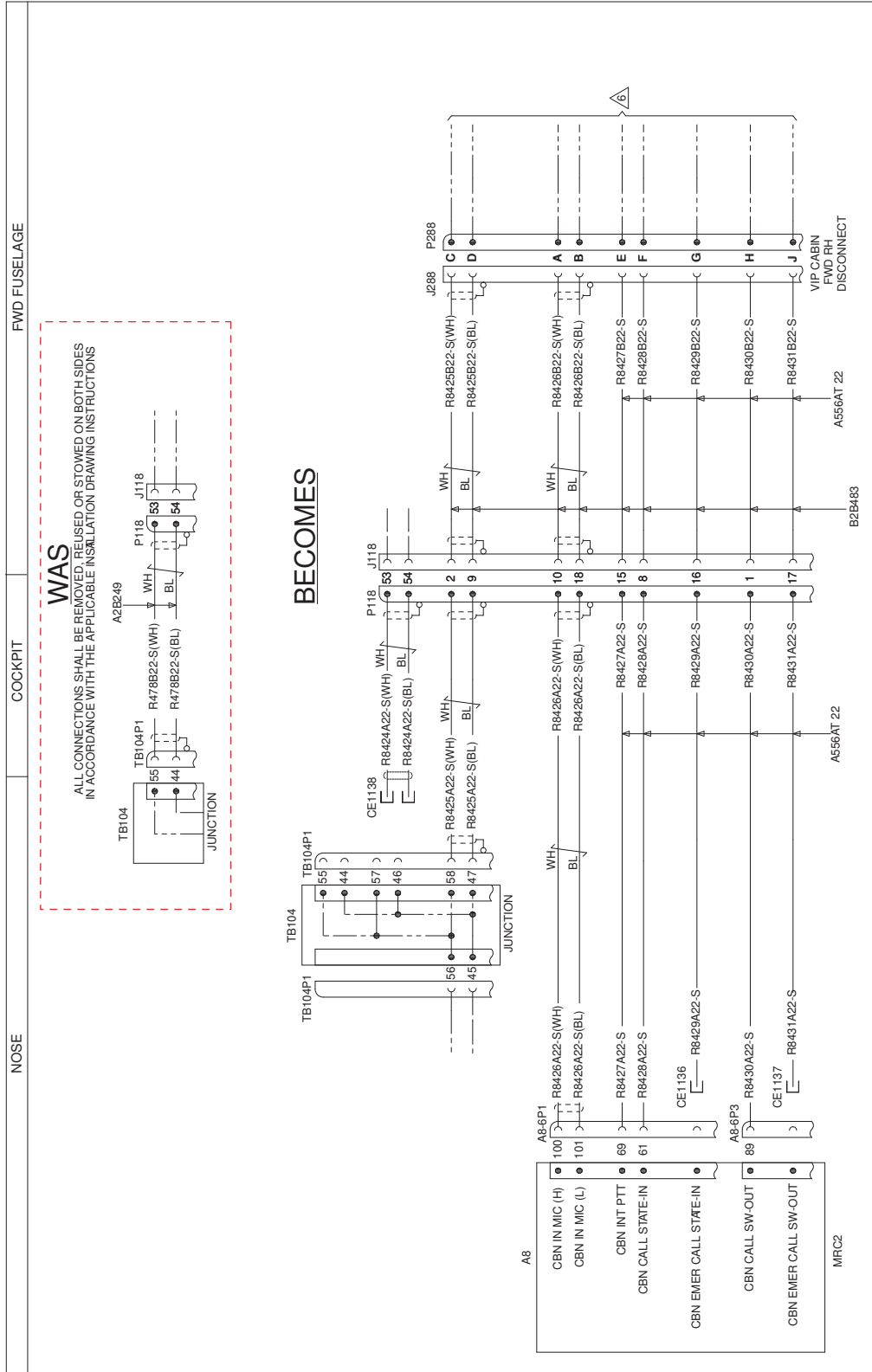
DRAWING REF KEY  
/5 SHEET NO. 5



3G2500W00711  
**WIRING DIAGRAM VIP CABIN INTERFACES**  
SHEET 1

FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM B1B708 UNLESS SPECIFIED  
ALL CABLES ARE OF TYPE A656AT 22 UNLESS SPECIFIED

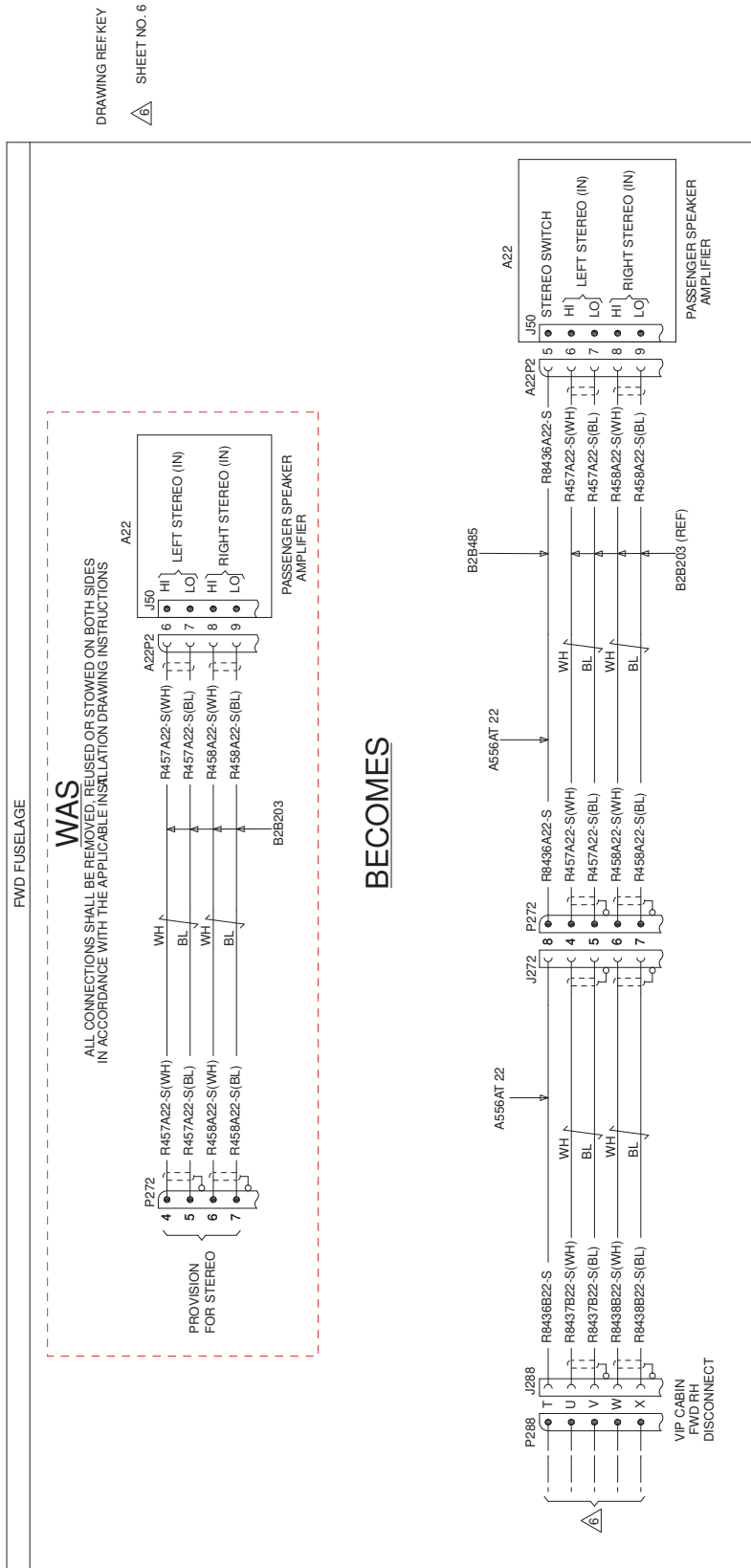
**Figure 41**



3G2500W00711  
WIRING DIAGRAM VIP CABIN INTERFACES  
SHEET 2

Figure 42





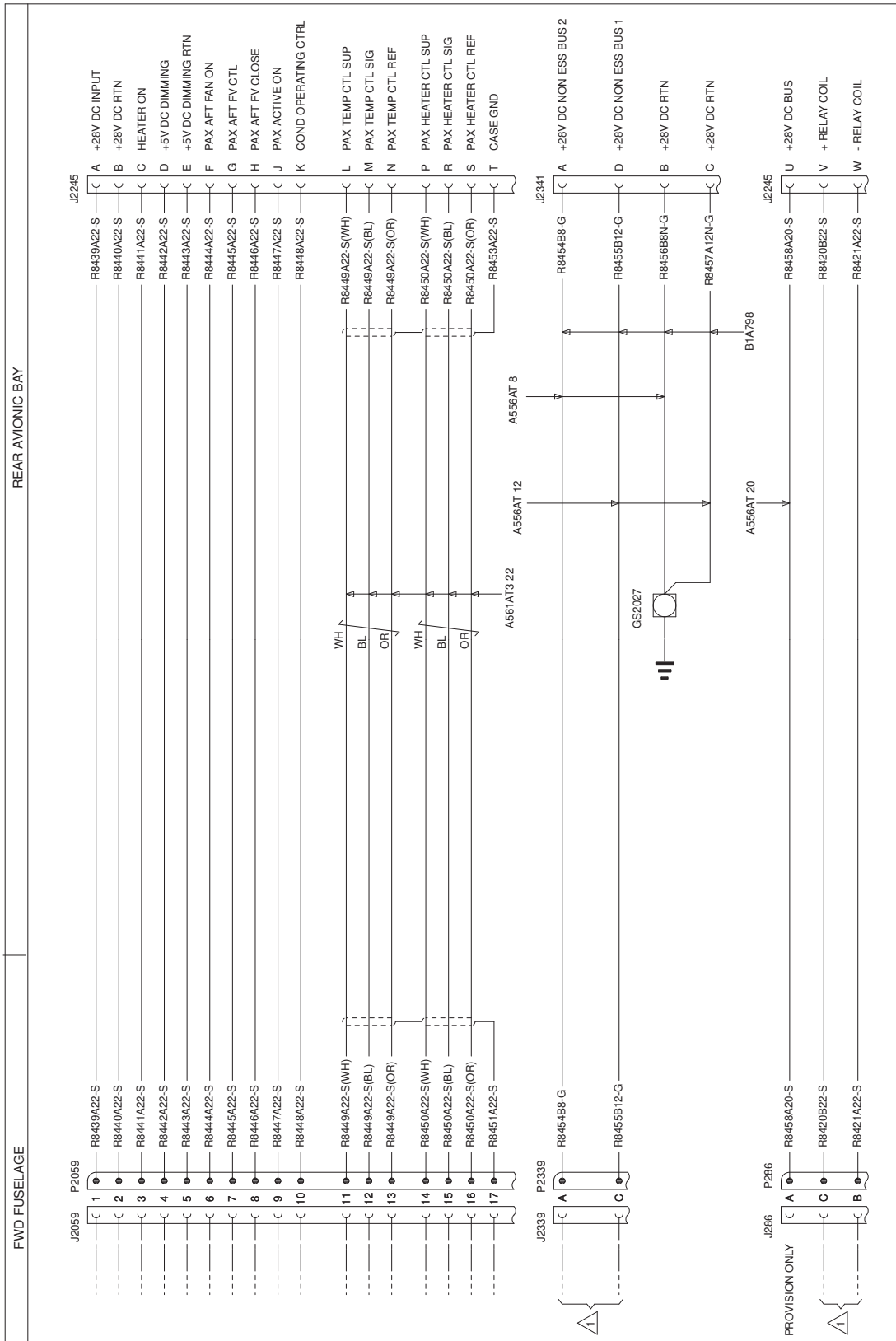
DRAWING REFKEY  
SHEET NO. 6

Figure 44

FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM B2B483 UNLESS SPECIFIED  
ALL CABLES ARE OF TYPE A561A2 22 UNLESS SPECIFIED

DRAWING REF. KEY

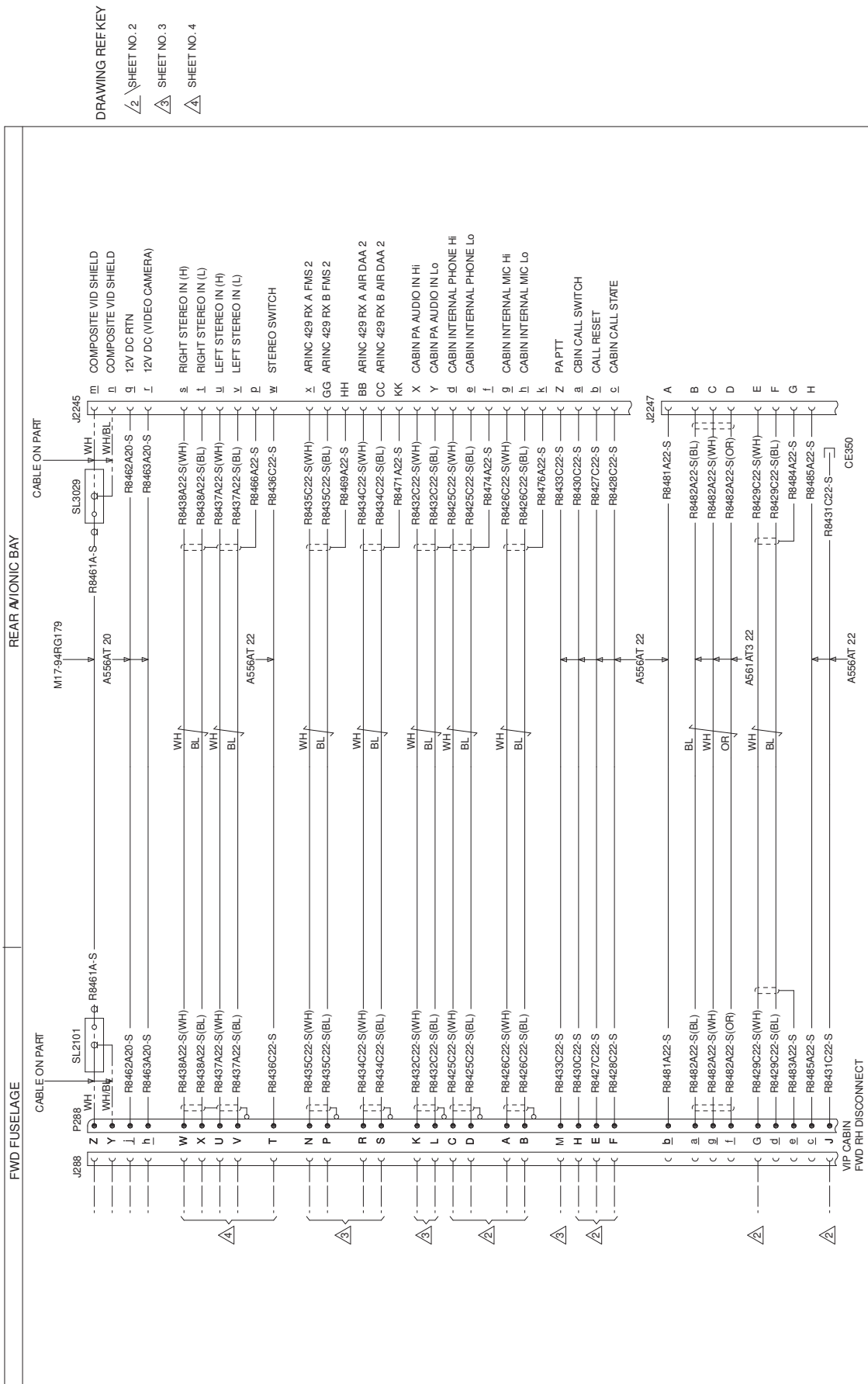
SHEET NO. 1



**3G2500W00711**  
**WIRING DIAGRAM VIP CABIN INTERFACES**  
SHEET 5

**FUNCTIONAL NOTES**  
ALL CABLES ARE IN LOOM B2A820 UNLESS SPECIFIED  
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

**Figure 45**



**3G2500W00711**  
**WIRING DIAGRAM VIP CABIN INTERFACES**  
SHEET 6

**FUNCTIONAL NOTES**  
 ALL CABLES ARE IN LOOM B2A820 UNLESS SPECIFIED  
 ALL CABLES ARE OF TYPE A561A22 UNLESS SPECIFIED

**Figure 46**



CONNECTOR	PIN	CABLE ID	WIRE P/N	COLOUR	WIRING DIAGRAM
A7-6P3	74	R4969A22-S	A561A-T2-22	WH	3G2350W02112
A7-6P3	75	R4969A22-S	A561A-T2-22	BL	3G2350W02112
A8-6P1	61	R4957A22-S	A556A-T22		3G2350W02112
A8-6P1	100	R4955A22-S	A561A-T2-22	WH	3G2350W02112
A8-6P1	101	R4955A22-S	A561A-T2-22	BL	3G2350W02112
A8-6P3	89	R4954A22-S	A556A-T22		3G2350W02112
J118	16	R4974C22-S	A561A-T2-22	WH	3G2350W02112
J118	17	R4974C22-S	A561A-T2-22	BL	3G2350W02112
P118	16	R4974B22-S	A561A-T2-22	WH	3G2350W02112
P118	17	R4974B22-S	A561A-T2-22	BL	3G2350W02112
P118	53	R4966A22-S	A561A-T2-22	WH	3G2350W02112
P118	54	R4966A22-S	A561A-T2-22	BL	3G2350W02112
TB122P1	119	R4968A22-S	A556A-T22		3G2350W02112

**Figure 47**

