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**SERVICE BULLETIN**

**N° 139-697**

**DATE:** November 22, 2022

**REV. :** /

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**TITLE**

**ATA 25 - KIT LIFE RAFTS 14 PAX P/N 4G2560F01011**

**REVISION LOG**

First Issue

## **1. PLANNING INFORMATION**

### **A. EFFECTIVITY**

All AW139 helicopters from S/N 31400 to S/N 31699, from S/N 41300 to S/N 41499, from S/N 31700 onwards and from S/N 41501 onwards.

### **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 installation of kit life rafts 14 pax (Aerazur) P/N 4G2560F01011.

### **E. DESCRIPTION**

This Service Bulletin is issued in order to perform the installation of kit life rafts 14 pax (Aerazur) P/N 4G2560F01011.

The life raft is the primary survival equipment for the people who are in a helicopter that have to perform a ditching.

The left and right CEL 14 PAX must be operated only in an emergency. There are two manual modes of operation:

- Through the activation handles in the cockpit;
- Through the activation handles in the front fairings of the containers.

The primary components of the life raft installation are:

- The left and right Collective Emergency Life Rafts (CEL) (14 PAX);
- The left and right front fairing;
- The left and right control cables.

The left CEL 14 PAX life raft is installed on the left helicopter sponson. The right CEL 14 PAX life raft is installed on the right helicopter sponson.

Each CEL includes a container, a raft assembly and an activation system.

The activation system is a handle connected to the inflation system through a steel cable and a quick-disconnect connector. The activation handle is installed on the front plate of the container.

The CEL 14 PAX life raft can usually hosts nine persons on board, but it can host five persons more if necessary (14 persons total).

Part I of this Service Bulletin allows the installation of the life raft complete provision P/N 3G2560A01712.

Part II of this Service Bulletin allows the installation of the life raft removable parts P/N 3G2560A05911.

**NOTE**

Kit life rafts 14 pax (Aerazur) P/N 4G2560F01011 is not compatible with kit box handling baggage compartment P/N 4G5340F00311.

**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 MMH are deemed necessary:

Part I: approximately sixty (60) MMH;

Part II: approximately twenty (20) MMH;

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

**H. WEIGHT AND BALANCE**

**PART I**

WEIGHT (kg)	ARM (mm)	MOMENT (kgmm)
		2.83
<b>LONGITUDINAL BALANCE</b>	3909	11062.47
<b>LATERAL BALANCE</b>	-15	-42.45

**PART II**

<b>WEIGHT (kg)</b>	<b>ARM (mm)</b>	<b>63</b>	<b>MOMENT (kgmm)</b>
<b>LONGITUDINAL BALANCE</b>	6231		392553
<b>LATERAL BALANCE</b>	0		0

**I. REFERENCES**

**1) PUBLICATIONS**

Following Data Modules refer to AMP:

<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	I, II
DM02 39-A-06-41-00-00A-010A-A	Access doors and panels - General data	I, II
DM03 39-D-25-62-03-00A-720A-K	Left life raft control cable - Install procedure	I
DM04 39-D-25-62-04-00A-720A-K	Right life raft control cable - Install procedure	I
DM05 39-D-25-62-01-00A-720A-K	Left life raft container - Install procedure	II
DM06 39-D-25-62-02-00A-720A-K	Right life raft container - Install procedure	II
DM07 39-D-25-62-06-00A-720A-K	Left front fairing - Install procedure	II
DM08 39-D-25-62-07-00A-720A-K	Right front fairing - Install procedure	II

**2) ACRONYMS & ABBREVIATIONS**

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AR	As Required
ATA	Air Transport Association
AVCS	Active Vibration Control System
CEL	Collective Emergency Life Rafts
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
EFS	Emergency Flotation System
IPD	Illustrated Parts Data
ITEP	Illustrated Tool and Equipment Publication
LH	Leonardo Helicopters

MMH Maintenance Man Hours  
N.A. Not Applicable  
P/N Part Number  
S/N Serial Number  
TCAS Traffic Alert and Collision Avoidance System

### **3) ANNEX**

Annex A AW139 - EFS and life rafts Functional Test Procedure  
Annex B Emergency Flotation System Acceptance Tests Report Form  
Annex C Collective Emergency life rafts Acceptance Tests Report Form

## **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
1	4G2560F01011		KIT LIFE RAFTS 14 PAX (AERAZUR)	REF	.		-
2	3G2560A01712		LIFE RAFTS COMPLETE PROVISION	REF	..		-
3	3G2560A01412		STRUCTURAL PROVISION FOR LIFE RAFT LH	REF	...		-
4	A900A3E2-03		Nut plate	2	....		139-697L1
5	3G2560A01512		STRUCTURAL PROVISION FOR LIFE RAFT RH	REF	...		-
6	A900A3E2-03		Nut plate	2	....		139-697L1
7	3G2560A07011		STRUCTURAL PROVISION FOR LH CABLE	REF	...		-
8	A366A3E16C75		Stud	1	....		139-697L1
9	A366A3E18C75		Stud	1	....		139-697L1
10	A409A001AL		Bracket	1	....		139-697L1
11	A423A3A8		Nut plate	3	....		139-697L1
12	MS20426AD3-7		Rivet	0.1 kg	....		139-697L1
13	MS20426AD4-7		Rivet	0.1 kg	....		139-697L1
14	MS21069L3		Nut plate	10	....		139-697L1
15	MS21266-1N		Grommet	1	....		139-697L1
16	MS35489-9		Grommet	1	....		139-697L1
17	NAS1832-3-3		Insert	1	....		139-697L1
18	NAS1832-3-4		Insert	4	....		139-697L1
19	3G2560A07111		LH CABLE INSTL	REF	...		-
20	3G2560A00552		Cover	1	....		139-697L1
21	3G2560V01031		Release life raft cable assy	1	....		139-697L1
22	A388A3E16C		Standoff	1	....	(1)	139-697L1
23	AN3-10A		Bolt	2	....		139-697L1
24	AN3-13A		Bolt	1	....		139-697L1
25	AN3-35A		Bolt	1	....		139-697L1
26	AN3-36A		Bolt	2	....		139-697L1
27	AN3-3A		Bolt	6	....		139-697L1
28	MS21042L3		Nut	5	....		139-697L1
29	MS21919WDG5	AS21919WDG05	Clamp	23	....		139-697L1
30	MS27039-1-08		Screw	2	....		139-697L1
31	MS27039-1-17		Screw	1	....	(1)	139-697L1
32	MS27039-1-30		Screw	1	....		139-697L1
33	MS27039-1-34		Screw	1	....		139-697L1
34	MS27039-1-38		Screw	3	....		139-697L1
35	MS27039-1-40		Screw	1	....		139-697L1
36	MS27039-1-52		Screw	3	....		139-697L1
37	MS9592-107		Bracket	2	....		139-697L1
38	NAS1149C0332R		Washer	6	....		139-697L1
39	NAS1149D0332J		Washer	24	....		139-697L1
40	NAS1801-3-21		Screw	1	....	(2)	139-697L1
41	NAS1802-3-38		Screw	2	....		139-697L1
42	NAS43DD3-100N		Spacer	1	....		139-697L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
43	NAS43DD3-107N		Spacer	1	....		139-697L1
44	NAS43DD3-126N		Spacer	3	....		139-697L1
45	NAS43DD3-140N		Spacer	1	....		139-697L1
46	NAS43DD3-176N		Spacer	3	....		139-697L1
47	NAS43DD3-216N		Spacer	3	....		139-697L1
48	NAS43DD3-30N		Spacer	3	....		139-697L1
49	NAS43DD3-34N		Spacer	2	....		139-697L1
50	NAS43DD3-36N		Spacer	1	....	(1)	139-697L1
51	NAS43DD3-40N		Spacer	1	....		139-697L1
52	NAS43DD3-44N		Spacer	1	....	(2)	139-697L1
53	NAS43DD3-64N		Spacer	1	....		139-697L1
<b>54</b>	<b>3G2560A07211</b>		<b>STRUCTURAL PROVISION FOR RH CABLE</b>	<b>REF</b>	<b>...</b>		<b>-</b>
55	A366A3E16C75		Stud	2	....		139-697L1
56	A366A3E18C75		Stud	1	....		139-697L1
57	A409A001AR		Bracket	1	....		139-697L1
58	A423A3A8		Nut plate	2	....		139-697L1
59	MS20426AD3-7		Rivet	0.1 kg	....		139-697L1
60	MS20426AD4-7		Rivet	0.1 kg	....		139-697L1
61	MS21069L3		Nut plate	9	....		139-697L1
62	MS21266-1N		Grommet	1	....		139-697L1
63	MS35489-9		Grommet	1	....		139-697L1
64	NAS1832-3-3		Insert	1	....		139-697L1
65	NAS1832-3-4		Insert	2	....		139-697L1
<b>66</b>	<b>3G2560A07311</b>		<b>RH CABLE INSTL</b>	<b>REF</b>	<b>...</b>		<b>-</b>
67	3G2560A00552		Cover	1	....		139-697L1
68	3G2560V01031		Release life raft cable assy	1	....		139-697L1
69	AN3-10A		Bolt	2	....		139-697L1
70	AN3-13A		Bolt	1	....		139-697L1
71	AN3-23A		Bolt	1	....		139-697L1
72	AN3-25A		Bolt	1	....		139-697L1
73	AN3-3A		Bolt	5	....		139-697L1
74	MS21042L3		Nut	6	....		139-697L1
75	MS21919WDG5	AS21919WDG05	Clamp	22	....		139-697L1
76	MS27039-1-08		Screw	2	....		139-697L1
77	MS27039-1-40		Screw	3	....		139-697L1
78	MS27039-1-42		Screw	2	....		139-697L1
79	MS27039-1-52		Screw	3	....		139-697L1
80	MS27039-1-56		Screw	1	....		139-697L1
81	MS9592-107		Bracket	2	....		139-697L1
82	NAS1149C0332R		Washer	6	....		139-697L1
83	NAS1149D0332J		Washer	22	....		139-697L1
84	NAS43DD3-122N		Spacer	1	....		139-697L1
85	NAS43DD3-140N		Spacer	3	....		139-697L1
86	NAS43DD3-174N		Spacer	1	....		139-697L1
87	NAS43DD3-176N		Spacer	1	....		139-697L1
88	NAS43DD3-188N		Spacer	1	....		139-697L1
89	NAS43DD3-197N		Spacer	1	....		139-697L1
90	NAS43DD3-20N		Spacer	1	....		139-697L1
91	NAS43DD3-30N		Spacer	3	....		139-697L1
92	NAS43DD3-40N		Spacer	1	....		139-697L1
93	NAS43DD3-55N		Spacer	1	....		139-697L1
94	NAS43DD3-64N		Spacer	1	....		139-697L1
95	NAS43DD3-92N		Spacer	2	....		139-697L1
96	NAS43DD3-100N		Spacer	1	....		139-697L1
97	MS27039-1-30		Screw	1	....		139-697L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
<b>98</b>	<b>3G2560P00811</b>		<b>LH CABLE INSTL VARIANT AVCS</b>	<b>REF</b>	...	<b>(3)</b>	-
99	AN3-10A		Bolt	1	....		139-697L2
100	AW001TL3A16T		Anchor nut	1	....		139-697L2
101	NAS43DD3-28N		Spacer	1	....		139-697L2
<b>102</b>	<b>3G2560P00911</b>		<b>RH CABLE INSTL VARIANT TCAS</b>	<b>REF</b>	...	<b>(4)</b>	-
103	A366A3E14C75		Stud	1	....		139-697L3
104	AS21919WDF05		Clamp	1	....		139-697L3
105	MS21042L3		Nut	1	....		139-697L3
106	NAS1149D0332J		Washer	1	....		139-697L3
107	NAS43DD3-20N		Spacer	1	....		139-697L3

## PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
<b>108</b>	<b>4G2560F01011</b>		<b>KIT LIFE RAFTS 14 PAX (AERAZUR)</b>	<b>REF</b>	.		-
<b>109</b>	<b>3G2560A05911</b>		<b>LIFE RAFT REMOVABLE PARTS</b>	<b>REF</b>	..		-
<b>110</b>	<b>3G1130A06611</b>		<b>LIFE RAFT LABEL INSTL</b>	<b>REF</b>	...		-
111	3G1130A06451		Life raft label RH	2	....		139-697L4
112	3G1130A06551		Life raft label LH	2	....		139-697L4
<b>113</b>	<b>3G2560A05811</b>		<b>LIFE RAFTS INSTALLATION</b>	<b>REF</b>	...		-
114	3G2560V00531		LH life raft assy	1	....		139-697L4
115	3G2560V00631		RH life raft assy	1	....		139-697L4
116	3G5260A29435	3G5260A29435A1	Fairing life raft assy FWD LH	1	....	(5)	139-697L4
117	3G5260A29535	3G5260A29535A1	Fairing life raft assy FWD RH	1	....	(5)	139-697L4
<b>118</b>	<b>3G5260P00611</b>		<b>SOFT COVER FAIRING LIFE RAFT RETRO MOD</b>	<b>REF</b>	....	<b>(6)</b>	-
119	3G5260L02332		Handle cover	2	....		139-697L5
120	A297A04TW04		Rivet	18	....		139-697L5
121	A428A3C04		Screw	2	....		139-697L5
122	A428A3C05		Screw	18	....		139-697L5
123	A428A3C08		Screw	6	....		139-697L5
124	AN525-10R10		Screw	10	....		139-697L5
125	AN525-10R12		Screw	4	....		139-697L5
126	NAS1149C0316R		Washer	12	....		139-697L5
127	NAS6703-10		Bolt	8	....		139-697L5
128	NAS6703-11		Bolt	4	....		139-697L5

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
129	199-05-107 TY I, CL 1	Adhesive EC1357 (C455)	AR	(7)	I
130	199-05-002 TY II, CL 2	Adhesive EA934NA AERO (C397)	AR	(7)	I
131	Code N. 999999999000001675	Adhesive CB200-40 (C356)	AR	(7)	I
132	MIL-PRF-16173 CL 1 & 2, GR 1	Tectyl 891D (C385)	AR	(7)	I



#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
133	199-05-152 TY I, CL 2	Adhesive RTV 732 (C126)	AR	(7)	II
134	AWMS05-001 TY I, CL B, GR 2	Sealant MC-780 (C465)	AR	(7)	II
135	Commercial	Carbon fiber G0801 7 1020 (C555)	AR	(7)	II
136	199-05-002 TY I, CL 2	Adhesive EA9309NA (C231)	AR	(7)	II
137	199-05-002 TY II, CL 3	Adhesive EA 956 AERO (C193)	AR	(7)	II
138	199-05-107 TY II, CL 5	Adhesive (C111)	AR	(7)	II
139	Commercial	Nylon thread	AR	(7)	II

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

### 3) LOGISTIC MATRIX

In order to apply this Service Bulletin, the following Logistic P/N can be ordered in accordance with the applicable notes:

LOGISTIC P/N	Q.TY (PER HELO)	NOTE	PART
139-697L1	1		
139-697L2	1	(3)	Part I
139-697L3	1	(4)	
139-697L4	1		
139-697L5	1	(6)	Part II

#### NOTE

- (1) Item required when vernier ice detector LH P/N 3G3080A01112 is installed on the helicopter.
- (2) Applicable only when cargo hook kit P/N 4G2592A00112 and bracket P/N 3G5316A69231 are installed on the helicopter.
- (3) Applicable only when kit AVCS P/N 4G1830F00411/4G1830F00412 or P/N 4G1830F00511/4G1830F00512 is in configuration on the helicopter.
- (4) Applicable only when TCAS II structural provision P/N 3G5310A89911 is in configuration on the helicopter.
- (5) These items can be supplied also as P/N 3G5260A29434 (or P/N 3G5260A29434A1) and P/N 3G5260A29534 (or P/N 3G5260A29534A1). In this case it is necessary to apply also the retromod P/N 3G5260P00611.
- (6) Applicable on fairing assy P/N 3G5260A29434 and P/N 3G5260A29534.  
The retro-mod application makes fairing assy an equivalent version to fairing life raft assy FWD LH P/N 3G5260A29435 and fairing life raft FWD RH P/N 3G5260A29535.
- (7) Item to be procured as local supply.

### B. SPECIAL TOOLS

Refer also 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 and plastic cable tiedown.
- 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 14, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation of the kit life rafts 14 pax (Aerazur) P/N 4G2560F01011.
3. With reference to Figures 1 thru 14 perform life rafts complete provision P/N 3G2560A01712 as described in the following procedure:

- 3.1 With reference to Figure 1, perform structural provision for life raft LH P/N 3G2560A01412 as described in the following procedure:
  - 3.1.1 With reference to Figure 1 Section B-B, drill the hole  $\varnothing 6.35$  thru the FWD left bracket assy P/N 3P5339A00534 in accordance with the dimensions shown.
  - 3.1.2 With reference to Figure 1 Section B-B, install the nut plate P/N A900A3E2-03 on the FWD left bracket assy P/N 3P5339A00534.
  - 3.1.3 With reference to Figure 1 Section A-A, drill the hole  $\varnothing 6.35$  thru the AFT left bracket assy P/N 3P5339A00734 and the LH AFT MLG fairing P/N 3G5339A01931 in accordance with the dimensions shown.
  - 3.1.4 With reference to Figure 1 Section A-A, install the nut plate P/N A900A3E2-03 on the AFT left bracket assy P/N 3P5339A00734.
- 3.2 With reference to Figure 2, perform structural provision for life raft RH P/N 3G2560A01512 as described in the following procedure:
  - 3.2.1 With reference to Figure 2 Section A-A, drill the hole  $\varnothing 6.35$  thru the FWD right MLG bracket assy P/N 3P5339A00634 in accordance with the dimensions shown.
  - 3.2.2 With reference to Figure 2 Section A-A, install the nut plate P/N A900A3E2-03 on the FWD right MLG bracket assy P/N 3P5339A00634.
  - 3.2.3 With reference to Figure 2 Section B-B, drill the hole  $\varnothing 6.35$  thru the AFT right MLG bracket assy P/N 3P5339A00834 and the RH AFT MLG fairing P/N 3G5339A01831 in accordance with the dimensions shown.
  - 3.2.4 With reference to Figure 2 Section B-B, install the nut plate P/N A900A3E2-03 on the AFT right MLG bracket assy P/N 3P5339A00834.
- 3.3 With reference to Figures 3 thru 5, perform structural provision for LH cable P/N 3G2560A07011 as described in the following procedure:
  - 3.3.1 With reference to Figure 3 View B, install the nut plate P/N A423A3A8 on the frame 3120 P/N 3P5331A10852 by means of n°2 rivets P/N MS20426AD4 in accordance with the dimensions shown.
  - 3.3.2 With reference to Figure 3 View D, install the nut plate P/N A423A3A8 on the frame 4803 P/N 3P5331A13552 by means of n°2 rivets P/N MS20426AD4 in accordance with the dimensions shown.
  - 3.3.3 With reference to Figure 3 Top View, drill the hole  $\varnothing 14.25 \div 14.38$  thru the rear lower panel P/N 3P5331A02232 (external skin and honeycomb) in accordance with the dimensions shown.

- 3.3.4 With reference to Figure 3 Top View, install the insert P/N NAS1832-3-3 on the rear lower panel P/N 3P5331A02232 by means of adhesive EA934NA (C397).
- 3.3.5 With reference to Figure 3 Top View and Section F-F, drill n°4 holes  $\varnothing 14.25 \div 14.38$  in accordance with the dimensions shown: n°2 holes thru the rear lower panel P/N 3P5331A02232 (external skin and honeycomb) and n°2 holes thru the FWD lower panel P/N 3P5331A02132 (external skin and honeycomb).
- 3.3.6 With reference to Figure 3 Top View and Section F-F, install n°4 inserts P/N NAS1832-3-4 by means of adhesive EA934NA (C397): n°2 inserts on the rear lower panel P/N 3P5331A02232 and n°2 inserts on the FWD lower panel P/N 3P5331A02132.

**NOTE**

Perform the following step 3.3.7 only if kit AVCS P/N 4G1830F00411/4G1830F00412 or kit AVCS P/N 4G1830F00511/4G1830F00512 is NOT installed.

- 3.3.7 With reference to Figure 4 View C, install the nut plate P/N A423A3A8 on the frame 3900 P/N 3P5331A12152 by means of n°2 rivets P/N MS20426AD4 in accordance with the dimensions shown.
- 3.3.8 With reference to Figure 4 View G, drill n°3 holes  $\varnothing 5.16 \div 5.28$  thru the structure P/N 3P5331A05332 in accordance with the dimensions shown.
- 3.3.9 With reference to Figure 4 View G, install n°3 nut plates P/N MS21069L3 on the structure P/N 3P5331A05332 by means of n°6 rivets P/N MS20426AD3.
- 3.3.10 With reference to Figure 4 View H, drill the hole  $\varnothing 5.16 \div 5.28$  thru the bracket P/N 3P5331A67451 in accordance with the dimensions shown.
- 3.3.11 With reference to Figure 4 View H, install the nut plate P/N MS21069L3 on the bracket P/N 3P5331A67451 by means of n°2 rivets P/N MS20426AD3.
- 3.3.12 With reference to Figure 4 View M, drill n°4 holes  $\varnothing 5.16 \div 5.28$  thru the LH longeron wall P/N 3P5331A14153 in accordance with the dimensions shown.
- 3.3.13 With reference to Figure 4 View M, install n°4 nut plates P/N MS21069L3 on the LH longeron wall P/N 3P5331A14153 by means of n°8 rivets P/N MS20426AD3.

- 3.3.14 With reference to Figure 3 Top View and Figure 5 Detail A, install the stud P/N A366A3E18C75 on the structure by means of adhesive CB200-40 (C356) in accordance with the dimensions shown.
- 3.3.15 With reference to Figure 5 Detail A and View L, install the stud P/N A366A3E16C75 on the structure P/N 3G5339A09032 by means of adhesive CB200-40 (C356) in accordance with the dimensions shown.
- 3.3.16 With reference to Figure 5 View E, remove the existing rivet from the connector LH P/N 3P5330A17151.
- 3.3.17 With reference to Figure 5 View E, install the bracket P/N A409A001AL on the connector LH P/N 3P5330A17151 by means of n°3 rivets P/N MS20426AD4. Use the existing hole of the previously removed rivet to fix the bracket.
- 3.3.18 With reference to Figure 5 View J, drill n°2 holes  $\varnothing 5.16 \pm 5.28$  thru the structure P/N 3P5331A25151 in accordance with the dimensions shown.
- 3.3.19 With reference to Figure 5 View J, install n°2 nut plates P/N MS21069L3 on the structure P/N 3P5331A25151 by means of n°4 rivets P/N MS20426AD3.
- 3.3.20 With reference to Figure 5 View J, drill the hole  $\varnothing 29.75 \pm 30.25$  thru the left wall P/N 3P5331A29152 in accordance with the dimensions shown.
- 3.3.21 With reference to Figure 5 View J, install the grommet P/N MS21266-1N by means of the adhesive EC1357 (C455) inside the previously performed hole of the left wall P/N 3P5331A29152.
- 3.3.22 With reference to Figure 5 View K, drill the hole  $\varnothing 14.30 \pm 14.80$  thru the electrical cover in accordance with the dimensions shown.
- 3.3.23 With reference to Figure 5 View K, install the grommet P/N MS35489-9 inside the previously performed hole of the electrical cover.

**NOTE**

Unless otherwise specified, in all level direct exposure zones and medium level indirect exposure zones, protect all removable fasteners that are not fully coated with polyurethane paint, using tectyl 891D (C385).

**NOTE**

With reference to Figure 9 Detail D, it is allowed to move the stud if necessary to adapt to the length of the cable.

- 3.4 With reference to Figures 9 and 10, perform LH cable instl P/N 3G2560A07111 as described in the following procedure:

- 3.4.1 With reference to Figure 10 View A, remove n°2 screws P/N NAS1802-3-21 in the indicated positions.

**NOTE**

Perform steps 3.4.2 and 3.4.3 if vernier ice detector LH P/N 3G3080A01112 is installed on the helicopter.

- 3.4.2 With reference to Figure 9 Detail C, remove the spacer P/N NAS43DD3-100N and the screw P/N MS27039-1-30.
- 3.4.3 With reference to Figure 9 Detail C, install the standoff P/N A388A3E16C in the indicated position by means of adhesive CB200-40 (C356).

**NOTE**

If kit AVCS P/N 4G1830F00411/4G1830F00412 or P/N 4G1830F00511/4G1830F00512 is installed on the helicopter, for installation of hardware on structure at STA 3900, perform step 3.7.4 instead of the corresponding step of the DM.

- 3.4.4 In accordance with AMP DM 39-D-25-62-03-00A-720A-K and with reference to Figures 9 and 10, install the release life raft cable assy P/N 3G2560V01031 and fixing hardware.

**NOTE**

Perform step 3.4.5 instead of the corresponding step of the AMP DM 39-D-25-62-03-00A-720A-K if cargo hook kit P/N 4G2592A00112 and bracket P/N 3G5316A69231 are installed on the helicopter.

- 3.4.5 With reference to Figure 9 Detail B, install the clamp P/N MS21919WDG5 on the release life raft cable assy by means of the spacer P/N NAS43DD3-44N, the screw P/N NAS1801-3-21 and the washer P/N NAS1149D0332J.
- 3.5 With reference to Figures 6 thru 8, perform structural provision for RH cable P/N 3G2560A07211 as described in the following procedure:
- 3.5.1 With reference to Figure 6 View B, install the nut plate P/N A423A3A8 on the frame 3120 P/N 3P5331A10951 by means of n°2 rivets P/N MS20426AD4 in accordance with the dimensions shown.
- 3.5.2 With reference to Figure 6 View C, install the nut plate P/N A423A3A8 on the frame 3900 P/N 3P5331A12252 by means of n°2 rivets P/N MS20426AD4 in accordance with the dimensions shown.

- 3.5.3 With reference to Figure 6 Top View, drill n°2 holes  $\varnothing 14.25 \div 14.38$  thru the FWD lower panel P/N 3P5331A02132 (external skin and honeycomb) in accordance with the dimensions shown.
- 3.5.4 With reference to Figure 6 Top View, install n°2 inserts P/N NAS1832-3-4 on the FWD lower panel P/N 3P5331A02132 by means of adhesive EA934NA (C397).
- 3.5.5 With reference to Figure 6 Top View and Section F-F, drill the hole  $\varnothing 14.25 \div 14.38$  thru the FWD lower panel P/N 3P5331A02132 (external skin and honeycomb) in accordance with the dimensions shown.
- 3.5.6 With reference to Figure 6 Top View and Section F-F, install the insert P/N NAS1832-3-3 on the FWD lower panel P/N 3P5331A02132 by means of adhesive EA934NA (C397).
- 3.5.7 With reference to Figure 7 View D, install the stud P/N A366A3E16C75 on the bracket P/N 3P5338A15951 by means of adhesive CB200-40 (C356) in accordance with the dimensions shown.
- 3.5.8 With reference to Figure 7 View G, drill n°2 holes  $\varnothing 5.16 \div 5.28$  thru the structure P/N 3P5331A28851 in accordance with the dimensions shown.
- 3.5.9 With reference to Figure 7 View G, install n°2 nut plates P/N MS21069L3 on the structure P/N 3P5331A28851 by means of n°4 rivets P/N MS20426AD3.
- 3.5.10 With reference to Figure 7 View H, drill the hole  $\varnothing 5.16 \div 5.28$  thru the bracket P/N 3G5260A05631 in accordance with the dimensions shown.
- 3.5.11 With reference to Figure 7 View H, install the nut plate P/N MS21069L3 on the bracket P/N 3G5260A05631 by means of n°2 rivets P/N MS20426AD3.
- 3.5.12 With reference to Figure 7 View L, drill n°4 holes  $\varnothing 5.16 \div 5.28$  thru the structure P/N 3P5331A16651 in accordance with the dimensions shown.
- 3.5.13 With reference to Figure 7 View L, install n°4 nut plates P/N MS21069L3 on the structure P/N 3P5331A16651 by means of n°8 rivets P/N MS20426AD3.
- 3.5.14 With reference to Figure 8 Detail A and View M, install the stud P/N A366A3E16C75 on the structure P/N 3G5339A09032 by means of adhesive CB200-40 (C356).
- 3.5.15 With reference to Figure 6 Top View and Figure 8 Detail A, install the stud P/N A366A3E18C75 on the structure by means of adhesive CB200-40 (C356) in accordance with the dimensions shown.



- 3.5.16 With reference to Figure 8 View E, remove the existing rivet from the connector RH.
- 3.5.17 With reference to Figure 8 View E, install the bracket P/N A409A001AR on the connector RH by means of n°3 rivets P/N MS20426AD4. Use the existing hole of the previously removed rivet to fix the bracket.
- 3.5.18 With reference to Figure 8 View J, drill n°2 holes Ø5.16÷5.28 thru the structure P/N 3P5331A25251 in accordance with the dimensions shown.
- 3.5.19 With reference to Figure 8 View J, install n°2 nut plates P/N MS21069L3 on the structure P/N 3P5331A25251 by means of n°4 rivets P/N MS20426AD3.
- 3.5.20 With reference to Figure 8 View J, drill the hole Ø29.75÷30.25 thru the right wall P/N 3P5331A29251 in accordance with the dimensions shown.
- 3.5.21 With reference to Figure 8 View J, install the grommet P/N MS21266-1N by means of the adhesive EC1357 (C455) inside the previously performed hole of the right wall P/N 3P5331A29251.
- 3.5.22 With reference to Figure 8 View K, drill the hole Ø14.30÷14.80 thru the electrical cover in accordance with the dimensions shown.
- 3.5.23 With reference to Figure 8 View K, install the grommet P/N MS35489-9 inside the previously performed hole of the electrical cover.

**NOTE**

Unless otherwise specified, in all level direct exposure zones and medium level indirect exposure zones, protect all removable fasteners that are not fully coated with polyurethane paint, using tectyl 891D (C385).

- 3.6 In accordance with AMP DM 39-D-25-62-04-00A-720A-K and with reference to Figures 11 and 12, perform RH cable instl P/N 3G2560A07311 and install the release life raft cable assy P/N 3G2560V01031 and fixing hardware.

**NOTE**

Perform the following step 3.7 only if kit AVCS P/N 4G1830F00411/4G1830F00412 or kit AVCS P/N 4G1830F00511/4G1830F00512 is installed on the helicopter.

- 3.7 With reference to Figure 13, perform LH cable instl variant AVCS P/N 3G2560P00811 as described in the following procedure:
  - 3.7.1 With reference to Figure 13 Detail A, remove and retain for later reuse the clamp P/N MS21919WDG5, the spacer P/N NAS43DD3-107N, the

screw P/N MS27039-1-34 and the washer P/N NAS1149D0332J from the release life raft cable assy.

- 3.7.2 With reference to Figure 13 View B, View D and Section F-F, re-install in the indicated orientation the clamp P/N MS21919WDG5 on the release life raft cable assy by means of the spacer P/N NAS43DD3-107N, the screw P/N MS27039-1-34 and the washer P/N NAS1149D0332J previously removed.
- 3.7.3 With reference to Figure 13 View C and Section E-E, install the anchor nut P/N AW001TL3A16T by means of adhesive CB200-40 (C356) on the left frame assy STA 3900 in accordance with the dimensions shown.

**NOTE**

Clamp and washer installed are parts of LH cable instl P/N 3G2560A07111.

- 3.7.4 With reference to Figure 13 View B and Section E-E, install the clamp P/N MS21919WDG5 on the release life raft cable assy by means of the bolt P/N AN3-10A, the spacer P/N NAS43DD3-28N and the washer P/N NAS1149D0332J.

**NOTE**

Perform step 3.8 if TCAS II structural provision P/N 3G5310A89911 is installed on the helicopter.

- 3.8 With reference to Figure 14, perform RH cable instl variant TCAS II P/N 3G2560P00911 as described in the following procedure:
  - 3.8.1 With reference to Figure 14 View A and Section B-B, install the stud P/N A366A3E14C75 by means of adhesive CB200-40 (C356) in accordance with the dimensions shown.
  - 3.8.2 With reference to Figure 14 View A and Section C-C, install the clamp P/N AS21919WDF05 on the release life raft cable assy by means of the spacer P/N NAS43DD3-20N, the nut P/N MS21042L3 and the washer P/N NAS1149D0332J.

- 4. In accordance with the applicable parts of Annex A, perform the AW139 - Life Rafts Functional Test Procedure.

**NOTE**

Perform steps 5 thru 8 only if Part II of the present Service Bulletin is not intended to be performed immediately after Part I.

- 5. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, re-install all external panels,

internal panels and internal liners previously removed.

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

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

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

## PART II

### NOTE

Perform steps 1 and 2 only if Part II of the present Service Bulletin is not performed immediately after 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 15 thru 19, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation of the kit life rafts 14 pax (Aerazur) P/N 4G2560F01011.
3. With reference to Figures 15 thru 19 perform the life rafts removable parts P/N 3G2560A05911 as described in the following procedure:
  - 3.1 With reference to Figure 15, perform life raft label instl P/N 3G1130A06611 as described in the following procedure:

### NOTE

The colour of thread used shall match the background colour of the decal.

- 3.1.1 With reference to Figure 15 Section A-A, install n°2 life raft labels LH P/N 3G1130A06551 in the indicated positions on the soft liner. Sew decals all around with commercial nylon thread.

### NOTE

The colour of thread used shall match the background colour of the decal.

- 3.1.1 With reference to Figure 15 Section B-B, install n°2 life raft labels RH P/N 3G1130A06451 in the indicated positions on the soft liner. Sew decals all around with commercial nylon thread.
  - 3.2 With reference to Figures 16 thru 19, perform life rafts installation P/N 3G2560A05811 as described in the following procedure:
    - 3.2.1 With reference to Figure 16 Front View, remove MLG FWD left fairing P/N 3G5339A00754 (or successive dashes) and the MLG FWD right fairing P/N 3G5339A00654 (or successive dashes). Discard fixing hardware.

- 3.2.2 With reference to Figure 16 Section B-B and Figure 17 Section C-C, remove existing fasteners from the indicated positions on the left and right sponsons.

**NOTE**

Perform the following step 3.2.3 only if fairing life raft assy FWD LH P/N 3G5260A29434 and fairing life raft assy FWD RH P/N 3G5260A29534 are provided.

- 3.2.3 With reference to Figures 18 and 19, perform soft cover fairing life raft retro mod P/N 3G5260P00611 as described in the following procedure:
- 3.2.3.1 With reference to Figure 18 View A, remove n°2 existing rivet P/N MS20426AD6-7 from the fairing life raft assy FWD LH P/N 3G5260A29434.
  - 3.2.3.2 With reference to Figure 18 View A, fill and plug the two existing holes with adhesive EA 956 AERO (C193).
  - 3.2.3.3 With reference to Figure 18 View A, apply n°2 plies of carbon fiber G0801 7 1020 (C555): n°1 ply on external surface and n°1 ply on internal surface of the fairing life raft assy FWD LH P/N 3G5260A29434. Bond with adhesive EA9309NA (C231).
  - 3.2.3.4 With reference to Figure 18 View A and View B, remove the cover assy LH P/N 3G5260A36432 and fixing hardware (n°9 rivets P/N MS20470A3-4 and n°9 washers P/N NAS1149CN216R) from the fairing life raft assy FWD LH P/N 3G5260A29434. Clean the surface.
  - 3.2.3.5 With reference to Figure 19 View C, Section D-D and View E, interpose adhesive (C111) between the handle cover P/N 3G5260L02332 and the fairing life raft assy FWD LH P/N 3G5260A29434 and locate the handle cover in the indicated position.

**NOTE**

Relate the cover to existing holes of the rivets previously removed.

- 3.2.3.6 With reference to Figure 19 View C, Section D-D and View E, install the handle cover P/N 3G5260L02332 on the fairing life raft assy FWD LH P/N 3G5260A29434 by means of n°9 rivets P/N A297A04TW04. Fill all around with sealant MC-780 (C465).

3.2.3.7 Repeat steps 3.2.3.1 thru 3.2.3.6 on the fairing life assy FWD RH P/N 3G5260A29534 to:

- remove the cover assy RH P/N 3G5260A36532 and install the handle cover P/N 3G5260L02332;
- remove n°2 rivets MS20426AD6-7 and fill existing holes.

**NOTE**

If necessary, rework spacer thickness in accordance with the existing gap between the life raft and the fairing.

3.2.4 With reference to Figure 16 Section B-B and Figure 17 Section C-C, interpose a layer of silicone adhesive between the teflon spacer and the structure of the left sponson. Use adhesive RTV 732 (C126).

3.2.5 With reference to Figures 16 and 17 and in accordance with the applicable steps of AMP DM 39-D-25-62-01-00A-720A-K, install the LH life raft assy P/N 3G2560V00531 on the left sponson by means of n°2 bolts P/N NAS6703-11, n°4 bolts P/N NAS6703-10 and n°6 washers P/N NAS1149C0316R.

3.2.6 With reference to Figure 16 Section B-B, temporary locate the fairing life raft assy FWD LH P/N 3G5260A29434 or P/N 3G5260A29435 in position on the left sponson and enlarge pilot holes up to  $\varnothing 5.512 \pm 5.639$  in accordance with the existing holes on the structure.

3.2.7 With reference to Figure 16 Section B-B, prepare the surface for bonding in the indicated position.

3.2.8 With reference to Figure 16 Front View and Section B-B and in accordance with AMP DM 39-D-25-62-06-00A-720A-K, install the fairing life raft assy FWD LH P/N 3G5260A29434 or P/N 3G5260A29435 on the LH life raft assy P/N 3G2560V00531 by means of n°1 screw P/N A428A3C04, n°9 screws P/N A428A3C05, n°3 screws P/N A428A3C08, n°5 screws P/N AN525-10R10 and n°2 screws P/N AN525-10R12.

**NOTE**

If necessary, rework spacer thickness in accordance with the existing gap between the life raft and the fairing.

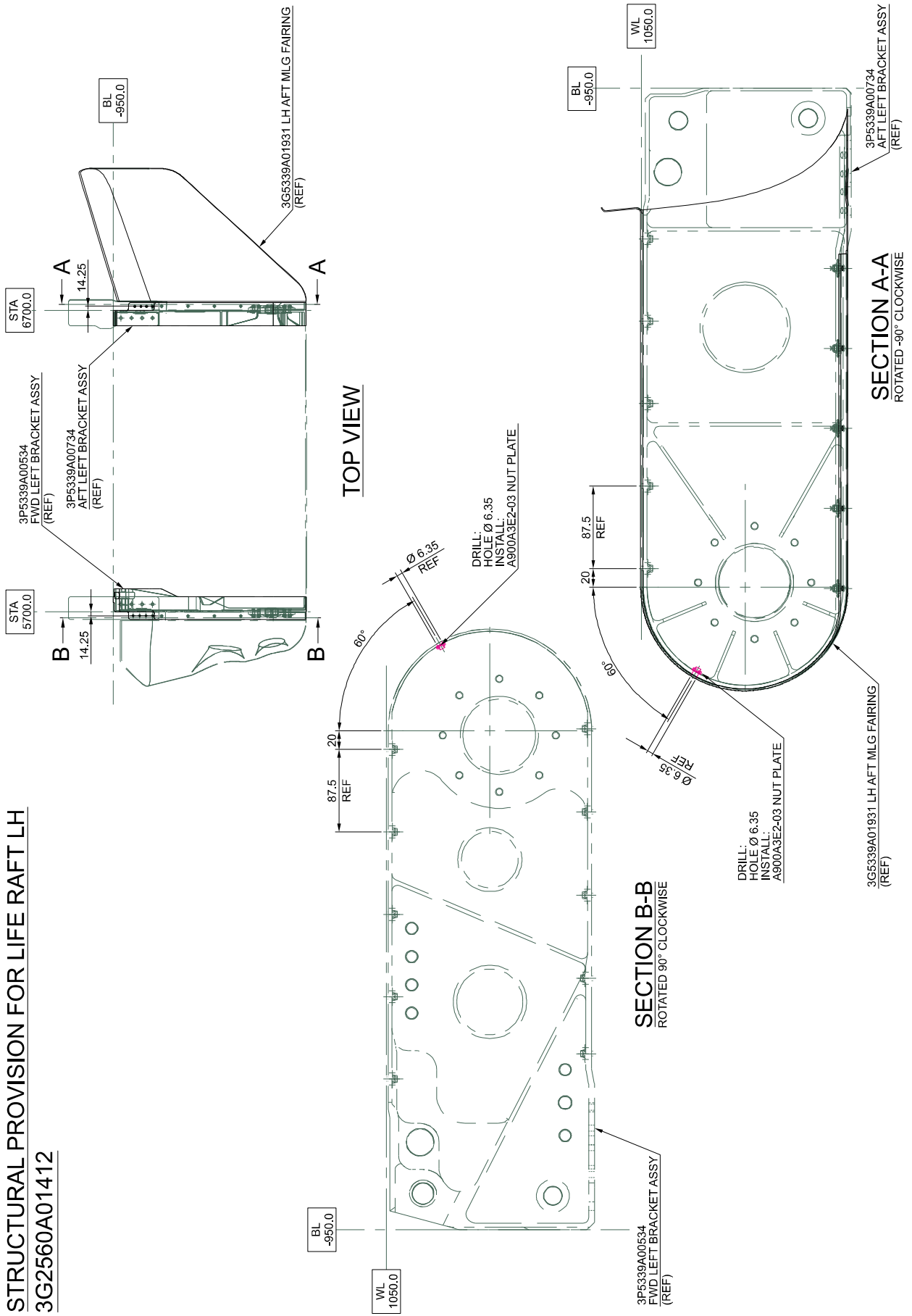
3.2.9 With reference to Figure 16 Section B-B and Figure 17 Section C-C, interpose a layer of silicone adhesive between the teflon spacer and the structure of the right sponson. Use adhesive RTV 732 (C126).

- 3.2.10 With reference to Figures 16 and 17 and in accordance with the applicable steps of AMP DM 39-D-25-62-02-00A-720A-K, install the RH life raft assy P/N 3G2560V00631 on the right sponson by means of n°2 bolts P/N NAS6703-11, n°4 bolts P/N NAS6703-10 and n°6 washers P/N NAS1149C0316R.
  - 3.2.11 With reference to Figure 16 Section B-B, temporary locate the fairing life raft assy FWD RH P/N 3G5260A29534 or P/N 3G5260A29535 in position on the right sponson and enlarge pilot holes up to  $\varnothing 5.512 \pm 5.639$  in accordance with the existing holes on the structure.
  - 3.2.12 With reference to Figure 16 Section B-B, prepare the surface for bonding in the indicated position.
  - 3.2.13 With reference to Figure 16 Front View and Section B-B and in accordance with AMP DM, install the fairing life raft assy FWD RH P/N 3G5260A29534 or P/N 3G5260A29535 on the RH life raft assy P/N 3G2560V00631 by means of n°1 screw P/N A428A3C04, n°9 screws P/N A428A3C05, n°3 screws P/N A428A3C08, n°5 screws P/N AN525-10R10 and n°2 screws P/N AN525-10R12.
4. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, re-install all external panels, internal panels and internal liners previously removed.
  5. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
  6. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.
  7. Send the attached compliance form to the following mail box:

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

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

**STRUCTURAL PROVISION FOR LIFE RAFT LH**  
**3G2560A01412**

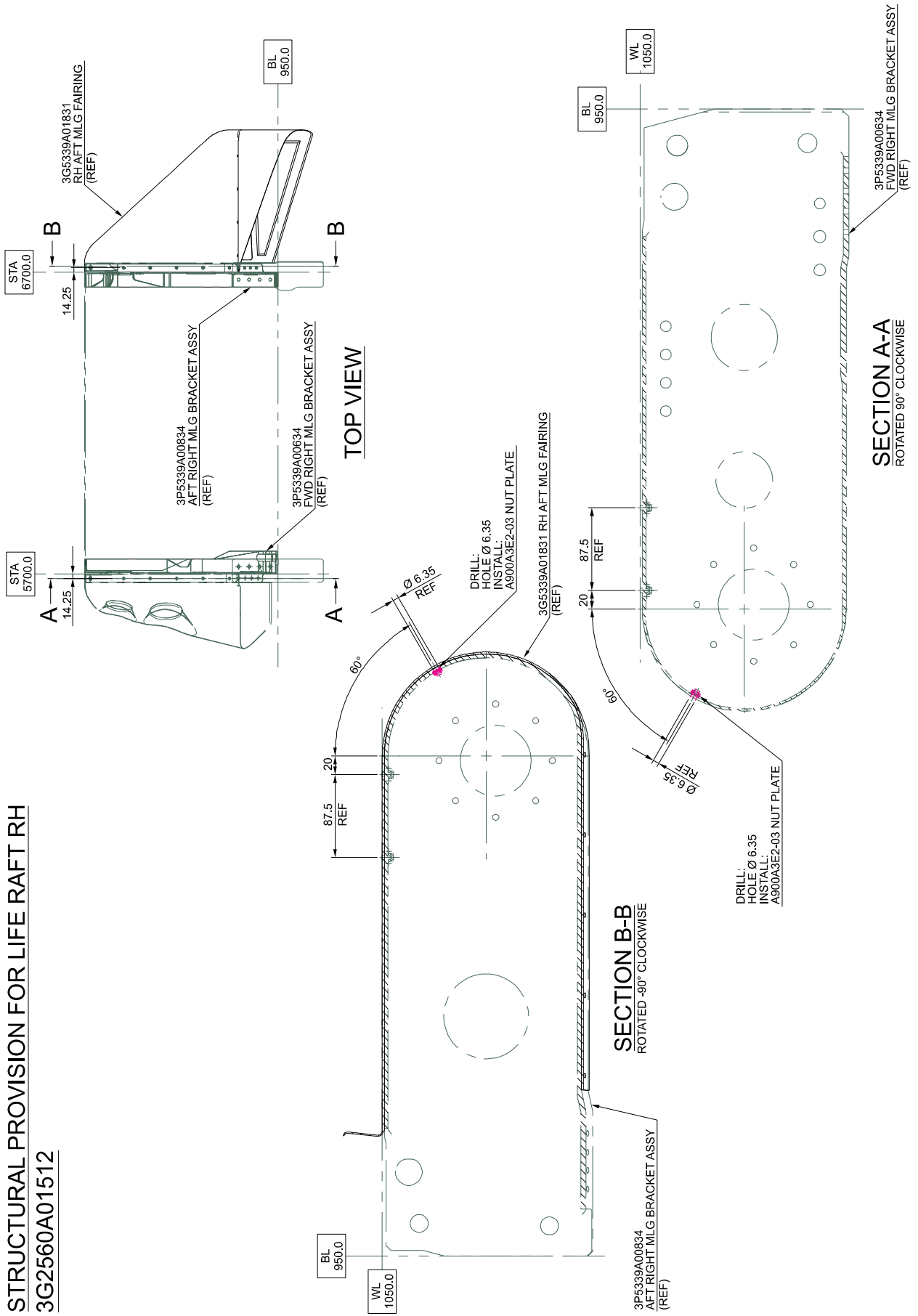


**Figure 1**

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REVISION: /

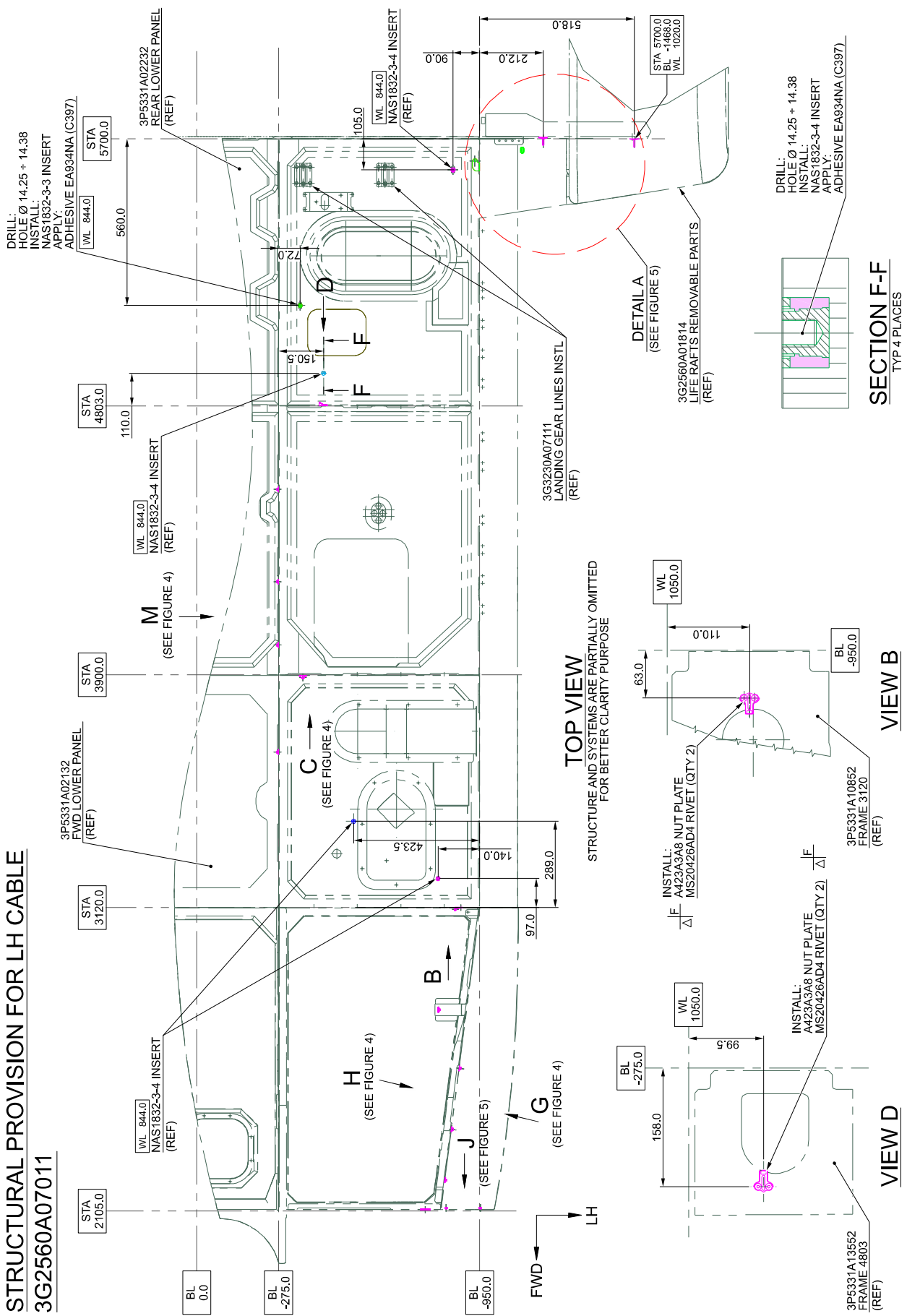


**STRUCTURAL PROVISION FOR LIFE RAFT RH**  
**3G2560A01512**

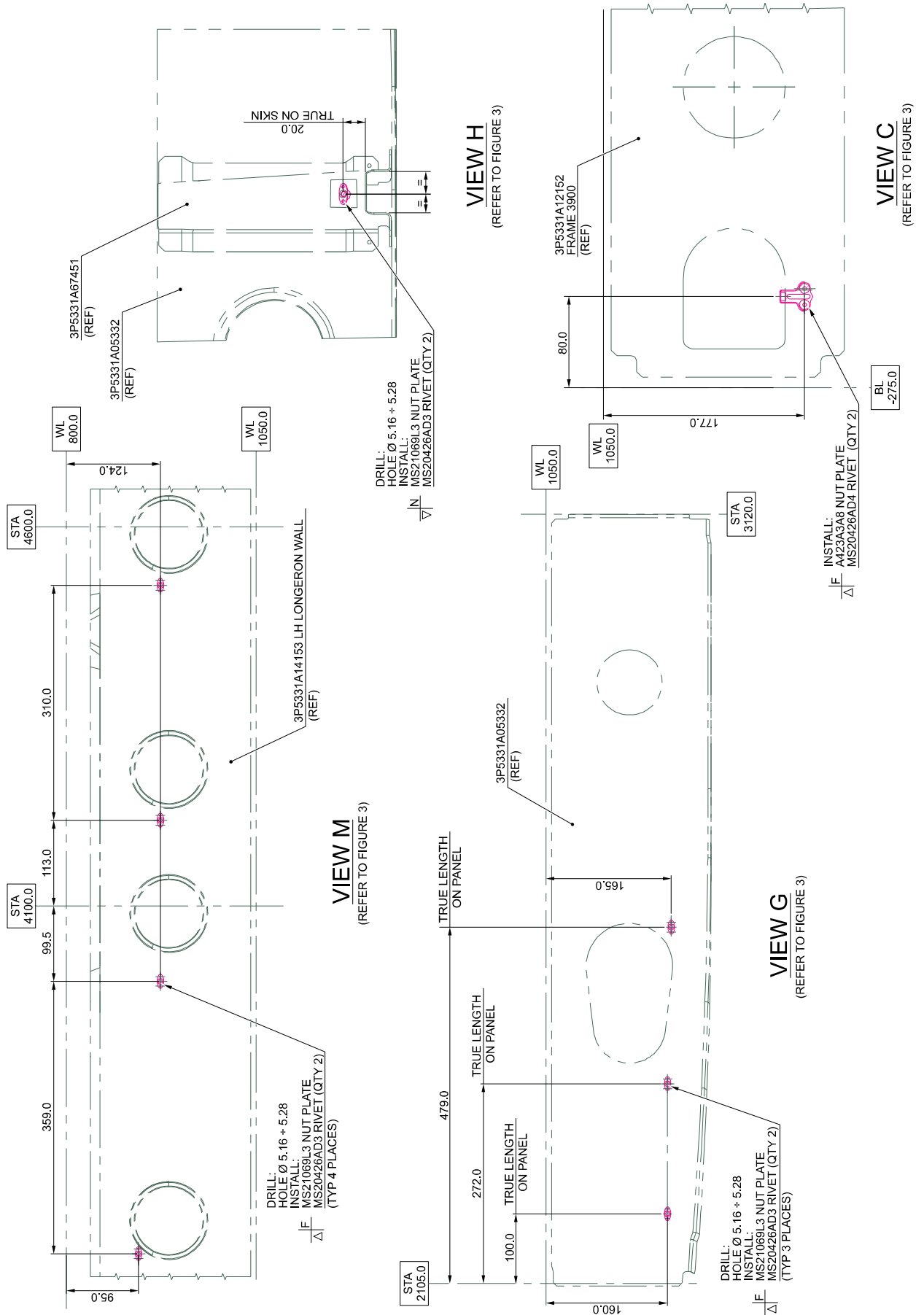


**Figure 2**

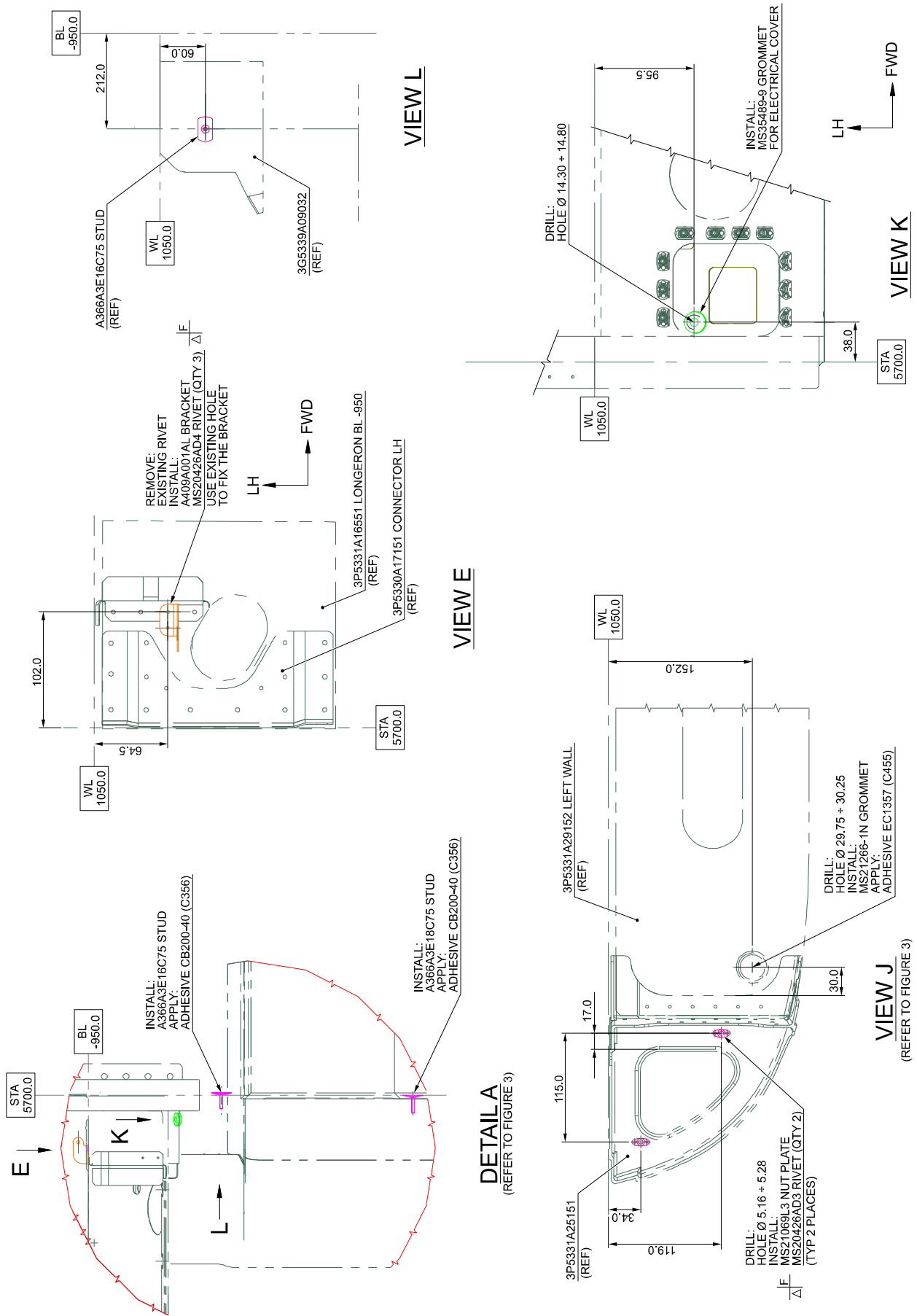
**STRUCTURAL PROVISION FOR LH CABLE**  
**3G2560A07011**



**Figure 3**

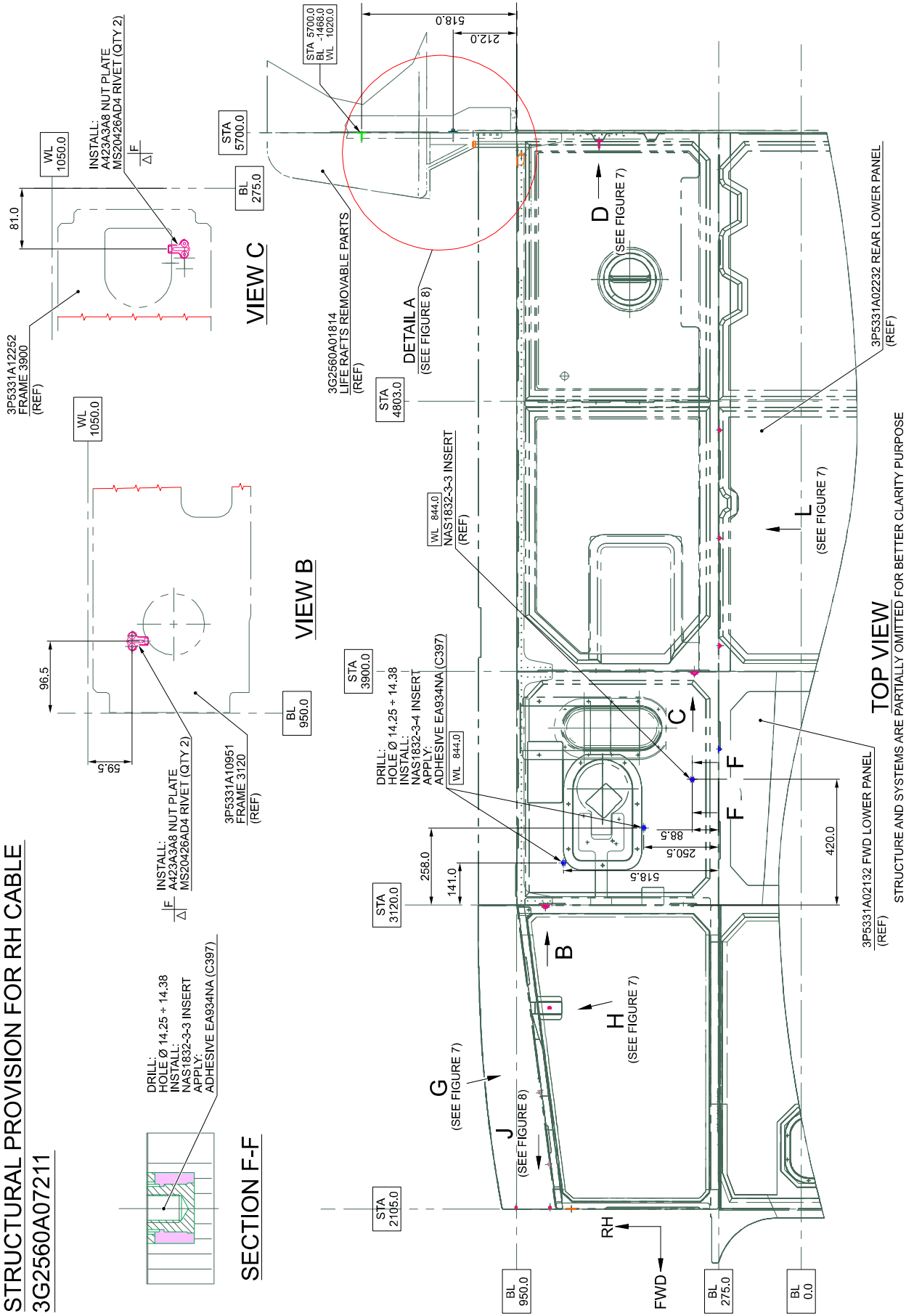


**Figure 4**

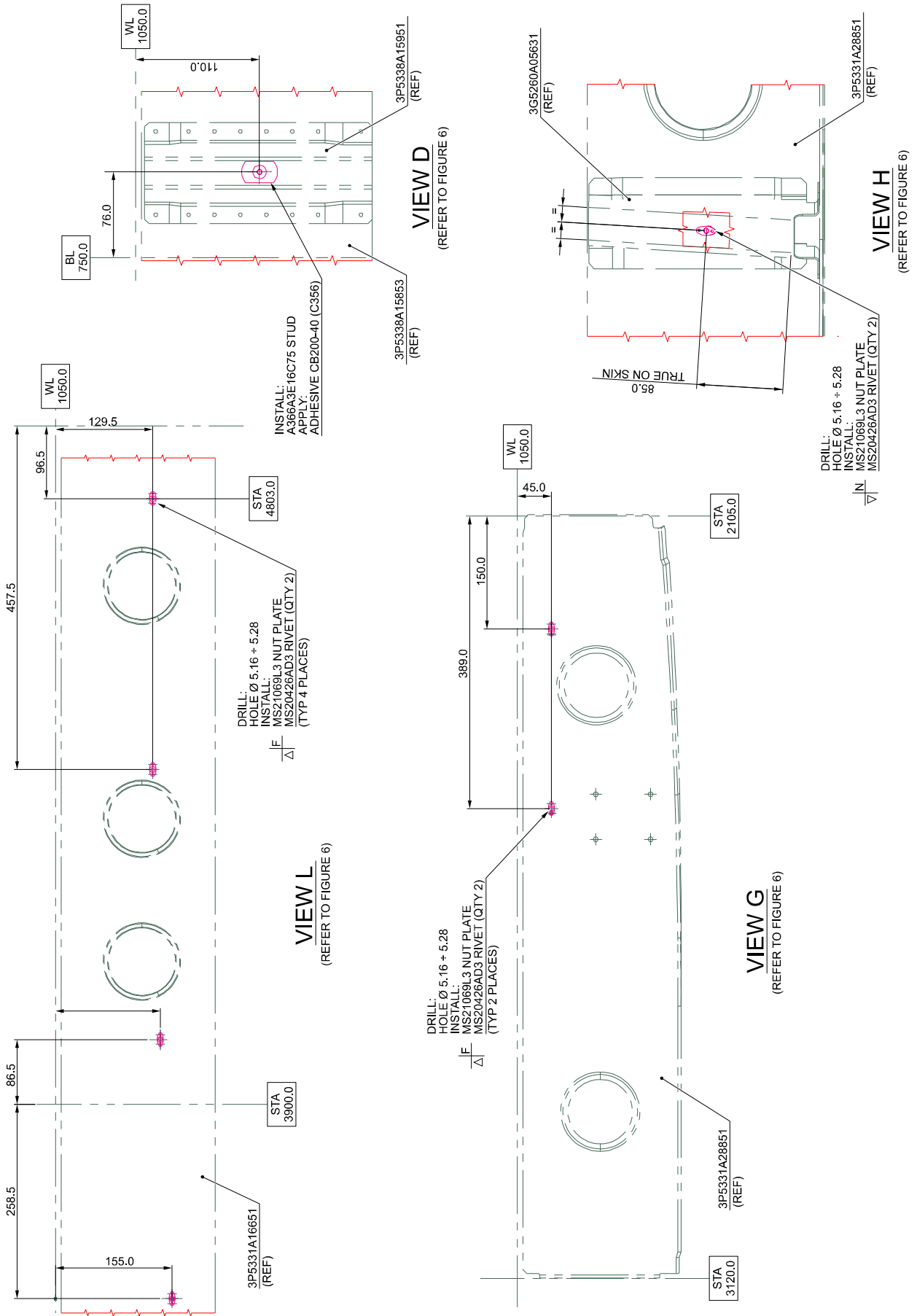


**Figure 5**

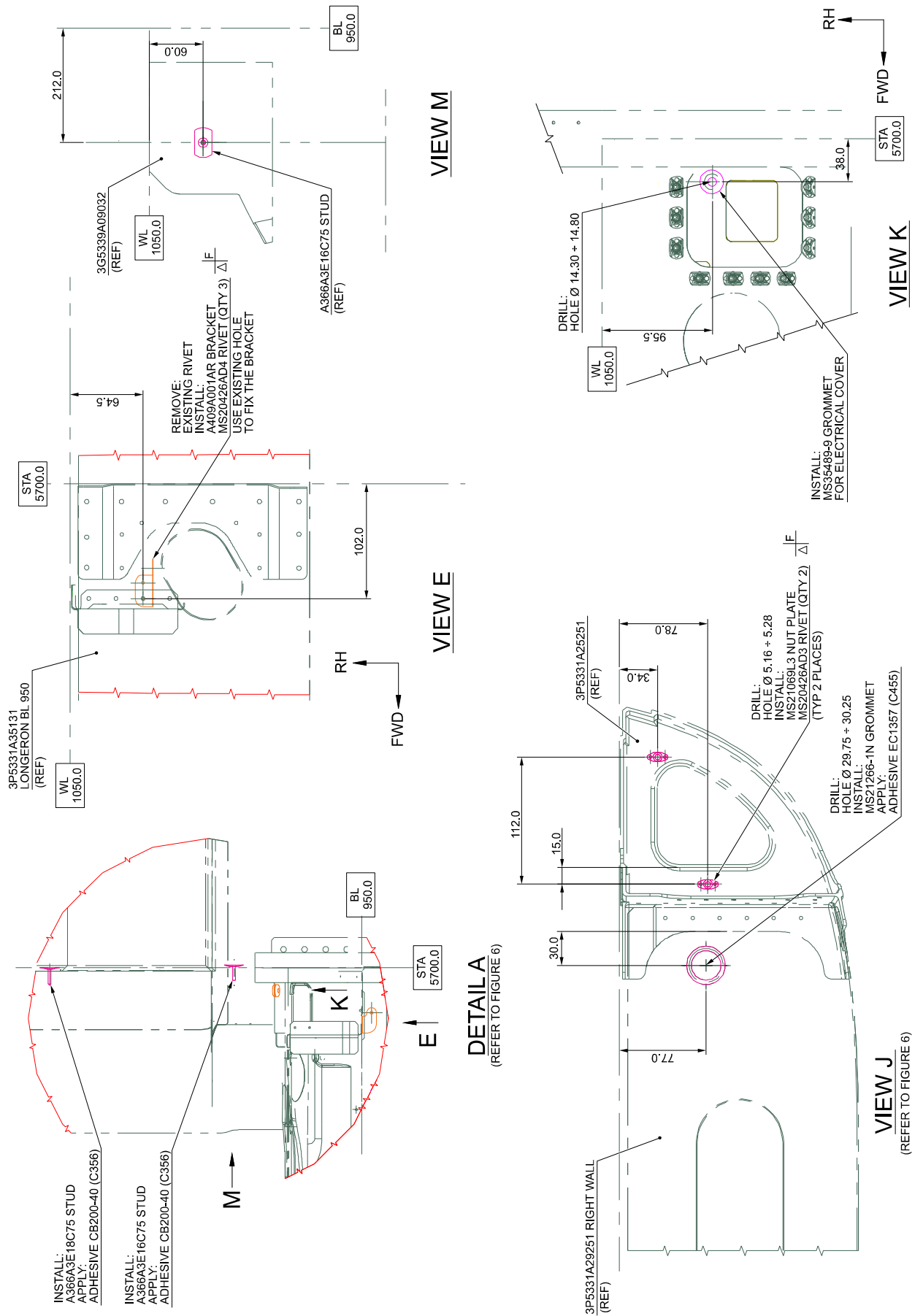
**STRUCTURAL PROVISION FOR RH CABLE**  
**3G2560A07211**



**Figure 6**

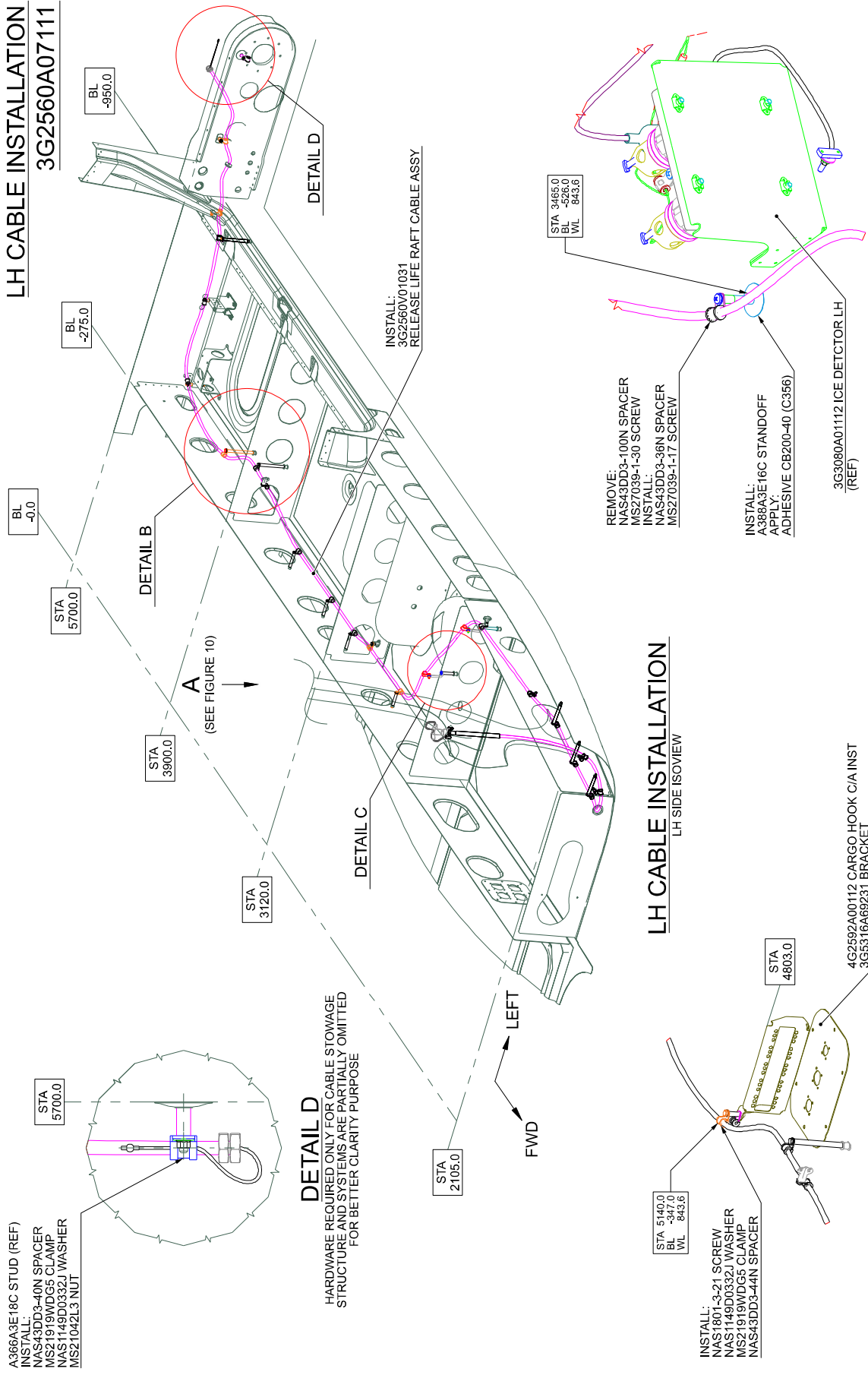


**Figure 7**

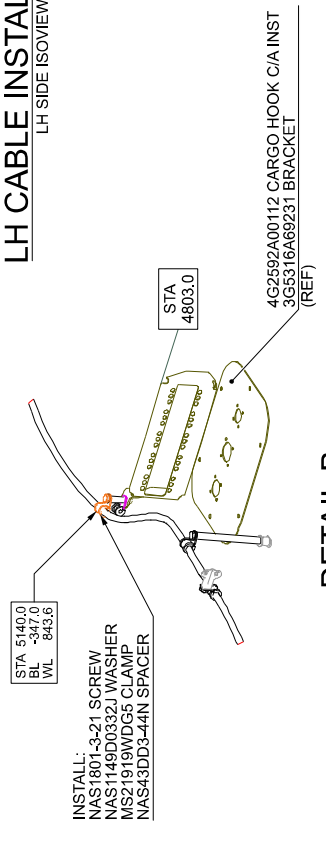


**Figure 8**

**LH CABLE INSTALLATION**  
**3G2560A07111**



**LH CABLE INSTALLATION**  
LH SIDE ISOVIEW

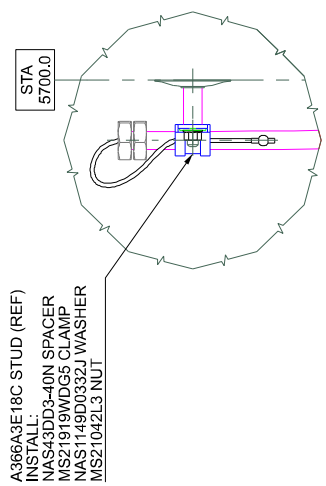


**Figure 9**

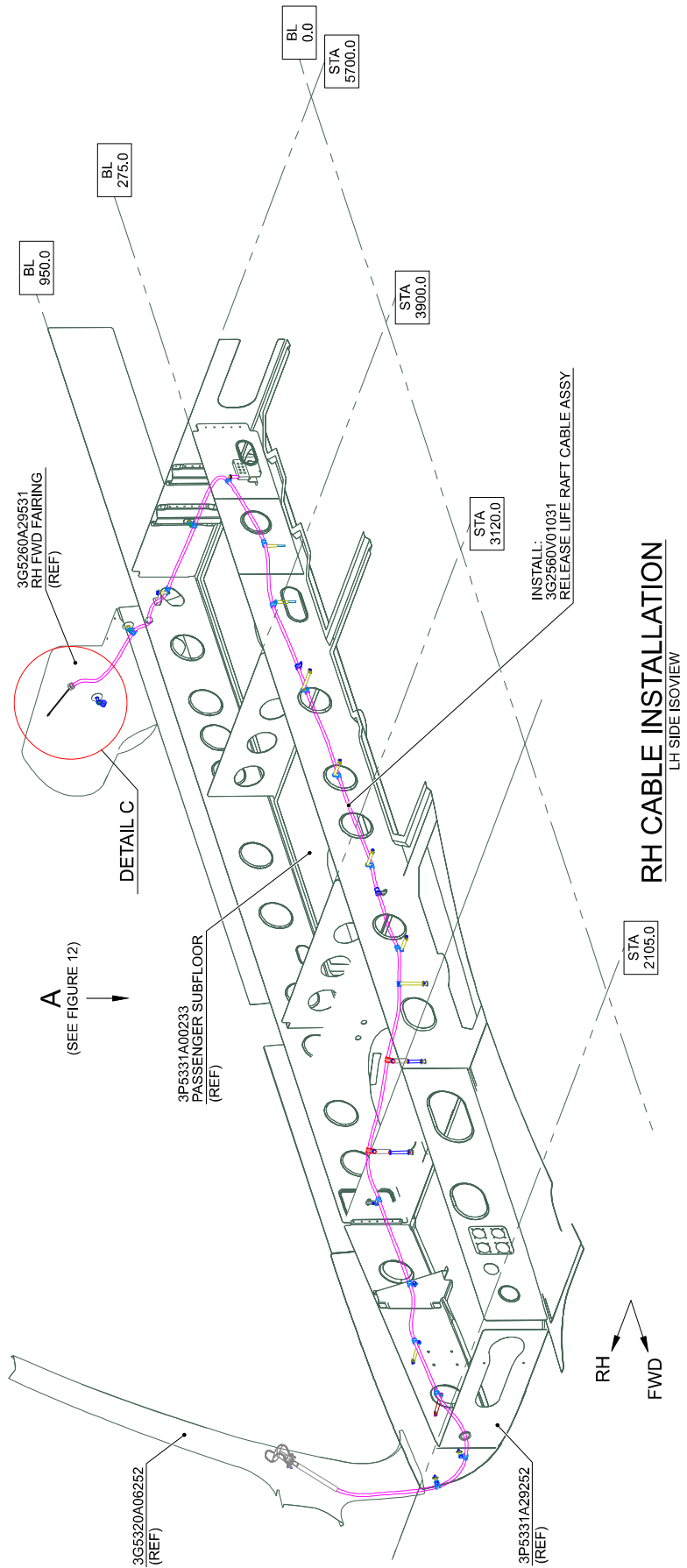




**RH CABLE INSTALLATION**  
**3G2560A07311**

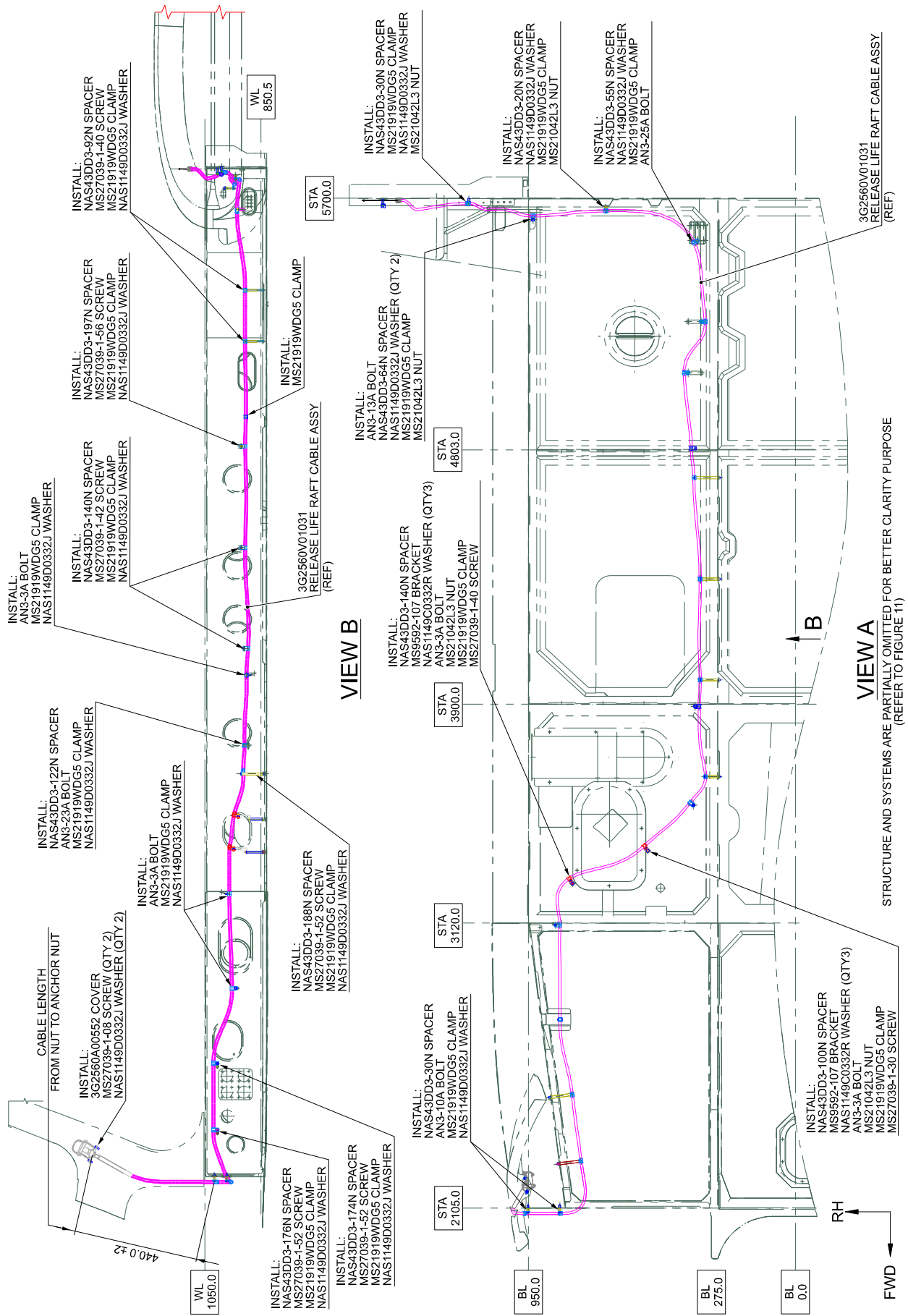


**DETAIL C**  
HARDWARE REQUIRED ONLY FOR CABLE STOWAGE  
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED  
FOR BETTER CLARITY PURPOSE



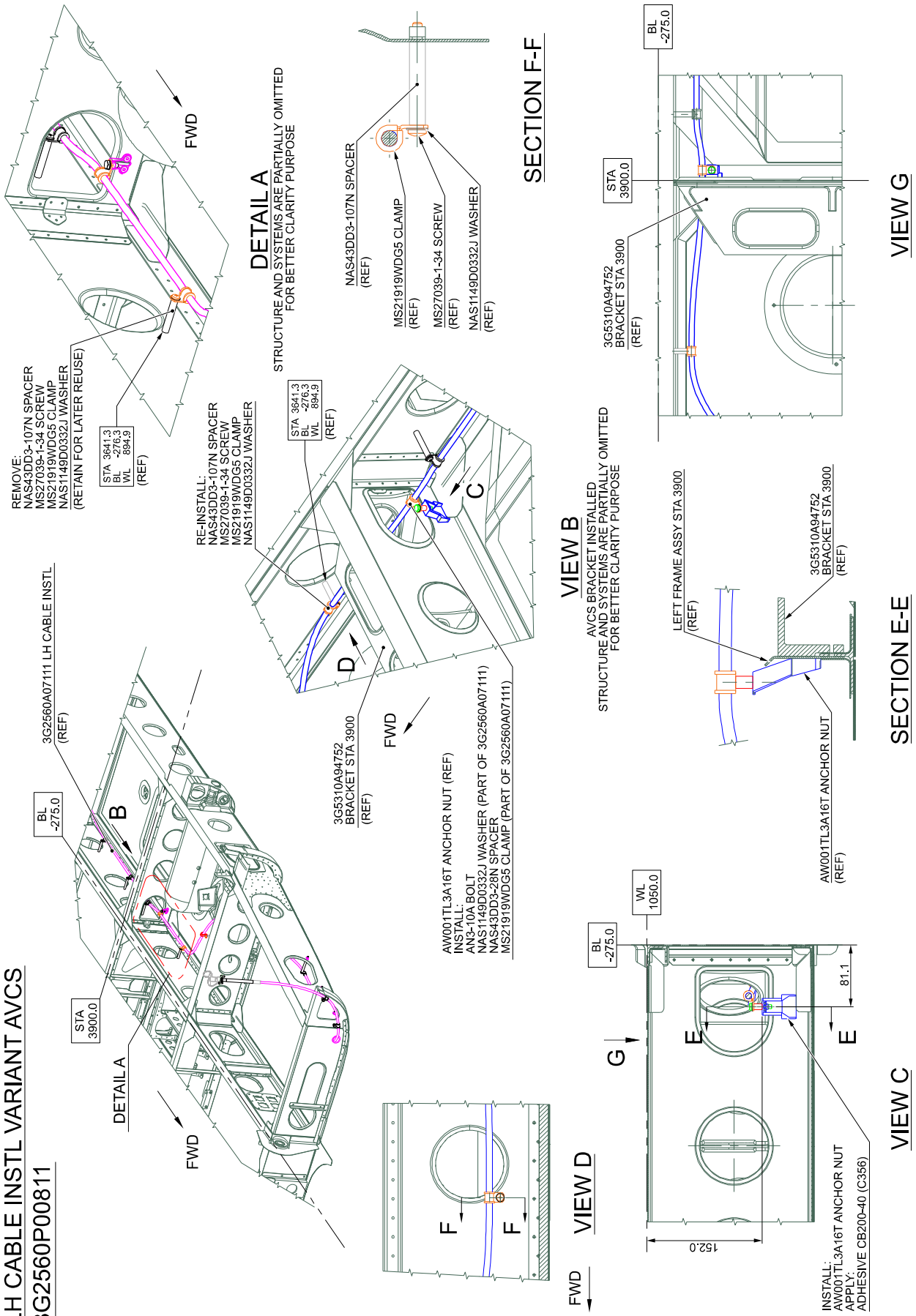
**Figure 11**

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DATE: November 22, 2022  
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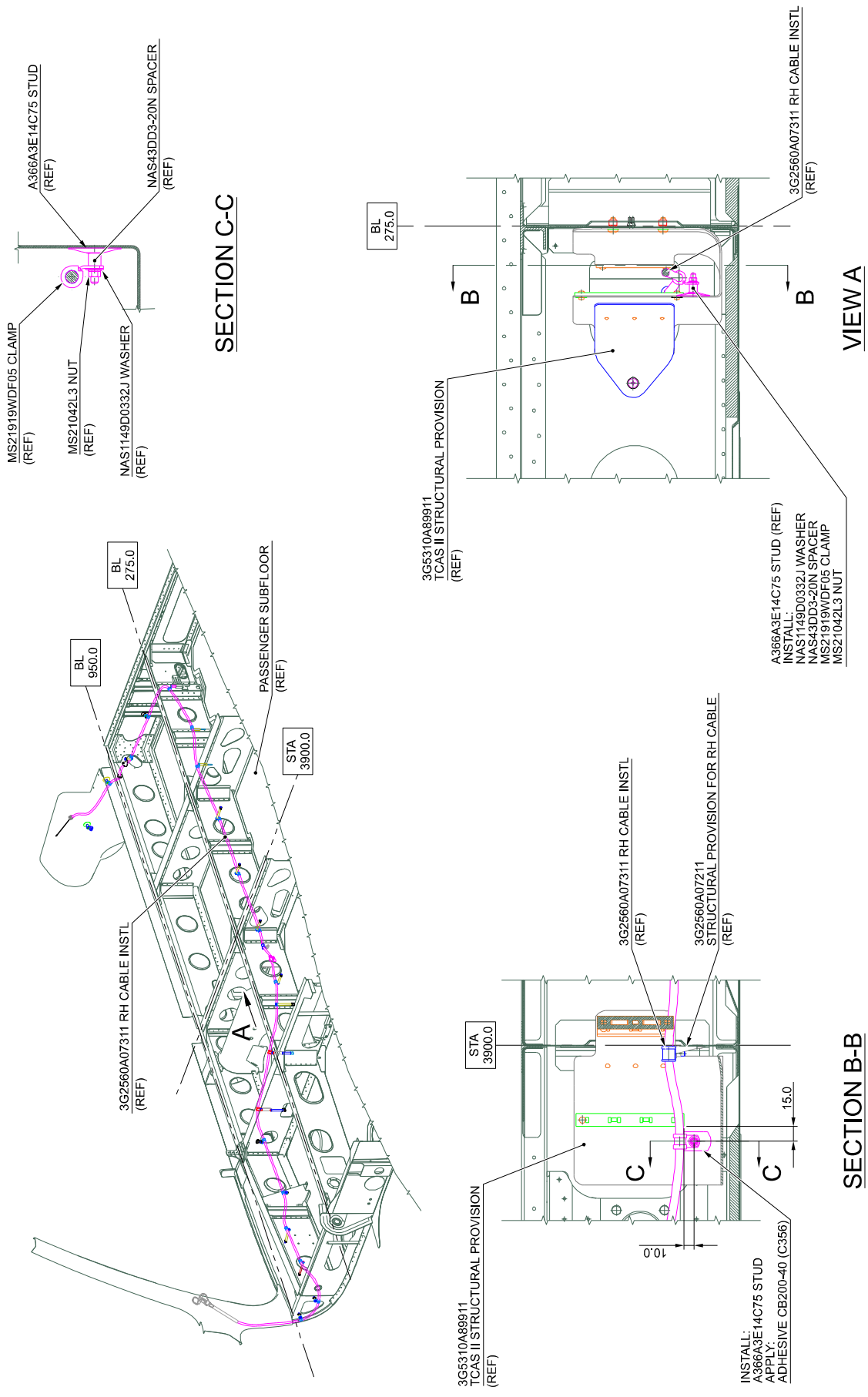
**Figure 12**

**LH CABLE INSTL VARIANT AVCS  
3G2560P00811**



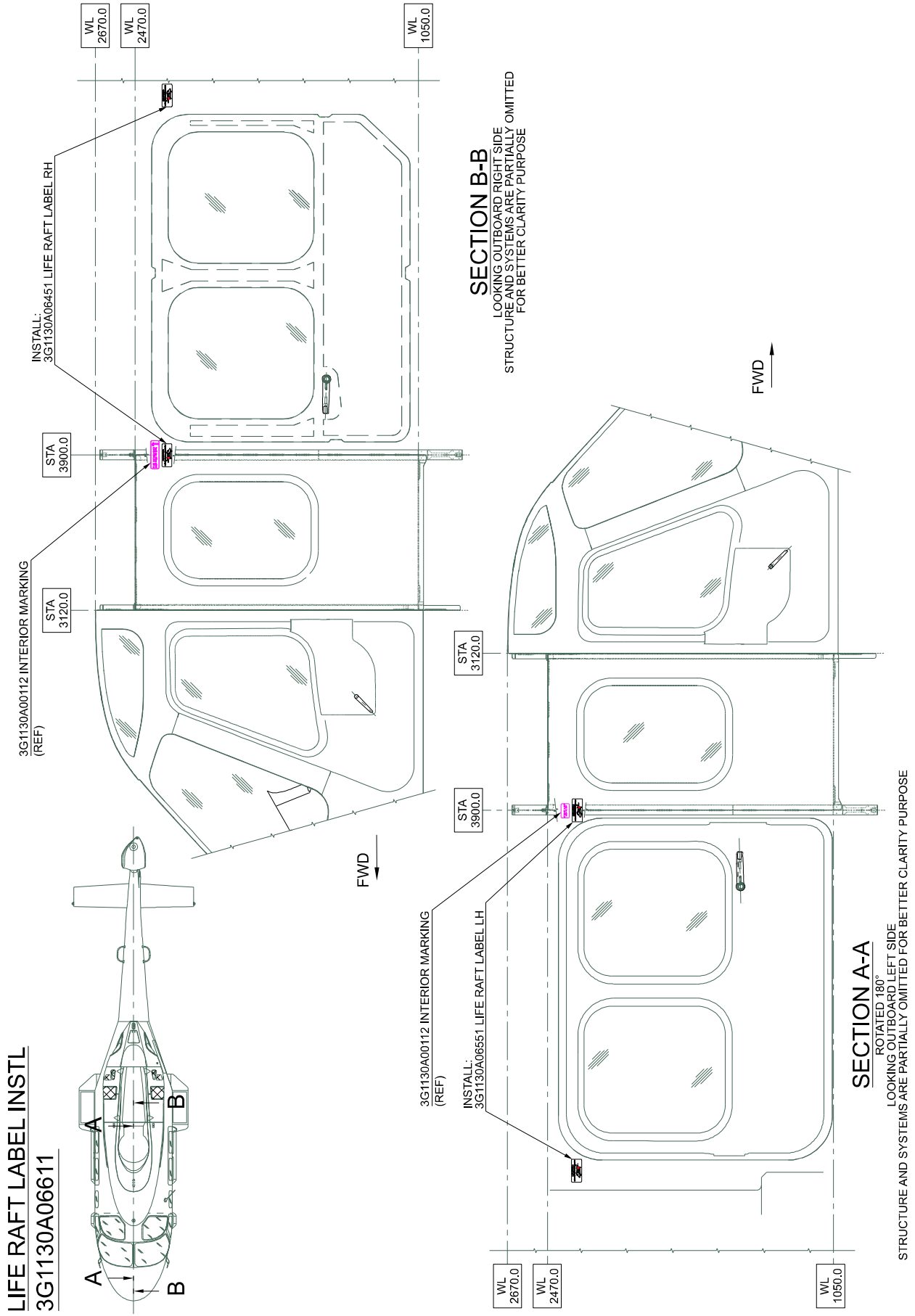
**Figure 13**

**RH CABLE INSTL VARIANT TCAS II  
3G2560P00911**

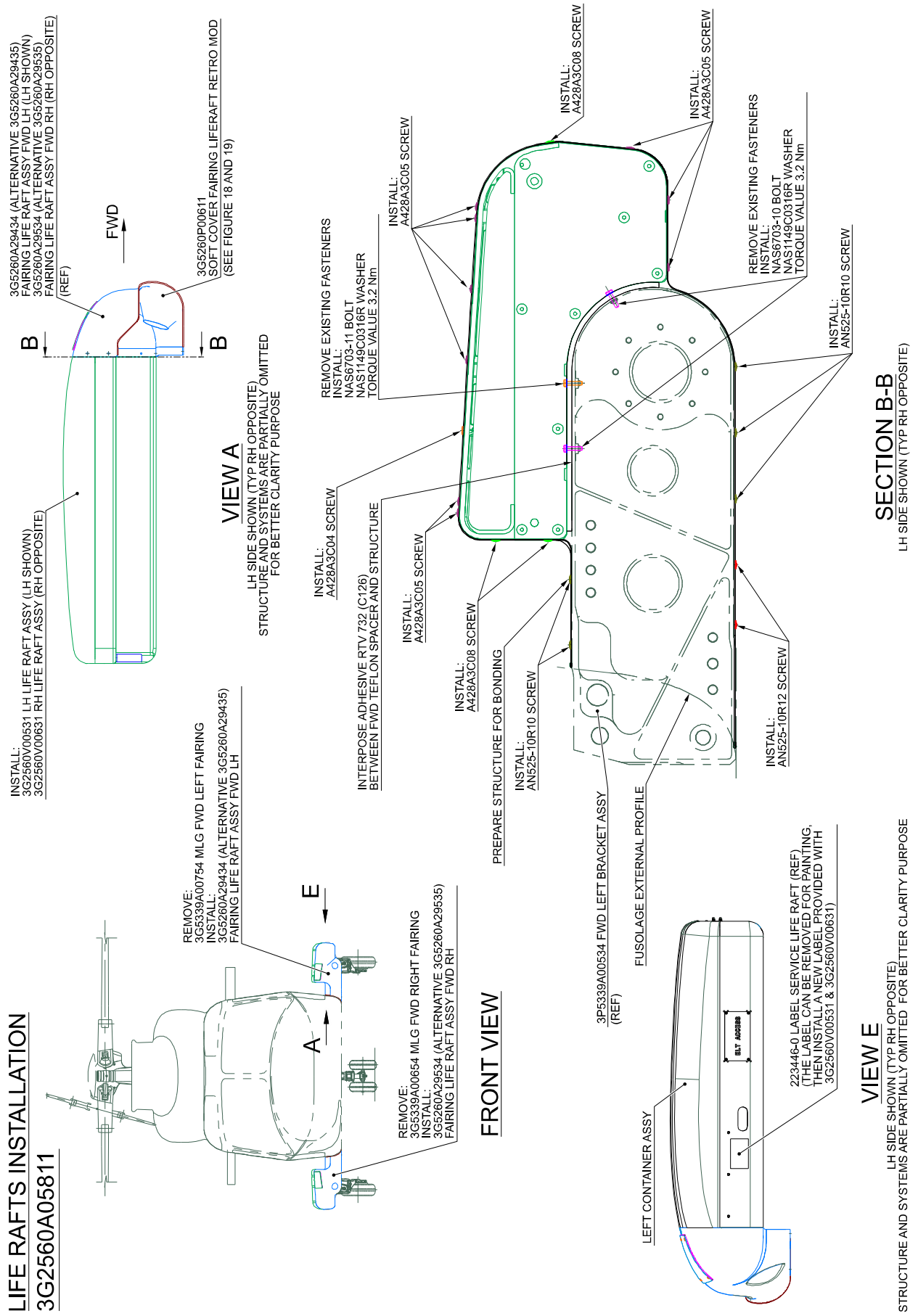


STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

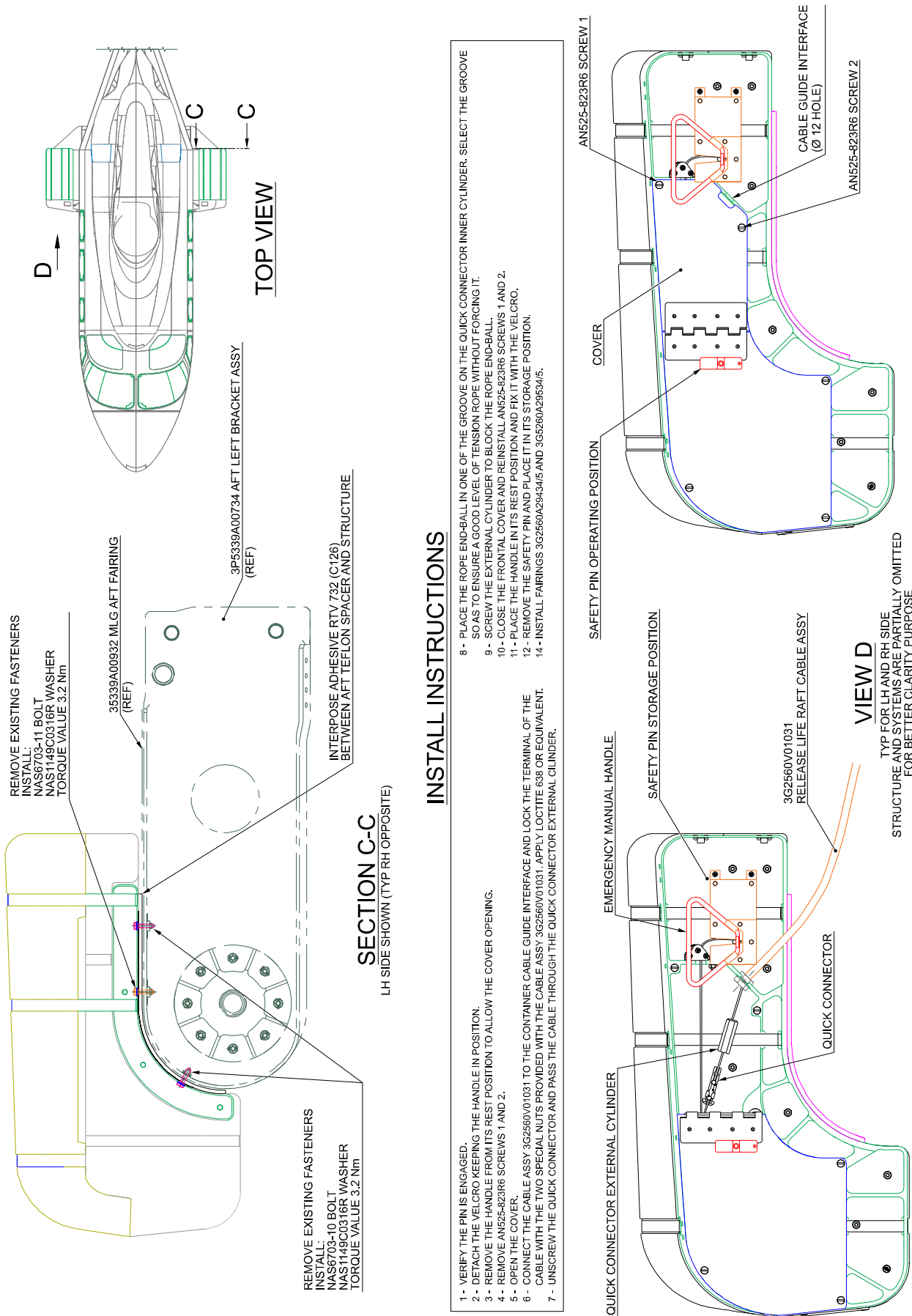
**Figure 14**



**Figure 15**



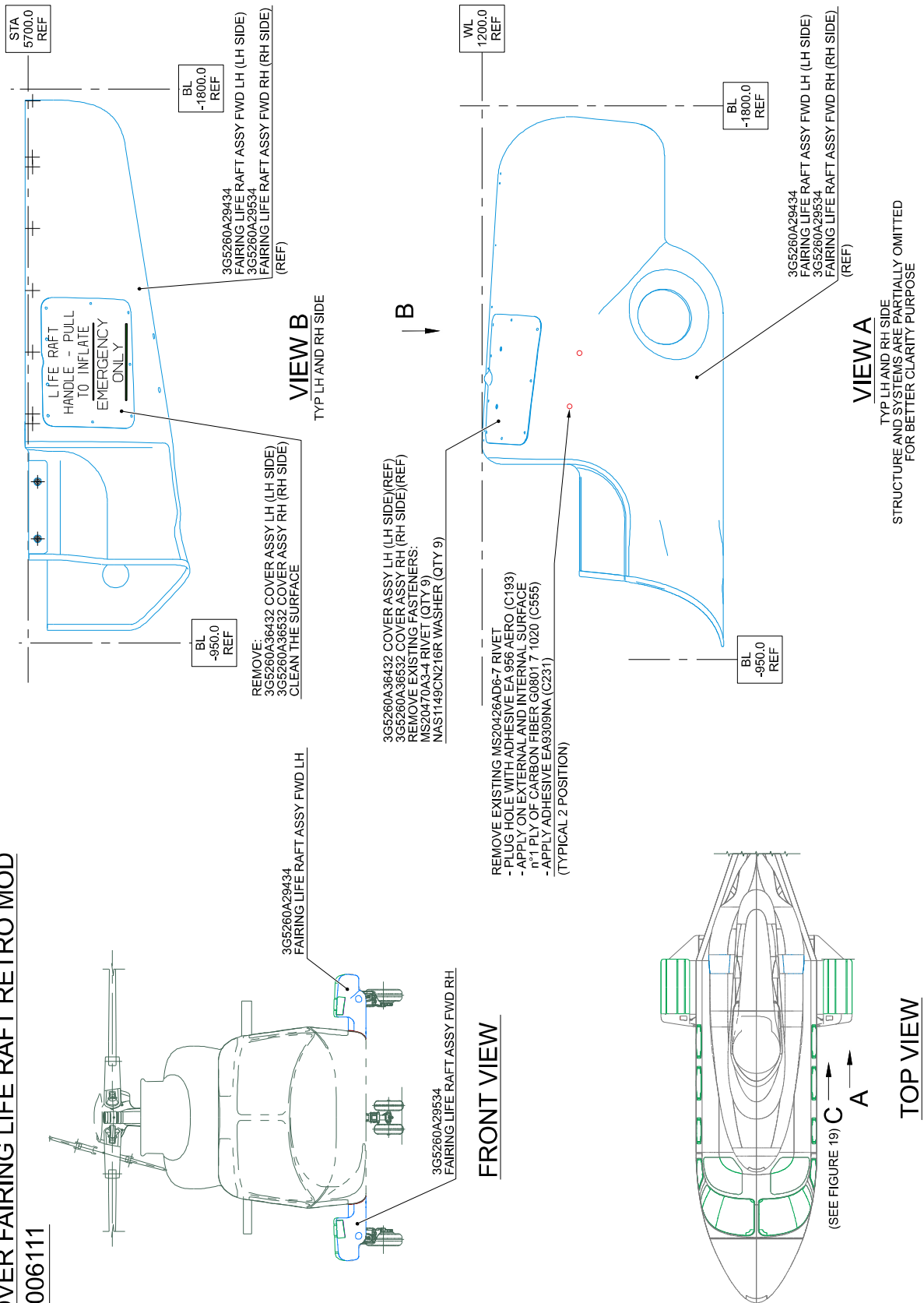
**Figure 16**



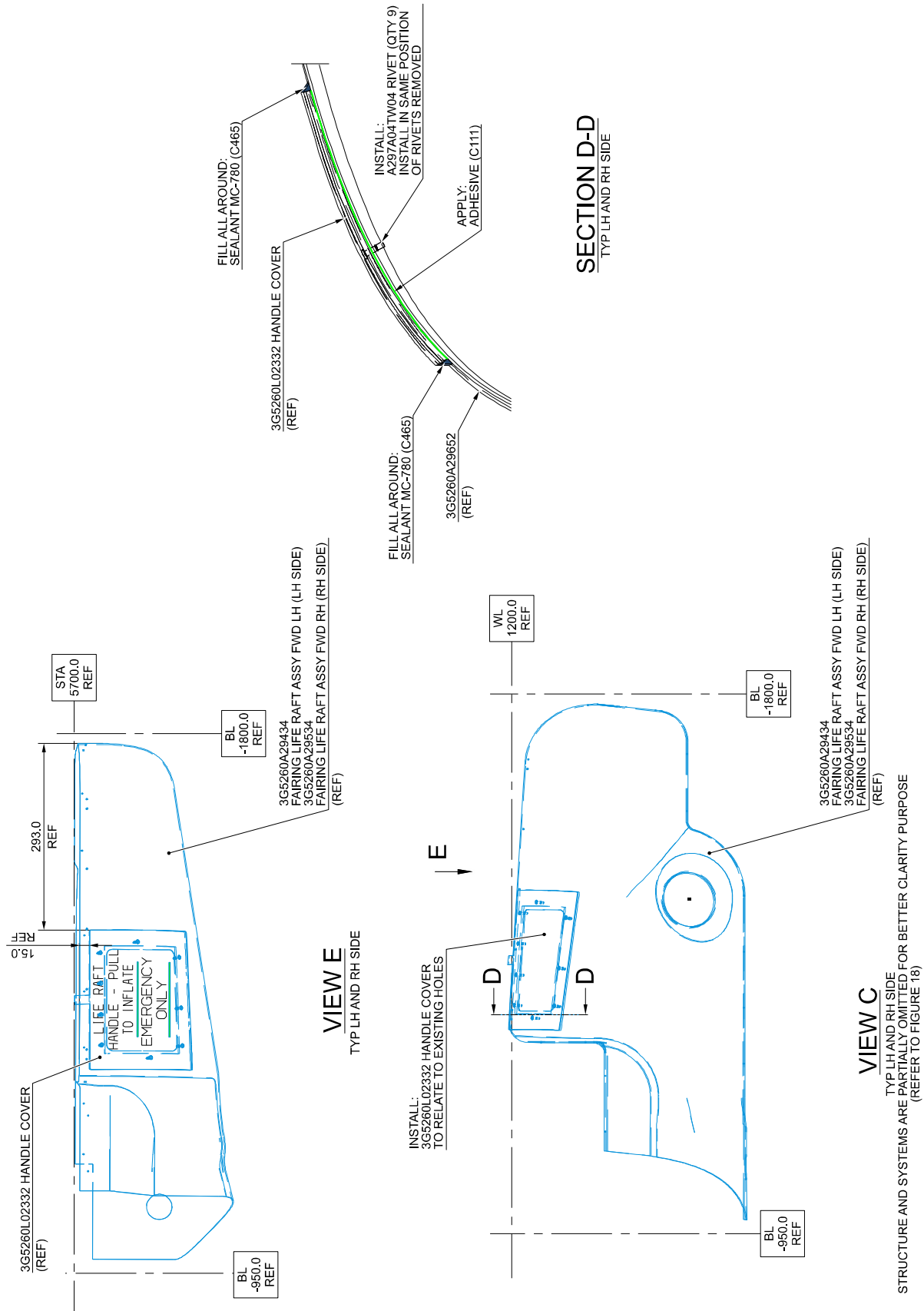
**Figure 17**



**SOFT COVER FAIRING LIFE RAFT RETRO MOD**  
**3G5260P006111**



**Figure 18**



**Figure 19**

# ANNEX A

## AW139 – EFS AND LIFE RAFTS FUNCTIONAL TEST PROCEDURE

## 1 TEST EQUIPMENT

Part number	Description	Qty	Equipment characteristics
TECO6-141-02 or equivalent	Pressure gauge	1	Range: 0 to 15 bar Scale: 0.2 bar
	Manual shut-off valve	2	N.A.
	Pressure relief valve	1	N.A.
	Chronometer	1	N.A.
TECO6-146 or equivalent	Nitrogen supply	1	
	Flexible hose	a/r	
3G9560H01031 A687A or equivalent	Kit flotation system adapters	1	See 3G9560H01031A687A

**Table 1 Test Equipment**

The measuring equipment identified in Table 1 shall have a valid certificate of calibration.

## 2 EFS VERIFICATION

### 2.1 Test Conditions

The test described in paragraph 2.3 shall be performed after the installation of the EFS pipe (rigid loom assembly and flexible hoses, the appropriate fasteners) in accordance with the applicable drawings. The flexible hoses shall not be connected to the floats (the test can be performed with the float assemblies not installed).

**NOTE:** following completion of the EFS installation, tests described in ATP 139G9560D001 (AW139 Emergency Flotation Acceptance Test Procedure) must be performed.

### 2.2 Test Report

Acceptance test results shall be reported using the form in Annex B.

### 2.3 Emergency Floats Piping Leakage Test

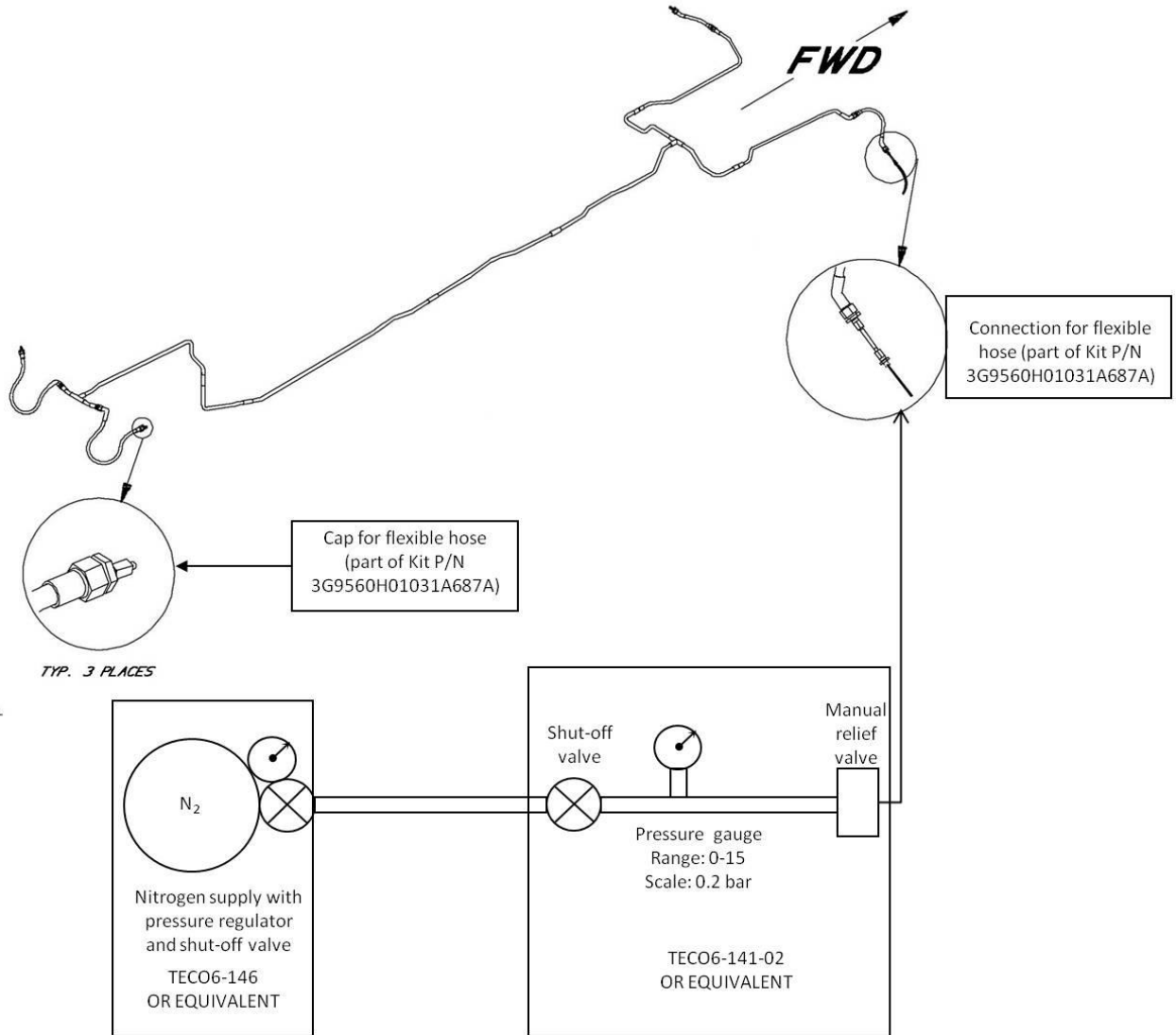
- a. Install caps<sup>(1)</sup> at the extremity of three flexible hoses (see Figure 1).
- b. Connect the N2 supply<sup>(2)</sup> to an appropriate pressure control system<sup>(3)</sup> (see Figure 1).
- c. Connect, by using the adapter<sup>(1)</sup>, the N2 supply to the fourth (i.e. the unplugged) flexible hose (see Figure 1).
- d. Pressurise the EFS piping at 6 bar.
- e. Hold the pressure for 5 minutes.

- f. (After 5 minutes) Verify that the pressure in the pipe assembly is  $\geq 5.8$  bar.
- g. Discharge the EFS pipe assembly by opening the test bench relief valve.
- h. Disconnect the test bench from the pipe assembly and remove the three caps from the flexible hoses.

Note (1): part of kit P/N 3G9560H01031A687A. Equivalent components can be used.

Note (2): bench TECO6-146 or equivalent.

Note (3): bench TECO6-141-02 or equivalent.



**Figure 1**      **Leakage test setup**

### 3 CEL VERIFICATIONS

#### 3.1 Test Conditions

The test described in paragraph 3.3 shall be performed after installation of the life raft inflation cables (including the appropriate fasteners) according to the applicable drawings. The cables shall not be connected to the life raft activation mechanism (the test can be performed with the life rafts not installed).

#### 3.2 Test Report

Acceptance test results shall be reported using the form in Annex C.

#### 3.3 Activation Cables Functional Test

##### Right hand:

- a. Disengage the locking spring of the RH pilot actuation handle (installed in the cockpit, see Figure 2).
- b. Cockpit area: pull the RH cable handle for a 85 mm stroke, verifying that the cable slides inside its sheath smoothly and that no jamming occurs.
- c. Sponson area: pull the RH cable terminal to bring the handle to the rest position.

**CAUTION:** the handle MUST be brought to the initial position by pulling the cable terminal. The handle shall not be pushed to the initial position: such operation may damage the cable.

- d. Repeat four times step b and step c.
- e. Engage the locking spring of the RH pilot actuation handle (installed in the cockpit, see Figure 2).

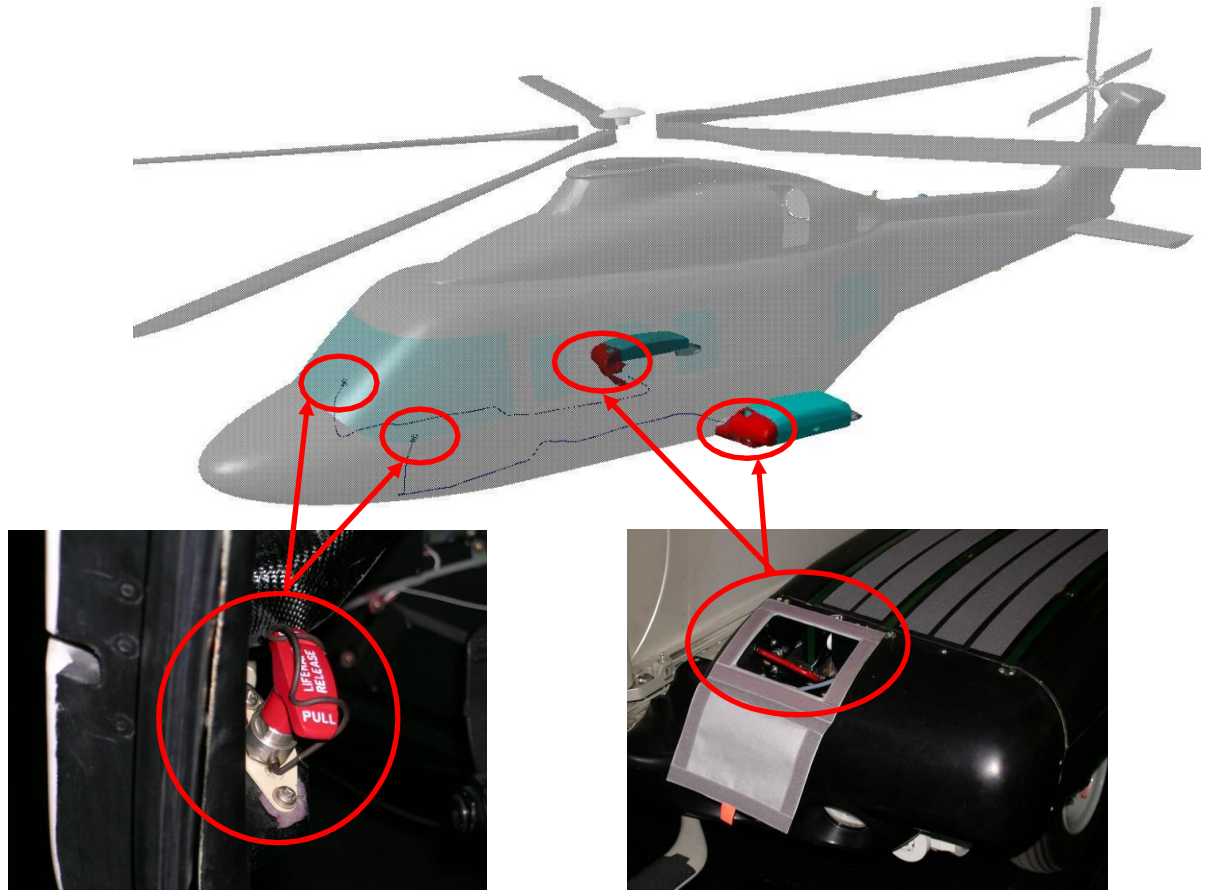
##### Left hand:

- f. Disengage the locking spring of the LH pilot actuation handle (installed in the cockpit, see Figure 2).
- g. Cockpit area: pull the LH cable handle for a 85 mm stroke, verifying that the cable slides inside its sheath smoothly and that no jamming occurs.
- h. Sponson area: pull the LH cable terminal to bring the handle to the rest position.

**CAUTION:** the handle MUST be brought to the initial position by pulling the cable terminal.  
The handle shall not be pushed to the initial position: such operation may damage the cable.

- i. Repeat four times step g and step h.
  
- j. Engage the locking spring of the LH pilot actuation handle (installed in the cockpit, see Figure 2).





**Figure 2**      **CEL inflation handles**

# **ANNEX B**

## **EMERGENCY FLOTATION SYSTEM ACCEPTANCE TESTS REPORT FORM**

<b>AW139 Emergency Flotation System Acceptance Test Procedure Report Form</b>			
Date:		N/C:	
		Kit P/N:	
<b>Step</b>	<b>Instruction</b>	<b>Report</b>	
a	<i>Install caps at the extremity of the three flexible hoses (see Figure 1)</i>	<i>Confirm that action is done</i>	
b	<i>Connect the N2 supply(2) to an appropriate pressure control system(3) (see Figure 1)</i>	<i>Confirm that action is done</i>	
c	<i>Connect, by using the adapter(1), the N2 supply to the fourth (i.e. the unplugged) flexible hose (see Figure 1)</i>	<i>Confirm that action is done</i>	
d	<i>Pressurise the EFS piping at 6 bar</i>	<i>Confirm that action is done</i>	
e	<i>Hold the pressure for 5 minutes</i>	<i>Indicate the time the piping has been maintained pressurised</i>	
f	<i>(After 5 minutes) Verify that the pressure in the pipe assembly is <math>\geq 5.8</math> bar</i>	<i>Report the pressure value</i>	
g	<i>Discharge the EFS pipe assembly by opening the test bench relief valve</i>	<i>Confirm that action is done</i>	
h	<i>Disconnect the test bench from the pipe assembly and remove the three caps from the flexible hoses</i>	<i>Confirm that action is done</i>	
<b>Operator</b>			
<b>Name:</b>		<b>Signature:</b>	

# **ANNEX C**

## **COLLECTIVE EMERGENCY LIFE RAFTS ACCEPTANCE TESTS REPORT FORM**

<b>AW139 Collective Emergency Life Rafts Acceptance Test Procedure Report Form</b>				1 / 3
Date:		N/C:		Kit P/N:
Step	Instruction		Report	
<b>Right hand life raft</b>				
a	Disengage the locking spring of the RH pilot actuation handle (installed in the cockpit, see Figure 2)		Confirm that action is done	
b	Cockpit area: pull the RH cable handle for a 85 mm stroke, verifying that the cable slides inside its sheath smoothly and that no jamming occurs		Confirm that the cable slides smoothly and that no jamming occurs	
c	Sponson area: pull the RH cable terminal to bring the handle to the rest position		Confirm that action is done	
d	Repeat four times step b and step c		b (2)	Confirm that the cable slides smoothly and that no jamming occurs
			c (2)	Confirm that action is done
			b (3)	Confirm that the cable slides smoothly and that no jamming occurs
			c (3)	Confirm that action is done
			b (4)	Confirm that the cable slides smoothly and that no jamming occurs
			c (4)	Confirm that action is done
			b (5)	Confirm that the cable slides smoothly and that no jamming occurs
			c (5)	Confirm that action is done

<b>AW139 Collective Emergency Life Rafts Acceptance Test Procedure Report Form</b> 2 / 3			
<b>Step</b>	<b>Instruction</b>	<b>Report</b>	
e	<i>Engage the locking spring of the RH pilot actuation handle (installed in the cockpit, see Figure 2)</i>	<i>Confirm that action is done</i>	
<b>Left hand life raft</b>			
f	<i>Disengage the locking spring of the LH pilot actuation handle (installed in the cockpit, see Figure 2)</i>	<i>Confirm that action is done</i>	
g	<i>Cockpit area: pull the LH cable handle for a 85 mm stroke, verifying that the cable slides inside its sheath smoothly and that no jamming occurs</i>	<i>Confirm that the cable slides smoothly and that no jamming occurs</i>	
h	<i>Sponson area: pull the LH cable terminal to bring the handle to the rest position</i>	<i>Confirm that action is done</i>	

**AW139 Collective Emergency Life Rafts Acceptance Test Procedure Report Form** 3 / 3

Step	Instruction		Report		
i	Repeat four times step g and step h		g (2)	Confirm that the cable slides smoothly and that no jamming occurs	
			h (2)	Confirm that action is done	
			g (3)	Confirm that the cable slides smoothly and that no jamming occurs	
			h (3)	Confirm that action is done	
			g (4)	Confirm that the cable slides smoothly and that no jamming occurs	
			h (4)	Confirm that action is done	
			g (5)	Confirm that the cable slides smoothly and that no jamming occurs	
			h (5)	Confirm that action is done	
j	Engage the locking spring of the LH pilot actuation handle (installed in the cockpit, see Figure 2)		Confirm that action is done		
<b>Operator</b>	<b>Name:</b>		<b>Signature:</b>		

Please send to the following address:		<b>SERVICE BULLETIN COMPLIANCE FORM</b>		Date:
<b>LEONARDO S.p.A.</b> CUSTOMER SUPPORT & SERVICES - ITALY		Number:		
PRODUCT SUPPORT ENGINEERING & LICENSES DEPT. Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA) - ITALY Tel.: +39 0331 225036 Fax: +39 0331 225988		Revision:		
Customer Name and Address:		Telephone:		
		Fax:		
		B.T. Compliance Date:		
Helicopter Model	S/N	Total Number	Total Hours	T.S.O.
Remarks:				
Information:				
We request your cooperation in filling this form, in order to keep out statistical data relevant to aircraft configuration up-to-date. The form should be filled in all its parts and sent to the above address or you can communicate the application also via Technical Bulletin Application Communication Section placed in Leonardo AW Customer Portal - MyCommunications Area. We thank you beforehand for the information given.				