
SERVICE BULLETIN

N° **139-407**

DATE: February 12, 2015

REV. : C - November 17, 2021

TITLE

ATA 71 - INLET BARRIER FILTER INSTALLATION

REVISION LOG

Helicopters that have complied with previous issues of this Service Bulletin do not need any additional action.

Revision C of this Service Bulletin has been issued to:

- Introduce new Manufacturing P/Ns;
- Introduce the logistic P/N 139-407L7 to identify possible hardware needed to complete the installation of the system;
- Update the Service Bulletin to the latest standards.

Revision bars identify changes.

1. PLANNING INFORMATION

A. EFFECTIVITY

Part I: AW139 helicopters from S/N 31201 to S/N 31398, from S/N 41201 to S/N 41293, 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.

Part II: AW139 helicopters from S/N 31201 to S/N 31398, from S/N 41201 to S/N 41293, 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 equipped with IBF LH assy P/N 3G7160V03931.

Part III: AW139 helicopters from S/N 31201 to S/N 31398, from S/N 41201 to S/N 41293, 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 equipped with IBF complete provision P/N 3G7160A07811.

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 the kit Inlet Barrier Filter P/N 4G7160F00111.

E. DESCRIPTION

The purpose of the IBF kit is to provide clean air to the engines by filtering the air flow through the helicopter engine air-intakes and retaining sand and dust particles.

The IBF is a passive filtering system and it does not require any interface with the engines.

The filtering function is achieved by the IBF upper and lower filter media, which are installed on dedicated structural provisions located outside of engine cowlings that incorporates also the by-pass system.

Dedicated afterward and forward fairings are also included in the IBF kit in order to achieve an efficient aerodynamic profile for the upper deck by connecting the cowling surface to the filter media.

Part I provides all necessary instructions on how to perform the installation of the Inlet Barrier Filter complete provision (structural and electrical) P/N 3G7160A07811. This part

also provides all necessary instructions on how to install the two relays K334 and K335 and modify the electrical connection installed with IBF complete provision.

Part II provides all necessary instructions on how to perform the installation of the IBF scoop P/N 3G7160P00251 on the IBF LH assy P/N 3G7160V03931. The new scoop allows the sensor to measure the correct external pressure.

Part III provides all necessary instructions on how to perform the installation of fixed and removable parts that belongs to IBF installation.

NOTE

Supplement n°86 of RFM (Rotorcraft Flight Manual) is dedicated to kit IBF and it contains information about limitations, procedures and performance data.

NOTE

This Service Bulletin introduces parts that are affected by airworthiness limitations. Refer to AMPI (Chapter 04) to update the Maintenance Planning.

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 eighty (180) MMH;

Part II: approximately ten (10) MMH;

Part III: approximately sixty (60) MMH.

Maintenance-Man-Hours are based on hands-on time and can change with personnel and facilities available.

H. WEIGHT AND BALANCE

PART I

WEIGHT (kg)		2.54
	ARM (mm)	MOMENT (kgmm)
LONGITUDINAL BALANCE	5297	13454.38
LATERAL BALANCE	-80	-203.2

PART II

WEIGHT (kg)		0.028
	ARM (mm)	MOMENT (kgmm)
LONGITUDINAL BALANCE	7084	198.35
LATERAL BALANCE	-850	-23.8

PART III

WEIGHT (kg)		32.65
	ARM (mm)	MOMENT (kgmm)
LONGITUDINAL BALANCE	6636.21	216672.26
LATERAL BALANCE	-5.62	-183.49

I. REFERENCES

1) PUBLICATIONS

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM01 39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance	I, II, III
DM02 39-A-06-41-00-00A-010A-A	Access doors and panels - General data	I
DM03 39-A-71-11-01-00A-520A-A	Number 1 engine access door - Remove procedure	I
DM04 39-A-71-11-02-00A-520A-A	Number 2 engine access door - Remove procedure	I
DM05 39-A-25-82-03-00A-520A-A	Left hinged lining panel - Remove procedure	I
DM06 39-A-25-82-04-00A-520A-A	Right hinged lining panel - Remove procedure	I
DM07 39-A-71-11-01-00A-720A-A	Number 1 engine access door - Install procedure	I
DM08 39-A-71-11-02-00A-720A-A	Number 2 engine access door - Install procedure	I
DM09 39-A-25-82-03-00A-720A-A	Left hinged lining panel - Install procedure	I

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM10 39-A-25-82-04-00A-720A-A	Right hinged lining panel - Install procedure	I
DM11 39-A-11-00-01-00A-720A-A	Decal - Install procedure	I
DM12 39-A-24-91-04-00A-920A-K	Integrally lighted panel - Replacement	I
DM13 39-A-71-61-00-00A-320A-K	Inlet Barrier Filter (IBF) system - Operation test	III
DM14 39-A-20-10-08-00A-622A-A	Electrical contacts - Crimp	I
DM15 39-A-20-10-18-00A-691A-A	Electrical wires and cables – Marking	I

2) ACRONYMS

AMP	Aircraft Maintenance Publication
AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AMPI	Air vehicle Maintenance Planning Information
DM	Data Module
DOA	Design Organization Approval
EAPS	Engine Air Particle Separator
EASA	European Aviation Safety Agency
FH	Flight Hours
IBF	Inlet Barrier Filter
IPD	Illustrated Parts Data
ITEP	Illustrated tool and equipment publication
LHD	Leonardo Spa Helicopters
MMH	Maintenance Man Hours

3) ANNEX

N.A.

J. PUBLICATIONS AFFECTED

AW139 AMP

AW139 IPD

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	4G7160F00111		KIT INLET BARRIER FILTER	REF	.		-
2	3G7160A07811		INLET BARRIER FILTER COMPLETE PROVISION	REF	..		-
3	3G5310A83011		IBF STRUCTURAL PROVISION	REF	...		-
4	3G5310A83151		Doubler	1	....		139-407L1 139-407L5 139-407L7
5	3G5310A83251	3G5310A83251M01	Doubler	1	....		139-407L1 139-407L5 139-407L7
6	3G5310A83351	3G5310A83351M01	Doubler	2	....		139-407L1 139-407L5 139-407L7
7	3G5310A83451		Doubler	1	....		139-407L1 139-407L5 139-407L7
8	3G5310A91531		Doubler assy	2	....		139-407L1 139-407L5 139-407L7
9	3G5310A93251	3G5310A93251M01	Doubler	2	....		139-407L1 139-407L5 139-407L7
10	3G5310A99531		Doubler assy	2	....		139-407L1 139-407L5 139-407L7
11	3G5310A99651	3G5310A99651M01	Doubler scoop internal RH	1	....		139-407L1 139-407L5 139-407L7
12	3G5310A99751	3G5310A99751M01	Doubler scoop internal LH	1	....		139-407L1 139-407L5 139-407L7
13	3G5310A99851	3G5310A99851M01	Doubler small scoop LH	1	....		139-407L1 139-407L5 139-407L7
14	3G5310A99951	3G5310A99951M01	Doubler small scoop RH	1	....		139-407L1 139-407L5 139-407L7
15	3G5311A02351	3G5311A02351M01	Doubler	1	....		139-407L1 139-407L5 139-407L7
16	3G5311A02451	3G5311A02451M01	Doubler	1	....		139-407L1 139-407L5 139-407L7
17	3G5311A02551		Doubler	1	....		139-407L1 139-407L5 139-407L7
18	3G5311A05231		Closure plate	2	....		139-407L1 139-407L5 139-407L7
19	3G5311A09451	3G5311A09451M01	Doubler	2		139-407L1 139-407L5 139-407L7

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#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
20	3G7113A00131		Strut assy	2		139-407L1 139-407L5 139-407L7
21	A364A3	AW013TB3	Bolt	2	....		139-407L1 139-407L5 139-407L7
22	AN525-10R7		Screw	44	....		139-407L1 139-407L5 139-407L7
23	MS21061L3		Anchor nut	2	....		139-407L1 139-407L5 139-407L7
24	MS21076L3N		Anchor nut	40	....		139-407L1 139-407L5 139-407L7
25	MS24693-C48		Screw	6	....		139-407L1 139-407L5 139-407L7
26	MS35206-214		Screw	8	....		139-407L1 139-407L5 139-407L7
27	NAS1149CN432R		Washer	8	....		139-407L1 139-407L5 139-407L7
28	3G7160A07911		IBF ELECTRICAL PROVISION	REF	...		-
29	3G9A01A51501	3G7160A07911A1R or 3G7160A07911A9R	Inlet barrier filter cable assy (A1A515)	1	....	(14)	139-407L1 139-407L5 139-407L7
30	3G9A02A44501		Inlet barrier filter cable assy (A2A445)	1	....		139-407L1 139-407L5 139-407L7
31	3G9A01B47901	3G7160A07911A4R	Inlet barrier filter cable assy (A1B479)	1	....		139-407L1 139-407L5 139-407L7
32	3G9A02B45001		Inlet barrier filter cable assy (A2B450)	1	....		139-407L1 139-407L5 139-407L7
33	3G9B01A74001		Inlet barrier filter cable assy (B1A740)	1	....		139-407L1 139-407L5 139-407L7
34	3G9B01A88901	3G7160A07911A3R	Inlet barrier filter cable assy (B1A889)	1	....		139-407L1 139-407L5 139-407L7
35	3G9B02A77901		Inlet barrier filter cable assy (B2A779)	1	....		139-407L1 139-407L5 139-407L7
36	3G9B01B76301	3G7160A07911A2R	Inlet barrier filter cable assy (B1B763)	1	....		139-407L1 139-407L5 139-407L7
37	3G9B02B46901		Inlet barrier filter cable assy (B2B469)	1	....		139-407L1 139-407L5 139-407L7
38	3G9C02A33901		Inlet barrier filter cable assy (C2A339)	1	....		139-407L1 139-407L5 139-407L7
39	3G9C02B30301		Inlet barrier filter cable assy (C2B303)	1	....		139-407L1 139-407L5 139-407L7
40	3G9F02A21801	3G7160A07911A5R	Inlet barrier filter cable assy (F2A218)	1	....	(1)	139-407L1
		3G7160A07911A7R		1	....	(5)	139-407L5
		3G7160A07911A10R		1	....	(13)	139-407L7
41	3G9F02B21401	3G7160A07911A6R	Inlet barrier filter cable assy (F2B214)	1	....	(1)	139-407L1
		3G7160A07911A8R		1	....	(5)	139-407L5
		3G7160A07911A11R		1	....	(13)	139-407L7

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
42	A364A3	AW013TB3	Bolt	2	....		139-407L1 139-407L5 139-407L7
43	AW001CB04H		Clamp	10	....		139-407L1 139-407L5 139-407L7
44	AW001CL001-N6		Support	1	....		139-407L1 139-407L5 139-407L7
45	ED300J138		Decal	1	....		139-407L1 139-407L5 139-407L7
46	ED300K334		Decal	1	....		139-407L1 139-407L5 139-407L7
47	ED300K335		Decal	1	....		139-407L1 139-407L5 139-407L7
48	M23053/5-106-0		Insulation sleeve	1 m	....		139-407L1 139-407L5 139-407L7
49	M83536/2-028M		Relay	2	....		139-407L1 139-407L5 139-407L7
50	M85049/95-25A-A		Plate	1	....		139-407L1 139-407L5 139-407L7
51	MS21043-3		Nut	2	....		139-407L1 139-407L5 139-407L7
52	NAS1149D0332J		Washer	4	....		139-407L1 139-407L5 139-407L7
53	NAS1149DN616J		Washer	4	....		139-407L1 139-407L5 139-407L7
54	NAS1802-06-8		Screw	4	....		139-407L1 139-407L5 139-407L7
55	NAS1802-3-7		Screw	2	....		139-407L1 139-407L5 139-407L7
56	NAS43DD3-26N		Spacer	2	....		139-407L1 139-407L5 139-407L7
57	NAS813-14		Plug	2	....		139-407L1 139-407L5 139-407L7
58	A523A-A01		Electrical Contact	5	....		139-407L1 139-407L5 139-407L7
59	A523A-A02		Electrical Contact	5	....		139-407L1 139-407L5 139-407L7
60	A523A-A05		Electrical Contact	1	....		139-407L1 139-407L5 139-407L7
61	M39029/56-348		Electrical Contact	55	....		139-407L1 139-407L5 139-407L7
62	M39029/56-351		Electrical Contact	30	....		139-407L1 139-407L5 139-407L7
63	M39029/57-354		Electrical Contact	10	....		139-407L1 139-407L5 139-407L7

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
64	M39029/58-360		Electrical Contact	25	....		139-407L1 139-407L5 139-407L7
65	M39029/58-363		Electrical Contact	20	....		139-407L1 139-407L5 139-407L7
66	A556A-T22		Electrical wire	2 m	....		139-407L1 139-407L5 139-407L7
67	A574A01-01		Insulation sleeve	5	....		139-407L1 139-407L5 139-407L7
68	A582A32	EN6049-006-32-5	Nomex Sleeve	1 m	....		139-407L1 139-407L5 139-407L7
69	3G7160P00711		IBF PIN ALIGNMENT VARIANT	REF	..	(7)	-
70	3G9A01A70701		Inlet barrier filter pin alignment cable assy (A1A707)	REF	...	(8)	-
71	3G9A01B64801		Inlet barrier filter pin alignment cable assy (A1B648)	REF	...	(9)	-
72	3G9A02A63601		Inlet barrier filter pin alignment cable assy (A2A636)	REF	...	(10)	-
73	3G9A02B61401		Inlet barrier filter pin alignment cable assy (A2B614)	REF	...	(11)	-
74	AW001CL001-N6		Support	2	...		139-407L1 139-407L5 139-407L7
75	A523A-B02		Electrical contact	8	..	(2)	139-407L4
76	M12883/52-001		Relay socket	2	..	(2)	139-407L4
77	M83536/2-028M		Relay	2	..	(2)	139-407L4
78	A556A-T22		Electrical wire	30 m	..	(2)	139-407L4
79	A578A05-9		Marker sleeve	20	..	(2)	139-407L4
80	M39029/56-351		Electrical contact	2	..	(2)	139-407L4
81	M39029/57-354		Electrical contact	2	..	(2)	139-407L4
82	M81824/1-2		Splice	2	..	(2)	139-407L4
83	ED300K334		Decal	1	..	(2)	139-407L4
84	ED300K335		Decal	1	..	(2)	139-407L4
85	3G5310A89111		IBF STRUCTURAL PROVISION	REF	...		-
86	A414A04C238A1		Support	1	....		139-407L1 139-407L5 139-407L7
87	AGS4719-508	NAS1720H5L2A	Rivet	3	....		139-407L1 139-407L5 139-407L7

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
88	4G7160F00111		KIT INLET BARRIER FILTER	REF	.		-
89	3G7160P00111		INLET BARRIER FILTER SCOOP RETRO-MOD	REF	..		-
90	3G7160P00251		Scoop	1	...		139-407L2
91	AN525-832R7		Screw	4	...		139-407L2
92	MS21075L08	MS21075L08N	Nut plate	4	...		139-407L2
93	A954AS040EN		Stencil	1	...		139-407L2

PART III

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
94	4G7160F00111		KIT INLET BARRIER FILTER	REF	.		-
95	3G7160A07711		INLET BARRIER FILTER FIXED PARTS	REF	..		-
96	3G7160V04151		Inlet barrier filter control panel	1	...		139-407L3
97	3G7160A08011		INLET BARRIER FILTER REMOVABLE PARTS	REF	..		-
98	3G7160A01751		Cover	2	...		139-407L3
99	3G7160A04331	3G7160A04331A1	Upper cover assy LH	1	...		139-407L3
100	3G7160A04431	3G7160A04431A1	Upper cover assy RH	1	...		139-407L3
101	3G7160A08131	3G7160A05632 or 3G7160A05632A or 3G7160A08131A	Frame 3 assy LH	1	...		139-407L3
102	3G7160A08331	3G7160A05732 or 3G7160A05732A or 3G7160A08331A	Frame 3 assy RH	1	...		139-407L3
103	3G7160A08531		Bracket assy LH	1	...		139-407L3
104	3G7160A08631		Bracket assy RH	1	...		139-407L3
105	3G7160V03931		Inlet barrier filter assy LH	1	...		139-407L3
106	3G7160V04031		Inlet barrier filter assy RH	1	...		139-407L3
107	A954AE040EJ		Stencil	2	...		139-407L3
108	A954AF090EN		Stencil	2	...		139-407L3
109	A954AS040EN		Stencil	2	...		139-407L3
110	AN525-10R8		Stencil	42	...		139-407L3
111	MS21042L04		Self-locking nut	8	...		139-407L3
112	MS21043-3		Self-locking nut	2	...		139-407L3
113	AS21919WDG07	MS21919WDG7	Clamp	8	...		139-407L3
114	MS35206-215		Screw	8	...		139-407L3
115	NAS1149C0332R		Washer	6	...		139-407L3
116	NAS1149CN432R		Washer	16	...		139-407L3
117	NAS1149D0316J		Washer	86	...		139-407L3
118	NAS43HT3-17		Spacer	2	...		139-407L3
119	NAS6203-2		Bolt	2	...		139-407L3
120	NAS6203-4		Bolt	38	...		139-407L3
121	NAS6203-7		Bolt	2	...		139-407L3
122	NAS6603-2		Bolt	6	...		139-407L3
123	A966A080EB		Extrusion non metallic	2 m	...		139-407L3
124	A115A1616AB		Silicone rubber	5 m	...		139-407L3
125	NAS1200M4-3		Rivet	0.1 kg	.		139-407L6
126	NAS1721C4L2P		Rivet	20	.		139-407L6
127	MS20427M3-7		Rivet	0.1 kg	.		139-407L6
128	MS21076-3	MS21076-3N	Anchor nut	10	.		139-407L6
129	NAS1802-3-8		Screw	10	.		139-407L6
130	NAS1149C0332R		Washer	10	.		139-407L6
131	AN525-10R9		Screw	50	.		139-407L6
132	MS21074-3K		Anchor nut	4	.		139-407L6
133	MS21062-3K		Anchor nut	4	.		139-407L6
134	MS21060-3K		Anchor nut	12	.		139-407L6
135	MS21050-3K		Anchor nut	14	.		139-407L6

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136	MS20427M3-4		Insert	0.1 kg	.		139-407L6

2) CONSUMABLES

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

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
137	199-05-152 Ty II Code No. 900002979	RBR Adhesive RTV106 (C142)	AR	(12)	All
138	199-05-152 Ty I Cl 2 Code No. 900002980	Adhesive RTV732	AR	(12)	All
139	MIL-S-38249 Ty I A+B Code No. 500203980	Proseal 700 (C032)	AR	(12)	All
140	199-05-004 Ty II, Cl B2 Code No. 900001586 (AMS-S-8802)	Proseal 890B2 (C153)	AR	(12) (15)	All
141	Raychem S1125 Code No. 500218739	Adhesive S1125 (C373)	AR	(12)	All
142	CCC-C-46 / Code No. 42501025	Soft lint-free cloth (C011)	AR	(12)	All
143	P-D-680 type II Code No. 505405407	Cleaning solvent Ardrex 5503 (C010)	AR	(12)	All
144	TT-N-95-B / Code No. 531055030	Aliphatic Naphtha (C059)	AR	(12)	All
145	TT-M-261 / Code No. 32002675	Methyl-Ethyl-Ketone (C005)	AR	(12)	All
146	900004953 or AW001CK03LC	Tape, lacing and tying	AR	(12)	All
147	Commercial	Gloves	AR	(12)	All
148	Commercial	Toluol (C040)	AR	(12)	All
149	Commercial	Isopropyl alcohol (C039)	AR	(12)	All
150	100100-080	Oil Filter (8 oz)	AR	(12)	All
151	MS20615-4M4	Rivet	0.1 kg	(12)	All
152	NAS1200-3-3	Rivet	AR	(12)	All
153	NAS1200-3-3-5	Rivet	AR	(12)	All
154	NAS1200M3-3-5	Rivet	AR	(12)	All
155	NAS1200M3-4-5	Rivet	AR	(12)	All
156	MS20995C32	Lock wire	0.45 Kg	(12)	All
157	MS20427M3-7	Rivet	0.1 Kg	(12)	All

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
139-407L1	1	(1)	
139-407L5	1	(5)	
139-407L4	1	(2)	Part I
139-407L7	1	(13)	
139-407L2	1	(3)	Part II
139-407L3	1	(4)	
139-407L6	1		Part III

NOTES

- (1) Item to be ordered only for all AW139 helicopters from S/N 31201 to S/N 31699 and from S/N 41300 to S/N 41499 not equipped with IBF electrical installation P/N 3G7160A07911.
- (2) Item to be ordered only for AW139 helicopters from S/N 31201 onwards and from S/N 41300 onwards already equipped with IBF electrical installation P/N 3G7160A07911 without the relay K334 and K335.
- (3) Item to be ordered only for all AW139 helicopters from S/N 31201 onwards and from S/N 41300 onwards equipped with IBF LH assy P/N 3G7160V03931.
- (4) Item to be ordered only for all AW139 helicopters from S/N 31201 onwards and from S/N 41300 onwards equipped with IBF complete provision P/N 3G7160A07811.
- (5) Item to be ordered only for all AW139 helicopters from S/N 31700 to S/N 31801 and from S/N 41501 onwards not equipped with IBF electrical installation P/N 3G7160A07911.
- (6) This oil filter is part of the IBF assy. It may be supplied as P/N 100100-130 or P/N 100100-140 or equivalent depending on the packaging/bottle.
- (7) Applicable only to helicopters from S/N 31201 to S/N 31398 and from S/N 41201 to S/N 41293.
- (8) This item is obtained reworking wires W220A22-G and W221A22-G of the cable assy A1A515.
- (9) This item is obtained reworking wires W220B22-G and W221B22-G of the cable assy A1B479.
- (10) This item is obtained reworking wires W217A22-S, W218A22-S and W219A22-S of the cable assy A2A445.
- (11) This item is obtained reworking wires W217B22-S, W218B22-S and W219B22-S of the cable assy A2B450.
- (12) Item to be procured as local supply.
- (13) Item to be ordered only for AW139 helicopters from S/N 31802 onwards not equipped with IBF electrical installation P/N 3G7160A07911.
- (14) Item P/N 3G7160A07911A1R has to be ordered for AW139 helicopters from 31201 to S/N 31801, while item P/N 3G7160A07911A9R has to be ordered for AW139 helicopters S/N 31802 onwards.
- (15) Adhesive MC780 B-2, Code No. 99999999000015245 can be used as a valid alternative

B. SPECIAL TOOLS

The following special tools, or equivalent, are necessary to accomplish this Service Bulletin:

#	P/N	DESCRIPTION	Q.TY	NOTE	PART
158	110-6B	Electrical power supply (28 VDC) (BB-01-00)	1	(B1)	All
159	Commercial	Multimeter	1	(B2)	III
160	TALL6300T1A690B	Waveform generator (BA-01-00)	1	(B3)	III
161	CEA 046-139-A01-1	WOW simulation kit	1	(B2)	III

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

SPECIAL TOOLS NOTES

(B1) P/N GB713-045-700 may be used as a valid alternative.

(B2) Item to be procured as local supply.

(B3) Items P/N HM8150 or P/N 3593.0797.02 may be used as valid alternatives.

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) Protect properly all those equipment not removed from area affected by the modification during installation procedure.
- f) Before rivet installation in places where fasteners were just removed, in accordance with the procedures reported on ASRP check hole diameter and if necessary install oversized rivets. If necessary install rivets with different grips.
- g) During the installation of bonding braids or components requiring grounding, clean the surface structure in order to obtain a good ground contact.
- h) Use aliphatic naphtha to degrease. Cleaned surfaces shall be allowed to air dry for at least 30 minutes before bonding.
- i) Let adhesive cure at room temperature for at least 24 hours unless otherwise specified.
- j) All lengths are in mm.

PART I

NOTE

Perform the detailed procedure for the installation of relays K334 and K335 (only step 1 to 2, step 13 to 48 and step 50 to 53) if the helicopter is already equipped with IBF electrical installation P/N 3G7160A07911 without the relay K334 and K335 (as per BT139-407 Rev./ 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, open the access door 213AL.
3. In accordance with AMP DM 39-A-71-11-01-00A-520A-A and DM 39-A-71-11-02-00A-520A-A, remove the Number 1 and the Number 2 engine access doors.
4. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, remove access panels 131AL, 132AR, 141DL, 142ER, 142CR, 160AT and 160BT.
5. In accordance with AMP DM 39-A-25-82-03-00A-520A-A, remove the left hinged lining panel.
6. In accordance with AMP DM 39-A-25-82-04-00A-520A-A, remove the right hinged lining panel.
7. With reference to Figures 1 thru 5 and 26, gain access to the area affected by the installation and perform the IBF structural provision P/N 3G5310A83011 on the engine cowling assy as described in the following procedure:
 - 7.1 With reference to Figure 26 section A-A and B-B, install bracket P/N A414A04C238A1 by means of n°3 rivets P/N AGS4719-508.
 - 7.2 With reference to Figure 1 iso view, remove and discard the strut assy P/N 3P7113A19631. Keep existing hardware for later reuse.
 - 7.3 With reference to Figure 1 iso view, install the strut assy P/N 3G7113A00131 by means of previously removed hardware.
 - 7.4 With reference to Figure 1 view E, remove n°3 screws P/N AN525-10R6, n°3 bolts P/N MS21042-3 and n°3 washers P/N NAS1149C0332R.
 - 7.5 With reference to Figure 1 view E, install doubler assy P/N 3G5310A99531 by means of Proseal 700 and n°3 screws P/N MS24694-C48.
 - 7.6 Repeat steps 7.1 thru 7.55 for RH side.

NOTE

Perform the following step 7.7, using the IBF assy as a reference for the correct position of the drilling points.

- 7.7 With reference to Figure 19 View From B temporarily position the IBF on the external surface of the engine cowling.

CAUTION

Position the IBF assy properly on the engine cowling, paying particular attention to the correct alignment on the edges and on the inlet areas.

CAUTION

Be careful not to overlap the IBF assy on the engine cowling latches.

- 7.8 With reference to Figure 2 RH side and Figure 19 View From B, perform n° 12 pilot holes Ø2.5 on the highlighted areas.
- 7.9 With reference to Figure 27 perform n° 8 pilot holes Ø2.5 on the inlet areas, using doublers P/N 3G5310A99951 and P/N 3G5310A99651 as a drilling reference.
- 7.10 With reference to Figure 1 iso view and Figure 2 RH side, drill n°22 holes Ø5.03÷5.28 on engine cowling skin and doublers.
- 7.11 With reference to Figure 1 iso view and Figure 2 RH side, install doubler P/N 3G5311A25551, doubler P/N 3G5310A93251, doubler P/N 3G5310A83351, doubler assy P/N 3G5310A91531, doubler scoop internal P/N 3G5310A99651, doubler P/N 3G5311A02451, doubler P/N 3G5311A02351, doubler small scoop rh P/N 3G5310A99951 and doubler P/N 3G5311A09451 by means of adhesive PROSEAL 700 and n°17 rivets P/N NAS1200-3-3-5.
- 7.12 With reference to Figure 5 Detail H, perform hole Ø16.37÷16.63 and n°4 holes Ø3.12÷3.38 on engine cowling skin as indicated.
- 7.13 With reference to Figure 1 iso view and Figure 2 RH side view, install n°21 nutplates P/N MS21076L3N and nutplate P/N MS21061L3 by means of n°28 rivets P/N NAS1200-3-3-5.

NOTE

Closure plate P/N 3G5311A05231 shall be installed only when the connectors P601 and P600 of the F2A218 and F2B214 cable assemblies are stowed.

- 7.14 With reference to Figure 5 detail K, install closure plate P/N 3G5311A05231 by means of n°4 screws P/N MS35206-214 and n°4 washers P/N NAS1149CN432R.

NOTE

Perform the following step 7.15, using the IBF assy as a reference for the correct position of the drilling points.

- 7.15 With reference to Figure 19 View From B temporarily position the IBF on the external surface of the engine cowling.

CAUTION

Position the IBF assy properly on the engine cowling, paying particular attention to the correct alignment on the edges and on the inlet areas.

CAUTION

Be careful not to overlap the IBF assy on the engine cowling latches.

- 7.16 With reference to Figure 2 LH side and Figure 19 View From B, perform n° 12 pilot holes Ø2.5 on the highlighted areas.
- 7.17 With reference to Figure 27 perform n° 8 pilot holes Ø2.5 on the inlet areas, using doublers P/N 3G5310A99851 and P/N 3G5310A99751 as a drilling reference.
- 7.18 With reference to Figure 1 iso view and Figure 2 LH side, drill n°22 holes Ø5.03±5.28 on engine cowling skin and doublers.
- 7.19 With reference to Figure 1 iso view and Figure 2 LH side view, install doubler P/N 3G5311A09451, doubler small scoop P/N 3G5310A99851, doubler P/N 3G5310A83151, doubler P/N 3G5310A83251, doubler scoop internal LH P/N 3G5310A99751, doubler P/N 3G5310A93251, doubler P/N 3G5310A83351, doubler P/N 3G5310A83451 and doubler assy P/N 3G5310A91531 by means of adhesive Proseal 700 and n°17 rivets P/N NAS1200-3-3.
- 7.20 With reference to Figure 1 iso view and Figure 2 LH side view, drill n°22 holes Ø5.03±5.28 on engine cowling skin and doublers.

- 7.21 With reference to Figure 1 iso view and Figure 2 LH side view, install n°21 nutplates P/N MS21076L3N and nutplate P/N MS21061L3 by means of n°28 rivets P/N NAS1200-3-3-5.
- 7.22 With reference to Figure 5 Detail B, perform hole $\varnothing 16.37 \div 16.63$ and n°4 holes $\varnothing 3.12 \div 3.38$ on engine cowling skin as indicated.

NOTE

Closure plate P/N 3G5311A05231 shall be installed only when the connectors P601 and P600 of the F2A218 and F2B214 cable assemblies are stowed.

- 7.23 With reference to Figure 5 section J-J, install closure plate P/N 3G5311A05231 by means of n°4 screws P/N MS35206-214 and n°4 washers P/N NAS1149CN432R.

NOTE

Perform the following step 7.24 only if bolts P/N A364A3 are not already installed on the helicopter.

- 7.24 With reference to Figure 4 view N and section P-P, install n°2 bolts P/N A364A3 (LH and RH sides) by means of n°4 rivets P/N MS20615-4M.

NOTE

All connections shall be removed, reused or stowed on both sides in accordance with the applicable installation drawing instructions.

NOTE

Each spare wiring that has a terminal or connector installed must be stored securely and yet be visible for inspection and identification. Wires that do not have a terminal lug installed must be dead-ended with a cap or insulation tubing. Wires ending in terminal lugs or other special purpose terminations are stowed to preserve these ends. Use transparent tubing to show these ends intact whenever possible.

8. With reference to Figures 6 thru 13, perform the inlet barrier filter electrical provision P/N 3G7160A07911 in accordance with the following procedures:
- 8.1 With reference to Figure 8, remove the necessary equipments from the interseat console to get access to the modification area.

- 8.2 With reference to Figures 6 and Figure 8 view C location n°1, install electrical cable support P/N AW001CL001-N6.

NOTE

While performing steps 8.3 thru 8.8, it is allowed to partially relocate clamps P/N AW001CB04H in an adjacent area to install them properly without any interference.

- 8.3 With reference to Figure 12 view J locations n°2, 3 and 4 install n°3 clamps P/N AW001CB04H by means of existing hardware.
- 8.4 With reference to Figure 12 view J location n°5, install bolt P/N A364A3 by means of n°2 rivets P/N MS20615-4M, nut P/N MS21043-3, spacer P/N NAS43DD3-26N, washer P/N NAS1149D0332J and clamp P/N AW001CB04H.
- 8.5 With reference to Figure 12 view J location n°6, install clamp P/N AW001CB04H by means of washer P/N NAS1149D0332J and screw P/N NAS1802-3-7.
- 8.6 With reference to Figure 13 view K locations n°7, 8 and 9, install n°3 clamps P/N AW001CB04H by means of existing hardware.
- 8.7 With reference to Figure 13 view K location n°10, install bolt P/N A364A3 by means of n°2 rivets P/N MS20615-4M, nut P/N MS21043-3, spacer P/N NAS43DD3-26N, washer P/N NAS1149D0332J and clamp P/N AW001CB04H.
- 8.8 With reference to Figure 13 view K location n°11, install clamp P/N AW001CB04H by means of washer P/N NAS1149D0332J and screw P/N NAS1802-3-7.
- 8.9 With reference to Figure 7 view A, install relay K334 P/N M83536/2-028M.
- 8.10 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 7 view A, install decal P/N ED300K334 in an area adjacent to relay K334.
- 8.11 With reference to Figure 7 view B, install relay K335 P/N M83536/2-028M.
- 8.12 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 7 view B, install decal P/N ED300K335 in an area adjacent to relay K335.

NOTE

Following step 8.13 is applicable only to helicopters from S/N 31201 to S/N 31398 and from S/N 41201 to S/N 41293.

- 8.13 With reference to Figure 34 view B locations n°1 and 2, install n°2 electrical cable support P/N AW001CL001-N6.

8.14 With reference to Figures 6 thru 15, lay down the following cable assemblies following the existing route unless otherwise indicated on the figures:

- 3G9C02A33901 inlet barrier filter C/A (C2A339);
- 3G9C02B30301 inlet barrier filter C/A (C2B303);
- 3G9B01A74001 inlet barrier filter C/A (B1A740);
- 3G9A01A51501 inlet barrier filter C/A (A1A515);
- 3G9A02A44501 inlet barrier filter C/A (A2A445);
- 3G9B02B46901 inlet barrier filter C/A (B2B469);
- 3G9B01B76301 inlet barrier filter C/A (B1B763);
- 3G9B01A88901 inlet barrier filter C/A (B1A889);
- 3G9B02A77901 inlet barrier filter C/A (B2A779);
- 3G9A02B45001 inlet barrier filter C/A (A2B450);
- 3G9A01B47901 inlet barrier filter C/A (A1B479);
- 3G9F02A21801 inlet barrier filter C/A (F2A218);
- 3G9F02B21401 inlet barrier filter C/A (F2B214).

NOTE

Where necessary and in accordance with AMP DM 39-A-20-10-08-00A-622A-A crimp on wires the required electrical contacts (refer to Figures 32 and 33) by means of proper crimping tool.

8.15 With reference to Figures 6, 8 and Figure 22 and 24 wiring diagram, remove the electrical connection of cable assy P/N 3G9A01A24001 (A1A240) and P/N 3G9A01B24301 (A1B243) between sectioning connector P121 and terminal board TB143-2 and between connector PL19P2 and PL27P2.

NOTE

Following steps 8.16 thru 8.26 are applicable only to helicopters from S/N 31201 to S/N 31398 and from S/N 41201 to S/N 41293.

8.16 With reference to Figures 32, 34, 35 and Figures 23 and 36 wiring diagrams, rework wires W220A22-G and W221A22-G of the cable assy A1A515 and in accordance with AMP DM 39-A-20-10-18-00A-691A-A remark as cable assy A1A707 by means of marker sleeves P/N A578A05-9.

8.17 With reference to Figures 32, 34, 35 and Figures 36 and 37 wiring diagrams, perform the electrical connection of cable assy P/N 3G9A01A70701 (A1A707) between IBF control panel connector PL155P1 and sectioning connector J103.

- 8.18 With reference to Figures 6, 7, 8, 32 and Figures 22, 23, 25 wiring diagram, perform electrical connection of cable assy P/N 3G9A01A51501 (A1A515) between sectioning connector P121, terminal board TB143-2, terminal board TB133, terminal board TB129-2, light dimmers panel connector PL19P2, miscellaneous panel connector PL27P2, sectioning connector P131, sectioning connector J103, terminal board TB121P1, IBF control panel connector PL155P1, DC PWR GND connector TB107P1, relay K335 connector K335P1 and MAU 1 connector A1-1P1 and A1-1P4.
- 8.19 With reference to Figures 32, 34, 35 and Figures 23 and 36 wiring diagrams, rework wires W217A22-S, W218A22-S and W219A22-S of the cable assy A2A445 and in accordance with AMP DM 39-A-20-10-18-00A-691A-A remark as cable assy A2A636 by means of marker sleeves P/N A578A05-9.

NOTE

Only for helicopters equipped with kit lighting sensor system customer must contact AW139 Product Support Engineering (cse.aw139.aw@leonardocompany.com) to request the appropriate wiring diagram at least three months in advance from the scheduled application of this Service Bulletin.

- 8.20 With reference to Figures 32, 34, 35 and Figure 36 wiring diagram, perform the electrical connection of cable assy P/N 3G9A02A63601 (A2A636) between IBF control panel connector PL155P1 and sectioning connector J105.
- 8.21 With reference to Figures 6, 7, 8, 32 and Figure 23 wiring diagram, perform electrical connection of cable assy P/N 3G9A02A44501 (A2A445) between IBF control panel connector PL155P1 and sectioning connector P133.
- 8.22 With reference to Figures 33, 34, 35 and Figures 23 and 36 wiring diagrams, rework wires W217B22-S, W218B22-S and W219B22-S of the cable assy A2B450 and in accordance with AMP DM 39-A-20-10-18-00A-691A-A remark as cable assy A2B614 by means of marker sleeves P/N A578A05-9.
- 8.23 With reference to Figures 33, 34, 35 and Figure 36 wiring diagram, perform the electrical connection of cable assy P/N 3G9A02B61401 (A2B614) between sectioning connector P105, sectioning connector P118 and sectioning connector P138.

- 8.24 With reference to Figures 33, 34, 35 and Figures 23 and 36 wiring diagrams, rework wires W220B22-G and W221B22-G of the cable assy A1B479 and in accordance with AMP DM 39-A-20-10-18-00A-691A-A remark as cable assy A1B648 by means of marker sleeves P/N A578A05-9.
- 8.25 With reference to Figures 33, 34, 35 and Figures 36 and 37 wiring diagrams, perform the electrical connection of cable assy P/N 3G9A01B64801 (A1B648) between sectioning connector P103, sectioning connector P114, sectioning connector P116.
- 8.26 With reference to Figures 6, 7, 9, 33 and Figures 25 wiring diagrams perform the electrical connection of cable assy P/N 3G9A01B47901 (A1B479) between sectioning connector P103, sectioning connector P109, DC PWR GND connector TB108P1, relay K334 connector K334P1 and MAU 2 connectors A2-1P1 and A2-1P4.

NOTE

Following steps 8.27 thru 8.30 are applicable only to helicopters from S/N 31400 onwards and from S/N 41300 onwards.

- 8.27 With reference to Figures 6, 7, 8, 32 and Figures 22, 23, 25 wiring diagrams, perform electrical connection of cable assy P/N 3G9A01A51501 (A1A515) between sectioning connector P121, terminal board TB143-2, terminal board TB133, terminal board TB129-2, light dimmers panel connector PL19P2, miscellaneous panel connector PL27P2, sectioning connector P131, sectioning connector J103, terminal board TB121P1, IBF control panel connector PL155P1, DC PWR GND connector TB107P1, relay K335 connector K335P1 and MAU 1 connector A1-1P1 and A1-1P4.
- 8.28 With reference to Figures 6, 7, 8, 32 and 23 wiring diagram, perform electrical connection of cable assy P/N 3G9A02A44501 (A2A445) between IBF control panel connector PL155P1, sectioning connector P133 and sectioning connector J107.
- 8.29 With reference to Figures 6, 7, 9, 33 and Figure 23 wiring diagram, perform the electrical connection of cable assy P/N 3G9A02B45001 (A2B450) between sectioning connector P107, sectioning connector P118 and sectioning connector P138.

- 8.30 With reference to Figures 6, 7, 9, 33 and Figures 23 and 25 wiring diagrams perform the electrical connection of cable assy P/N 3G9A01B47901 (A1B479) between sectioning connector P103, sectioning connector P114, sectioning connector P116, sectioning connector P109, DC PWR GND connector TB108P1, relay K334 connector K334P1 and MAU 2 connectors A2-1P1 and A2-1P4.
- 8.31 With reference to Figures 6, 8 and Figure 22 wiring diagram, perform electrical connection of cable assy P/N 3G9B01A74001 (B1A740) between sectioning connector J121 and circuit breaker panel connector PL1P9.
- 8.32 With reference to Figures 2, 8, 10, 33 and Figure 23 wiring diagram, perform electrical connection of cable assy P/N 3G9B02A77901 (B2A779) between sectioning connector J133 and sectioning connector J217.
- 8.33 With reference to Figures 6, 8, 10, 33 and Figure 23 wiring diagram, perform electrical connection of cable assy P/N 3G9B01A88901 (B1A889) between sectioning connector J131 and sectioning connector J215.
- 8.34 With reference to Figures 6, 11 and Figure 23 wiring diagram, perform electrical connection of cable assy P/N 3G9C02A33901 (C2A339) between sectioning connector P217, sectioning connector P215 and sectioning connector J335.
- 8.35 With reference to Figures 6, 11, 12, 33 and Figure 23 wiring diagram, perform the electrical connection of cable assy P/N 3G9F02A21801 (F2A218) between sectioning connector P335 and sectioning connector P601.
- 8.36 With reference to Figures 6, 9, 10, 32 and Figure 23 wiring diagram, perform the electrical connection of cable assy P/N 3G9B02B46901 (B2B469) between sectioning connector J118, sectioning connector J138 and sectioning connector J214.
- 8.37 With reference to Figure 9 detail F, perform the connection between connectors J138 and P138 by means of retainer P/N M85049/95-25A-A by means of n°4 washers P/N NAS1149DN616J and n°4 screws P/N NAS1802-06-8.
- 8.38 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 9 detail F install decal P/N ED300J138.
- 8.39 With reference to Figures 6, 9, 10, 33 and Figure 23 wiring diagram, perform the electrical connection of cable assy P/N 3G9B01B76301 (B1B763) between sectioning connector J114, sectioning connector J116 and sectioning connector J210.

- 8.40 With reference to Figures 6, 11 and Figure 23 wiring diagram, perform the electrical connection of cable assy P/N 3G9C02B30301 (C2B303) between sectioning connector P214, sectioning connector P210 and sectioning connector J334.
- 8.41 With reference to Figures 6, 11, 13, 33 and Figure 23 wiring diagram, perform the electrical connection of cable assy P/N 3G9F02B21401 (F2B214) between sectioning connector P334 and sectioning connector P600.
9. In accordance with AMP DM 39-A-71-11-01-00A-720A-A and DM 39-A-71-11-02-00A-720A-A, install the Number 1 and the Number 2 engine access doors.
10. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, install access panels 131AL, 132AR, 141DL, 142ER, 142CR, 160AT and 160BT.
11. In accordance with AMP DM 39-A-25-82-03-00A-720A-A, install the left hinged lining panel.
12. In accordance with AMP DM 39-A-25-82-04-00A-720A-A, install the right hinged lining panel.

NOTE

The following steps from 13 to 48 are applicable only if the helicopter is already equipped with IBF electrical installation P/N 3G7160A07911 without the relay K334 and K335.

13. With reference to Figure 14 View A, Figure 15 View E and Figure 25 wiring diagram, assembly wire W207C22-G as described in the following procedure:
- 13.1 With reference to Figure 14 View A and Figure 15 View E, route one piece of electrical wire A556A-T22 of adequate length between Relay connector K334P1 and MAU2 connector A2-1P1.
- 13.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N M39029/57-354 (MAU2 side) and electrical contact P/N A523A-B02 (K334P1 side) by means of proper crimping tool.
- 13.3 With reference to Figure 25 Wiring diagram, mark wire as W207C22-G by means of n°2 plastic sleeves P/N A578A05-9.
14. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W207C22-G previously assembled to MAU2 connector A2-1P1.
15. With reference to Figure 14 View A, Figure 15 View E and Figure 25 Wiring diagram, assembly wire W260A22N-G as described in the following procedure:

- 15.1 With reference to Figure 14 View A and Figure 15 View E, route one piece of electrical wire A556A-T22 of adequate length between Relay connector K334P1 and terminal board connector TB108P1.
- 15.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N M39029/56-351 (TB side) and electrical contact P/N A523A-B02 (K334P1 side) by means of proper crimping tool.
- 15.3 With reference to Figure 25 Wiring diagram, mark wire as W260A22N-G by means of n°2 plastic sleeves P/N A578A05-9.
16. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W260A22N-G previously assembled to terminal board connector TB108P1.
17. With reference to Figure 14 View A, Figure 15 View E and Figure 25 Wiring diagram, identify and rework wire W207B22-G as described in the following procedure:
 - 17.1 With reference to Figure 14 View A and Figure 15 View E, cut wire W207B22-G to an adequate length to Relay connector K334P1.
 - 17.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N A523A-B02 (K334P1 side) by means of proper crimping tool.
 - 17.3 With reference to Figure 25 Wiring diagram, mark wire as W207B22-G by means of one plastic sleeve P/N A578A05-9.
18. With reference to Figure 15 View C and Figure 25 Wiring diagram, identify and rework wire W208B22-G as described in the following procedure:
 - 18.1 With reference to Figure 15 View C, cut wire W208B22-G to an adequate length.
 - 18.2 With reference to Figure 25 Wiring diagram, install one splice P/N M81824/1-2. Identify as splice SP10116.
 - 18.3 With reference to Figure 25 Wiring diagram, mark wire as W208B22-G by means of one plastic sleeve P/N A578A05-9.
19. With reference to Figure 15 View C and View E and Figure 25 Wiring diagram, assembly wire W208C22-G as described in the following procedure:
 - 19.1 With reference to Figure 15 View C and View E, route one piece of electrical wire A556A-T22 of adequate length between Relay connector K334P1 and splice SP10116.
 - 19.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N A523A-B02 (K334P1 side) by means of proper crimping tool.
 - 19.3 With reference to Figure 25 Wiring diagram, mark wire as W208C22-G by means of n°2 plastic sleeves P/N A578A05-9.
20. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W208C22-G previously modified to splice SP10116.

21. With reference to Figure 14 View A, Figure 15 View C and Figure 25 Wiring diagram, assembly wire W208D22-G as described in the following procedure:
 - 21.1 With reference to Figure 14 View A, Figure 15 View C, route one piece of electrical wire A556A-T22 of adequate length between MAU2 connector A2-1P4 and splice SP10116.
 - 21.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N A523A-B02 (K334P1 side) by means of proper crimping tool.
 - 21.3 With reference to Figure 25 Wiring diagram, mark wire as W208D22-G by means of n°2 plastic sleeves P/N A578A05-9.
22. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W208D22-G previously modified to MAU2 connector A2-1P4 and to splice SP10116.
23. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W207C22-G previously assembled to Relay connector K334P1.
24. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W260A22N-G previously assembled to Relay connector K334P1.
25. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W207B22-G previously modified to Relay connector K334P1.
26. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W208C22-G previously modified to Relay connector K334P1.
27. With reference to Figure 15 View E, put relay socket P/N M12883/52-001 in its position.
28. With reference to Figure 15 View E, install relay socket P/N M12883/52-001 in its mounting track.
29. With reference to Figure 15 View E, install relay P/N M83536/2-028M on the relay socket P/N M12883/52-001.
30. With reference to Figure 15 View E and in accordance with AMP DM 39-A-11-00-01-00A-720A-A, install decal P/N ED300K334.
31. With reference to Figure 14 View B, Figure 15 View D and Figure 25 Wiring diagram, assembly wire W210B22-G as described in the following procedure:
 - 31.1 With reference to Figure 14 View B and Figure 15 View D, route one piece of electrical wire A556A-T22 of adequate length between Relay connector K335P1 and MAU1 connector A1-1P1.
 - 31.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N M39029/57-354 (MAU1 side) and electrical contact P/N A523A-B02 (K335P1 side) by means of proper crimping tool.
 - 31.3 With reference to Figure 25 Wiring diagram, mark wire as W210B22-G by means of n°2 plastic sleeves P/N A578A05-9.

32. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W210B22-G previously assembled to MAU1 connector A1-1P1.
33. With reference to Figure 14 View B, Figure 15 View D and Figure 25 Wiring diagram, assembly wire W261A22N-G as described in the following procedure:
 - 33.1 With reference to Figure 14 View B and Figure 15 View D, route one piece of electrical wire A556A-T22 of adequate length between Relay connector K335P1 and terminal board connector TB107P1.
 - 33.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N M39029/56-351 (TB side) and electrical contact P/N A523A-B02 (K334P1 side) by means of proper crimping tool.
 - 33.3 With reference to Figure 25 Wiring diagram, mark wire as W260A22N-G by means of n°2 plastic sleeves P/N A578A05-9.
34. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W261A22N-G previously assembled to terminal board connector TB107P1.
35. With reference to Figure 15 View C and View D and Figure 25 Wiring diagram, identify and rework wire W210A22-G as described in the following procedure:
 - 35.1 With reference to Figure 15 View C and View D, cut wire W210A22-G to an adequate length to Relay connector K335P1.
 - 35.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N A523A-B02 (K334P1 side) by means of proper crimping tool.
 - 35.3 With reference to Figure 25 Wiring diagram, mark wire as W207B22-G by means of one plastic sleeve P/N A578A05-9.
36. With reference to Figure 15 View C and Figure 25 Wiring diagram, identify and rework wire W209A22-G as described in the following procedure:
 - 36.1 With reference to Figure 15 View C, cut wire W209A22-G to an adequate length.
 - 36.2 With reference to Figure 25 Wiring diagram, install one splice P/N M81824/1-2. Identify as splice SP10115.
 - 36.3 With reference to Figure 25 Wiring diagram, mark wire as W209A22-G by means of one plastic sleeve P/N A578A05-9.
37. With reference to Figure 15 View C and View D and Figure 25 Wiring diagram, assembly wire W209C22-G as described in the following procedure:
 - 37.1 With reference to Figure 15 View C and View D, route one piece of electrical wire A556A-T22 of adequate length between Relay connector K335P1 and splice SP10115.
 - 37.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N A523A-B02 (K335P1 side) by means of proper crimping tool.

- 37.3 With reference to Figure 25 Wiring diagram, mark wire as W209C22-G by means of n°2 plastic sleeves P/N A578A05-9.
38. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W209C22-G previously modified to splice SP10115.
39. With reference to Figure 14 View B, Figure 15 View C and Figure 25 Wiring diagram, assembly wire W209B22-G as described in the following procedure:
 - 39.1 With reference to Figure 14 View B and Figure 15 View C, route one piece of electrical wire A556A-T22 of adequate length between MAU1 connector A1-1P4 and splice SP10115.
 - 39.2 With reference to Figure 25 Wiring diagram, crimp one electrical contact P/N A523A-B02 (K335P1 side) by means of proper crimping tool.
 - 39.3 With reference to Figure 25 Wiring diagram, mark wire as W209B22-G by means of n°2 plastic sleeves P/N A578A05-9.
40. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W209B22-G previously modified to MAU1 connector A1-1P4 and to splice SP10115.
41. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W210B22-G previously assembled to Relay connector K335P1.
42. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W261A22N-G previously assembled to Relay connector K335P1.
43. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W210A22-G previously modified to Relay connector K334P1.
44. With reference to Figure 25 Wiring diagram, perform the electrical connection of wire W209C22-G previously modified to Relay connector K335P1.
45. With reference to Figure 15 View D, put relay socket P/N M12883/52-001 in its position.
46. With reference to Figure 15 View D, install relay socket P/N M12883/52-001 in its mounting track.
47. With reference to Figure 15 View D, install relay P/N M83536/2-028M on the relay socket P/N M12883/52-001.
48. With reference to Figure 15 View D and in accordance with AMP DM 39-A-11-00-01-00A-720A-A, install decal P/N ED300K335.
49. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, close access door 213AL.
50. With reference to Figure 22 wiring diagram, modify the overhead panel, as described in the following procedure:
 - 50.1 Remove lock ring on the circuit breaker P/N MS3320-5 (CB111) in the position indicated as EAPS 1.
 - 50.2 Remove lock ring on the circuit breaker P/N MS3320-5 (CB112) in the position indicated as EAPS 2.

51. Perform a pin-to-pin continuity check of all the electrical connections previously performed.

NOTE

Customer must consider N.A. for weight and balance changes if the helicopter is already equipped with IBF electrical installation P/N 3G7160A07911 without the relay K334 and K335 (ref. to BT139-407 Rev. / Part I).

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

cse.aw139.aw@leonardocompany.com

As an alternative, gain access to My Communications section on Leonardo Web Portal and compile the "Technical 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. With reference to Figures 16 and 17, perform the inlet barrier filter scoop retro-mod P/N 3G7160P00111 as described in the following procedure:
 - 2.1 With reference to Figure 16, remove the aft fairing assembly P/N 122500-101, the upper filter assembly P/N 122300-101 and the lower filter assembly P/N 122350-101 to allow access to the scoop area. Retain existing attaching hardware.
 - 2.2 With reference to Figure 16 detail A, remove the nut P/N MS21043-3, bolt P/N NAS6302-2, n°2 washers P/N NAS1149D0316J and n°2 clamps P/N MS21919WDG7.
 - 2.3 With reference to Figure 16 view B, disconnect the wire harness P/N 122125-101 from the differential pressure switch P/N 1004098-101.
 - 2.4 With reference to Figure 16 view B, remove the hose clamp P/N 3604. Disconnect the delta-p sensor hose P/N 122127-201 from the differential pressure switch P/N 1004098-101.
 - 2.5 With reference to Figure 16 view B, remove the bolt P/N NAS6203-11, washer P/N NAS1149D0332J, clamp P/N MS21919WDG28 and differential pressure switch P/N 1004096-101.
 - 2.6 With reference to Figure 16 view B, remove the hose clamp P/N 3604. Disconnect the FMA sensor hose P/N 122131-201 from the filter maintenance aid P/N 104441-201.
 - 2.7 With reference to Figure 16 view B, remove n°2 bolts P/N NAS6203-4, n°2 washers P/N NAS1149D0363J, retainer P/N 122132-201, retainer P/N 122133-201, n°2 cushions P/N 122134-201 and filter maintenance aid P/N 104441-201.
 - 2.8 With reference to Figure 17, view C and view E, temporarily locate scoop P/N 3G7160P00251 in its position on the inlet barrier filter LH. Countermark position of n°4 anchor nut holes in the inlet barrier filter LH.
 - 2.9 With reference to Figure 17 view C and section D-D, drill n°4 Ø 5.03±5.28 holes through the inlet barrier filter.
 - 2.10 With reference to Figure 17 view C and section D-D, install n°3 nut plates P/N MS21075L08 on the inlet barrier filter by means of n°6 rivets P/N NAS1200M3-3-5.

- 2.11 With reference to Figure 17 view C and section D-D, install nut plate P/N MS21075L08 on the inlet barrier filter by means of n°2 rivets P/N NAS1200M3-4-5.

NOTE

Before the installation of scoop P/N 3G7160P00251, re-locate the existing placard Static Port in a visible area.

If necessary use stencil P/N A954AS040EN.

- 2.12 With reference to Figure 17 view F, detail G and section H-H, apply a layer of adhesive RTV732 to the mating surfaces between the scoop P/N 3G7160P00251 and the inlet barrier filter.
 - 2.13 With reference to Figure 17 view E, install the scoop P/N 3G7160P00251 by means of n°4 screws P/N AN525-832R7.
 - 2.14 With reference to Figure 16 view B, install the filter maintenance aid P/N 104441-201 by means of n°2 cushions P/N 122134-201, retainer P/N 122133-201, retainer P/N 122132-201, n°2 washers P/N NAS1149D0363J and n°2 bolts P/N NAS6203-4.
 - 2.15 With reference to Figure 16 view B, connect the FMA sensor hose P/N 122131-201 to the filter maintenance aid P/N 104441-201. Install the hose clamp P/N 3604.
 - 2.16 With reference to Figure 16 view B, install the differential pressure switch P/N 1004098-101 by means of clamp P/N MS21919WDG28, washer P/N NAS1149D0332J and bolt P/N NAS6203-11.
 - 2.17 With reference to Figure 16 view B, connect the delta-p sensor hose P/N 122127-201 to the differential pressure switch P/N 1004098-101. Install the hose clamp P/N 3604.
 - 2.18 With reference to Figure 16 view B, connect the wire harness P/N 122125-101 to the differential pressure switch P/N 1004098-101.
 - 2.19 With reference to Figure 16 detail A, re-install n°2 clamps P/N MS21919WDG7, as per step 2.2.
 - 2.20 With reference to Figure 16 principal view, install the aft fairing assembly P/N 122500-101, the upper filter assembly P/N 122300-101 and the lower filter assembly P/N 122350-101 by means of the retained hardware at step 2.1.
3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
 4. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.

5. Send the attached compliance form to the following mail box:

cse.aw139.aw@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. With reference to Figure 18 and to Figure 22 thru Figure 25 Wiring diagram, perform the inlet barrier filter fixed parts installation P/N 3G7160A07711 as described in the following procedure:
 - 2.1 With reference to Figure 18 and to Figure 22 thru Figure 25 Wiring diagrams, connect the PL155P1 connector to the Inlet Barrier Filter (IBF) control panel PL155. Install the IBF control panel P/N 3G7160V04151 in its position on the cabin interseat console by means of its quick-release fasteners.
 - 2.2 With reference to Figure 24 Wiring diagram, make sure that the connections of the PL19P2 and PL27P2 connectors are performed correctly.
3. With reference to Figures 19 thru 21, perform the inlet barrier filter removable parts installation P/N 3G7160A08011 as described in the following procedure:
 - 3.1 With reference to Figure 19, remove the external intake LH and RH P/N 3P7117A33751 and P/N 3P7117A33851. Retain existing attaching hardware.

NOTE

If helicopter is equipped with grill assy LH and RH fixed by rivets (Refer to Figure 21 View F) perform the following step 3.2 otherwise go to step 3.3

- 3.2 With reference to Figure 21 View F, remove the grill assemblies RH and LH and install the covers P/N 3G7160A01751 as described in the following procedure:
 - 3.2.1 Drill out the existing rivets that fix the grill assy to the cowling assy.
 - 3.2.2 Remove the angulars and the grill assy.
 - 3.2.3 Clean the areas with a soft lint-free cloth soaked with solvent (C005) or aliphatic naphtha (C059).
 - 3.2.4 Re-install angulars by means of rivets P/N NAS1200M4-3 and P/N NAS1721C4L2P as required.
 - 3.2.5 Temporarily locate cover P/N 3G7160A01751 on the cowling assy and countermark the position of n°5 screw holes on the cowling assy.
 - 3.2.6 Drill n°5 holes $\varnothing 5.74 \div 5.87$ on the previously countermarked position on the cowling assy.
 - 3.2.7 Install n°5 anchor nuts P/N MS21076-3 by means of n°10 rivets P/N MS20427M3.

- 3.2.8 Install the cover P/N 3G7160A01751 by means of n°5 screws P/N NAS1802-3-8 and n°5 washers P/N NAS1149C0332R.
- 3.2.9 Perform steps 3.2.1 thru 3.2.8 also for the other side.
- 3.2.10 Go to step 3.5.
- 3.3 With reference to Figure 21 View F, remove the grill assy LH and RH P/N 3P7117A34131 and P/N 3P7117A34231. Retain existing attaching hardware.
- 3.4 With reference to Figure 21 View F, install the cover P/N 3G7160A01751 by means of the retained hardware at step 3.3. Perform this step also for RH side.

NOTE

If necessary replace existing hardware with screws
P/N AN525-10R9.

- 3.5 With reference to Figure 19, install the upper cover assy LH and RH P/N 3G7160A04331 and P/N 3G7160A04431 by means of the retained hardware at step 3.1.
- 3.6 With reference to Figure 19 View A, remove the n°28 screws P/N AN525-10R6 and the air intake assy P/N 3P7113A01934.
- 3.7 With reference to Figure 19 view from A, remove the n°28 screws P/N AN525-10R6 and the LH air intake assy P/N 3P7113A01934.
- 3.8 With reference to Figure 19 view B, remove the LH frame III assy P/N 3P7113A01334. Retain existing attaching hardware.

NOTE

Perform the following step 3.9 only if
P/N 3G7160A08131A has been provided without
welding points.

- 3.9 With reference to Figure 28 and 29, install covers P/N 3G7160A06851 and P/N 3G7160A06651 by means of n° 20 rivets P/N MS20427M3.
- 3.10 With reference to Figure 28 Section A-A and Section E-E, install n°6 anchor nuts P/N MS21060-3K and n°7 anchor nut P/N MS21050-3K by means of n°26 rivets P/N MS20427M3-4 as indicated on the frame 3 assy LH.
- 3.11 With reference to Figure 28 View B, install anchor nut P/N MS21062-3K and P/N MS21074-3K by means of n°4 rivets P/N MS20427M3-4 as indicated on the frame 3 assy LH.
- 3.12 With reference to Figure 29 Section C-C, install anchor nut P/N MS21062-3K and P/N MS21074-3K by means of n°4 rivets P/N MS20427M3-4 as indicated on the frame 3 assy LH.

- 3.13 With reference to Figure 19 view B, install the frame 3 assy LH P/N 3G7160A08131 by means of the retained hardware at step 3.8.
- 3.14 With reference to Figure 20 view D, bond strip silicon RBR sponge P/N A115A1616AB816 with RBR adhesive RTB106 on the IBF LH side P/N 3G7160V03931.
- 3.15 With reference to Figure 20 view D, bond strip silicon RBR sponge P/N A115A1616AB374 with RBR adhesive RTB106 on the IBF LH side P/N 3G7160V03931.
- 3.16 With reference to Figure 20 view D, bond strip silicon RBR sponge P/N A115A1616AB855 with RBR adhesive RTB106 on the IBF LH side P/N 3G7160V03931.
- 3.17 With reference to Figure 20 view D, cut extrusion silicon RBR P/N A966A080EB of a measure of 0.605 m and bond it with RBR adhesive RTB106 on the IBF LH side P/N 3G7160V03931.
- 3.18 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 20 detail H, install the stencil P/N A954AS040EN on the IBF LH side P/N 3G7160V03931.

NOTE

Filter elements P/N 122300-101 and P/N 122350-101
are part of the IBF assy LH P/N 3G7160V03931
(ref. step 3.19).

- 3.19 With reference to Figure 19 view A, remove n°18 screws P/N WES7900-10-A-10, filter element P/N 122300-101, n°18 screws P/N WES7900-10-A-10 and filter element P/N 122350-101.
- 3.20 With reference to Figure 19 view B, drill n°19 Ø 6.0 holes in the IBF assy LH P/N 3G7160V03931 according to the LH engine cowling assy P/N 3P7113A00135.
- 3.21 With reference to Figure 19 view B, install the IBF assy LH P/N 3G7160V03931 by means of n°19 bolts P/N NAS6203-4 and n°19 washers P/N NAS1149D0316J.
- 3.22 With reference to Figure 21 detail K, enlarge pilot hole up to Ø 5.33 on engine cowling skin and install LH bracket assembly P/N 3G7160A08531 on engine cowling by means of screw P/N AN525-10R7.
- 3.23 With reference to Figure 19 view A and Figure 21 detail L, install n°21 screws P/N AN525-10R8 and n°21 washers P/N NAS1149D0316J.

- 3.24 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 19 detail G, install stencil P/N A954AE040EJ and stencil P/N A954AF090EN.
- 3.25 With reference to Figure 21 view J, install n°3 bolts P/N NAS6603-2 and n°3 washers P/N NAS1149C0332R.

NOTE

Perform the following step 3.26 only if steps 7.14 and 7.23 of Part I have been performed.

- 3.26 With reference to Figure 20 detail C, remove n°4 screws P/N MS35206-214, n°4 washers P/N NAS1149CN432R and closure plate P/N 3G5311A05231.

NOTE

IBF connector is part of the IBF assy LH P/N 3G7160V03931 (ref. step 3.27).

- 3.27 With reference to Figure 20 detail C, install IBF connector by means of n°4 screws P/N MS35206-215, n°8 washers and n°8 nuts P/N MS21042L04.
- 3.28 With reference to Figure 20 view E location n°1, install n°2 clamps P/N AS21919WDG7 by means of screws P/N NAS6203-7, washer P/N NAS1149D0316J and spacer P/N NAS43HT3-17.

NOTE

To allow a proper installation of the clamps P/N MS21919WDG7, it is allowed the reversal installation of the screw, while performing the following step 3.29.

- 3.29 With reference to Figure 20 view E location n°2, install n°2 clamps P/N MS21919WDG7 by means of screw P/N NAS6203-2, nut P/N MS21043-3 and n°2 washers P/N NAS1149D0316J.
- 3.30 With reference to Figure 19 view A, install filter element P/N 122300-101 by means of n°18 screws P/N WES7900-10-A-10. Tighten the eighteen screws 3.39÷4.52 Nm (30 to 40 lbf in).
- 3.31 With reference to Figure 19 view A, install filter element P/N 122350-101 by means of n°18 screws P/N WES7900-10-A-10. Tighten the eighteen screws 3.39÷4.52 Nm (30 to 40 lbf in).
- 3.32 Oil filter element P/N 122300-101 with 14 oz of oil P/N 100100-080 and filter element P/N122350-101 with 13 oz of oil P/N 100100-080 as described in the following procedure:

NOTE

If possible, preserve a small quantity of oil.

- 3.32.1 Apply about half quantity of oil P/N 100100-080 along the entire length of each pleat peak and ensure a good coverage.
 - 3.32.2 Flip the filter element and perform the step 3.32.1 again.
 - 3.32.3 Make sure that you do not over oil the filter element.
 - 3.32.4 Wait thirty minutes and make sure that the oil is absorbed.
 - 3.32.5 If there is some area that still remain white or do not have a uniform colour, oil these areas with the preserved small quantity of oil.
- 3.33 With reference to Figure 19 view A, remove the n°28 screws P/N AN525-10R6 and the RH air intake assy P/N 3P7114A01934.
 - 3.34 With reference to Figure 19 view B, remove the RH frame III assy P/N 3P7114A01334. Retain existing attaching hardware.

NOTE

Perform the following step 3.35 only if P/N 3G7160A08331A has been provided without welding points.

- 3.35 With reference to Figure 30 and 31, install covers P/N 3G7160A06951 and P/N 3G7160A06752 by means of n° 20 rivets P/N MS20427M3.
- 3.36 With reference to Figure 30 Section A-A and Section E1-E1, install n°6 anchor nuts P/N MS21060-3K and n°7 anchor nut P/N MS21050-3K by means of n°26 rivets P/N MS20427M3-4 as indicated on the frame 3 assy RH.
- 3.37 With reference to Figure 30 View B, install anchor nut P/N MS21062-3K and P/N MS21074-3K by means of n°4 rivets P/N MS20427M3-4 as indicated on the frame 3 assy RH.
- 3.38 With reference to Figure 31 Section C-C, install anchor nut P/N MS21062-3K and P/N MS21074-3K by means of n°4 rivets P/N MS20427M3-4 as indicated on the frame 3 assy RH.
- 3.39 With reference to Figure 19 view B, install the frame 3 assy RH P/N 3G7160A08331 by means of the retained hardware at step 3.34.
- 3.40 With reference to Figure 20 view D, bond strip silicon RBR sponge P/N A115A1616AB816 with RBR adhesive RTB106 on the IBF RH side P/N 3G7160V04031.
- 3.41 With reference to Figure 20 view D, bond strip silicon RBR sponge P/N A115A1616AB374 with RBR adhesive RTB106 on the IBF RH side P/N 3G7160V04031.

- 3.42 With reference to Figure 20 view D, bond strip silicon RBR sponge P/N A115A1616AB855 with RBR adhesive RTB106 on the IBF RH side P/N 3G7160V04031.
- 3.43 With reference to Figure 20 view D, cut extrusion silicon RBR P/N A966A080EB of a measure of 0.605 m and bond it with RBR adhesive RTB106 on the IBF RH side P/N 3G7160V04031.
- 3.44 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 20 detail H, install the stencil P/N A954AS040EN.

NOTE

Filter elements P/N 122300-101 and P/N 122350-101
are part of the IBF assy RH P/N 3G7160V04031 (ref.
step 3.45).

- 3.45 With reference to Figure 19 view A, remove n°18 screws P/N WES7900-10-A-10, filter element P/N 122300-101, n°18 screws P/N WES7900-10-A-10 and filter element P/N 122350-101.
- 3.46 With reference to Figure 19 view B, drill n°19 Ø 6.0 holes in the IBF assy RH P/N 3G7160V04031 according to the RH engine cowling assy P/N 3P7114A00135.
- 3.47 With reference to Figure 19 view B, install the IBF assy RH P/N 3G7160V04031 by means of n°19 bolts P/N NAS6203-4 and n°19 washers P/N NAS1149D0316J.
- 3.48 With reference to Figure 21 detail K, drill hole Ø2.5 on engine cowling skin and install RH bracket assembly P/N 3G7160A08631 on engine cowling by means of screw P/N AN525-10R7.
- 3.49 With reference to Figure 19 view A and Figure 21 detail L, install n°21 screws P/N AN525-10R8 and n°21 washers P/N NAS1149D0316J.
- 3.50 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 19 detail G, install stencil P/N A954AE040EJ and stencil P/N A954AF090EN.
- 3.51 With reference to Figure 21 view J, install n°3 bolts P/N NAS6603-2 and n°3 washers P/N NAS1149C0332R.

NOTE

Perform the following step 3.52 only if steps 7.14
and 7.23 of Part I have been performed.

- 3.52 With reference to Figure 20 detail C, remove n°4 screws P/N MS35206-214, n°4 washers P/N NAS1149CN432R and closure plate P/N 3G5311A05231.

NOTE

IBF connector is part of the IBF assy RH
P/N 3G7160V04031 (ref. step 3.53).

- 3.53 With reference to Figure 20 detail C, install IBF connector by means of n°4 screws P/N MS35206-215, n°8 washers and n°8 nuts P/N MS21042L04.
- 3.54 With reference to Figure 20 view E location n°1, install n°2 clamps P/N AS21919WDG7 by means of screws P/N NAS6203-7, washer P/N NAS1149D0316J and spacer P/N NAS43HT3-17.

NOTE

To allow a proper installation of the clamps P/N MS21919WDG7, it is allowed the reversal installation of the screw, while performing the following step 3.55.

- 3.55 With reference to Figure 20 view E location n°2, install n°2 clamps P/N MS21919WDG7 by means of screw P/N NAS6203-2, nut P/N MS21043-3 and n°2 washers P/N NAS1149D0316J.
- 3.56 With reference to Figure 19 view A, install filter element P/N 122300-101 by means of n°18 screws P/N WES7900-10-A-10. Tighten the eighteen screws 3.39÷4.52 Nm (30 to 40 lbf in).
- 3.57 With reference to Figure 19 view A, install filter element P/N 122350-101 by means of n°18 screws P/N WES7900-10-A-10. Tighten the eighteen screws 3.39÷4.52 Nm (30 to 40 lbf in).
- 3.58 Oil filter element P/N 122300-101 with 14 oz of oil P/N 100100-080 and filter element P/N122350-101 with 13 oz of oil P/N 100100-080 as described in the following procedure:

NOTE

If possible, preserve a small quantity of oil.

- 3.58.1 Apply about half quantity of oil P/N 100100-080 along the entire length of each pleat peak and ensure a good coverage.
 - 3.58.2 Flip the filter element and perform the step 3.58.1 again.
 - 3.58.3 Make sure that you do not over oil the filter element.
 - 3.58.4 Wait thirty minutes and make sure that the oil is absorbed.
- 3.59 If there is some area that still remain white or do not have a uniform colour, oil these areas with the preserved small quantity of oil.
4. In accordance with AMP DM 39-A-71-61-00-00A-320A-K, perform the IBF system operational test.

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 III of this Service Bulletin on the helicopter log book.
7. Send the attached compliance form to the following mail box:
cse.aw139.aw@leonardocompany.com

As an alternative, gain access to My Communications section on Leonardo Web Portal and compile the “Technical Bulletin Application Communication”.

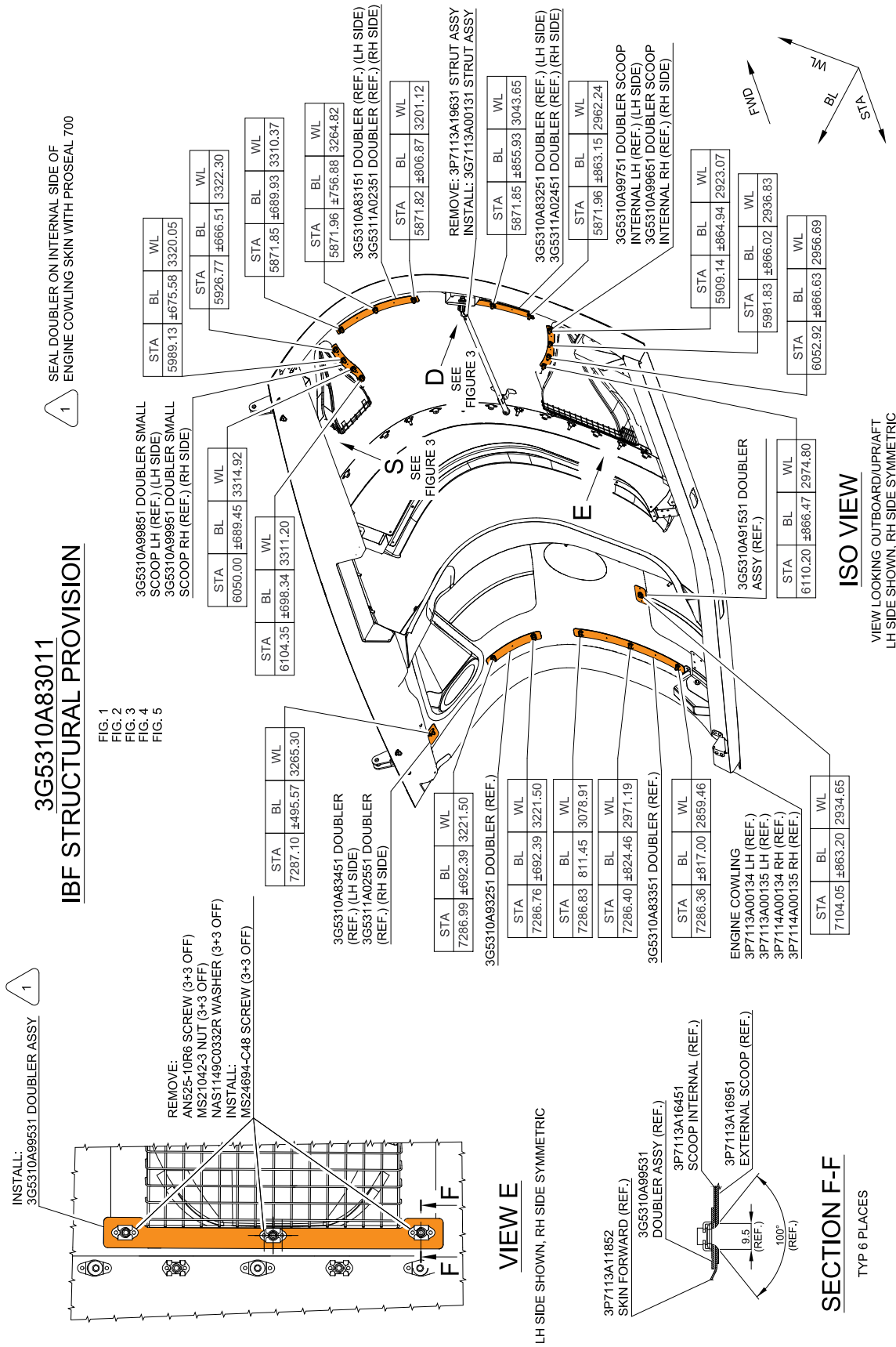


Figure 1

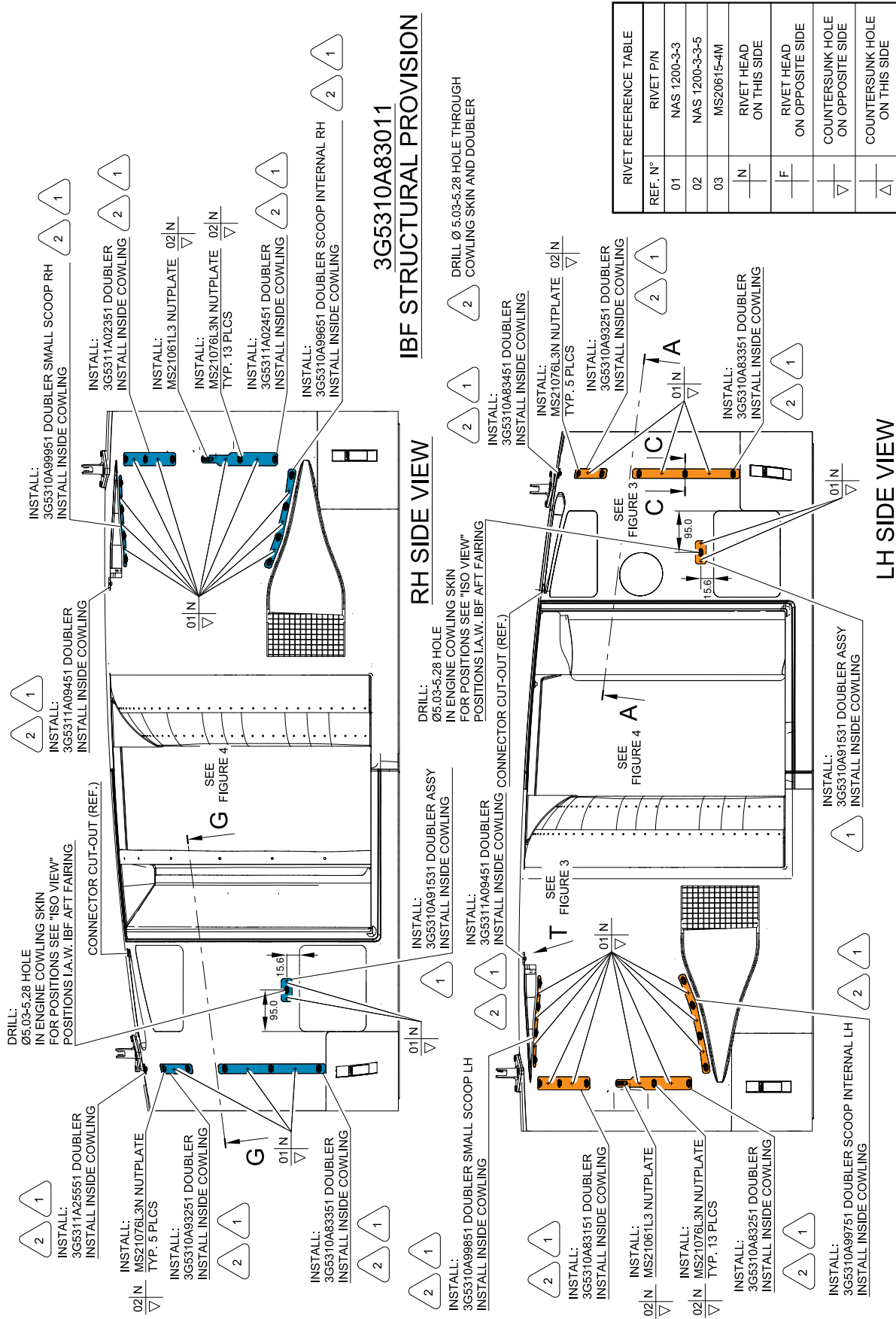
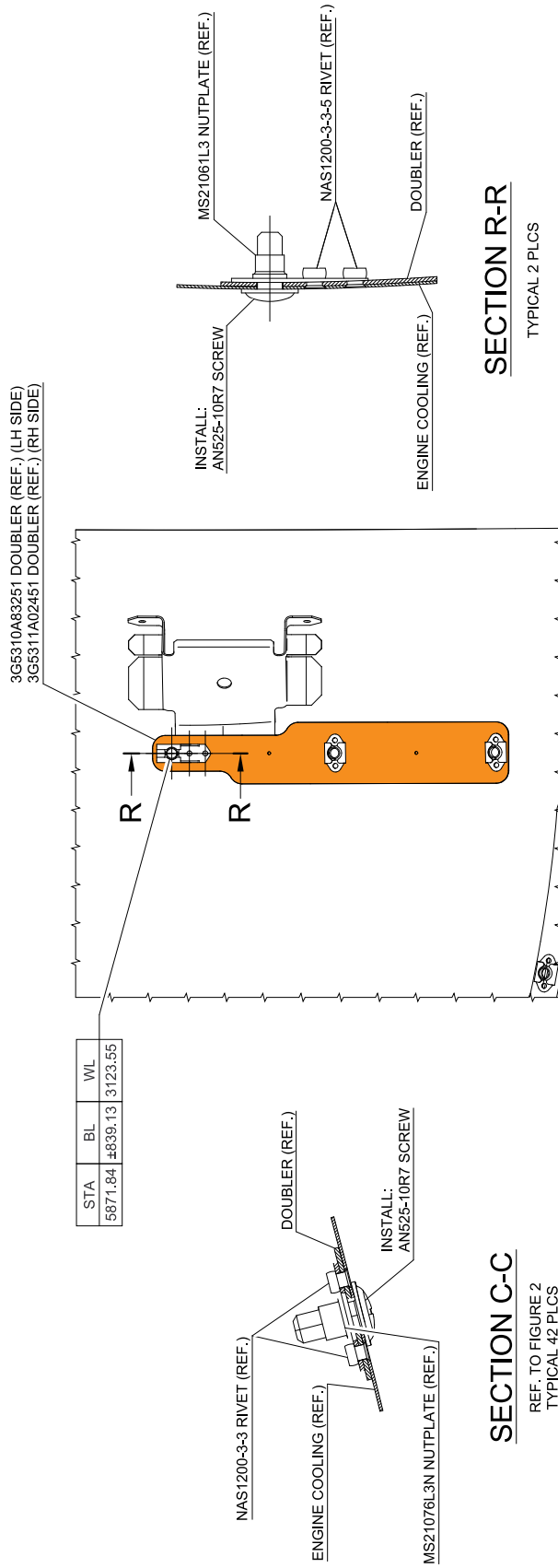


Figure 2

S.B. N°139-407

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SECTION C-C

REF. TO FIGURE 2
TYPICAL 42 PLCS

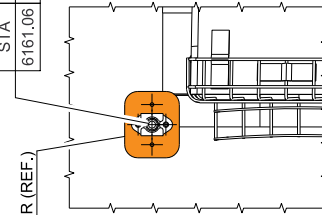
SECTION R-R

TYPICAL 2 PLCS

VIEW D

REF. TO FIGURE 1
STRUT ASSY NOT SHOWN
LH SIDE SHOWN, RH SIDE SYMMETRIC

STA	BL	WL
6161.06	±573.75	3346.26



VIEW S

REF. TO FIGURE 1
LH SIDE SHOWN, RH SIDE SYMMETRIC

VIEW T

REF. TO FIGURE 2
LH SIDE SHOWN, RH SIDE SYMMETRIC

**3G5310A83011
IBF STRUCTURAL PROVISION**

Figure 3

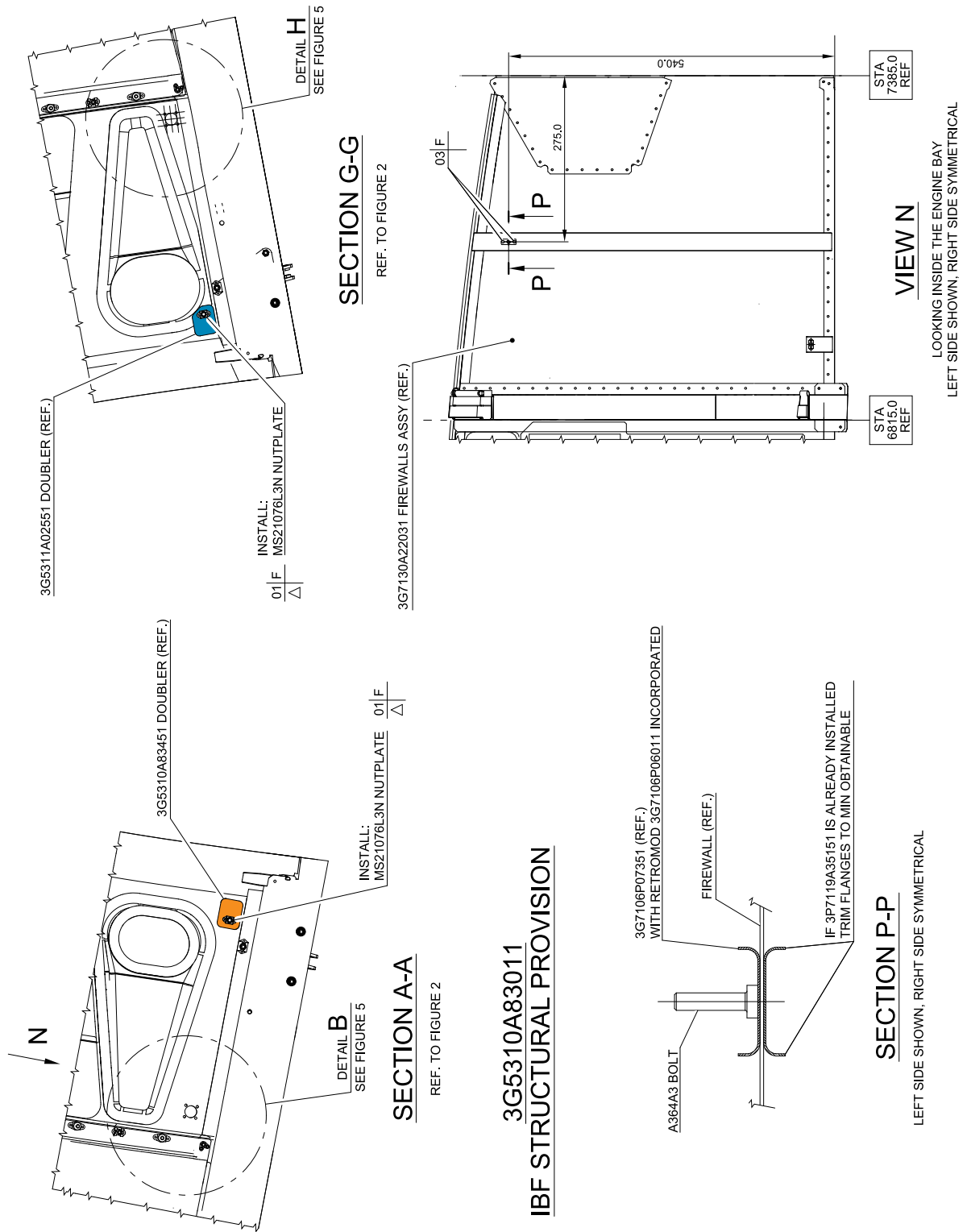


Figure 4

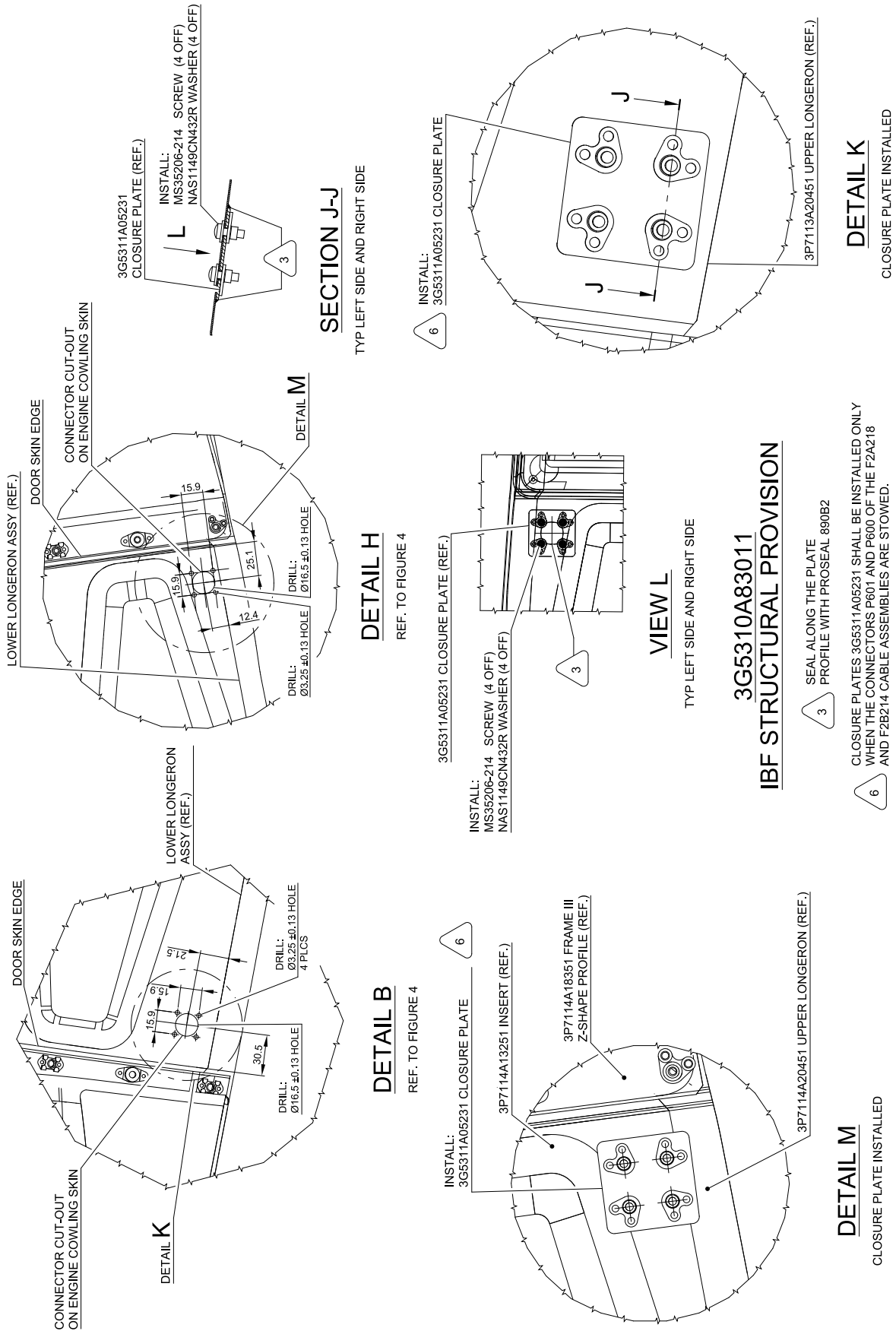
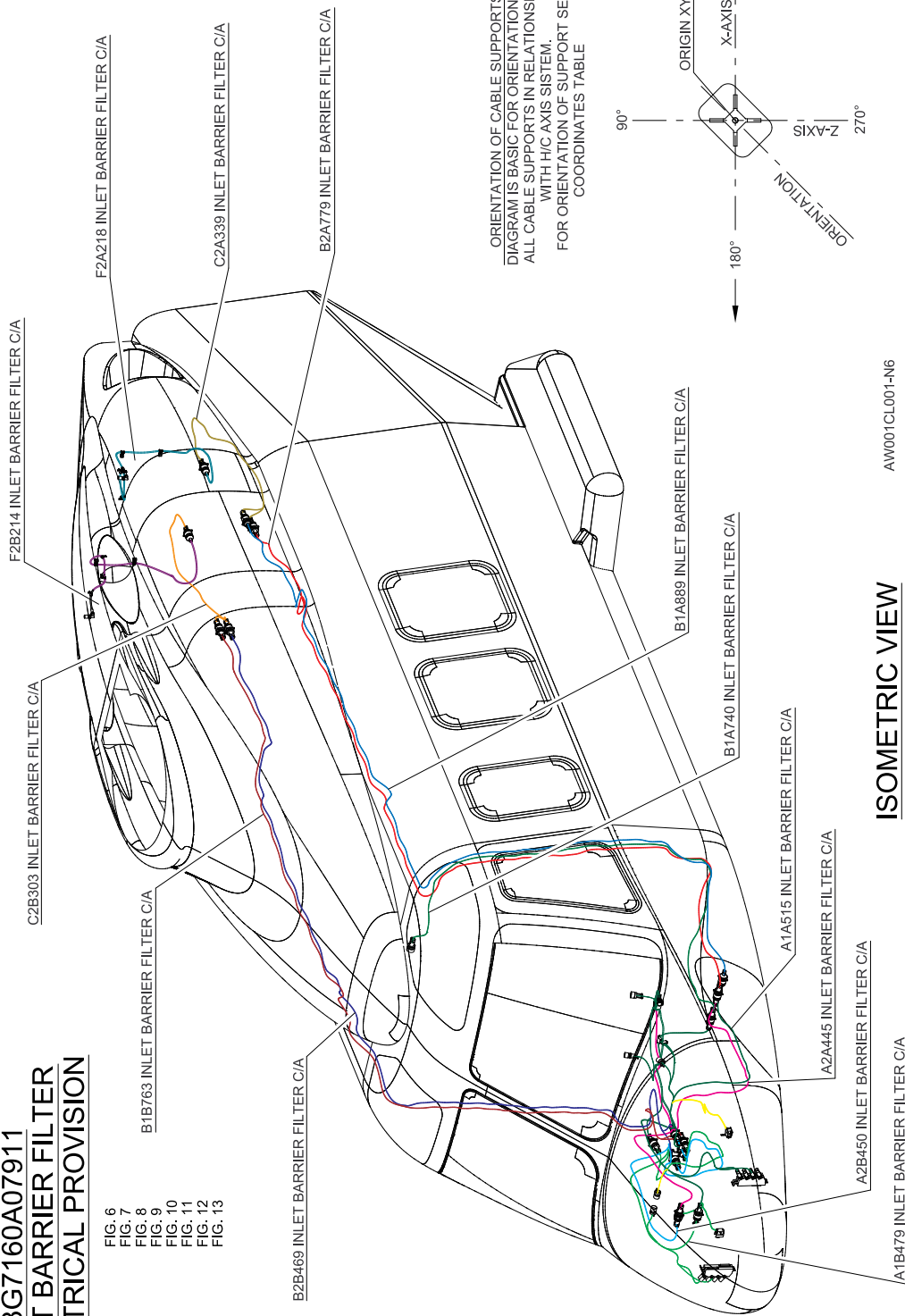


Figure 5

**3G7160A07911
INLET BARRIER FILTER
ELECTRICAL PROVISION**



ISOMETRIC VIEW

FOR CLARITY STRUCTURE AND
SYSTEM ARE PARTLY OMITTED

Figure 6

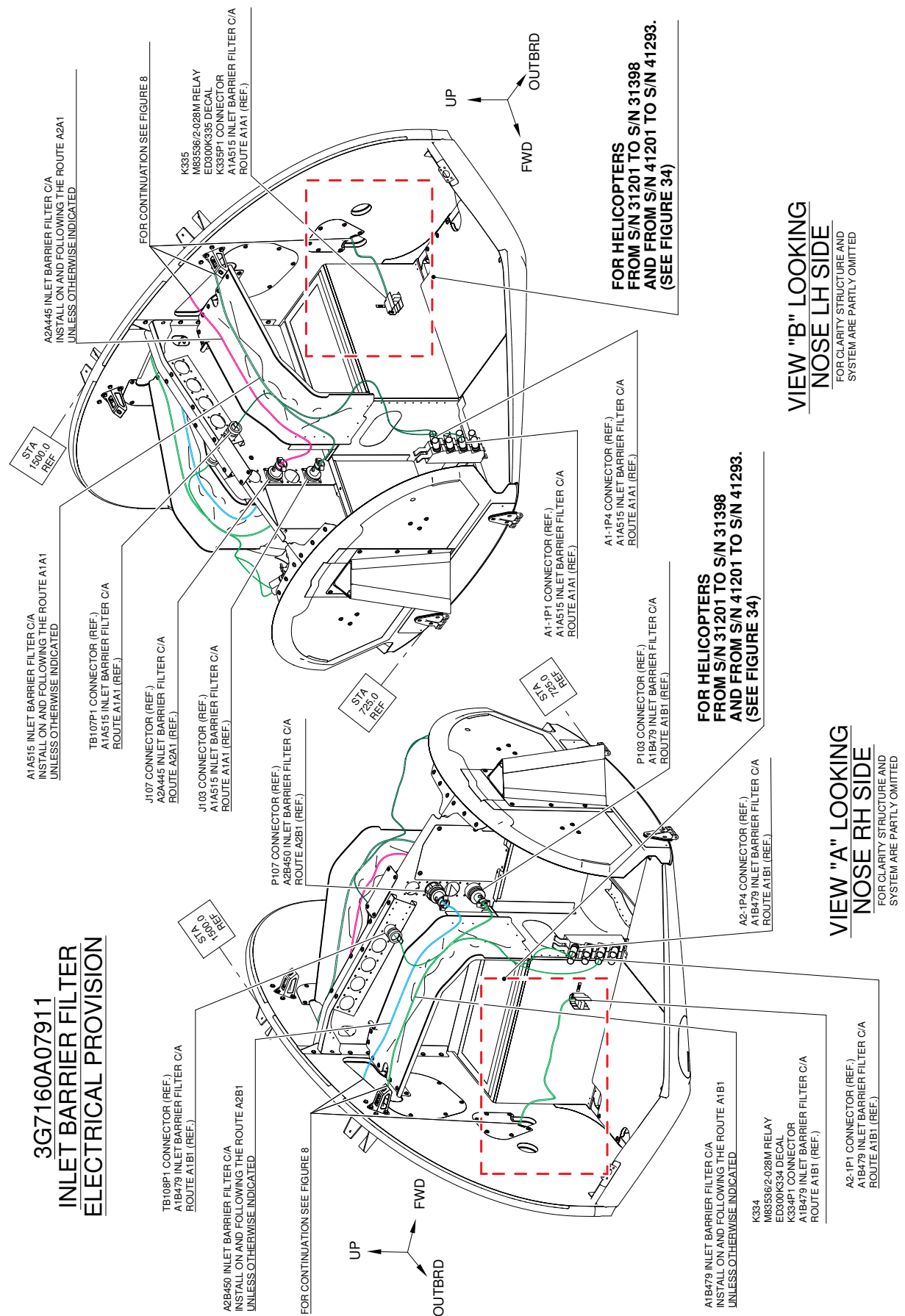
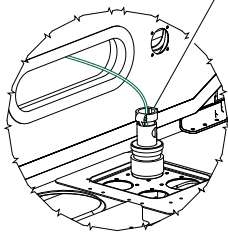


Figure 7

LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
1	AW001CL001-N6	2629	-203	1185	0°

**3G7160A07911
INLET BARRIER FILTER
ELECTRICAL PROVISION**



P121 CONNECTOR (REF.)
A1A515 INLET BARRIER FILTER C/A
ROUTE A1A1 (REF.)

PL1P9 CONNECTOR (REF.)
B1A740 INLET BARRIER FILTER C/A
ROUTE B1A2 (REF.)

FOR CONTINUATION SEE FIGURE 10

B2A779 INLET BARRIER FILTER C/A
INSTALL ON AND FOLLOWING THE ROUTE B2A1
UNLESS OTHERWISE INDICATED

B1A740 INLET BARRIER FILTER C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED

B1A889 INLET BARRIER FILTER C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A1
UNLESS OTHERWISE INDICATED

DETAIL D

FOR CLARITY STRUCTURE AND SYSTEM ARE PARTLY OMITTED

FOR CONTINUATION SEE "DETAIL D"

J109 CONNECTOR (REF.)
A1A515 INLET BARRIER FILTER C/A
ROUTE A1A1 (REF.)

PL27P2 CONNECTOR (REF.)
A1A515 INLET BARRIER FILTER C/A
ROUTE A1B1 (REF.)

SP1986
SP10037

PL19P2 CONNECTOR (REF.)
A1A515 INLET BARRIER FILTER C/A
ROUTE A1B1 (REF.)

LOCATION 1
PL155P1 CONNECTOR
A1A515 INLET BARRIER FILTER C/A
A2A445 INLET BARRIER FILTER C/A

P109 CONNECTOR (REF.)
A1B479 INLET BARRIER FILTER C/A
ROUTE A1B1 (REF.)

FOR CONTINUATION SEE FIGURE 7
TB129/2 MODULE (REF.)
A1A515 INLET BARRIER FILTER C/A

SP10115
A1A515 INLET BARRIER FILTER C/A
ROUTE A1A1 (REF.)

FOR CONTINUATION SEE FIGURE 7
A2A445 INLET BARRIER FILTER C/A
INSTALL ON AND FOLLOWING THE ROUTE A2A1
UNLESS OTHERWISE INDICATED

A1A515 INLET BARRIER FILTER C/A
INSTALL ON AND FOLLOWING THE ROUTE A1A1
UNLESS OTHERWISE INDICATED

J121 CONNECTOR (REF.)
B1A740 INLET BARRIER FILTER C/A
ROUTE B1A2 (REF.)

P133 CONNECTOR (REF.)
A2A445 INLET BARRIER FILTER C/A
ROUTE A2A1 (REF.)

J133 CONNECTOR (REF.)
B2A779 INLET BARRIER FILTER C/A
ROUTE B2A1 (REF.)

P131 CONNECTOR (REF.)
A1A515 INLET BARRIER FILTER C/A
ROUTE A1A1 (REF.)

J131 CONNECTOR (REF.)
B1A889 INLET BARRIER FILTER C/A
ROUTE B1A1 (REF.)

UP

D.O.F.

OUTBRD

**VIEW "C" LOOKING CABIN
INTERSEAT CONSOLE LH SIDE**

FOR CLARITY STRUCTURE AND SYSTEM ARE PARTLY OMITTED

Figure 8

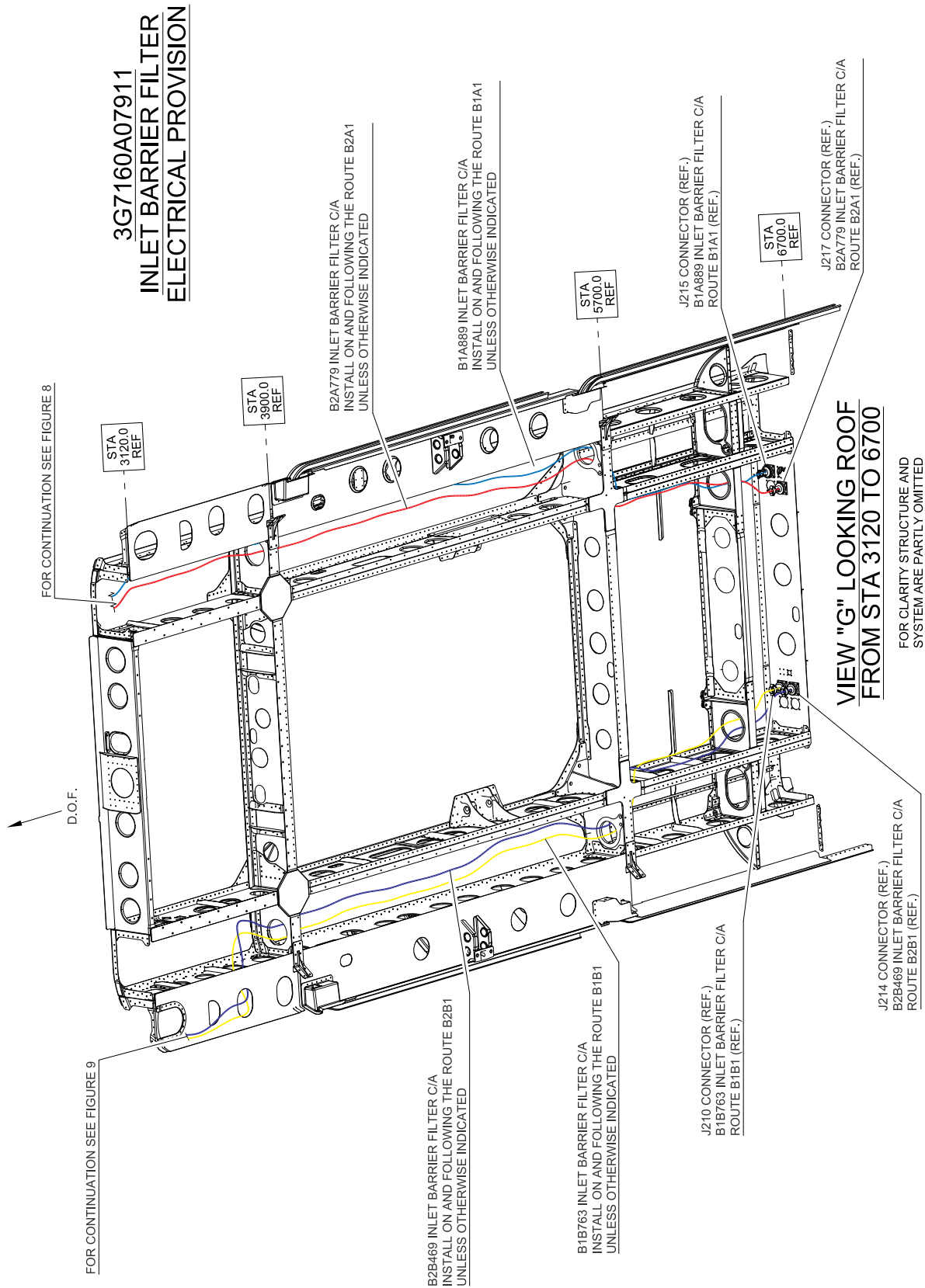


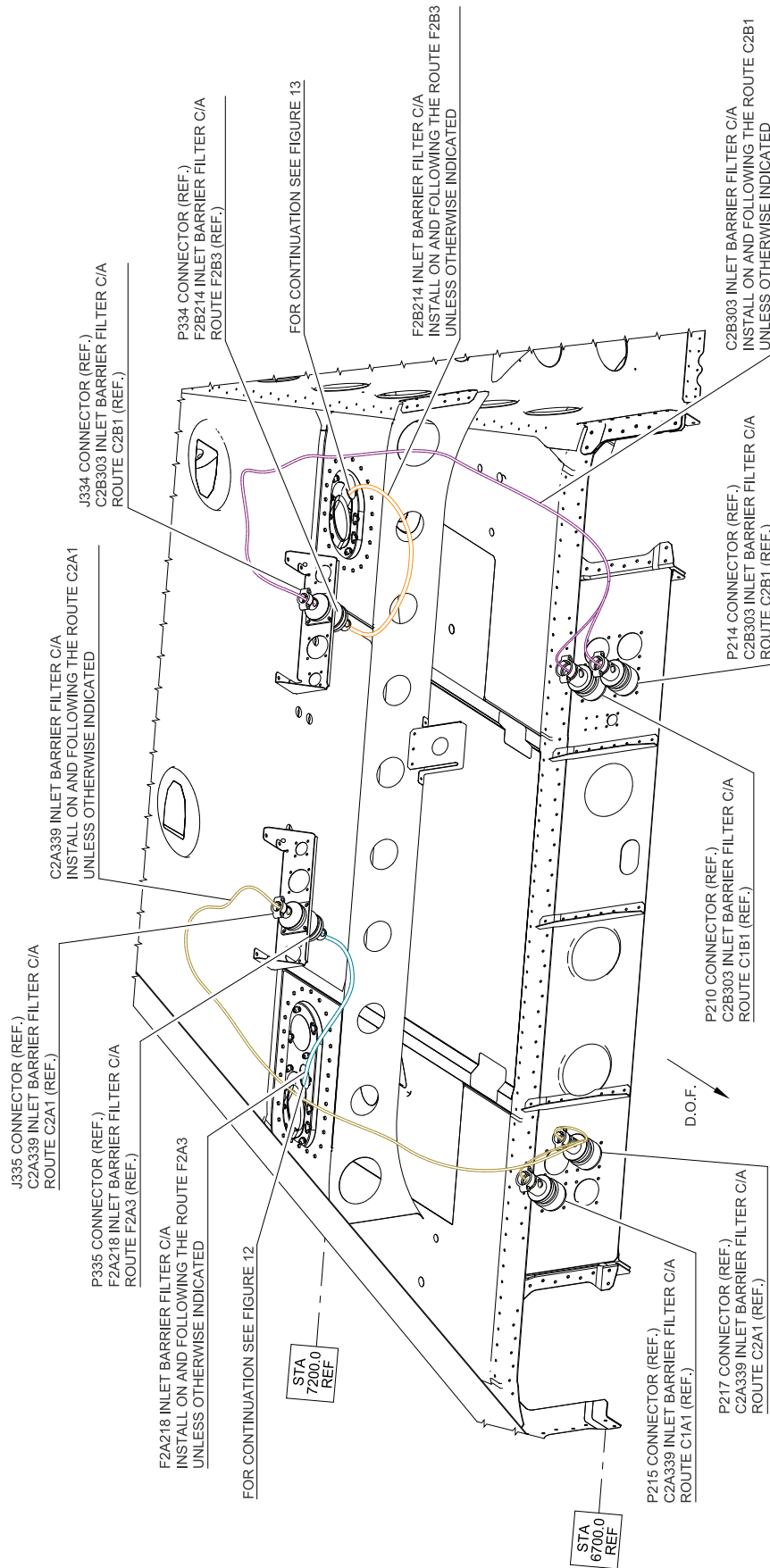
Figure 10

S.B. N°139-407

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3G7160A07911
INLET BARRIER FILTER
ELECTRICAL PROVISION



VIEW "H" LOOKING REAR UP
FROM STA 6700 TO 7200

FOR CLARITY STRUCTURE AND
SYSTEM ARE PARTLY OMITTED

Figure 11

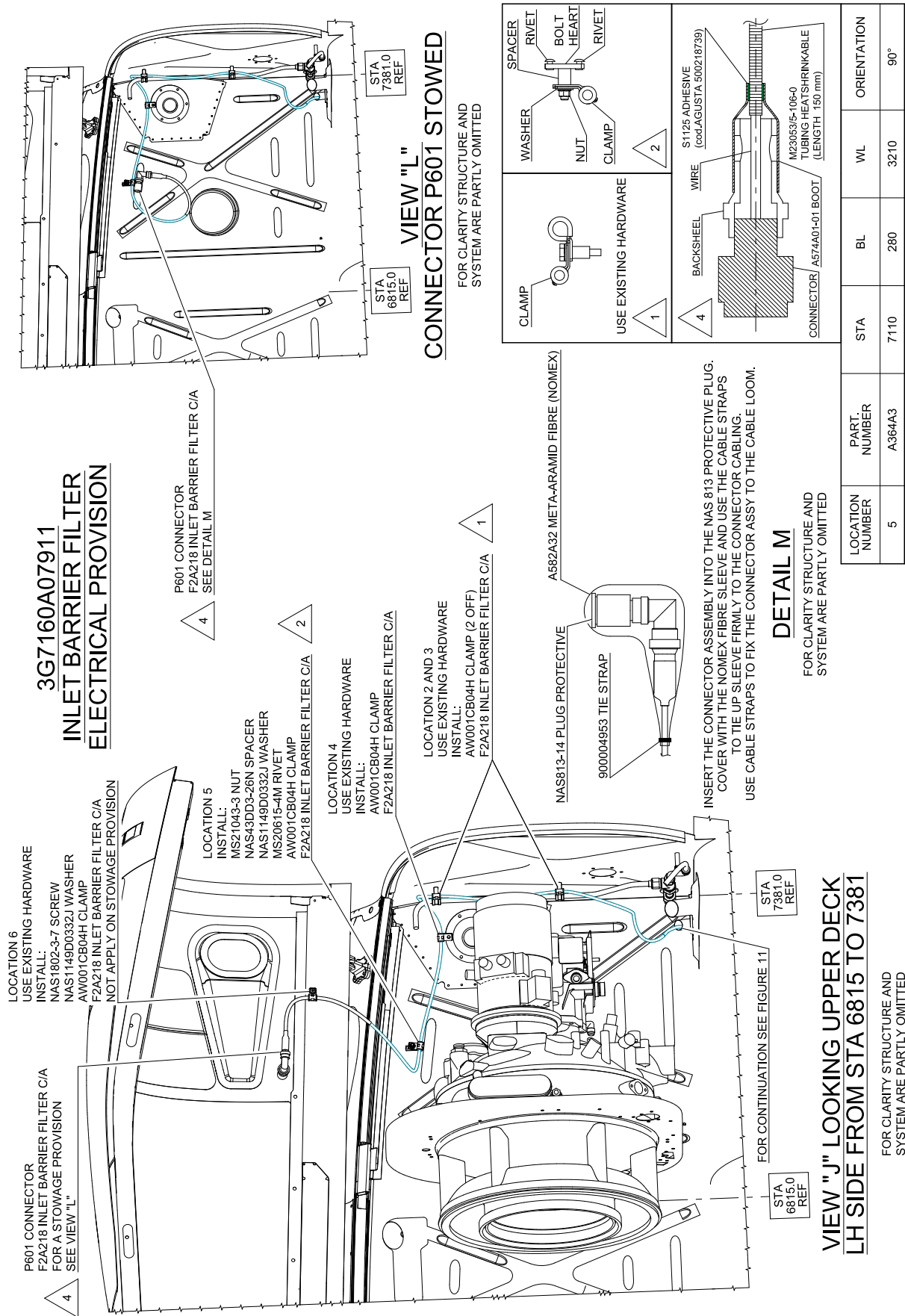
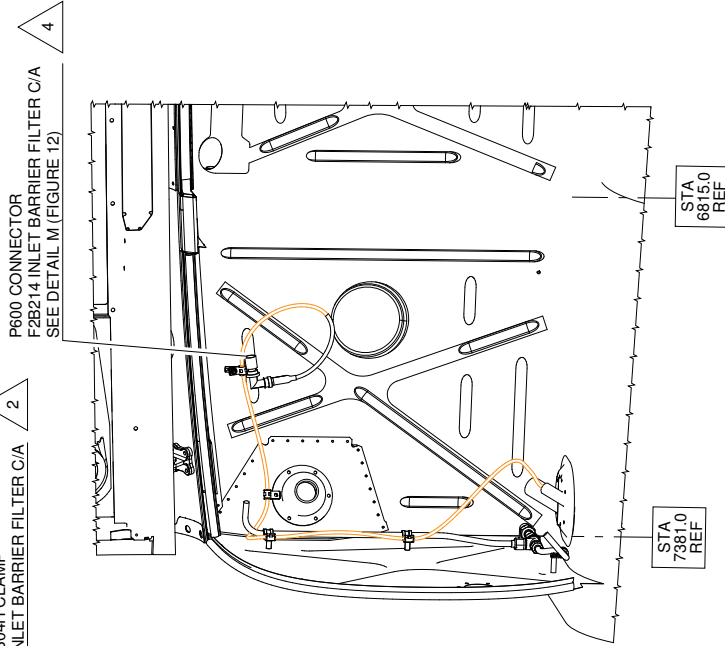


Figure 12

**3G7160A07911
INLET BARRIER FILTER
ELECTRICAL PROVISION**

LOCATION 10
USE EXISTING HARDWARE
INSTALL:
MS21043-3 NUT
NAS43DD3-26N SPACER
NAS1149D0332J WASHER
MS20615-4M RIVET
AW/001CB04H CLAMP
F2B214 INLET BARRIER FILTER C/A



**VIEW "N"
CONNECTOR P600 STOWED**

FOR CLARITY STRUCTURE AND SYSTEM ARE PARTLY OMITTED

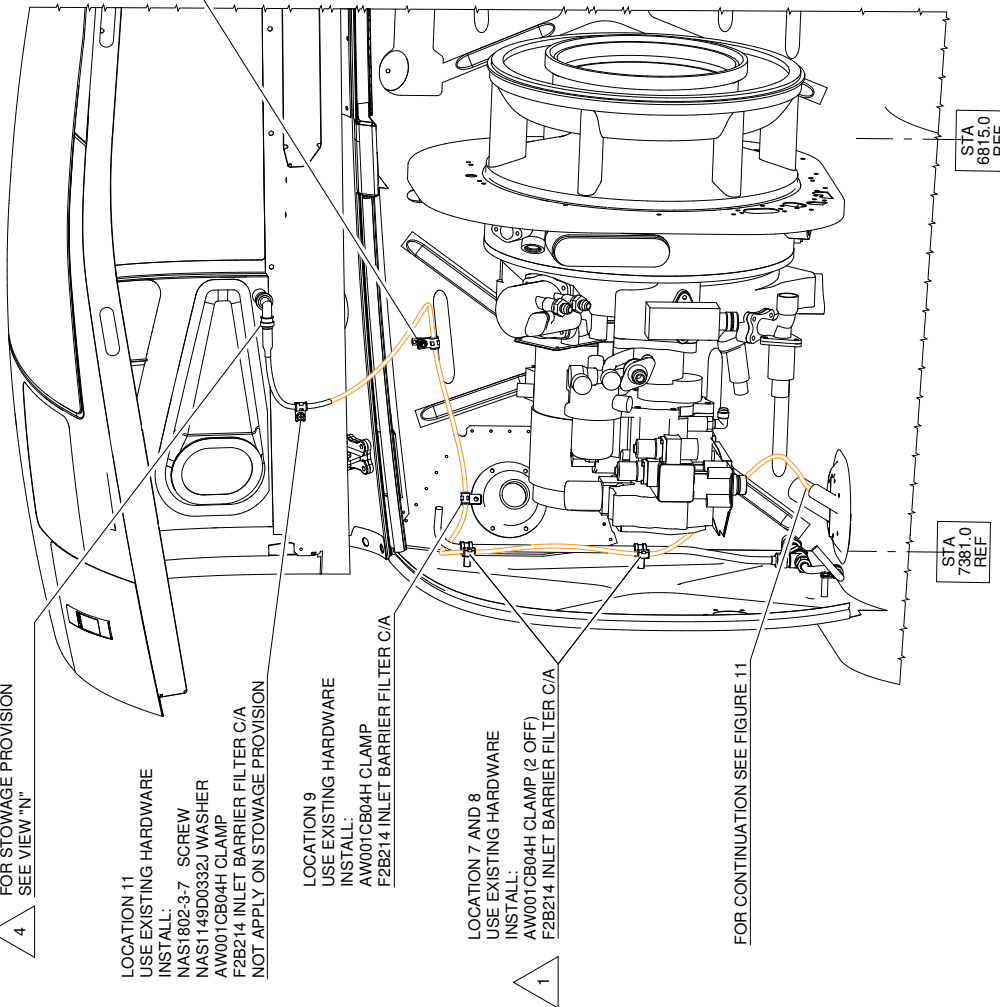
P600 CONNECTOR
F2B214 INLET BARRIER FILTER C/A
FOR STOWAGE PROVISION
SEE VIEW "N"

LOCATION 11
USE EXISTING HARDWARE
INSTALL:
NAS1802-3-7 SCREW
NAS1149D0332J WASHER
AW/001CB04H CLAMP
F2B214 INLET BARRIER FILTER C/A
NOT APPLY ON STOWAGE PROVISION

LOCATION 9
USE EXISTING HARDWARE
INSTALL:
AW001CB04H CLAMP
F2B214 INLET BARRIER FILTER C/A

LOCATION 7 AND 8
USE EXISTING HARDWARE
INSTALL:
AW001CB04H CLAMP (2 OFF)
F2B214 INLET BARRIER FILTER C/A

FOR CONTINUATION SEE FIGURE 11



**VIEW "K" LOOKING UPPER DECK
RH SIDE FROM STA 6815 TO 7381**

FOR CLARITY STRUCTURE AND SYSTEM ARE PARTLY OMITTED

LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
10	A364A3	7110	280	3210	90°

Figure 13

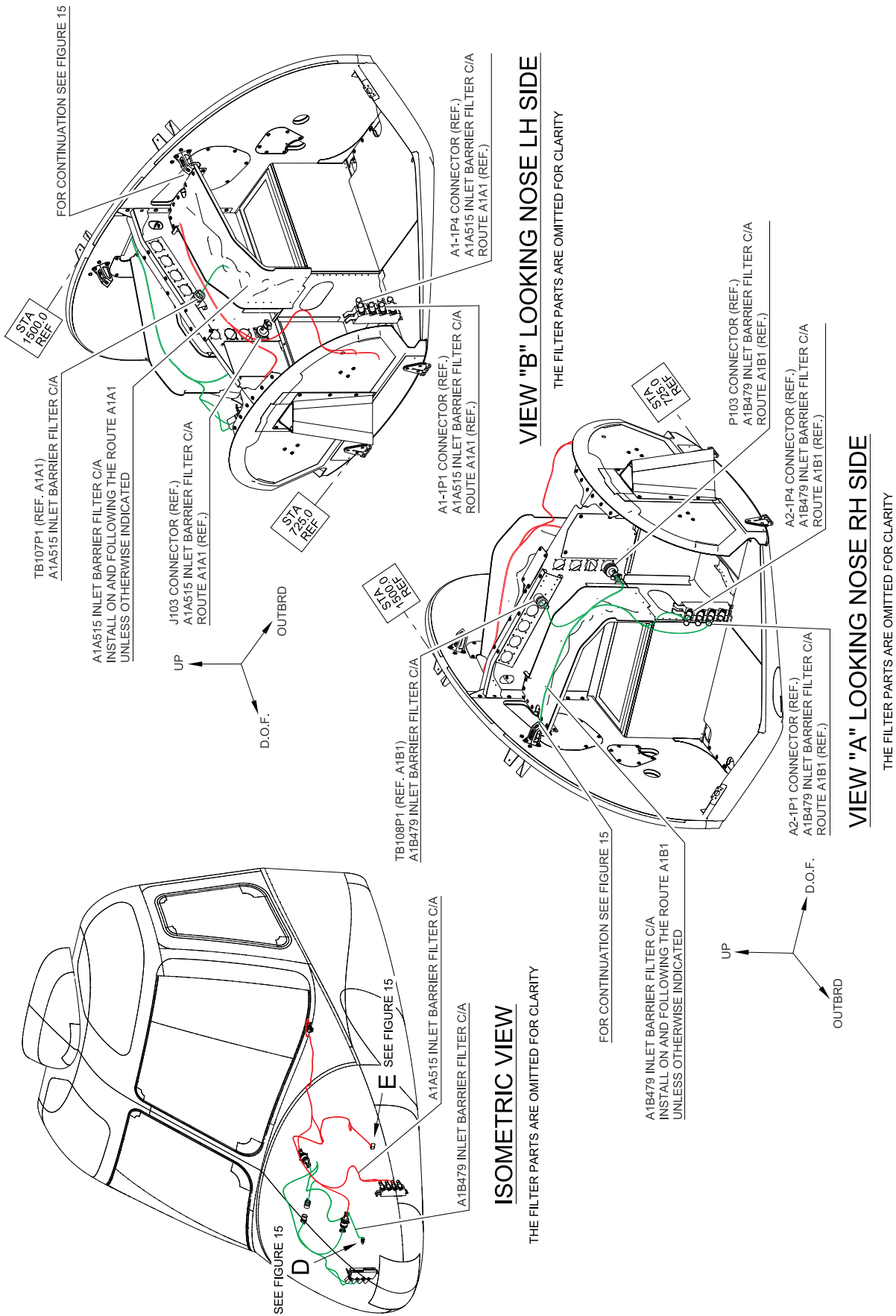
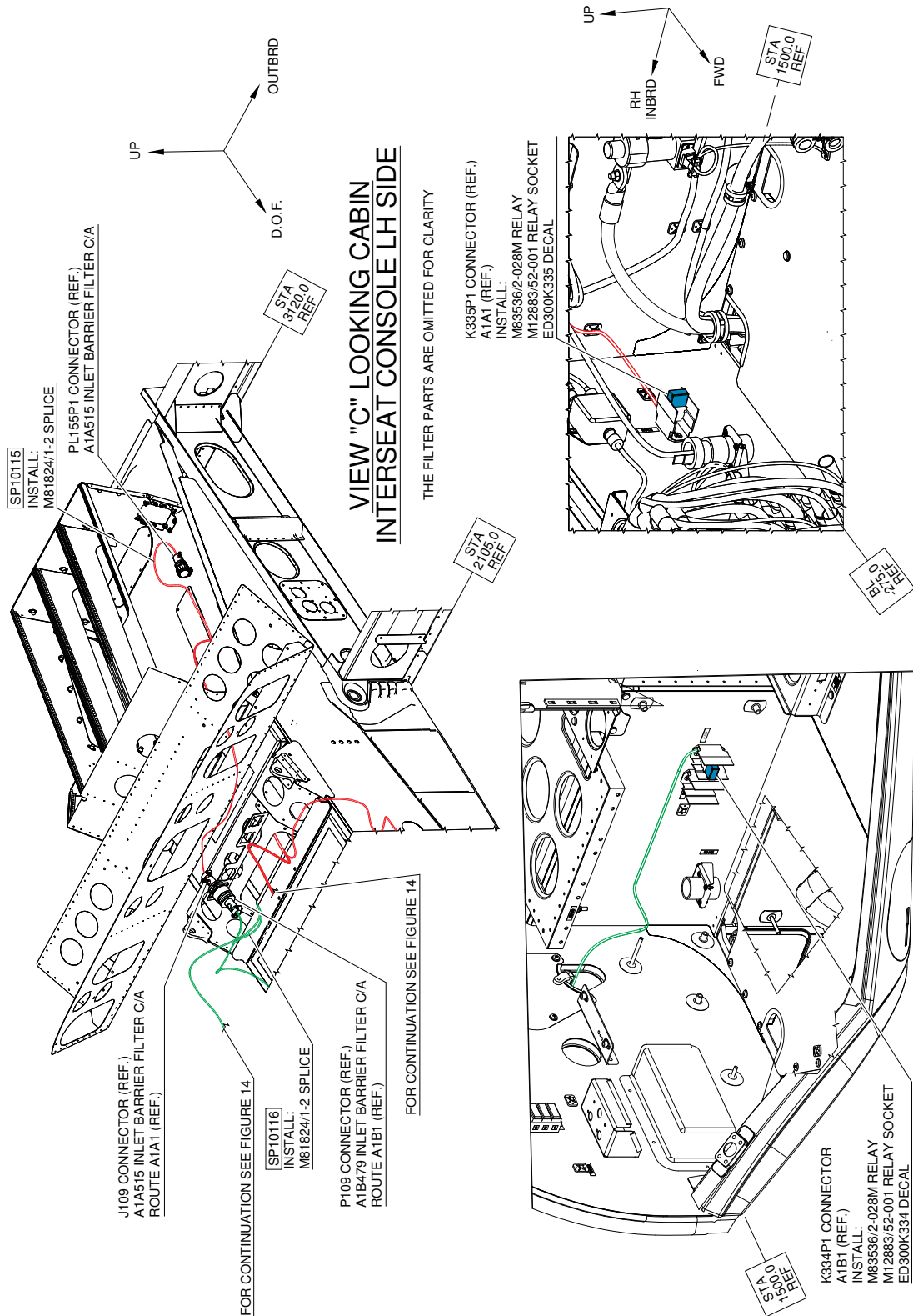


Figure 14



VIEW "D" LOOKING STA 1500 LH SIDE

THE FILTER PARTS ARE OMITTED FOR CLARITY

**FOR HELICOPTERS FROM S/N 31201 TO S/N 31398
AND FROM S/N 41201 TO S/N 41293. (SEE FIGURE 34)**

VIEW "E" LOOKING STA 1500 RH SIDE

THE FILTER PARTS ARE OMITTED FOR CLARITY

**FOR HELICOPTERS FROM S/N 31201 TO S/N 31398
AND FROM S/N 41201 TO S/N 41293. (SEE FIGURE 34)**

Figure 15

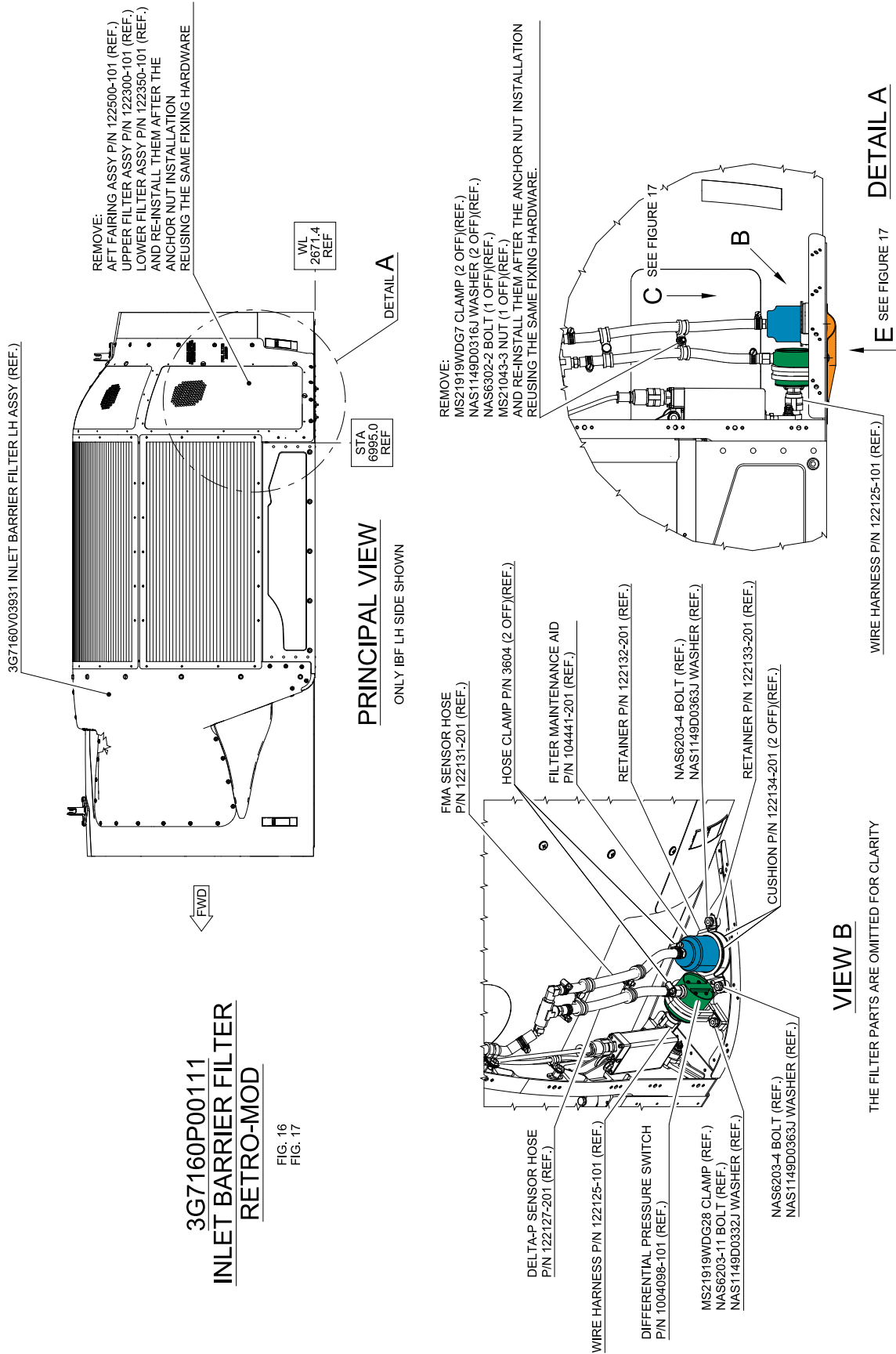


Figure 16

S.B. N°139-407

DATE: February 12, 2015

REVISION: C - November 17, 2021

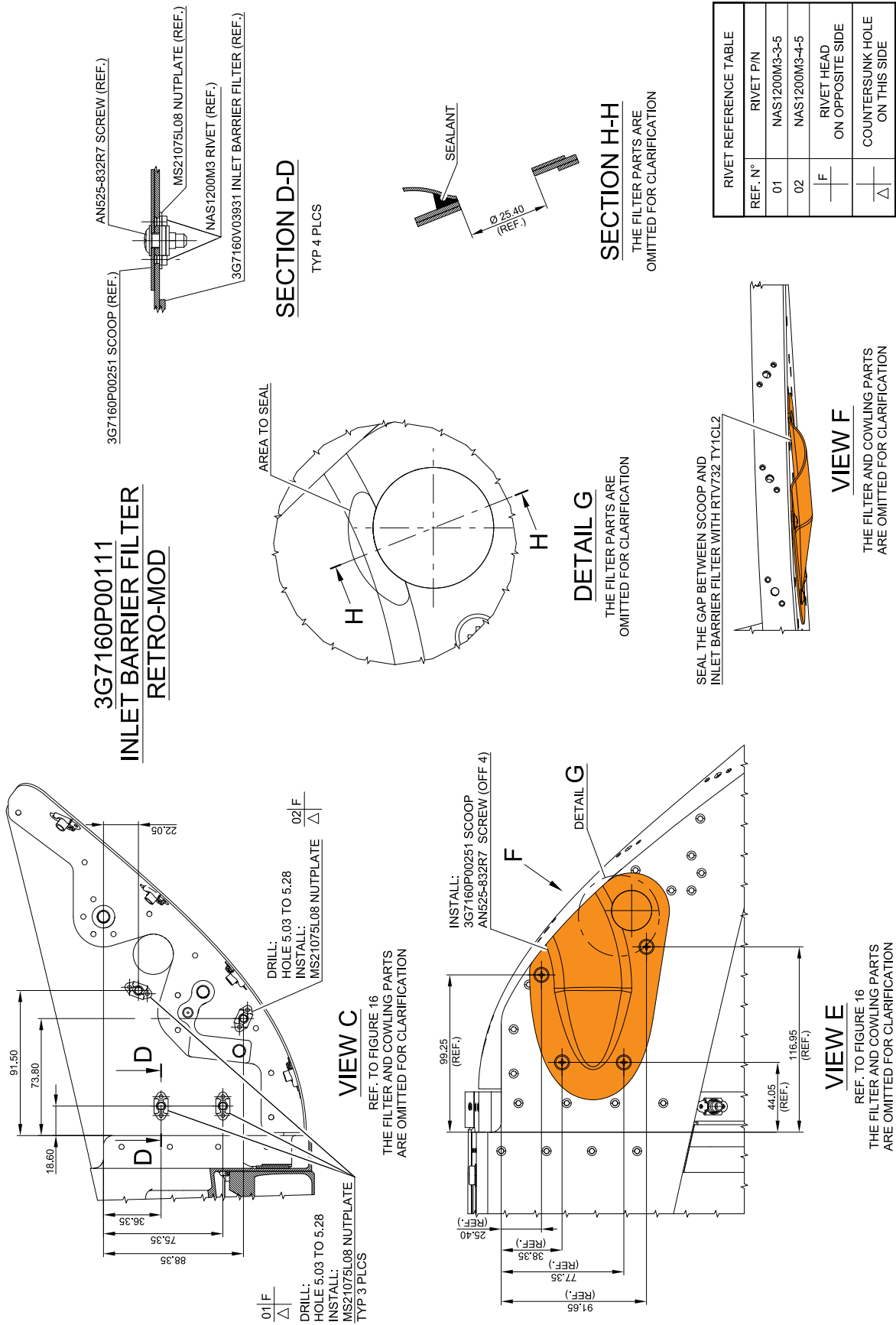


Figure 17

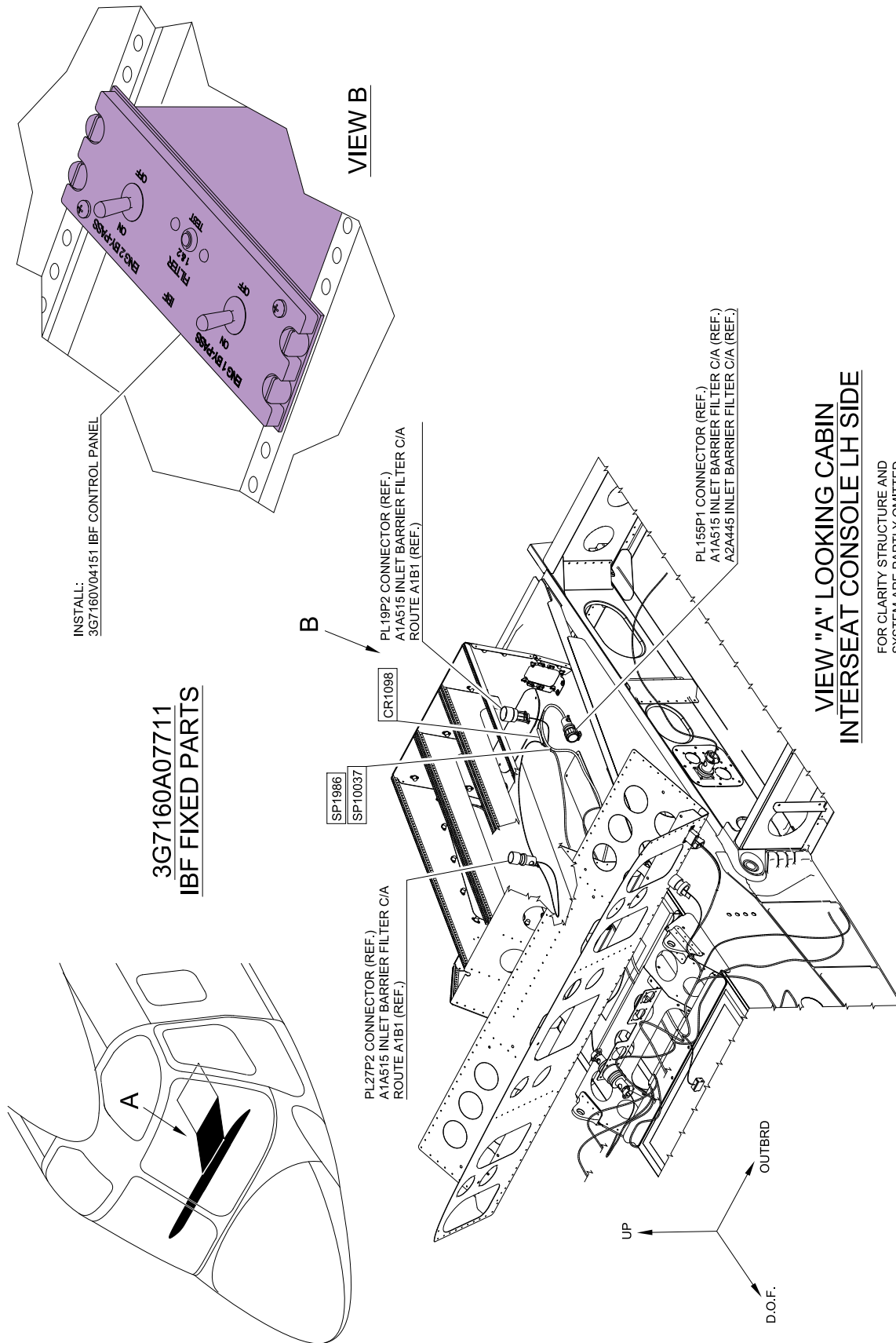


Figure 18

S.B. N°139-407

DATE: February 12, 2015

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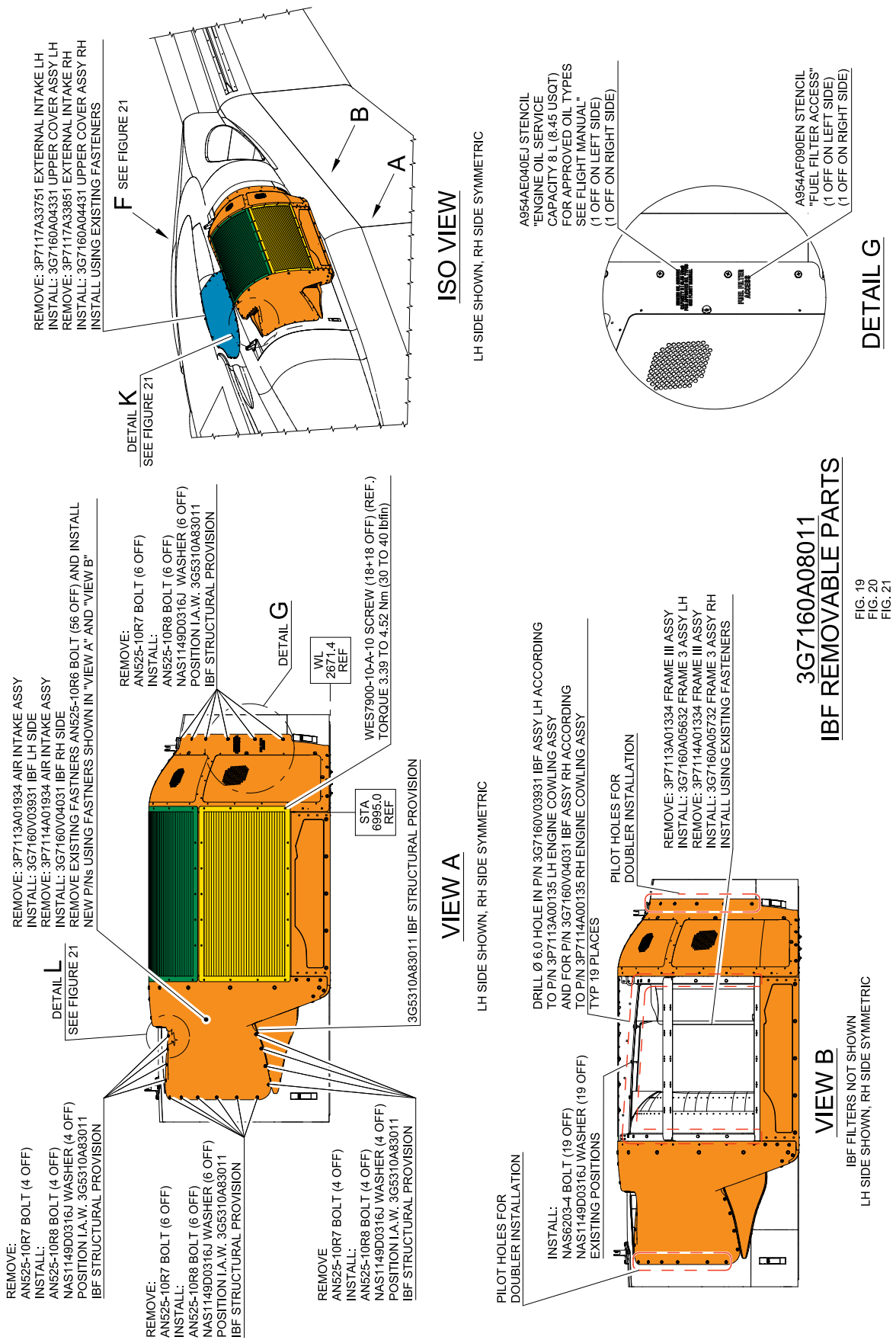
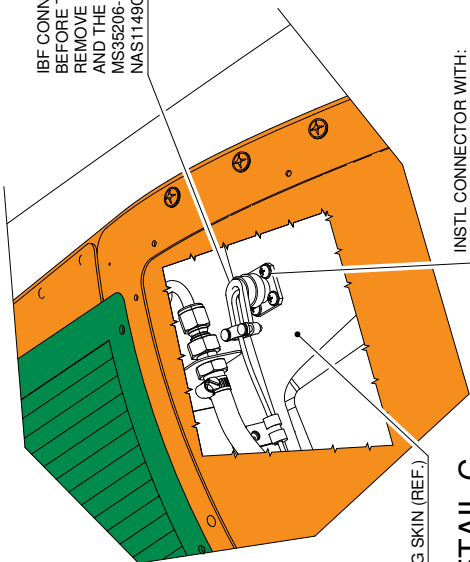


Figure 19

3G7160A08011 IBF REMOVABLE PARTS

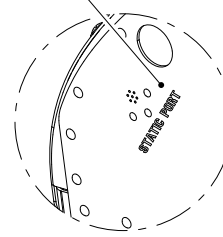
IBF CONNECTOR (REF.)
BEFORE THE CONNECTOR INSTALLATION
REMOVE COLLURE PLATE P/N 3G5311A05231
AND THE EXISTING FASTENERS:
MS35206-214 SCREW (4 OFF)
NAS1149CN432R WASHER (4 OFF)



DETAIL C

LH SIDE SHOWN, RH SIDE SYMMETRIC

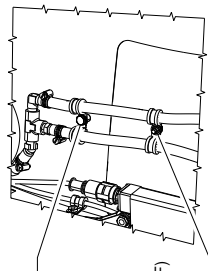
INSTALL:
A954AS040EN STENCIL
"STATIC PORT"
(1 OFF ON LEFT SIDE)
(1 OFF ON RIGHT SIDE)



4 BOND SILICON RUBBER TO THE IBF
FILTER WITH RBR ADHESIVE RTB106

5 INSTALL SCREW WITH HEAD
TOWARDS ENGINE COWLING

LOCATION 1
REMOVE:
AN525-10R7 BOLT (1 OFF)
INSTALL:
AS21919WDG07 CLAMP (2 OFF)
NAS1149D0316J WASHER (1 OFF)
NAS6203-7 SCREW (1 OFF)
NAS43HT3-17 SPACER (1 OFF)
POSITION I.A.W. 3G5310A83011
IBF STRUCTURAL PROVISION

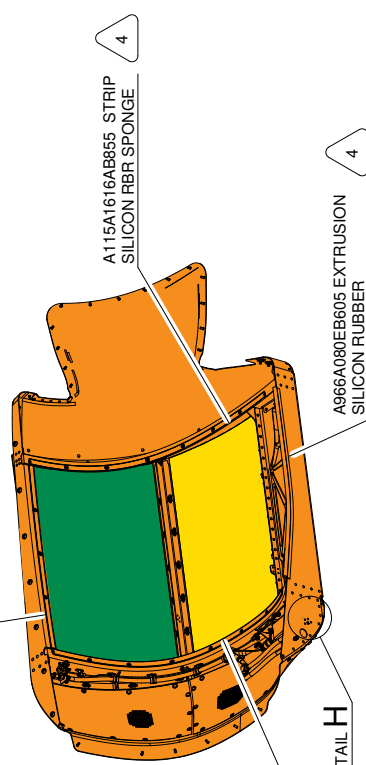


LOCATION 2
INSTALL:
AS21919WDG07 CLAMP (2 OFF)
NAS1149D0316J WASHER (2 OFF)
NAS6203-2 SCREW (1 OFF)
MS21043-3 NUT (1 OFF)

5

VIEW E

IBF AFT FAIRING NOT SHOWN
LH SIDE SHOWN, RH SIDE SYMMETRIC



DETAIL H

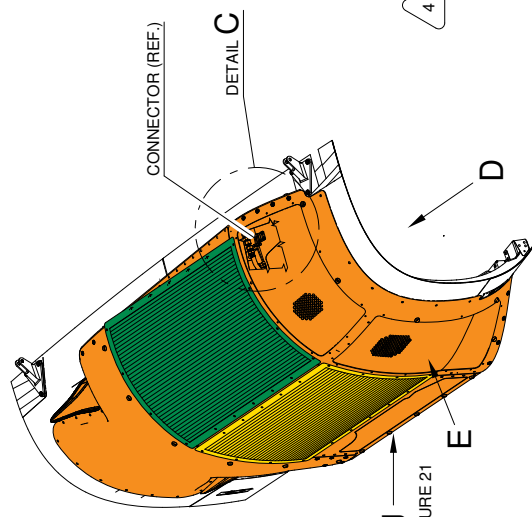
ROTATION 180°

4 A115A1616AB816 STRIP
SILICON RBR SPONGE

DETAIL H

VIEW D

IBF FILTERS NOT SHOWN
LH SIDE SHOWN, RH SIDE SYMMETRIC



ISOMETRIC VIEW

LH SIDE SHOWN, RH SIDE SYMMETRIC

Figure 20

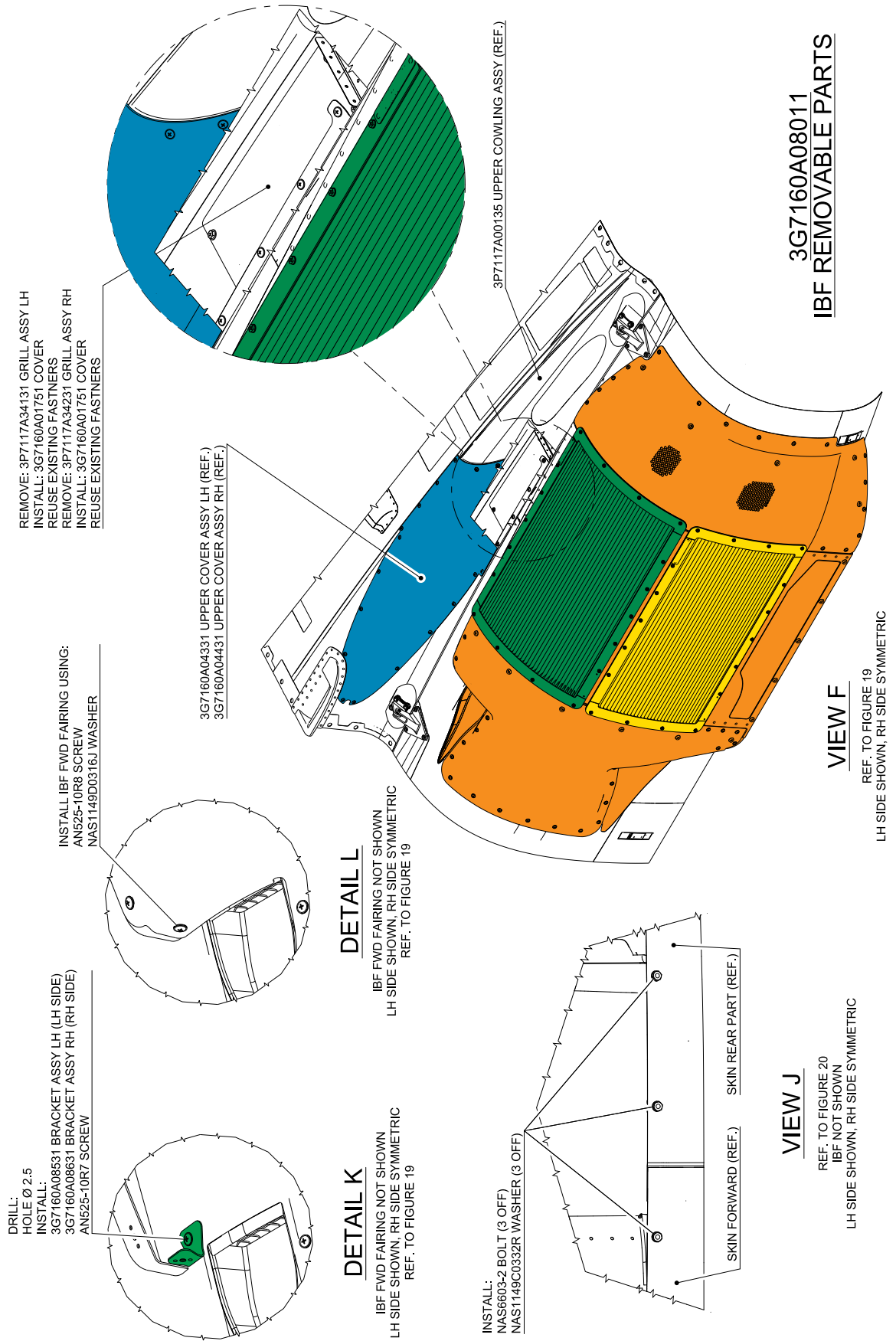


Figure 21

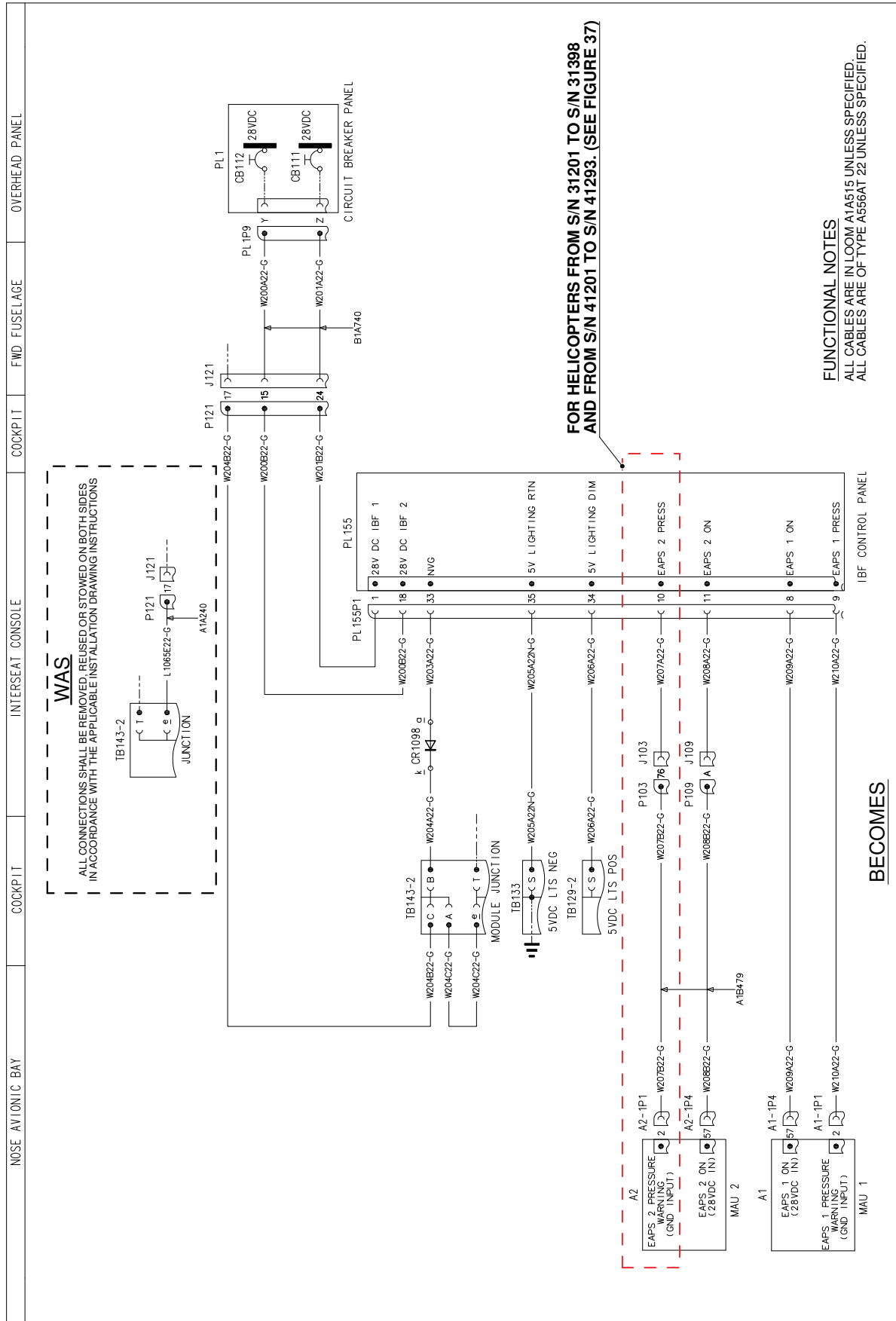
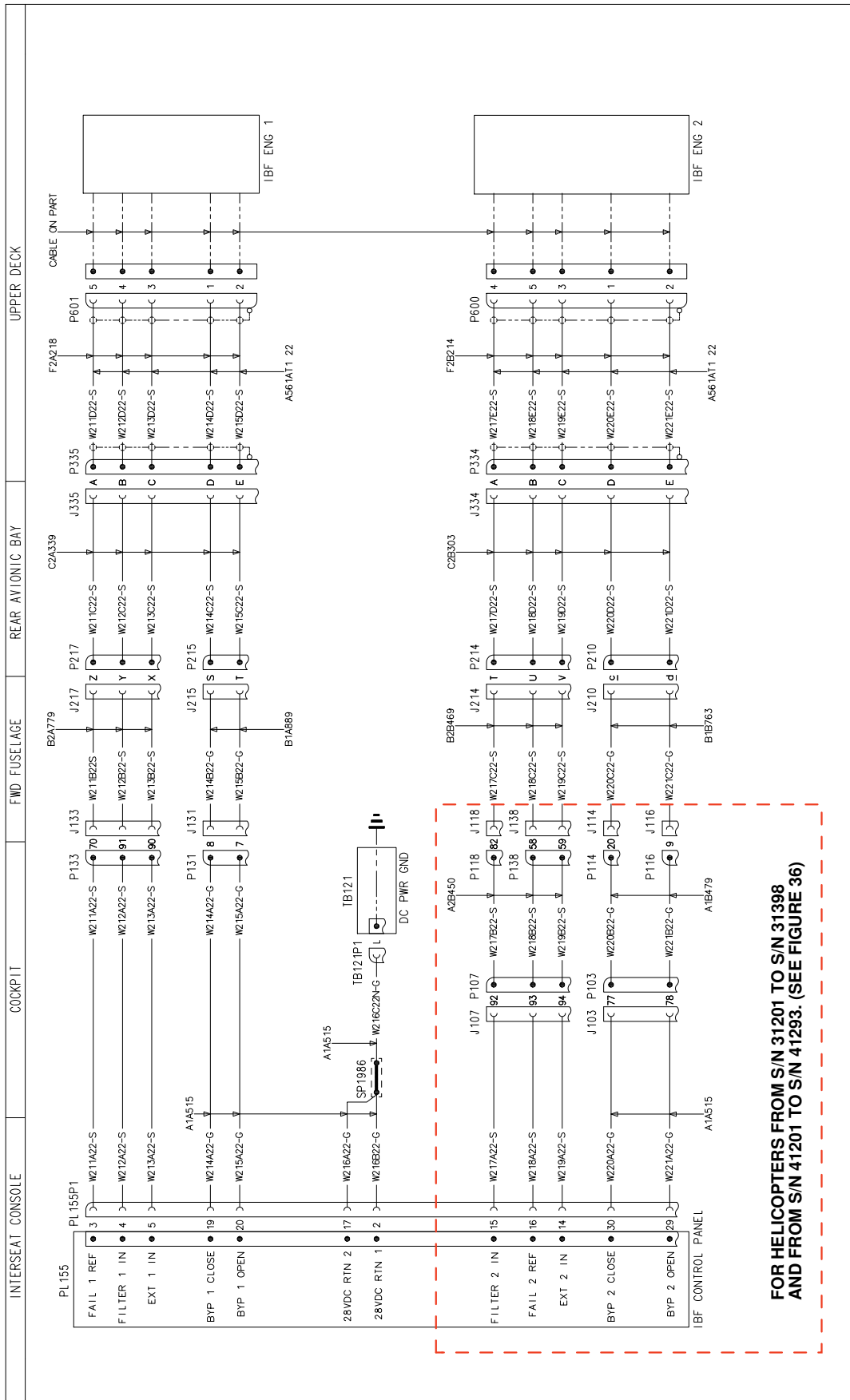


Figure 22

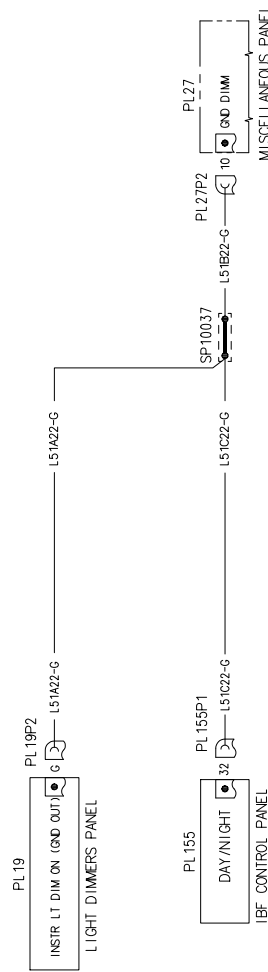
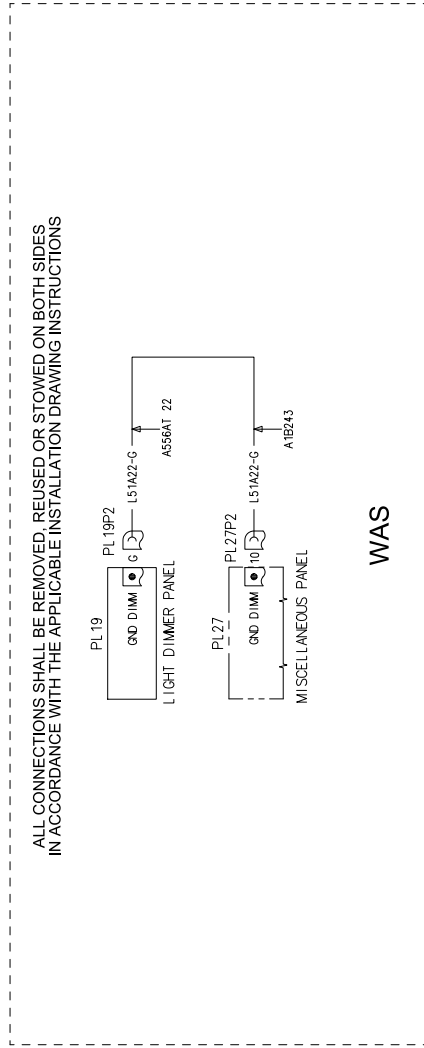


**FOR HELICOPTERS FROM S/N 31201 TO S/N 31398
AND FROM S/N 41201 TO S/N 41293. (SEE FIGURE 36)**

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A2A445 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED.

Figure 23

COCKPIT



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A1A515 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED.

Figure 24

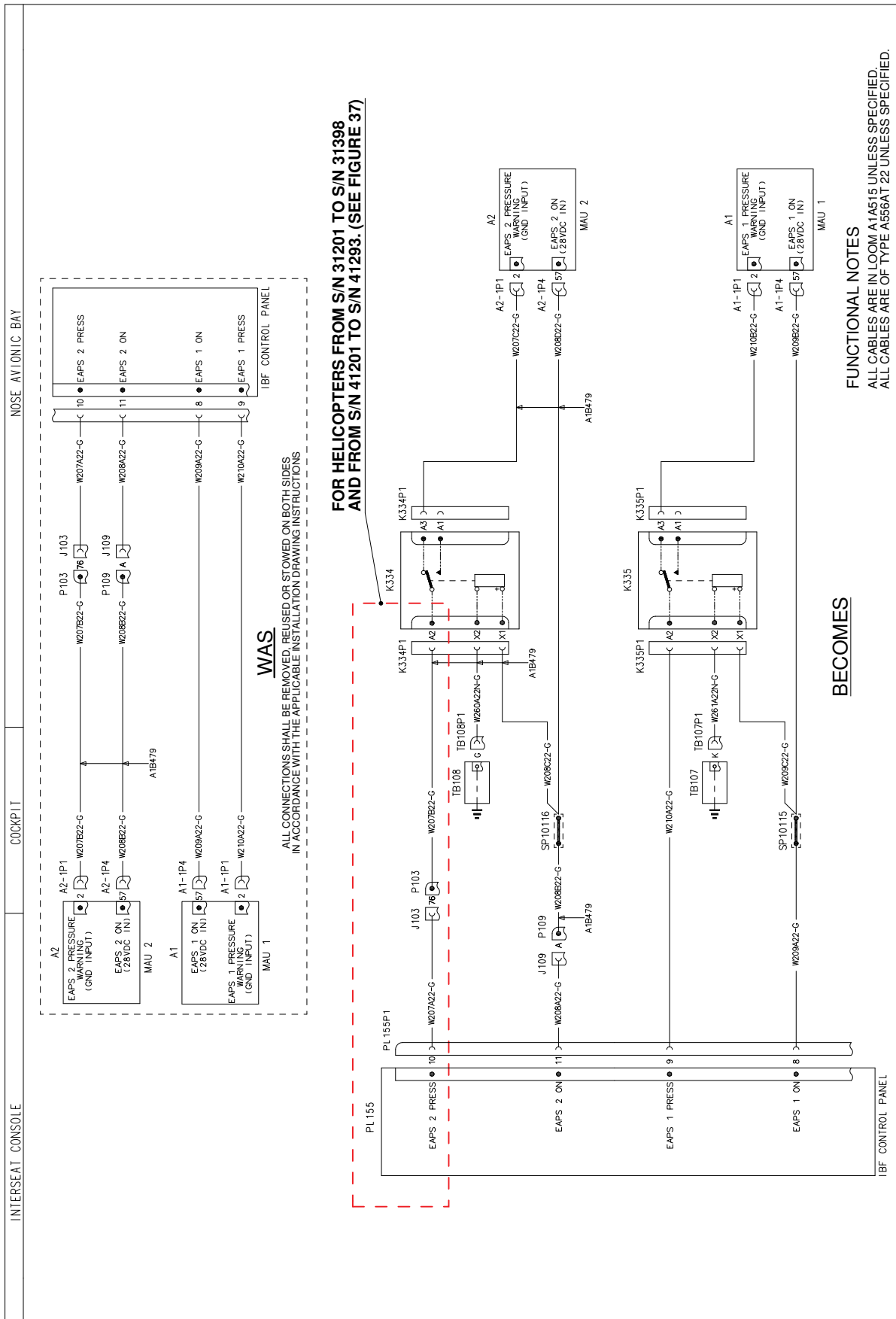


Figure 25

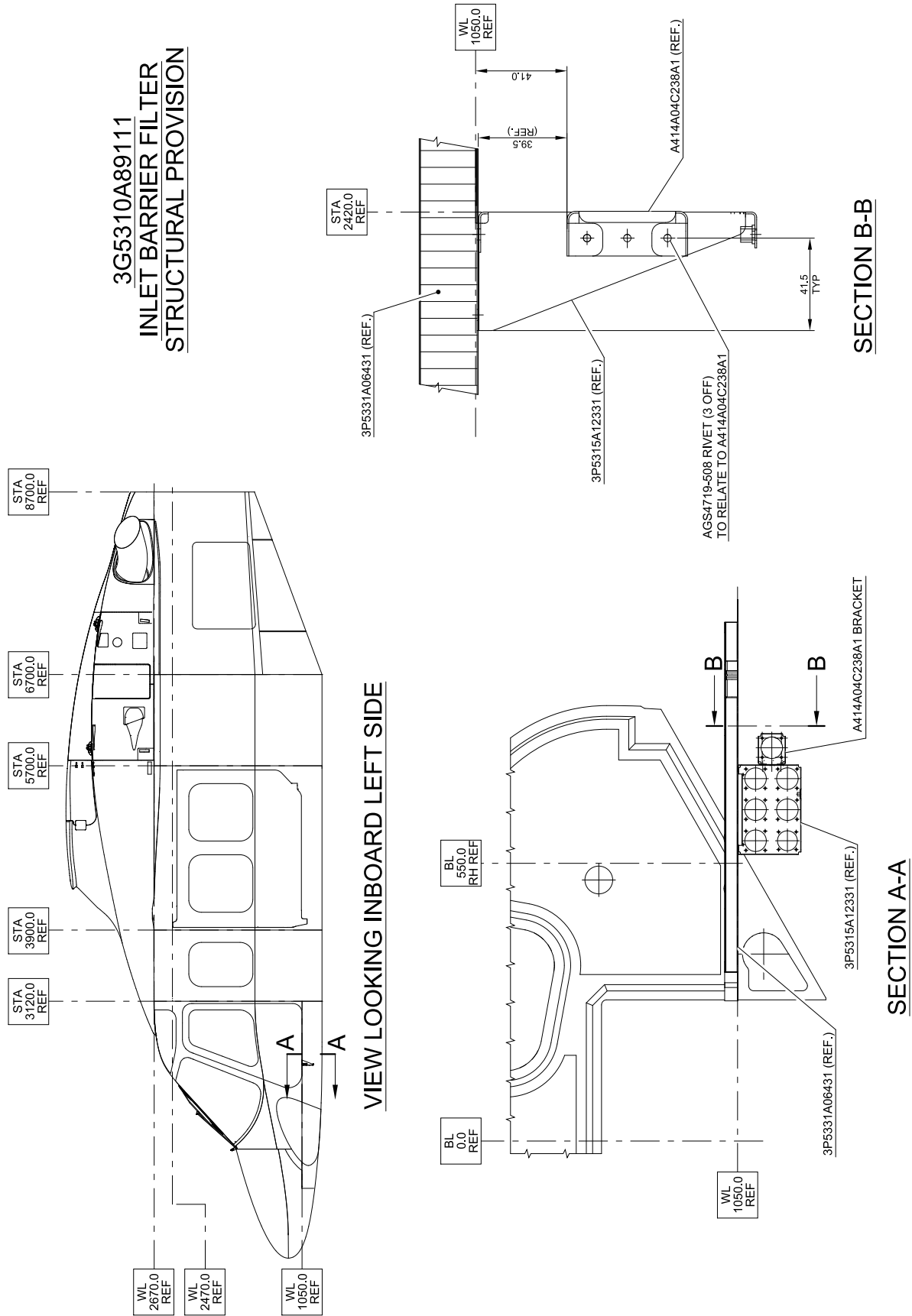


Figure 26

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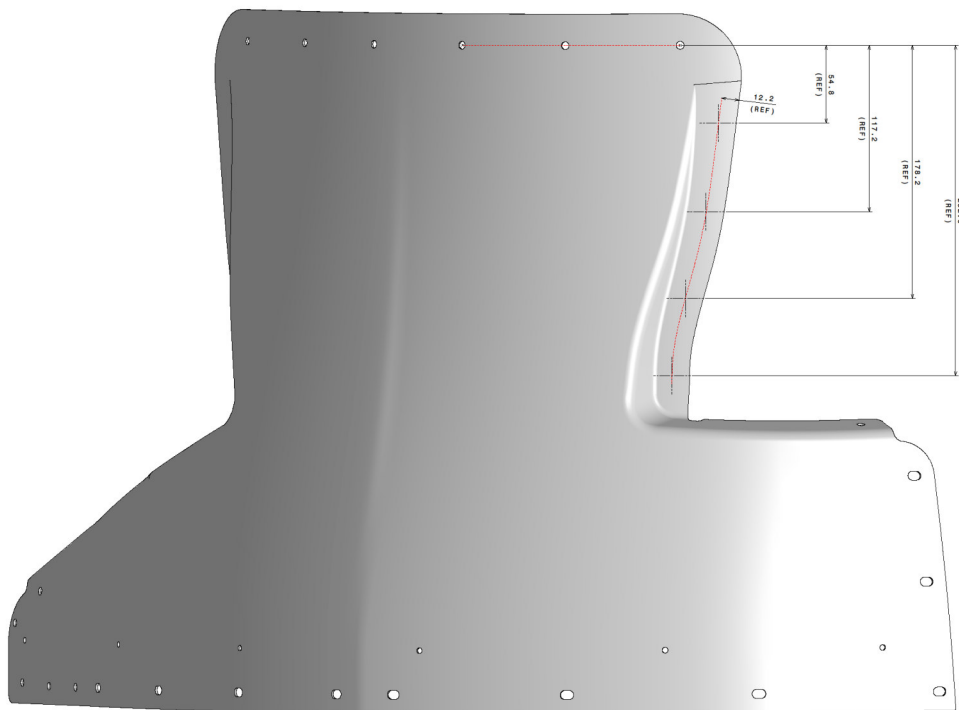
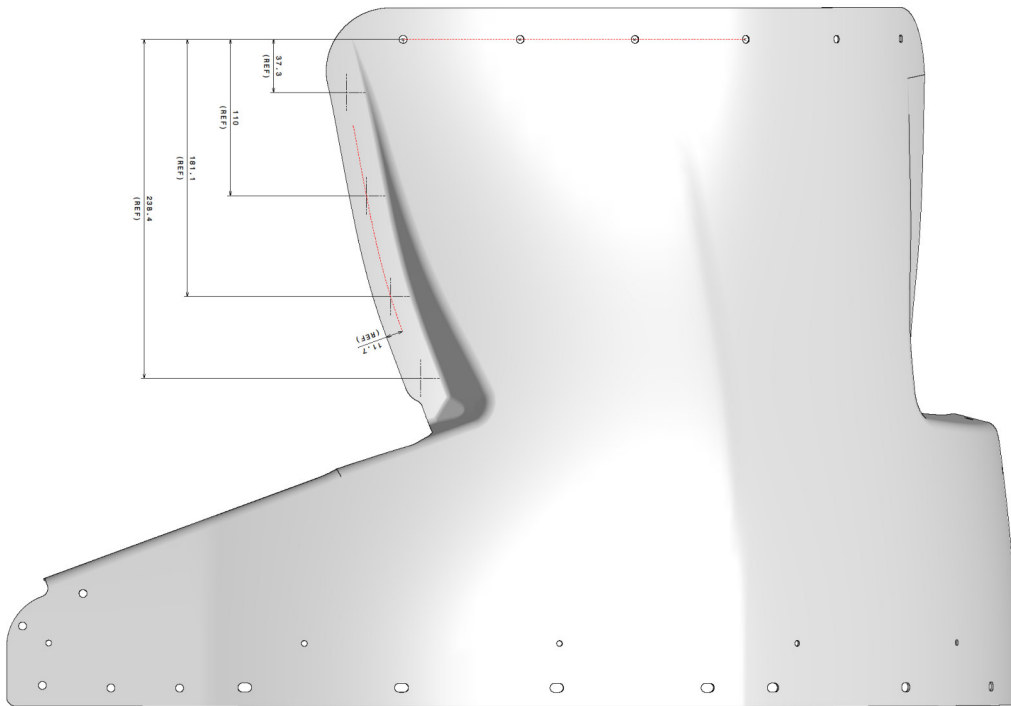
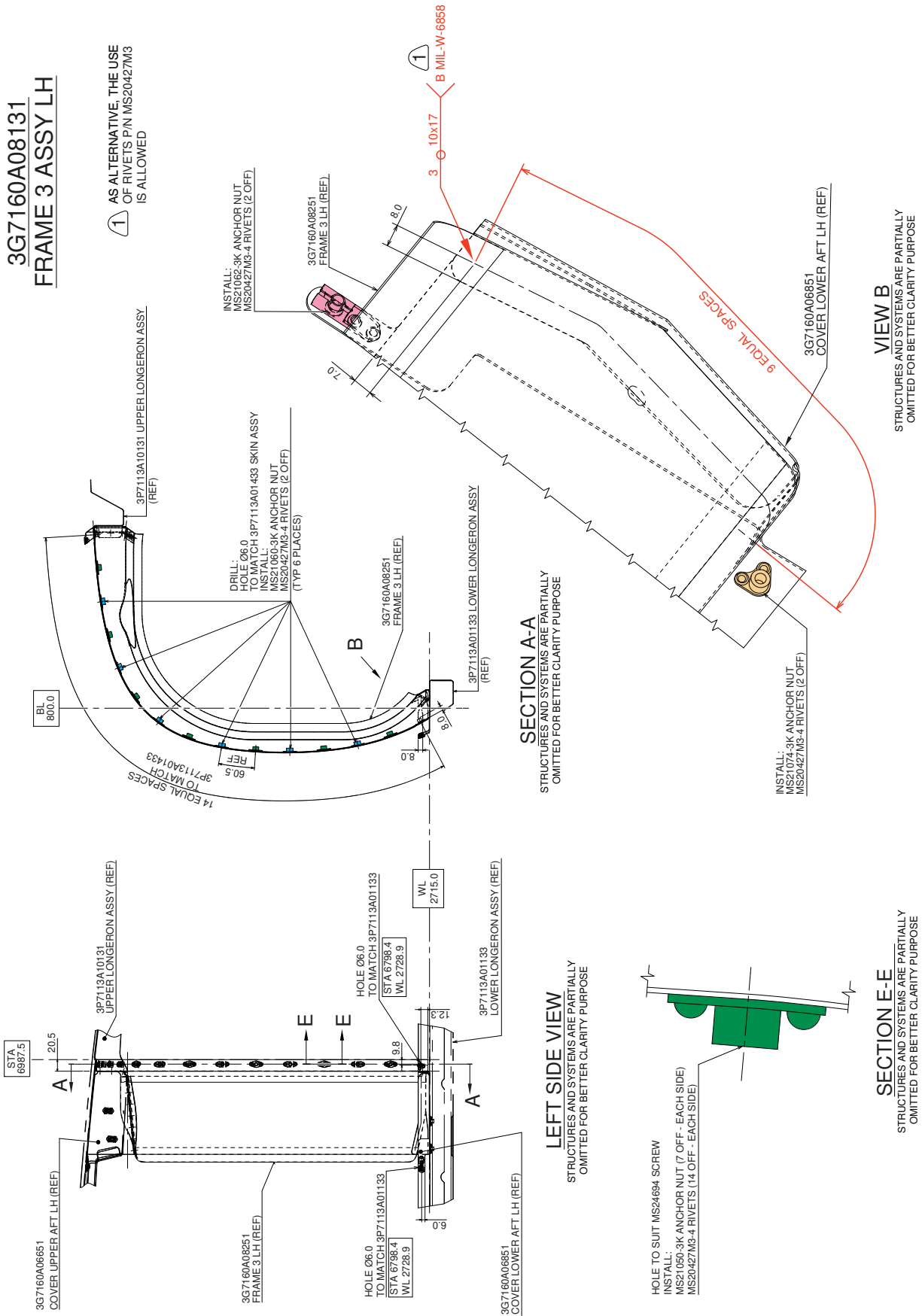


Figure 27

3G7160A08131
FRAME 3 ASSY LH



1 AS ALTERNATIVE, THE USE OF RIVETS P/N MS20427M3 IS ALLOWED

Figure 28

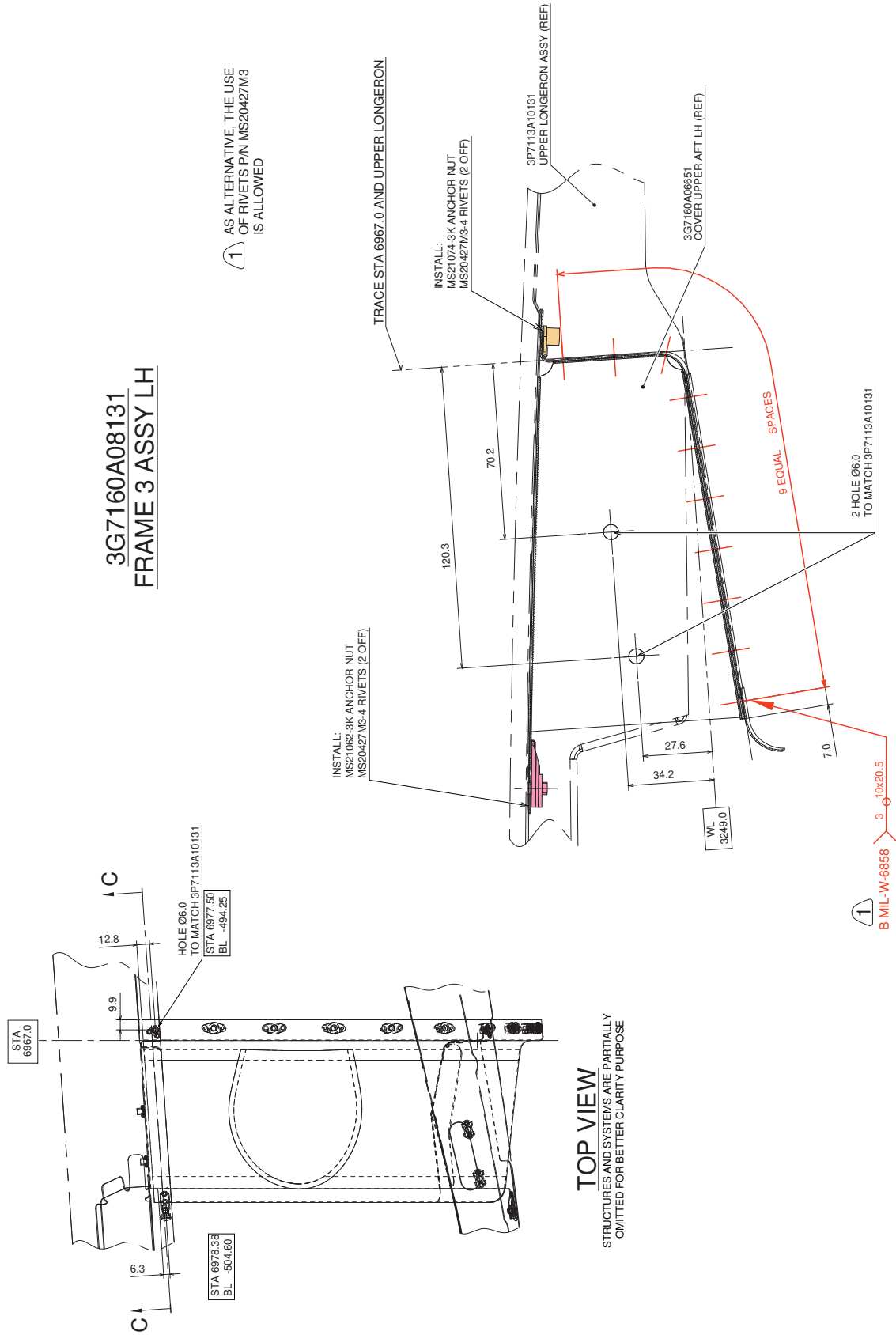
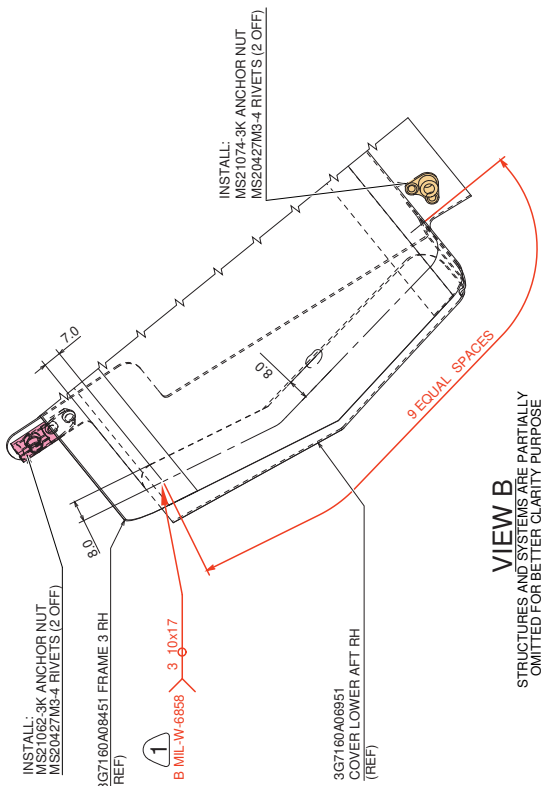
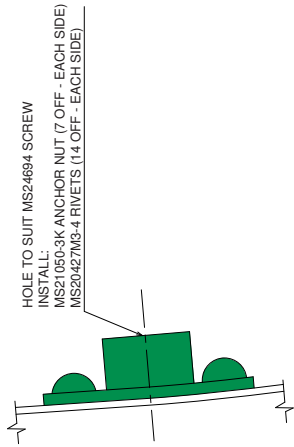


Figure 29

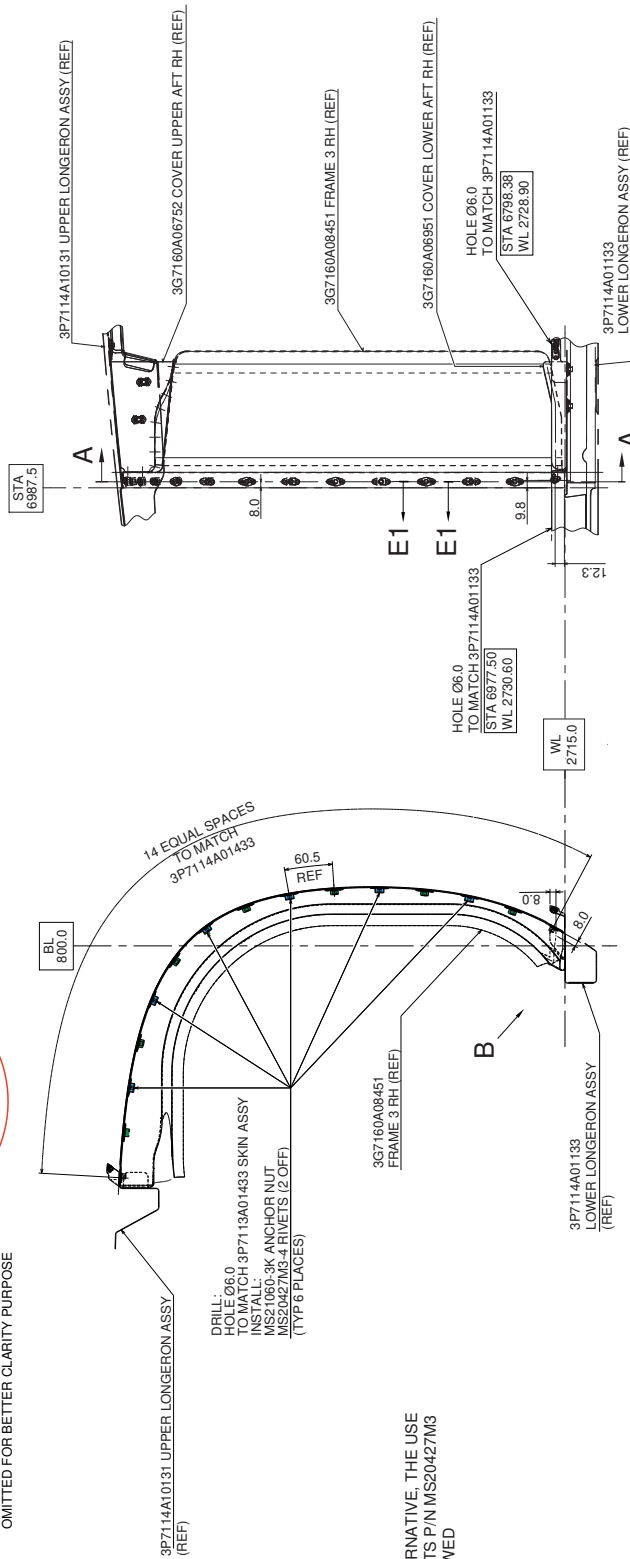
3G7160A08331
FRAME 3 ASSY RH



VIEW B
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



SECTION E1-E1
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

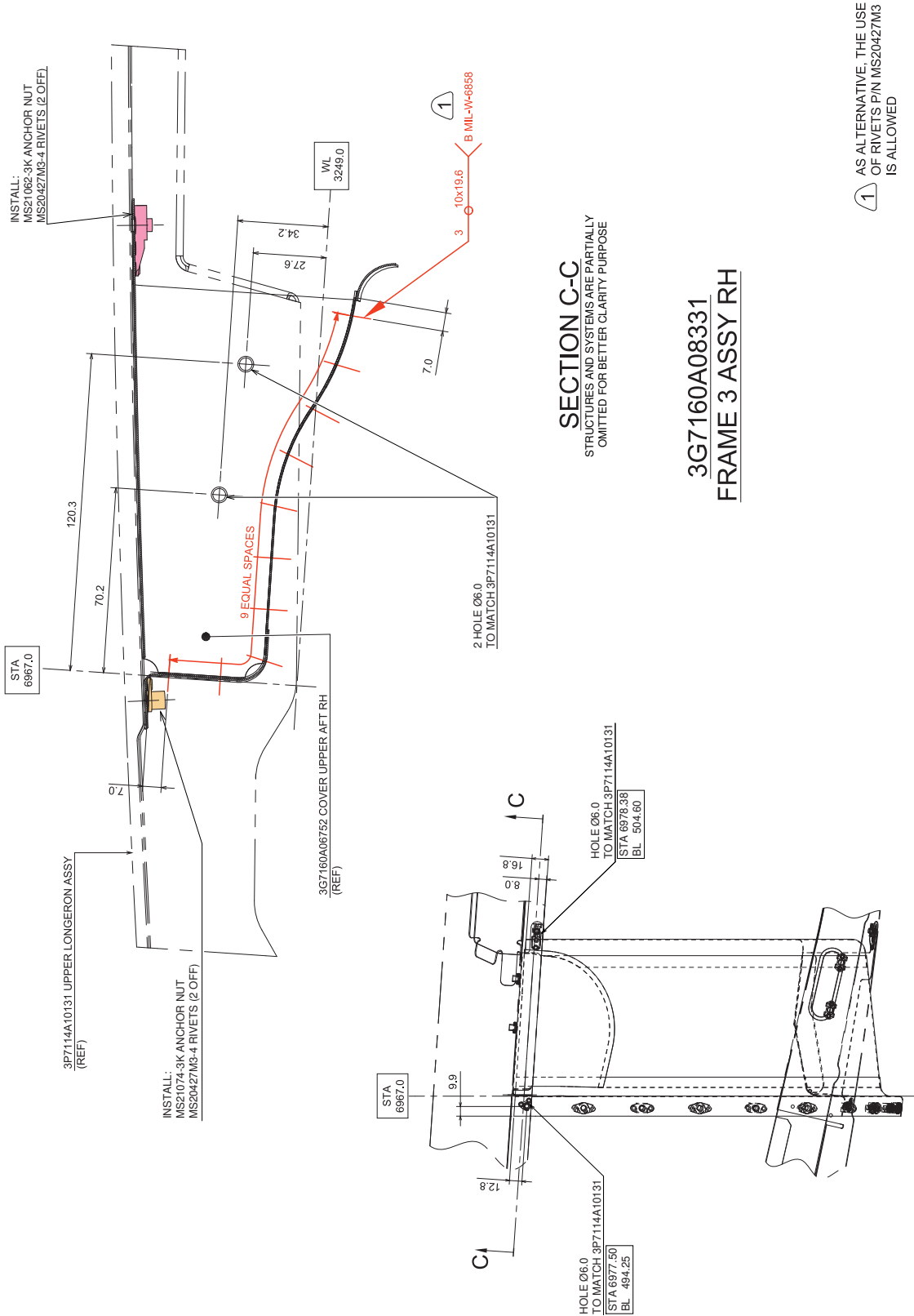


SECTION A-A
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

RIGHT SIDE VIEW
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

1 AS ALTERNATIVE, THE USE OF RIVETS P/N MS20427M3 IS ALLOWED

Figure 30



1 AS ALTERNATIVE, THE USE OF RIVETS P/N MS20427M3 IS ALLOWED

Figure 31

Cable Assy	Wire	From Ref Des	Electrical Contact	To Ref Des	Electrical Contact	Applicable TO
A1A515	W210B22-G	A1-1P1	M39029/57-354	K335P1	M39029/101-553	All
	W209B22-G	A1-1P4	M39029/57-354	SP10115	N.A.	All
	W204A22-G	CR1098	A523A-A02	TB143/2	A523A-A01	All
	W220A22-G	J103	M39029/56-348	PL155P1	M39029/56-348	ENH
	W221A22-G	J103	M39029/56-348	PL155P1	M39029/56-348	ENH
	W208A22-G	J109	M39029/56-351	PL155P1	M39029/56-348	All
	W209C22-G	K335P1	M39029/101-553	SP10115	N.A.	All
	W261A22N-G	K335P1	M39029/101-553	TB107P1	M39029/56-351	All
	W215A22-G	P131	M39029/58-360	PL155P1	M39029/56-348	All
	L51C22-G	PL155P1	M39029/56-348	SP10037	N.A.	All
	W200B22-G	PL155P1	M39029/56-348	P121	M39029/58-360	All
	W201B22-G	PL155P1	M39029/56-348	P121	M39029/58-360	All
	W203A22-G	PL155P1	M39029/56-348	CR1098	A523A-A02	All
	W206A22-G	PL155P1	M39029/56-348	TB129/2	A523A-A05	All
	W207A22-G	PL155P1	M39029/56-348	J103	M39029/56-348	All
	W209A22-G	PL155P1	M39029/56-348	SP10115	N.A.	All
	W210A22-G	PL155P1	M39029/56-348	K335P1	M39029/101-553	All
	W214A22-G	PL155P1	M39029/56-348	P131	M39029/58-360	All
	L51A22-G	PL19P2	M39029/56-351	SP10037	N.A.	All
	L51B22-G	SP10037	N.A.	PL27P2	M39029/56-348	All
	W216A22-G	SP1986	N.A.	PL155P1	M39029/56-348	All
	W216B22-G	SP1986	N.A.	PL155P1	M39029/56-348	All
	W216C22N-G	TB121P1	M39029/56-351	SP1986	N.A.	All
	W205A22N-G	TB133	A523A-A02	PL155P1	M39029/56-348	All
W204B22-G	TB143/2	A523A-A01	P121	M39029/58-360	All	
W204C22-G	TB143/2	A523A-A01	TB143/2	A523A-A01	All	
A1A707	W220A22-G	J103	M39029/56-348	PL155P1	M39029/56-348	LN
	W221A22-G	J103	M39029/56-348	PL155P1	M39029/56-348	LN
A2A445	W218A22-S	J107	M39029/56-348	PL155P1	M39029/56-348	ENH
	W219A22-S	J107	M39029/56-348	PL155P1	M39029/56-348	ENH
	W212A22-S	PL155P1	M39029/56-348	P133	M39029/58-360	All
	W217A22-S	PL155P1	M39029/56-348	J107	M39029/56-348	ENH
	W211A22-S	P133	M39029/58-360	PL155P1	M39029/56-348	All
	W213A22-S	P133	M39029/58-360	PL155P1	M39029/56-348	All
A2A636	W218A22-S	J105	M39029/56-351	PL155P1	M39029/56-348	LN
	W219A22-S	J105	M39029/56-351	PL155P1	M39029/56-348	LN
	W217A22-S	PL155P1	M39029/56-348	J105	M39029/56-351	LN
B2B469	W217C22-S	J118	M39029/56-348	J214	M39029/56-351	All
	W218C22-S	J138	M39029/56-348	J214	M39029/56-351	All
	W219C22-S	J214	M39029/56-351	J138	M39029/56-348	All

Figure 32

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Cable Assy	Wire	From Ref Des	Electrical Contact	To Ref Des	Electrical Contact	Applicable TO
B1B763	W221C22-G	J116	M39029/56-348	J210	M39029/56-351	All
	W220C22-G	J210	M39029/56-351	J114	M39029/56-348	All
B1A889	W215B22-G	J131	M39029/56-348	J215	M39029/56-351	All
	W214B22-G	J215	M39029/56-351	J131	M39029/56-348	All
B2A779	W211B22-S	J133	M39029/56-348	J217	M39029/56-351	All
	W212B22-S	J133	M39029/56-348	J217	M39029/56-351	All
	W213B22-S	J217	M39029/56-351	J133	M39029/56-348	All
A2B450	W217B22-S	P107	M39029/58-360	P118	M39029/58-360	ENH
	W218B22-S	P138	M39029/58-360	P107	M39029/58-360	ENH
	W219B22-S	P138	M39029/58-360	P107	M39029/58-360	ENH
A2B614	W217B22-S	P105	M39029/58-363	P118	M39029/58-360	LN
	W218B22-S	P138	M39029/58-360	P105	M39029/58-363	LN
	W219B22-S	P138	M39029/58-360	P105	M39029/58-363	LN
A1B479	W208D22-G	A2-1P4	M39029/57-354	SP10116	N.A.	All
	W207B22-G	K334P1	M39029/101-553	P103	M39029/58-360	All
	W207C22-G	K334P1	M39029/101-553	A2-1P1	M39029/57-354	All
	W208C22-G	K334P1	M39029/101-553	SP10116	N.A.	All
	W260A22N-G	K334P1	M39029/101-553	TB108P1	M39029/56-351	All
	W220B22-G	P114	M39029/58-360	P103	M39029/58-360	ENH
	W221B22-G	P116	M39029/58-360	P103	M39029/58-360	ENH
A1B648	W220B22-G	P114	M39029/58-360	P103	M39029/58-360	LN
	W221B22-G	P116	M39029/58-360	P103	M39029/58-360	LN
F2A218	W211D22-S	P335	M39029/58-363	P601	M39029/56-348	All
	W212D22-S	P335	M39029/58-363	P601	M39029/56-348	All
	W213D22-S	P335	M39029/58-363	P601	M39029/56-348	All
	W214D22-S	P335	M39029/58-363	P601	M39029/56-348	All
	W215D22-S	P335	M39029/58-363	P601	M39029/56-348	All
F2B214	W217E22-S	P600	M39029/56-348	P334	M39029/58-363	All
	W218E22-S	P600	M39029/56-348	P334	M39029/58-363	All
	W219E22-S	P600	M39029/56-348	P334	M39029/58-363	All
	W220E22-S	P600	M39029/56-348	P334	M39029/58-363	All
	W221E22-S	P600	M39029/56-348	P334	M39029/58-363	All

LN: AW139 helicopters from S/N 31201 to S/N 31398, from S/N 41201 to S/N 41293.
ENH: AW139 helicopters from S/N 31400 onwards and from S/N 41300 onwards.

Figure 33

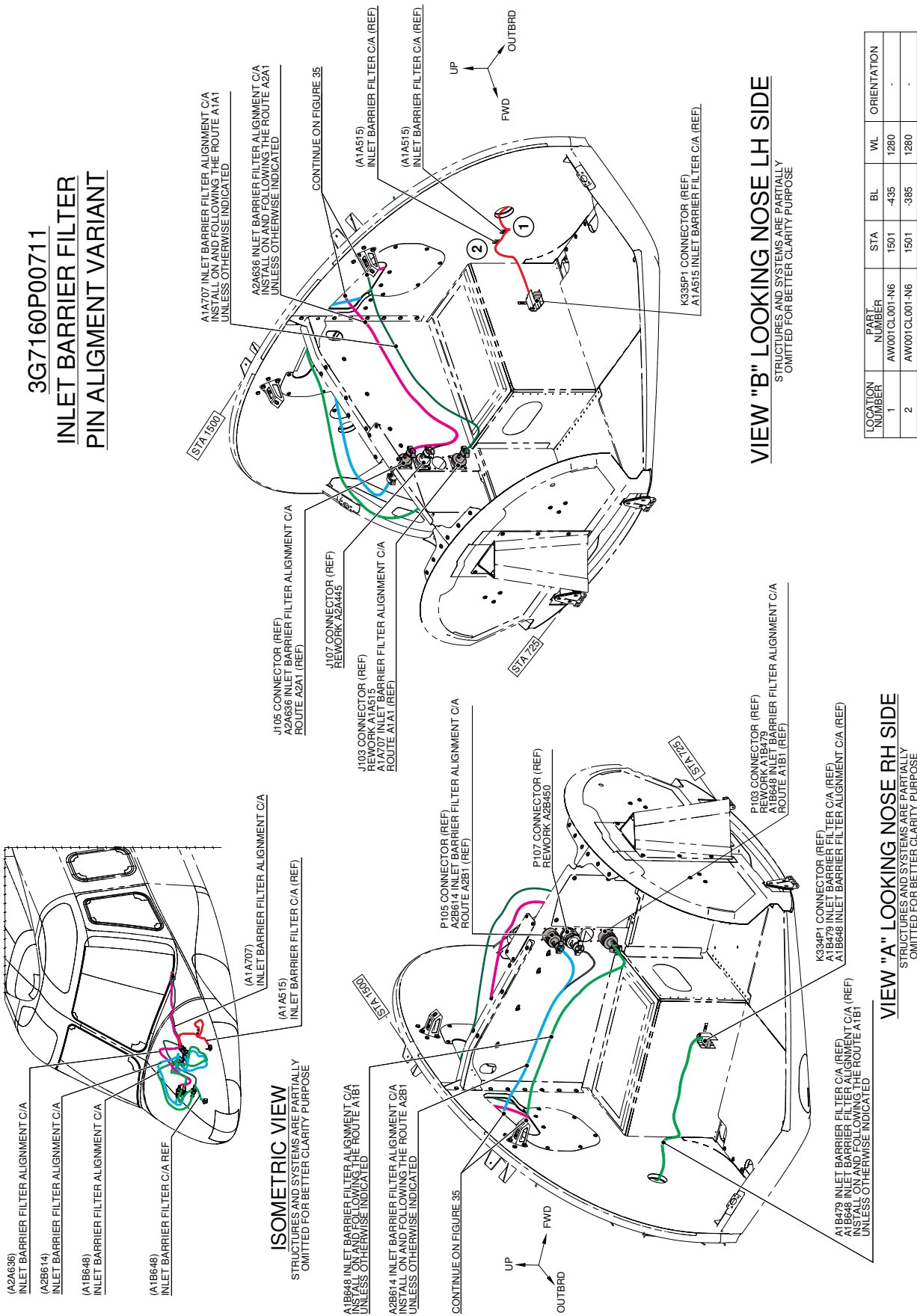


Figure 34

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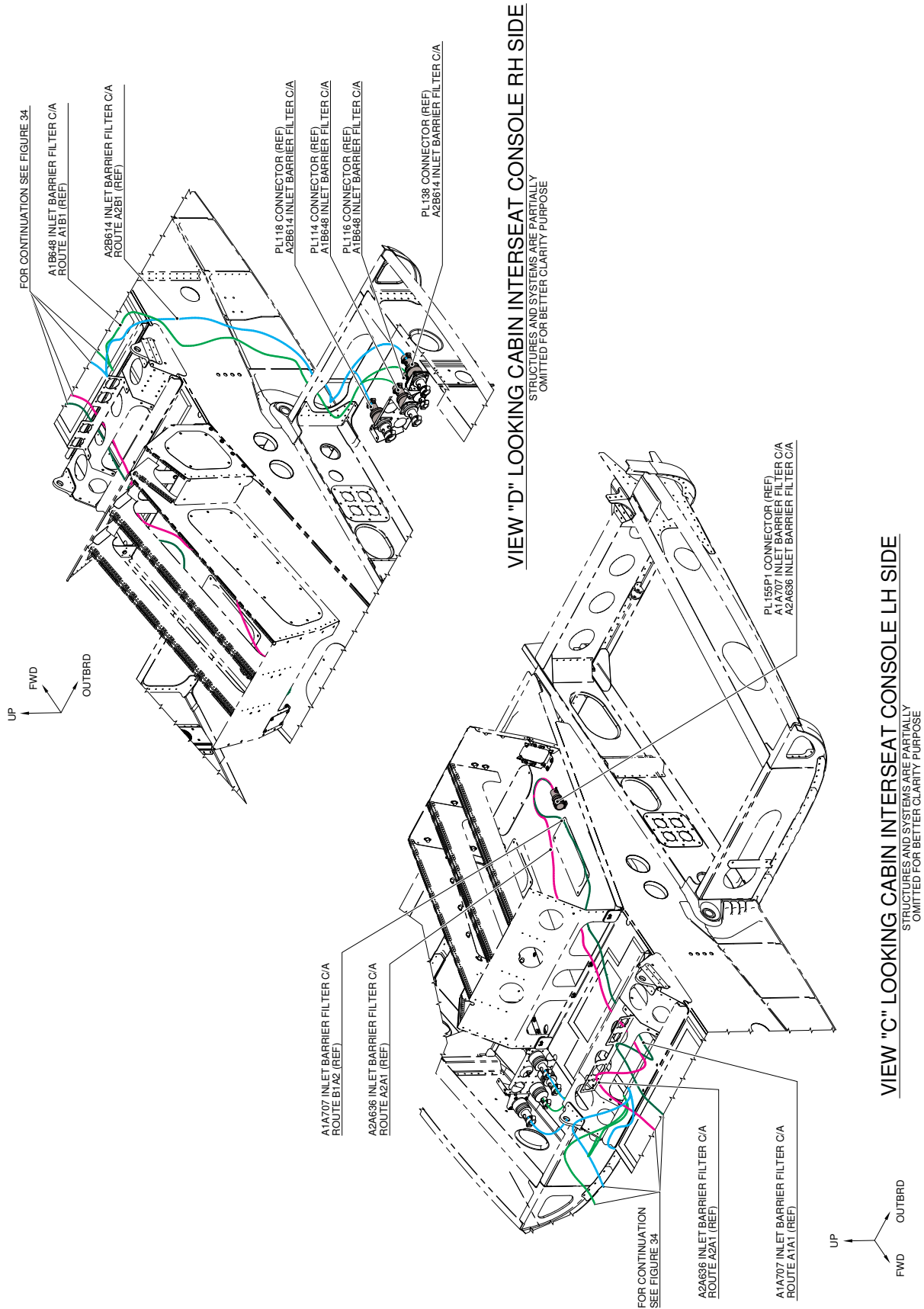
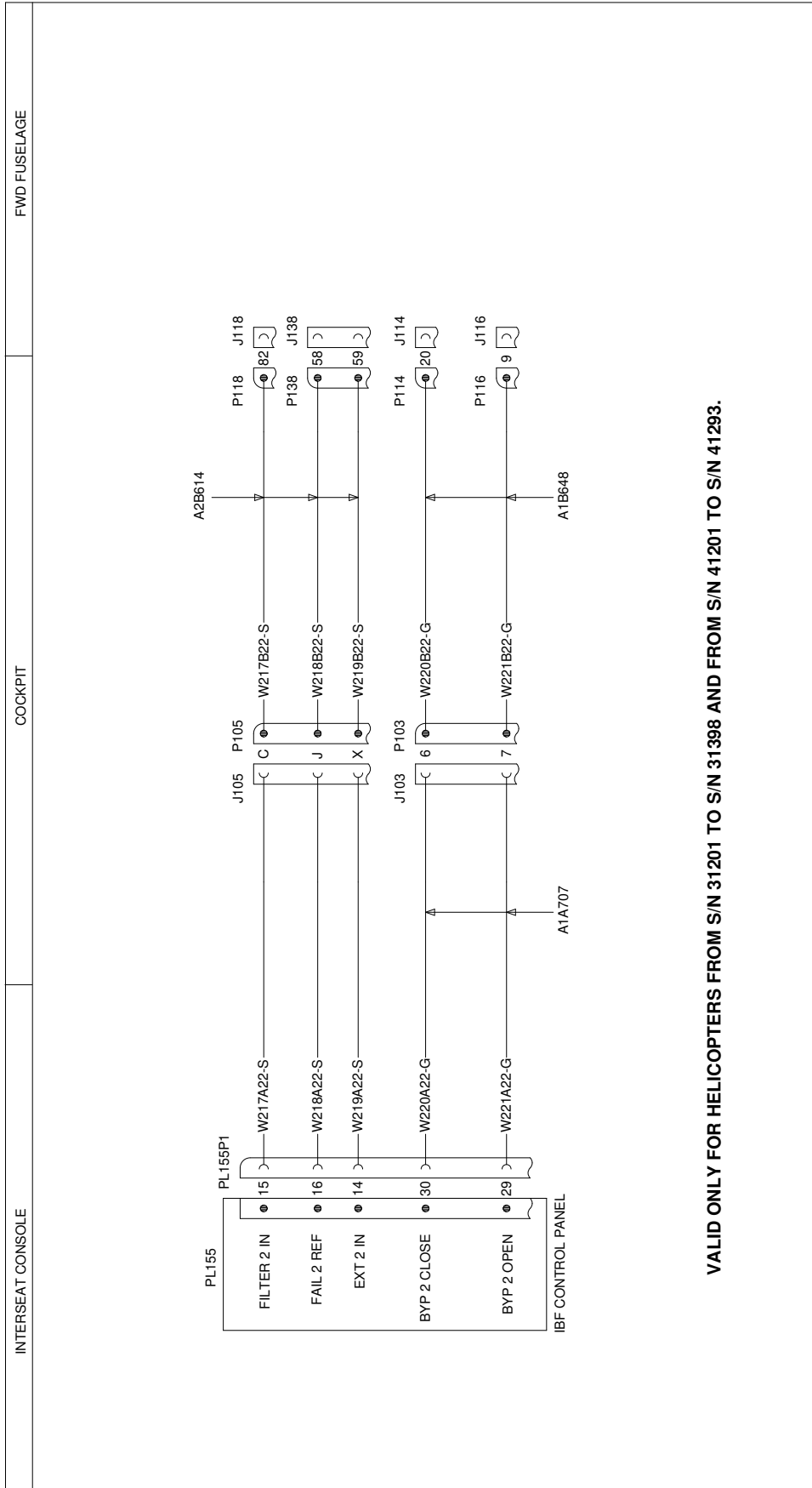
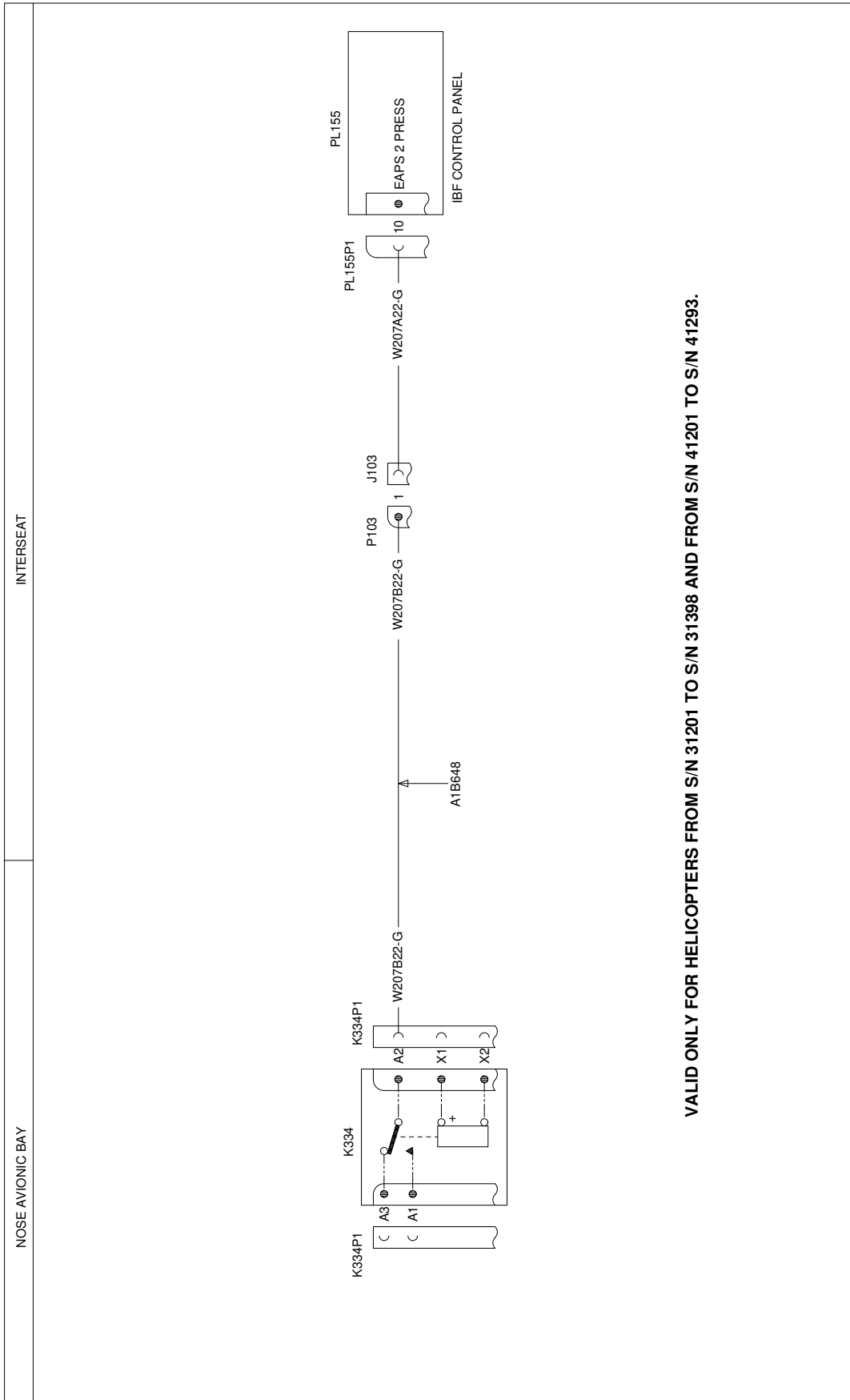


Figure 35



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A2A636 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

Figure 36



VALID ONLY FOR HELICOPTERS FROM S/N 31201 TO S/N 31398 AND FROM S/N 41201 TO S/N 41293.

FUNCTIONAL NOTES:
ALL CABLES ARE IN LOOM A1A707 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22UNLESS SPECIFIED

Figure 37

Please send to the following address: LEONARDO S.p.A. CUSTOMER SUPPORT & SERVICES - ITALY PRODUCT SUPPORT ENGINEERING & LICENSES DEPT. Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA) - ITALY Tel.: +39 0331 225036 Fax: +39 0331 225988		SERVICE BULLETIN COMPLIANCE FORM		Date:	
		Number:			
		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.					