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**SERVICE BULLETIN**

**N° 139-643**

**DATE:** February 18, 2021

**REV. :** /

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**TITLE**

**ATA 25 - SINGLE TO DOUBLE HOIST CONVERSION**

**REVISION LOG**

First Issue

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An appropriate entry should be made in the aircraft log book upon accomplishment.  
If ownership of aircraft has changed, please, forward to new owner.

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## **1. PLANNING INFORMATION**

### **A. EFFECTIVITY**

AW139 helicopters S/Ns 41375 and 41379.

### **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 single to double hoist variant P/N 3G2591P01511.

### **E. DESCRIPTION**

Leonardo Helicopters has developed this Service Bulletin to permit the conversion from kit single rescue hoist Goodrich P/N 4G2591F00211 to kit double rescue hoist Goodrich P/N 4G2591F00111 through the installation of the single to double hoist variant P/N 3G2591P01511.

This variant considers modifications to all the single hoist kit parts, structural and electrical provision, fixed and removable parts, in order to transform it into the double rescue hoist kit.

An utility CB panel variant P/N 3G2460P01511 is also present to align the CB panel with the new kit.

### **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 one hundred and twenty (120) MMH are deemed necessary.

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

## H. WEIGHT AND BALANCE

WEIGHT (Kg)	60.2	
	ARM (mm)	MOMENT (Kgmm)
LONGITUDINAL BALANCE	4462	268612.4
LATERAL BALANCE	1085	65317

## I. REFERENCES

### 1) PUBLICATIONS

Following Data Modules refer to AMP:

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM01 39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)	-
DM02 39-A-06-41-00-00A-010A-A	Access doors and panels - General data	-
DM03 39-A-24-93-02-00A-520A-K	Utility circuit breaker panel - Remove procedure	-
DM04 39-A-24-93-02-00A-720A-K	Utility circuit breaker panel - Install procedure	-
DM05 39-A-11-00-01-00A-520A-A	Decal - Remove procedure	-
DM06 39-A-11-00-01-00A-720A-A	Decal - Install procedure	-
DM07 39-A-25-94-04-00A-720A-K	Secondary hoist control pendant - Install procedure	-
DM08 39-A-25-96-01-00A-520A-K	Single rescue hoist assembly - Remove procedure	-
DM09 39-A-25-96-01-01A-520A-K	Motor fairing - Remove procedure	-
DM10 39-A-25-96-01-01A-720A-K	Motor fairing - Install procedure	-

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM11	39-A-25-96-01-02A-520A-K Gearbox fairing - Remove procedure	-
DM12	39-A-25-96-01-02A-720A-K Gearbox fairing - Install procedure	-
DM13	39-A-25-96-01-03A-520A-K Inboard fairing - Remove procedure	-
DM14	39-A-25-96-01-03A-720A-K Inboard fairing - Install procedure	-
DM15	39-A-25-96-01-06A-520A-K Hoist - Remove procedure	-
DM16	39-A-25-96-01-06A-720A-K Hoist - Install procedure	-
DM17	39-A-25-94-01-07A-720A-K Secondary hoist motor fairing - Install procedure	-
DM18	39-A-25-94-01-08A-720A-K Secondary hoist gearbox fairing - Install procedure	-
DM19	39-A-25-94-01-09A-720A-K Secondary hoist inboard fairing - Install procedure	-
DM20	39-A-25-94-01-12A-720A-K Secondary hoist - Install procedure	-
DM21	39-A-25-94-01-00A-720A-K Double rescue hoist assembly - Install procedure	-
DM22	39-A-25-94-02-00A-720A-K Double rescue hoist operator panel - Install procedure	-
DM23	39-A-25-96-02-00A-520A-K Hoist control panel - Remove procedure	-
DM24	39-A-25-96-03-00A-520A-K Hoist operator control panel - Remove procedure	-
DM25	39-A-24-93-01-00A-921A-K Integrally lighted panel - Replacement (remove and install a new item)	-

## 2) ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
CB	Circuit Breaker
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
LHD	Leonardo Helicopters Division
MMH	Maintenance Man Hours

## 3) ANNEX

N.A.

## **J. PUBLICATIONS AFFECTED**

N.A.

## **K. SOFTWARE ACCOMPLISHMENT SUMMARY**

N.A.

## 2. MATERIAL INFORMATION

### A. REQUIRED MATERIALS

#### 1) PARTS

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	3G2460P01511		UTILITY CB PANEL VARIANT (SINGLE-DOUBLE HOIST)	REF	.		-
2	3G2490L01061		Integrally lighted panel	1	..		-
3	3G9E01C30601		UTILITY CB PANEL DOUBLE HOIST VAR C/A (E1C306)	1	..		-
4	A556A-T16		Wire	4.5 m	...		139-643L1
5	M39029/56-352		Contact	3	...		139-643L1
6	MS25036-149		Terminal	2	...		139-643L1
7	MS25036-153		Terminal	1	...		139-643L1
8	999-8001-73-412		Bus bar	1	..		139-643L1
9	AW001YC01RED	Y30700501	Lock ring	4	..		139-643L1
10	ED300CB267		Decal	1	..		139-643L1
11	ED300CB268		Decal	1	..		139-643L1
12	ED300CB270		Decal	1	..		139-643L1
13	ED300CB271		Decal	1	..		139-643L1
14	MS21042L3		Nut	1	..		139-643L1
15	MS3320-1		Circuit breaker	1	..		139-643L1
16	MS3320-20		Circuit breaker	1	..		139-643L1
17	MS3320-5		Circuit breaker	1	..		139-643L1
18	MS35207-262		Screw	1	..		139-643L1
19	MS51957-42		Screw	4	..		139-643L1
20	NAS1149D0332J		Washer	1	..		139-643L1
21	3G2591P01511		SINGLE TO DOUBLE HOIST VARIANT	REF	.		-
22	3G2591P01611		SINGLE TO DOUBLE HOIST COMPLETE PROVISION	REF	..		-
23	3G2591P01711		SINGLE TO DOUBLE HOIST ELECTRICAL PROVISION	REF	...		-
24	3G9A01B66601		SINGLE TO DOUBLE HOIST VAR C/A (A1B666)	REF	....		-
25	A556A-T22		Wire	5.5 m	.....		139-643L1
26	M39029/56-348		Contact	2	.....		139-643L1
27	M39029/58-360		Contact	1	.....		139-643L1
28	M39029/58-363		Contact	1	.....		139-643L1
29	3G9B01B35402		SINGLE TO DOUBLE HOIST VAR C/A (B1B354)	REF	....		-
30	A556A-T20		Wire	3.7 m	.....		139-643L1
31	A556A-T22		Wire	12 m	.....		139-643L1
32	M39029/56-351		Contact	4	.....		139-643L1
33	M39029/58-363		Contact	3	.....		139-643L1
34	M39029/58-364		Contact	1	.....		139-643L1
35	3G9B01B35602		SINGLE TO DOUBLE HOIST VAR C/A (B1B356)	REF	....		-
36	A556A-T20		Wire	4.8 m	.....		139-643L1
37	M39029/56-351		Contact	2	.....		139-643L1
38	M39029/58-364		Contact	2	.....		139-643L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
<b>39</b>	<b>3G9B01B41502</b>		<b>SINGLE TO DOUBLE HOIST VAR C/A (B1B415)</b>	<b>REF</b>	<b>....</b>		<b>-</b>
40	A523A-B02		Contact	32	.....		139-643L1
41	A529A400-1502C		Clamp	1	.....		139-643L1
42	A530A4C13		Adapter	1	.....		139-643L1
43	A532A400-1502T		Clamp	1	.....		139-643L1
44	A556A-T22		Wire	79 m	.....		139-643L1
45	A560A-T2-22		Wire	5.1 m	.....		139-643L1
46	A560A-T3-22		Wire	1.5 m	.....		139-643L1
47	A561A-T2-22		Wire	14 m	.....		139-643L1
48	A649A02		Relay	4	.....		139-643L1
49	D38999/20JD35SN		Connector	1	.....		139-643L1
50	D38999/20WD35SN		Connector	1	.....		139-643L1
51	D38999/26JC35PN		Connector	1	.....		139-643L1
52	M23053/8-004-C		Insulation sleeving	1 m	.....		139-643L1
53	M39029/56-348		Contact	55	.....		139-643L1
54	M39029/56-351		Contact	2	.....		139-643L1
55	M39029/58-360		Contact	15	.....		139-643L1
56	M39029/58-363		Contact	2	.....		139-643L1
57	M81824/1-1		Splice	1	.....		139-643L1
58	MS25036-102		Terminal	2	.....		139-643L1
59	MS25036-103		Terminal	8	.....		139-643L1
60	MS25036-149		Terminal	3	.....		139-643L1
<b>61</b>	<b>3G9B01R07101</b>		<b>SINGLE TO DOUBLE HOIST VAR C/A (B1R071)</b>	<b>REF</b>	<b>....</b>		<b>-</b>
62	A523A-B01		Electrical contact	1	.....		139-643L1
63	A523A-B04		Electrical contact	7	.....		139-643L1
64	A556A-T16		Wire	22 m	.....		139-643L1
65	A556A-T22		Wire	27 m	.....		139-643L1
66	A648A02		Socket	1	.....		139-643L1
67	M39029/56-348		Contact	9	.....		139-643L1
68	M39029/58-360		Contact	1	.....		139-643L1
69	M39029/58-363		Contact	3	.....		139-643L1
70	M39029/58-364		Contact	2	.....		139-643L1
71	M81824/1-3		Splice	3	.....		139-643L1
72	MS25036-108		Terminal	1	.....		139-643L1
73	MS25036-149		Terminal	1	.....		139-643L1
74	MS25036-153		Terminal	1	.....		139-643L1
75	M81824/1-1		Splice	1	.....		139-643L1
<b>76</b>	<b>3G9B02B28702</b>		<b>SINGLE TO DOUBLE HOIST VAR C/A (B2B287)</b>	<b>REF</b>	<b>....</b>		<b>-</b>
77	A523A-B02		Contact	4	.....		139-643L1
78	A532A400-1102T		Backshell	1	.....		139-643L1
79	A532A445-1102		Adapter	1	.....		139-643L1
80	A561A-T2-22		Wire	2 m	.....		139-643L1
81	D38999/20WB98SN		Connector	1	.....		139-643L1
82	M23053/8-004-C		Insulation sleeving	4	.....		139-643L1
83	M39029/56-351		Contact	4	.....		139-643L1
<b>84</b>	<b>3G9B02B78301</b>		<b>SINGLE TO DOUBLE HOIST VAR C/A (B2B783)</b>	<b>REF</b>	<b>....</b>		<b>-</b>
85	A523A-A02		Electrical contact	2	.....		139-643L1
86	A556A-T22		Wire	22.5 m	.....		139-643L1
87	M39029/56-348		Contact	6	.....		139-643L1
88	M39029/57-357		Contact	2	.....		139-643L1
89	M81824/1-1		Splice	2	.....		139-643L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
90	3G9B11B03912		SINGLE TO DOUBLE HOIST VAR C/A (B1B39)	REF	....		-
91	3G9B01B41702		SINGLE TO DOUBLE HOIST VAR C (B1B417)	REF	.....		-
92	A556A-T2		Wire	1.5 m	.....		139-643L1
93	MS25036-126		Terminal	1	.....		139-643L1
94	MS25036-127		Terminal	1	.....		139-643L1
95	A578A07-9		Sleeve	3	.....		139-643L1
96	ECS0713H1330V00	NTA262A-NOMNEW	Thread	1	.....		139-643L1
97	3G9B11B04012		SINGLE TO DOUBLE HOIST VAR C/A (B1B40)	REF	....		-
98	3G9B01B41902		SINGLE TO DOUBLE HOIST VAR C (B1B419)	REF	.....		-
99	A556A-T2		Wire	1 m	.....		139-643L1
100	MS25036-127		Terminal	2	.....		139-643L1
101	A578A07-9		Sleeve	3	.....		139-643L1
102	3G9B11B04113		SINGLE TO DOUBLE HOIST VAR C/A (B1B41)	REF	....		-
103	3G9B01B39502		SINGLE TO DOUBLE HOIST VAR C (B1B395)	REF	.....		-
104	A556A-T2		Wire	1 m	.....		139-643L1
105	M39029/30-222		Contact	1	.....		139-643L1
106	M85049/31-32W		Clamp cable	1	.....		139-643L1
107	MS25036-127		Terminal	1	.....		139-643L1
108	MS3348-0-2		Contact	1	.....		139-643L1
109	MS3450W32-15S		Connector	1	.....		139-643L1
110	3G9B01B39702		SINGLE TO DOUBLE HOIST VAR C (B1B397)	REF	.....		-
111	A556A-T2		Wire	1.5 m	.....		139-643L1
112	M39029/30-222		Contact	1	.....		139-643L1
113	MS25036-127		Terminal	1	.....		139-643L1
114	MS3348-0-2		Contact	1	.....		139-643L1
115	A578A07-9		Sleeve	5	.....		139-643L1
116	7236-1-150		Current sensor	1	....		139-643L1
117	999-7000-04-13		Semiconductor device assembly	1	....		139-643L1
118	A236A02AB		Nonmetallic channel	1.2 m	....		139-643L1
119	A363A01		Stud	2	....		139-643L1
120	A366A3E16C75		Stud	1	....		139-643L1
121	A366A3E32C		Stud	1	....		139-643L1
122	A584A04		Nipple	2	....		139-643L1
123	A630A04	AW001CL509-N6	Mounting base	1	....		139-643L1
124	A648A01		Relay	1	....		139-643L1
125	A649A01		Relay	4	....		139-643L1
126	A815A01A1		Bracket	1	....		139-643L1
127	A826A01A-A1		Support socket relay	1	....		139-643L1
128	AN4-5		Bolt	2	....		139-643L1
129	AW001CL000A-X3		Support	5	....		139-643L1
130	AW001CL001-N6		Support	1	....		139-643L1
131	AW001TL3A06T		Anchor nut	1	....		139-643L1
132	D38999/22DW		Dummy connector	1	....		139-643L1
133	D38999/33W15R		Cover	1	....		139-643L1
134	ED300A214J1		Decal	1	....		139-643L1
135	ED300GS254		Decal	1	....		139-643L1
136	ED300GS256		Decal	1	....		139-643L1
137	ED300J2008		Decal	1	....		139-643L1



#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
138	ED300J2010		Decal	1	....		139-643L1
139	ED300J2012		Decal	1	....		139-643L1
140	ED300K116		Decal	1	....		139-643L1
141	ED300K121		Decal	1	....		139-643L1
142	ED300K122		Decal	1	....		139-643L1
143	ED300K123		Decal	1	....		139-643L1
144	ED300K124		Decal	1	....		139-643L1
145	ED300K191		Decal	1	....		139-643L1
146	ED300S172		Decal	1	....		139-643L1
147	EN6049-006-08-5		Sleeve protection	1	....		139-643L1
148	EN6049-006-32-5		Self-wrap braid	1	....		139-643L1
149	M85049/95-12A-A		Flange	1	....		139-643L1
150	M85049/95-16A-A		Flange	3	....		139-643L1
151	M85049/95-32A-A		Flange	1	....		139-643L1
152	MS21042L3		Nut	1	....		139-643L1
153	MS21919WDG12	AS21919WDG12	Clamp	2	....		139-643L1
154	MS21919WDG15	AS21919WDG15	Clamp	2	....		139-643L1
155	MS21919WDG16	AS21919WDG16	Clamp	2	....		139-643L1
156	MS21919WDG4	AS21919WDG04	Clamp	3	....		139-643L1
157	MS21919WDG6	AS21919WDG06	Clamp	3	....		139-643L1
158	MS21919WDG7	AS21919WDG07	Clamp	2	....		139-643L1
159	MS21919WDG5		Clamp	1	....		139-643L1
160	MS21919WDG10		Clamp	1	....		139-643L1
161	MS24183D1		Relay	1	....		139-643L1
162	MS35206-215		Screw	8	....		139-643L1
163	MS35206-216		Screw	8	....		139-643L1
164	MS35206-229		Screw	4	....		139-643L1
165	MS35207-270		Screw	1	....		139-643L1
166	MS90376-12R		Cap	2	....		139-643L1
167	MS90376-16R		Cap	1	....		139-643L1
168	MS90376-32R		Cap	1	....		139-643L1
169	MS9592-018		Bracket	1	....		139-643L1
170	NAS1149D0332J		Washer	8	....		139-643L1
171	NAS1149D0432J		Washer	2	....		139-643L1
172	NAS1149DN416J		Washer	16	....		139-643L1
173	NAS1149DN616J		Washer	4	....		139-643L1
174	NAS1801-3-34		Screw	1	....		139-643L1
175	NAS1801-3-7		Screw	4	....		139-643L1
176	NAS1801-3-8		Screw	3	....		139-643L1
177	NAS1801-3-9		Screw	2	....		139-643L1
178	NAS1801-3-16		Screw	1	....		139-643L1
179	NAS1190E3P24AK		Screw	2	....		139-643L1
180	NAS43DD3-15N		Spacer	1	....		139-643L1
181	NAS43DD3-30N		Spacer	1	....		139-643L1
182	NAS43DD3-50N		Spacer	1	....		139-643L1
183	NAS43DD3-55N		Spacer	1	....		139-643L1
184	NAS43DD3-85N		Spacer	1	....		139-643L1
185	NAS43DD3-65N		Spacer	2	....		139-643L1
186	NAS813-18		Plug	1	....		139-643L1
<b>187</b>	<b>3G5310P16911</b>		<b>SINGLE TO DOUBLE HOIST STRUCTURAL PROVISION</b>	<b>REF</b>	<b>...</b>		<b>-</b>
188	3G5316A71152	3G5316A71152M01	Bracket	1	....		139-643L1
189	MS20426AD3-7		Rivet	0.1 kg	....		139-643L1
190	MS20470AD3-7		Rivet	0.1 kg	....		139-643L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
191	MS21069L3		Anchor nut	1	....		139-643L1
192	NAS1149D0332J		Washer	2	....		139-643L1
193	NAS1802-3-6		Screw	2	....		139-643L1
194	NAS1836-3-13M		Insert	2	....		139-643L1
<b>195</b>	<b>3G2591P01811</b>		<b>HOIST REMOVABLE PARTS RETROMOD</b>	<b>REF</b>	..		-
<b>196</b>	<b>3G2591P01911</b>		<b>DOUBLE RESCUE RETROMOD INSTL</b>	<b>REF</b>	...		-
197	3G2591V01532		Hoist core	1	....		139-643L1
198	3G2591V02051	3G2591V02053	Hook assy	1	....		139-643L1
<b>199</b>	<b>3G5310P17011</b>		<b>BOOM &amp; STRUCTURAL RETROMOD INSTL</b>	<b>REF</b>	....		-
200	3G2591V02731		Boom double	1	....	(1)	139-643L1
201	44316-45-103		Secondary hoist harness kit	1	....		139-643L1
202	44316-46-102		Main hoist fairing kit	1	....		139-643L1
203	44316-46-103		Secondary hoist fairing kit	1	....		139-643L1
204	A627A05-9	AW001CK05HS	Strap	10	....		139-643L1
205	A627A06-9	AW001CK06HS	Tiedown strap	10	....		139-643L1
206	A627A07-9	AW001CK07HS	Strap	10	....		139-643L1
207	3G2591V02151		Hoist pendant	1	...		139-643L1
208	42325-779		Slide bracket	1	..	(2)	-
<b>209</b>	<b>3G2591P02011</b>		<b>SINGLE TO DOUBLE HOIST FIXED PARTS VARIANT</b>	<b>REF</b>	..		-
210	3G2591V02251		Control panel double hoist	1	...		139-643L1
211	999-0500-85-213		Panel	1	...		139-643L1
212	AW001YC01RED		Locking ring	9	...		139-643L1
213	ED300A180		Decal	1	...		139-643L1

## 2) CONSUMABLES

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

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
217	199-05-002 TY II, CL 2	Adhesive (C397)	AR	(3)	-
218	EN6049-006-08-5	Self-wrap braid	AR	(3)	-
219	EN6049-006-32-5	Self-wrap braid	AR	(3)	-
221	AW001CK03LC	Lacing cord	AR	(3)	-
223	AMS-QQ-A-250/4	Plate Al 2024 T3 Thk 0.81 mm	37 x 90 mm <sup>2</sup>	(3)(4)	-
224	MMM-A-132, Type 2, Class II	Adhesive EA9309.3NA (C021)	AR	(3)	-

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
139-643L1	1	-	-
3G2490L01061	1	-	-

#### NOTE

- (1) Control specification for P/N 44316-506
- (2) Item to be ordered only if not already present on the helicopter.
- (3) Item to be procured as local supply.
- (4) Plate reinforcement to be obtained from raw material AMS-QQ-A-250/4.

#### B. SPECIAL TOOLS

N.A.

#### C. INDUSTRY SUPPORT INFORMATION

Customization.

### **3. ACCOMPLISHMENT INSTRUCTIONS**

#### **GENERAL NOTES**

- a) Place an identification tag on all components that are re-usable, including the attaching hardware that has been removed to gain access to the modification area and adequately protect them until their later re-use.
  - b) Shape the cables in order to prevent interference with the structure and the other existing installations, using where necessary suitable lacing cords.
  - c) Exercise extreme care during drilling operations to prevent instruments, cables and hoses damage.
  - d) After drilling, remove all swarf and sharp edges. Apply on bare metal a light film of primer unless the hole is used for ground connection.
  - e) During the installation of bonding braids or components requiring grounding, clean the surface structure in order to obtain a good ground contact.
  - f) Let adhesive cure at room temperature for at least 24 hours unless otherwise specified.
  - g) Exposed thread surface and nut must be protected using a layer of tectyl according to MIL-C-16173 grade I.
  - h) All lengths are in mm.
- 
- 1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
  - 2. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 1, 2 and 3, gain access to the area affected by the installation and perform the utility CB panel single to double hoist variant P/N 3G2460P01511 as described in the following procedure:
    - 2.1 With reference to Figure 36 and Figure 57 Wiring diagram, assemble the C/A E1C306 by means of items listed in tables and in Parts.
    - 2.2 With reference to Figure 2 and in accordance with the applicable steps of AMP DM 39-A-24-93-01-00A-921A-K, remove the integrally lighted panel

- P/N 3G2490L01060.
- 2.3 With reference to Figure 2 and in accordance with the applicable steps of AMP DM 39-A-24-93-02-00A-520A-K, move the utility circuit breaker panel from the support as far as the wires will let.
  - 2.4 With reference to Figure 3 Detail B, remove the circuit breaker CB271 P/N MS3320-3 from the utility circuit breaker panel. In accordance with AMP DM 39-A-11-00-01-00A-520A-A, remove decal P/N ED300CB271.
  - 2.5 With reference to Figure 3 Detail B, install on the breaker panel, the previously removed circuit breaker CB271 P/N MS3320-3 and the lock ring P/N AW001YC01RED. In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install decal P/N ED300CB271 in an adjacent area.
  - 2.6 With reference to Figure 3 Detail B, install on the breaker panel, the circuit breaker CB270 P/N MS3320-20 and the lock ring P/N AW001YC01RED. In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install decal P/N ED300CB270 in an adjacent area.
  - 2.7 With reference to Figure 3 Detail B, install on the breaker panel, the circuit breaker CB267 P/N MS3320-1 and the lock ring P/N AW001YC01RED. In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install decal P/N ED300CB267 in an adjacent area.
  - 2.8 With reference to Figure 3 Detail B, install on the breaker panel, the circuit breaker CB268 P/N MS3320-5 and the lock ring P/N Y30700501. In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install decal P/N ED300CB268 in an adjacent area.
  - 2.9 With reference to Figure 3 View A install the bus bar W32A P/N 999-8001-73-412 by means of the screw P/N MS35207-262, the washer P/N NAS1149D0332J and the nut P/N MS21042L3.
  - 2.10 With reference to Figure 3 View A replace the four screws P/N MS51957-41 with the four screws P/N MS51957-42.
  - 2.11 With reference to Figure 1, Figure 3 and Figure 57 Wiring diagram, perform the electrical connection of the C/A E1C306 to the connectors PL1J8 and PL1J4 and to the circuit breakers CB 267, CB268, and CB270.
  - 2.12 With reference to Figure 2 and in accordance with the applicable steps of AMP DM 39-A-24-93-02-00A-720A-K, fix the utility circuit breaker panel on the support.
  - 2.13 With reference to Figure 2 and in accordance with the applicable steps of AMP DM 39-A-24-93-01-00A-921A-K, install the integrally lighted panel

P/N 3G2490L01061.

- 2.14 With reference to Figures 1 and 3 and Figure 57 Wiring diagram, perform the electrical connection of the previously removed C/A E1C243, C/A B1B89 and C/A B1A77.
3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures from 4 to 32, gain access to the area affected by the installation and perform single to double hoist variant P/N 3G2591P01511 as described in the following procedure:
  - 3.1 With reference to Figures 4 and 5, perform the single to double hoist structural provision P/N 3G5310P16911 as described in the following procedure:
    - 3.1.1 With reference to Figure 4 Section A-A, drill the hole  $\varnothing 4.90 \div 5.03$  thru the support assy P/N 3G5315A70632 and the panel P/N 3P5337A10751 in accordance with the dimensioning shown.
    - 3.1.2 With reference to Figure 4 Section A-A, install the anchor nut P/N MS21069L3 by means of n°2 rivets P/N MS20426AD3.

**NOTE**

In case of interference problems with the new bracket P/N 3G5316A71152, it is possible to maintain the existing connector support P/N 3G5315A71251. In this case, skip Steps 3.1.3 thru 3.1.7

- 3.1.3 With reference to Figure 5 Section B-B, remove the connector support P/N 3G5315A71251 and plug the existing hole with the rivet P/N MS20470AD3.

**NOTE**

Prepare the contact surface between the bracket P/N 3G5316A71152 and the panel P/N 3G5333A09731 to assure ground contact.

- 3.1.4 With reference to Figure 5 Section C-C, temporarily locate the bracket P/N 3G5316A71152 on the panel P/N 3G5333A09731 and countermark n°2 holes in accordance with the dimensioning shown.
- 3.1.5 With reference to Figure 5 Section B-B, Section C-C and View D, drill n°2 holes  $\varnothing 11.48 \div 11.61$  on the panel P/N 3G5333A09731 in the previously countermarked holes.
- 3.1.6 With reference to Figure 5 Section C-C, install n°2 inserts P/N NAS1836-3-13M on the structure P/N 3G5333A09731 by means of adhesive 199-05-002 Type II, Class 2.

- 3.1.7 With reference to Figure 5 Section B-B, install the bracket P/N 3G5316A71152 on the panel P/N 3G5333A09731 by means of n°2 screws P/N NAS1802-3-6 and n°2 washers P/N NAS1149D0332J.
- 3.2 With reference to Figures 6 thru 22, perform the single to double hoist electrical provision P/N 3G2591P01711 as described in the following procedure:

**NOTE**

If the zone of the second pendant connector requires a reinforcement, it is possible to install a reinforcement in accordance with Step 3.2.1. Otherwise, skip to Step 3.2.2.

**NOTE**

Plate reinforcement to be obtained from raw material AMS-QQ-A-250/4 with the dimensions shown on Figure 11 Detail Reinforcement.

- 3.2.1 With reference to Figure 11 Detail Reinforcement install the reinforcement by means of adhesive EA9309.3NA.
- 3.2.2 With reference to Figure 11 View Looking outboard cabin RH side, install the support P/N AW001CL000A-X3 at location n°1.
- 3.2.3 With reference to Figure 13 View E, remove from the location n°3 the support P/NA366A3E24C, the clamp P/N MS21919WDG5, the spacer P/N NAS43DD3-40N and the clamp P/N MS21919WDG4.
- 3.2.4 With reference to Figure 13 View E, install the stud P/N A366A3E32C by means of the existing hardware at location n°3.
- 3.2.5 With reference to Figure 13 View E, remove the clamp P/N MS21919WDG9, the bracket P/N MS9592-012 and the washer P/N NAS1149D0332J.
- 3.2.6 With reference to Figure 13 View E, install the bracket P/N MS9592-018 by means of the existing hardware and support at location n°2.
- 3.2.7 With reference to Figure 13 View E, install n°3 supports P/N AW001CL000A-X3 at locations n°4, 5 and 6.
- 3.2.8 With reference to Figure 12 View L-L, install the support P/N AW001CL000A-X3 at location n°7.
- 3.2.9 With reference to Figure 12 View L-L, install n°2 flanges P/N M85049/95-16A-A by means of n°8 screws P/N MS35206-216 and n°8 washers P/N NAS1149DN416J.

- 3.2.10 With reference to Figure 12 View L-L, install the dummy connector P/N D38999/22DW and the cover P/N D38999/33W15R.
- 3.2.11 With reference to Figure 15 View T, install the mounting base P/N A630A04 at location n°1.
- 3.2.12 With reference to Figure 16 View looking up cabin roof area RH side, install the stud P/N A366A3E16C75 at location n°3.
- 3.2.13 With reference to Figure 16 View looking up cabin roof area RH side, install the support socket relay P/N A826A01A-A1 by means of the existing hardware.
- 3.2.14 With reference to Figure 16 View looking up cabin roof area RH side, install the stud P/N A363A01 (GS254).
- 3.2.15 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 16, install the decal P/N ED300GS254 in an adjacent area.
- 3.2.16 With reference to Figure 16 View looking up cabin roof area RH side, install the stud P/N A363A01(GS256).
- 3.2.17 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 16, install the decal P/N ED300GS256 in an adjacent area.
- 3.2.18 With reference to Figure 17 View opposite M, install the flange P/N MS85049/95-16A-A to fix the C/A B1B415 by means of n°4 screws P/N MS35206-215 and n°4 washers P/N NAS1149DN416J.
- 3.2.19 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 17 View M, install the decal P/N ED300J2010 in an adjacent area.
- 3.2.20 With reference to Figure 17 View opposite M, install the flange P/N MS85049/95-12A-A to fix the C/A B2B287 by means of n°4 screws P/N MS35206-215 and n°4 washers P/N NAS1149DN416J.
- 3.2.21 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 17 View M, install the decal P/N ED300J2012 in an adjacent area.
- 3.2.22 With reference to Figure 17 View opposite M, install the flange P/N MS85049/95-32A-A to fix the C/A B1B41 by means of n°4 screws P/N MS35206-229 and n°4 washers P/N NAS1149DN616J.



- 3.2.23 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 17 View M, install the decal P/N ED300J2008 in an adjacent area.
- 3.2.24 With reference to Figure 18 View N-N, remove the support P/N A630A3AT and the clamp P/N MS21919WDG6.
- 3.2.25 With reference to Figure 18 View N-N, install the anchor nut P/N AW001TL3A06T.
- 3.2.26 With reference to Figure 18 View N-N, install the non-metallic channel P/N A236A02AB as indicated on the figure.
- 3.2.27 With reference to Figure 20 View V-V, install the support P/N AW001CL001-N6.
- 3.2.28 With reference to Figure 20 View V-V, install the bracket P/N A815A01A1 by means of n°2 screws P/N NAS1801-3-8 and n°2 washers P/N NAS1149D0332J.
- 3.2.29 With reference to Figure 21 View K, install the current sensor S172 P/N 7236-1-150 by means of n°2 screws P/N NAS1801-3-7 and n°2 washers P/N NAS1149D0332J.
- 3.2.30 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 21 View K, install decal P/N ED300S172 in an adjacent area.
- 3.2.31 With reference to Figure 21 View K, install the relay K116 P/N MS24183D1 by means of n°2 bolts P/N AN4-5 and n°2 washers P/N NAS1149D0432J.
- 3.2.32 With reference to Figure 21 and Figure 42 Wiring Diagram, install the diode CR208 P/N 999-7000-04-13.
- 3.2.33 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 21 View K, install the decal P/N ED300K1164 in an adjacent area.
- 3.2.34 With reference to Figure 43 Wiring diagram, remove the wire marked as "M595A22-G" from pin 27 of the junction TB120 to the connector PL82P1.
- 3.2.35 With reference to Figure 33 and Figures 43 and 49 Wiring diagram, assemble the C/A A1B666 by means of items listed in tables and in Parts.

- 3.2.36 With reference to Figure 33 and Figure 41,43 and 44 Wiring diagram, assemble the C/A B1B354 by means of items listed in tables and in Parts.
- 3.2.37 With reference to Figure 33 and Figure 42 Wiring diagram, assemble the C/A B1B356 by means of items listed in tables and in Parts.
- 3.2.38 With reference to Figure 34 and Figure 42 Wiring diagram, assemble the C/A B1B395 by means of items listed in tables and in Parts.
- 3.2.39 With reference to Figure 34 and Figure 42 Wiring diagram, assemble the C/A B1B397 by means of items listed in tables and in Parts.
- 3.2.40 With reference to Figures 37,38 and 39 and Figures 42,46,47,48,50,51 and 52 Wiring diagram, assemble the C/A B1B415 by means of items listed in tables and in Parts.
- 3.2.41 With reference to Figures 34 and 42 Wiring diagram, assemble the C/A B1B417 by means of items listed in tables and in Parts.
- 3.2.42 With reference to Figures 34 and 42 Wiring diagram, assemble the C/A B1B419 by means of items listed in tables and in Parts.
- 3.2.43 With reference to Figure 41 Wiring diagram, remove the wire marked as "M579B22-G" from the pin 1 of the connector A188P1 to the pin C of the connector J112.
- 3.2.44 With reference to Figure 41 Wiring diagram, remove the wire marked as "M580B22-G" from the pin S1 of the hoist sensor S173 to the pin 23 to the connector J116.
- 3.2.45 With reference to Figure 50 Wiring diagram, remove the wire marked as "M628D22-G" from the pin 9 of the connector A188P1 to the splice SP2811.
- 3.2.46 With reference to Figure 50 Wiring diagram, remove the wire marked as "M628C22-G" from the pin A2 of the connector K151 to the pin C of the connector PL1P8.
- 3.2.47 With reference to Figure 50 Wiring diagram, remove the wire marked as "M621B22-G" from the pin 7 of the connector J116 to the splice SP2811.
- 3.2.48 With reference to Figure 44 Wiring diagram, remove the wire marked as "M581B22-G" from the pin 50 of the connector TB226P1 to the connector J116.
- 3.2.49 With reference to Figure 53 Wiring diagram, remove the wire marked as "M639A16-G" from the pin 50 of the connector TB226P1 to the connector J116.

- 3.2.50 With reference to the Figure 35 and Figure 41,50,54 Wiring diagram assemble the C/A B1R071 by means of the items listed in tables and Parts.
- 3.2.51 With reference to the Figure 36 and Figure 46,47,48 Wiring diagram, assemble the C/A B1B287 by means of the items listed in tables and Parts.
- 3.2.52 With reference to Figure 56 Wiring diagram, remove the wire marked "M630A22-G" from the pin A of the connector A180P1 to the pin 8 of the connector A212J1.
- 3.2.53 With reference to Figure 56 Wiring diagram, remove the wire marked "M631A22-G" from the pin p of the connector A180P1 to the pin 5 of the connector A212J1.
- 3.2.54 With reference to the Figure 36 and Figure 56 Wiring diagram assemble the C/A B1B783 by means of the items listed in tables and Parts.
- 3.2.55 With reference to Figure 58 Wiring Diagram WAS, disconnect the wires L720A22-G and L725A22-G from the connector K136P1. Remove the connector and the other wires from the helicopter.
- 3.2.56 With reference to Figure 58 Wiring Diagram BECOMES, connect the wires L720A22-G and L725A22-G to the splice P/N M81824/1-1 (SP5000-ME).
- 3.2.57 With reference to Figures 6 thru 22, lay down the following cable assemblies on the existing routes unless otherwise indicated on the figures:
- 3G9A01B66601 single to double hoist var C/A (A1B666)
  - 3G9B01B35402 single to double hoist var C/A (B1B354)
  - 3G9B01B35602 single to double hoist var C/A (B1B356)
  - 3G9B01B41502 single to double hoist var C/A (B1B415)
  - 3G9B01R07101 single to double hoist var C/A (B1R071)
  - 3G9B02B28702 single to double hoist var C/A (B2B287)
  - 3G9B02B78301 single to double hoist var C/A (B2B783)
  - 3G9B01B41702 single to double hoist var C/A (B1B417)
  - 3G9B01B41902 single to double hoist var C/A (B1B419)
  - 3G9B01B39502 single to double hoist var C/A (B1B395)
  - 3G9B01B39702 single to double hoist var C/A (B1B397)

- 3.2.58 With reference to Figures 6 thru 22, secure the cable assemblies laid down at the previous step by means of existing hardware and lacing cords.
- 3.2.59 With reference to Figures 6 thru 22, relocate the routing of the cable assemblies already installed in accordance with the position shown in the figure.
- 3.2.60 With reference to Figure 11 View looking outboard cabin RH side and Detail C, apply the nomex tube P/N EN6049-006-08-5 on C/A B2B783, C/A B2B275 and C/A B2B291.
- 3.2.61 With reference to Figure 11 View looking outboard cabin RH side and Figure 12 Detail F, at location n°1 insert the connector assembly into the protective plug, cover with the nomex fibre sleeve and use the cable strap to tie up.

**NOTE**

When necessary replace existing the clamps with suitable clamps.

- 3.2.62 With reference to Figure 13 View E, install the clamp P/N MS21919WDG9 on the C/A B1B354, C/A B1B356, C/A B1B421, C/A B1R071 and C/A B1B415 to fix the C/As to the stud by means of the existing washer and nut at location n°3.
- 3.2.63 With reference to Figure 13 View E, install the clamp P/N MS21919WDG7 on the C/A B2B275, C/A B2B277, C/A B2B783 and C/A B2B291 to fix the C/As to the stud by means of the spacer P/N NAS43DD3-55N and the existing washer and nut at location n°3.
- 3.2.64 With reference to Figure 13 View E, install the clamp P/N MS21919WDG16 on the C/A B1B354, C/A B1B356, C/A B1B421, C/A B1R071 and C/A B1B415 to fix the C/As to the support location n°2.
- 3.2.65 With reference to Figure 13 View E, remove the clamp P/N MS21919WDG6 and the clamp P/N MS21919WDG9 at location n°1.
- 3.2.66 With reference to Figure 13 View E, install the clamp P/N MS21919WDG7 on the C/A B2B275, C/A B2B277 and C/A B2B291 to fix the C/As to the support at location n°1.
- 3.2.67 With reference to Figure 13 View E, install the clamp P/N MS21919WDG12 on the C/A B1B415 to fix the C/As to the support at location n°1.

- 3.2.68 With reference to Figure 13 View E and Figure 12 Detail G, at location n°5 insert the connector assembly into the protective plug, cover with the nomex fibre sleeve and use the cable strap to tie up.
- 3.2.69 With reference to Figure 13 View E and Figure 12 Detail H, at location n°4 and n°6 insert the connector assembly into the P/N NAS813-18 protective plug, cover with the nomex fibre sleeve and use the tie strap P/N AW001CK03LC to tie up.
- 3.2.70 With reference to Figure 12 View L-L and Detail J, at location n°7 insert the connector assembly into the protective plug, cover with the nomex fibre sleeve and use the cable strap to tie up.
- 3.2.71 With reference to figure 15 View T, install the clamp P/N MS21919WDG6 on the C/A B1B39 by means of the existing hardware to fix the C/As to the support.
- 3.2.72 With reference to figure 15 View T, install n°2 clamps P/NMS21919WDG15 on the C/As P/N B1B354, B1B356, B1B421, B1R071, B1B415 and B1B41 to fix the C/As to the support by means of n°2 screws P/N NAS1190E3P24AK and n°2 spacers P/N NAS43DD3-65N.
- 3.2.73 With reference to figure 15 View T, install the clamp P/N MS21919WDG4 on the C/As B2B421, B1R071 and B1B415 by means of the existing hardware to fix the C/As to the support.
- 3.2.74 With reference to Figure 22 Detail S, remove the clamp P/N MS21919WDG10 at location n°3, the spacer P/N NAS43DD3-16N and the screw P/N NAS1801-3-7.
- 3.2.75 With reference to Figure 22 Detail S, install the clamp P/N MS21919WDG16 at location n°3, on the C/As B1B354, B1B356, B1B421, BIR071 and B1B415 to fix the C/As to the support by means of the spacer P/N NAS43DD3-15N and the screw P/N NAS1801-3-8.
- 3.2.76 With reference to Figure 22 Detail S, install the clamp P/N MS21919WDG6 on the C/A B1B41 to fix the C/A to the support by means of the spacer P/N NAS43DD3-85N and the screw P/N MS35207-270.
- 3.2.77 With reference to Figure 22 Detail S, install the clamp P/N MS21919WDG4 at location n°4, on the C/As B1B421, B1R071 and B1B415 to fix the C/As to the support by means of the washer P/N NAS1149D0332J and the screw P/N NAS1801-3-7.

- 3.2.78 With reference to Figure 16 View looking up cabin roof are RH side, remove the clamp P/N MS21919WDG5 at location n°1.
- 3.2.79 With reference to Figure 16 View looking up cabin roof are RH side, install the clamp P/N MS21919WDG6 at location n°1 on the C/A B1B42 to fix the C/A to the support by means of the spacer P/N NAS43DD3-30N, the washer P/N NAS1149D0332J and the nut P/N MS21042L3.
- 3.2.80 With reference to Figure 16 View looking up cabin roof are RH side, install the clamp P/N MS21919WDG5 at location n°3 on the C/A B1B415 and the clamp P/N MS21919WDG4 on the C/A B2B287 to fix the C/As to the support by means of the spacer P/N NAS43DD3-30N, the washer P/N NAS1149D0332J and the nut P/N MS21042L3.
- 3.2.81 With reference to Figure 18 View U-U, use the existing spacer and clamp to fix the C/As B1B354, B1B356, B1B421, B1R071 and B1B415.
- 3.2.82 With reference to Figure 18 View U-U, remove the screw P/N MS35207-268.
- 3.2.83 With reference to Figure 18 View U-U, install the clamp P/N MS21919WDG12 on the C/A B1B42 and C/A B1B41 to fix the C/As to the existing support by means of the spacer P/N NAS43DD3-50N and the screw P/N NAS1801-3-34.
- 3.2.84 With reference to Figure 18 View N-N install the clamp P/N MS21919WDG10 on the C/A B1B42 and C/A B1B41 to fix the C/As to the support by means of the spacer P/N NAS43DD3-30N, the washer P/N NAS1149D00332J and the screw P/N NAS1801-3-16.
- 3.2.85 With reference to Figure 19 View P and Figure 20 Detail AB, use the existing clamp to fix the C/A B1R071 by means of the existing spacer to the support.
- 3.2.86 With reference to Figure 10 View looking nose, Figure 9 View A, Figure 7 View looking cockpit area, Figures 43 and 49 Wiring diagram, perform the electrical connection of the C/AB1B666 to the connectors TB110P1, TB120P1, P100 and P116.
- 3.2.87 With reference to Figure 7 View looking cockpit area and Figure 10 View looking nose and Figure 9 View A and Figures 41, 43 and 44 Wiring diagram, perform the electrical connection of the C/A B1B354 to the connectors PL1P2, PL1P4, J100 and P200.

- 3.2.88 With reference to Figure 42 Wiring diagram, perform the electrical connection of the C/A B1B356 to the connectors PL1P4 and P200.
- 3.2.89 With reference to Figure 17 View opposite M and Figure 42 Wiring diagram, connect the connector J2008 to the connector P2008.
- 3.2.90 With reference to figure 17 View M, install the protective cap P/N MS90376-32R on the connector J2008.
- 3.2.91 With reference to Figure 17 View M and Figure 42 Wiring diagram, perform the electrical connection of the C/A B1B397 to the connector J2008.
- 3.2.92 With reference to Figure 13 View E and Figure 42 Wiring diagram connect the connector A188P4 to the hoist operator control panel A188.
- 3.2.93 With reference to Figure 12 View L-L and Figure 52 Wiring diagram connect the connector A214J1 to the connector A214P1.
- 3.2.94 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 12 View L-L, install decal P/N ED300A214J1 in an adjacent area.
- 3.2.95 With reference to Figure 16 View looking up cabin roof area RH side and Figure 52 Wiring diagram connect the connector J2010 to the connector P2010.
- 3.2.96 With reference to Figure 17 View M, install the protective cap P/N MS90376-16R.
- 3.2.97 With reference to Figure 16 View looking up cabin roof area RH side and Figure 47 Wiring diagram, connect the socket K121P1 to the trigger relay K121, the socket K122P1 to the trigger relay K122 and the socket K123P1 to the armed relay K123.
- 3.2.98 With reference to Figure 16 View looking up cabin roof area RH side and in accordance with AMP DM 39-A-11-00-01-00A-720A-A, install the decal P/N ED300K121, the decal P/N ED300K122 and the decal P/N ED300K123 in an adjacent area.
- 3.2.99 With reference to Figure 15 View S and Figure 42 Wiring diagram, perform electrical connection between wires marked as M462B22-G, M462C22-G and M462A22N-G by means of the splice SP2144.

### NOTE

If the length of the bolt P/N MS35308-306 is not sufficient, it is possible to use a bolt P/N MS35308-307 or P/N MS35308-308.

- 3.2.100 With reference to Figure 21 View K and Figure 42 Wiring diagram, perform the electrical connection of the C/A B1B417 to the connectors A4 and S172.
- 3.2.101 With reference to Figure 21 View K and Figure 42 Wiring diagram, perform the electrical connection of the C/A B1B419 to the connectors S172 and K116.
- 3.2.102 With reference to Figure 7 View looking cockpit area, Figure 9 View A, Figure 13 View E, Figure 15 Detail S and Figure 50 Wiring diagram, perform the electrical connections of the C/A B1R071 to the connectors A188P1, J116, A188P2, GS258, J200, K151, PL1P8, S173 and TB226P1.
- 3.2.103 With reference to Figure 20 View V-V and Figure 54 Wiring diagram, perform electrical connection between wires marked as M539A16-G, M902A16-G and M900A16-G by means of the splice SP2607.
- 3.2.104 With reference to Figure 20 View V-V and Figure 54 Wiring diagram, perform electrical connection between wires marked as M540A16-G, M903A16-G and M904A16-G by means of the splice SP2608.
- 3.2.105 With reference to Figure 20 View V-V and Figure 54 Wiring diagram, perform electrical connection between wires marked as M539C16-G, M906A16-G and M905A16-G by means of the splice SP2609.
- 3.2.106 With reference to Figure 20 View V-V and Figure 20 and Figure 54 Wiring diagram, connect the socket K191P1 to the connector K191.
- 3.2.107 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 20 View V-V, install decal P/N ED300K191 in an adjacent area.
- 3.2.108 With reference to Figure 16 View looking up cabin roof area RH side and Figures 47 and 48 Wiring diagram, perform the electrical connection of the C/A B1B287 to the sockets K123P1 and K124P1.
- 3.2.109 With reference to Figure 16 View looking up cabin roof area RH side and Figures 47 and 48 Wiring diagram, connect the connector J2012 to the connector P2012.



- 3.2.110 With reference to Figure 17 View M, install the protective cap P/N MS90376-12R on the connector J2012.
  - 3.2.111 With reference to Figure 56 Wiring diagram, perform the electrical connection of the C/A B1B783 to the connectors A180P1, A180P2, A212J1, A214J1 and TB206.
  - 3.2.112 With reference to Figure 16 View looking up cabin roof area RH side, and Figure 48 Wiring diagram, perform the electrical connection of the C/A B1B415 to the ground stud GS256.
  - 3.2.113 With reference to Figure 16 View looking up cabin roof area RH side, and Figure 47 Wiring diagram, perform the electrical connection of the C/A B1B415 to the ground stud GS254.
  - 3.2.114 With reference to Figure 15 Detail S, connect the C/A B1R071 to the ground stud GS258.
  - 3.2.115 Perform a pin-to-pin continuity check of all the electrical connections made.
- 3.3 With reference to Figures from 23 to 28, perform the hoist removable parts retromod P/N 3G2591P01811 as described in the following procedure:
- 3.3.1 With reference to Figure 23 perform the hoist pendant installation P/N 3G2591V02151 as described in the following procedure:
    - 3.3.1.1 With reference to Figure 23 left side view, remove and retain for later reuse the n°4 screws P/N MS24693-S272 and remove the pendant closure P/N 3G5316A40851 from the right window lining-panel.
    - 3.3.1.2 With reference to Figure 23 left side view, reinstall the n°4 screws P/N MS24693-S272 previously removed on the hoist pendant support.
  - 3.3.1.3 With reference to Figure 23, Detail A, install the slide bracket P/N 42325-779.
  - 3.3.1.4 In accordance with AMP DM 39-A-25-94-04-00A-720A-K, install the hoist pendant P/N 3G2591V02151 on its support on the right window lining-panel.
  - 3.3.2 With reference to Figures from 24 to 28, perform the double rescue retromod installation P/N 3G2591P01911 and the boom & structural

**NOTE**

Perform following Step 3.3.1.3 only if slide bracket P/N 42325-779 is not already present on the helicopter.

retromod installation P/N 3G5310P17011 as described in the following procedure:

- 3.3.2.1 With reference to Figure 24 right side view single hoist and Figure 25 detail C and in accordance with AMP DM 39-A-25-96-01-00A-520A-K, remove the single hoist assembly P/N 3G2591A05711 from the helicopter.

**NOTE**

The procedure that follows must be performed on an applicable work bench.

**NOTE**

The single hoist fairing kit P/N 44316-46-101 is composed by: AFT hoist fairing P/N 42325-125-101, motor hoist fairing P/N 44316-126-101 and inboard hoist fairing P/N 44311-122.

- 3.3.2.2 In accordance with AMP DM 39-A-25-96-01-01A-520A-K, 39-A-25-96-01-02A-520A-K and 39-A-25-96-01-03A-520A-K and with reference to Figure 25, remove the single hoist fairing kit P/N 44316-46-101 from the hoist core P/N 3G2591V01532 by removing the applicable number of screws P/N NAS10962-2-6 and screws P/N NAS10962-2-8.
- 3.3.2.3 With reference to Figures 24, 27 and 28 and in accordance with AMP DM 39-A-25-96-01-06A-520A-K remove the hoist core P/N 3G2591V01532 from the single boom P/N 3G2591V02551.
- 3.3.2.4 With reference to Figures 24, 27 and 28 and in accordance with AMP DM 39-A-25-96-01-06A-720A-K install the previously removed main hoist core P/N 3G2591V01532 on the double boom P/N 3G2591V02731.

### NOTE

The main hoist fairing kit P/N 44316-46-102 is composed by: main AFT hoist fairing P/N 42325-125-101, main motor hoist fairing P/N 44316-118 and main inboard hoist fairing P/N 44316-116.

### NOTE

The AFT hoist fairing P/N 42325-125-101, part of the single hoist fairing kit P/N 44316-46-101, can be reinstalled as part of the main hoist fairing kit P/N 44316-46-102.

- 3.3.2.5 In accordance with AMP DM 39-A-25-96-01-01A-720A-K, 39-A-25-96-01-02A-720A-K and 39-A-25-96-01-03A-720A-K and with reference to Figure 26, install the main hoist fairing kit P/N 44316-46-102 on the main hoist core P/N 3G2591V01532 by means of the applicable number of screws P/N NAS10962-2-6 and screws P/N NAS10962-2-8.
- 3.3.2.6 With reference to Figure 26, install the hook P/N 3G2591V02051 or P/N 3G2591V02053 on the secondary hoist core P/N 3G2591V01532.
- 3.3.2.7 With reference to Figure 26 and in accordance with AMP DM 39-A-25-94-01-12A-720A-K install the secondary hoist core P/N 3G2591V01532 on the double boom P/N 3G2591V02731.

### NOTE

The secondary hoist fairing kit P/N 44316-46-103 is composed by: secondary AFT hoist fairing P/N 44316-117, secondary motor hoist fairing P/N 44316-126-101 and secondary inboard hoist fairing P/N 44316-115.

### NOTE

The motor hoist fairing P/N 44316-126-101, part of the single hoist fairing kit P/N 44316-46-101, can be reinstalled as part of the secondary hoist fairing kit P/N 44316-46-103.

- 3.3.2.8 in accordance with AMP DM 39-A-25-94-01-07A-720A-K, 39-A-25-94-01-08A-720A-K and 39-A-25-94-01-09A-720A-K and with reference to Figure 26, install the secondary hoist fairing kit P/N 44316-46-103 on the secondary hoist core P/N 3G2591V01532 by means of the applicable number of screws P/N NAS10962-2-6 and screws P/N NAS10962-2-8.
  - 3.3.2.9 With reference to Figure 27 right side view double hoist, remove the connector cover P/N 3G5315A69851.
  - 3.3.2.10 With reference to Figure 26 and in accordance with AMP DM 39-A-25-94-01-00A-720A-K, install the double hoist assembly P/N 3G2591A05611, the previously removed main hoist harness kit P/N 44316-45-102 and the secondary hoist harness kit P/N 44316-45-103 on the helicopter.
  - 3.3.2.11 With reference to Figure 26, install the tiedown straps P/N A629A05HS, P/N A629A05HS or P/N A629A07HS to fix the wires of the main and secondary hoist harness kit P/N 44316-45-102.
- 3.4 With reference to Figures from 29 to 32, perform the single to double hoist fixed part variant P/N 3G2591P02011 as described in the following procedure:
- 3.4.1 With reference to Figure 29 and Figure 30 detail C and in accordance with AMP DM 39-A-11-00-01-00A-520A-A, remove the decal P/N ED300PL82.
  - 3.4.2 With reference to Figure 29 and Figure 30 detail C and in accordance with AMP DM 39-A-25-96-02-00A-520A-K, remove the hoist control panel P/N 3G2591V00153 from the interseat console.

- 3.4.3 With reference to Figure 30 detail C, install the panel P/N 999-0500-85-213 on the interseat console.
- 3.4.4 With reference to Figure 29 and Figure 30 View A and in accordance with AMP DM 39-A-11-00-01-00A-520A-A, remove the decal P/N ED300A188.
- 3.4.5 With reference to Figure 29 and Figure 30 View A and in accordance with AMP DM 39-A-25-96-03-00A-520A-K, remove the single hoist control panel (A188) P/N 3G2591V02351 from the cabin ceiling.
- 3.4.6 With reference to Figure 30 View A and Detail scheme, remove and retain for later reuse n°2 screws from the single hoist control panel P/N 3G2591V02351.
- 3.4.7 With reference to Figure 30 View A and Detail scheme, apply locking compound ASTM-D-5363 AN0311 to the threads of the n°2 screws previously removed.
- 3.4.8 With reference to Figure 30 View A and Detail scheme, install the hoist cable cutter frame P/N 3G2591A08851 on the double hoist control panel P/N 3G2591V02251 by means of the n°2 screws previously removed. Torque the screws to 0.54±0.68 Nm.
- 3.4.9 With reference to Figure 30 View A and Detail scheme, coat the screw heads with “matt black” polyurethane coating.

**NOTE**

Perform the step that follows only if the electrical provision of this Service Bulletin has not been embodied immediately after the single to double hoist fixed installation P/N 3G2591P02011.

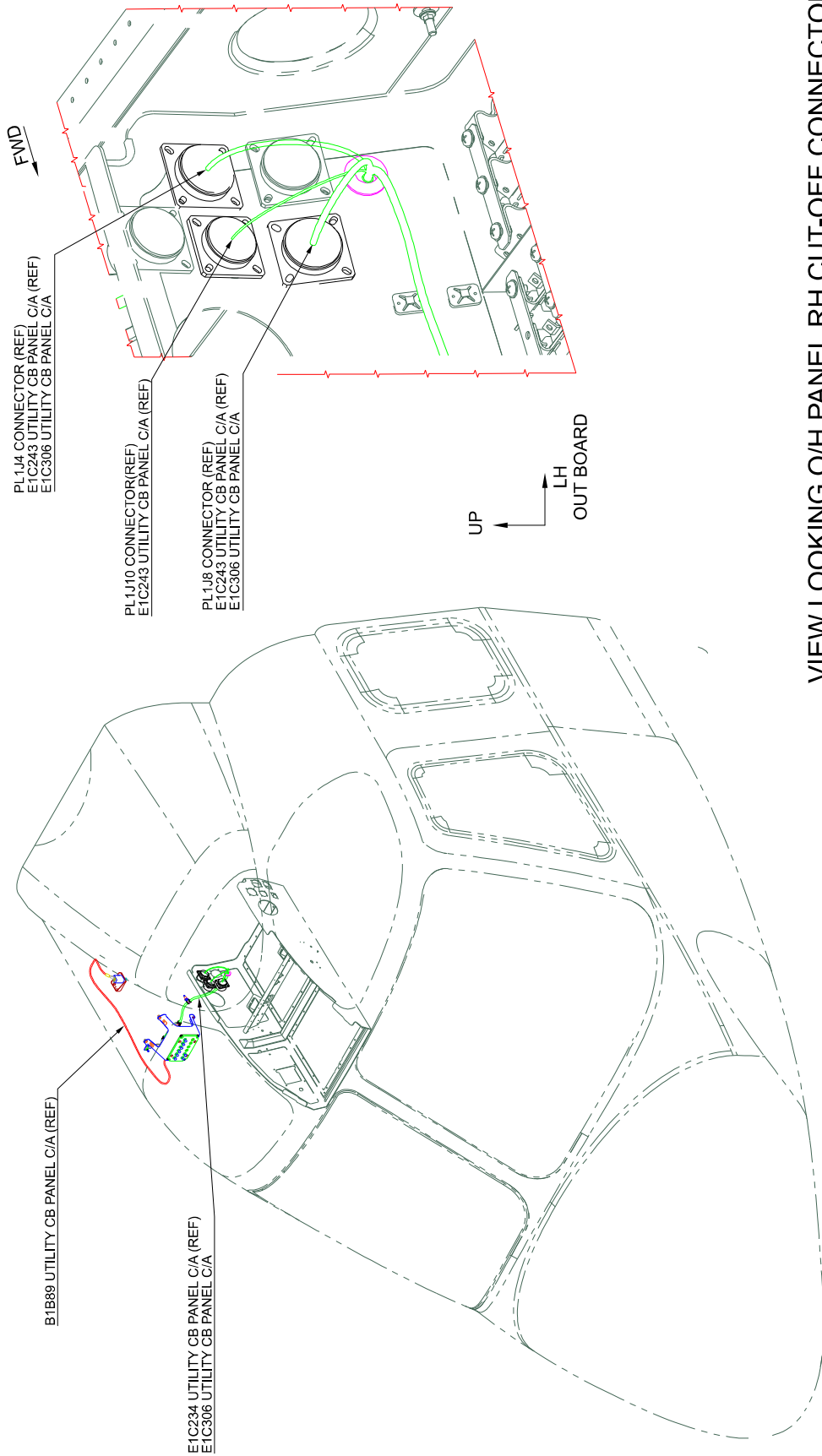
- 3.4.10 With reference to Figure 31 Detail F, prepare the connector A188P4 to be fixed to the equipment as follows:
  - 3.4.10.1 Remove the nomex lacing cord P/N AW001CK03LC from the connector.
  - 3.4.10.2 Remove the nomex fibre sleeve P/N EN6049-006-32-5 from the connector.
  - 3.4.10.3 Remove the protective plug P/N NAS813-18 from connector.
- 3.4.11 With reference to Figure 31 View B and in accordance with AMP DM 39-A-25-94-02-00A-720A-K, install double hoist control panel (A188) P/N 3G2591V02251 in the cabin ceiling.

- 3.4.12 With reference to Figure 31 View B and in accordance with AMP DM 39-A-11-00-01-00A-720A-A, install decal P/N ED300A188 in an adjacent area.
  - 3.4.13 With reference to Figure 32 View D, remove 4 locking rings P/N AW001YC01RED from the indicated circuit breakers in the looking O/H circuit breaker panel.
  - 3.4.14 With reference to Figure 32 View E, remove 5 locking rings P/N AW001YC01RED from the indicated circuit breakers in the looking utility circuit breaker panel RH.
- 4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
  - 5. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
  - 6. Send the attached compliance form to the following mail box:

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

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

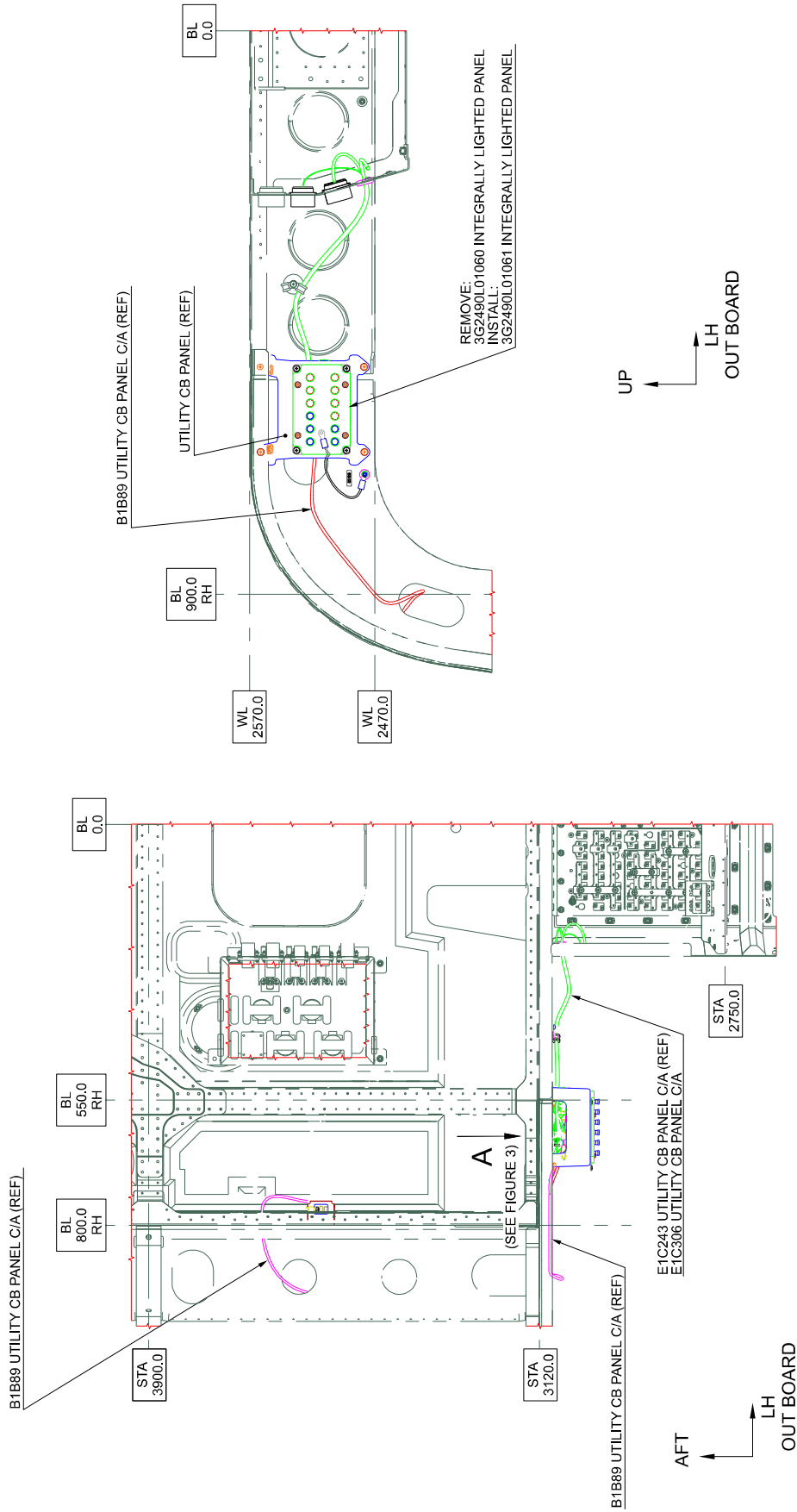
3G2460P01511 UTILITY CB PANEL VAR (SINGLE-DOUBLE HOIST)



**VIEW LOOKING O/H PANEL RH CUT-OFF CONNECTORS**  
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

**Figure 1**

3G2460P01511 UTILITY CB PANEL VAR (SINGLE-DOUBLE HOIST)



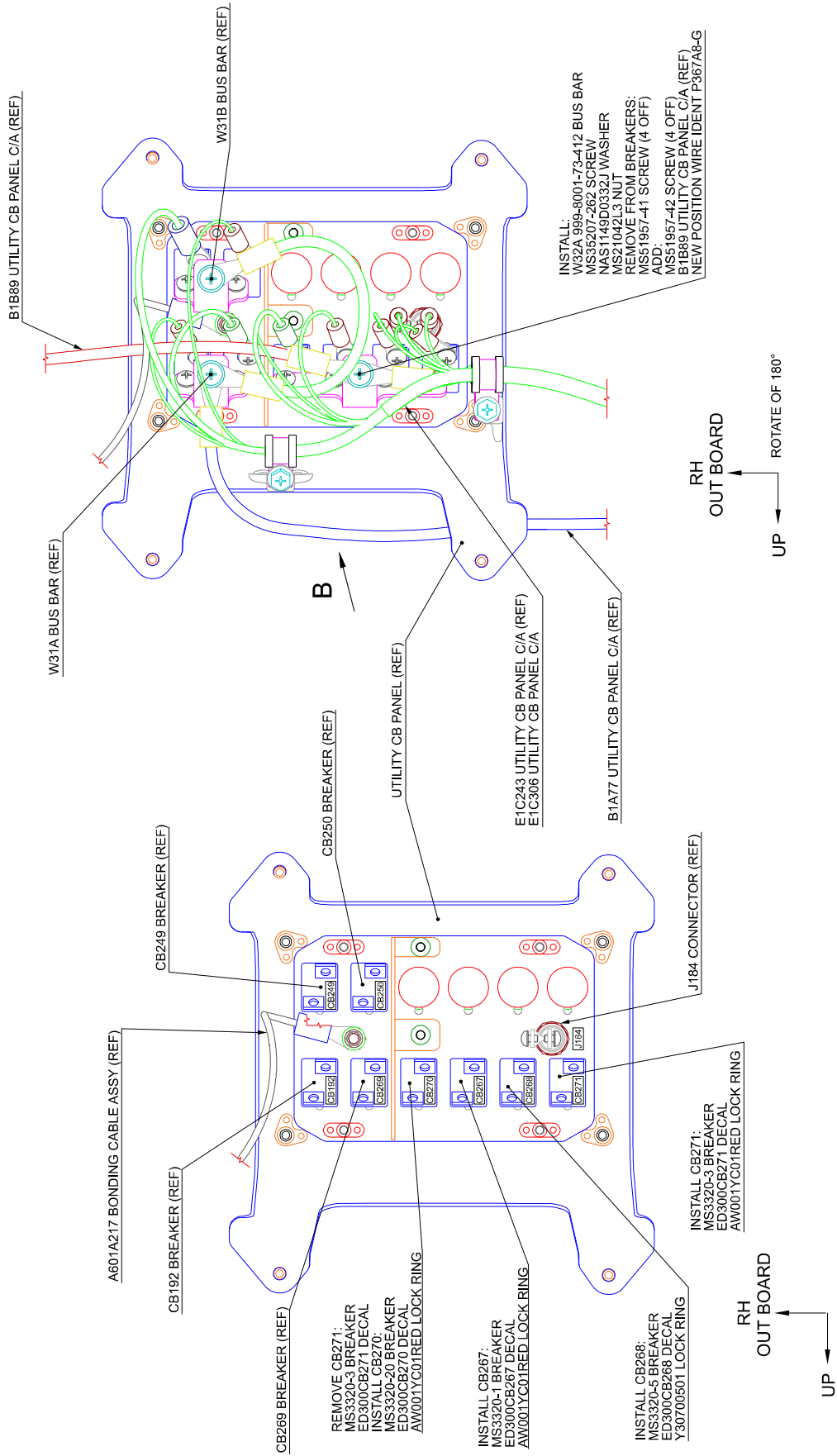
**Figure 2**

VIEW LOOKING IN FRONT OF STA 3120  
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

VIEW LOOKING DOWN CABIN ROOF AND O/H PANEL  
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



**3G2460P01511 UTILITY CB PANEL VAR (SINGLE-DOUBLE HOIST)**

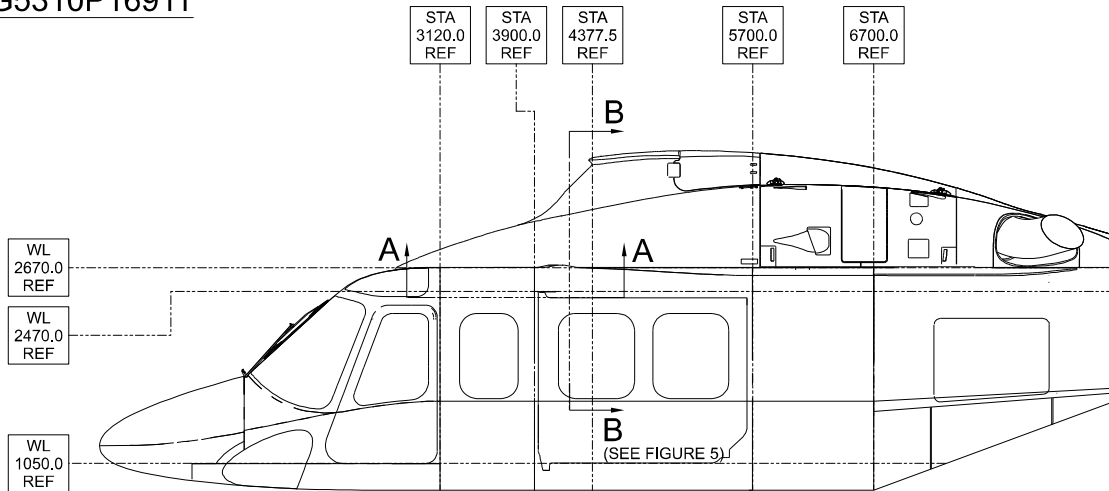


**VIEW A**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE  
(REFER TO FIGURE 2)

**DETAIL B**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE

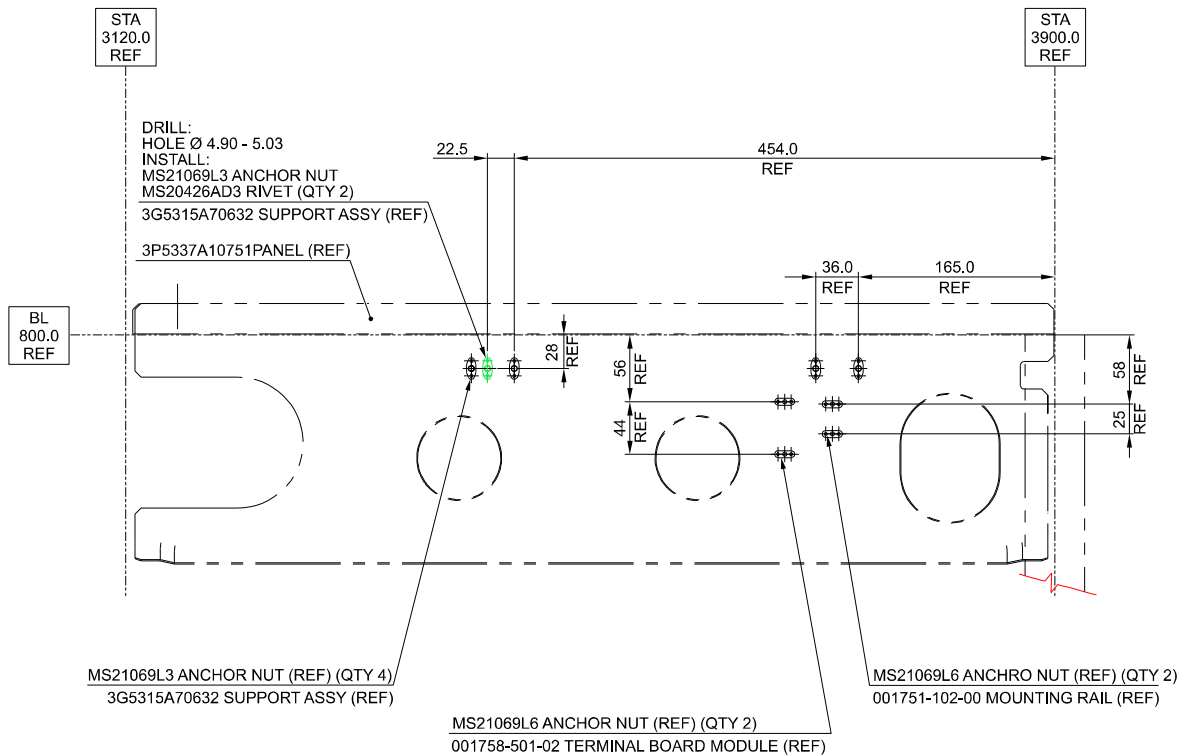
**Figure 3**

**STRUCTURAL PROVISION (SINGLE TO DOUBLE HOIST)**  
**3G5310P16911**



**VIEW LOOKING INBOARD**

(LEFT SIDE)  
PARTS OMITTED FOR BETTER CLARITY PURPOSE

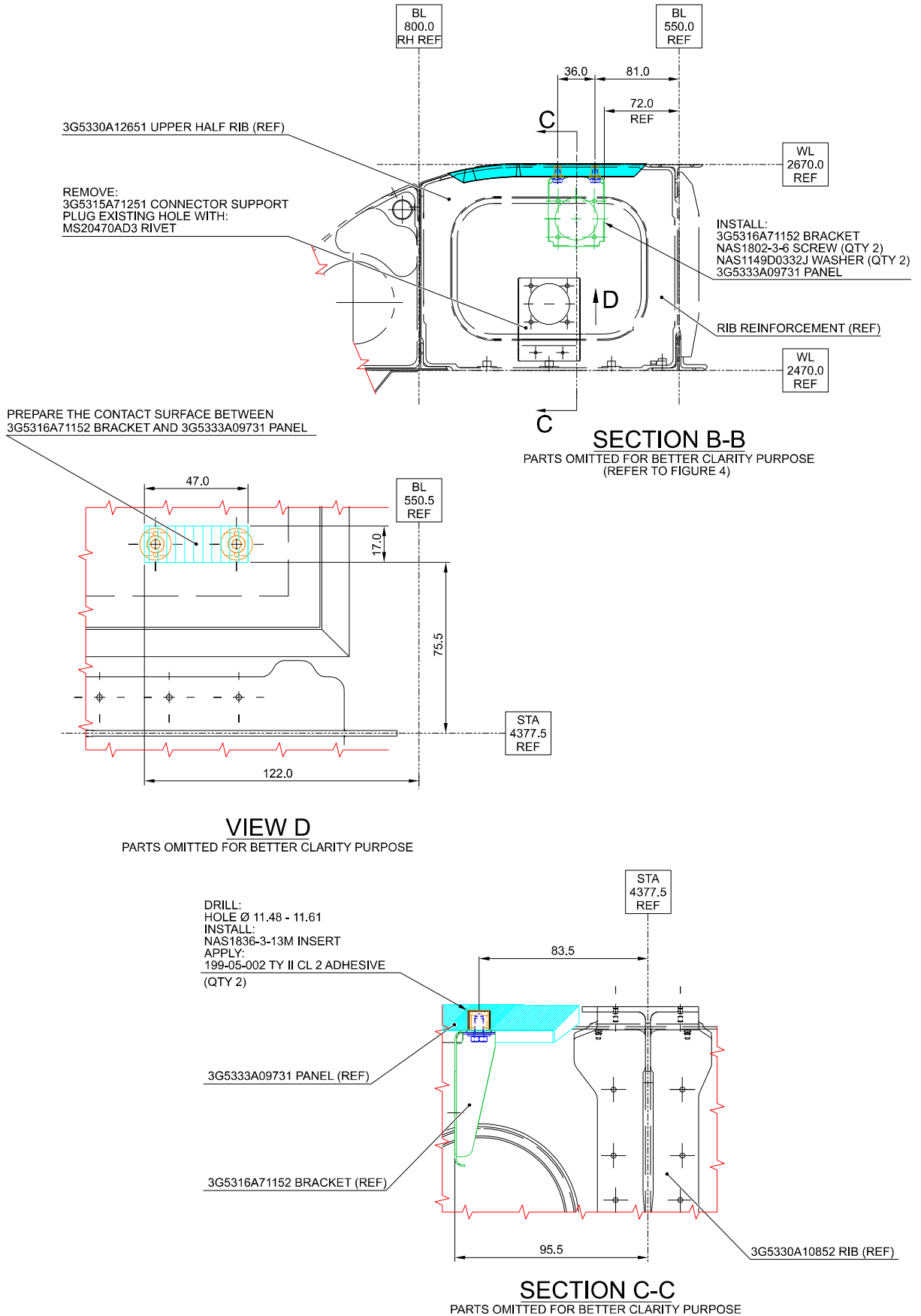


**SECTION A-A**

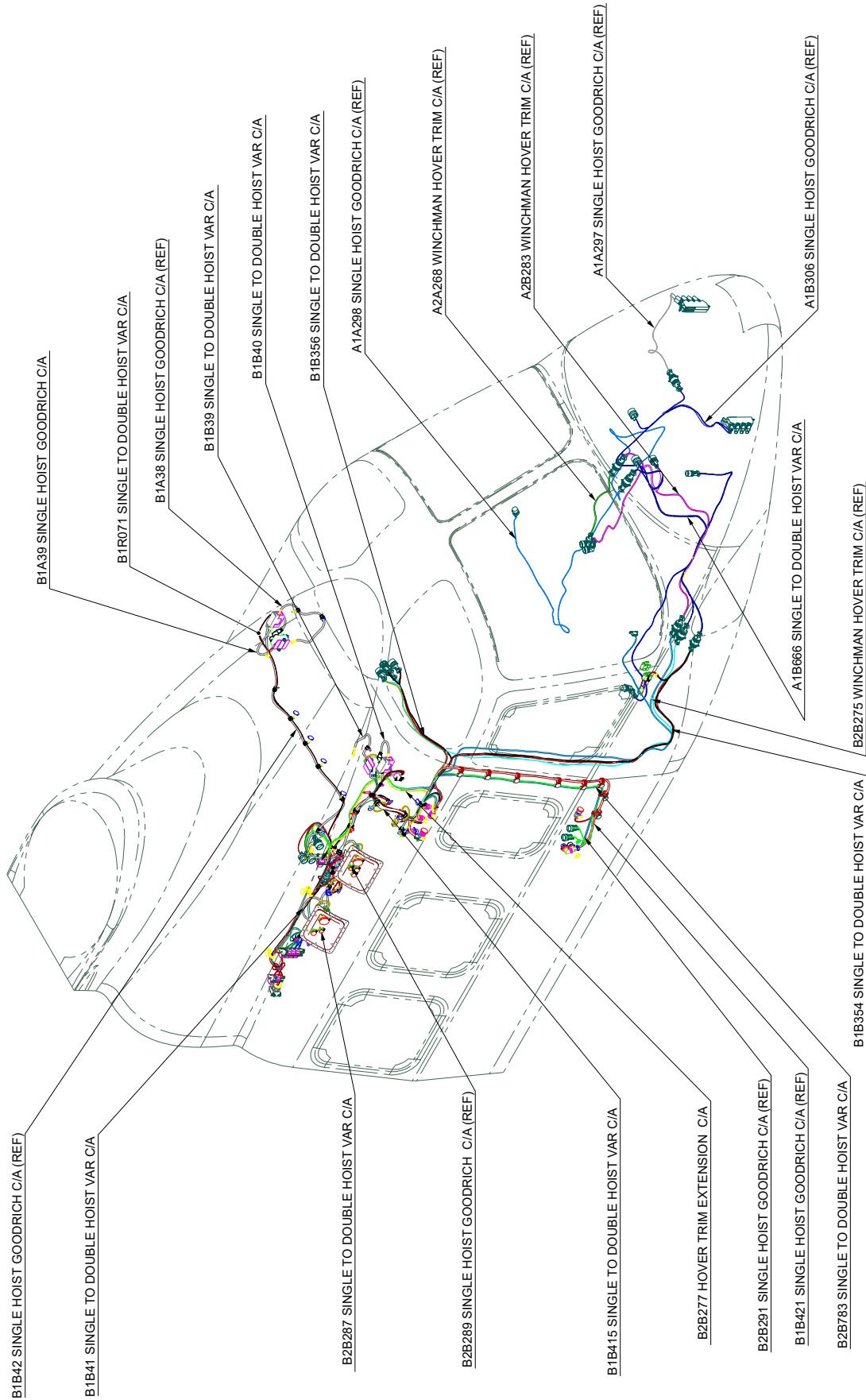
PARTS OMITTED FOR BETTER CLARITY PURPOSE

**Figure 4**

S.B. N°139-643  
DATE: February 18, 2021  
REVISION: /

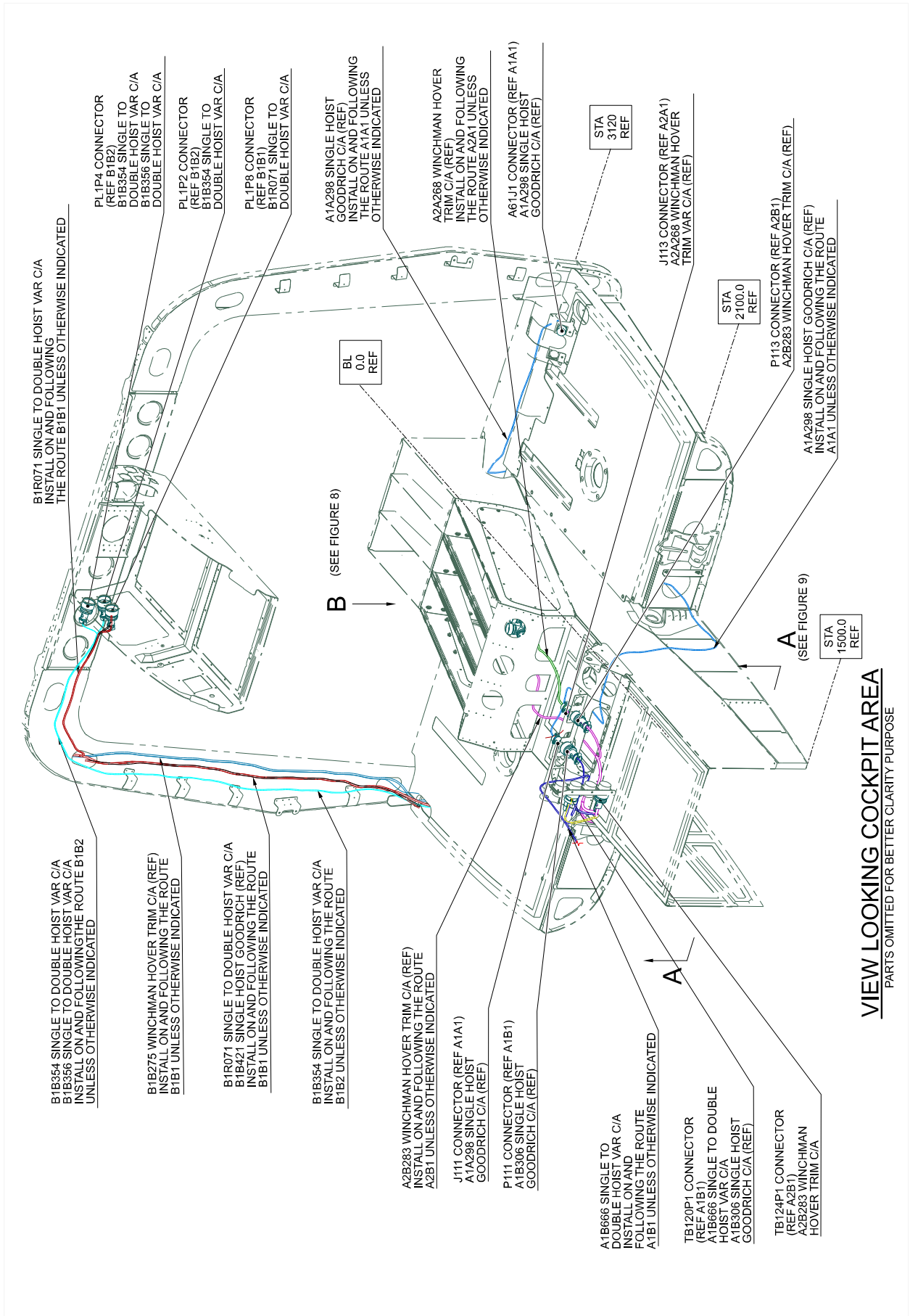


**Figure 5**

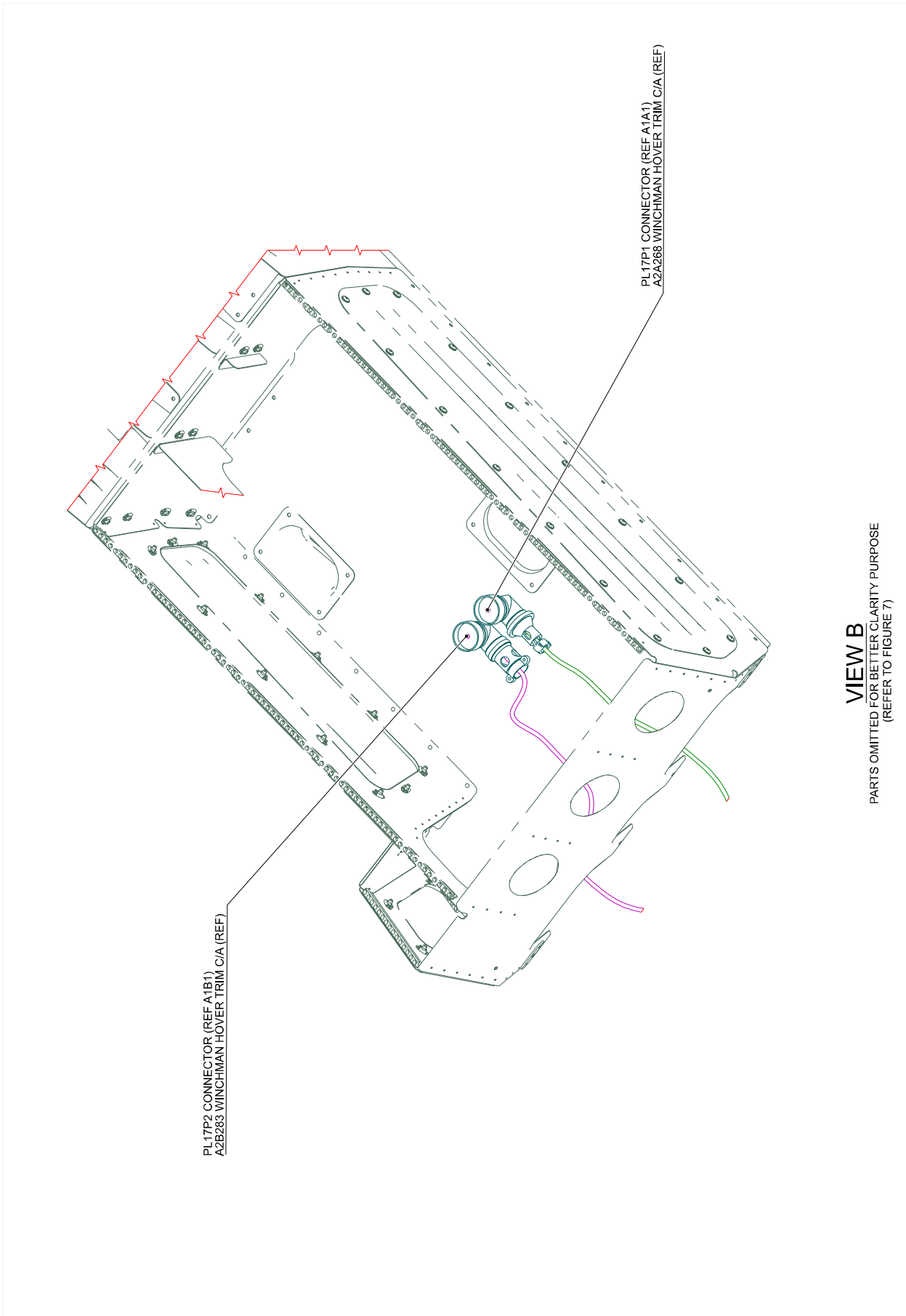


**Figure 6**

**3G2591P01711 ELECTRICAL PROVISION**



**Figure 7**



**VIEW B**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE  
(REFER TO FIGURE 7)

**Figure 8**

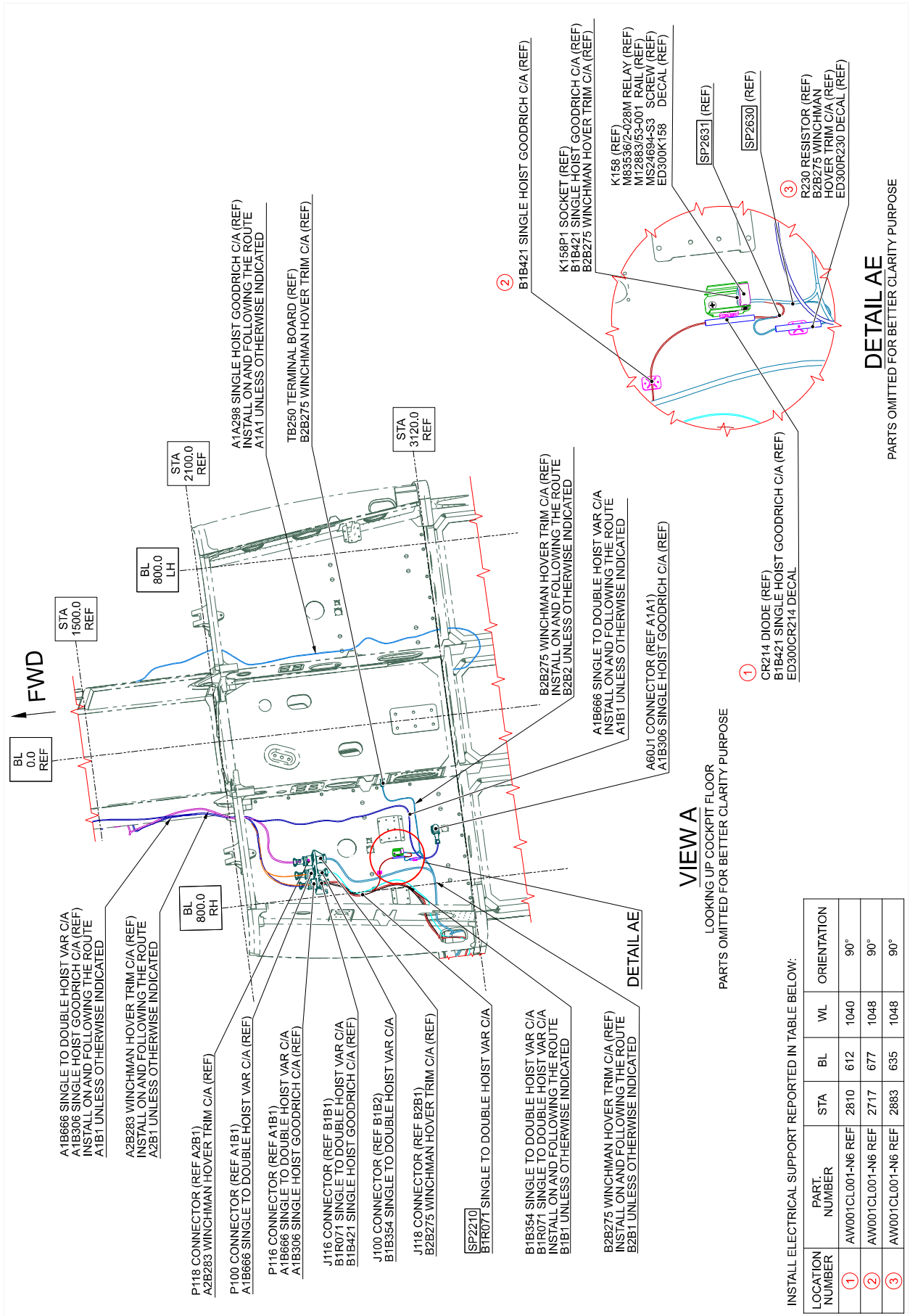
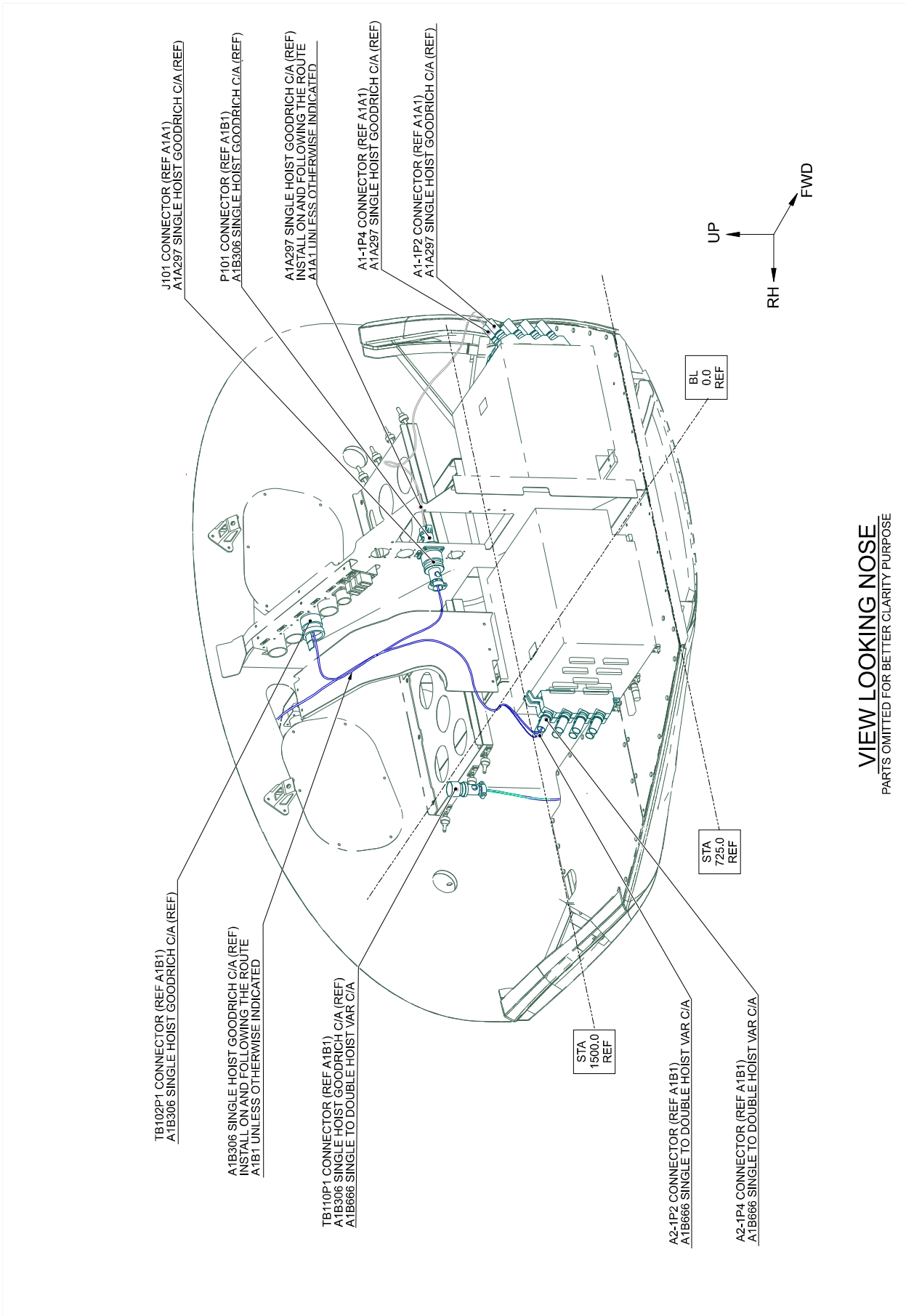


Figure 9

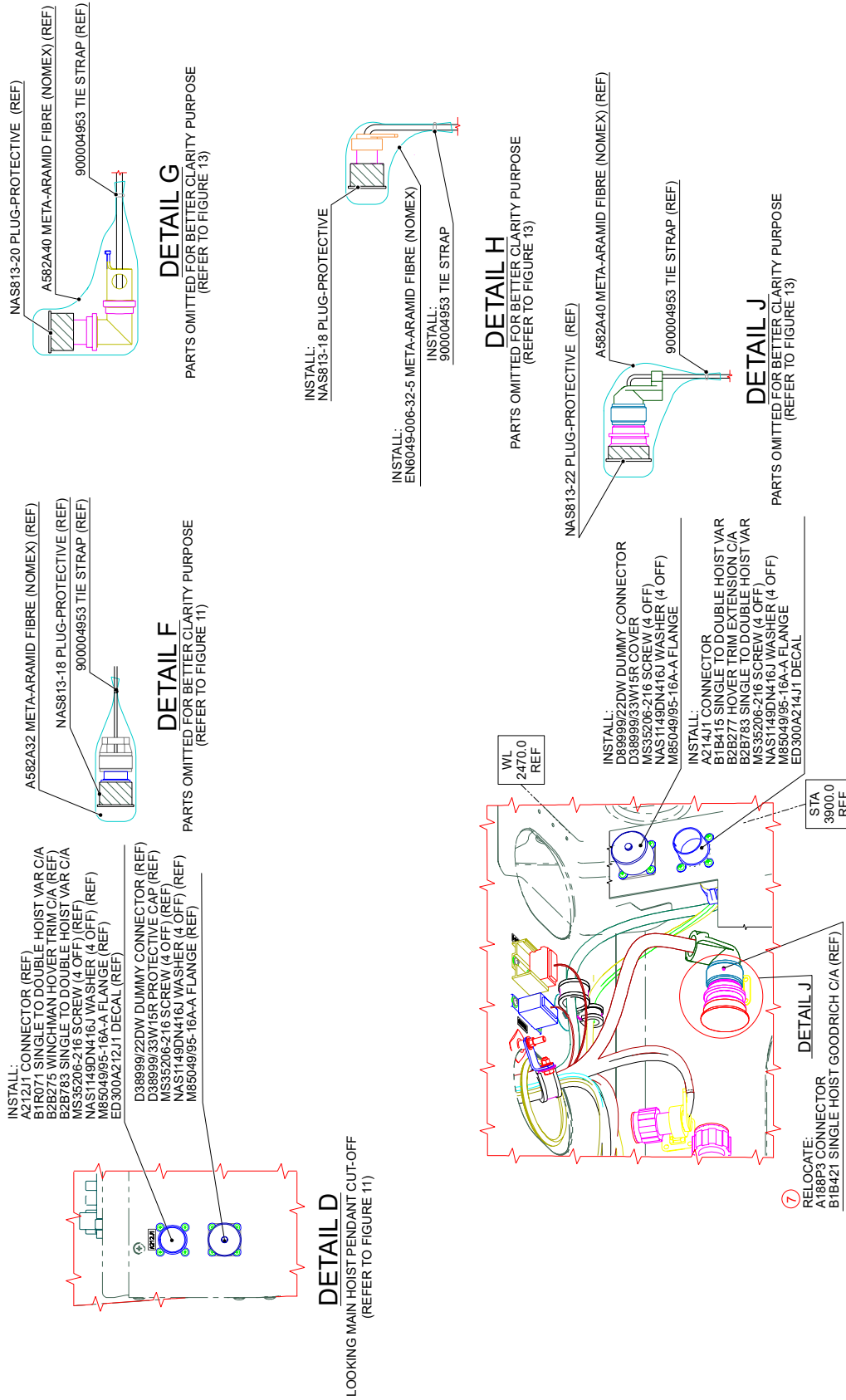


**VIEW LOOKING NOSE**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE

**Figure 10**





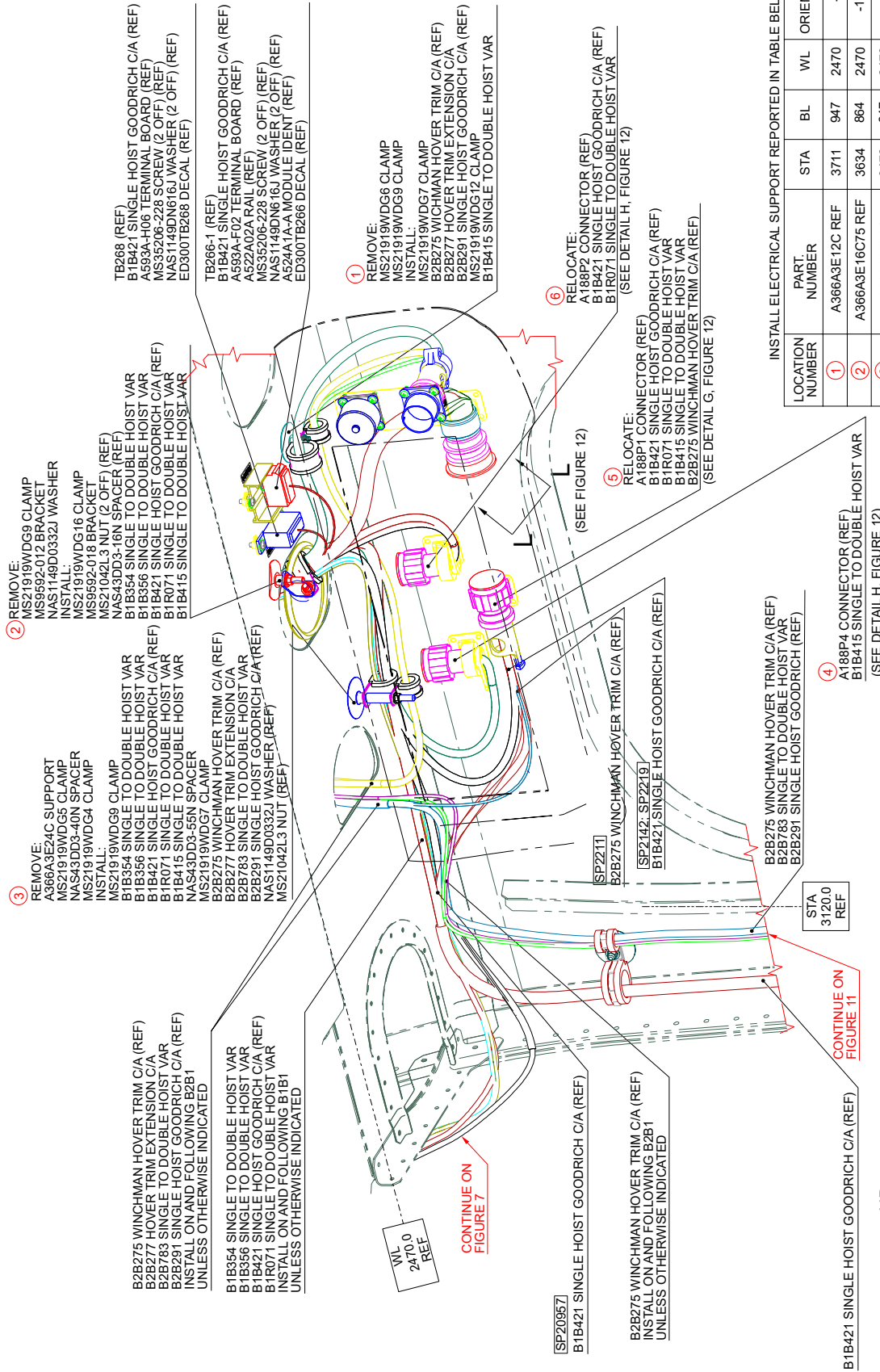


INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
⑦	AW001CL000A-X3	3716	993	2330	90°

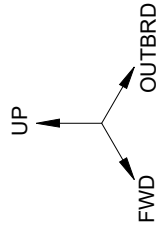
**VIEW L-L**  
 PARTS OMITTED FOR BETTER CLARITY PURPOSE  
 (REFER TO FIGURE 13)

Figure 12

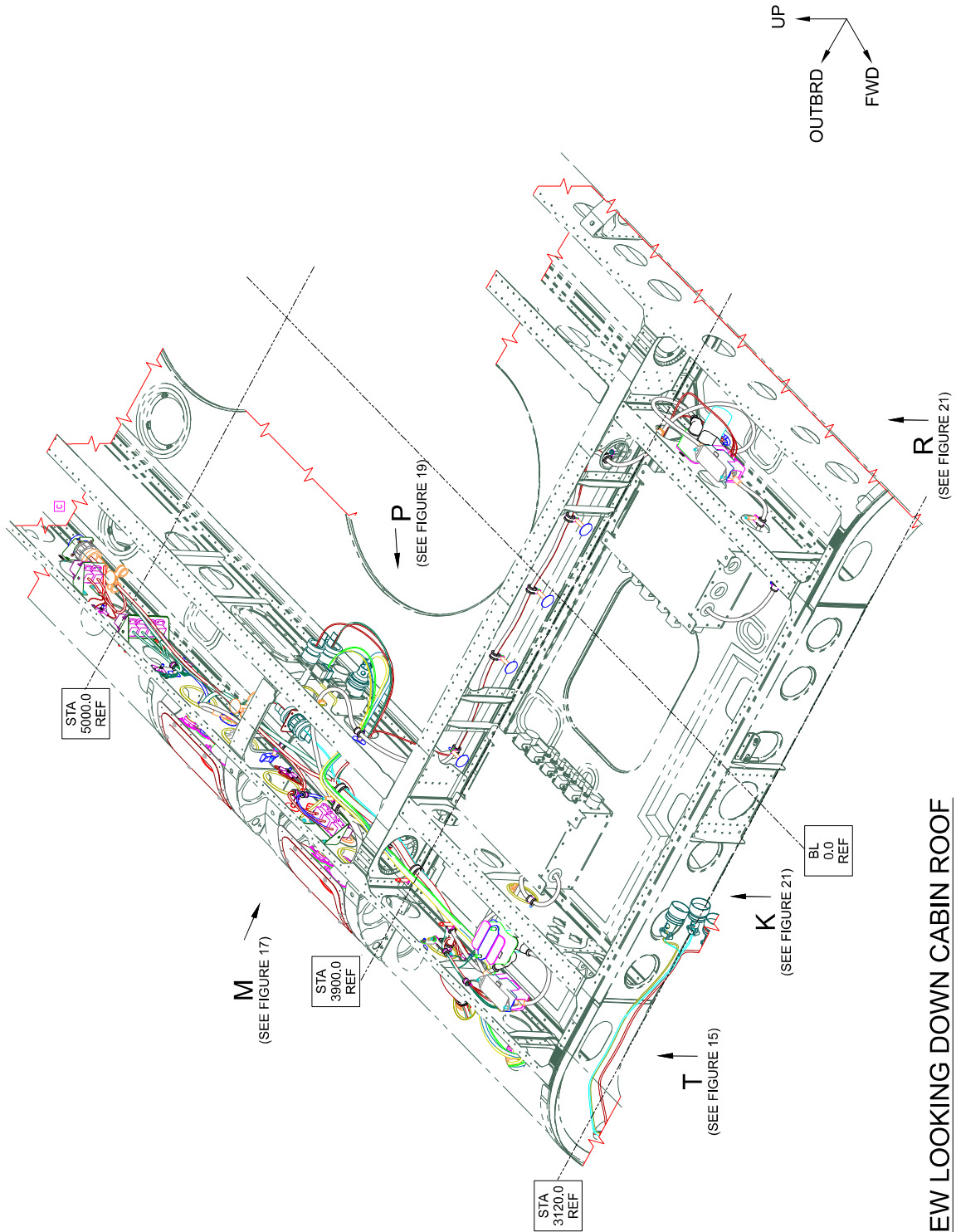


**VIEW E**

VIEW LOOKING UP CABIN ROOF RH SIDE  
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
(REFER TO FIGURE 11)

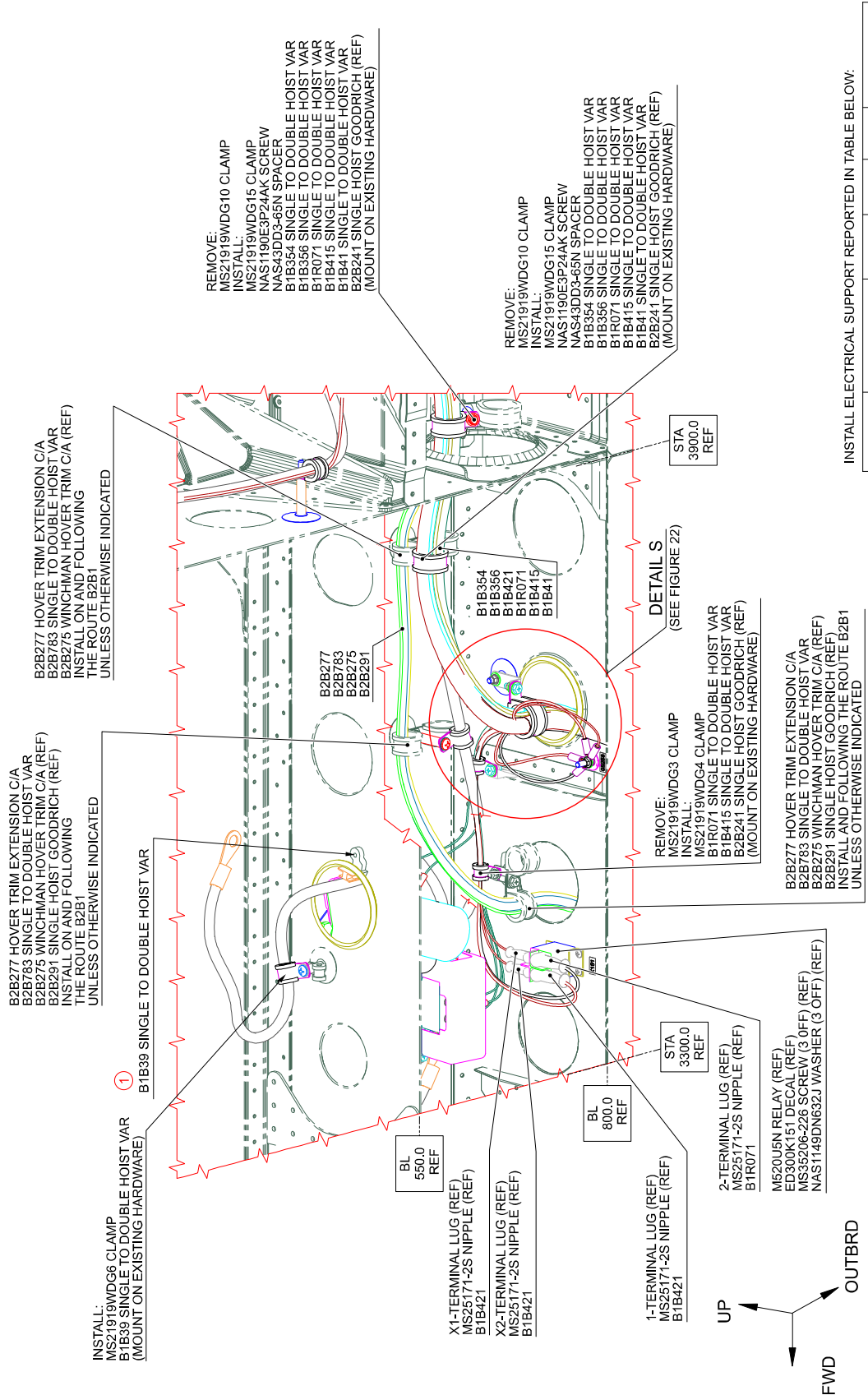


**Figure 13**



**VIEW LOOKING DOWN CABIN ROOF**  
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

**Figure 14**



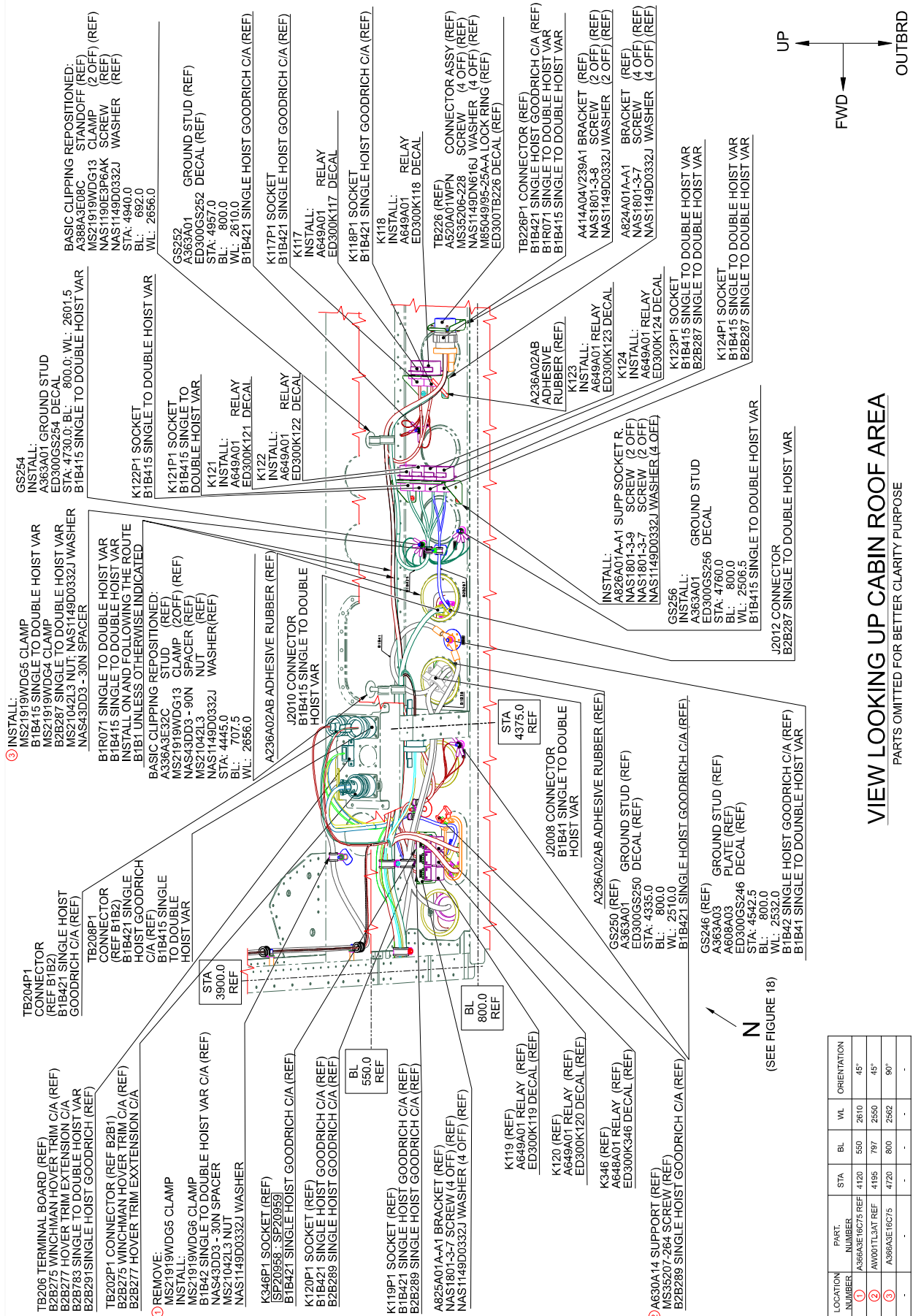
INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
①	A630A04	3570	552	2559	-

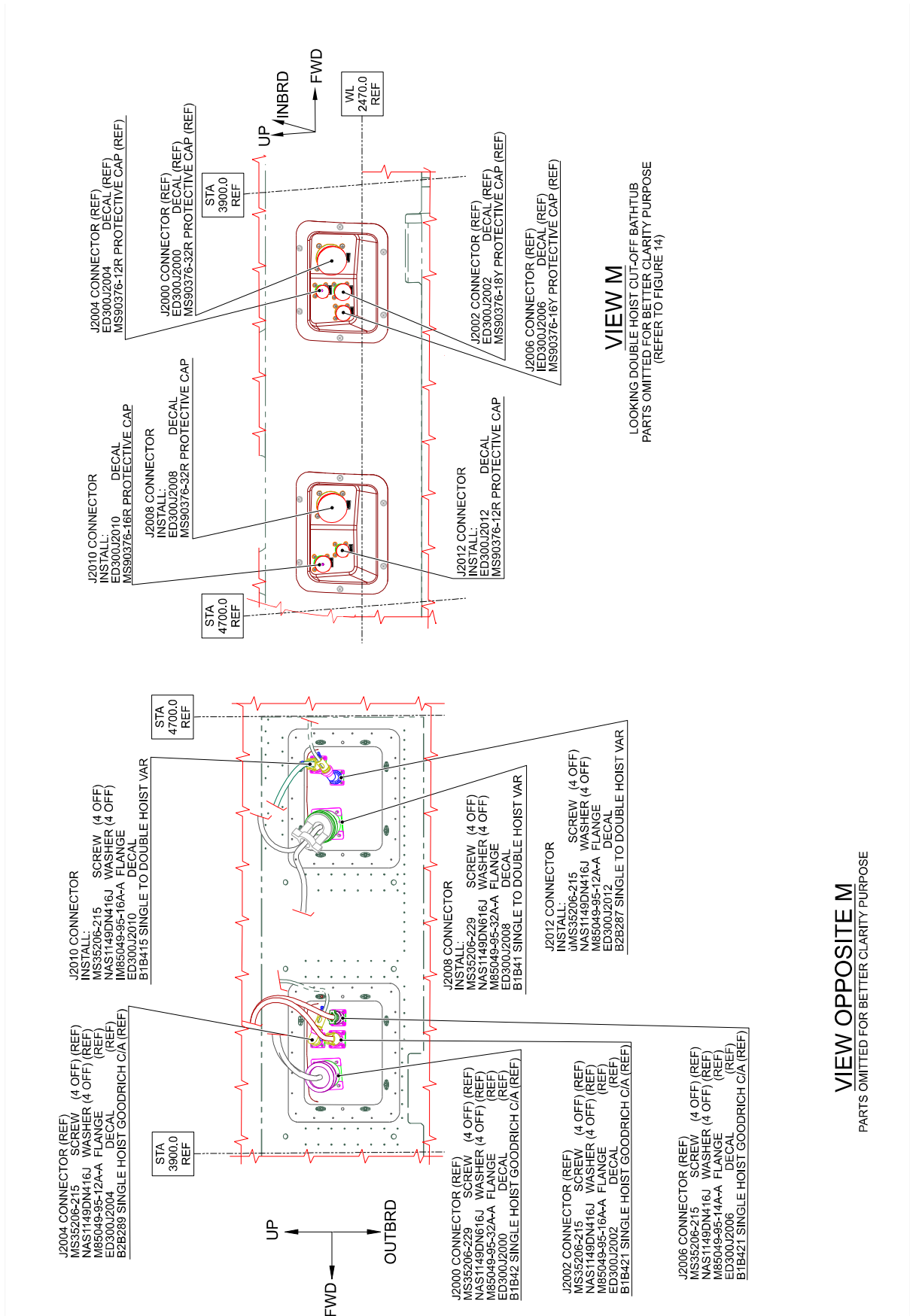
**VIEW T**

PARTS OMITTED FOR BETTER CLARITY/PURPOSE  
(REFER TO FIGURE 14)

**Figure 15**



**Figure 16**



**Figure 17**

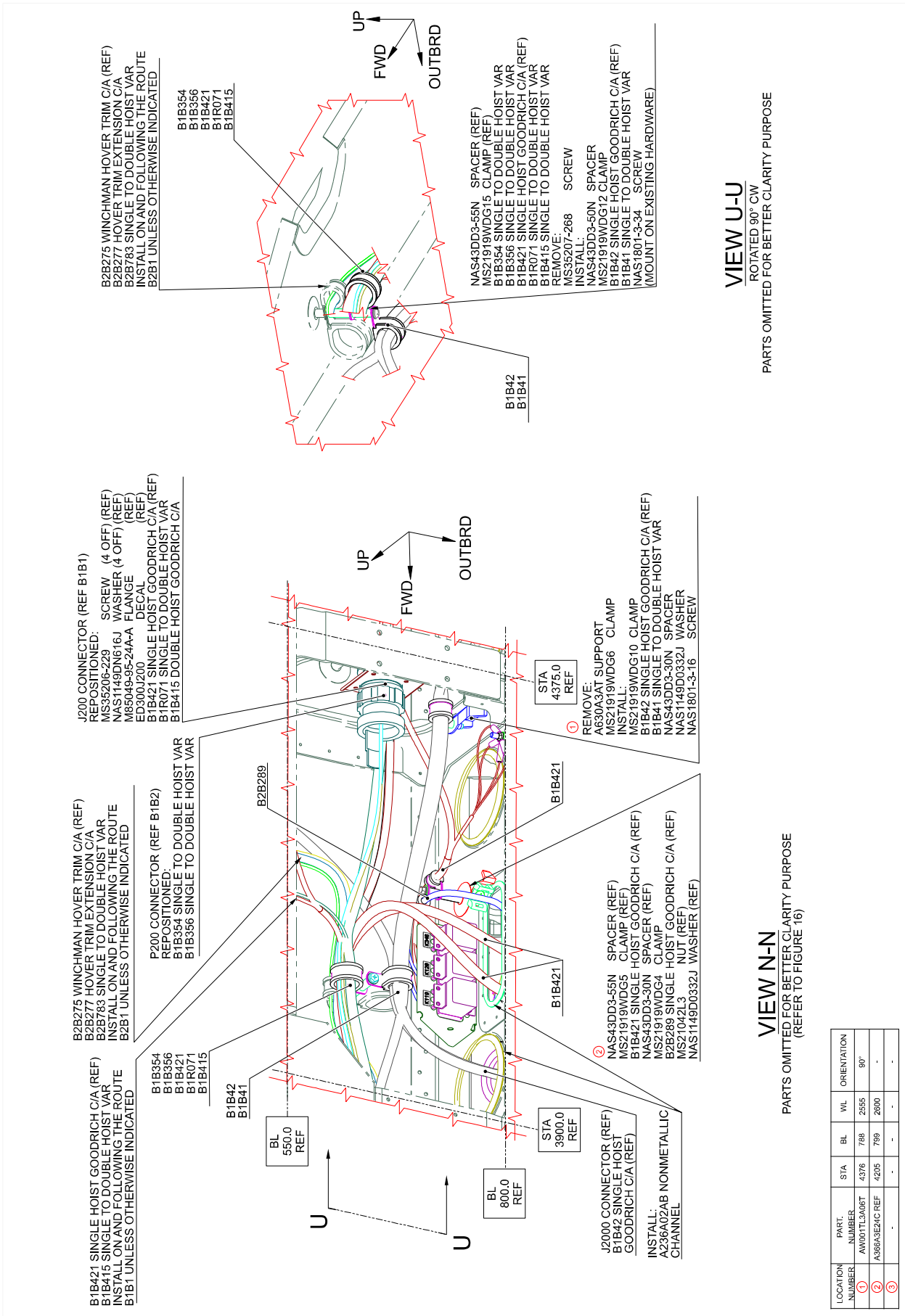
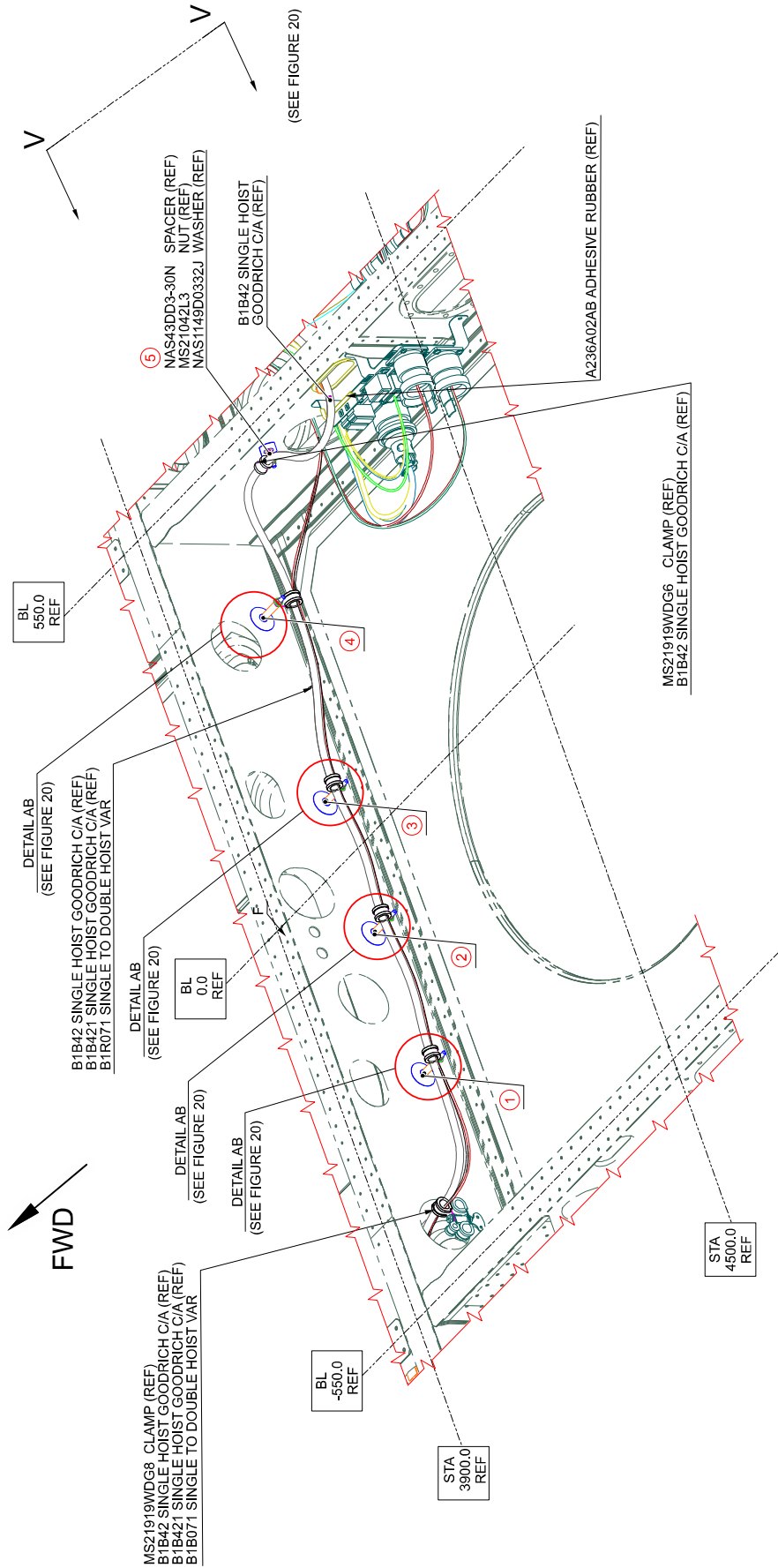


Figure 18

LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
①	AW001TL3A06T	4376	788	2555	90°
②	A366A3E24C REF	4205	799	2600	-
③	-	-	-	-	-

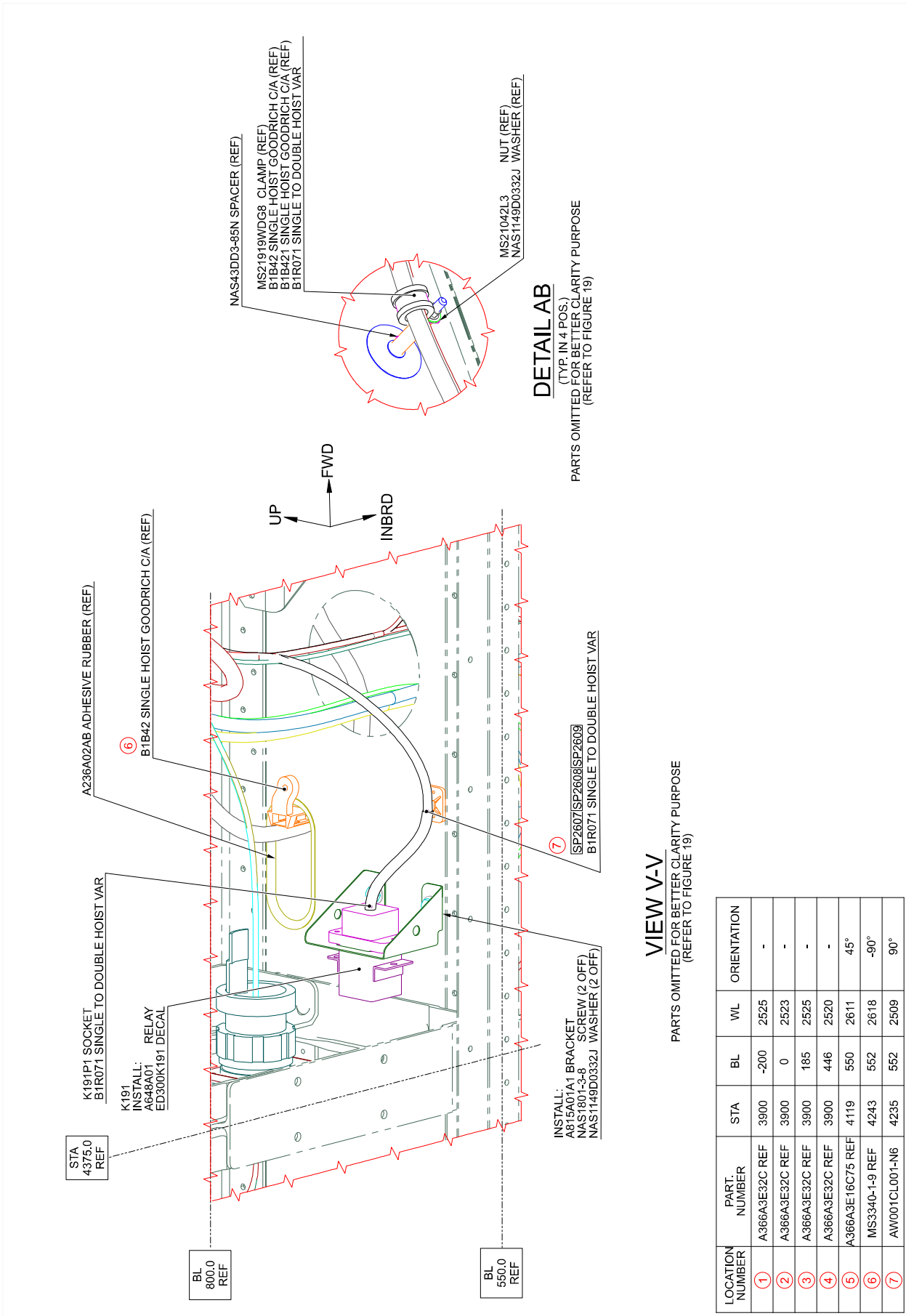




**VIEW P**  
LOOKING DOWN CABIN ROOF CENTRAL AREA  
PARTS OMITTED FOR BETTER CLARITY PURPOSE  
(REFER TO FIGURE 14)

LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
①	A366A3E32C REF	3900	-200	2525	-
②	A366A3E32C REF	3900	0	2523	-
③	A366A3E32C REF	3900	185	2525	-
④	A366A3E32C REF	3900	446	2520	-
⑤	A366A3E16C75 REF	4119	550	2611	45°
⑥	MS3340-1-9 REF	4243	552	2618	-90°
⑦	AW001CCL001-N6	4235	552	2509	90°

**Figure 19**



**Figure 20**

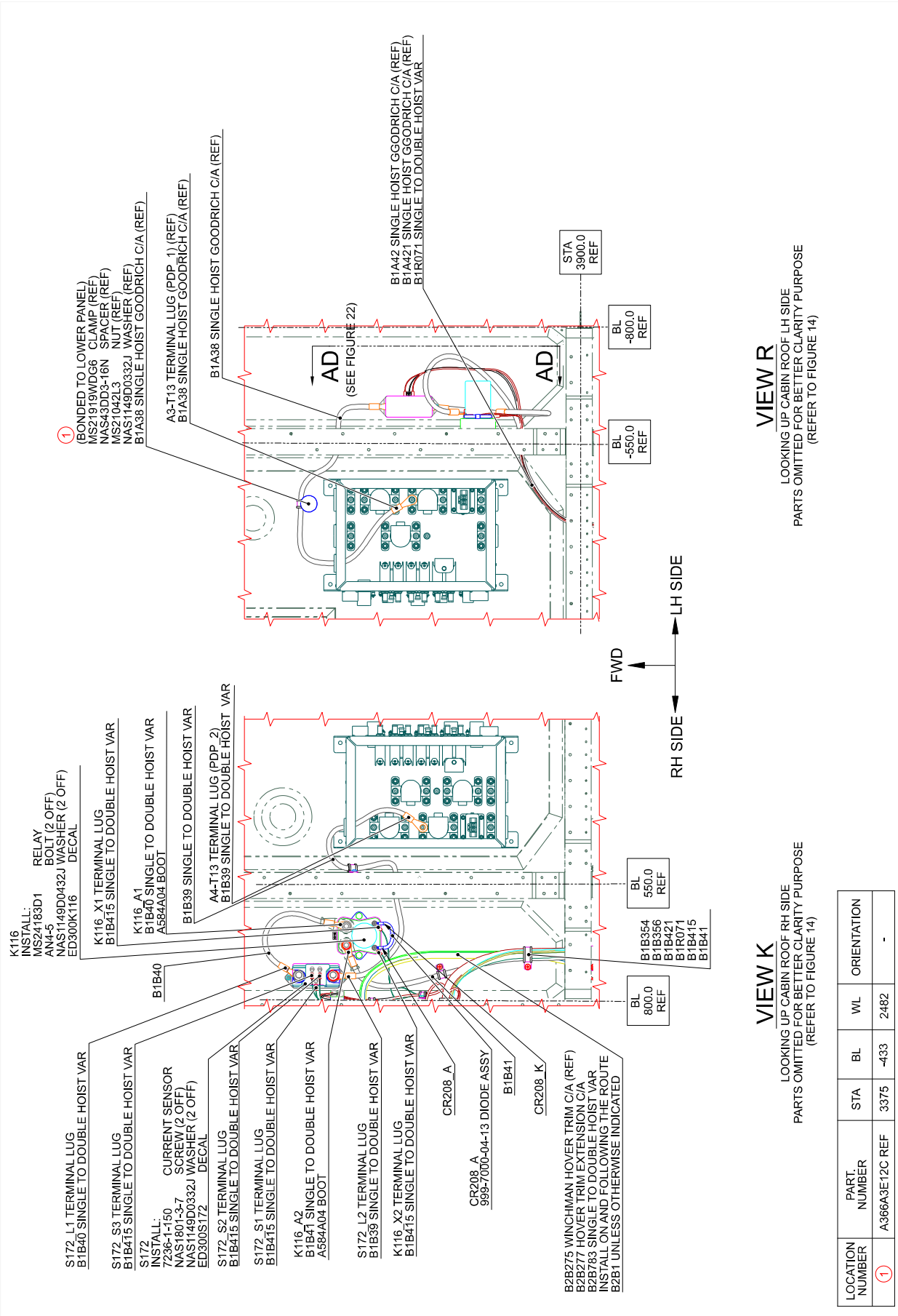
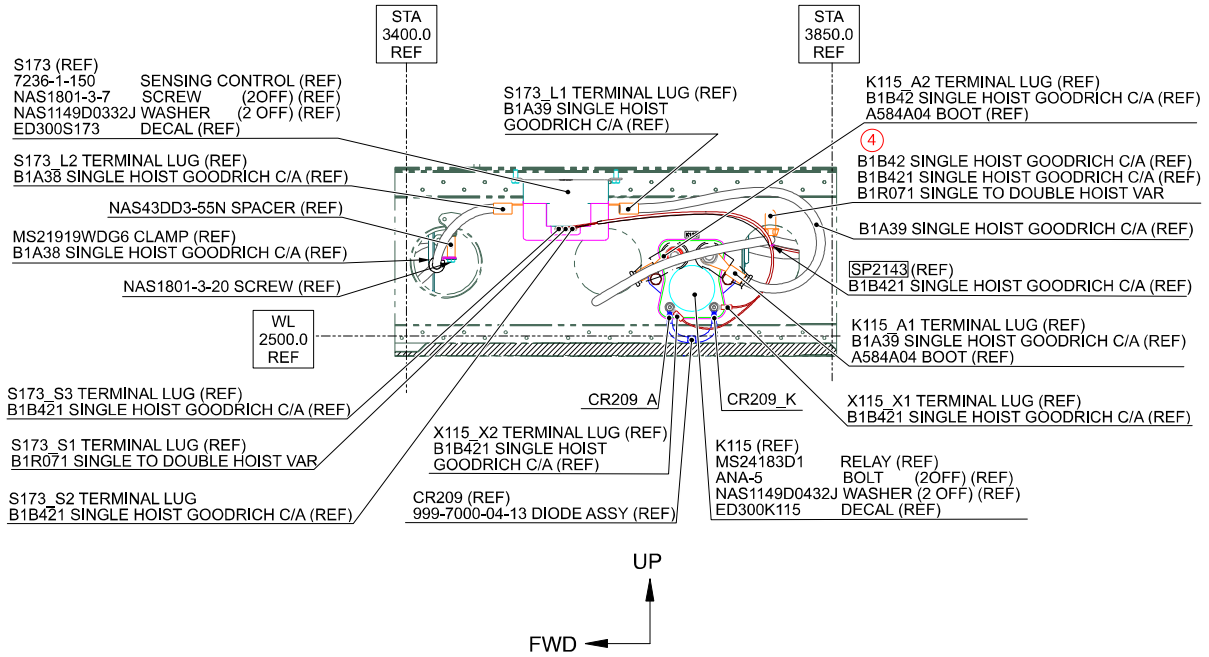
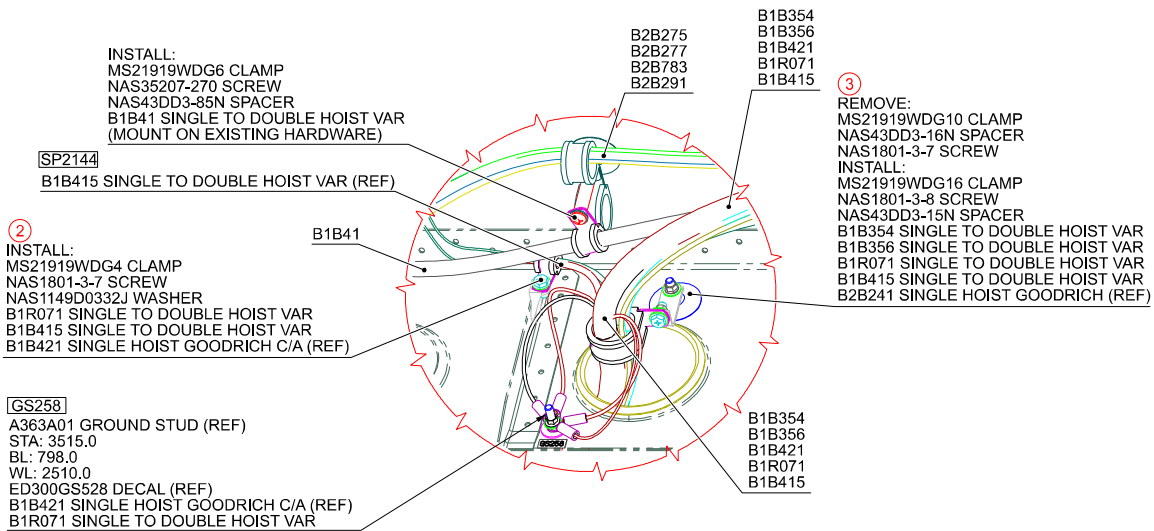


Figure 21



### SECTION AD-AD

ROTATED 90° CW  
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE  
(REFER TO FIGURE 21)



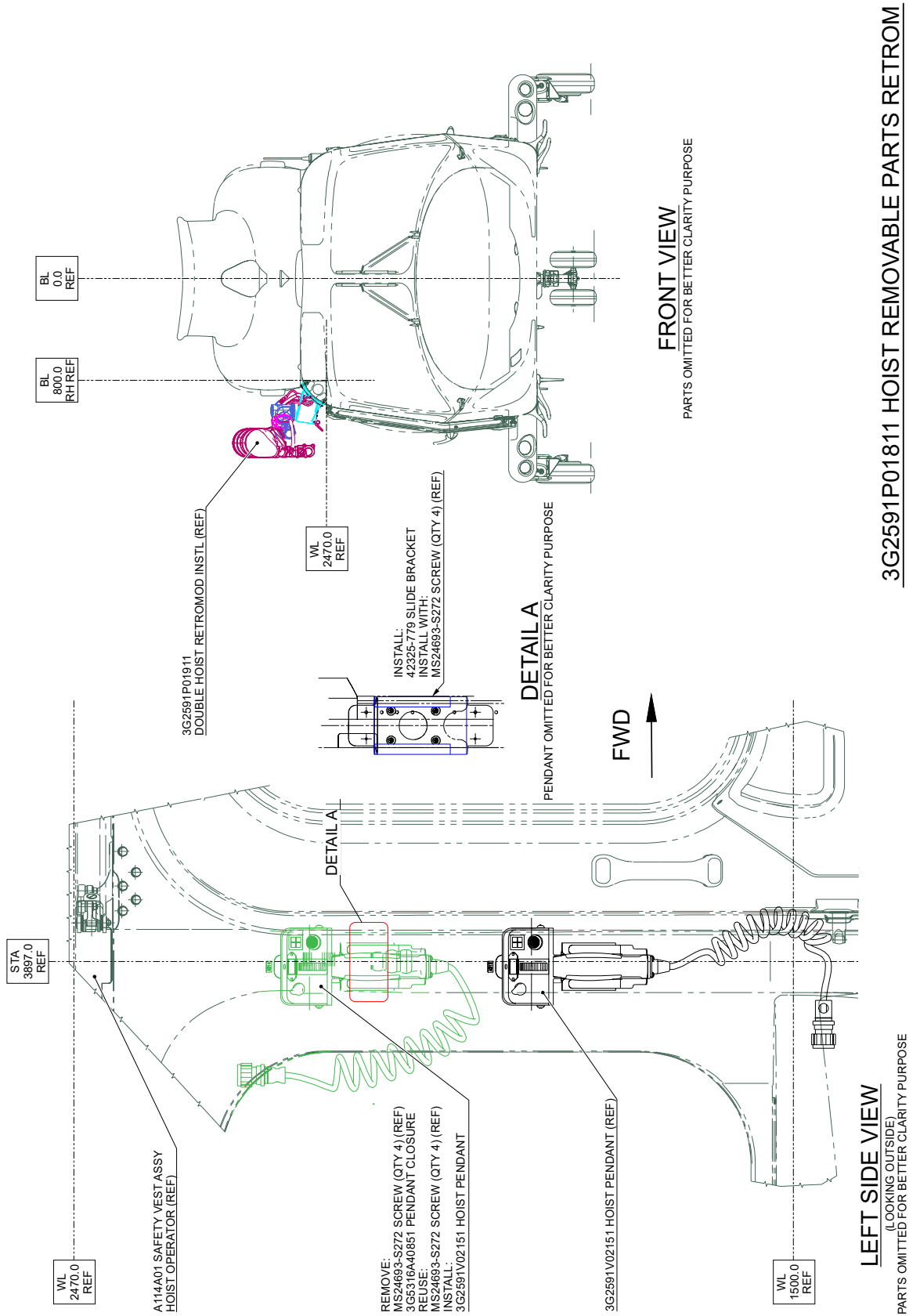
### DETAIL S

PARTS OMITTED FOR BETTER CLARITY PURPOSE  
(REFER TO FIGURE 15)

INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

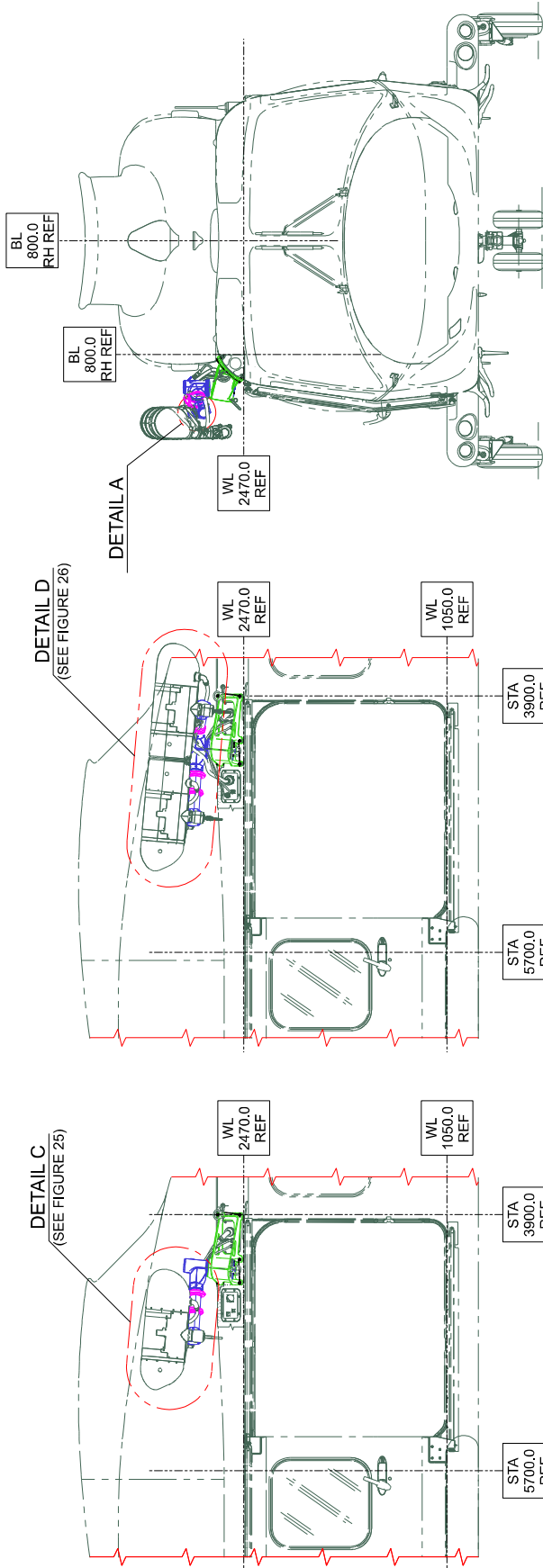
LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
②	REF	3595	770	2606	-
③	A630A3B	3670	789	2620	-
④	AW001CL000A-X3 REF	3785	-550	2617	180°

Figure 22



**3G2591P01811 HOIST REMOVABLE PARTS RETROM**

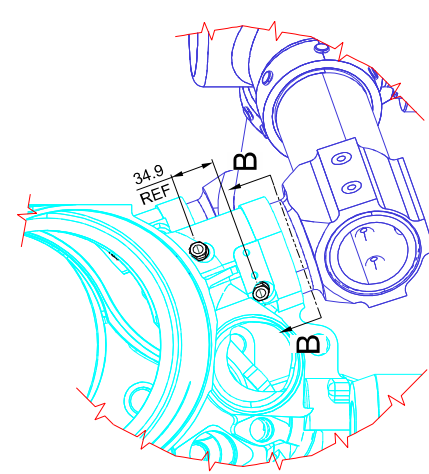
**Figure 23**



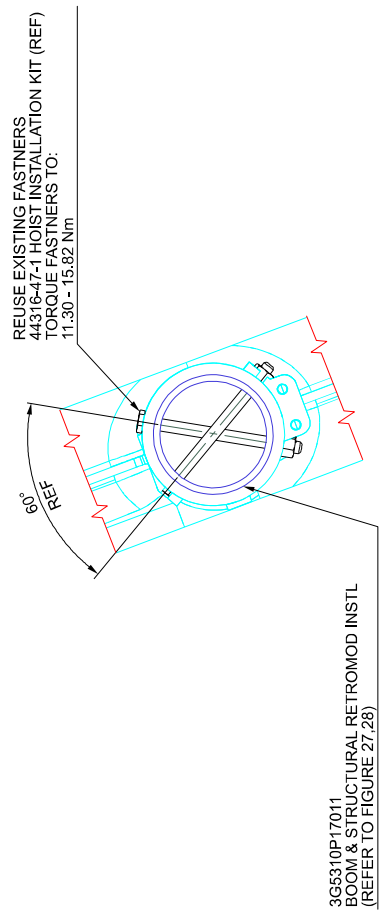
**RIGHT SIDE VIEW SINGLE HOIST**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE

**RIGHT SIDE VIEW DOUBLE HOIST**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE

**FRONT VIEW**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE



**DETAIL A**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE

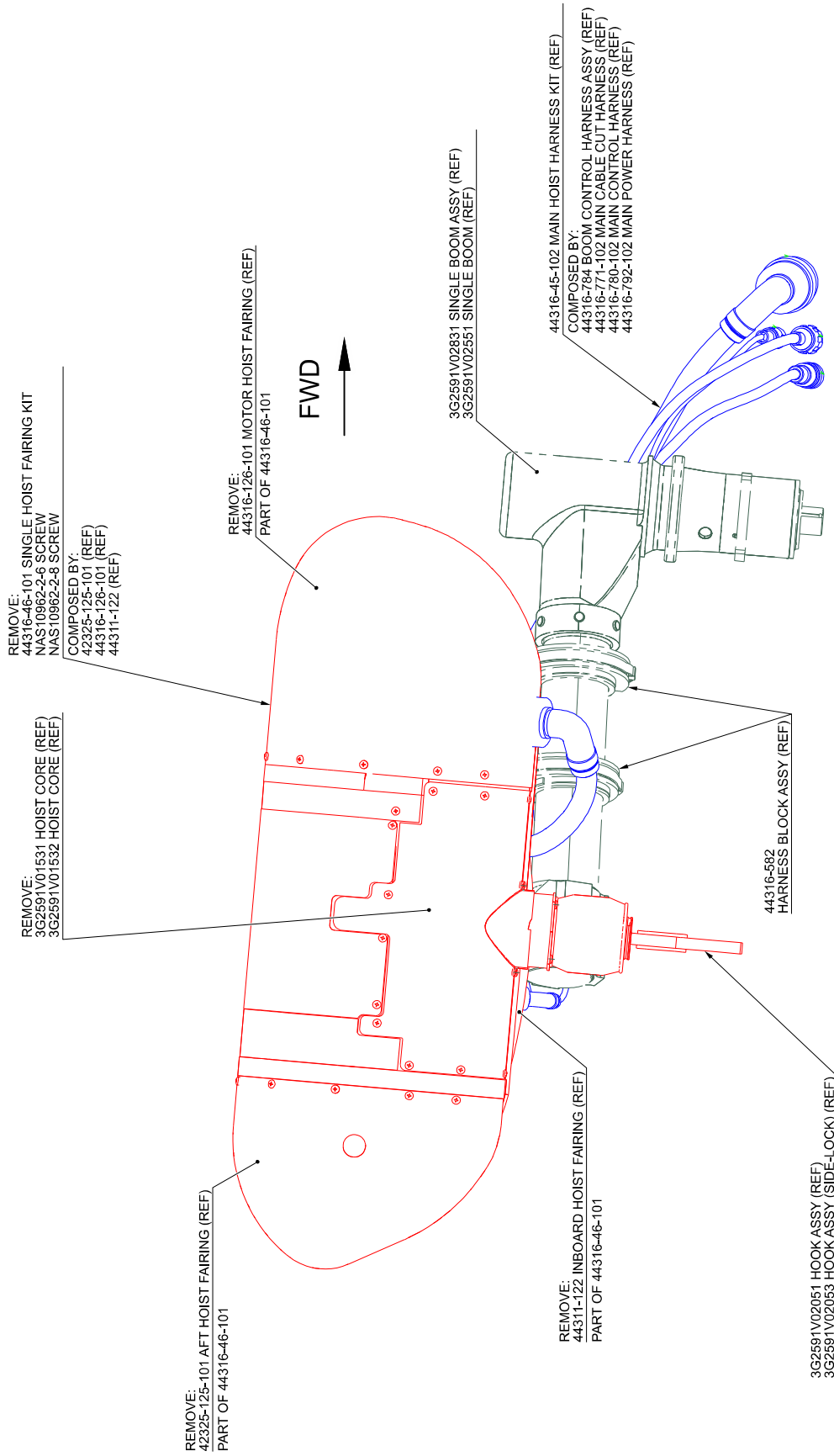


**SECTION B-B**  
PARTS OMITTED FOR BETTER CLARITY PURPOSE  
(TYP 2 PLCS)

REUSE EXISTING FASTENERS  
44316-47-1 HOIST INSTALLATION KIT (REF)  
TORQUE FASTENERS TO:  
11.30 - 15.82 Nm

**3G2591P01911 DOUBLE RESCUE RETROMOD INSTL**

**Figure 24**

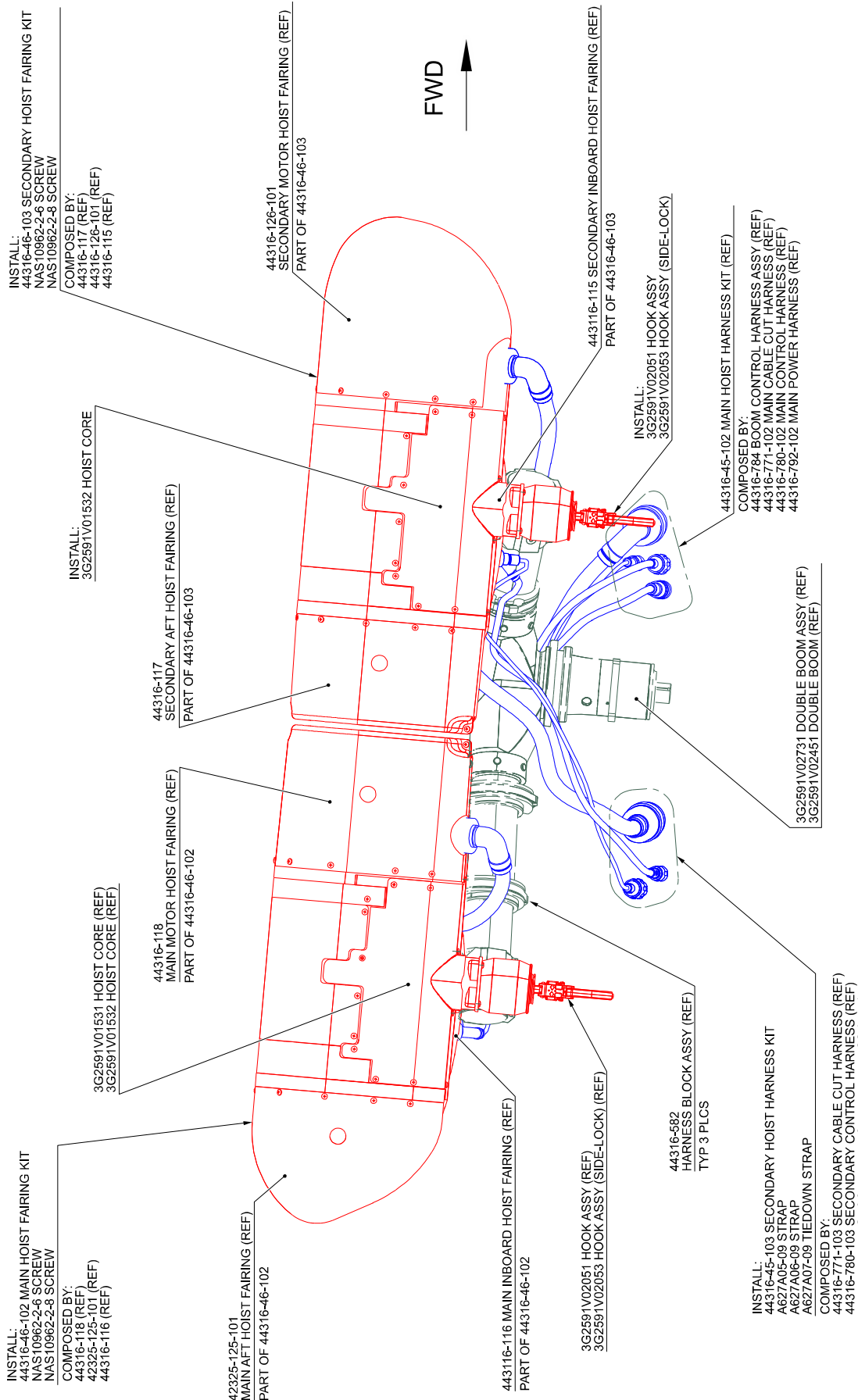


**DETAIL C**

OUTSIDE VIEW RIGHT SIDE  
PARTS OMITTED FOR BETTER CLARITY PURPOSE  
(REFER TO FIGURE 24)

**3G2591P01911 DOUBLE RESCUE RETROMOD INSTL**

**Figure 25**



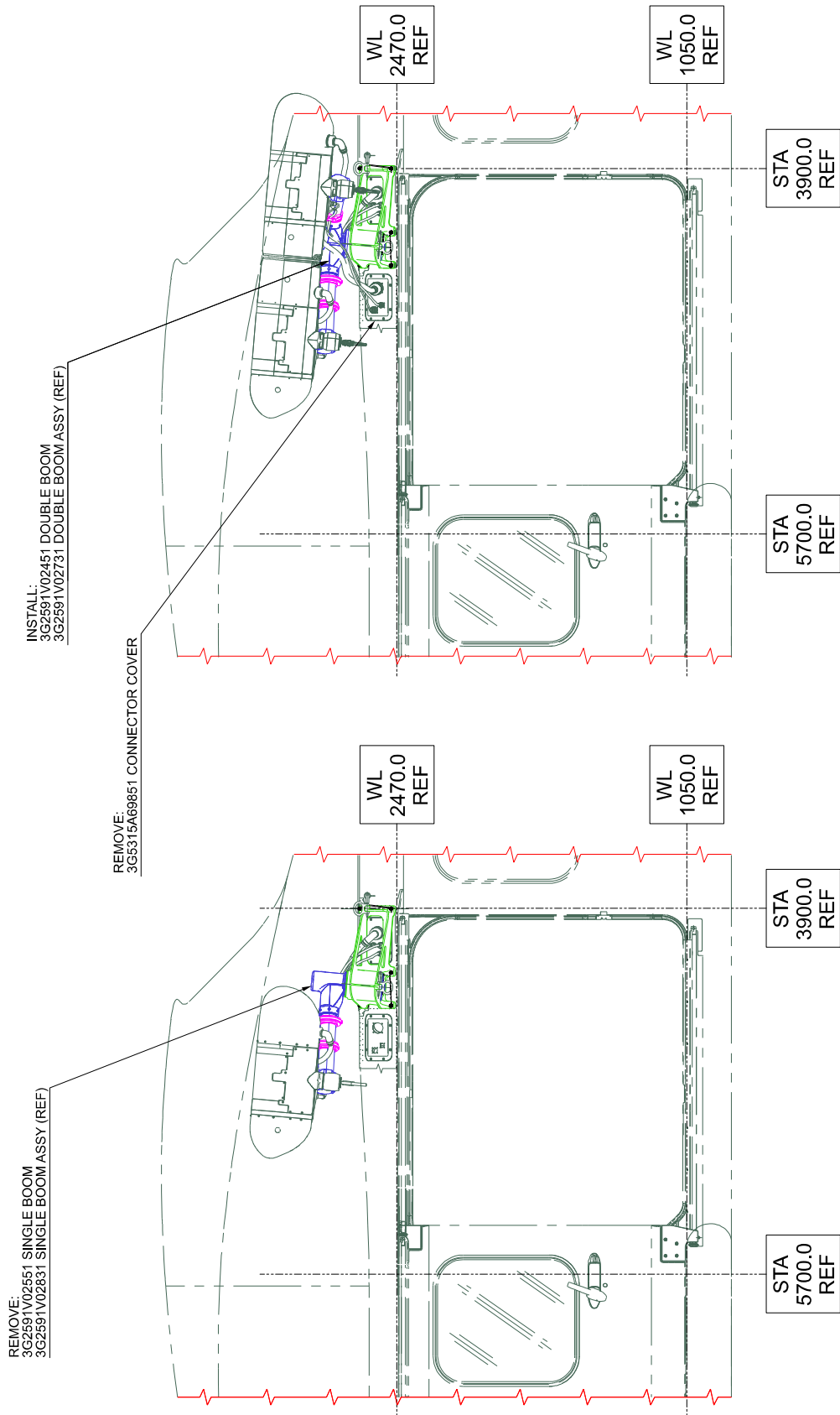
**3G2591P01911 DOUBLE RESCUE RETROMOD INSTL**

**DETAIL D**  
OUTSIDE VIEW RIGHT SIDE  
PARTS OMITTED FOR BETTER CLARITY PURPOSE  
(REFER TO FIGURE 24)

**Figure 26**



**3G5310P17011 BOOM & STRUCTURAL RETROMOD INSTL**



**RIGHT SIDE VIEW SINGLE HOIST**

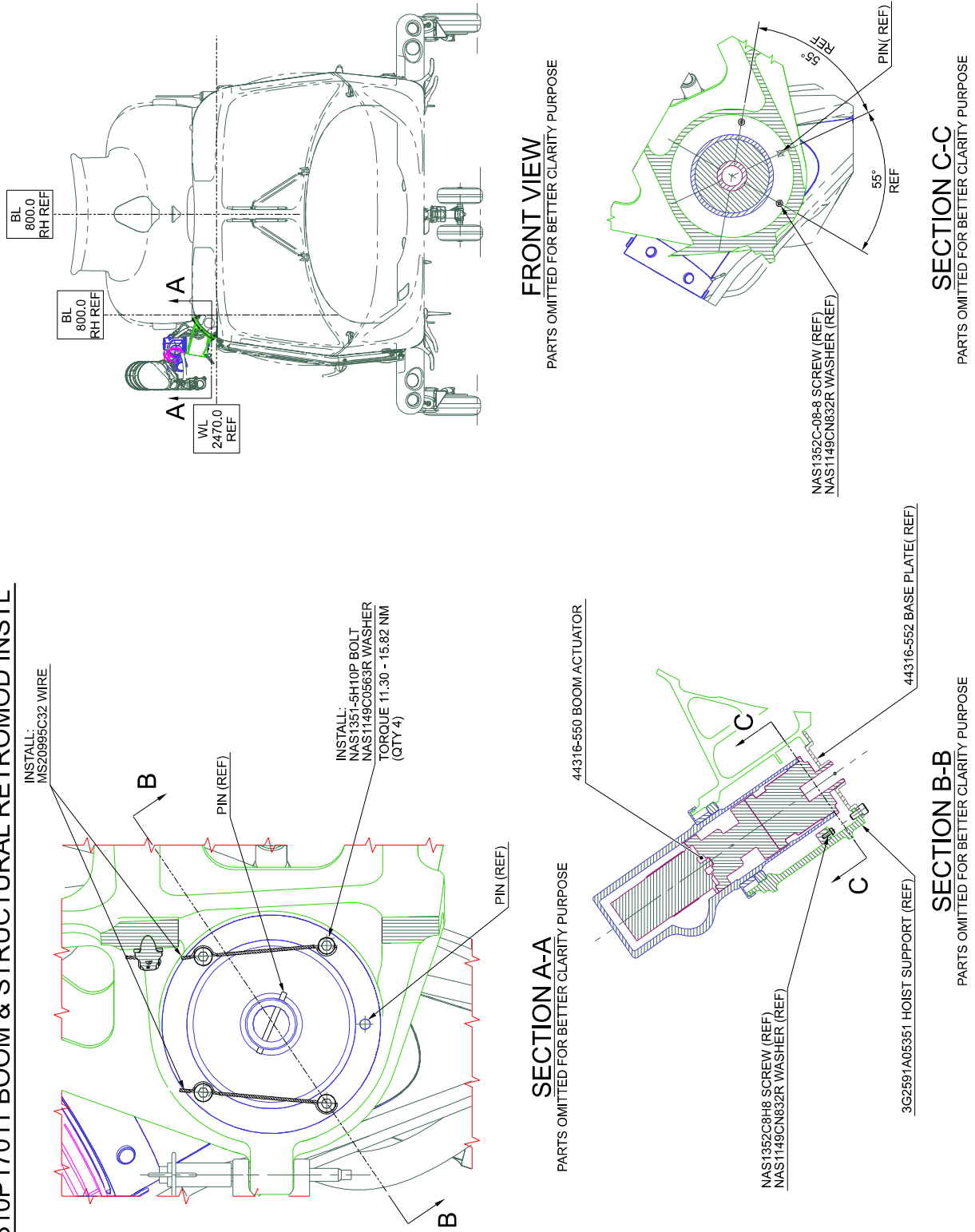
PARTS OMITTED FOR BETTER CLARITY PURPOSE

**RIGHT SIDE VIEW DOUBLE HOIST**

PARTS OMITTED FOR BETTER CLARITY PURPOSE

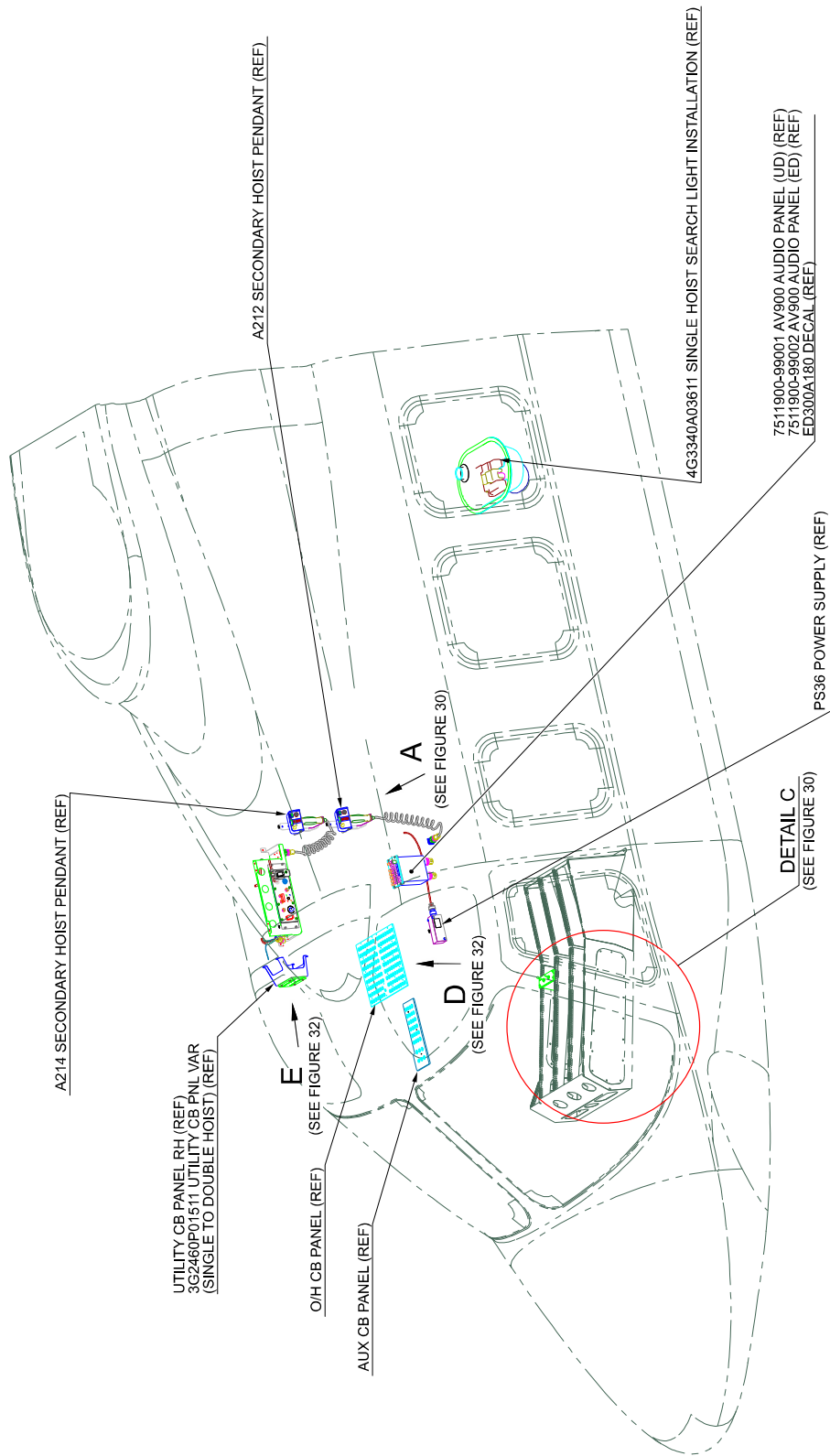
**Figure 27**

**3G5310P17011 BOOM & STRUCTURAL RETROMOD INSTL**

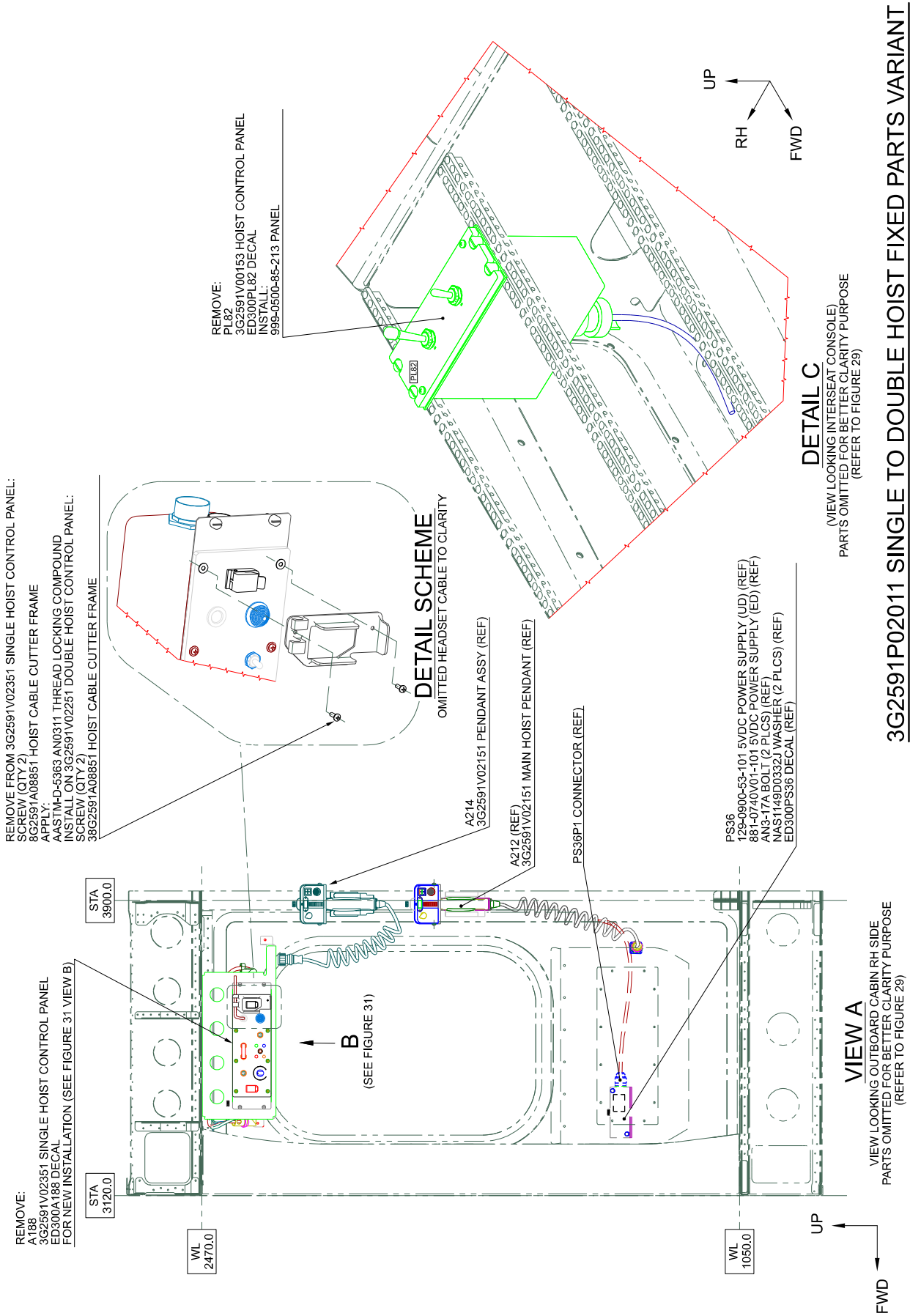


**Figure 28**

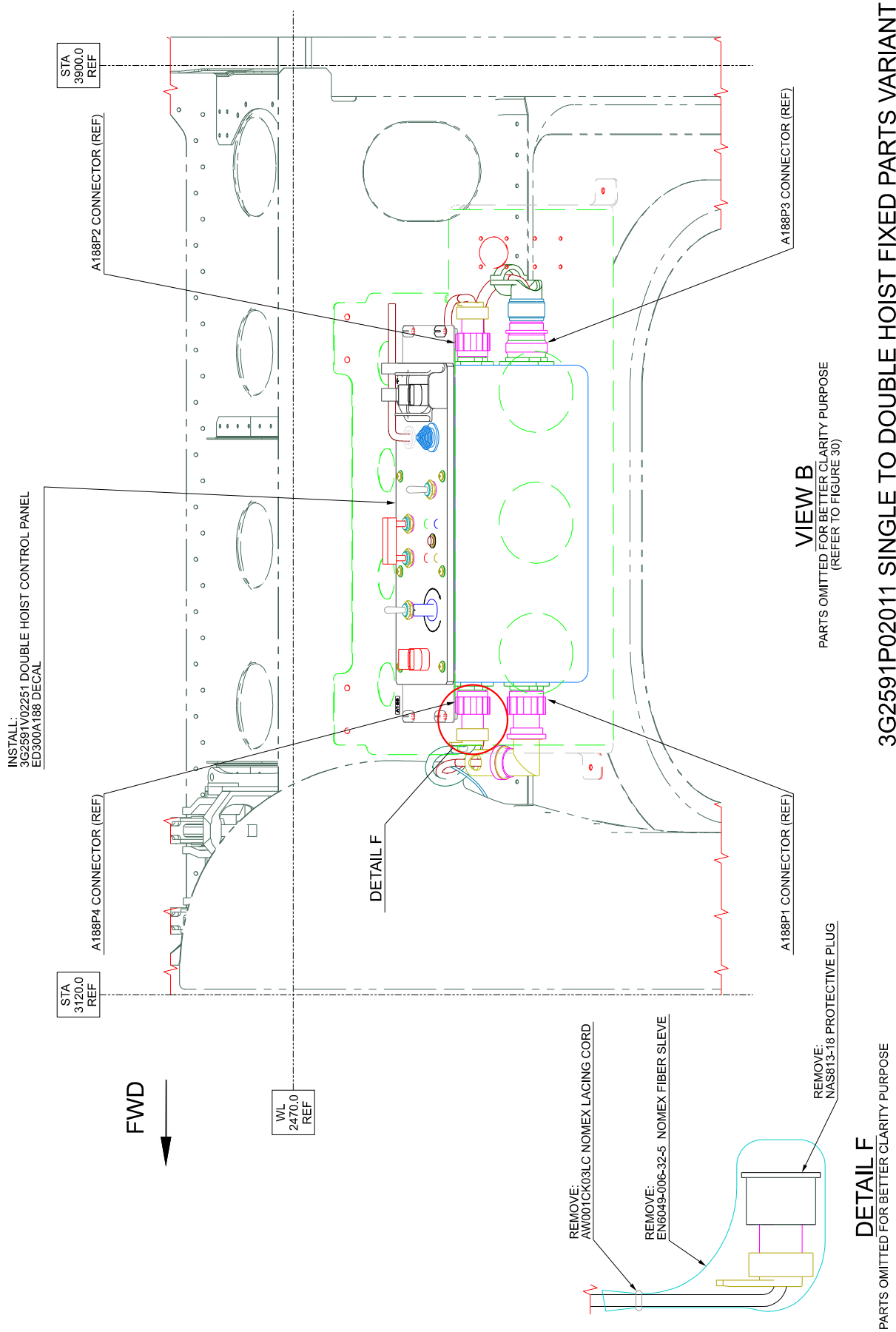
**3G2591P02011 SINGLE TO DOUBLE HOIST FIXED PARTS VARIANT**



**Figure 29**

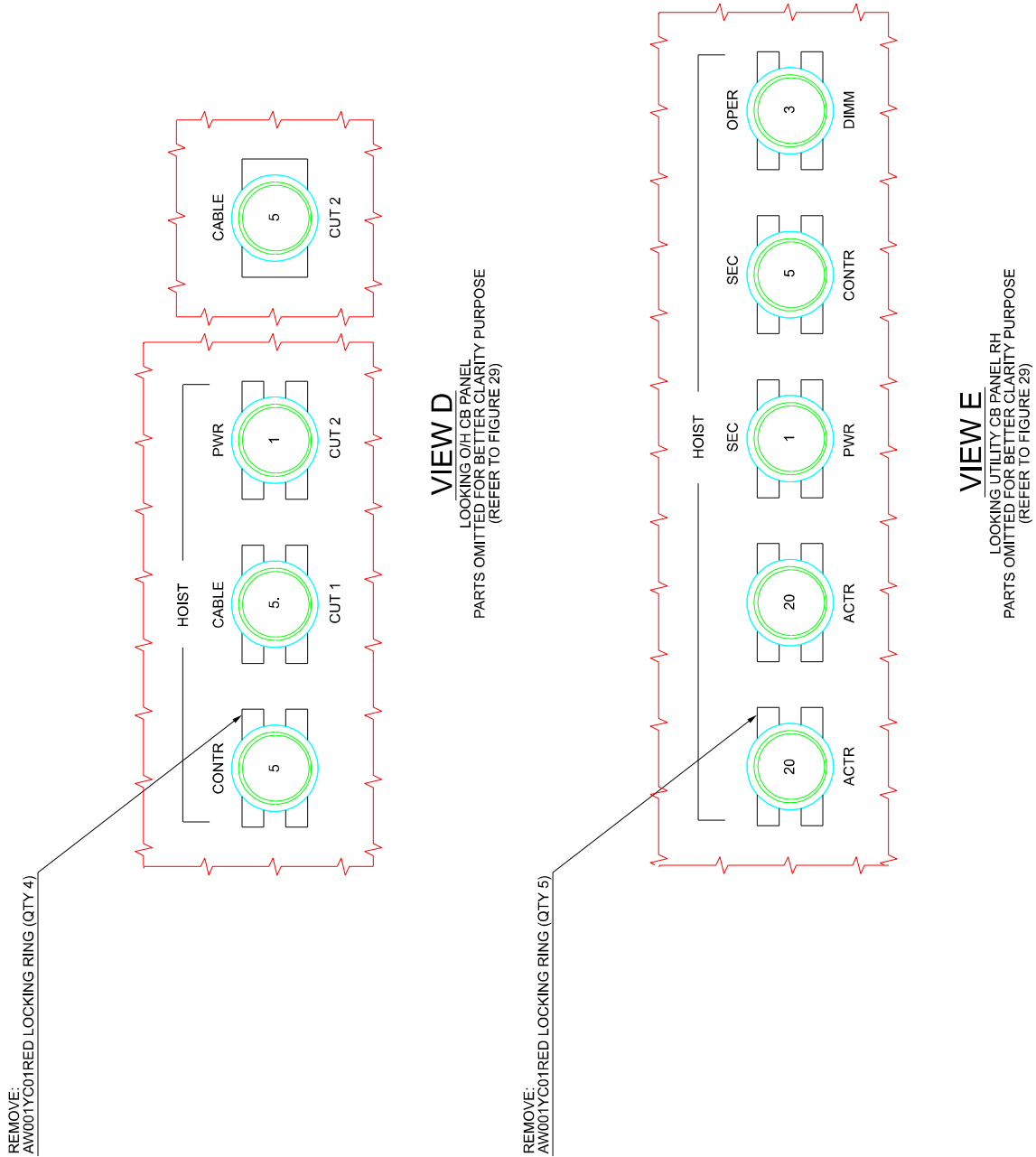


**Figure 30**



**Figure 31**

**3G2591P02011 SINGLE TO DOUBLE HOIST FIXED PARTS VARIANT**



**Figure 32**

SINGLE TO DOUBLE HOIST VAR C/A (A1B666)

CABLE TYPE	CABLE IDENT	FROM	TO	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T22	M468B22-G	FROM		M39029/58-363	P100	
		TO		M39029/58-348	TB120P1	
A556A-T22	M524A22-G	FROM		M39029/58-348	TB110P1	
		TO		M39029/58-360	P116	

SINGLE TO DOUBLE HOIST VAR C/A (B1B354)

CABLE TYPE	CABLE IDENT	FROM	TO	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T22	M440A22-G	FROM		M39029/58-363	PL1P2	
		TO		M39029/56-351	P200	
A556A-T20	M441A20-G	FROM		M39029/58-364	PL1P2	
		TO		M39029/56-351	P200	
A556A-T22	M468A22-G	FROM		M39029/58-363	PL1P2	
		TO		M39029/56-351	J100	
A556A-T22	M473A22-G	FROM		M39029/58-363	PL1P4	
		TO		M39029/56-351	P200	

SINGLE TO DOUBLE HOIST VAR C/A (B1B356)

CABLE TYPE	CABLE IDENT	FROM	TO	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T20	M454A20-G	FROM		M39029/58-364	PL1P4	
		TO		M39029/56-351	P200	
A556A-T20	M455A20-G	FROM		M39029/58-364	PL1P4	
		TO		M39029/56-351	P200	

Figure 33

**SINGLE TO DOUBLE HOIST VAR C/A (B1B395)**

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T2	M459A2N-G	FROM	GS246	
		TO	J2008	

REF-DES	EQUIPMENT LIST	
	DESCRIPTION	PART NUMBER
J2008	CONNECTOR RCPT	MS3450W32-15S
	BACKSHELL	M85049/31-32W

**SINGLE TO DOUBLE HOIST VAR C/A (B1B417)**

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T2	M456A2-G	FROM	S172	
		TO	A4	

**SINGLE TO DOUBLE HOIST VAR C/A (B1B419)**

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T2	M457A2-G	FROM	S172	
		TO	K116	

**SINGLE TO DOUBLE HOIST VAR C/A (B1B397)**

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T2	M458A2-G	FROM	K116	
		TO	J2008	

**Figure 34**



SINGLE TO DOUBLE HOIST VAR C/A (B1R071)

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T22	M516B22-G	FROM M39029/56-348	A188P1	
		TO M39029/56-348	J116	
A556A-T22	M519C22-G	FROM M39029/56-348	J116	
		TO M39029/56-348	A188P1	
A556A-T22	M440B22-G	FROM M39029/58-363	J200	
		TO M39029/56-348	A188P1	
A556A-T22	M441B22-G	FROM M39029/58-363	J200	
		TO M39029/56-348	A188P1	
A556A-T22	M473B22-G	FROM M39029/58-363	J200	
		TO M39029/56-348	TB226P1	
A556A-T16	M907A16N-G	FROM A523A-B01	K191P1	
		TO MS25036-108	GS258	
A556A-T16	M539A16-G	FROM M39029/56-364	PL1P8	
		TO -	SP2607	
A556A-T16	M540A16-G	FROM M39029/56-364	PL1P8	
		TO -	SP2608	
A556A-T22	M446A22-G	FROM MS25036-149	S173	
		TO M39029/58-360	A188P2	
A556A-T16	M900A16-G	FROM -	SP2607	
		TO A523-B04	K191P1	
A556A-T16	M901A16-G	FROM -	SP2607	
		TO A523-B04	K191P1	
A556A-T16	M902A16-G	FROM -	SP2607	
		TO A523-B04	K191P1	
A556A-T16	M903A16-G	FROM -	SP2608	
		TO A523-B04	K191P1	
A556A-T16	M904A16-G	FROM -	SP2608	
		TO A523-B04	K191P1	
A556A-T16	M539C16-G	FROM -	SP2609	
		TO MS25036-153	K151	
A556A-T16	M905A16-G	FROM -	SP2609	
		TO A523A-B04	K191P1	
A556A-T16	M906A16-G	FROM -	SP2609	
		TO A523A-B04	K191P1	
A556A-T22	M52AB22-G	FROM M39029/56-348	TB226P1	
		TO M39029/56-348	J116	

REF-DES	EQUIPMENT LIST	
	DESCRIPTION	PART NUMBER
K191P1	SOCKET	A648A02
SP2607	SPLICE	M81824/1-3
SP2608	SPLICE	M81824/1-3
SP2609	SPLICE	M81824/1-3
SP5000-ME	SPLICE	M81824/1-1

Figure 35

**SINGLE TO DOUBLE HOIST VAR C/A (B1B287)**

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A561A-T2-22	M508A22-S (WH)	FROM M39029/56-351	J2012	M23053/8-004-C
		TO A523A-B02	K123P1	M23053/8-004-C
A561A-T2-22	M508A22-S (BL)	FROM M39029/56-351	J2012	M23053/8-004-C
		TO A523A-B02	K123P1	M23053/8-004-C
A561A-T2-22	M515A22-S (BL)	FROM M39029/56-351	J2012	M23053/8-004-C
		TO A523A-B02	K124P1	M23053/8-004-C
A561A-T2-22	M515A22-S (WH)	FROM M39029/56-351	J2012	M23053/8-004-C
		TO A523A-B02	K124P1	M23053/8-004-C

REF-DES	EQUIPMENT LIST	
	DESCRIPTION	PART NUMBER
J2012	CONNECTOR RCPT	D38999/20WB98SN
	BACKSHELL	A532A400-1102T
	ADAPTER	A532A445-1102

**SINGLE TO DOUBLE HOIST VAR C/A (B1B783)**

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T22	M554A22-G	FROM M39029/56-348	A212J1	
		TO -	SP2149	
A556A-T22	M555A22-G	FROM M39029/56-348	A212J1	
		TO -	SP2150	
A556A-T22	M629A22N-G	FROM M39029/56-348	A212J1	
		TO A523A-A02	TB206	
A556A-T22	M556A22N-G	FROM M39029/56-348	A214J1	
		TO A523A-A02	TB206	
A556A-T22	M5554B22-G	FROM M39029/56-357	SP2149	
		TO -	A180P1	
A556A-T22	M557A22-G	FROM M39029/56-348	SP2149	
		TO M39029/56-348	A214J1	
A556A-T22	M555B22-G	FROM M39029/56-357	SP2150	
		TO -	A180P2	
A556A-T22	M558A22-G	FROM M39029/56-348	SP2150	
		TO M39029/56-348	A214J1	

REF-DES	EQUIPMENT LIST	
	DESCRIPTION	PART NUMBER
SP2149	SPLICE	M81824/1-1
SP2150	SPLICE	M81824/1-1

**UTIL CB PNL DOUBLE HOIST VAR C/A (E1C306)**

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T16	R407-20	FROM MS25036-149	CB267	
		TO M39029/56-352	PL1J4	
A556A-T16	R408-20	FROM MS25036-149	CB268	
		TO M39029/56-352	PL1J4	
A556A-T16	R406-16	FROM MS25036-153	CB270	
		TO M39029/56-352	PL1J8	

**Figure 36**

SINGLE TO DOUBLE HOIST VAR C/A (B1B415)

CABLE TYPE	CABLE IDENT	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T2-22	M464A22-G (WH)	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A556A-T2-22	M464A22-G (BL)	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A556A-T22	M465A22-G	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A556A-T22	M467A22-G	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A556A-T22	M491A22-G	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A556A-T22	M492A22-G	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A556A-T22	M494A22-G	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A560A-T3-22	M537A22-G (WH)	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A561A-T3-22	M537A22-G (OR)	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A561A-T3-22	M537A22-G (BL)	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A556A-T22	M538A22-G	FROM M39029/58-360 TO M39029/56-348	A188P4 J2010	
A561A-T2-22	M532A22-G (BL)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A561A-T2-22	M532A22-G (WH)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A561A-T2-22	M532A22-G (BL)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A561A-T2-22	M533A22-G (WH)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A561A-T2-22	M534A22-G (WH)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A561A-T2-22	M534A22-G (BL)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A561A-T2-22	M535A22-G (WH)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A560A-T2-22	M535A22-G (BL)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A561A-T2-22	M536A22-G (BL)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A561A-T2-22	M536A22-G (WH)	FROM M39029/56-348 TO M39029/58-360	A214J1 J2010	M23053/8-004-C
A566A-T22	M504A22N-G	FROM MS25036-103 TO A523A-B02	GS254 K121P1	

EQUIPMENT LIST		
REF-DES	DESCRIPTION	PART NUMBER
A188P4	CONNECTOR RCPT	D38999/26JC35PN
	BACKSHELL	A530A4C13
A214J1	CONNECTOR RCPT	D38999/20JD35SN
	BACKSHELL	A529A400-1502C
J2010	CONNECTOR RCPT	D38999/20WD35SN
	BACKSHELL	A532A400-1502T
K121P1	SOCKET, RELAY	A649A02
K122P1	SOCKET, RELAY	A649A02
K123P1	SOCKET, RELAY	A649A02
K124P1	SOCKET, RELAY	A649A02
SP2144	SPLICE	M81824/1-1

Figure 37

SINGLE TO DOUBLE HOIST VAR C/A (B1B415)

CABLE TYPE	CABLE IDENT	FROM	TO	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T22	M506A22N-G	FROM	TO	MS25036-103 A523A-E02	GS254 K123P1	
A556A-T22	M510A22N-G	FROM	TO	MS25036-103 A523A-E02	GS256 K122P1	
A556A-T22	M512A22N-G	FROM	TO	MS25036-103 A523A-E02	GS256 K124P1	
A556A-T22	M454B22-G	FROM	TO	M39029/58-363 M39029/56-348	J200 A188P1	
A556A-T22	M455B22-G	FROM	TO	M39029/58-363 M39029/56-348	J200 A188P1	
A556A-T22	M466A22-G	FROM	TO	M39029/56-348 M39029/58-360	J2010 A188P4	
A556A-T2-22	M522C22-G (WH)	FROM	TO	M39029/56-348 M39029/56-348	J2010 TB226P1	
A560A-T2-22	M522C22-G (BL)	FROM	TO	M39029/56-348 M39029/56-348	J2010 TB226P1	
A556A-T22	M462C22-G	FROM	TO	MS25036-102 -	K116 SP2144	
A556A-T22	M468N22-G	FROM	TO	A523A-E02 M39029/56-348	K121P1 TB226P1	
A556A-T22	M491B22-G	FROM	TO	A523A-E02 M39029/56-348	K121P1 TB226P1	
A556A-T22	M492B22-G	FROM	TO	A523A-E02 M39029/56-348	K121P1 TB226P1	
A556A-T22	M493B22-G	FROM	TO	A523A-E02 M39029/56-348	K121P1 TB226P1	
A556A-T22	M501A22-G	FROM	TO	A523A-E02 M39029/56-348	K121P1 K123P1	
A556A-T22	M502A22-G	FROM	TO	A523A-E02 M39029/56-348	K121P1 K123P1	
A556A-T22	M503A22N-G	FROM	TO	MS25036-103 A523A-E02	GS254 K121P1	
A556A-T22	M507A22-G	FROM	TO	A523A-E02 M39029/56-348	K121P1 K122P1	
A556A-T22	M473F22-G	FROM	TO	A523A-E02 M39029/56-348	K122P1 TB226P1	
A556A-T22	M493C22-G	FROM	TO	A523A-E02 M39029/56-348	K122P1 TB226P1	
A556A-T22	M494B22-G	FROM	TO	A523A-E02 M39029/56-348	K122P1 TB226P1	
A556A-T22	M500A22-G	FROM	TO	A523A-E02 M39029/58-360	K122P1 A188P4	
A556A-T22	M509A22N-G	FROM	TO	A523A-E02 MS25036-103	K122P1 GS256	

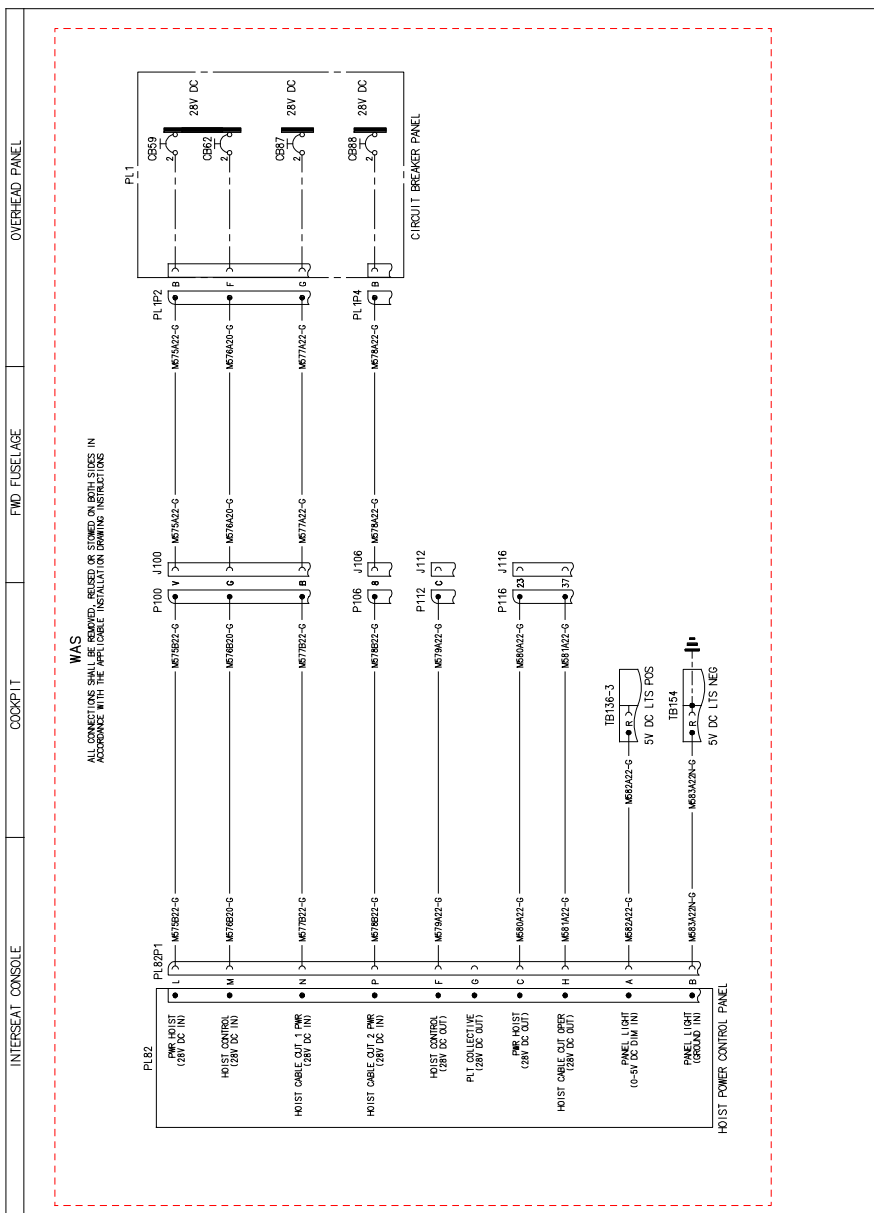
Figure 38

SINGLE TO DOUBLE HOIST VAR C/A (B1B415)

CABLE TYPE	CABLE IDENT	FROM	TO	CONTACT TERMINAL LUG	REF-DES	SOLDER SLEEVE
A556A-T22	M513A22-G	FROM		A523A-B02	K122P1	
		TO		A523A-B02	K124P1	
A556A-T22	M514A22-G	FROM		A523A-B02	K122P1	
		TO		A523A-B02	K124P1	
A556A-T22	M471F22-G	FROM		A523A-B02	K123P1	
		TO		M39029/56-348	TB226P1	
A556A-T22	M491C22-G	FROM		A523A-B02	K123P1	
		TO		M39029/56-348	TB226P1	
A556A-T22	M492C22-G	FROM		A523A-B02	K123P1	
		TO		M39029/56-348	TB226P1	
A556A-T22	M505A22N-G	FROM		A523A-B02	K123P1	
		TO		MS25036-103	GS254	
A556A-T22	M471G22-G	FROM		A523A-B02	K124P1	
		TO		M39029/56-348	TB226P1	
A556A-T22	M491D22-G	FROM		A523A-B02	K124P1	
		TO		M39029/56-348	TB226P1	
A556A-T22	M494C22-G	FROM		A523A-B02	K124P1	
		TO		M39029/56-348	TB226P1	
A556A-T22	M511A22N-G	FROM		A523A-B02	K124P1	
		TO		MS25036-103	GS256	
A556A-T22	M460A22-G	FROM		MS25036-149	S172	
		TO		M39029/58-360	A188P4	
A556A-T22	M461A22-G	FROM		MS25036-149	S172	
		TO		MS25036-102	K116	
A556A-T22	M462A22-G	FROM		-	SP2144	
		TO		M39029/56-351	TB208P1	
A556A-T22	M462B22-G	FROM		-	SP2144	
		TO		M325036-149	S172	
A556A-T22	M463A22N-G	FROM		M39029/56-351	TB208P1	
		TO		M39029/56-348	A188P1	
A556A-T22	M493A22-G	FROM		M39029/56-348	TB226P1	
		TO		M39029/58-360	A188P4	
A556A-T22	M524C22-G	FROM		M39029/56-348	TB226P1	
		TO		M39029/56-348	J2010	


Figure 39

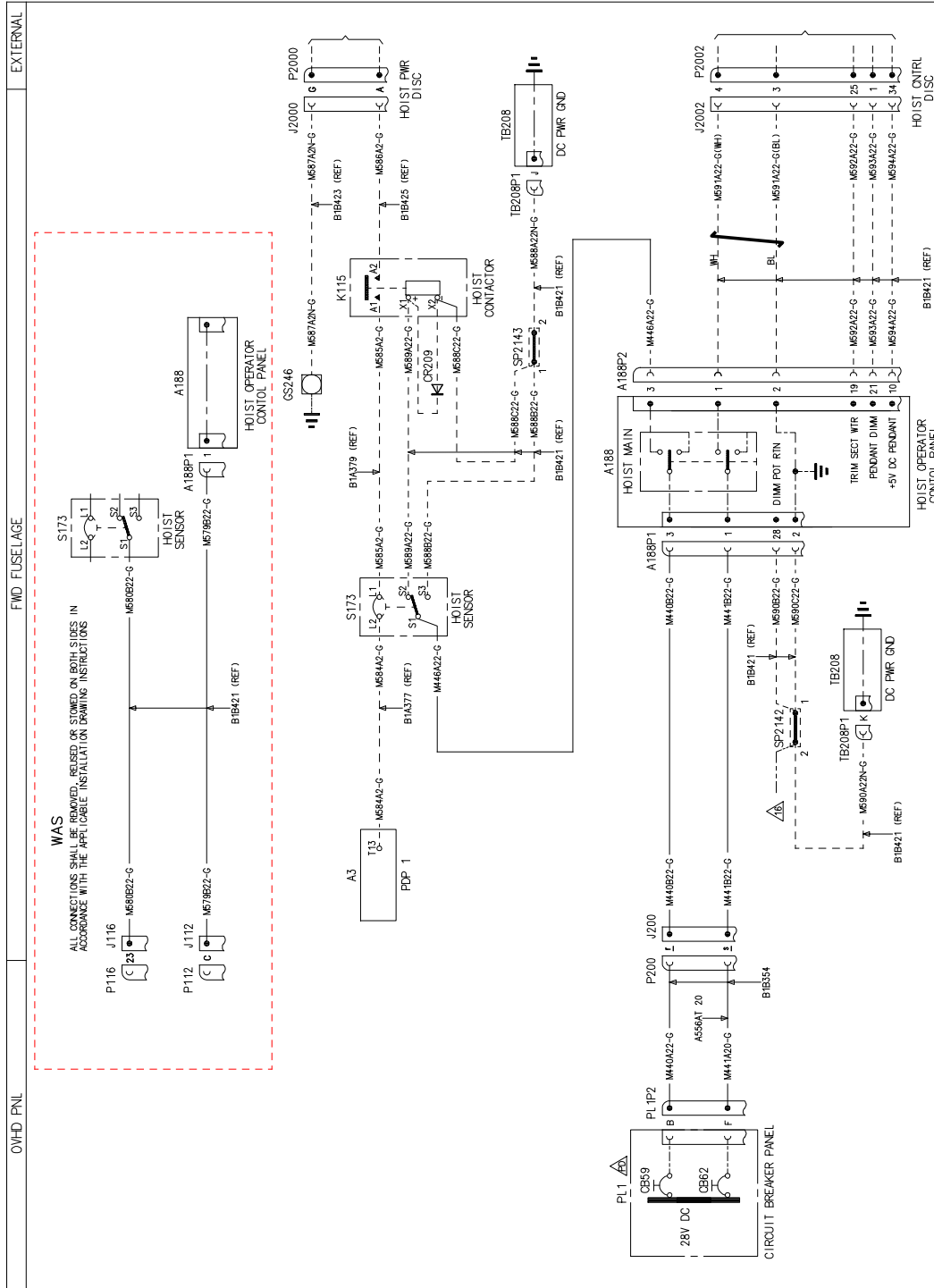
3G2591W02311  
WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT  
SHEET 1



FUNCTIONAL NOTES

Figure 40

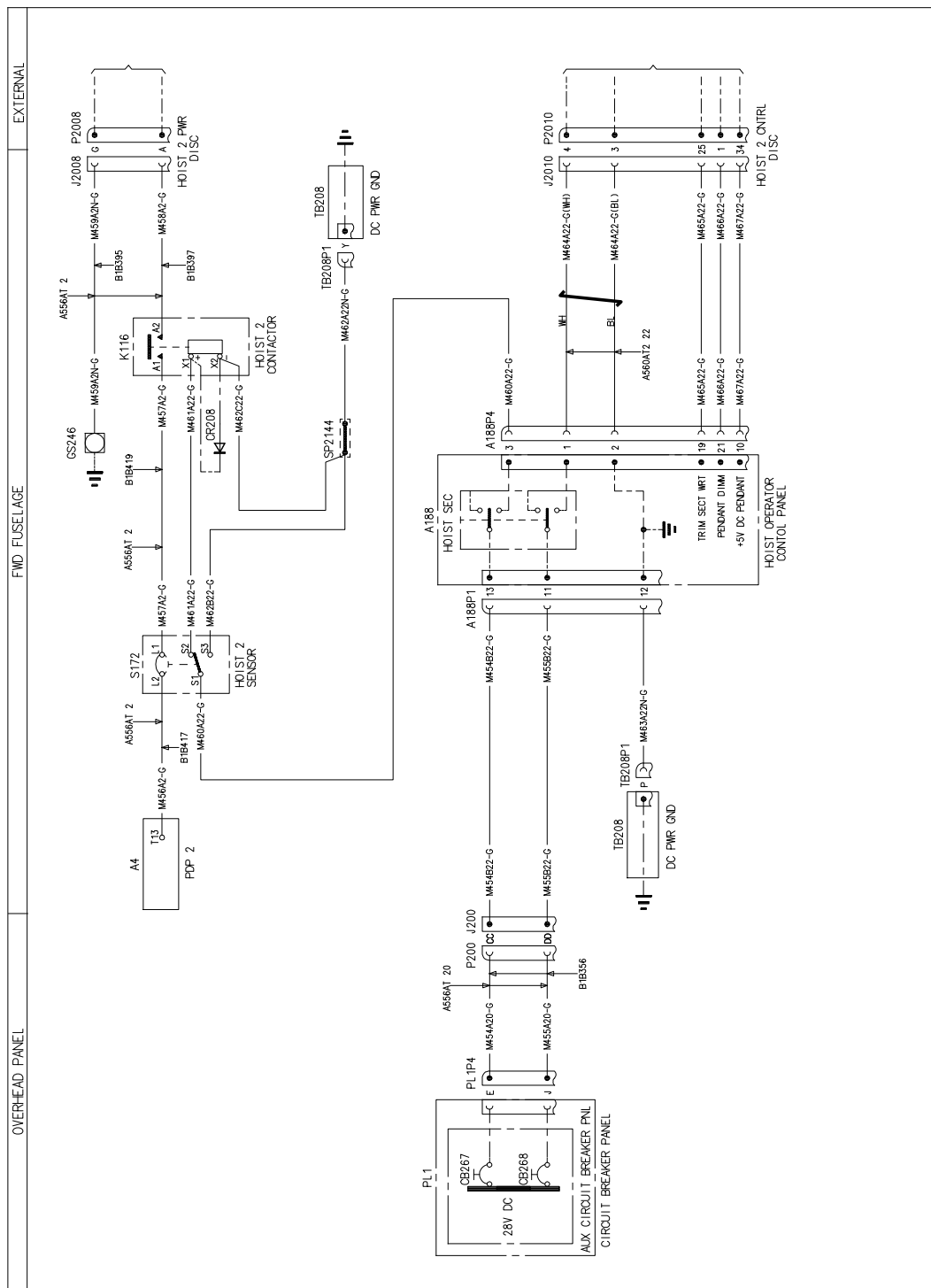
DRAWING REF. KEY  
 SHEET NO. 15



3G2591W02311  
 WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT  
 SHEET 2

FUNCTIONAL NOTES  
 ALL CABLES ARE IN LOW RESISTANCE UNLESS SPECIFIED  
 ALL CABLES ARE OF TYPE HUSSAT 22 UNLESS SPECIFIED

Figure 41

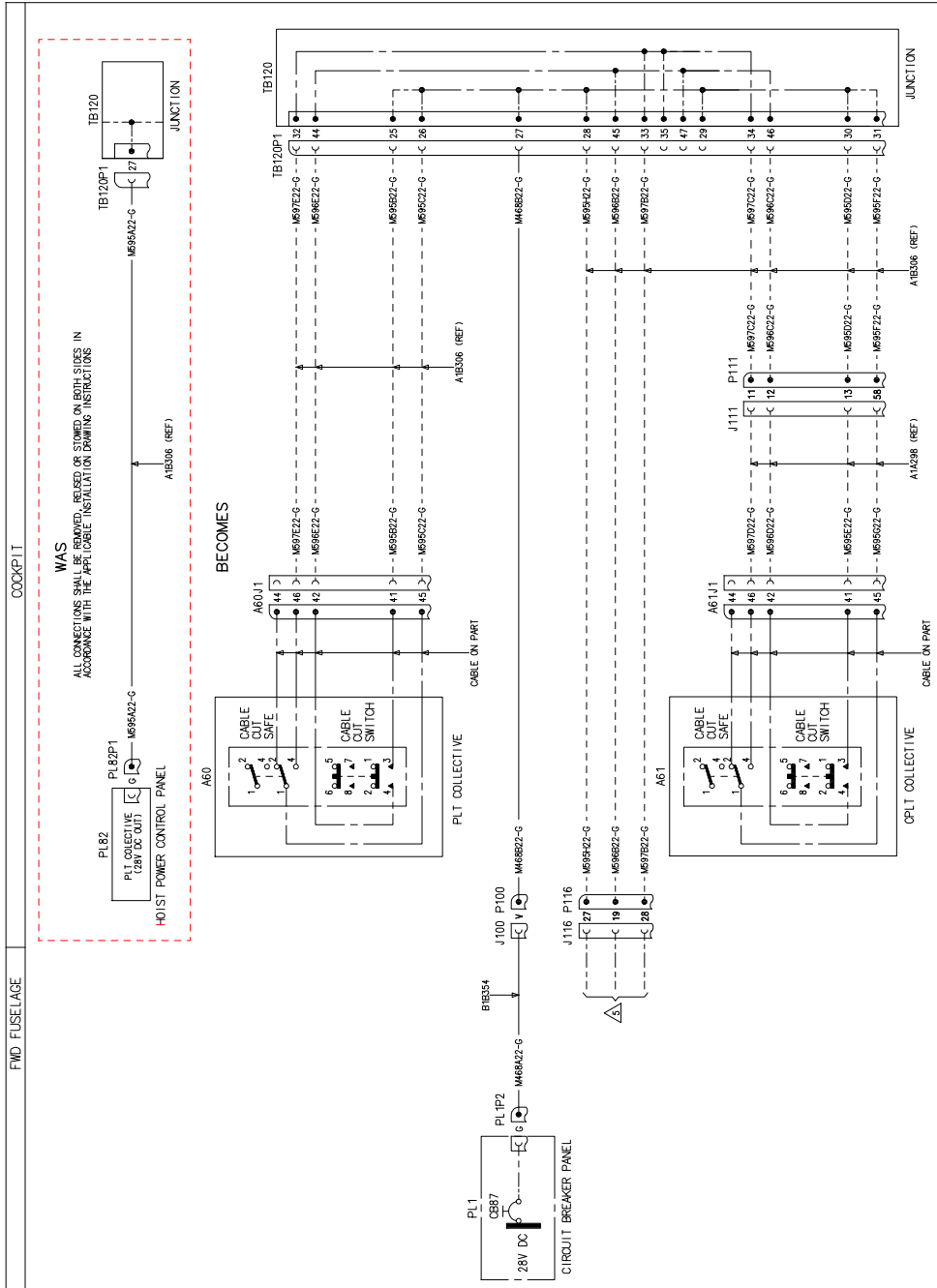


DRAWING REF. KEY

FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM B1B415 UNLESS SPECIFIED  
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

Figure 42

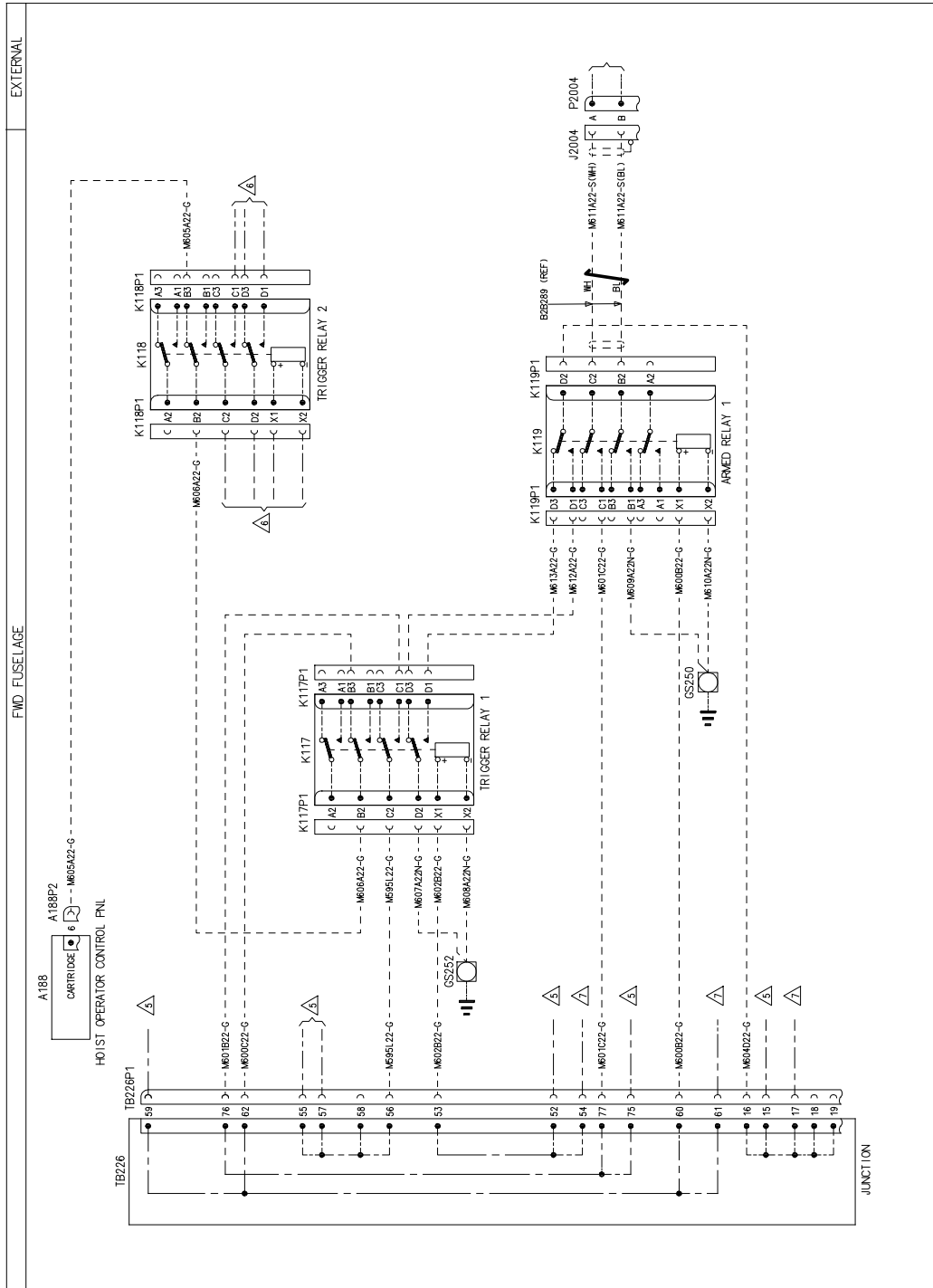




DRAWING REF. KEY  
SHEET NO. 5

Figure 43



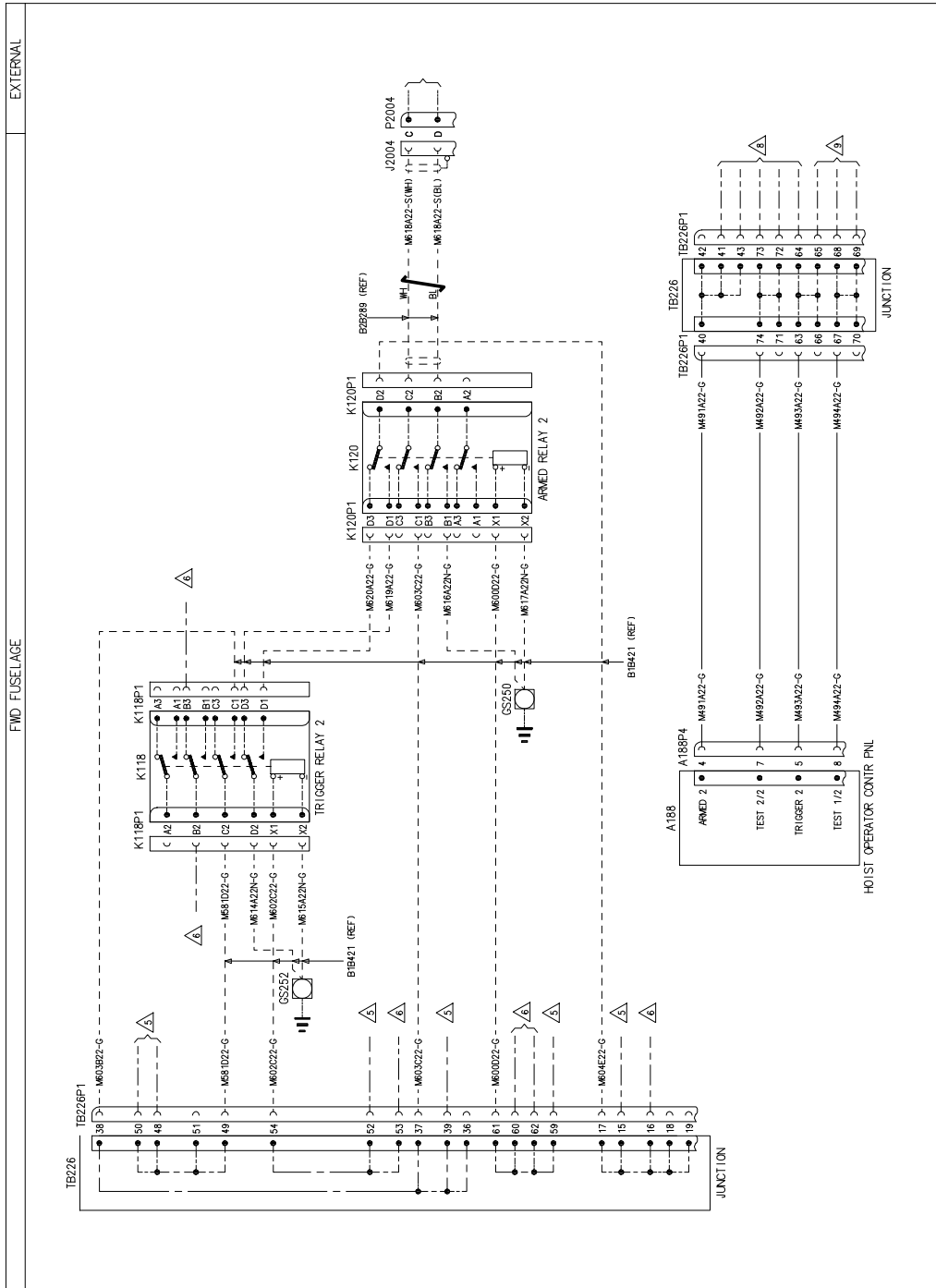


DRAWING REF. KEY  
 △ SHEET NO. 5  
 ▽ SHEET NO. 7

3G2591W02311  
 WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT  
 SHEET 6

FUNCTIONAL NOTES  
 ALL CABLES ARE IN LOAN BIB421 (REF) UNLESS SPECIFIED

Figure 45



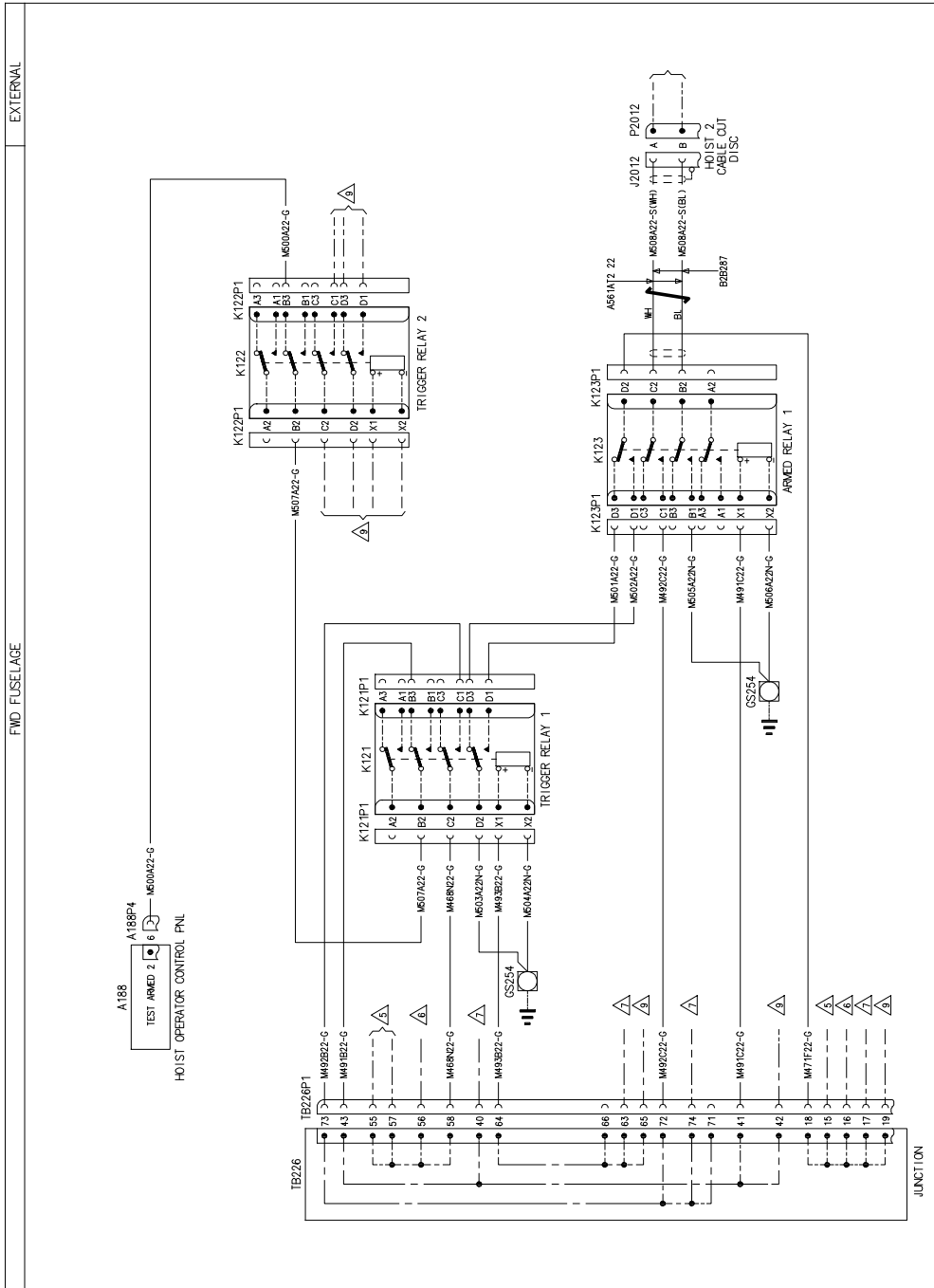
3G2591W02311  
SHEET 7

WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT

FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM P18415 UNLESS SPECIFIED.  
ALL CABLES ARE OF TYPE A80M 22 UNLESS SPECIFIED.

Figure 46

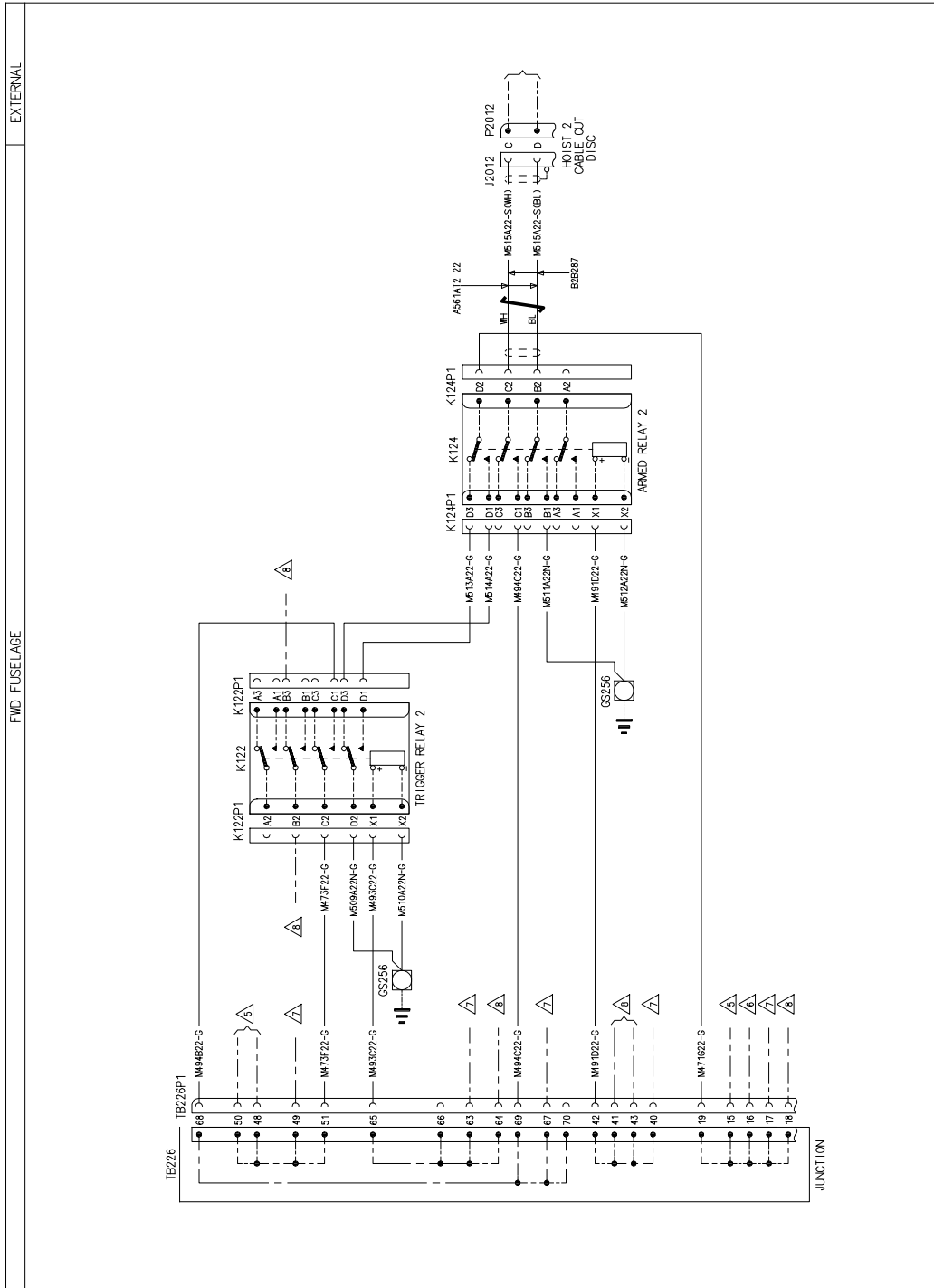
S.B. N°139-643  
DATE: February 18, 2021  
REVISION: /



DRAWING REF. KEY  
 △ SHEET NO. 5  
 ▽ SHEET NO. 6  
 ▴ SHEET NO. 7  
 ▾ SHEET NO. 9

FUNCTIONAL NOTES  
 ALL CABLES ARE IN LOW BIRF45 UNLESS SPECIFIED  
 ALL CABLES ARE OF TYPE A356AT 22 UNLESS SPECIFIED

Figure 47



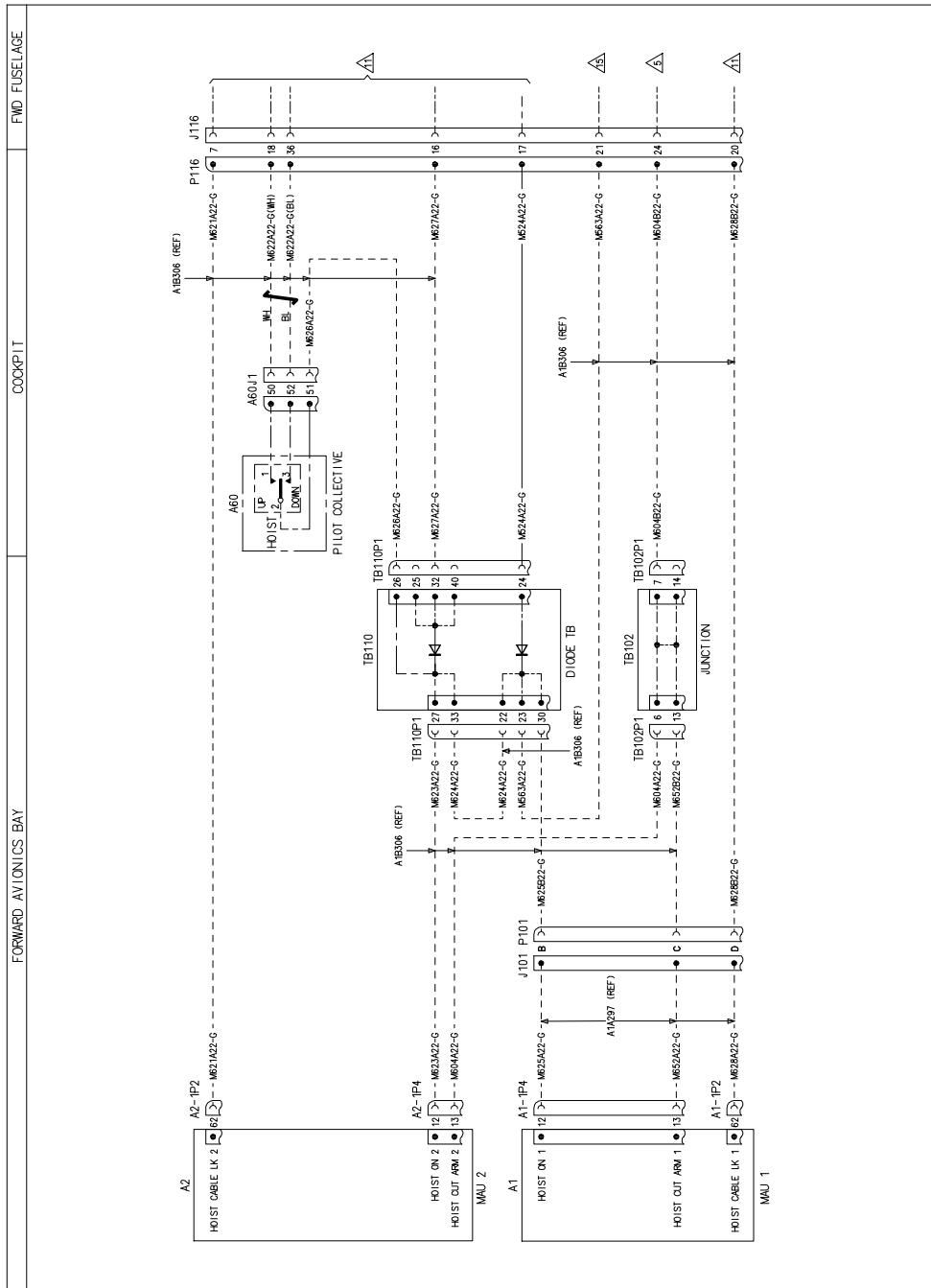
DRAWING REF. KEY

- △ SHEET NO. 5
- △ SHEET NO. 6
- △ SHEET NO. 7
- △ SHEET NO. 8

**3G2591W02311**  
**WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT**  
SHEET 9

FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM B1B415 UNLESS SPECIFIED  
ALL CABLES ARE OF TYPE A55WAT 22 UNLESS SPECIFIED

**Figure 48**

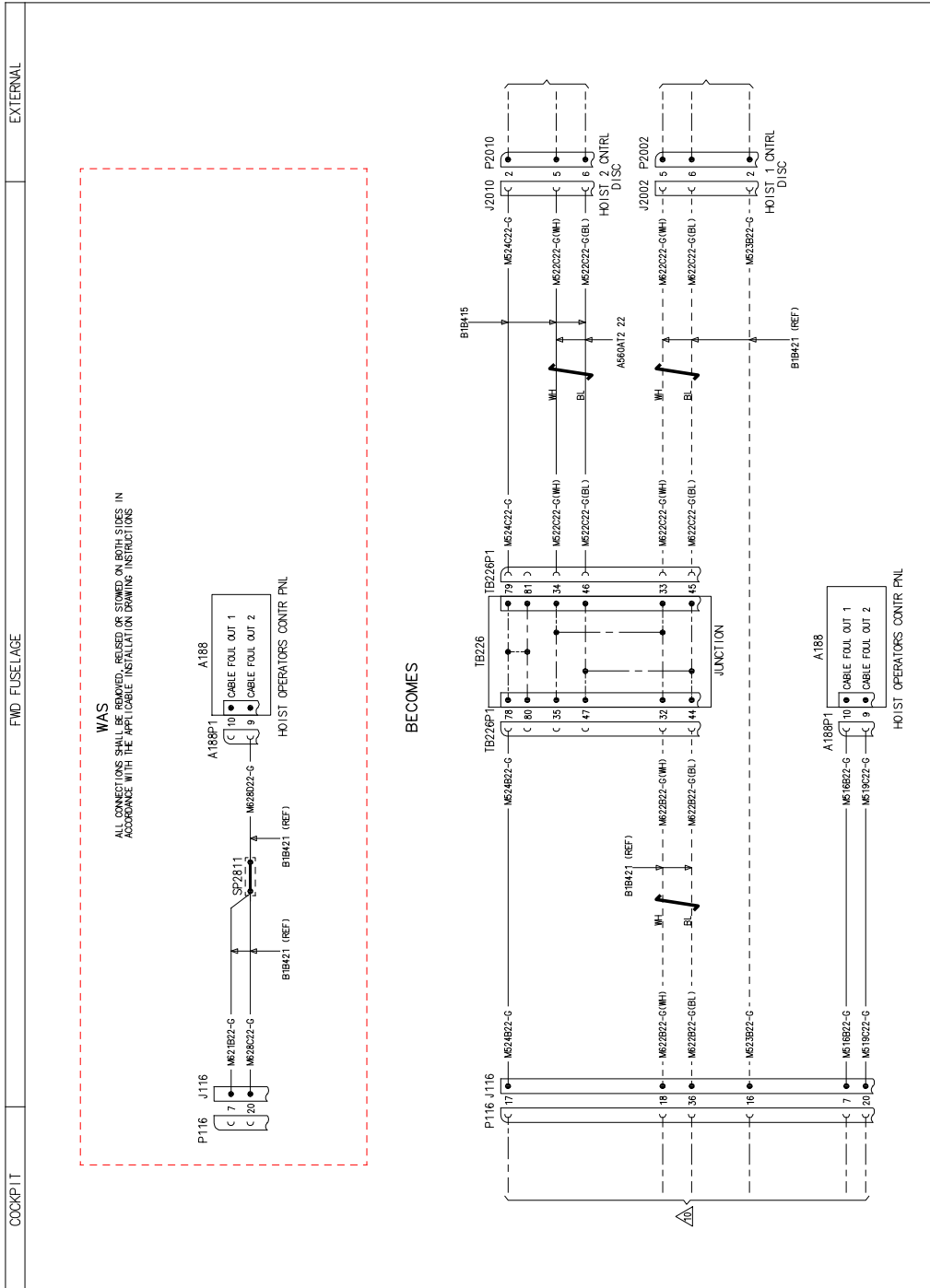


DRAWING REF. KEY  
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 △ SHEET NO. 11  
 △ SHEET NO. 15

3G2591W02311  
**WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT**  
 SHEET 10

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

**Figure 49**



DRAWING REF. KEY  
△ SHEET NO. 10

**3G2591W02311**  
**WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT**  
SHEET 11

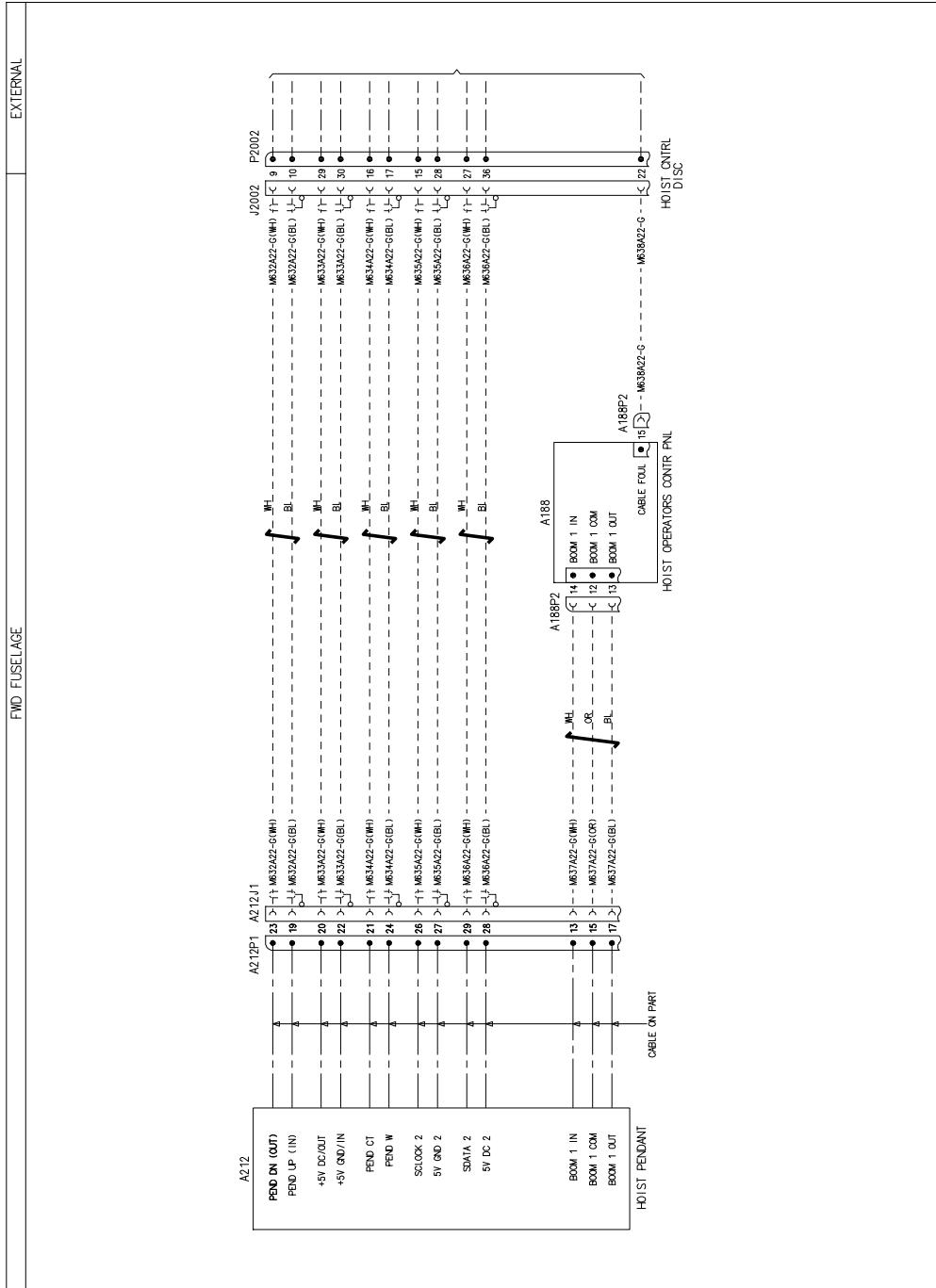
**Figure 50**



3G2591W02311

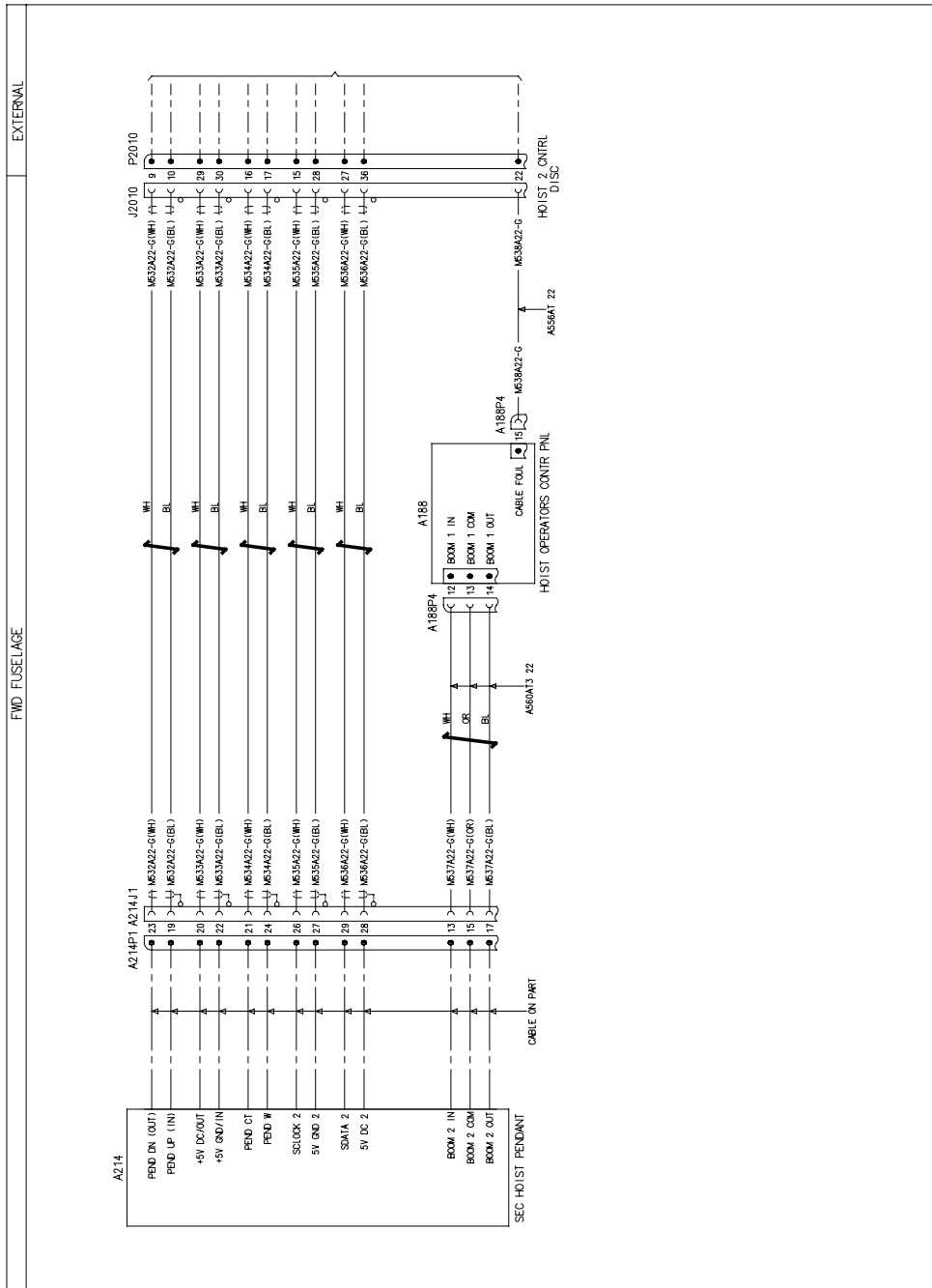
**WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT**

SHEET 12



FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM B6621 (REF) UNLESS SPECIFIED

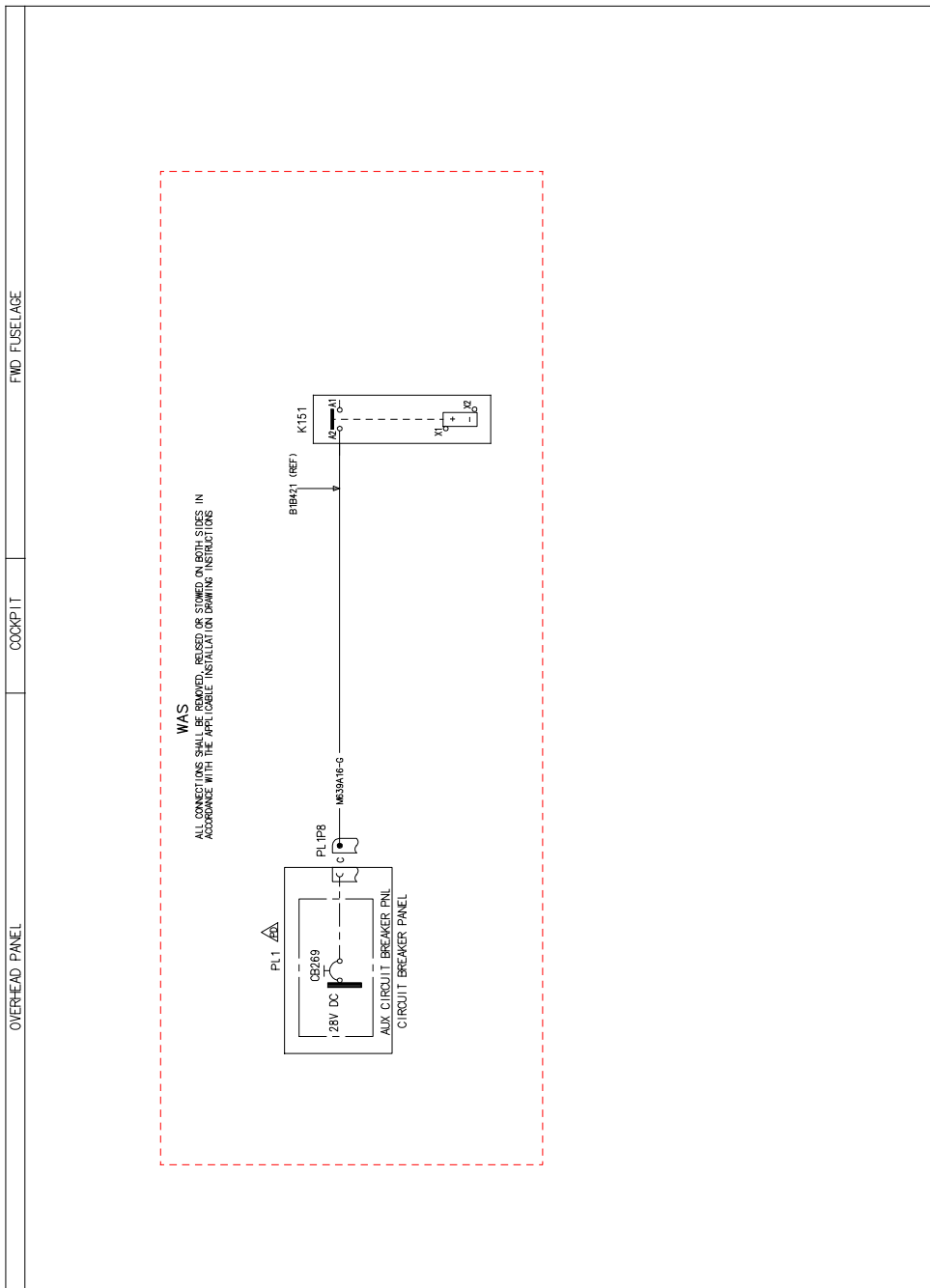
**Figure 51**



FUNCTIONAL NOTES  
ALL CABLES ARE IN COM PREPARE UNLESS SPECIFIED  
ALL CABLES ARE OF TYPE A66P1A12 22 UNLESS SPECIFIED

**Figure 52**

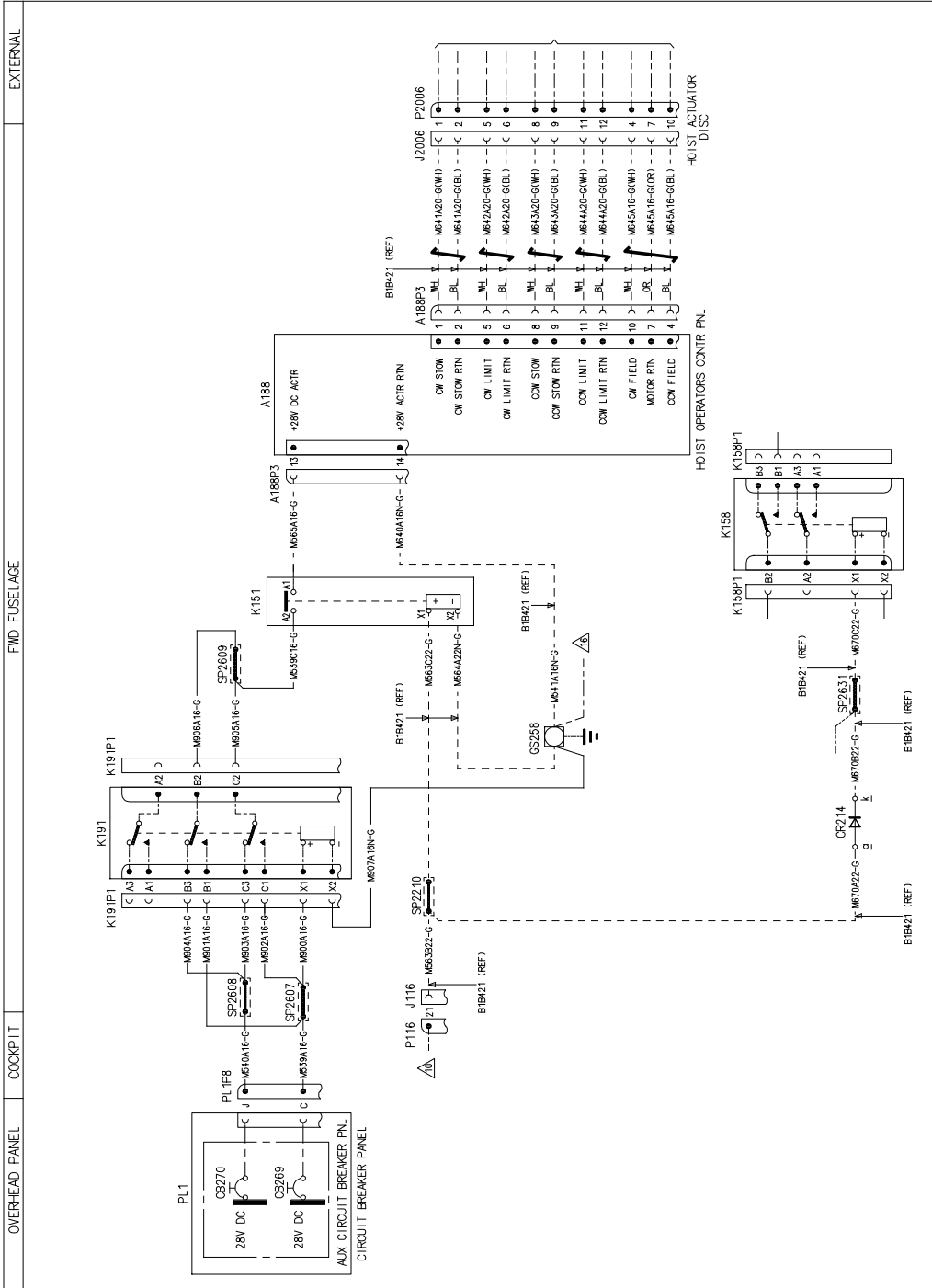
**3G2591W02311**  
**WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT**  
SHEET 13



FUNCTIONAL NOTES

3G2591W02311  
WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT  
SHEET 14

**Figure 53**



DRAWING REF. KEY

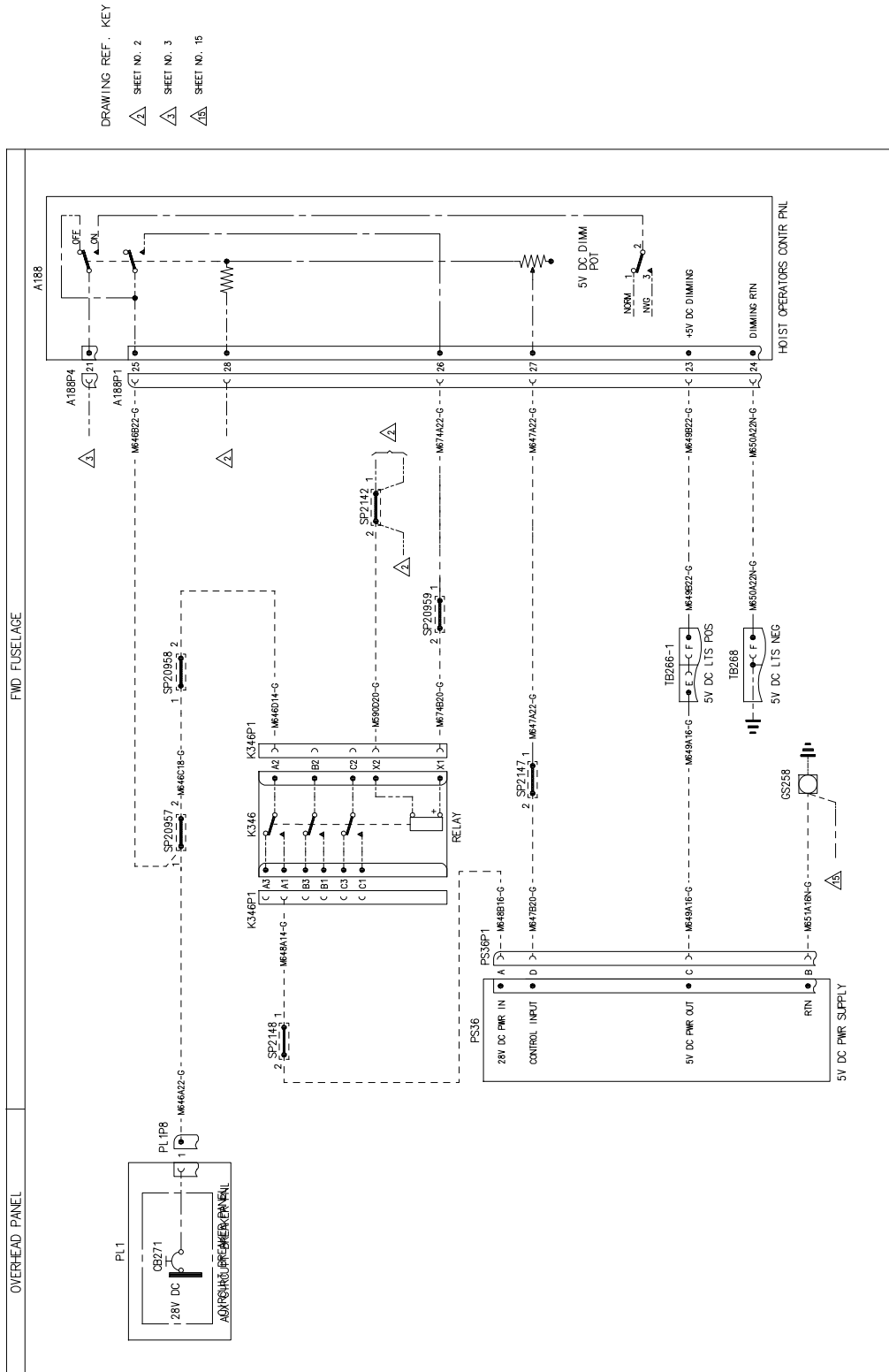
SHEET NO. 10

SHEET NO. 16

3G2591W02311  
**WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT**  
SHEET 15

FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM BR0071 UNLESS SPECIFIED  
ALL CABLES ARE OF TYPE ASS64T 16 UNLESS SPECIFIED

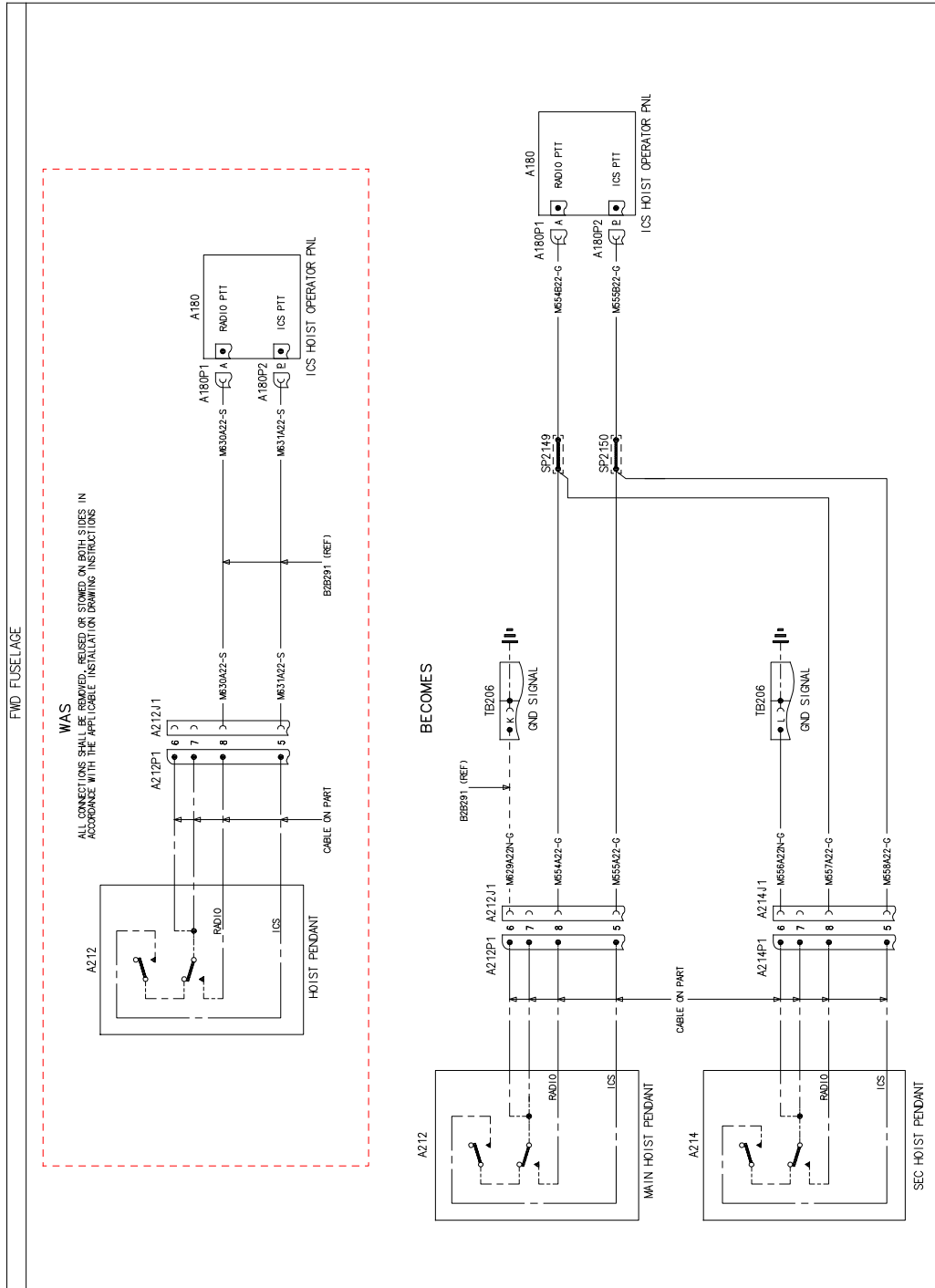
Figure 54



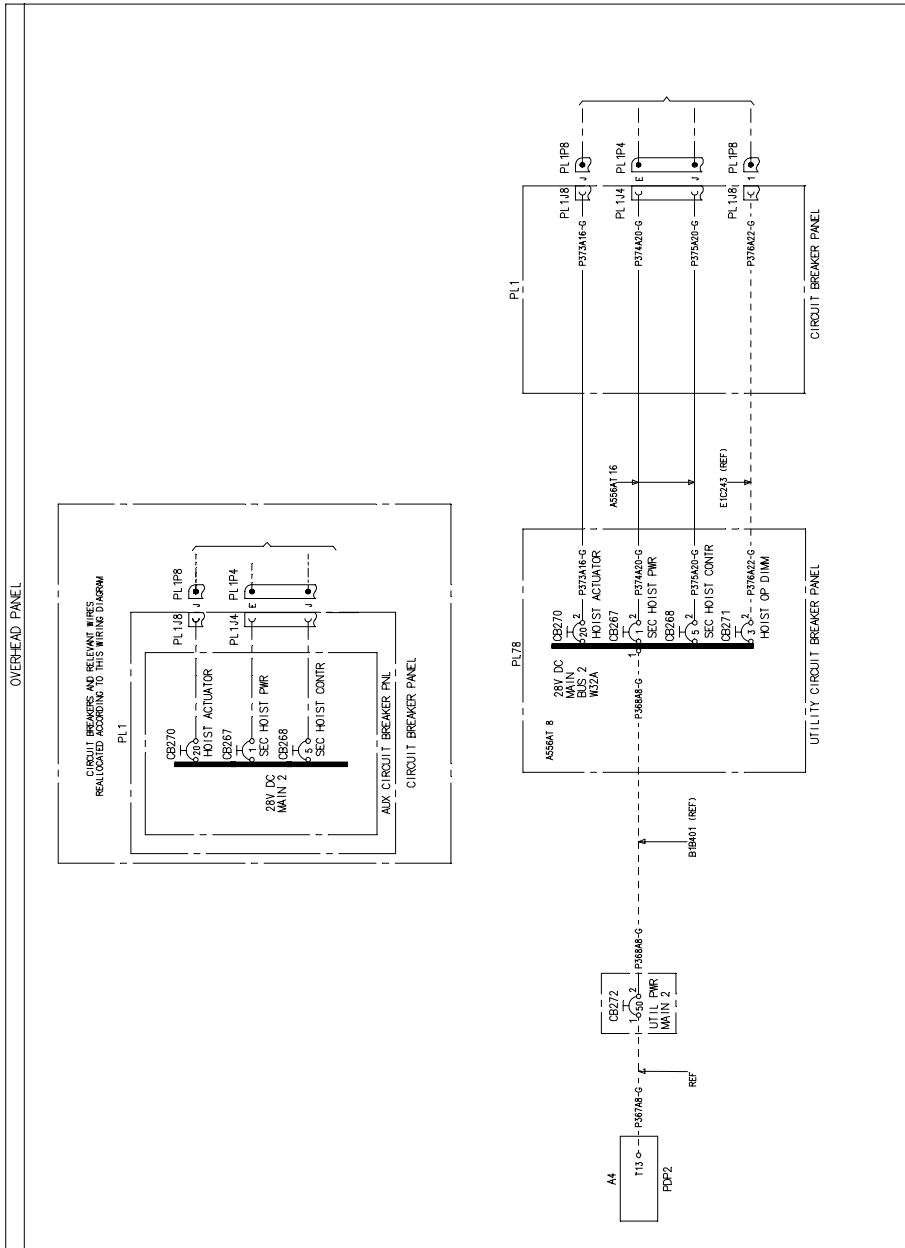
FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM BIB421 (REF) UNLESS SPECIFIED

Figure 55

**WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT**

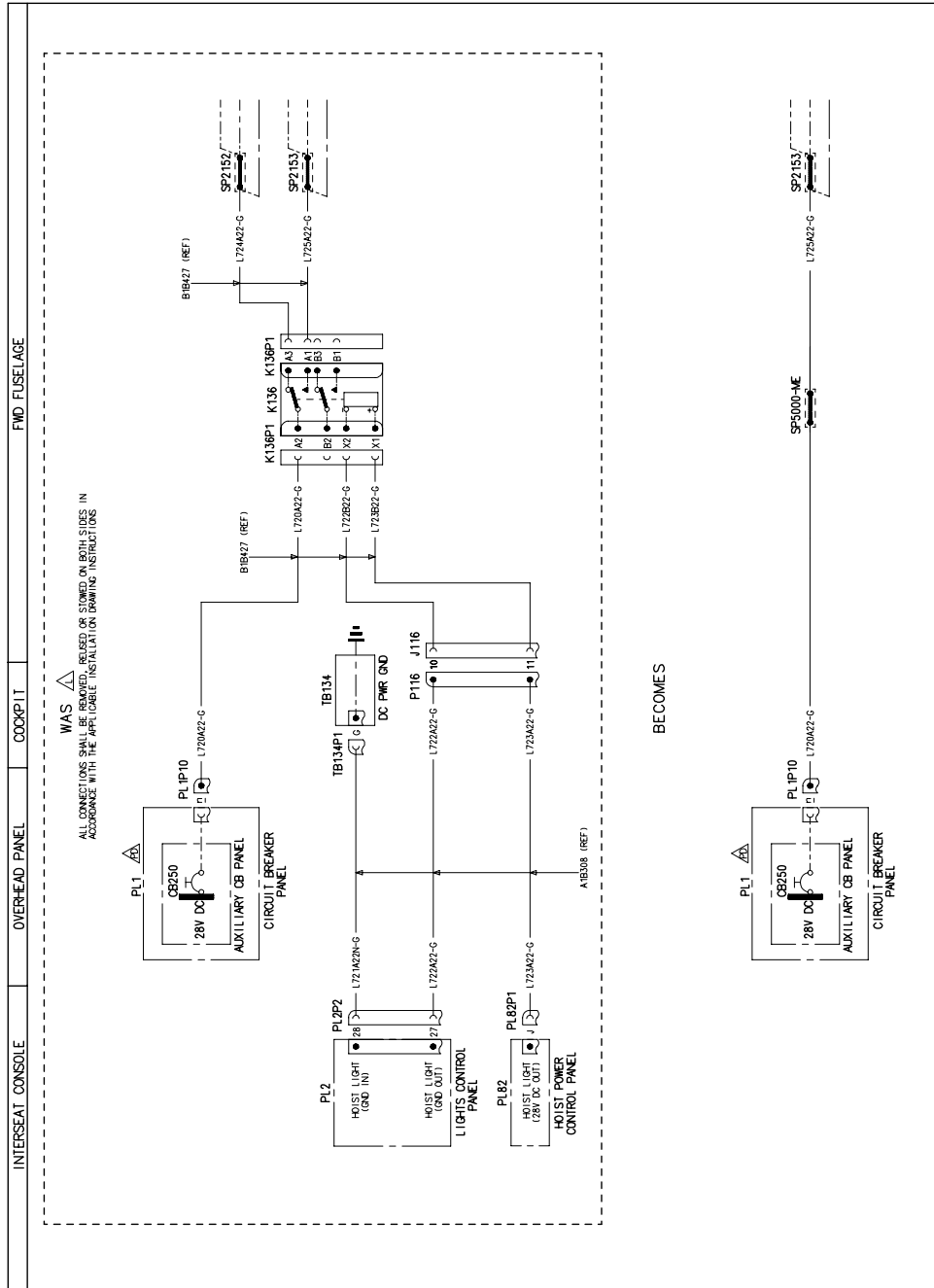


**Figure 56**



FUNCTIONAL NOTES  
ALL CABLES ARE IN LOOM E103306 UNLESS SPECIFIED  
ALL CABLES ARE OF TYPE ASSBAT 16 UNLESS SPECIFIED

Figure 57



DRAWING REF. KEY  
△ SINGLE LIGHT SEARCHLIGHT  
3G2591W02311

DRAWING REF. KEY  
△ SHEET NO. 2  
FEDER BUS BMS  
3G2591W02311

3G2591W02311  
WIRING DIAGRAM SINGLE TO DOUBLE HOIST VARIANT  
SHEET 18

Figure 58



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