
SERVICE BULLETIN

N° 139-699

DATE: July 6, 2022

REV. : /

TITLE

ATA 33 – TAIL ROTOR LIGHTS IMPROVEMENT

REVISION LOG

First Issue

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

1. PLANNING INFORMATION

A. EFFECTIVITY

All AB139/AW139 helicopters equipped with tail rotor lights kit P/N 4G3340F01111 and P/N 4G3340F01112.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued to provide the necessary instruction to perform the Tail Rotor Lights retromod P/N 3G3340P02011.

E. DESCRIPTION

Due to logistic issues with tail rotor lights P/N 4G3340A02831, part of the kit P/N 4G3340F01111 and P/N 4G3340F01112, this Service Bulletin provide instructions to upgrade the tail rotor lights installation with the new tail rotor lights P/N 727-1843/01. The new tail rotor lights P/N 727-1843/01 can be installed in case of in-service replacement of P/N 4G3340A02831.

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 eight (8) 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)	ARM (mm)	MOMENT (Kgmm)
		0.2
LONGITUDINAL BALANCE	6837	1367.4
LATERAL BALANCE	0	0

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 on ground for a safe maintenance.	-
DM02 39-A-06-41-00-00A-010A-A	Access doors and panels - General data	-
DM03 39-A-33-65-00-00A-320A-K	Tail rotor light system - Operation test	-

2) ACRONYMS & ABBREVIATIONS

AMD	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AW	AgustaWestland
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
IPD	Illustrated Parts Data Publication
HELO	Helicopter
LH	Leonardo Helicopters
LVL	Level
MMH	Maintenance Man Hours
N.A.	Not Applicable
P/N	Part Number
Q.TY	Quantity
SB	Service Bulletin
S/N	Serial Number

T/R Tail Rotor

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

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	3G3340P02011		TAIL ROTOR LIGHTS RETROMOD	REF	.		-
2	3G5310P25011		TAIL ROTOR LIGHTS STRUCTURAL PROVISION	REF	..		-
3	3G5317A92531		PLATE ASSY	REF	...		-
4	3G5317A92551	3G5317A92551M01	Plate	2	(1)	139-699L1
5	MS20426AD3-4		Rivet	0,1 kg		139-699L1
6	MS21075L3N		Anchor nut	6		139-699L1
7	3G5317A92851	3G5317A92851M01	Cover	2	...	(2)	139-699L1
8	AN525-10R11		Screw	6	...	(2)	139-699L1
9	727-1843/01		Tail rotor light	2	..		139-699L1
10	AW001GH049A		Conductive gasket	2	..		139-699L1
11	MS24693-C273		Screw	6	..		139-699L1

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

2) CONSUMABLES

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

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
12	199-05-002 Type I, Class 2, Code No. 900000581	Adhesive EA9309.3NA (C231)	AR	(3)	II

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

3) LOGISTIC MATRIX

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

LOGISTIC P/N	Q.TY (PER HELO)	NOTE	PART
139-699L1	1		-

NOTE

- (1) P/N 3G5317A92551 can be obtained from P/N 3G5317A92551M01
- (2) This item is to be installed only when tail rotor lights P/N 727-1843/01 are NOT installed on the aircraft. No specific installing instructions are provided with this SB.
- (3) Item to be procured as local supply.

B. SPECIAL TOOLS

N.A.

C. INDUSTRY SUPPORT INFORMATION

Configuration change.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

- a) Place an identification tag on all components that are re-usable, including the attaching hardware that has been removed to gain access to the modification area and adequately protect them until their later re-use.
 - b) Shape the cables in order to prevent interference with the structure and the other existing installations, using where necessary suitable lacing cords and plastic cable tiedown.
 - c) Exercise extreme care during drilling operations to prevent instruments, cables and hoses damage.
 - d) After drilling, remove all swarf and sharp edges. Apply on bare metal a light film of primer unless the hole is used for ground connection.
 - e) During the installation of bonding braids or components requiring grounding, clean the surface structure in order to obtain a good ground contact.
 - f) Let adhesive cure at room temperature for at least 24 hours unless otherwise specified.
 - g) 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 Figure 1 thru Figure 4, remove all external panels as required to gain access to the area affected by the installation and perform the tail rotor lights retromod P/N 3G3340P02011 as described in the following procedure:

NOTE

During the following procedure, protective caps must be installed on all disconnected electrical connectors. Install the caps immediately after disconnecting each electrical connector.

- 2.1 Perform the structural provision P/N 3G5310P25011 as described in the following procedure:
 - 2.1.1 With reference to Figure 2 View A, disconnect the connector J297 from the connector P297 of the LH tail rotor light assy P/N 4G3340A02831 (DS145).
 - 2.1.2 With reference to Figure 2 View A, remove the n°3 existing screws P/N MS24693-C273 and the LH tail rotor light assy P/N 4G3340A02831 (DS145) from the LH fairing P/N 3G5339A01932.
 - 2.1.3 With reference to Figure 3 View A, remove the plate assy P/N 3G5315A61231 from the LH fairing P/N 3G5339A01932.
 - 2.1.4 With reference to Figure 4 Section D-D, plug the n°2 existing holes on the LH fairing P/N 3G5339A01932 by means of adhesive EA9309.3NA (C231).
 - 2.1.5 With reference to Figure 5, assemble the two plate assy P/N 3G5317A92531 as follows:
 - 2.1.5.1 With reference to Figure 5, enlarge n°3 holes \varnothing 4.90 – 5.03 on each plate 3G5317A92551M01.
 - 2.1.5.2 With reference to Figure 5, install n°3 anchor nuts P/N MS21075L3N on each plate 3G5317A92551M01 by means of n°6 rivets P/N MS20426AD3-4.
 - 2.1.5.3 With reference to Figure 5, remark each plate assy as 3G5317A92531.
 - 2.1.6 With reference to Figure 4 Section C-C, perform the cut-out \varnothing 28.00 on the LH plate assy P/N 3G5317A92531 in accordance with the dimensions shown.
 - 2.1.7 With reference to Figure 4 Section C-C, prepare for electrical bonding the mating surfaces of the LH plate assy P/N 3G5317A92531 and the bonding layer P/N 3G5315A61351.
 - 2.1.8 With reference to Figure 4 Section C-C, install the plate assy P/N 3G5317A92531 on the LH fairing P/N 3G5339A01932 by means of adhesive EA9309.3NA (C231) in accordance with the dimensions shown.

- 2.1.9 With reference to Figure 2 View B, disconnect the connector J298 from the connector P298 of the RH tail rotor light assy P/N 4G3340A02831 (DS146).
- 2.1.10 With reference to Figure 2 View B, remove the n°3 existing screws P/N MS24693-C273 and the RH tail rotor light assy P/N 4G3340A02831 (DS146) from the RH fairing P/N 3G5339A01832.
- 2.1.11 With reference to Figure 3 View A, remove the plate assy P/N 3G5315A61231 from the RH fairing P/N 3G5339A01832.
- 2.1.12 With reference to Figure 4 Section D-D, plug the n°2 existing holes on the RH fairing P/N 3G5339A01832 by means of adhesive EA9309.3NA (C231).
- 2.1.13 With reference to Figure 4 Section C-C, perform the cut-out Ø 28.00 on the RH plate assy P/N 3G5317A92531 in accordance with the dimensions shown.
- 2.1.14 With reference to Figure 4 Section C-C, prepare for electrical bonding the mating surfaces of the RH plate assy P/N 3G5317A92531 and the bonding layer P/N 3G5315A61351.
- 2.1.15 With reference to Figure 4 Section C-C, install the plate assy P/N 3G5317A92531 on the RH fairing P/N 3G5339A01832 by means of adhesive EA9309.3NA (C231) in accordance with the dimensions shown.

NOTE

When installing the left tail rotor light P/N 727-1843/01 (DS145) insert the connector P297 through the hole in the access panel and through the cut-out previously made on the left plate assembly P/N 3G5317A92531.

- 2.2 With reference to Figure 2 View A, install the conductive gasket P/N AW001GH049A and the LH T/R light P/N 727-1843/01 (DS145) on the fairing P/N 3G5339A01932 by means of n°3 screws P/N MS24693-C273.
- 2.3 Remove the protective plugs previously installed on the connectors and with reference to Figure 2 View A, connect the connector P297 of the LH T/R light DS145 to the connector J297.

NOTE

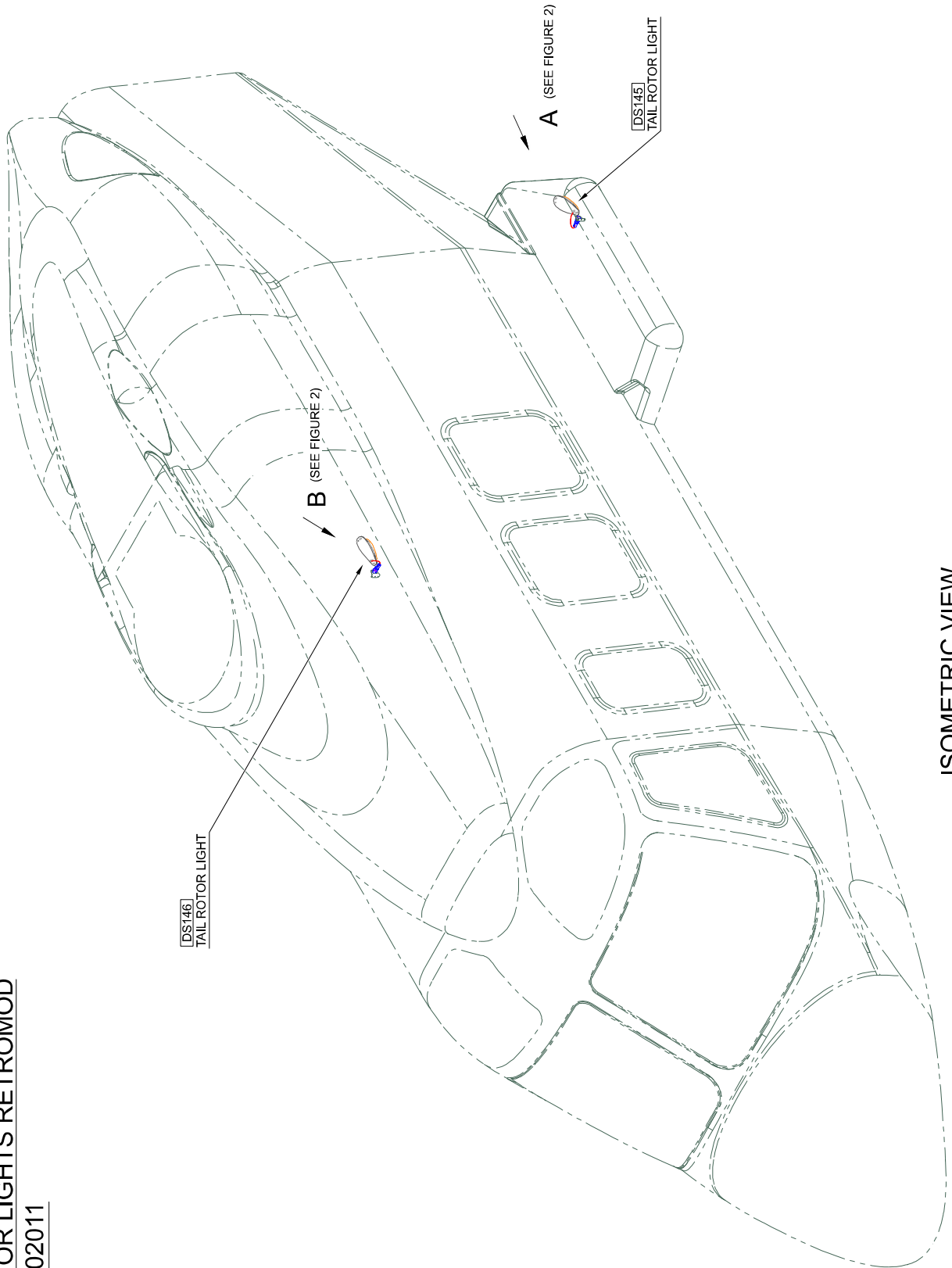
When installing the right tail rotor light P/N 727-1843/01 (DS146) insert the connector P298 through the hole in the access panel and through the cut-out previously made on the right plate assembly P/N 3G5317A92531.

- 2.4 With reference to Figure 2 View B, install the conductive gasket P/N AW001GH049A and the RH T/R light P/N 727-1843/01 (DS146) on the fairing P/N 3G5339A01832 by means of n°3 screws P/N MS24693-C273.
- 2.5 Remove the protective plugs previously installed on the connectors and with reference to Figure 2 View B, connect the connector P298 of the RH T/R light DS146 to the connector J298.
3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A re-install all external panels previously removed.
4. In accordance with AMP 39-A-33-65-00-00A-320A-K, perform the operation test of the Tail rotor light system.
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 this Service Bulletin on the helicopter logbook.
7. Send the attached compliance form to the following mailbox:

engineering.support.lhd@leonardo.com

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

TAIL ROTOR LIGHTS RETROMOD
3G3340P02011



ISOMETRIC VIEW

Figure 1

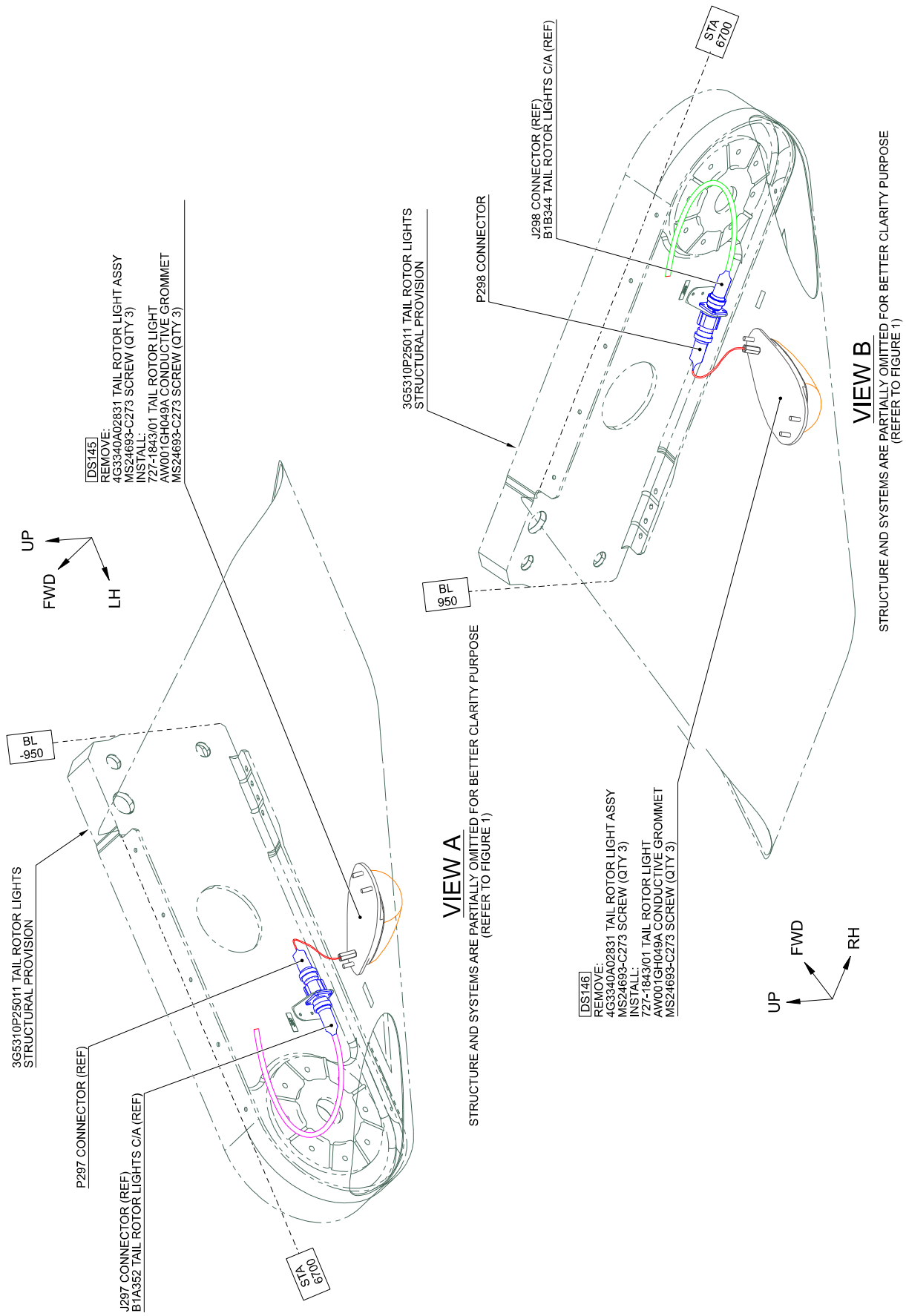


Figure 2

TAIL ROTOR LIGHTS STRUCTURAL PROVISION
3G5310P25011

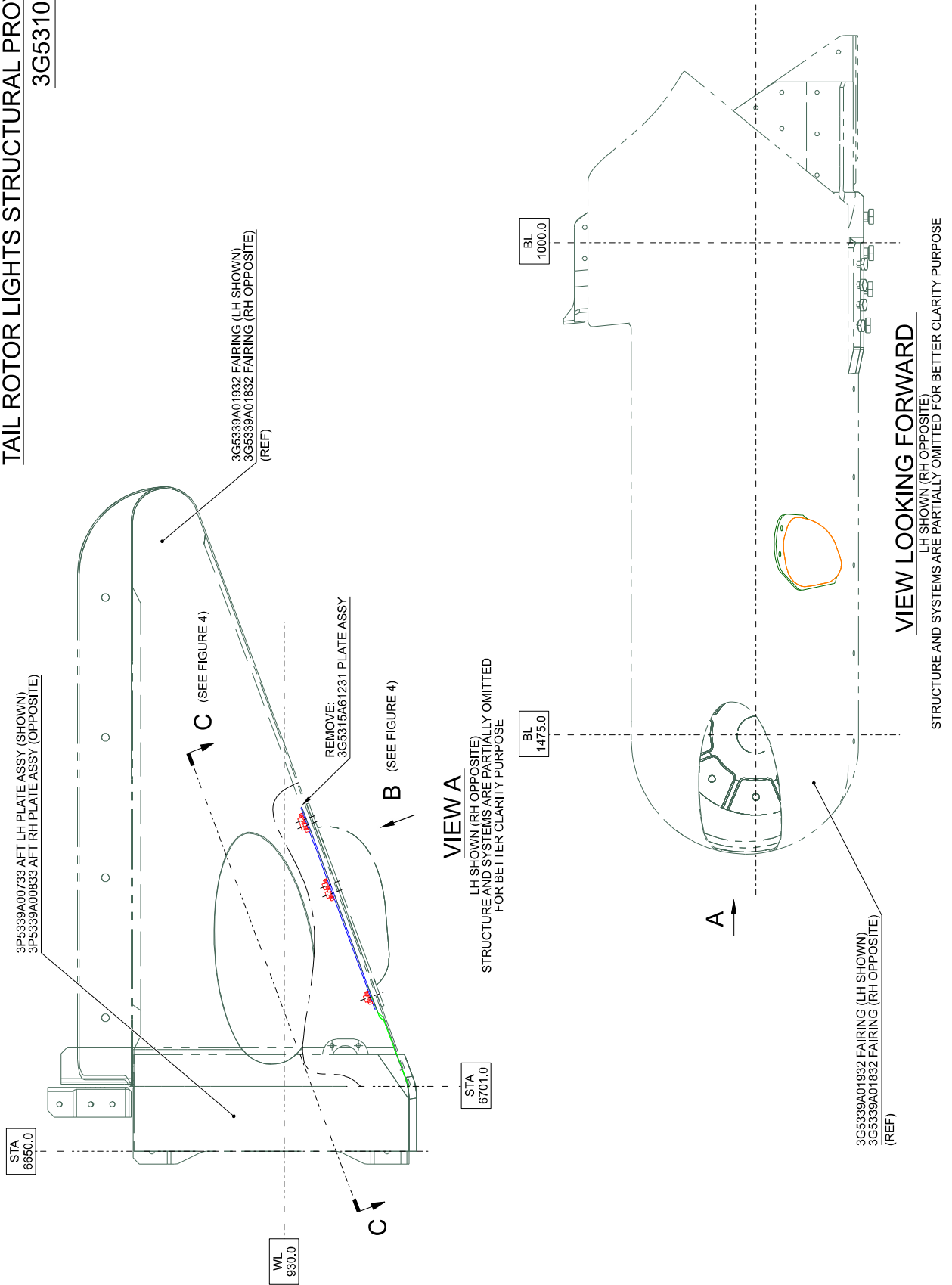


Figure 3

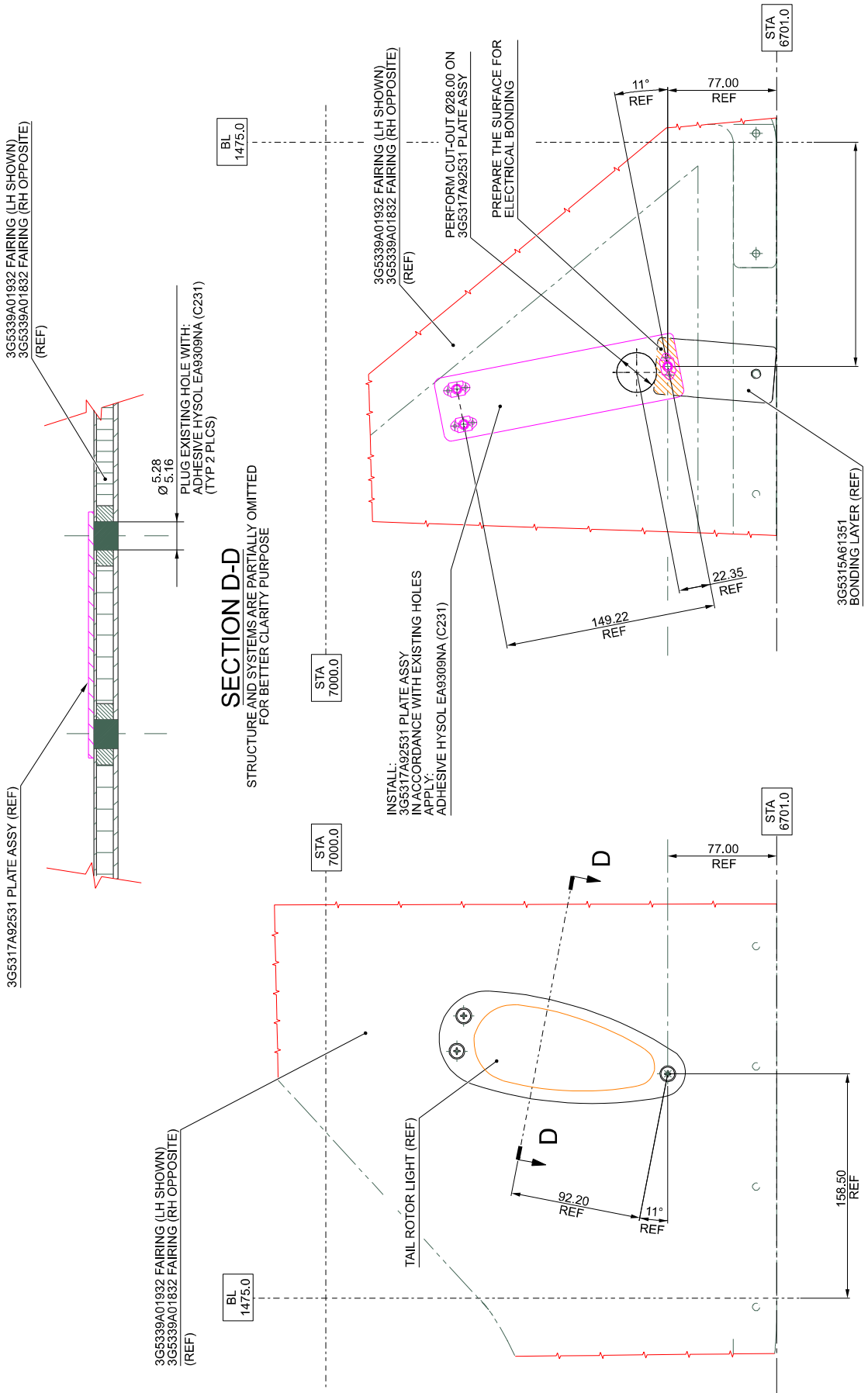


Figure 4

PLATE ASSY
3G5317A92531

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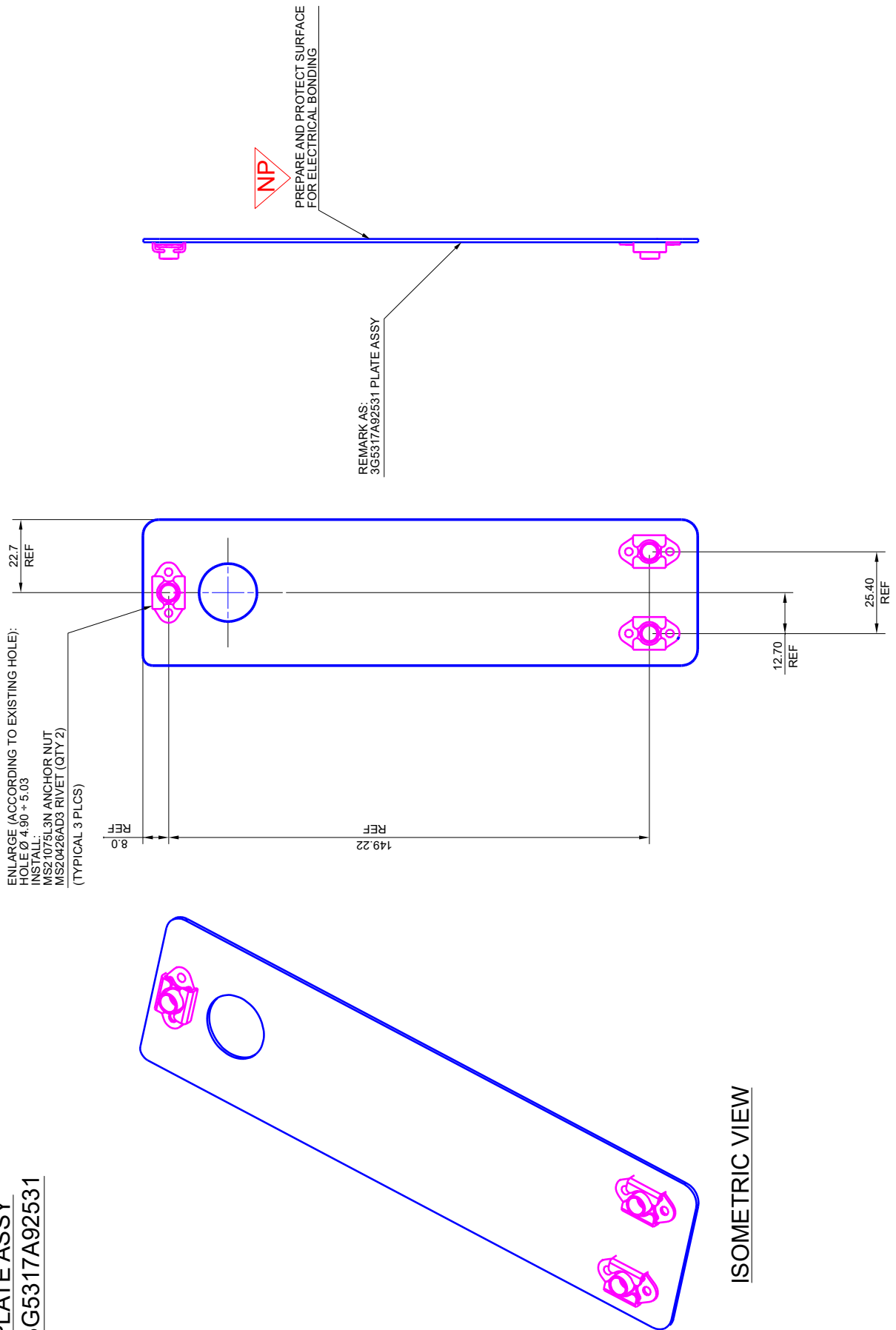


Figure 5

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.					