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**SERVICE BULLETIN**

**N° 189-233**

**DATE:** July 12, 2021

**REV. :** /

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**TITLE**

**ATA 65 – IGB BOLTS RETROMOD INSTALLATION**

**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**

All AW189 helicopters from S/N 49007 to S/N 49075 (S/N's 49024, 49036, 49040, 49041, 49068 and 49071 excluded), from S/N 89001 to S/N 89012 (S/N's 89005 and 89006 excluded) and from S/N 92001 to S/N 92010.

### **B. COMPLIANCE**

Within 400 flight hours or 1 year whichever occurs first from receipt of this Service Bulletin.

### **C. CONCURRENT REQUIREMENTS**

N.A.

### **D. REASON**

This Service Bulletin is issued in order to provide the necessary instructions on how to perform the IGB bolts retromod installation P/N 8G6500P00111.

### **E. DESCRIPTION**

Leonardo Helicopter Division updated the design of the IGB attachment in order to avoid any risk of interference between the four attaching bolts and the structure. This new design replaces the existing n°4 fixing bolts of the IGB with n°4 new bolts P/N 8G6521L00252 that have a different grip length and the same total length.

### **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 three (3) MMH are deemed necessary.  
MMH are based on hands-on time and can change with personnel and facilities available.

## H. WEIGHT AND BALANCE

N.A.

## I. REFERENCES

### 1) PUBLICATIONS

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM01 89-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance	-
DM02 89-A-06-41-00-00A-010A-A	Access doors and panels - General data	-
DM03 89-A-65-21-01-00A-520A-A	Intermediate gearbox - Remove procedure	-
DM04 89-A-65-21-01-00A-720A-A	Intermediate gearbox - Install procedure	-
DM05 89-A-20-00-00-00A-711A-A	Threaded fasteners - Tighten procedure	-

### 2) ACRONYMS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AR	As Required
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
IGB	Intermediate Gearbox
IPD	Illustrated Parts Data
ITEP	Illustrated Tool and Equipment Publication
LHD	Leonardo Helicopters Division
MMH	Maintenance-Man-Hours

### 3) ANNEX

N.A.

## **J. PUBLICATIONS AFFECTED**

AW189 Illustrated Parts Data (IPD).

AW189 Aircraft Maintenance Publication (AMP).

## **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	8G6500P00111		IGB BOLTS RETROMOD INSTALLATION	REF	.		
2	8G6521L00252		Bolt	4	..		-

#### 2) CONSUMABLES

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

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
3	MIL-PRF-16173 Grade 1 Code No. 9999999999000000191	Corrosion inhibitor (C002)	AR	(1)	-
4	MS20995C32	Safety wire	AR	(1)	-
5	B7444-1-1-9C	Insulating tube (C049)	AR	(1)	-
6	TT-N-95 Type II Code No. 531055030	Aliphatic naphtha (C059)	AR	(1)	-
7	MIL-PRF-16173E Grade 3 Code No.999999999900002691	Corrosion inhibitor Ardrox AV 25 (C272)	AR	(1)	-

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

#### 3) LOGISTIC MATRIX

N.A.

#### NOTE

(1) Item to be procured as local supply.

### B. SPECIAL TOOLS

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

### C. INDUSTRY SUPPORT INFORMATION

Owners/Operators who comply with the instructions of this Service Bulletin no later than the applicable date in the "Compliance" section will be eligible to receive required materials on free of charge basis, except for Consumable Materials and Special Tools.

NOTE: Customers who fail to comply with the instructions in this Service Bulletin before the compliance date are not eligible for the aforementioned special policy.

Please Issue relevant MMIR form to your Warranty Administration Dpt.

### **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) Properly protect all equipment not removed from area affected by the modification during installation procedure.
  - c) Let the adhesive cure at room temperature for at least 24 hours, unless otherwise specified.
  - d) Carry out duplicate inspections to check correct installation, safety, security, final torque and locking on vital point parts (VP).
  - e) All lengths are in mm.
1. In accordance with AMP DM 89-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 89-A-06-41-00-00A-010A-A remove the access panel 322A.
  3. With reference to Figure 1, gain access to the area affected by the installation and perform "IGB bolts retromod installation" P/N 8G6500P00111 as described in the following procedure:

#### **CAUTION**

The replacement of the IGB installation bolts must be performed removing one bolt at a time in accordance with the following procedure.

- 3.1 In accordance with the applicable steps of AMP DM 89-A-65-21-01-00A-520A-A and with reference to Figure 1 Isometric View, remove and discard one of the n°4 existing bolts P/N 8G6521L00251.
- 3.2 With reference to Figure 1 Section View, clean the shank surface of the bolt P/N 8G6521L00252 by means of aliphatic naphtha (C059).

### NOTE

Let the corrosion inhibitor dry for minimum 30 minutes  
at room temperature.

- 3.3 With reference to Figure 1 Section View, apply corrosion inhibitor Ardrox AV 25 (C272) on the shank surface (allowed area shown on Figure) of the bolt P/N 8G6521L00252 using a brush.
- 3.4 With reference to Figure 1 Isometric View, install the bolt P/N 8G6521L00252 that attach the IGB to the tail structure. Torque the bolt to 24÷28 Nm (212÷248 lbf/in).
- 3.5 Perform again Steps 3.1 to 3.4 to install the other three bolts P/N 8G6521L00252.
- 3.6 With reference to Figure 1 Isometric View, tighten the four bolts to the final torque value of 34.8÷38.5 Nm (308÷341 lbf/in) in a cross sequence.
- 3.7 In accordance with applicable steps of AMP DM 89-A-65-21-01-00A-720A-A and with reference to Figure 1 Isometric View, safe the four bolts P/N 8G6521L00252 in pairs with the new safety wire P/N MS20995C32. Protect the wire with insulating tube P/N B7444-1-1-9C (C049).
- 3.8 With reference to Figure 1 Section View, protect the indicated bolts head, nuts and washers with a layer of corrosion inhibitor (C002). Extending the application for 5.0 mm onto the surrounding main component surfaces as applicable.
- 3.9 With reference to Figure 1 Section View, apply anti-slippage marks on the four bolts P/N 8G6521L00252.

### NOTE

If in the removal procedure of the four bolts the hydraulic  
lines has been moved away, perform the Step 3.10.  
Otherwise skip to Step 4.

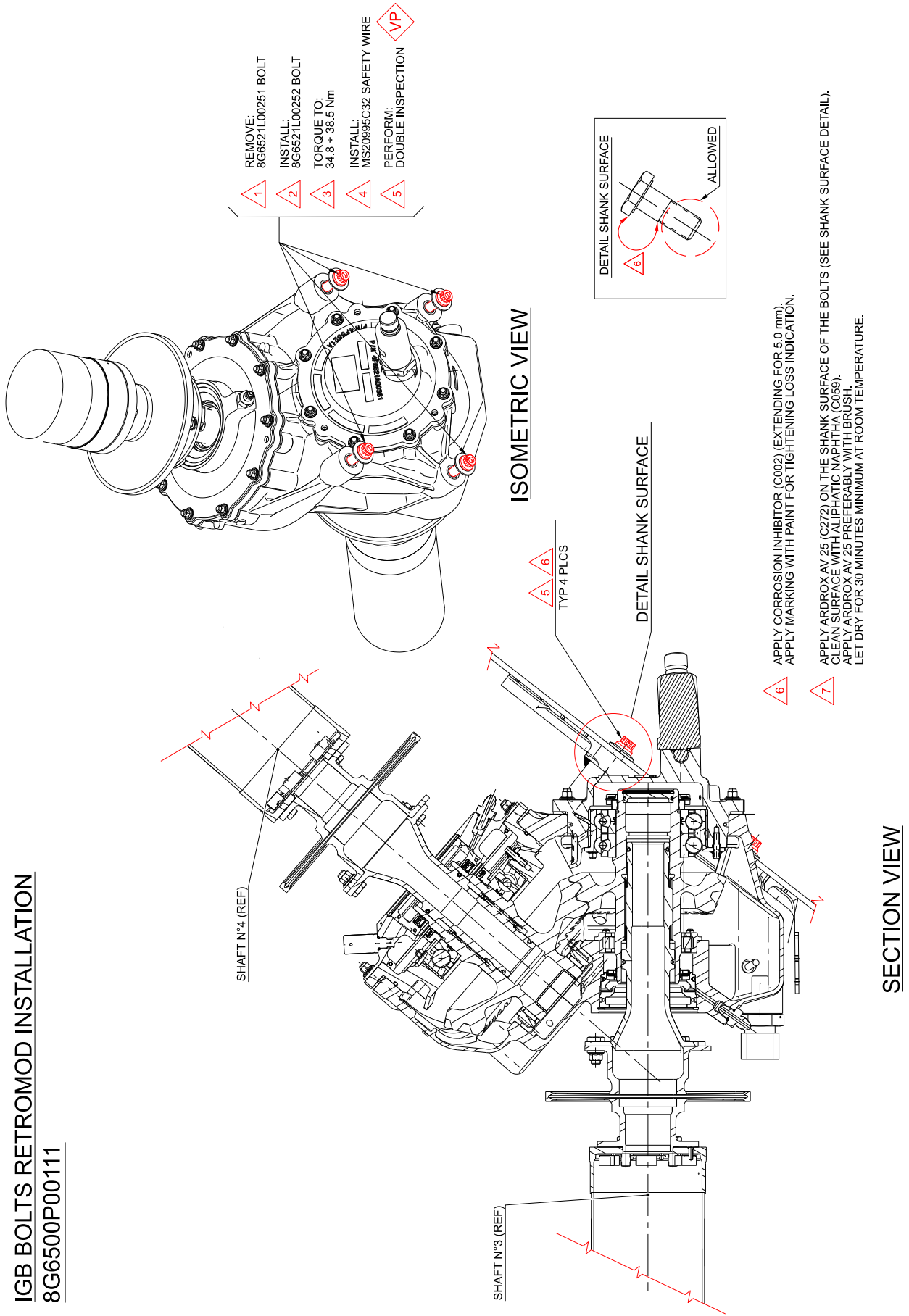
- 3.10 Re-install the hydraulic lines in its position by means of existing clamps and hardware previously removed at Step 3.1. In accordance with AMP DM 89-A-20-00-00-00A-711A-A tighten the nut and the bolt to the standard torque value.
4. In accordance with AMP DM 89-A-06-41-00-00A-010A-A install the access panel 322A.
5. Record the retromod P/N 8G6500P00111 on the tail logbook.
6. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.

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".

**IGB BOLTS RETROMOD INSTALLATION**  
**8G6500P00111**



**Figure 1**

S.B. N°189-233  
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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:					
<b>Information:</b>  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.					