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AgustaWestland Products

SERVICE BULLETIN

ALERT

N° 139-724

DATE: July 27, 2022

REV. : B - September 29, 2022

TITLE

ATA 64 – TAIL ROTOR DAMPER BRACKET INSPECTION

REVISION LOG

Rev. A of this Service Bulletin is issued in order to extend its effectivity to every S/N of the P/N 3G6420A06131.

Rev. B of this Service Bulletin is issued in order to include in the effectivity also the P/N 4G6420A04432.

Revision bars identify changes.

1. PLANNING INFORMATION

A. EFFECTIVITY

All tail rotor damper bracket assemblies P/N 3G6420A06131 and P/N 4G6420A04432.

B. COMPLIANCE

- For TR damper bracket P/N 3G6420A06131 whose S/Ns are included in Table 1 or start with the prefix "V": within and not later than fifty (50) FH or two (2) months, whichever comes first, after the first issue of this Service Bulletin (dated July 27th, 2022).
- For TR damper bracket P/N 3G6420A06131 whose S/Ns are NOT included in Table 1 and do NOT start with the prefix "V": within and not later than fifty (50) FH or two (2) months, whichever comes first, after the issue of the Rev. A of this Service Bulletin (dated September 19th, 2022).
- For TR damper bracket P/N 4G6420A04432: within and not later than fifty (50) FH or two (2) months, whichever comes first, after the issue of the Rev. B of this Service Bulletin.
- Every fifty (50) FH or six (6) months, whichever comes first, after first accomplishment.

P/N	S/N
3G6420A06131	from S/N 1 to S/N 468
	from S/N 470 to S/N 629
	from S/N 654 to S/N 797
	from S/N 803 to S/N 918
	from S/N 1036 to S/N 1080
	from S/N 1227 to S/N 1386
	from S/N 1452 to S/N 1486

Table 1

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to prescribe a recurrent detailed inspection of the tail rotor damper bracket P/N 3G6420A06131 and P/N 4G6420A04432.

E. DESCRIPTION

Due to some events of cracks on the TR damper bracket recorded in service, this Service Bulletin prescribes a recurrent detailed inspection of the TR damper bracket P/N 3G6420A06131 and P/N 4G6420A04432 (as applicable) in order to detect potential cracks and corrosion. If cracks are found, it is required the immediate replacement of the component. Then, the recurrent inspection is still required.

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, if bracket replacement is required, approximately eight (8) MMH are deemed necessary; otherwise approximately one (1) MMH is required to perform the inspection.

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

Following Data Modules refer to AMP:

DATA MODULE		DESCRIPTION	PART
DM01	39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance.	-

DATA MODULE		DESCRIPTION	PART
DM02	39-B-64-11-02-00A-520A-A	Blade damper attachment - Remove procedure	-
DM03	39-B-64-11-02-00A-720A-A	Blade damper attachment - Install procedure	-
DM04	39-C-64-11-02-00A-520A-A	Blade damper attachment - Remove procedure	-
DM05	39-C-64-11-02-00A-720A-A	Blade damper attachment - Install procedure	-
DM06	39-C-64-21-02-00A-520A-A	Lag damper – remove procedure	-
DM07	39-D-64-21-02-00A-520A-A	Lag damper – remove procedure	-
DM08	39-A-64-21-01-00A-530A-B	Tail rotor head - Disassemble procedure	-
DM09	39-A-64-21-01-00A-710A-B	Tail rotor head - Assemble procedure	-
DM10	39-C-64-21-02-00A-720A-A	Lag damper - Install procedure	-
DM11	39-D-64-21-02-00A-720A-A	Lag damper - Install procedure	-

Following Data Modules refer to CSRP:

DATA MODULE		DESCRIPTION	PART
DM12	CSRP-A-51-21-06-00A-644A-D	Chromate conversion treatments of aluminum alloys - Chromate.	-

2) ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AR	As Required
CSRP	Common Structural Repair Procedure
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
FH	Flight Hours
IPD	Illustrated Part Data
LH	Leonardo Helicopters
MMH	Maintenance Man Hours
P/N	Part Number
S/N	Serial Number
TR	Tail Rotor

3) ANNEX

N.A.

J. PUBLICATIONS AFFECTED

AW139 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	3G6420A06131		Tail Rotor damper bracket assy	AR	.	(1) (2)	-
2	4G6420A04432		Tail Rotor damper bracket assy, FIPS	AR	.	(1) (2)	-

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
3	Commercial	Scotch Brite (C015)	AR	(3)	
4	MIL-DTL-81706, Class 1A & 3, Form II	Alodine 1200 (C237)	AR	(3)	
5	CCC-C-440, Class I	Cheesecloth (C028)	AR	(3)	
6	P-D-680, Type II or MIL-PRF-680B, Type II	Cleaning solvent (C010)	AR	(3)	
7	TT-N-95-B Code No. 531055030	Aliphatic Naphtha (C059)	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

N.A.

NOTES

(1) The quantity of TR damper brackets to be ordered depends on the results of the inspection.

(2) If the inspection results require a new bracket, order the bracket P/N 3G6420A06131 or the bracket P/N 4G6420A04432 in accordance with the bracket already present on the helicopter.

(3) Item to be procured as local supply.

B. SPECIAL TOOLS

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

#	P/N	DESCRIPTION	Q.TY	NOTE	PART
8	RMGE-SL-06-2010-RH or approved alternative	Platform right (GG-02-00)	1	(B1)	
9	Commercial	Magnifying glass (10 power)	1	(B1)	
10	Commercial	Light source (fluorescent)/Flashlight	1	(B1)	
11	Commercial	Mirror	1	(B1)	

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

SPECIAL TOOLS NOTE

(B1) Item to be procured as a local supply.

C. INDUSTRY SUPPORT INFORMATION

As reported in step 9, only if Product Support Engineering confirms the replacement, please Issue relevant MMIR form to your Warranty Administration Dpt.

Please note that “Product Support Engineering’s approvals” is mandatory to evaluate your request, otherwise MMIR could be rejected.

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) Exposed thread surface and nut must be protected using a layer of tectyl according to MIL-C-16173 grade I.

c) 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. Put the platform (GG-02-00), or an approved alternative, adjacent to the right side of the fuselage.

NOTE

The procedure described in steps 3 thru 8 has to be performed on all the TR damper brackets P/N 3G6420A06131 or P/N 4G6420A04432 (as applicable).

3. With reference to Figure 1, gain access to the component P/N 3G6420A06131 or P/N 4G6420A04432 (as applicable) object of the inspection.
4. With reference to Figure 1 (View A) perform a detailed inspection for cracks and for corrosion of the TR damper bracket P/N 3G6420A06131 or P/N 4G6420A04432 (as applicable) in accordance with the following procedure:

   4.1 Properly illuminate the area to be inspected (using a flash light, a mirror and a magnifying glass 10 power).

   4.2 Clean the area to be inspected with the Cheesecloth (C028) and the Aliphatic naphtha (C059) or Cleaning solvent (C010).

NOTE

Refer to Figure 2 for an example of the cracks that might be found during the inspection.

   4.3 With reference to Figures 1 and 2, accurately examine the surface of the bracket,

paying particular attention to the area around the four holes.

NOTE

Before issuing any request, in case of findings, contact Product Support Engineering (engineering.support.lhd@leonardo.com) to report about the results of the inspections required and send photos of the cracks.

NOTE

It is NOT needed to remove the Tail Rotor Head in order to replace the TR damper bracket.

5. In case of cracks replace the TR damper bracket according to the following procedure:

5.1 In accordance with the applicable steps of AMP DM 39-B-64-11-02-00A-520A-A or AMP DM 39-C-64-11-02-00A-520A-A disconnect the blade damper attachment assy P/N 3G6410A03631 from the blade assy (without removing the lag damper from the damper attachment assy).

5.2 In accordance with applicable steps of AMP DM 39-A-64-21-01-00A-530A-B disconnect the damaged TR damper bracket assy from the tail rotor head (without removing the lag damper from the damper bracket).

5.3 Place the removed assy (made of lag damper, damper bracket and damper attachment) on a proper work table and, in accordance with the applicable steps of AMP DM 39-C-64-21-02-00A-520A-A or AMP DM 39-D-64-21-02-00A-520A-A, disconnect the elastomeric damper from the TR damper bracket to be replaced.

5.4 Replace the damper bracket P/N 3G6420A06131 or P/N 4G6420A04432 (as applicable) with a new one and discard the damaged one.

5.5 In accordance with the applicable steps of AMP DM 39-C-64-21-02-00A-720A-A or AMP DM 39-D-64-21-02-00A-720A-A, reconnect the new TR damper bracket to the elastomeric damper previously disconnected.

5.6 In accordance with the applicable steps of AMP DM 39-A-64-21-01-00A-710A-B (hub side) and with the applicable steps of AMP DM 39-B-64-11-02-00A-720A-A or AMP DM 39-C-64-11-02-00A-720A-A (blade side) reconnect the damper bracket to the rotor hub and the damper attachment to the blade assy.

CAUTION

During polish operation with the Scotch Brite (C015) on the area to be examined, make sure that you follow the subsequent precautions:

- The Scotch Brite must be used only in the direction of the circumference of each bracket eyelet (ref. to Fig. 2 “polishing direction”);
- The Scotch Brite must be used only with your hands.

6. If no cracks are found, but suspected evidences of corrosion signs are found, gently polish the interested area with a very light Scotch Brite (C015).
7. After polishing, examine the bracket:
   7.1 If, after polishing, the suspected signs of corrosion are no longer evident, treat the component with alodine or equivalent in accordance with CSRP DM CSRP-A-51-21-06-00A-644A-D.

NOTE

Before issuing any request, in case of findings, contact Product Support Engineering (engineering.support.lhd@leonardo.com) to report about the results of the inspections required and send photos of the corrosion.

NOTE

It is NOT needed to remove the Tail Rotor Head in order to replace the TR damper bracket.

   7.2 If the signs of corrosion are confirmed, replace the TR damper bracket according to the following procedure:
      7.2.1 In accordance with the applicable steps of AMP DM 39-B-64-11-02-00A-520A-A or AMP DM 39-C-64-11-02-00A-520A-A disconnect the blade damper attachment assy P/N 3G6410A03631 from the blade assy (without removing the lag damper from the damper attachment assy).
      7.2.2 In accordance with applicable steps of AMP DM 39-A-64-21-01-00A-530A-B disconnect the damaged TR damper bracket assy from the tail rotor head (without removing the lag damper from the damper bracket).
      7.2.3 Place the removed assy (made of lag damper, damper bracket and damper attachment) on a proper work table and, in accordance with the applicable steps of AMP DM 39-C-64-21-02-00A-520A-A or AMP DM

39-D-64-21-02-00A-520A-A, disconnect the elastomeric damper from the TR damper bracket to be replaced.

7.2.4 Replace the damper bracket P/N 3G6420A06131 or P/N 4G6420A04432 (as applicable) with a new one and discard the damaged one.

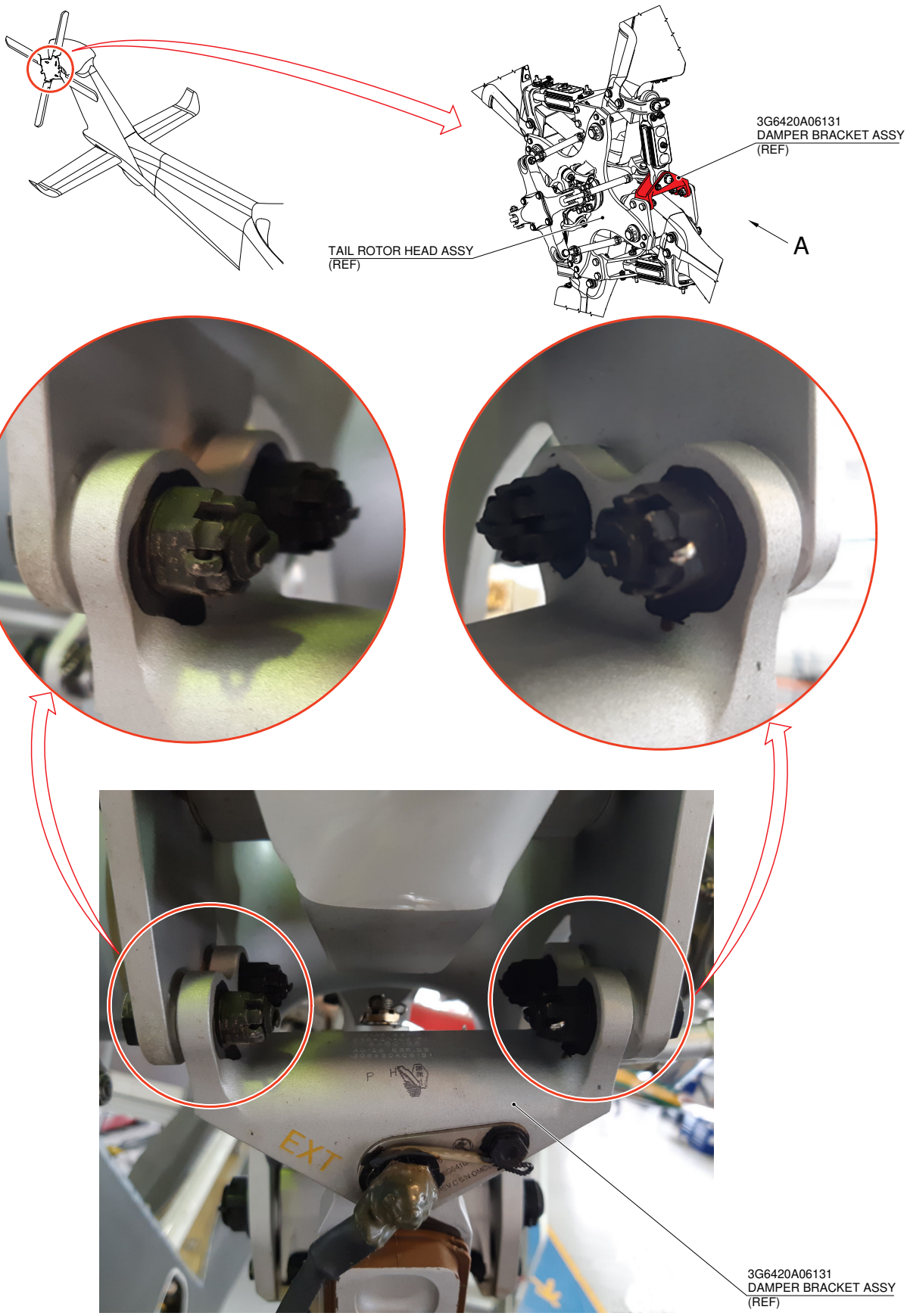
7.2.5 In accordance with the applicable steps of AMP DM 39-C-64-21-02-00A-720A-A or AMP DM 39-D-64-21-02-00A-720A-A, reconnect the new TR damper bracket to the elastomeric damper previously disconnected.

7.2.6 In accordance with the applicable steps of AMP DM 39-A-64-21-01-00A-710A-B (hub side) and with the applicable steps of AMP DM 39-B-64-11-02-00A-720A-A or AMP DM 39-C-64-11-02-00A-720A-A (blade side) reconnect the damper bracket to the rotor hub and the damper attachment to the blade assy.

8. Repeat the steps from 4 thru 7 for the other TR damper brackets.
9. In case of findings, contact Product Support Engineering (engineering.support.lhd@leonardo.com) to report about the results of the inspections required and send photos of the cracks and/or corrosion.
10. Remove the platform from the right fuselage side.
11. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
12. Send the attached compliance form to the following mail box:

    engineering.support.lhd@leonardo.com

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



VIEW A

Figure 1

Figure 2

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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.