
SERVICE BULLETIN

N° 109EP-181

ALERT

DATE: August 2, 2023

REV. : /

TITLE

ATA 62 – INSPECTION AND REPLACEMENT OF MAIN ROTOR BLADE TIP CAP

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

NOTE

Main Rotor Blade P/N 709-0103-01-111 with a S/N listed in Table 1 kept at stock or removed from the helicopter after the issue of this Service Bulletin must apply Part III before reinstallation on the helicopter.

Part I and II

All Main Rotor Blade P/N 709-0103-01-111 with a S/N listed in Table 1 installed on A109E helicopters.

NOTE

Main Rotor Blade P/N 709-0103-01-111 with a S/N listed in Table 1 that applied Part III is no longer affected by this Service Bulletin.

Part III

All Main Rotor Blade P/N 709-0103-01-111 with a S/N listed in Table 1.

NOTE

A letter "M" could be present after S/N. In any case, the Main Rotor Blade is affected by this Service Bulletin.

H92618	EM0256	Q1148
H92621	P844	A5-1581
H77669	P885	A5-1949
J66221	P912	A5-2283
J66216		

Table 1

B. COMPLIANCE

Part I

Within and not later than 25 flight hours after the issue of this Service Bulletin and subsequently every 25 flight hours.

Part II

Within and not later than 300 flight hours after the issue of this Service Bulletin.

Part III

At next repair or overhaul.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

A quality escape affecting a defined batch of Main Rotor Blades (MRB) has been identified. The escape identified affects a list of MRB P/N 709-0103-01-111 that had the Tip Cap replaced following a procedure and using tools not in accordance with LH Technical Publication. This non conformity could lead to premature debonding of the Tip Cap and ultimately to its detachment.

This Service Bulletin mandate a repetitive inspection (tapping check) (Part I) to be performed until the Main Rotor Blades can be replaced (Part II). The Main Rotor Blades will then return to an Authorized Blade Repair Centre for Tip Cap replacement (Part III).

E. DESCRIPTION

This Service Bulletin is issued in order to provide the necessary instruction to perform a repetitive inspection of the tip cap installed on a defined batch of Main Rotor Blades P/N 709-0103-01-111 to detect potential debonding.

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 with Local Aviation Authority.

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives.

If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

G. MANPOWER

To comply with this Service Bulletin, the following MMH are deemed necessary.

Part I: approximately 1 (one);

Part II: approximately 4 (four);

Part III: N.A.

MMH are based on hands-on time and can change with helicopter configuration, personnel and facilities available. MMH are not comprehensive of the overall hours necessary to get access to work areas and to remove all the equipment that interferes with the application of the prescribed instructions.

H. WEIGHT AND BALANCE

N.A.

I. REFERENCES

I.1 PUBLICATIONS

Following Section/Paragraph refer to MM:

<u>SECTION/PARAGRAPH</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM01 00-20-01	Helicopter safety	I, II
DM02 62-11-6	Main rotor blade - Removal/Installation	II
DM03 62-11-24	Main rotor blade - Bonding Voids	I

Following Data Modules refer to CSPP:

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM04 CSPP-A-60-30-02-01A-913A-D	Bonded components (Tap test) - General maintenance procedure	I

Following Data Modules refer to CR&OP:

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM05 3C-A-62-11-01-06C-921A-C	Main rotor blade - Composite tip cap - Replacement (remove and install a new item)	III

I.2 ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AR	As Required
CSPP	Common Standard Practices Publication
CR&OP	Component Repair And Overhaul Publication
DM	Data Module
DOA	Design Organization Approval
EASA	European Union Aviation Safety Agency
IPC	Illustrated Parts Catalog

LHD Leonardo Helicopters Division
MM Maintenance Manual
MMH Maintenance Man Hours
MRB Main Rotor Blade
N.A. Not Applicable
P/N Part Number
PTUM Pictorial Tools Usage Manual
SB Service Bulletin
S/N Serial Number

I.3 ANNEX

N.A.

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

A.1 PARTS

PART I

N.A.

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	709-0103-01-111		Main Rotor Blade	AR	.		-

PART III

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
2	709-0103-46-101		Tip Cap	AR	.		-

Refer also to IPC for the spares materials required to comply with the MM Paragraphs referenced in the accomplishment instructions.

A.2 CONSUMABLES

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

A.3 LOGISTIC MATRIX

N.A.

NOTES

(1) 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
3	109-3101-58-1 or 109-3101-58-2 or equivalent	Hammer	1		I

Refer also to PTUM for the special tools required to comply with the MM Paragraphs referenced in the accomplishment instructions.

SPECIAL TOOLS NOTES

N.A.

C. INDUSTRY SUPPORT INFORMATION

N.A.

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) All lengths are in mm.

PART I

1. In accordance with MM Paragraph 00-20-01, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. Gain access to the affected Main Rotor Blade.

NOTE

The hammer tapping inspection must be performed only by appropriately qualified personnel in accordance with the national aviation regulation.

3. In accordance with CSPP DM CSPP-A-60-30-02-01A-913A-D and with reference to Figure 1, perform a tapping test on Main Rotor Blade Tip Cap.
 - 3.1 In case no debonding is found, proceed with step 4.
 - 3.2 In case debonding is found, check its dimensions with MM Paragraph 62-11-24 (debonding limits).
 - 3.2.1 In case debonding is found within acceptable limits, proceed with step 4.
 - 3.2.2 In case debonding is found outside the acceptable limits, apply Part II of this Service Bulletin before next flight and inform LH.
4. Return the helicopter to flight configuration and record for compliance with Part I of this Service Bulletin on the helicopter logbook.
5. Gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

As an alternative, send the attached compliance form to the following mail box:

engineering.support.lhd@leonardo.com

and (for North, Central and South America) also to:

AWPC.Engineering.Support@leonardocompany.us

PART II

1. In accordance with MM Paragraph 00-20-01, 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 MM Paragraph 62-11-6, remove from the helicopter the affected Main Rotor Blade and send it to an authorized blade repair center for application of Part III of this Service Bulletin.
3. In accordance with MM Paragraph 62-11-6, install on the helicopter a serviceable Main Rotor Blade.
4. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.
5. Gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

As an alternative, send the attached compliance form to the following mail box:

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PART III

NOTE

This Part **MUST** be performed only by authorized blade repair center.

1. In accordance with CR&OP DM 3C-A-62-11-01-06C-921A-C, replace Main Rotor Blade Tip Cap.
2. Record for compliance with Part III of this Service Bulletin on the component logcard.
3. Gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

As an alternative, send the attached compliance form to the following mail box:

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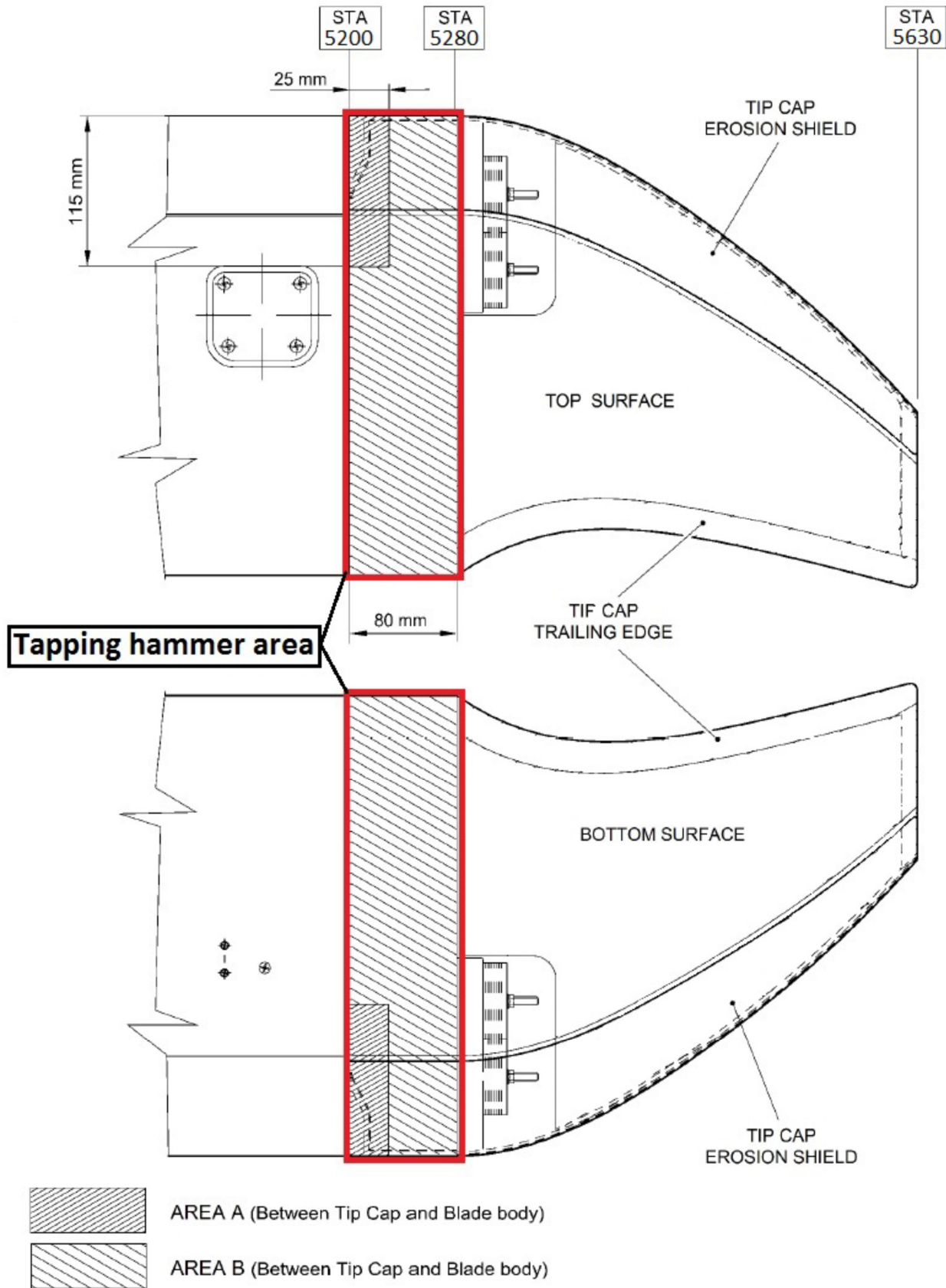


Figure 1

