HELICOPTERS

No. EC120-53A015

Civil version(s): B

ALERT SERVICE BULLETIN

PROTECTIVE MEASURE

FUSELAGE - TAIL BOOM Corrosion on the tail boom ATA 53



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Revision No.	Date of issue		
Revision 0	2014-07-15		
Revision 1	2014-11-17		
Revision 2	2024-01-17		

Summary:

Check for corrosion and cracks at the VOR (VHF Omnidirectional Range) antenna attachments or under the blanks installed in place of the VOR antennas on the tail boom.

Reason for last Revision:

The purpose of revision 2 of this ALERT SERVICE BULLETIN is to update the paragraph 3.D. following the integration of its contents in the documentation.

Compliance:

Airbus Helicopters renders compliance with this ALERT SERVICE BULLETIN mandatory, except for paragraphs 1.E.2.b. and 3.D.

Export Control: US Export Control - No US content. This Item does not contain any U.S. origin ITAR or EAR content. FR Export Control - Not Listed. This Item is not listed against the EC regulations in the EU/FR

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1. PLANNING INFORMATION

1.A. EFFECTIVITY

1.A.1. Helicopters/installed equipment

On all EC120 helicopters.

1.A.2. Non-installed equipment

Tail booms, all Part Numbers.

1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

Revisions 0 and 1:

Corrosion and cracks were found on the external tail boom skin, at the attachments of the LH and RH VOR antennas (Figures 3 and 4).

This galvanic type corrosion is due to:

- contact between the aluminum skin and the stainless steel antenna attachment inserts,

- a lack of protection.

Corrosion propagation cannot be detected without removing the VOR antennas or the blanks installed in place of the VOR antennas and requires in-depth examination. If this corrosion is not detected, the tail boom can be subject to buckling in certain flight configurations.

Consequently, Airbus Helicopters makes it mandatory to check the previously specified areas for corrosion and cracks.

Revision 2:

The purpose of revision 2 of this ALERT SERVICE BULLETIN is to update the paragraph 3.D. following the integration of its contents in the documentation.

Revision 2 of this ALERT SERVICE BULLETIN has no effect on the compliance with former revisions of this ALERT SERVICE BULLETIN.

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1.D. DESCRIPTION

Compliance with this ALERT SERVICE BULLETIN consists in:

- removing the VOR antennas, if installed, or the blanks installed in place of the VOR antennas.
- making sure that there are no cracks or corrosion at the attachments of the LH and RH VOR antennas or under the blanks.
- During reinstallation of the VOR antennas or blanks, embody modification C008A0345065 (conducting paste between the tail boom and the antenna mounting bases or blanks, PR compound on the screw heads and around the mounting bases or blanks).

1.E. COMPLIANCE

Airbus Helicopters makes compliance with paragraph 1.E.2.a. mandatory. Airbus Helicopters recommends compliance with paragraph 1.E.2.b.

1.E.1. Compliance at the works

Not applicable.

1.E.2. Compliance in service

The work on the helicopter is to be performed by the operator.

Helicopters/installed equipment:

a) For helicopters equipped with a tail boom which do not embody MOD C008A0345065:

For helicopters equipped with a tail boom having a Time Since New (TSN) of less than 9 months: - Comply with paragraph 3. at the latest when the TSN reaches 12 months.

For helicopters equipped with a tail boom having a TSN of 9 to 57 months: - Comply with paragraph 3. within 3 months following receipt of Revision 0 of this ALERT SERVICE BULLETIN, issued on July 15, 2014.

For helicopters equipped with a tail boom having a TSN of more than 57 months: - Comply with paragraph 3. of this ALERT SERVICE BULLETIN before August 25, 2014.

b) For helicopters equipped with a tail boom which embody MOD C008A0345065: - Comply with paragraph 3.D. of this ALERT SERVICE BULLETIN.

<u>NOTE</u>

MOD C008A0345065 is embodied on helicopters delivered from July 01, 2014. Refer to the aircraft individual inspection record (MOD record) to identify the actual configuration of the helicopter.

Non-installed equipment: Comply with paragraph 3. before installation.

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1.F. APPROVAL



The technical content of this document is approved under the authority of the Design Organization Approval ref. EASA. 21J.700.

For helicopters operated outside the terrain regulated by the EASA, the application of this document is subject to validation provided by the responsible aviation authority of the state of registry.

1.G. MANPOWER

For compliance with this ALERT SERVICE BULLETIN, Airbus Helicopters recommends the following personnel qualifications:



Qualification: Qualification: - 1 Airframe Technician

The time for the operations is given for information purposes, for a standard configuration.



<u>Time for the operations</u>: - 4 hours.



Estimated helicopter grounding time:

- approximately half a day.

1.H. WEIGHT AND BALANCE

Negligible.

1.I. EFFECT ON ELECTRICAL LOADS

Not applicable.

1.J. SOFTWARE MODIFICATION EMBODIMENT RECORD

Not applicable.

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1.K. REFERENCES

The documents required for compliance with this ALERT SERVICE BULLETIN are as follows:

- AMM: 20-10-00, 3-4: Electrical Bonding Airframe
- AMM: 20-10-00, 3-7: Method for Application of ALODINE Airframe
- AMM: 20-10-00, 3-14: Method for Application of Sealants Airframe
- AMM: 20-10-00, 3-19: Dye Check Airframe
- AMM: 20-10-00, 3-43: Monitoring of Equipment in Service, Marking and Specific Version Identification Airframe
- AMM: 20-20-00, 3-1: Standard Practices Structure
- AMM: 34-55-02, 4-1: Removal / Installation VOR Antenna
- AMM: 34-55-02, 5-1: Functional Tests GNS 430 VOR / LOC / GLIDE System
- AMM: 53-50-00, 6-2: Aft Fuselage Supplementary Detailed Check

Information Notice (IN):

IN: 3481-I-00: The Marketplace: an Airbusworld eOrdering service IN: 3785-I-00: Introduction of the digital Service Bulletin reporting SB Insight

1.L. DOCUMENTS AFFECTED

Not applicable.

1.M. INTERCHANGEABILITY OR MIXABILITY OF PARTS

Not applicable.

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2. MATERIAL INFORMATION

2.A. MATERIAL: PRICE - AVAILABILITY - PROCUREMENT

For any information concerning the price of kits and/or components, contact the Airbus Helicopters Network Sales and Customer Relations Department.

Airbus Helicopters Etablissement de Marignane Direction Ventes et Relation Client 13725 MARIGNANE CEDEX FRANCE

<u>NOTE</u>

On the purchase order, please always specify the mode of transport, the destination and the serial numbers of the helicopters to be modified.

2.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT

Not applicable.

2.C. MATERIAL REQUIRED FOR EACH HELICOPTER/COMPONENT

Products to be ordered separately:

As per the Tasks referenced in this ALERT SERVICE BULLETIN and the list below:

СМ	Product Ref.	Qty	Item	Designation
CM316	ALODINE 1200	A/R	1	ALODINE 1200
	ECS2241-20	A/R	2	CONDUCTING PASTE
CM6068	ECS2339-60	A/R	3	SEALANT
CM6240	ECS2068.10	A/R	4	SEALING COMPOUND

You can send an order for the consumables from the AirbusWorld Marketplace through e-ordering (IN 3481-I-00).

If you cannot get access to e-ordering, please contact your Logistic Focal Point.

2.D. MATERIAL TO BE RETURNED

Not applicable.

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3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL

- Comply with the General Instructions as per AMM Task 20-20-00, 3-1.
- Comply with the General Instructions as per AMM Task 53-50-00, 6-2.

3.B. OPERATIONAL PROCEDURE

The procedure is described for the LH side only. Comply with the same procedure on the RH side.

3.B.1. Preliminary steps

- Disconnect all electrical power supplies.
- Remove all equipment and furnishings as required for access to the different work areas.

3.B.2. Procedure

3.B.2.a. Check for corrosion and cracks under the LH VOR antenna mounting bases or blanks (Figure 1)

- Remove the antennas (a), if installed, or the blanks installed in place of the VOR antennas, as per AMM Task 34-55-02, 4-1 (Figure 1).
- Clean the areas (b).
- Make sure that:
 - . there is no aluminum oxide (white powder) on the VOR antenna attachment screws (c), on the skin and at the screw holes (d).
 - . that there are no cracks on the skin at the VOR antenna attachment screw holes (d). If in doubt, carry out a dye-penetrant inspection as per AMM Task 20-10-00, 3-19.

3.B.2.a.1. Presence of corrosion and/or cracks (Figures 3 and 4)

Before resuming flights:

- Contact Airbus Helicopters at the following address:
- Tel.: + 33 (0)4.42.85.97.89
- Fax: + 33 (0)4.42.85.99.66
- E-mail: <u>Airframe.Technical-Support@airbus.com</u>

And comply with Service Bulletin No. 53-016.

3.B.2.a.2. Absence of corrosion and cracks

Comply with paragraph 3.B.2.b.

3.B.2.b. Embodiment of MOD C008A0345065 (Figure 2)

- Strip the areas (b) on the tail boom skin in accordance with the method given in AMM Task 20-10-00, 3-4.
- Touch up the areas (b) using ALODINE 1200 (1) as per AMM Task 20-10-00, 3-7.
- Apply conducting paste (2) to the areas (b).
- Reinstall the antennas (a), if installed, or the blanks installed in place of the VOR antennas, as per AMM Task 34-55-02, 4-1.
- Apply a bead of sealant (3) around the antenna mounting bases or blanks as per AMM Task 20-10-00, 3-14.
- Apply sealing compound (4) to the screw heads (c) as per AMM Task 20-10-00, 3-14.

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3.B.3. <u>Tests</u>

- Set the helicopter into test condition.
- Connect all electrical power supplies.
- Energize the helicopter electrical power systems.
- If necessary, carry out the VOR antenna tests as per AMM Task 34-55-02, 5-1.

3.B.4. Final steps

- Clean and recondition the work areas and the helicopter.
- Install the equipment and furnishings removed during the preliminary steps (paragraph 3.B.1.).

3.C. IDENTIFICATION

Identification of this document:

Record the full compliance with this ALERT SERVICE BULLETIN, with the revision number, in the helicopter documents.

Record compliance with this ALERT SERVICE BULLETIN (see IN 3785-I-00 for instructions): QR code or hypertext link



<u>NOTE</u>

The recording of compliance with ALERT SERVICE BULLETINS in the SB Insight tool does not replace the recording in the helicopter documents.

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Identification of modifications in the documentation:

Record the embodiment of modification C008A0345065 in the helicopter documents.

Identification of modifications on the equipment:

Record the embodiment of modification C008A0345065 on the tail boom identification plate (or on the internal skin near the identification plate) using indelible ink as per AMM Task 20-10-00, 3-43.

3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Operating instructions:

Not applicable.

Maintenance instructions:

Refer to the Aircraft Maintenance Manual (AMM) in force.

Refer to the Master Servicing Manual (MSM) in force.

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Figure 2

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Figure 3 (Examples of corrosion)

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Figure 4 (Examples of cracks)

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