
SERVICE BULLETIN

N° **189-371**

RECOMMENDED

DATE: June 25, 2024

REV. : /

TITLE

ATA 71 - ENGINE FLOOR INSPECTION

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

Helicopters that already applied any repair procedure on both engine floor areas for crack, are not affected by this SB.

All AW189 helicopters.

B. COMPLIANCE

NOTE

The compliance time is subject to the same tolerances as per AMPI Chap. 05 DM 89-A-05-11-00-00A-028E-P Inspection/task interval tolerances – General.

The compliance time for this SB is reported in following table depending on the helicopters accrued Flight Hours.

Helicopters FH	Compliance	
	First inspection	Following inspections
FH ≤ 1200	at 1600 flight hours scheduled inspection	every 800 flight hours
1200 < FH ≤ 4600	within 400 flight hours from SB issue	every 800 flight hours
FH > 4600	within 200 flight hours from SB issue	every 800 flight hours

LH recommends the implementation of this SB in accordance with the indicated compliance time, with related tolerances as applicable. It is the Operator's responsibility to properly plan and execute the SB application i.a.w. LH recommendations. The Operator remains liable for any deviation.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

Leonardo Helicopters received a report of a crack on the LH engine floor in correspondence of a rivet hole.

As preventive action, this Service Bulletin requires to perform a repetitive inspection of the LH and RH engine floors in order to detect the presence of any cracks. In case of findings the SB requires to measure the crack dimension in order to define the required repair actions.

LH issued this SB for the following reason:

Helicopter Reliability/Maintainability	✓
Product Improvement	
Obsolescence	
Customization	
Product/Capability Enhancement	

E. DESCRIPTION

This Service Bulletin is issued in order to provide the necessary instruction on how to perform the repetitive engine floors inspection.

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 four (4) MMH are deemed necessary.

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 Data Modules refer to AMP:

<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-71-01-01-00A-520A-A	Number 1 engine - Remove procedure	-
DM04 89-A-71-01-01-00A-720A-A	Number 1 engine - Install procedure	-
DM05 89-A-71-01-02-00A-520A-A	Number 2 engine - Remove procedure	-
DM06 89-A-71-01-02-00A-720A-A	Number 2 engine - Install procedure	-

I.2 ACRONYMS & ABBREVIATIONS

AMD	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
ATA	Air Transport Association
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
IPD	Illustrated Parts Data
ITEP	Illustrated Tool and Equipment Publication
LH	Leonardo Helicopters
MMH	Maintenance Man Hours
N.A.	Not Applicable
P/N	Part 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

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

A.2 CONSUMABLES

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

A.3 LOGISTIC MATRIX

N.A.

B. SPECIAL TOOLS

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

#	P/N	DESCRIPTION	Q.TY	NOTE	PART
1	Commercial	Borescope	1	(B1)	I

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

SPECIAL TOOLS NOTES

(B1) Item to be procured as local supply.

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.

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.

NOTE

If the helicopter already applied a repair procedure on LH engine floor do not perform the following Step 2.

2. With reference to Figure 1, perform the inspection of the LH engine floor as described in the following procedure:
 - 2.1 In accordance with AMP DM 89-A-06-41-00-00A-010A-A and with reference to Figure 1, get access to the Number 1 engine on the upper deck.
 - 2.2 With reference to Figure 1, properly clean the engine floor and the area under the engine from any type of dirt and perform a visual inspection of the area highlighted in Figure in order to correctly detect any cracks. Use a borescope to inspect the forward part of the area.
If case of findings, proceed with next Step 2.3. Otherwise skip to Step 3.
 - 2.3 In accordance with the applicable steps of AMP DM 89-A-71-01-01-00A-520A-A, remove the Number 1 engine from the helicopter. Take pictures of the damaged area and measure the dimension of the crack:
 - if the crack found is less than or equal to 55.0 mm in length, contact LH for repair instructions. Send pictures and the “Inspection Report” filled (refer to Figure 2) to Leonardo Engineering Dept. at the following mail box: engineering.support.lhd@leonardo.com.
 - if the crack found is more than 55.0 mm in length, contact LH for damage assessment. Send pictures and the “Inspection Report” filled (refer to Figure 2) to Leonardo Engineering Dept. at the following mail box: engineering.support.lhd@leonardo.com.

- 2.4 In accordance with the applicable steps of AMP DM 89-A-71-01-01-00A-720A-A, re-install the Number 1 engine on the helicopter.

NOTE

If the helicopter already applied a repair procedure on
RH engine floor do not perform the following Step 3.

3. With reference to Figure 1, perform the inspection of the RH engine floor as described in the following procedure.
 - 3.1 In accordance with AMP DM 89-A-06-41-00-00A-010A-A and with reference to Figure 1, get access to the Number 2 engine on the upper deck.
 - 3.2 With reference to Figure 1, properly clean the engine floor and the area under the engine from any type of dirt and perform a visual inspection of the area highlighted in Figure in order to correctly detect any cracks. Use a borescope to inspect the forward part of the area.

If case of findings, proceed with next Step 3.3. Otherwise skip to Step 4.
 - 3.3 In accordance with the applicable steps of AMP DM 89-A-71-01-02-00A-520A-A, remove the Number 2 engine from the helicopter. Take pictures of the damaged area and measure the dimension of the crack:
 - if the crack found is less than or equal to 55.0 mm in length, contact LH for repair instructions. Send pictures and the “Inspection Report” filled (refer to Figure 2) to Leonardo Engineering Dept. at the following mail box: engineering.support.lhd@leonardo.com.
 - if the crack found is more than 55.0 mm in length, contact LH for damage assessment. Send pictures and the “Inspection Report” filled (refer to Figure 2) to Leonardo Engineering Dept. at the following mail box: engineering.support.lhd@leonardo.com.
 - 3.4 In accordance with the applicable steps of AMP DM 89-A-71-01-02-00A-720A-A, re-install the Number 2 engine on the helicopter.
4. In accordance with AMP DM 89-A-06-41-00-00A-010A-A, re-install all external panels previously removed.
5. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.

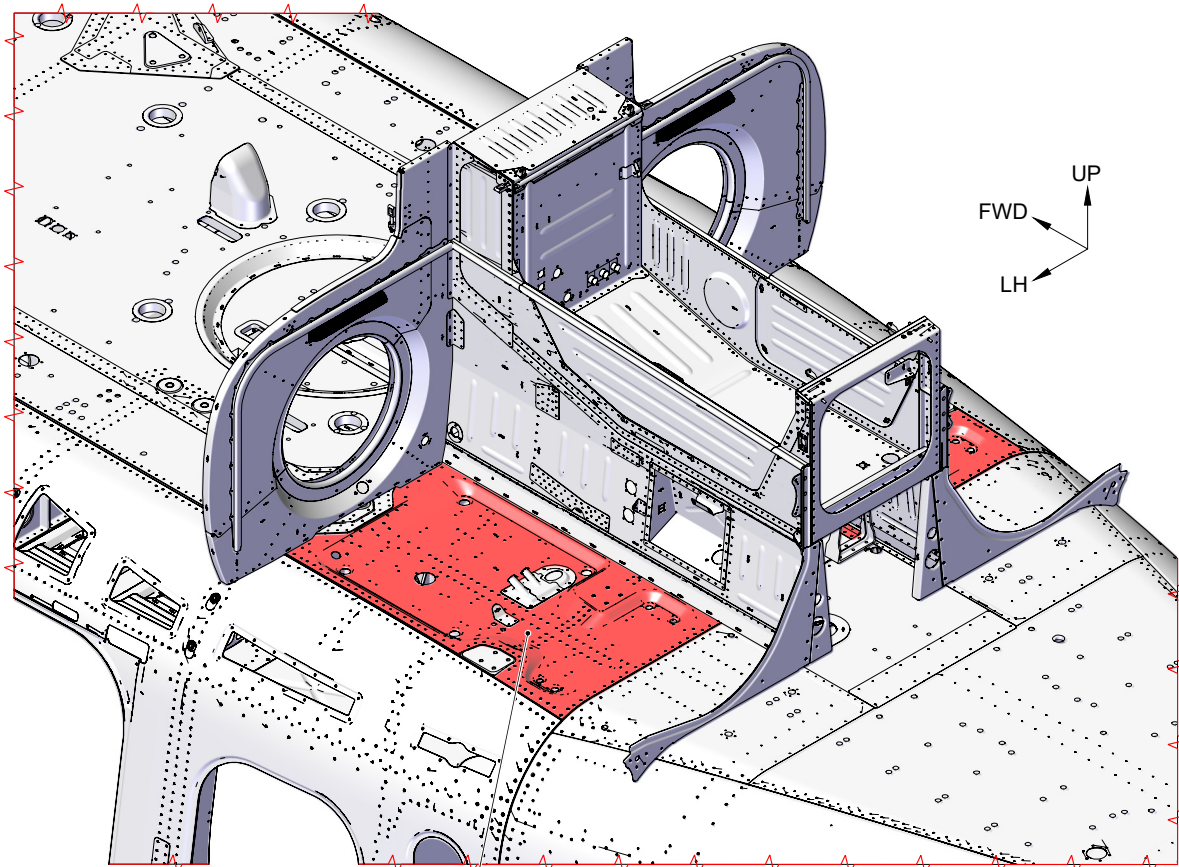
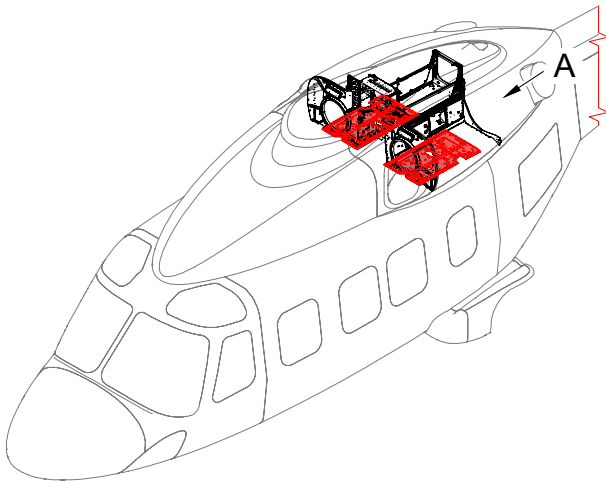
6. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

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



REMOVE NUMBER 1 ENGINE
 CLEAN THE ENGINE FLOOR (THE AREA UNDER THE ENGINE)
 PERFORM INSPECTION
 RE-INSTALL NUMBER 1 ENGINE
 (TYP OPPOSITE SIDE)

VIEW A

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 1

S.B. N°189-371 RECOMMENDED
 DATE: June 25, 2024
 REVISION: /

SB 189-371 – Inspection Report

Date		
Helicopter S/N	S/N	FH

PROCEDURE STEP FAILED		DESCRIPTION OF FINDINGS
Step 2.2 Number 1 Engine Area	<input type="checkbox"/>	
Step 3.2 Number 2 Engine Area	<input type="checkbox"/>	

Notes:

Figure 2

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.