

---

---

**SERVICE BULLETIN**

**N° 189-384**

**ALERT**

**DATE:** July 17, 2023

**REV. :** /

---

---

**TITLE**

**ATA 78 – EJECTOR DUCT 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**

All ejector duct LH P/N 8G7810P00131 and ejector duct RH P/N 8G7810P00231 installed on AW189 helicopters.

### **B. COMPLIANCE**

Within 25 flight hours after the issue of this Service Bulletin and then every 50 flight hours.

### **C. CONCURRENT REQUIREMENTS**

N.A.

### **D. REASON**

Leonardo Helicopters received reports about damages on the ejector ducts LH P/N 8G7810P00131 in the area of the boundary reinforcement plate. In some cases, if the crack is not detected, the damage could lead to the detachment of the reinforcement plates area.

In order to prevent further possible detachments, as precautionary measure, Leonardo Helicopters issued the present Service Bulletin to provide instructions on how to perform a repetitive detailed visual inspection of the ejector ducts P/N 8G7810P00131 and P/N 8G7810P00231 in the area of the boundary reinforcement plates.

In addition, the SB gives also instructions to replace the ducts in case of findings.

### **E. DESCRIPTION**

This Service Bulletin is issued in order to provide the necessary instruction on how to perform the detailed visual inspection of the ejector ducts LH P/N 8G7810P00131 and ejector ducts RH P/N 8G7810P00231 in the area of the boundary reinforcement plates.

### **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 one (1) MMH is 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-78-10-01-00A-520A-B	Number 1 nozzle - Remove procedure	-
DM04 89-A-78-10-01-00A-720A-B	Number 1 nozzle - Install procedure	-
DM05 89-A-78-10-02-00A-520A-B	Number 2 nozzle - Remove procedure	-
DM06 89-A-78-10-02-00A-720A-B	Number 2 nozzle - Install procedure	-

### I.2 ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
LH	Leonardo Helicopters
MMH	Maintenance Man Hours

P/N Part Number  
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

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	8G7810P00131		Ejector duct LH	AR	.	(1)	-
2	8G7810P00231		Ejector duct RH	AR	.	(1)	-

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

#### A.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	Lint-free cloth (C011)	AR	(2)	-
4	MIL-PRF-680, Type II Code n° 505405407	Cleaning solvent Ardrex 5503A (C010)	AR	(2)	-

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

#### A.3 LOGISTIC MATRIX

N.A.

#### NOTES

- (1) Item to be ordered depending on the result of the inspection described.
- (2) 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
5	Commercial	Magnifier (min. 10x)	1	(B1)	-
6	Commercial	Light source	1	(B1)	-

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

#### SPECIAL TOOLS NOTES

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

### **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.

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., including Inspection Report Form complete of notes and pictures, after the inspection required on “Accomplishment instructions” section; claims without the aforementioned report will be rejected.

NOTE: WRM will include RETURN MATERIAL AUTHORIZATION (RMA) number; the unit disembarked from the aircraft (Ejector duct P/N 8G7810P00231 and/or P/N 8G7810P00131) has to be returned for Investigation to LHD within thirty (30) calendar days after the shipment of the replacement part, as per instructions defined into LHD Information Letter GEN-15-047.

In case of missing return within thirty (30) calendar days, Customer will be invoiced for the price of the replacement part (Ejector duct P/N 8G7810P00231 and/or P/N 8G7810P00131).

### **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.
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 and with reference to Figure 1, gain access to the ejector duct LH P/N 8G7810P00131 and perform the inspection as described in the following procedure:
    - 2.1 With reference to Figure 1, clean the surface of the ejector duct by means of a cleaning solvent (C010) and a soft lint-free cloth (C011).

#### **NOTE**

**Both riveted or welded reinforcement plate configuration can be found in service.**

- 2.2 With reference to Figure 1, perform a detailed visual inspection of the area highlighted in figure for cracks, missing rivets or condition of welding points, firstly referring to the trailing edge of the duct (see View A) (through-thickness) and secondly to the border of the reinforcement plates (see View B) both inboard and outboard sides. Use a light source and a magnifier. Make sure that the reinforcement is correctly installed (no missing rivets or welding not damaged) and that it does not move with respect to the ejector.
- 2.3 In case of no findings, skip to Step 3. Otherwise, take a picture of the crack and the damaged reinforcement and fill the report in Figure 2. Send pictures and report to Leonardo Helicopters at the following mail box:  
[engineering.support.lhd@leonardo.com](mailto:engineering.support.lhd@leonardo.com).

### NOTE

A serviceable ejector duct is a new part (never installed) or a part that, before next flight after installation, passed an inspection (no defect found) in accordance with the instructions of this SB.

- 2.4 Replace the damaged ejector duct in accordance with the following procedure:
  - 2.4.1 In accordance with AMP DM 89-A-78-10-01-00A-520A-B, remove and return to Leonardo Helicopters the damaged LH ejector duct for investigation.
  - 2.4.2 In accordance with AMP DM 89-A-78-10-01-00A-720A-B, install a serviceable ejector duct LH P/N 8G7810P00131.
3. In accordance with AMP DM 89-A-06-41-00-00A-010A-A and with reference to Figure 1, get access to the ejector duct RH P/N 8G7810P00231 and perform the inspection as described in the following procedure:
  - 3.1 With reference to Figure 1, clean the surface of the ejector duct by means of a cleaning solvent (C010) and a soft lint-free cloth (C011).

### NOTE

Both riveted or welded reinforcement plate configuration can be found in service.

- 3.2 With reference to Figure 1, perform a detailed visual inspection of the area highlighted in figure for cracks missing rivets or condition of welding points, firstly referring to the trailing edge of the duct (see View A) (through-thickness) and secondly to the border of the reinforcement plates (see View B) both inboard and outboard sides. Use a light source and a magnifier. Make sure that the reinforcement is correctly installed (no missing rivets or welding not damaged) and that it does not move with respect to the ejector.
- 3.3 In case of no findings, skip to Step 4. Otherwise, take a picture of the crack and the damaged reinforcement and fill the report in Figure 2. Send pictures and report to Leonardo Helicopters at the following mail box: [engineering.support.lhd@leonardo.com](mailto:engineering.support.lhd@leonardo.com).



### NOTE

A serviceable ejector duct is a new part (never installed) or a part that, before next flight after installation, passed an inspection (no defect found) in accordance with the instructions of this SB.

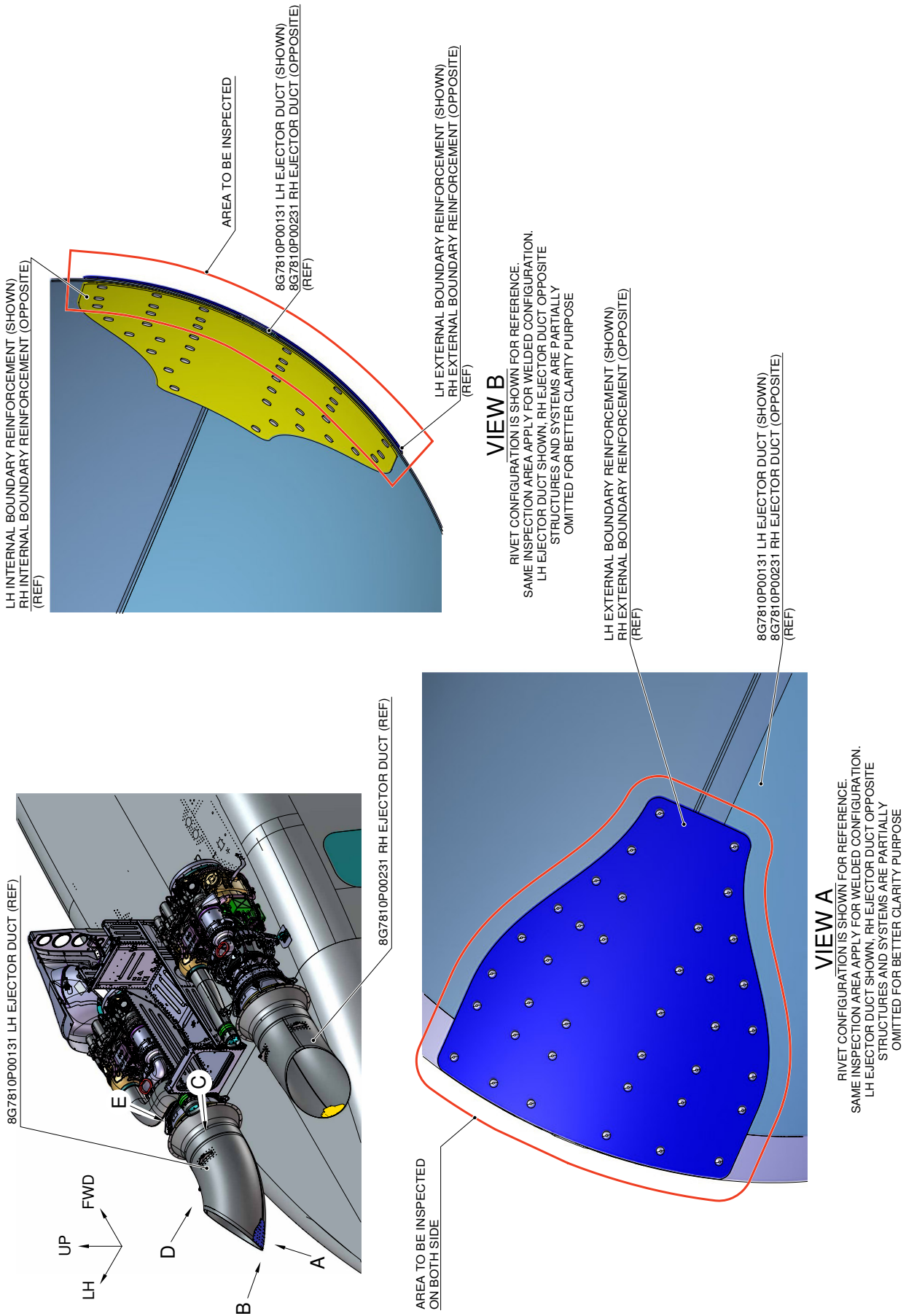
- 3.4 Replace the damaged ejector duct in accordance with the following procedure:
  - 3.4.1 In accordance with AMP DM 89-A-78-10-02-00A-520A-B, remove and return to Leonardo Helicopters the damaged RH ejector duct for investigation.
  - 3.4.2 In accordance with AMP DM 89-A-78-10-02-00A-720A-B, install a serviceable ejector duct RH P/N 8G7810P00231.
4. Return the helicopter to flight configuration and record for compliance with 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](mailto:engineering.support.lhd@leonardo.com)

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

[AWPC.Engineering.Support@leonardocompany.us](mailto:AWPC.Engineering.Support@leonardocompany.us)



**Figure 1**

## SB 189-384 – Inspection Report

<b>Date</b>		
<b>Helicopter S/N</b>	S/N	FH
<b>Engine ejector duct LH</b>	P/N affected	S/N
<b>Engine ejector duct RH</b>	P/N affected	S/N

PROCEDURE STEP FAILED		DESCRIPTION OF FINDINGS
Step 2.2 Engine ejector duct LH boundary reinforcement plate	<input type="checkbox"/>	
Step 3.2 Engine ejector duct RH boundary reinforcement plate	<input type="checkbox"/>	
<b>Notes:</b>		

**Figure 2**

