



Airworthiness Directive

AD No.: 2019-0311

Issued: 19 December 2019

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

Leonardo S.p.A.

Type/Model designation(s):

AB139, AW139, AB412 and AB412EP helicopters

Effective Date: 01 January 2020

TCDS Number(s): EASA.R.006

Foreign AD: Not applicable

Supersedure: None

ATA 25, 95 – Equipment / Furnishings, Emergency Flotation System – Inflation Hoses – Inspection

Manufacturer(s):

Leonardo S.p.A., formerly Finmeccanica Helicopter Division, AgustaWestland, Agusta S.p.A.

Applicability:

AB139 and AW139 helicopters, all serial numbers (s/n); and
AB412 and AB412EP helicopters, all s/n.

Definitions:

For the purpose of this AD, the following definitions apply:

Affected part: Emergency Flotation System (EFS) semi-rigid cover assemblies, having a Part Number (P/N) as specified in Table 1 of this AD and a s/n as specified in Appendix 1 of this AD, except those that are marked with SAFRAN Service Bulletin (SB) 025-69-19 on the external identification label, or for which the Log Card records the application of the SB.

Serviceable part: An EFS semi-rigid cover assembly which is not an affected part.

The applicable SB: Leonardo Alert SB 139-610 and Emergency Alert SB 412-157, as applicable, which refer to SAFRAN SB 025-69-19.



Helicopter Groups: Group 1 helicopters are those that have an affected part installed.
Group 2 helicopters are those that do not have an affected part installed.

Affected Part Groups: Groups A, B, C and D are defined in Appendix 1 of this AD.

Reason:

During maintenance on an EFS, the third compartment of the left forward float did not inflate, because the supply hose ensuring the gas flow from the pressurized cylinder to the float compartment was blocked. Investigation results showed that this was due to a manufacturing defect. Similar supply hoses are installed on different EFS P/N on different helicopter type designs.

This condition, if not detected and corrected, could result in a partial inflation of the flotation bags during a ditching event, possibly preventing a timely egress from the helicopter and consequent injury to helicopter occupants.

To address this potential unsafe condition, Leonardo issued the SB providing inspection instructions to detect incorrectly manufactured supply hoses.

For the reasons described above, this AD requires a one-time inspection of each affected EFS assembly and, depending on findings, replacement.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously

Table 1 – Affected parts

Helicopter Type	P/N	Description
AB139/AW139	3G9560V02131	Left Hand (L/H) FWD float assembly
	3G9560V02231	Right Hand (R/H) FWD float assembly
	3G9560V02331	L/H AFT float assembly
	3G9560V02431	R/H AFT float assembly
AB412/AB412EP	412-4600-03-101	L/H float assembly
	412-4600-03-102	R/H float assembly

Inspection(s):

- (1) For Group 1 helicopters: within the compliance times specified in Table 2 of this AD, inspect each affected part in accordance with the instructions of the applicable SB.



Table 2 – Inspection

Affected Part Group	Compliance Time
A	Within 400 flight hours (FH) or 12 months, whichever occurs first after the effective date of this AD
B	Within 30 FH after the effective date of the AD
C	Within 300 FH or during the next scheduled '18 months' inspection, whichever occurs first after the effective date of this AD
D	Within 15 FH after the effective date of the AD

Corrective Action(s):

- (2) If, during the inspection as required by paragraph (1) of this AD, the supply hoses of the EFS fail the inspection, before next flight, replace the affected part with a serviceable part.

Parts Installation:

- (3) For Group 1 and Group 2 helicopters: From the effective date of this AD, do not install an affected part on any helicopter.
- (4) For Group 1 and Group 2 helicopters: From the effective date of this AD, installation of a float supply hose manufactured before May 2015, P/N 220415-0 (AB/AW139 helicopters), or P/N 215342-0 (AB412/AB412EP helicopters), as applicable, is allowed, provided that, prior to installation on an affected part, the hose passes an inspection and is re-identified, in accordance with the instructions of the applicable SB.

Ref. Publications:

Leonardo S.p.A. Alert SB 139-610 original issue dated 17 December 2019.

Leonardo S.p.A. Alert SB 412-157 original issue dated 17 December 2019.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#).



5. For any question concerning the technical content of the requirements in this AD, please contact: Leonardo S.p.A. Helicopters, Customer Support & Services, Product Support Engineering & Licenses DPT, Via Giovanni Agusta 520, 21017 Cascina Costa di Samarate (VA) – Italy, Tel.: +39 0331 255036, Fax: +39 0331 225988, E-mail: PSE_AW189.MBX.AW@leonardocompany.com.



Appendix 1 – Groups of Affected Parts

Group A Affected parts for AB139/AW139, except Group B

P/N	s/n
3G9560V02131	All serial numbers up to S/N 202
3G9560V02231	All serial numbers up to S/N 195
3G9560V02331	All serial numbers up to S/N 185
3G9560V02431	All serial numbers up to S/N 189

Group B Affected parts for AB139/AW139

P/N	s/n
3G9560V02131	30, 32, 33, 35, 39 and 50
3G9560V02231	30, 33, 35, 36, 39 and 42
3G9560V02331	28 and 29
3G9560V02431	25 and 36

Group C Affected parts for AB412/AB412EP, except Group D Affected Parts

P/N	s/n
412-4600-03-101 (Float P/N 412-4600-03-107, Manufacturer P/N 215271-0)	All serial numbers up to S/N 117
412-4600-03-102 (Float P/N 412-4600-03-108, Manufacturer P/N 215349-0)	All serial numbers up to S/N 121

Group D Affected parts for AB412/AB412EP

P/N	s/n
412-4600-03-101	99, 100 and 110
412-4600-03-102	105, 106, 107, 110 and 119



SERVICE BULLETIN

N° **139-610**

ALERT

DATE: December 17, 2019

REV. : /

TITLE

ATA 95 - EMERGENCY FLOTATION SYSTEM, FLOAT SUPPLY HOSE INSPECTION OF

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

- ✓ AB139/AW139 helicopters equipped with float semi rigid cover assemblies listed in Table 1.
- ✓ Spare float semi rigid cover assemblies listed in Table 1, kept in stock.

P/N	S/N	Description
3G9560V02131	all serial numbers up to S/N 202	L/H FWD float assembly
3G9560V02231	all serial numbers up to S/N 195	R/H FWD float assembly
3G9560V02331	all serial numbers up to S/N 185	L/H AFT float assembly
3G9560V02431	all serial numbers up to S/N 189	R/H AFT float assembly

Table 1

NOTE

Float semi rigid cover assemblies are NOT affected if:

- Service Bulletin SB 025-69-19 is marked on the external identification label of EFS, and/or
- Service Bulletin SB 139-610 is recorded on the component Log Card;

even if they have a S/N listed in above Table 1.

- ✓ All float supply hoses P/N 220415-0 manufactured until April 2015, kept in stock and not installing a piece of green heat-shrinkable sleeve.

NOTE

The manufacturing date of the float supply hose is found on the identification label of the hose (refer to Figure 1 in Annex A for location).

B. COMPLIANCE

- ✓ Within and not later than thirty (30) FH after the issue of this Service Bulletin, for all helicopters equipped with float semi rigid cover assemblies listed in below Table 2.

P/N	S/N	Description
3G9560V02131	30, 32, 33, 35, 39, 50	L/H FWD float assembly
3G9560V02231	30, 33, 35, 36, 39, 42	R/H FWD float assembly
3G9560V02331	28, 29	L/H AFT float assembly
3G9560V02431	25, 36	R/H AFT float assembly

Table 2

- ✓ Within and not later than four-hundred (400) FH or twelve (12) months, whichever occurs first after the issue of this Service Bulletin, for all helicopters equipped with float semi rigid cover assemblies with S/N not listed in Table 2.

- ✓ Within and not later than twelve (12) months, after the issue of this Service Bulletin, for:
 - all float semi rigid cover assemblies listed in Table 1, kept in stock;
 - all float supply hoses P/N 220415-0, kept in stock.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to prescribe the check of the proper air flow through the float supply hose P/N 220415-0, part of RH/LH FWD/AFT semi rigid cover float assemblies.

E. DESCRIPTION

During maintenance operations on an Emergency Float System (EFS), the third compartment of the left forward float did not inflate. The supply hose ensuring the gas flow from the cylinder assembly to the related float compartment was found blocked.

To prevent any event of lack of inflation of one or more floats in case of ditching, a special inspection shall be performed on in-service and spare float supply hoses to verify that each component is fully operational.

This Service Bulletin provides the necessary instruction on how to inspect the float supply hoses P/N 220415-0 in accordance with the SAFRAN Aerosystems Service Bulletin 025-69-19 Revision 00 enclosed as Annex A of this document.

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 ten (10) minutes are deemed necessary.

MMH are based on hands-on time and can change with 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

1) PUBLICATIONS

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM01 39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance	-
DM02 39-B-95-61-01-00A-520A-K	Forward left float assembly - Remove procedure	-
DM03 39-B-95-61-01-00A-720A-K	Forward left float assembly - Install procedure	-
DM04 39-B-95-61-02-00A-520A-K	Forward right float assembly - Remove procedure	-
DM05 39-B-95-61-02-00A-720A-K	Forward right float assembly - Install procedure	-
DM06 39-B-95-61-03-00A-520A-K	Aft left float assembly - Remove procedure	-
DM07 39-B-95-61-03-00A-720A-K	Aft left float assembly - Install procedure	-
DM08 39-B-95-61-04-00A-520A-K	Aft right float assembly - Remove procedure	-
DM09 39-B-95-61-04-00A-720A-K	Aft right float assembly - Install procedure	-
DM10 39-B-95-61-14-01A-91LA-K	Forward float assembly - unfold/fold procedures	-
DM11 39-B-95-61-15-01A-91LA-K	Aft float assembly - unfold/fold procedures	-

2) ACRONYMS

AMD I	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
CMM	Component Maintenance Manual
DM	Data Module
DOA	Design Organization Approval

EASA	European Aviation Safety Agency
EFS	Emergency Float System
FH	Flight Hours
IPD	Illustrated Parts Data Publication
ITEP	Illustrated Tools and Equipment Publication
LHD	Leonardo Helicopters Division
MMH	Maintenance Man Hours
SB	Service Bulletin

3) ANNEX

Annex A - SAFRAN SB 025-69-19 Revision 00

J. PUBLICATIONS AFFECTED

N.A.

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	220415-0		Float supply hose	AR	.	(1)	-

2) CONSUMABLES

The following consumable materials, or equivalent, are necessary to accomplish this Service Bulletin:

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
2	Commercial	Heat shrinkable sleeve, green color	AR	(2)	-

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.

NOTE

(1) This item can be supplied to approved operators only if the blockage of the installed float supply hose occurs during the inspection procedure described in Accomplishment Instructions.

(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
3	Commercial	Plastic cable tie, 300 mm min. x 5 mm max. (11.811 in min. x .196 in max.)	1		-

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

SPECIAL TOOLS NOTE

N.A.

C. INDUSTRY SUPPORT INFORMATION

WARRANTY: 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

S.B. N°139-610 ALERT
DATE: December 17, 2019
REVISION: /

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

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.

NOTE

Skip steps 1 thru 8 for float supply hoses P/N 220415-0 kept in stock.

NOTE

Skip steps 1 and 2 for float semi rigid cover assemblies P/N 3G9560V02131/-231/-331/-431 kept in stock.

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. Remove the affected float semi rigid assembly/assemblies from the helicopter, in accordance with the relevant AMP DM:
 - 39-B-95-61-01-00A-520A-K - FWD LH float assembly P/N 3G9560V02131;
 - 39-B-95-61-02-00A-520A-K - FWD RH float assembly P/N 3G9560V02231;
 - 39-B-95-61-03-00A-520A-K - AFT LH float assembly P/N 3G9560V02331;
 - 39-B-95-61-04-00A-520A-K - AFT RH float assembly P/N 3G9560V02431.

CAUTION

All installations must be handled with extreme care during all working phases to prevent equipment damage.

NOTE

Instructions in following steps 3 thru 5 are the same for both sides of installation (LH and RH).

3. Unfold the affected float assembly/assemblies, in accordance with the relevant AMP DM:
 - 39-B-95-61-14-01A-91LA-K - Forward float assembly - unfold/fold procedures;
 - 39-B-95-61-15-01A-91LA-K - Aft float assembly - unfold/fold procedures.
4. In accordance with Annex A, Chapter 3 "Accomplishment Instructions", gain access, inspect and if necessary re-identify the float supply hose P/N 220415-0.
5. Fold the affected float semi rigid assembly/assemblies, in accordance with the relevant

AMP DM:

- 39-B-95-61-14-01A-91LA-K - Forward float assembly - unfold/fold procedures;
- 39-B-95-61-15-01A-91LA-K - Aft float assembly - unfold/fold procedures.

NOTE

Skip steps 6 and 7 for float semi rigid cover assemblies
P/N 3G9560V02131/-231/-331/-431 kept in stock.

6. Install the affected float semi rigid assembly/assemblies on the helicopter, in accordance with the relevant AMP DM:
 - 39-B-95-61-01-00A-720A-K - FWD LH float assembly P/N 3G9560V02131;
 - 39-B-95-61-02-00A-720A-K - FWD RH float assembly P/N 3G9560V02231;
 - 39-B-95-61-03-00A-720A-K - AFT LH float assembly P/N 3G9560V02331;
 - 39-B-95-61-04-00A-720A-K - AFT RH float assembly P/N 3G9560V02431.
7. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
8. Record the compliance with this Service Bulletin on the component logcard.

NOTE

Perform following step 9 only on float supply hoses
P/N 220415-0 kept in stock.

9. In accordance with Annex A, Chapter 3 “*Accomplishment Instructions*”, Paragraph C. “*Procedure*” steps (a) and (b), inspect and re-identify the float supply hose P/N 220415-0.
10. Send the attached compliance form to the following mail box:

cse.aw139.aw@leonardocompany.com

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

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ANNEX A

**SAFRAN SB 025-69-19 REVISION 00
EQUIPMENT/FURNISHINGS (ATA 25) EMERGENCY FLOTATION
SYSTEMS INSPECTION OF FLOAT SUPPLY HOSES**

TECHNICAL PUBLICATION DEPARTMENT
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78373 PLAISIR CEDEX - FRANCE
Phone: (33) 1 61 34 23 23
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Web site: www.safran-aerosystems.com/customers

TRANSMITTAL LETTER

This Transmittal Letter applies to the original issue, dated NOV 22/19, of Service Bulletin 025-69-19.

REASON FOR REVISION:

Not applicable.

REVISION SEQUENCE:

Initial issue ...: NOV 22/19

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 1 / 2

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DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 2 / 2

SERVICE BULLETIN SUMMARY

1. PLANNING INFORMATION	1
A. EFFECTIVITY.....	1
B. CONCURRENT REQUIREMENTS.....	3
C. REASON	5
D. DESCRIPTION.....	5
E. COMPLIANCE.....	5
F. APPROVAL	5
G. MANPOWER.....	5
H. WEIGHT AND BALANCE.....	5
I. ELECTRICAL LOAD DATA.....	6
J. SOFTWARE ACCOMPLISHMENT SUMMARY	6
K. REFERENCES.....	6
L. PUBLICATIONS AFFECTED	6
M. INTERCHANGEABILITY.....	6
2. MATERIAL INFORMATION.....	7
A. MATERIAL - PRICE AND AVAILABILITY.....	7
B. INDUSTRY SUPPORT INFORMATION	7
C. LIST OF COMPONENTS	7
D. SUBCOMPONENTS TO BE RE-IDENTIFIED.....	7
E. TOOLING	7
F. SPECIAL TOOLS	7
3. ACCOMPLISHMENT INSTRUCTIONS	8
A. GENERAL	8
B. PREPARATION.....	8
C. PROCEDURE.....	9
D. RE-IDENTIFICATION.....	9
E. TEST	9
F. CLOSE-UP	10
FIGURE 1	11
FIGURE 2	12
FIGURE 3	12

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
SBS PAGE: 1 / 2

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DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
SBS PAGE: 2 / 2

FLOATS & RAFTS
 58 rue de Segonzac – B.P. 81
 16103 COGNAC CEDEX - FRANCE
 Phone: (33) 5 45 83 20 20
 Fax: (33) 5 45 83 20 70

SERVICE BULLETIN

**TITLE: EQUIPMENT/FURNISHINGS (ATA 25)
 EMERGENCY FLOTATION SYSTEMS
 INSPECTION OF FLOAT SUPPLY HOSES**

1. PLANNING INFORMATION

A. Effectivity

(1) Concerned equipment

This Service Bulletin applies to the in-service float supply hoses installed on Safran Aerosystems (SAO) Emergency Flotation System (EFS) or spare listed in the tables that follow:

- (a) In-service components installing hoses belonging to the same batch number of the affected hose (see paragraph 1.C)

NOTE: For Part Numbers with a float bag part number listed, the Serial Number corresponds to the serial number of the float bag

SAO EQUIPMENT PART NUMBER	LHD EQUIPMENT PART NUMBER	SERIAL NUMBER	EQUIPMENT DESIGNATION	AFFECTED SAO HOSES PART NUMBER
210724-1	212-4600-26-104	SN 1610 SN 1612 SN 1614 SN 1616 SN 1618 SN 1620 SN 1622	R/H FLOAT EQUIPPED	210502-0
210725-1	212-4600-26-103	SN 1635 SN 1637 SN 1639 SN 1641	L/H FLOAT EQUIPPED	210502-0
215444-0 (Float bag P/N 215271-0)	412-4600-03-101	SN 99 SN 100 SN 110	L/H FLOTATION ASSEMBLY	215342-0
215445-0 (Float bag P/N 215349-0)	412-4600-03-102	SN 105 SN 106 SN 107 SN 110 SN 119	R/H FLOTATION ASSEMBLY	215342-0

DATE: NOV 22/19
 REVISION: 00

SERVICE BULLETIN

025-69-19

PAGE: 1 / 12

SAO EQUIPMENT PART NUMBER	LHD EQUIPMENT PART NUMBER	SERIAL NUMBER	EQUIPMENT DESIGNATION	AFFECTED SAO HOSES PART NUMBER
220410-0	3G9560V02131	SN 30 SN 32 SN 33 SN 35 SN 39 SN 50	L/H FWD FLOAT ASSEMBLY	220415-0
220411-0	3G9560V02231	SN 30 SN 33 SN 35 SN 36 SN 39 SN 42	R/H FWD FLOAT ASSEMBLY	220415-0
220412-0	3G9560V02331	SN 28 SN 29	L/H AFT FLOAT ASSEMBLY	220415-0
220413-0	3G9560V02431	SN 25 SN 36	R/H AFT FLOAT ASSEMBLY	220415-0

AFT: Afterward FW: Forward L/H: Left Hand R/H: Right Hand
 SAO: Safran Aerosystems LHD: Leonardo Helicopters Division

Table 1 – List of in service components installing hoses belonging to the same batch number of the affected hose

- (b) Spare components affected belonging to the same batch number of the affected hose (see paragraph 1.C)

NOTE: The manufacturing date and the batch number are found on the identification label of the hose as shown for example in Figure 1.

SAO HOSES AFFECTED PART NUMBER	MFG DATE	BATCH NUMBER
215342-0	-	RC 312 43 55 001 (SAO batch) 13441414 (supplier batch)

SAO: Safran Aerosystems MFG: Manufacturing

Table 2 – List of spare components affected belonging to the same batch number of the affected hose

DATE: NOV 22/19
 REVISION: 00

SERVICE BULLETIN

025-69-19
 PAGE: 2 / 12

- (c) Floats installing hoses NOT belonging to the same batch number of the affected hose (see paragraph 1.C)

NOTE: Equipment concerned are listed in Table that follows with reference to the last Serial Number possibly affected.

NOTE: For Part Numbers with a float bag part number listed, the Serial Number corresponds to the serial number of the float bag.

SAO EQUIPMENT PART NUMBER	LHD EQUIPMENT PART NUMBER	EQUIPMENT DESIGNATION	SERIAL NUMBER	AFFECTED SAO HOSES PART NUMBER	MFG DATE
210724-1	212-4600-26-104	R/H FLOAT EQUIPPED	1750	210502-0	July 2019
210725-1	212-4600-26-103	L/H FLOAT EQUIPPED	1779	210502-0	July 2019
215444-0 (Float bag P/N 215271-0)	412-4600-03-101	L/H FLOTATION ASSEMBLY	117	215342-0	July 2019
215445-0 (Float bag P/N 215349-0)	412-4600-03-102	R/H FLOTATION ASSEMBLY	121	215342-0	July 2019
216345-0 (Float bag P/N 216228-0)	205-4600-09-101	L/H FLOTATION ASSEMBLY	16	216339-0	July 2019
216346-0 (Float bag P/N 216229-0)	205-4600-09-102	R/H FLOTATION ASSEMBLY	16	216339-0	July 2019
220410-0	3G9560V02131	L/H FWD FLOAT ASSEMBLY	202	220415-0	July 2019
220411-0	3G9560V02231	R/H FWD FLOAT ASSEMBLY	195	220415-0	July 2019
220412-0	3G9560V02331	L/H AFT FLOAT ASSEMBLY	185	220415-0	July 2019
220413-0	3G9560V02431	R/H AFT FLOAT ASSEMBLY	189	220415-0	July 2019

AFT: Afterward

FW: Forward

L/H: Left Hand

R/H: Right Hand

SAO: Safran Aerosystems

LHD: Leonardo Helicopters Division

MFG: Manufacturing

Table 3 – List of floats installing hoses NOT belonging to the same batch number of the affected hose

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19

PAGE: 3 / 12

- (d) Spare components affected NOT belonging to the same batch number of the affected hose (see paragraph 1.C)

NOTE: The manufacturing date and the batch number are found on the identification label of the hose as shown for example in Figure 1.

SAO HOSES AFFECTED PART NUMBER	MFG DATE	BATCH NUMBER (found on identification label of hose)
210502-0	Manufactured until April 2015	-
215342-0		
216339-0		
220415-0		

SAO: Safran Aerosystems

MFG: Manufacturing

Table 4 – List of spare components affected NOT belonging to the same batch number of the affected hose

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19

PAGE: 4 / 12

B. Concurrent Requirements

None.

C. Reason

This Service Bulletin is issued to supply the instructions for verifying the proper air flow through the three float supply hoses of Emergency Flotation System (EFS) inflation system.

During maintenance operations on EFS, the third compartment of the left forward float did not inflate. The supply hose ensuring the gas flow from the cylinder assembly to the related float compartment was found blocked.

D. Description

To prevent any significant operational disruptions, a special inspection has to be performed to in-service and spare supply hoses to verify that each component is fully operational and to ensure that the equipment is in normal condition.

NOTE: Refer to Table 1 and Table 3 to identify the hoses of in-service equipment and Table 2 and Table 4 for the spare components possibly affected.

E. Compliance

For in-service components compliance, refer to related Leonardo Helicopters Division (LHD) Service Bulletin (SB).

NOTE: Inspection will be performed systematically during the first return at ZS for any EFS manufactured before July 2019 and any hoses manufactured before April 2015.

Operator able to perform the EFS maintenance in accordance with Aircraft Maintenance Manual (AMM) or Aircraft Maintenance Publication (AMP) can perform the procedure defined in this Service Bulletin.

F. Approval

The technical information contained in this Equipment Manufacturer's Service Bulletin was approved by LHD.

G. Manpower

- (1) 1 technician
- (2) Estimated time: 10 minutes per hose (for Service Bulletin application only).

H. Weight and Balance

Not affected.

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19

PAGE: 5 / 12

I. Electrical Load Data

Not affected.

J. Software Accomplishment Summary

Not applicable.

K. References**(1) Component Maintenance Manuals**

- CMM 25-69-29
- CMM 25-69-37
- CMM 25-69-56
- CMM 25-69-80

(2) Aircraft Service Bulletin

- See applicable Leonardo Helicopters Division (LHD) Service Bulletin (SB).

(3) Aircraft Maintenance Manual (AMM) or Aircraft Maintenance Publication (AMP)

- Refer to LHD SB for the list of applicable AMM / AMP.

L. Publications Affected**(1) Component Maintenance Manuals**

- CMM 25-69-29
- CMM 25-69-37
- CMM 25-69-56
- CMM 25-69-80

M. Interchangeability

Not applicable.

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 6 / 12

2. MATERIAL INFORMATION

A. Material - Price and Availability

- (1) Material to be purchased
Refer to Table 5.
- (2) Price
Replacement of hoses found defective after inspection (hose blocked) will be free of charge.
- (3) Availability
Details available on request.

B. Industry Support Information

For spare parts, please contact the related Zodiac Aerospace Services (ZS) logistic center available on Safran Aerosystems web site:
www.safran-aerosystems.com/services

C. List of Components

- (1) Material to be purchased

SAO HOSES PART NUMBER	DESIGNATION	QUANTITY
210502-0	Flexible supply hose	Upon request
215342-0	Float supply hose	Upon request
216339-0	Float supply hose	Upon request
220415-0	Float supply hose	Upon request

Table 5 – List of materials

- (2) Material supplied by the operator
Not applicable.

D. Subcomponents To Be Re-identified

Not applicable.

E. Tooling

- Plastic cable tie, 300 mm min. x 5 mm max. (11.811 in min. x .196 in max.) (commercially available),
- Heat shrinkable sleeve, green color (local supply).

F. Special Tools

None.

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 7 / 12

3. ACCOMPLISHMENT INSTRUCTIONS

CAUTION: APPLY THIS INSPECTION SERVICE BULLETIN ON CLEAN SURFACE AND WITH CLEAN HANDS.

A. General

- (1) Refer to Table that follows to identify the Component Maintenance Manual (CMM) related to in-service equipment to be verified or refer to related Aircraft Maintenance Manual (AMM) or Aircraft Maintenance Publication (AMP) for equivalent procedure (see Leonardo Helicopters Division Service Bulletin).

SAO EQUIPMENT PART NUMBER	LHD EQUIPMENT PART NUMBER	EQUIPMENT DESIGNATION	AFFECTED SAO HOSES PART NUMBER	CMM
210724-1	212-4600-26-104	R/H FLOAT EQUIPPED	210502-0	25-69-80
210725-1	212-4600-26-103	L/H FLOAT EQUIPPED	210502-0	25-69-80
215444-0	412-4600-03-101	L/H FLOTATION ASSEMBLY	215342-0	25-69-29
215445-0	412-4600-03-102	R/H FLOTATION ASSEMBLY	215342-0	25-69-29
216345-0	205-4600-09-101	L/H FLOTATION ASSEMBLY	216339-0	25-69-37
216346-0	205-4600-09-102	R/H FLOTATION ASSEMBLY	216339-0	25-69-37
220410-0	3G9560V02131	L/H FWD FLOAT ASSEMBLY	220415-0	25-69-56
220412-0	3G9560V02331	L/H AFT FLOAT ASSEMBLY	220415-0	25-69-56
220411-0	3G9560V02231	R/H FWD FLOAT ASSEMBLY	220415-0	25-69-56
220413-0	3G9560V02431	R/H AFT FLOAT ASSEMBLY	220415-0	25-69-56

Table 6 – List of Component Maintenance Manuals (CMMs) related to in-service equipment

B. Preparation

- (1) Remove each supply hose from the float (applicable to in-service equipment)

NOTE: Removal of the hoses can be done by following the instructions of the related Component Maintenance Manual (CMM) (section "DISASSEMBLY") whose listing is given hereafter, and additional procedure that follows.

- AB412 helicopter : refer to CMM 25-69-29, section "DISASSEMBLY" page 301,
- AB205 helicopter : refer to CMM 25-69-37, section "DISASSEMBLY" page 301,
- AB205/212/412 helicopter : refer to CMM 25-69-80, section "DISASSEMBLY" page 301,
- AW139 helicopter : refer to CMM 25-69-56, section "DISASSEMBLY" page 301.

- (a) Remove and unfold the float equipped with the hoses to be inspected, refer to the related instructions given in Aircraft Maintenance Manual (AMM).

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 8 / 12

- (b) Loosen and remove the cylinder hose from the main supply coupling of the float.
- (c) If applicable, open all the hose protectors.
- (d) Loosen and remove each stop screw from the float supply couplings.
- (e) Disconnect then remove the float supply hose to be inspected.

C. Procedure

- (1) Examine the supply hose with a plastic cable tie (in-service equipment and spare component)
 - (a) Insert the end of plastic cable tie in the hole of banjo (refer to Figure 2):
 - If the cable tie goes through the banjo freely up to a minimal length of 300 mm (11.811 in), the hose is fully operative (refer to Figure 3),
 - If a blockage occurs in the duct of banjo, the hose is blocked internally and must be replaced:
 - Please contact Zodiac Aerospace Services (ZS) to get a replacement part.
 - Inform Safran Aerosystems of any occurrence at the email address that follows: tech-support.sao@safrangroup.com
 - Do again the operation for all end-pieces and banjos of the hose.

NOTE: For the double duct banjos, do the inspection for each duct through its related hole.
 - (b) At the end of the inspection, apply a piece of green heat-shrinkable sleeve to the flexible part of the supply hose to show that the component is fully operative.
 - (c) Record the application of the service bulletin by writing down **SB 025-69-19** above the external identification marking of EFS.
 - (d) Accordingly complete the log-card of the equipment when the hose is installed on EFS by writing the date and the reference of the Service Bulletin.

D. Re-identification

Not applicable.

E. Test

Not applicable.

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 9 / 12

F. Close-up

- (1) Re-install each supply hose on the equipment (applicable to in-service equipment)

NOTE: Installation of the hoses has to be performed with the instructions of the related Component Maintenance Manual (CMM) (section "ASSEMBLY") whose listing is given hereafter:

- AB412 helicopter : refer to CMM 25-69-29, section "ASSEMBLY" page 701,
- AB205 helicopter : refer to CMM 25-69-37, section "ASSEMBLY" page 701,
- AB205/212/412 helicopter : refer to CMM 25-69-80, section "ASSEMBLY" page 701,
- AW139 helicopter : refer to CMM 25-69-56, section "ASSEMBLY" page 701.

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 10 / 12

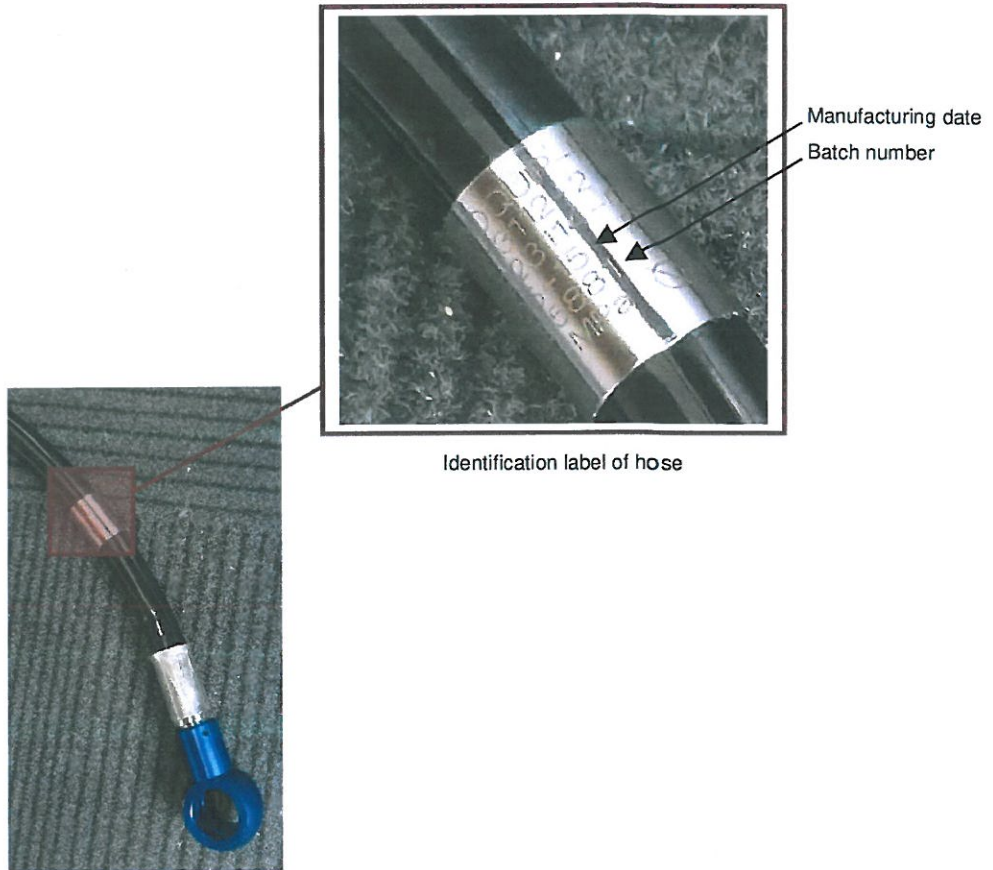


Figure 1

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 11 / 12

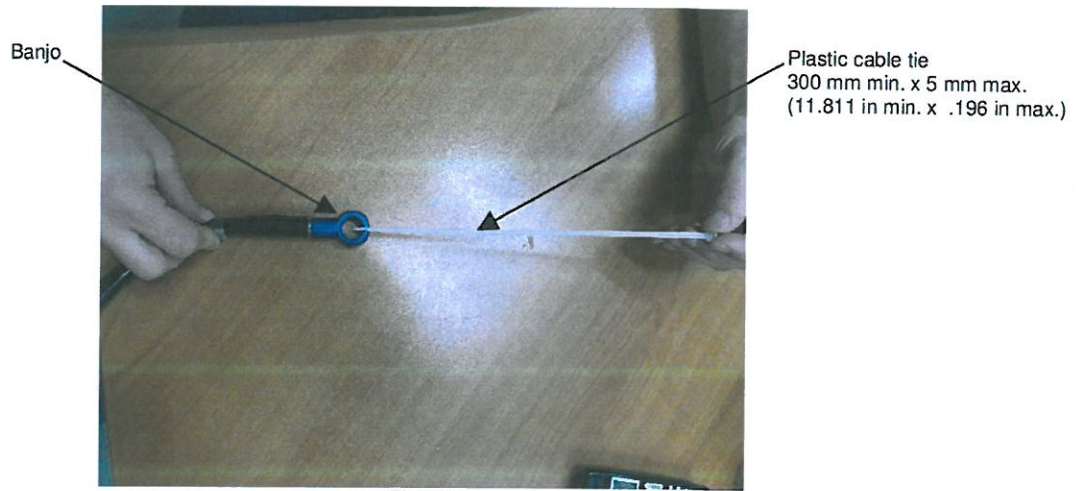


Figure 2



Figure 3

DATE: NOV 22/19
REVISION: 00

SERVICE BULLETIN

025-69-19
PAGE: 12 / 12

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.