



Airworthiness Directive

AD No.: 2018-0208

Issued: 20 September 2018

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 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, AW169 and AW189 helicopters

Effective Date: 27 September 2018

TCDS Number(s): EASA.R.006, EASA.R.509 and EASA.R.510

Foreign AD: Not applicable

Supersedure: None

ATA 95 – Emergency Flotation System – Aft Float Assembly Inflation System – Removal / Installation

Manufacturer(s):

Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A., AgustaWestland S.p.A., Agusta S.p.A.

Applicability:

AB139 and AW139 helicopters, all serial numbers (s/n), if equipped with an Emergency Flotation System (EFS) float assembly, having Part Number (P/N) 3G9560V00332, P/N 3G9560V00432, P/N 3G9560V01432, or P/N 3G9560V01532.

AW169 helicopters, all s/n, if equipped with an EFS float assembly, having any P/N.

AW189 helicopters, all s/n, if equipped with an EFS float assembly, having P/N 8G9560V00331, or P/N 8G9560V00431.

Definitions:

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

Affected parts: Shape Memory Alloy (SMA) Inflation Systems, having P/N 3G9560V01052 (AB139 and AW139 helicopters), P/N 6F9560V00551 (AW169 helicopters), or P/N 8G9560V01751 (AW189 helicopters), as applicable, and with s/n's as specified in Table 1 of this AD, except those that have been corrected in accordance with the instructions of the applicable ASB.



Serviceable parts: Affected part that has been corrected in accordance with the instructions of the applicable ASB or a not affected part.

The applicable ASB: Leonardo Alert Service Bulletin (ASB) 139-533, ASB 169-099 and ASB 189-195, as applicable.

Reason:

Occurrences have been reported of uncommanded EFS deployment on AW139, AW169 and AW189 helicopters. Results of the subsequent technical investigation revealed that these events may have been caused by the improper accomplishment of the reset procedure of the SMA actuation device which lead to an unstable condition of the system.

This condition, if not corrected, could lead to further events of uncommanded EFS deployment, possibly resulting in reduced control of the helicopter.

To address this potential unsafe condition, Leonardo issued the applicable ASB, providing instructions to accomplish the reset procedure on each pin-puller of the SMA system using a new design of the reset tool and the application of an increased torque value of 0.7 Nm. The improved reset procedure described in the applicable ASB is also used on the production line and in authorised stations for overhaul activities.

For the reasons described above, and as the reset procedure on each pin-puller of the SMA system cannot be accomplished while the system is installed on the helicopter, this AD requires removal of each affected part from the helicopter and installation of a serviceable part. This AD also prohibits installation of an affected part on a helicopter.

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

Required as indicated, unless accomplished previously:

Table 1 - Affected Parts

Helicopter	Affected Part s/n
AB139 and AW 139	up to s/n 1801 inclusive, except s/n 1783, s/n 1784
AW169	up to s/n 67 inclusive
AW189	up to s/n 182 inclusive, except 117

Removal / Installation:

- (1) Within the compliance time specified in Table 2 of this AD, as applicable, remove each affected part from the helicopter and install a serviceable part. This action can be accomplished in accordance with the instructions of the applicable ASB.



Table 2 – Removal / Installation

Helicopter	Compliance Time (after the effective date of this AD)
AB139 and AW139	100 flight hours (FH)
AW169	45 FH
AW189	

Part Installation:

(2) From the effective date of this AD, do not install an affected part on any helicopter.

Ref. Publications:

Leonardo S.p.A. Helicopters SB 139-533 original issue dated 30 August 2018.

Leonardo S.p.A. Helicopters SB 169-099 original issue dated 30 August 2018.

Leonardo S.p.A. Helicopters SB 189-195 original issue dated 30 August 2018.

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 Safety 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. E-mail: cse.aw139.AW@leonardocompany.com.

