Airworthiness Directive

AD No.: **2019-0184**

Issued: **29 July 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:	Type/Model designation(s):
AIRBUS HELICOPTERS	SA 365, AS 365, EC155, AS 350, EC 130 and AS355 helicopters

Effective Date: 12 August 2019

TCDS Number(s): EASA.R.105, EASA.R.008, EASA.R.146

Foreign AD: Not applicable

Supersedure: None

ATA 67 – Rotors Flight Control – Main Rotor Servo Actuators – Inspection

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Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France, Aerospatiale, Sud Aviation

Applicability:

SA 365 N, SA 365 N1, AS 365 N2, AS 365 N3, EC155 B and EC155 B1 helicopters, all serial numbers (s/n);
AS 350 B3 helicopters, all s/n, if equipped with dual hydraulic system (OP 3346 or OP 3082);
EC 130 B4 and EC 130 T2 helicopters, all s/n; and
AS355 F, AS355 F1, AS355 F2, AS355 N and AS355 NP helicopters, all s/n.

Definitions:

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

The applicable ASB: AH Emergency Alert Service Bulletin (ASB), single publication, applicable to the different helicopter types and models as identified in Table 1 of this AD.

Affected part: Main rotor (M/R) servo actuators as identified by Manufacturer Part Number (MP/N) and AH P/N in Table 2 of this AD, supplied by AH before the effective date of this AD.

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Serviceable part: An affected part that, before installation, has passed an inspection (no defects detected) in accordance with the instructions of paragraph 3.B of the ASB; or an M/R servo actuator, having an MP/N and AH P/N as identified in Table 2 of this AD, that is new (not previously installed) and supplied by AH after the effective date of this AD.

Reason:

During a cruise flight, an AS 365 N3 helicopter experienced a sudden, strong nose-up attitude followed by intensive vibrations and increased loads on the flight controls. The pilots were able to perform an emergency landing without any damages, as per the procedure described in the Flight Manual. The post-flight visual inspection of the front left-hand M/R servo actuator showed that the threaded-shouldered bushing holding the lower end-fitting was uncoupled from the actuator body.

This condition, if not detected and corrected, could lead to loss of control of the helicopter.

To address this potential unsafe condition, AH issued the ASB, providing inspection instructions. The inspection is extended to other helicopter types and models, due the similarity in design of the installed M/R servo actuators.

For the reasons described above, this AD requires a one-time inspection of each affected part for correct installation of the threaded-shouldered bushing and, depending on findings, replacement.

This AD is considered an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

Inspection(s):

(1) Within 55 flight hours (FH) after the effective date of this AD, inspect each affected part in accordance with the instructions of paragraph 3.B of the applicable ASB.

Corrective Action(s):

(2) If, during the inspection as required by paragraph (1) of this AD, the installation of the threaded-shouldered bushing of an affected part is found defective, before next flight, replace that affected part with a serviceable part.

(3) If, during the inspection as required by paragraph (1) of this AD, the threaded-shouldered bushing of an affected part is found correctly installed, place a slip-mark on the components of the threaded-shouldered bushing and end-fitting joint of that affected part in accordance with the instructions of paragraph 3.B of the applicable ASB.

(4) Within 15 FH after accumulating 150 FH since accomplishment of the actions as required by paragraph (3) of this AD, inspect the slip-mark for alignment in accordance with instructions of paragraph 3.B of the applicable ASB.

(5) If, during the inspection as required by paragraph (4), any segment of the slip-mark is found not aligned, replace the affected part with a serviceable part.

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Parts Installation:

(6) From the effective date of this AD, it is allowed to install an affected part on any helicopter, provided the part is a serviceable part, as defined in this AD.

Table 1 – Applicable ASB

Type / Model	**ASB Number** (original issue)
SA 365 N and N1, AS 365 N1, N2 and N3	67.00.17
EC155 B and B1	67A016
AS 350 B3	67.00.77
EC 130 B4, T2	67A021
AS355 F, F1, F2, N and NP	67.00.48

Table 2 – Affected Parts

Type(s)	**P/N** (all s/n)
AS 365 and EC155	MP/N SC8031 (P/N 704A44831074), MP/N SC8031-1 (P/N 704A44831117), MP/N SC8031-2 (P/N 704A44831144), MP/N SC8031A (P/N 704A44831106), MP/N SC8032 (P/N 704A44831097), MP/N SC8032-1 (P/N 704A44831118), MP/N SC8032-2 (P/N 704A44831145), MP/N SC8033-1 (P/N 704A44831127), MP/N SC8033-2 (P/N 704A44831146), MP/N SC8034-1 (P/N 704A44831128), MP/N SC8034-2 (P/N 704A44831147), MP/N SC8037 (P/N 704A44831149) and MP/N SC8037-1 (P/N 704A44831155).
AS 350, EC 130 and AS355	MP/N SC8042 (P/N 704A44831102) and MP/N SC8043 (P/N 704A44831103)

Ref. Publications:

AH AS365 Emergency ASB 67.00.17 original issue dated 25 July 2019.

AH EC155 Emergency ASB 67A016 original issue dated 25 July 2019.

AH AS350 Emergency ASB 67.00.77 original issue dated 25 July 2019.

AH EC130 Emergency ASB 67A021 original issue dated 25 July 2019.

AH AS355 Emergency ASB 67.00.48 original issue dated 25 July 2019.

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

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Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.

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: Airbus Helicopters (Technical Support)
Web portal: https://keycopter.airbushelicopters.com Technical Requests Management, or
E-mail: support.technical-hydraulics.ah@airbus.com, and
TechnicalSupport.Helicopters@airbus.com.

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