



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 18-144

Issued: 29 October 2018

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

AIRBUS HELICOPTERS

Type/Model designation(s):

AS 332 and SA 330 helicopters

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.R.002

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2018-0042 dated 14 February 2018.

ATA 64 – Tail Rotor – Hub Assembly – Replacement

Manufacturer(s):

Airbus Helicopters, formerly Eurocopter, Eurocopter France, Aerospatiale, Sud Aviation

Applicability:

AS 332 C, AS 332 C1, AS 332 L, AS 332 L1 and SA 330 J helicopters, all manufacturer serial numbers.

Definitions:

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

Affected part: Flapping hinge components installed on tail rotor (TR) transmission assemblies, as defined by Part Number (P/N) in Table 1 of this AD.

Serviceable part: An affected part which is new (not previously installed on a helicopter).

The applicable replacement ASB: Airbus Helicopters Alert Service Bulletin (ASB) AS332-05.01.10 and ASB SA330-05.105, as applicable.



Reason:

Damage of flapping hinge link on one of the five tail rotor blades of the tail rotor was reported. Investigation is ongoing to determine the root cause of the damage.

This condition, if not detected and corrected, could lead to failure of flapping hinge link and unbalance of the TR, possibly resulting in detachment of TR gearbox and TR hub, with consequent loss of control of the helicopter.

To address this potentially unsafe condition and pending further information from the technical investigation, AH issued ASB AS332 64.00.43 and ASB SA330 65.132 to provide inspection instructions and, consequently, EASA issued Emergency AD 2017-0232-E (for AS 322 only), which was subsequently superseded by AD 2018-0042, expanding the Applicability to SA 330 J helicopters, to require a one-time inspection of flapping hinges of the TR blades and, depending on findings, corrective action(s). EASA AD 2018-0042 also required reporting of the detected findings and sending any cracked components to AH to support the investigation.

Since that AD was issued, it was determined that repetitive replacement (reduction of service life) of affected parts is necessary to ensure that the repeated loads of variable magnitude, expected to be imposed on an affected part during its service life, do not lead to part failure.

Prompted by this development, Airbus Helicopters issued the applicable replacement ASB to provide replacement and reporting instructions to support the investigation.

For the reasons described above, this AD supersedes EASA AD 2018-0042, and requires repetitive replacement of affected parts and reporting.

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:

Table 1 – Tail Rotor Transmission Assemblies

Helicopter	P/N
AS 332	332A330001.02, 332A330001.03, 332A330001.04, 332A330001.05 and 332A330001.06
	332A330009.00 and 332A330009.01
SA 330	330A330000.04, 330A330000.05, 330A330000.06, 330A330000.07, 330A330000.08, 330A330000.09, 330A330000.10, 330A330000.11, 330A330000.12, 330A330000.13, 330A330000.14, 330A330000.15, 330A330000.16, 330A330000.17, 330A330000.18 and 330A330000.19

Replacement:

- (1) Within the compliance time specified in paragraph 1.E of the applicable replacement ASB, and thereafter, at intervals not to exceed the value as defined in Table 2 of this AD, as applicable, replace and inspect each affected part with a serviceable part in accordance with the instructions specified in paragraph 3. of the applicable replacement ASB.



Table 2 – Affected Part Reduced Service Life

Helicopter	Replacement (see Note 1 of this AD)
AS 332	250 flight hours (FH)
SA 330	300 FH

Note 1: The FH specified in Table 2 of this AD are those accumulated by the affected part since first installation on a helicopter.

Reporting:

- (2) Within the compliance time defined in Table 3 of this AD, report the inspection result (including no findings) detected during the inspection, as required by paragraph (1) of this AD, to Airbus Helicopters in accordance with the instructions of the applicable replacement ASB.

Table 3 – Reporting

Inspection results	Compliance Time (days after replacement as required by paragraph (1) of this AD)
Findings found	7 days
No findings	15 days

Terminating Action:

- (3) None.

Parts Installation:

- (4) From the effective date of this AD, it is allowed to install (see Note 2 of this AD) on any helicopter an affected part, provided that it is a serviceable part, as defined in this AD.

Note 2: For the purpose of this AD, removal of an affected part from a helicopter and subsequent re-installation of that affected part in the same position on the tail rotor transmission assembly of that helicopter within the same maintenance visit is not “installation” as specified in paragraph (4) of this AD.

Ref. Publications:

Airbus Helicopters ASB AS332-05.01.10 original issue dated 25 October 2018.

Airbus Helicopters ASB SA330-05.105 original issue dated 25 October 2018.

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

Remarks:

1. This Proposed AD will be closed for consultation on 12 November 2018.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.



3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the [EU aviation safety reporting system](#).
4. For any question concerning the technical content of the requirements in this PAD, please contact: Airbus Helicopters (EBSESB) – Aéroport de Marseille Provence, 13725 Marignane Cedex, France; Telephone +33 (4) 42 85 97 97; Fax +33 (4) 42 85 99 66; E-mail: Directive.technical-support@airbus.com.

