Airworthiness Directive

AD No.: 2019-0074R1

Issued: 08 March 2022

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:

AIRBUS HELICOPTERS

Type/Model designation(s):

EC 225 LP helicopters

Effective Date:	Revision 1: 15 March 2022 Original issue: 11 April 2019
TCDS Number(s):	EASA.R.002
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2019-0074 dated 28 March 2019 which superseded EASA AD 2017-0191R2 dated 15 December 2017.

ATA 62 – Main Rotor – Rotating Swashplate Yokes – Inspection / Rework / Service Life Limit

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France

Applicability:

EC 225 LP helicopters, all manufacturer serial numbers (s/n).

Definitions:

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

The ASB: EC225 Emergency Alert Service Bulletin (ASB) 05A051 Revision 2.

Affected part: Main Rotor (M/R) rotating swashplate Part Number (P/N) 332A31-3074-00 or P/N 332A31-3074-01, all s/n.

Serviceable part: An M/R rotating swashplate which is an affected part that has accumulated less than 7 years since new (date of manufacture); or an M/R rotating swashplate that has accumulated 7 years or more, but less than 13 years since new (date of manufacture), and that, before

installation, has passed an inspection (no defects found), or has been reworked in each yoke area, in accordance with the instructions of Section 3.B of the ASB.

Reason:

It was identified that the control rod attachment yokes of the M/R rotating swashplate are susceptible to crack development, due to ageing phenomenon.

This condition, if not detected and corrected, could lead to structural failure of a control rod attachment yoke of the M/R rotating swashplate, possibly resulting in loss of control of the helicopter.

To address this potentially unsafe condition, AH issued EC225 Emergency ASB 05A051 to provide inspection instructions and EASA issued Emergency AD 2017-0191-E (later revised) to require repetitive inspections of the M/R rotating swashplate yokes and, depending on findings, accomplishment of applicable corrective action(s).

After EASA AD 2017-0191R2 was issued, additional analysis determined that it is necessary to introduce a Service Life Limit (SLL) for affected parts to ensure their serviceability. Consequently, AH issued the ASB to introduce an SLL applicable to the affected parts and provide reporting instructions. Afterwards, EASA issued AD 2019-0074 retaining the requirements of EASA AD 2017-0191R2, which was superseded, to require implementation of the applicable SLL, after which the affected part has to be removed from service, and to request reporting. Additional investigation confirmed that the SLL introduced by AD 2019-0074 can be extended and AH issued Revision 4 of EC225 Emergency ASB 05A051 to reflect this development.

For the reasons described above, this AD is revised to extend the SLL referenced in this AD.

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

Required as indicated, unless accomplished previously:

Inspection(s):

(1) Within the compliance time defined in Table 1 of this AD, and, thereafter, at intervals not to exceed 15 flight hours (FH) or 7 days, whichever occurs first, inspect each yoke of the affected part in accordance with the instructions of Section 3.B of the ASB.

Table 1 – M/R Swashplate Yoke Inspection (see Note 1 of this AD)

Time Accumulated	Compliance Time
Less than 7 years	Within 15 FH or 7 days after accumulating 7 years
7 years or more	Within 15 FH or 7 days after 27 September 2017 [the effective date of EASA AD 2017-0191 at original issue]

(2) Within the compliance time defined in Table 2 of this AD, strip and inspect each yoke area of the affected part as defined in, and in accordance with, the instructions of Section 3.B of the ASB.

Table 2 – M/R Swashplate Yoke Strip Inspection (see Note 1 of this AD)

Time Accumulated	Compliance Time
Less than 7 years	Before exceeding 100 FH after accumulating 7 years
7 years or more	Before exceeding 100 FH after 27 September 2017 [the effective date of EASA AD 2017-0191 at original issue]

Note 1: The time specified in Table 1 or Table 2 of this AD is the time accumulated on 27 September 2017 [the effective date of EASA AD 2017-0191 at original issue] by the affected part since new.

Corrective Action(s):

(3) If, during any inspection as required by paragraph (1) or (2) of this AD, any corrosion is detected, before next flight, rework the affected yoke area(s) of the affected part in accordance with the instructions of Section 3.B of the ASB.

(4) If, during any inspection as required by paragraph (1) or (2) of this AD, any crack is detected, before next flight, replace the affected part with a serviceable part in accordance with the instructions of the ASB.

Credit:

(5) Inspection(s) and corrective action(s) accomplished on a helicopter, before 11 April 2019 [the effective date of this AD at original issue], in accordance with the instructions of EC225 Emergency ASB 05A051 original issue or Revision 1 are acceptable to comply with the initial requirements of paragraphs (1), (2), (3) and (4) of this AD for that helicopter.

Part Replacements / SLL Implementation:

(6) Within the compliance time defined in Table 3 of this AD and, thereafter, before an affected part exceeds 13 years since new (date of manufacture), replace that affected part with a serviceable part in accordance with the instructions of Section 3.B of the ASB.

Table 3 – M/R Swashplate Replacement (see Note 2 of this AD)

Time Accumulated	Compliance Time
Less than 12 years and 9 months	Before exceeding 13 years
12 years and 9 months or more	Within 3 months after 11 April 2019 [the effective date of this AD at original issue]

Note 2: The time specified in Table 3 of this AD is the time accumulated on 11 April 2019 [the effective date of this AD at original issue] by the affected part since new (since the date of manufacture).

Reporting:

(7) If, during the initial inspection, as required by paragraphs (1) and (2) of this AD, no damage is detected, or during any inspection as required by paragraphs (1) and (2) of this AD, any damage is detected, within 30 days after that inspection, or within 30 days after 11 April 2019 [the effective date of this AD at original issue], whichever occurs later, report the inspection results to AH in accordance with the instructions of Appendix 4.B of the ASB.

Terminating Action:

(8) None.

Parts Installation:

(9) From 11 April 2019 [the effective date of this AD at original issue], installation of an affected part on a helicopter is allowed, provided that the part is a serviceable part, as defined in this AD, and that, following installation, the swashplate yokes are inspected and/or replaced as required by this AD.

Ref. Publications:

AH EC225 Emergency ASB 05A051 original issue dated 22 September 2017, or Revision 1 dated 16 November 2017, or Revision 2 dated 26 February 2019, or Revision 3 dated 07 December 2021, or Revision 4 dated 28 February 2022.

The use of later approved revisions of the above-mentioned document 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. The original issue of this AD was posted on 27 February 2019 as PAD 19-032 for consultation until 27 March 2019. No comments were received during the consultation period.

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. This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.

5. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters (Technical Support), Aéroport de Marseille Provence 13725 Marignane Cedex, France, Telephone +33 (0)4 42 85 97 97, Fax +33 (0)4 42 85 99 66, Web portal: https://keycopter.airbushelicopters.com > Technical Requests Management, E-mail: support.technical-dyncomp.ah@airbus.com, and TechnicalSupport.Helicopters@airbus.com.