



Airworthiness Directive

AD No.: 2022-0087

Issued: 16 May 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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] 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: 30 May 2022

TCDS Number(s): EASA.R.002

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2021-0156 dated 02 July 2021.

ATA 28 – Fuel – Engine Fuel Supply Hoses – Inspection / Modification / Re-tightening

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter

Applicability:

EC 225 LP helicopters, all manufacturer serial numbers.

Definitions:

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

Affected part: Left-hand (LH) side engine fuel supply hoses, Part Number (P/N) 704A34416087.

Serviceable part: An affected part which is new (never previously installed); or an affected part which was previously installed on a helicopter and, before reinstallation, has passed an inspection (no defect found) in accordance with the instructions of section 3.B.5 of the inspection ASB; or an affected part which was originally installed on a Group 2 helicopter and was never previously reinstalled.

Improved part: LH side engine fuel supply hoses, P/N 704A34416101.

The inspection ASB: AH Alert Service Bulletin (ASB) EC225-71A019 Revision 2.



The VLV check: Repetitive flight related check (VLV), as defined in EC 225 LP Master Servicing Manual.

The modification ASB: AH ASB EC225-28A026 Revision 1.

Groups: Group 1 helicopters are those delivered to the first operator before 30 November 2018; and those delivered to the first operator on 30 November 2018 or later on which the affected part or the LH side engine was replaced or reinstalled before 10 May 2019 [the effective date of EASA AD 2019-0092].

Group 2 helicopters are those delivered to the first operator on 30 November 2018 or later on which neither the affected part nor the LH side engine was replaced or reinstalled before 10 May 2019 [the effective date of EASA AD 2019-0092].

Group 3 helicopters are those that have embodied AH modification (mod) 0728745 in production.

Reason:

An occurrence was reported where, during an in-flight single engine power check, power loss was experienced on the LH side engine. Subsequent investigation determined that the fuel flow to the affected engine was restricted by a twisted fuel supply hose.

This condition, if not detected and corrected, could lead to decrease of the LH engine power when accelerating to power setting corresponding to One Engine Inoperative power, possibly resulting in reduced control of the helicopter.

To address this potential unsafe condition, AH issued ASB EC225-71A019 (later revised) to provide inspection instructions. Additionally, AH intended to revise the applicable Aircraft Maintenance Manual (MMA) work cards 71-00-00-051 (Removal - Installation - POWER PLANT) and 28-20-00-068 (Removal / Installation - LH engine fuel supply line - FUEL SUPPLY SYSTEM) to provide improved fuel hose installation instructions, thereby preventing improper installation of an affected part. Consequently, EASA issued AD 2019-0092 to require a one-time inspection of the affected part and, depending on findings, accomplishment of applicable corrective action(s). That AD also introduced requirements for (re)installation of an affected part or a LH side engine equipped with an affected part.

After that AD was issued, AH developed mod 0728745, introducing the improved part, as defined in this AD, and issued ASB EC225-28A026 (original issue), providing instructions to replace the affected part with an improved part. AH also issued the inspection ASB, as defined in this AD, excluding from the applicability helicopters with an improved part installed. Prompted by this development, EASA issued AD 2021-0156, retaining the requirements of EASA AD 2019-0092, which was superseded, and requiring replacement of the affected part with an improved part.

Since that AD was issued, difficulties were reported to install the improved part by using an inappropriately shaped adjusting tool. Consequently, AH issued the modification ASB, as defined in this AD, providing instructions to use an improved adjusting tool. The modification ASB also provides updated tightening torque values for the junction nuts of the improved part and re-tightening instructions as additional work for helicopters that have embodied mod 0728745 in production and for helicopters which were modified in accordance with the instructions of AH ASB EC225-28A026 at original issue.



For the reasons described above, this AD retains the requirements of AD 2021-0156, which is superseded, and requires additional re-tightening of the junction nuts of the improved part already installed.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 helicopters: Within 110 flight hours (FH) or 6 months, whichever occurs first after 10 May 2019 [the effective date of EASA AD 2019-0092], inspect the affected part in accordance with the instructions of the section 3.B.2 of the inspection ASB.

Corrective Action(s):

- (2) If, during the inspection as required by paragraph (1) of this AD, discrepancies are detected, as defined in the inspection ASB, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the inspection ASB, or modify the helicopter in accordance with the instructions of the modification ASB.

Modification:

- (3) For Group 1 and Group 2 helicopters: Within 1 200 FH or 36 months, whichever occurs first after 16 July 2021 [the effective date of EASA AD 2021-0156], modify the helicopter by replacing the affected part with an improved part, as defined in this AD, in accordance with the instructions of the modification ASB.

Additional Work – Re-tightening:

- (4) For helicopters modified before the effective of this AD in accordance with the instructions of AH ASB EC225-28A026 at original issue, and for Group 3 helicopters: During the next (re)installation after the effective date of this AD of the LH engine or of an improved part, as applicable, re-tighten the junction nuts of the improved part in accordance with the instructions of the modification ASB.

Credit:

- (5) Inspection and corrective action on a helicopter, accomplished before 16 July 2021 [the effective date of EASA AD 2021-0156] in accordance with the instructions of AH ASB EC225-71A019 original issue, or Revision 1, as applicable, are acceptable to comply with the requirements of paragraphs (1) and (2) of this AD for that helicopter.
- (6) Modification of a helicopter, accomplished before the effective date of this AD in accordance with the instructions of AH ASB EC225-28A026 at original issue, is an acceptable method to comply with the requirements of paragraph (3) of this AD for that helicopter, provided that during each VLV check, as defined in this AD, after the effective date of this AD, the improved part is inspected in accordance with the instructions of the modification ASB and, depending on findings, corrected in accordance with approved maintenance instructions.



Terminating Action:

- (7) Re-tightening of the junction nuts of the improved part on a helicopter as required by paragraph (4) of this AD constitutes terminating action for the repetitive inspections of the improved part as required by paragraph (6) of this AD for that helicopter.

Parts Installation:

- (8) For Group 1 and Group 2 helicopters: From 10 May 2019 [the effective date of EASA AD 2019-0092], it is allowed to install or re-install on any helicopter an affected part, or a LH side engine, provided that the affected part is a serviceable part, as defined in this AD, and that the (re)installation is accomplished in accordance with the instructions of section 3.B.3 of the inspection ASB.
- (9) Installation of a serviceable part on a helicopter, accomplished in accordance with the instructions of AH MMA work cards 71-00-00-051 or 28-20-00-068 (provided these include instructions equivalent to those detailed in section 3.B.3 of the inspection ASB), is an acceptable alternative method to comply with the (re)installation requirements of paragraph (8) of this AD for that helicopter.
- (10) After modification of a helicopter as required by paragraph (3) of this AD, it is allowed to install or reinstall a fuel supply hose on the LH side engine of that helicopter, provided that it is an improved part, as defined in this AD, and that the installation or reinstallation is accomplished in accordance with the instructions equivalent to those detailed in the modification ASB.
- (11) For Group 3 helicopters: From 16 July 2021 [the effective date of EASA AD 2021-0156], do not install on any helicopter an affected part on the LH side engine, nor a LH side engine with an affected part installed.

Ref. Publications:

AH ASB EC225-71A019 original issue dated 26 February 2019, or Revision 1 dated 28 February 2019, or Revision 2 dated 21 May 2021.

AH ASB EC225-28A026 original issue dated 21 May 2021, or Revision 1 dated 06 May 2022.

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](#). 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: TechnicalSupport.Helicopters@airbus.com.

