European Union Aviation Safety Agency

Airworthiness Directive

AD No.: 2018-0039R1

Issued: 25 September 2020

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):
AS 332 and EC 225 LP helicopters

Effective Date: Revision 1: 02 October 2020
Original issue: 23 February 2018

TCDS Number(s): EASA.R.002

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2018-0039 dated 09 February 2018, including its Correction dated 07 March 2018, which superseded EASA AD 2016-0049 dated 10 March 2016.

ATA 56 – Windows – Jettisoning System – Installation

Manufacturer(s):
Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France, Aerospatiale

Applicability:
AS 332 C, AS 332 C1, AS 332 L and AS 332 L1 helicopters, all serial numbers (s/n), except helicopters on which AH modification (mod) 07 28630, mod 332P087142.09 or mod 332P087142.12 has been embodied in production or modified in service in accordance with AH Alert Service Bulletin (ASB) AS332-56.00.18, ASB AS332-56.00.20 or ASB AS332-56.00.21, as applicable;

AS 332 L2 helicopters, all s/n, except helicopters on which AH mod 07 28630, mod 332P087142.00 or mod 332P087140.00 has been embodied in production or modified in service in accordance with AH ASB AS332-56.00.16, ASB AS332-56.90.14 or ASB AS332-56.90.13; and

EC 225 LP helicopters, all s/n, except helicopters on which AH mod 332P087140.00, mod 07 28370, mod 332P087142.00, mod 332P087142.03, mod 332P087142.06, mod 332A087149.00 or mod 332A087149.03 has been embodied in production or modified in service in accordance with AH ASB EC225-56C012, ASB EC225-56A013, ASB EC225-56A015, ASB EC225-56A016 or ASB EC225-56A017, as applicable.

Definitions:

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

The applicable ASB: AH ASB EC225-05A046 Revision 1, ASB AS332-05.01.05 Revision 1, ASB EC225-56C012 original issue, and AS332-56.90.13 original issue, as applicable, depending on helicopter model and s/n.

Groups: Group 1 helicopters are AS 332 C, AS 332 C1, AS 332 L, AS 332 L1, AS 332 L2 and EC 225 LP helicopters, all s/n, except those defined as Group 2.

Group 2 helicopters are:
- EC 225 LP (VIP configuration) helicopters, s/n as listed in ASB EC225-56C012.
- AS 332 L2 (VIP configuration) helicopters, s/n as listed in ASB AS332-56.90.13.

Reason:

An occurrence was reported where difficulty was experienced in jettisoning a helicopter window, requiring the application of a high pushing force. Subsequent investigation determined that the associated window seal was in a good condition with no indication of contamination with paint or hardening. Excessive friction between the window seal and the helicopter airframe was identified to be the root cause of the failure mode.

This condition, if not corrected, could prevent the jettisoning of a window, possibly affecting the evacuation of helicopter occupants during an emergency situation.

To address this potentially unsafe condition, AH issued ASB EC225-05A046 and ASB AS332-05.01.05 to provide modification instructions to reduce friction between the window frame and the jettisonable window. Consequently, EASA issued EASA AD 2016-0049 to require installation of Polytetrafluoroethylene (PTFE) skived film on the window frame.

After that AD was issued, new investigations carried out on VIP cabin windows equipped with PTFE skived film revealed that the thickness of these windows needed a greater force to jettison a window than for standard jettisonable windows equipped with PTFE skived film. In order to reduce these forces to acceptable levels, AH issued ASB EC225-56C012 and ASB AS332-56.90.13 providing instructions to install silicone seals on VIP cabin windows instead of the PTFE skived film and existing polychloroprene seals. Consequently, EASA issued AD 2018-0039, retaining the requirements of EASA AD 2016-0049, which was superseded, and required removal of the PTFE skived film and installation of silicone seals in replacement of the polychloroprene seals on VIP cabin windows for Group 2 helicopters.

Since that AD was issued, AH developed for Group 1 helicopters various modifications and corresponding ASBs for the windows jettisoning system, by removing the PTFE skin between the window seal and the helicopter airframe, and installing silicone seals instead of seals currently installed on the helicopter cabin windows. These modifications and ASBs restore the window jettisoning system performance to approved design standard and ensure that the modified helicopters are not affected by the unsafe condition addressed by this AD.

This AD is revised to exclude modified helicopters from the Applicability.

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

Required as indicated, unless accomplished previously:

Modification:

(1) For Group 1 helicopters: Within the compliance time defined in paragraph 1.E.2 of the applicable ASB, depending on the operational environment, install PTFE skived film on each affected window frame in accordance with the instructions of the applicable ASB.

(2) For Group 2 helicopters: Within the compliance time defined in paragraph 1.E.2 of the applicable ASB, depending on the operational environment, remove the PTFE skived film and polychloroprene seals and install silicone seals on each affected window frame in accordance with the instructions of the applicable ASB.

Credit:

(3) Installation of PTFE skived film on the window frame of a Group 1 helicopter, accomplished before 23 February 2018 [the effective date of the original issue of this AD] in accordance with the instructions of AH ASB EC225-05A046 or ASB AS332-05.01.05 at original issue, is acceptable to comply with the requirements of paragraph (1) of this AD for that helicopter.

Parts Installation:

(4) From 23 February 2018 [the effective date of the original issue of this AD], installation or replacement of a jettisonable window on a helicopter is allowed, provided that, before or during installation, a PTFE skived film (for Group 1 helicopters) or silicone seal (for Group 2 helicopters), as applicable, is installed in accordance with the instructions of the applicable ASB.

Ref. Publications:

AH ASB EC225-05A046 original issue dated 08 March 2016, or Revision 1 dated 08 February 2018, or Revision 2 dated 10 April 2019, or Revision 3 dated 10 February 2020.

AH ASB AS332-05.01.05 original issue dated 08 March 2016, or Revision 1 dated 08 February 2018, or Revision 2 dated 10 April 2019, or Revision 3 dated 10 February 2020, or Revision 4 dated 23 September 2020.

AH ASB EC225-56C012 original issue dated 08 February 2018.

AH ASB AS332-56.90.13 original issue dated 08 February 2018.

AH AS332-56.00.18 original issue dated 23 September 2020.

AH ASB AS332-56.00.20 original issue dated 23 September 2020.

AH ASB AS332-56.00.21 original issue dated 23 September 2020.

AH ASB AS332-56.00.16 original issue dated 10 February 2020.

AH ASB AS332-56.90.14 original issue dated 10 April 2019.

AH ASB EC225-56A013 original issue dated 10 April 2019, or Revision 1 dated 10 February 2020.

AH ASB EC225-56A015 original issue dated 10 February2020.

AH ASB EC225-56A016 original issue dated 10 February 2020.

AH ASB EC225-56A017 original issue dated 10 February 2020.

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 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. 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.