



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 23-059

Issued: 26 May 2023

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):

EC 175 B helicopters

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

TCDS Number(s): EASA.R.150

Foreign AD: Not applicable

Supersedure: None

ATA 52 – Doors – Bad Weather Windows Emergency Exit Mechanisms – Inspection

Manufacturer(s):

Airbus Helicopters (AH)

Applicability: EC 175 B helicopters, all serial numbers (s/n).

Definitions:

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

The ASB: AH Alert Service Bulletin (ASB) EC175-52-10-0001.

The procedure: Accomplishment procedure '52-10-0001, 933' of the ASB.

Affected part: All cockpit doors, having Part Number (P/N) M521A20A1002 [Manufacturer P/N (MP/N) C1E175PBG000000D] [left-hand (LH) side] and P/N M521A10A1002 (MP/N C1E175PBD000000D) [right-hand (RH) side]; bad weather window (BWW) assemblies, having MP/N HZ0000066970 (LH side) and MP/N HZ0000066980 (RH side), and jettison (release) mechanisms, having MP/N HZ0000104160 (LH side) and MP/N HZ0000127690 (RH side), which have been produced before 20 April 2023, except those which have been inspected and modified, as applicable, in accordance with the instructions of the ASB.



Groups: Group 1 helicopters are those which have an affected part installed. Helicopters having s/n 5002 to 5040 inclusive, s/n 5042, s/n 5044 to 5052 inclusive, s/n 5057, 5058, 5059, 5061 and 5063 are known to be initially delivered with an affected part installed.

Group 2 helicopters are those which do not have an affected part installed. Helicopters having a s/n that is not in the list of s/n in the definition of Group 1 are considered Group 2, provided that no affected part has been installed since their initial delivery.

Reason:

Occurrences were reported where, during operational checks of the functioning of the EC 175 flight crew emergency escape system, the BWW of one of the cockpit doors would not jettison as intended. Investigation revealed that the release cable to jettison the window had somehow come off the guide wheel and therefore the lock pins probably did not fully retract when the escape mechanism was activated. During further analyses, it was discovered that some jettison mechanisms had not been manufactured in conformity with the approved design, creating a too low tension of the release cable, as a result of which it could come loose and derail from the groove of the guide wheel.

It was also determined that the procedures in the AH maintenance manual for the (periodical) check of the BWW jettison mechanism, including instructions for re-installation of the BWW and checking the correct connection (installation) of the jettison (release) mechanism after each performed operational check, was not robust enough, with the risk that after execution of such a check, the jettison mechanism of the escape window would not function properly in case of its activation during a real emergency.

These conditions, if not detected and corrected, could prevent jettisoning of the BWW of a cockpit door used as an emergency exit, which especially in case of water impact or ditching and capsizing of the helicopter, could possibly result in the inability for the flight crew to escape.

To address this unsafe condition, AH issued the ASB, as defined in this AD, to provide inspection instructions and to introduce additional and amended maintenance tasks.

For the reasons described above, this AD requires a one-time inspection of all affected parts and, depending on findings, accomplishment of applicable corrective action(s). This AD also requires implementation of more robust (periodical) operational checks of the BWW jettison system, including a thorough check of the activation mechanism after each re-installation of the BWW.

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) For Group 1 helicopters: Within 1 760 flight hours or 24 months, whichever occurs first after the effective date of this AD, inspect each affected part for conformity by checking the correct position of the emergency exit mechanism rod nut plate in accordance with the instructions of sections 4.2 and 4.3 of the procedure, as defined in this AD.



Corrective action(s):

- (2) For Group 1 helicopters: If, during the inspection as required by paragraph (1) of this AD, any discrepancy is detected, as defined in the ASB, before next flight, replace the BWW jettison (release) mechanism in accordance with the instructions of section 4.3 of the procedure and, before release to service, check and adjust, as applicable, the tension of the release cable in accordance with the instructions of section 4.4 of the procedure.
- (3) For Group 1 helicopters: Unless accomplished as required by paragraph (2) of this AD, before release to service after the inspection as required by paragraph (1) of this AD, check and adjust, as applicable, the tension of the release cable in accordance with the instructions of section 4.4 of the procedure.

Additional maintenance requirement(s):

- (4) For Group 1 and Group 2 helicopters: From the effective date of this AD, each time when a BWW is removed and (re)installed, and during each operational check of a cockpit door emergency exit, accomplish the instructions of sections 4.5 to 4.11 (inclusive) of the procedure.

Terminating Action:

- (5) None.

Parts Installation:

- (6) For Group 1 and Group 2 helicopters: From the effective date of this AD, do not install on any helicopter an affected part.

Ref. Publications:

AH ASB EC175-52-10-0001 original issue (Issue 001) dated 20 April 2023.

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

Remarks:

1. This Proposed AD will be closed for consultation on 23 June 2023.
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](#). This may include reporting on the same or similar components, other than those covered by the design to which this PAD 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.



4. For any question concerning the technical content of the requirements in this PAD, please contact: Airbus Helicopters (Technical Support) at:
Web portal: <https://airbusworld.helicopters.airbus.com> / Technical Requests Management, or
E-mail: TechnicalSupport.Helicopters@airbus.com, or Telephone +33 (0)442859789.

