



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 16-046R1

Issued: 28 April 2016

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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

Type/Model designation(s):

A300, A300-600 and A310 aeroplanes

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

TCDS Number: EASA.A.0172

Foreign AD: Not applicable

Supersedure: None

ATA 53 – Fuselage – Nose Landing Gear Door Hinge Bolt Assembly – Replacement [Life Limit]

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A300, A310 and A300-600 aeroplanes, all Manufacturer Serial Numbers.

Reason:

An occurrence has been reported of failure of a nose landing gear (NLG) door aft hinge bolt assembly, Part Number (P/N) A53612600000. The result of laboratory investigations revealed that the aft hinge bolt rupture was initiated by fatigue crack development in the under head radius of the bolt, due to the lack of radius roll over and in combination with a non-optimised design.

This condition, if not detected and corrected, could lead to in-flight loss of an aft NLG door, possibly resulting in damage to the aeroplane and injury to persons on the ground.

Prompted by these findings, Airbus developed a new design aft hinge bolt assembly P/N A53612713000, introduced as Airbus modification (mod) 13741, to replace the existing bolt P/N A53612600000. Since the introduction of that mod, additional stress calculations demonstrated that



the new bolt assembly, P/N A53612713000, cannot sustain fatigue loads up to the design Limit of Validity (LOV) of the affected aeroplanes.

To address this potential unsafe condition, Airbus issued Service Bulletin (SB) A300-53-0397, SB A310-53-2144 and SB A300-53-6186, to provide instructions for the repetitive replacement of the affected post-mod 13741 P/N A53612713000 aft hinge bolts.

For the reasons described above, this AD requires the replacement of all P/N A53612600000 aft hinge bolt assemblies, installed on the left hand (LH) and right hand (RH) NLG aft doors, with post-mod 13741 P/N A53612713000 aft hinge bolt assemblies, and, subsequently, the implementation of a life limit for those new bolt assemblies.

Since EASA PAD 16-046 was issued, the requirement to replace bolts was reconsidered and it was decided that replacement bolts must be “new” instead of “serviceable”, due to the lack of traceability of the bolts (not serialised parts). This PAD is amended accordingly and re-published for additional consultation.

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

Required as indicated, unless accomplished previously:

- (1) Before exceeding 10 000 flight cycles (FC) since first flight of the aeroplane, or within 2 000 FC after the effective date of this AD, whichever occurs later, replace each P/N A53612600000 NLG aft door hinge bolt assembly with a new hinge bolt assembly P/N A53612713000 in accordance with the instructions of Airbus SB A300-53-0396, or SB A310-53-2142 or SB A300-53-6182, as applicable.
- (2) Within 10 000 FC after modification of an aeroplane as required by paragraph (1) of this AD, and, thereafter, at intervals not to exceed 10 000 FC, replace each hinge bolt assembly P/N A53612713000 with a new hinge bolt assembly in accordance with the instructions of Airbus SB A300-53-0397, or SB A310-53-2144, or SB A300-53-6186, as applicable.

Note 1: Deleted

- (3) After modification of an aeroplane as required by paragraph (1) of this AD, do not install an aft hinge bolt assembly P/N A53612600000 on any aft NLG door of that aeroplane.
- (4) After removal of a NLG aft hinge bolt assembly P/N A53612713000 from an aeroplane, as required by paragraph (2) of this AD, do not install that aft hinge bolt assembly on any aeroplane.

Ref. Publications:

Airbus SB A300-53-0396 at original issue dated 25 November 2015.

Airbus SB A300-53-0397 at original issue dated 18 January 2016.

Airbus SB A300-53-6182 at original issue dated 17 November 2015.



Airbus SB A300-53-6186 at original issue dated 18 January 2016.

Airbus SB A310-53-2142 at original issue dated 17 November 2015.

Airbus SB A310-53-2144 at original issue dated 18 January 2016.

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

Remarks:

1. This Proposed AD will be closed for consultation on 12 May 2016.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – EIAW (Airworthiness Office),
E-mail: continued.airworthiness-wb.external@airbus.com.

