Airworthiness Directive

AD No.: 2018-0036

Issued: 07 February 2018

Note: This Airworthiness Directive (AD) 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.

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 (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:
AIRBUS

Type/Model designation(s):
A350 aeroplanes

Effective Date: 21 February 2018
TCDS Number(s): EASA.A.151
Foreign AD: Not applicable
Supersedure: None

ATA 53, 55 – Fuselage / Stabilizers – Interfay Sealant in Hybrid Joints – Modification

---

Manufacturer(s):
Airbus

Applicability:
Airbus A350-941 aeroplanes, all manufacturer serial numbers (MSN), except those on which Airbus modification (mod) 106695 (or retrofit mod 110281) and mod 107824 (or retrofit mod 107877 and retrofit mod 108494) have been embodied in production.

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

The aeroplane date of manufacture: The date of transfer of title (ownership), which is referenced in Airbus documentation at the time of first delivery to an operator.

Groups: Group 1 aeroplanes are those with MSN listed in Airbus Service Bulletin (SB) A350-53-P029. Group 2 aeroplanes are those with MSN listed in Airbus SB A350-55-P003.

Reason:
In some areas of the Horizontal Tail Plane (HTP) and fuselage Section (S) 19, the interfay sealant for multimaterial joints (hybrid joints) was only applied on the surface in direct contact with aluminium parts and not between all surfaces of the joint parts. This situation does not ensure full barrier properties. To avoid any risk of water ingress in multi-material-stacks involving aluminium, it is

necessary to apply interfay sealant between all assembled parts, even between parts made of corrosion resistant material. This ensures a double barrier in the joint and prevents subsequent potential galvanic corrosion on the aluminum holes on top of the single barrier already applied in aluminium parts.

This condition, if not corrected, could reduce the structural integrity of the HTP and fuselage at S19.

To address this unsafe condition, Airbus developed production mod 106695 for fuselage at S19 and mod 107824 for HTP to improve protection against corrosion, and issued SB A350-53-P029 (Airbus mod 110281) and SB A350-55-P003 (Airbus mod 107877 and mod 108494) to provide modification instructions for in-service pre-mod aeroplanes.

For the reasons described above, this AD requires application of sealant and protective treatment on the affected areas of the HTP and fuselage at S19 and, for certain aeroplanes, modification of the trimmable horizontal stabilizer (THS) torsion box.

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

Required as indicated, unless accomplished previously:

Modifications:

(1) For Group 1 aeroplanes: Before exceeding 36 months since the aeroplane date of manufacture, or within 3 months after the effective date of this AD, whichever occurs later, apply sealant and protective treatment on the affected areas of fuselage at S19, as defined in Airbus SB A350-53-P029, in accordance with the instructions of Airbus SB A350-53-P029.

(2) For Group 2 aeroplanes: Before exceeding 36 months since the aeroplane date of manufacture, or within 3 months after the effective date of this AD, whichever occurs later, accomplish concurrently the actions as required by paragraphs (2.1) and (2.2) of this AD, in accordance with the instructions of Airbus SB A350-55-P003.

(2.1) Apply sealant and protective treatment on the affected areas of HTP, as defined in Airbus SB A350-55-P003.

(2.2) Modify the THS torsion box in zone 330 and 340, and re-identify the elevator in zone 335 and 345.

Ref. Publications:

Airbus SB A350-53-P029 original issue, dated 17 November 2017.

Airbus SB A350-55-P003 original issue, dated 06 November 2017.

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. This AD was posted on 22 December 2017 as PAD 17-180 for consultation until 19 January 2018. The Comment Response Document can be found in the EASA Safety Publications Tool, in the compressed (zipped) file attached to the record for this AD.

3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact: Airbus XWB, E-mail: continued-airworthiness.a350@airbus.com.