



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 19-093

Issued: 24 May 2019

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

Type/Model designation(s):

A330 and A340 aeroplanes

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

TCDS Number(s): EASA.A.015, EASA.A.004

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2017-0224 dated 10 November 2017.

ATA 28 – Fuel – Fuel Pump – Inspection

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343 and A330-941 aeroplanes, all manufacturer serial numbers (MSN), and

Airbus A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, A340-542, A340-642 and A340-643 aeroplanes, all MSN.

Definitions:

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

The AOT: Airbus Alert Operators Transmission (AOT) A28L006-17.

The applicable SB: Airbus Service Bulletin (SB) A330-28-3132, SB A340-28-4142 and SB A340-28-5062, as applicable, which refer to Eaton Aerospace Ltd SB 8810-28-06 Revision 2.



Affected part: Fuel pumps, having Part Number (P/N) 568-1-28300-101, or P/N 568-1-28300-103, or P/N 568-1-28300-200.

Affected location:

Location A affected parts are installed at 600QL1(2), 112QA1(2), 608QL1(2), 711QN1(2)(3)(4) and 712QN1(2). These were affected by EASA AD 2017-0224.

Location B affected parts are installed at the collector cell, 121QA1(2), 122QA1(2), 100QA1(2)(3)(4) and 101QA1(2)(3)(4). These were not affected by EASA AD 2017-0224.

Serviceable part: An affected part which is new (not previously installed), or which, before installation, has passed an inspection (no erosion detected, or only light erosion) in accordance with the instructions of the applicable SB; or a fuel pump which is not an affected part.

Groups: Group 1 aeroplanes are those that have an affected part installed. Group 2 aeroplanes are those that do not have an affected part installed.

Reason:

An occurrence was reported of a fuel pump showing cavitation erosion which breached the fuel pump housing through the inlet webs and exposed the fuel pump power supply wires. Inspections accomplished on fuel pumps removed from other aeroplanes identified signs of erosion in varying degrees. However, no other instance of break-through due to cavitation erosion was found. A list of potentially affected fuel pump P/N was established.

This condition, if not detected and corrected, could result, in case the pump is running dry, in an ignition source in the fuel tank, which may result in a fuel tank explosion and consequent loss of the aeroplane.

To address this potential unsafe condition, Airbus issued the AOT to provide instructions to inspect the affected parts when installed at specific positions, and to update the applicable Master Minimum Equipment List (MMEL). EASA published AD 2017-0224 to require accomplishment of these actions.

Since that AD was published, Airbus issued the applicable SB, introducing repetitive inspections of all affected parts, regardless of their position on the aeroplane.

For the reasons described above, this AD partially retains the requirements of EASA AD 2017-0224, which is superseded, expands the Applicability to include A330-941 aeroplanes and requires repetitive inspections of affected parts on all affected locations and, depending on findings, replacement of damaged affected parts with serviceable parts.

This AD is an interim action as it is expected that a new pump, more erosion resistant, will be developed and the installation of these pumps may be required by a new AD.



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

Required as indicated, unless accomplished previously:

Inspection of Affected Parts Installed at Affected A Locations:

- (1) For Group 1 aeroplanes: Within the compliance times specified in the applicable SB and, thereafter, at intervals not to exceed the value specified in Table 1 of this AD, as applicable, depending on the detected erosion level, inspect each affected part at affected A locations in accordance with the instructions of the applicable SB.

Table 1 – Fuel Pump Repetitive Inspection Intervals for Affected Parts Located at Affected A Locations

Erosion (as defined in Eaton Aerospace Ltd SB 8810-28-06)	Compliance Time
No erosion	5 000 flight hours (FH)
Case 1 erosion	
Case 2 erosion	1 000 FH

Inspection of Affected Parts Installed at Affected B Locations:

- (2) For Group 1 aeroplanes: Within 12 months after each date as specified in Table 2 of this AD, depending on the FH accumulated by an affected part located at affected B locations on that specific date, as applicable, inspect each affected part in accordance with the instructions of the applicable SB.

Table 2 – Fuel Pump Inspection Threshold for Affected Parts Located at Affected B Locations

Date	FH Accumulated by Affected Part
Effective date of this AD	50 000 or more
6 months after the effective date of this AD	40 000 or more
12 months after the effective date of this AD	30 000 or more
18 months after the effective date of this AD	20 000 or more

- (3) If, during the inspection as required by paragraph (2) of this AD, Case 3 erosion, as specified in the applicable SB, is detected on an affected part, within 30 months after the previous inspection, re-inspect that part in accordance with the instructions of the applicable SB.

Corrective Action(s):

- (4) If, during any inspection as required by paragraph (1) of this AD, Case 3 erosion, as specified in the applicable SB, is found on an affected part, before next flight, replace that part with a serviceable part, or de-activate that fuel pump, deferring replacement in accordance with the provisions as specified the applicable operator MEL, in accordance with the instructions of the applicable SB.
- (5) If, during any inspection as required by paragraph (2) or (3) of this AD, as applicable, breakthrough, as specified in the applicable SB, is found on an affected part, before next



flight, replace that part with a serviceable part, or de-activate that fuel pump, deferring replacement in accordance with the provisions as specified the applicable operator MEL, in accordance with the instructions of the applicable SB.

Terminating Action:

- (6) None.

Part Installation:

- (7) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, it is allowed to install on any aeroplane an affected part in an affected A location, provided it is a serviceable part, as defined in this AD and that, following installation, it is inspected as required by this AD.
- (8) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, it is allowed to install on any aeroplane an affected part in an affected B location, provided it is a serviceable part, as defined in this AD.

MMEL Changes - Dispatch Restrictions:

- (9) For Group 1 aeroplanes, except A330-941 aeroplanes: Within 30 days after 17 November 2017 [the effective date of EASA AD 2017-0224], amend the applicable MMEL, on the basis of which the operator's MEL is established, in accordance with the instructions of the AOT, inform all flight crews, and, thereafter, operate the aeroplane accordingly.

Amendment of the MMEL can be accomplished by inserting a copy of the AOT or the applicable SB into the applicable MMEL.

- (10) For Group 1 A340-500 and A340-600 aeroplanes: Concurrently with the MMEL amendment as required by paragraph (9) of this AD, amend the applicable MMEL, on the basis of which the operator's MEL is established, as indicated in Table 3 of this AD, inform all flight crews and, thereafter, operate the aeroplane accordingly.

Amendment of the MMEL can be accomplished by inserting a copy of this AD into the applicable MMEL.

Table 3 – A340-500 and A340-600 MMEL Amendment

MMEL Amendment
MMEL Item 28-27-06 and 28-27-07 can be applied, provided the related circuit breaker is pulled and tagged for the duration of the inoperative period

Related Action:

- (11) For A330-941 aeroplanes: The life limit of 10 000 FH for affected parts as specified in the ALS is cancelled.

Ref. Publications:

Airbus AOT A28L006-17 original issue dated 03 November 2017.



Airbus SB A330-28-3132 original issue dated 06 March 2019.

Airbus SB A340-28-4142 original issue dated 06 March 2019.

Airbus SB A340-28-5062 original issue dated 06 March 2019.

Eaton Aerospace Ltd SB 8810-28-06 Revision 2 dated 01 March 2019.

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

Remarks:

1. This Proposed AD will be closed for consultation on 21 June 2019.
2. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness 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](#).
4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – Airworthiness Office – EIAL; E-mail: airworthiness.A330-A340@airbus.com.

