Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 18-173

Issued: 13 December 2018

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 aeroplanes

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

TCDS Numbers: EASA.A.004

Foreign AD: Not applicable

Supersedure: None

ATA 71 – Powerplant – Engine Hydraulic Damper– Modification

Manufacturer(s):
Airbus, formerly Airbus Industrie

Applicability:
Airbus A330-243, A330-243F, A330-341, A330-342 and A330-343 aeroplanes, all manufacturer serial numbers.

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

The AOT: Airbus Alert Operators Transmission (AOT) A71L012-16 Revision (Rev) 02.

Affected Part: Hydraulic pressure tube assemblies, having Part Number (P/N) AE711121-18, and those having P/N AE711121-18 Rev A (which has a double-welded ripple damper installed).

Serviceable Part: Hydraulic pressure tube assemblies, having P/N AE711121-22 (with fully penetrant welding).

Groups:
Group 1 aeroplanes are those that have an affected part installed.

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Group 2 aeroplanes are those that do not have an affected part installed. An A330 aeroplane on which Airbus modification (mod) 207217 has been embodied in production is a Group 2 aeroplane, provided the aeroplane remains in that configuration. An A330 aeroplane with both engines in pre-Rolls Royce (RR) Service Bulletin (SB) RB.211-73-AJ366 or pre-RR mod 73-AJ366 configuration is a Group 2 aeroplane, provided the aeroplane remains in that configuration.

Reason:

Following introduction in-service of Airbus mod 205242, a new hydraulic pressure tube assembly P/N AE711121-18 was installed, one on each engine, with an integral ripple damper. It was determined that, at a relatively low number of cycles, cracks could develop on the ripple damper weld of this new hydraulic pressure tube, which could lead to hydraulic leakage and consequent loss of the green hydraulic system. Further to the installation on both engines of this new hydraulic pressure tube assembly, a high failure rate of the affected dampers has been reported that, if continued, may exceed the overall safety objective of this certified design.

This condition, if not corrected, could, in combination with other system failures, result in reduced control of the aeroplane.

Prompted by these findings, Airbus published AOT A71L012-16 Revision 01, to provide instructions to replace the hydraulic pressure tube assembly P/N AE711121-18 with an improved assembly P/N AE711121-18 Rev A (introduced by Airbus mod 206979), equipped with a double-welded ripple damper. Consequently, EASA issued AD 2017-0041 to require replacement of each affected hydraulic pressure tube assembly with a tube assembly having the double-welded ripple damper installed. That AD also required implementation of a life limit of the improved part.

Since issuance of EASA AD 2017-0041, a new design hydraulic pressure tube assembly has been developed, defined as serviceable part in this AD, which has no life limitation. Consequently, Airbus published the AOT to provide modification instructions for installation of the serviceable part.

For the reasons described above, this AD requires the replacement of all affected parts with serviceable parts.

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

Required as indicated, unless accomplished previously:

Modification:

(1) For Group 1 aeroplanes: Within 24 months after the effective date of this AD, replace each affected part with a serviceable part in accordance with the instructions of the AOT.

Alternative Modification:

(2) Modification of both engines on an aeroplane, using the instructions of RR Trent 700 SB RB.211-29-AJ942, is an acceptable method to comply with the requirements of paragraph (1) of this AD for that aeroplane.

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Credit / Related AD:

(3) An aeroplane modified as required by paragraph (1) of this AD is compliant with the requirements of EASA AD 2017-0041 for that aeroplane, provided that the aeroplane remains in that configuration. See paragraph (5) of this AD.

Part installation:

(4) Except as specified in paragraph (5) of this AD, do not install an affected part on any aeroplane, as required by paragraph (4.1) or (4.2) of this AD, as applicable.

(4.1) For Group 1 aeroplanes: After modification of the aeroplane as required by paragraph (1) of this AD.

(4.2) For Group 2 aeroplanes: From the effective date of this AD.

Engine installation:

(5) For Group 1 and Group 2 aeroplanes: From the effective date of this AD until 24 months after the effective date of this AD, it is allowed to install on any aeroplane a replacement engine, having an affected part installed, provided that, following installation, each affected part is replaced as required by paragraph (1) of this AD and that, pending that replacement, the requirements of EASA AD 2017-0041 are applied.

Ref. Publications:

Airbus AOT A71L012-16 Revision 02 dated 08 August 2018.

Rolls-Royce Trent 700 SB RB.211-28-AJ942 original issue dated 09 July 2018, or Revision 1 dated 29 August 2018.

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 10 January 2019.

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.

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.

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