Airworthiness Directive

AD No.: 2021-0034

Issued: 22 January 2021

Note: This Airworthiness Directive (AD) 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.

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 (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:
AIRBUS

Type/Model designation(s):
A380 aeroplanes

Effective Date: 29 January 2021

TCDS Number(s): EASA.A.110

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2021-0001 dated 04 January 2021.

ATA 71 – Powerplant – Front Engine Mount / Strut Mount and Thrust Link – Inspection

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Manufacturer(s):
Airbus

Applicability:
Airbus A380-841 and A380-842 aeroplanes, all manufacturer serial numbers.

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

The AOT: Airbus Alert Operators Transmission (AOT) A71R017-20 Revision 1.

Affected CIC: Compressor intermediate cases (CIC), having a serial number (s/n) as listed in Appendix 1 of the AOT.

Groups: Group 1 aeroplanes are those with a Rolls-Royce RB211 Trent 900 engine having an affected CIC installed.
Group 2 aeroplanes are those that do not have an affected CIC installed on any Rolls-Royce RB211 Trent 900 engine.

Reason:

Rolls-Royce manufactured a number of RB211 Trent 900 engines with salvage welds on the CIC lugs. During a stress analysis on the engine structure, it was discovered that, for those engines with salvage welds, the secondary load paths of both thrust link and forward mount cannot ensure the capability of withstanding service loads for a full secondary load path activation inspection interval. Consequently, the current inspection intervals are inadequate to timely detect an engaged secondary load path.

This condition, if not detected and corrected, could lead to CIC lugs failure, possibly resulting in engine detachment in flight and consequent reduced control of the aeroplane.

To address this potential unsafe condition, Airbus issued AOT A71R017-20 (original issue) to provide inspection instructions and identifying the affected engine serial numbers (ESN). Consequently, EASA issued AD 2021-0001 to require repetitive inspections of the front engine mount and strut mount of each affected engine (ESN) at a reduced interval, and, depending on findings, removal from service of the engine.

Since that AD was issued, it was identified that an affected CIC may be installed on another ESN than those identified in the original Airbus AOT. Prompted by this determination, Airbus has issued the AOT, as defined in this AD, including references to affected CIC.

For the reason described above, this AD retains the requirements of EASA AD 2021-0001, which is superseded, but introducing the definition of affected CIC, according to the AOT.

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

Required as indicated, unless accomplished previously:

Inspection(s):

(1) For Group 1 aeroplanes: Before exceeding the threshold, and, thereafter, at intervals not to exceed the value as defined in Table 1, 2 or 3 of the AOT, as applicable to CIC s/n, accomplish the applicable inspection(s) in accordance with the instructions of the AOT.

Where Tables 1, 2 and 3 of the AOT refer to a compliance time (first inspection) ‘from date of publication of REF 3’ or ‘since new’, as applicable, (reference to Rolls-Royce Trent 900 Alert Non-Modification Service Bulletin (NMSB) RB.211-71-AK614), this AD requires the initial inspection within that compliance time after the effective date of this AD.

Corrective Action(s):

(2) If, during any inspection as required by paragraph (1) of this AD, discrepancies are detected on a front engine mount or strut mount, before next flight, remove the engine from service, contact Airbus for approved repair instructions and, before release to service of the affected engine, accomplish those instructions accordingly.

Credit:

(3) Inspection(s) of an affected CIC (as defined in this AD) on an aeroplane, accomplished before the effective date of this AD in accordance with the instructions of the original issue of Airbus

AOT A71R017-20, is acceptable to comply with the initial requirements of paragraph (1) of this AD for that CIC installed on a Rolls-Royce RB211 Trent 900 engine on that aeroplane.

Terminating Action:

(4) None.

Engine Installation:

(5) For Group 2 aeroplanes: From the effective date of this AD, it is allowed to install on any aeroplane a Rolls-Royce RB211 Trent 900 engine with an affected CIC, provided that, following installation, the front engine mount and strut mount of that engine are inspected as required by this AD.

Ref. Publications:

Airbus AOT A71R017-20 original issue dated 10 December 2020 and Revision 1 dated 21 January 2021.

Rolls-Royce Trent 900 Alert NMSB RB.211-71-AK614 original issue dated 07 December 2020.

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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.

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

4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, 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 AD 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.

5. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS SAS - EIANA (Airworthiness Office), Telephone: +33 562 110 253, Fax: +33 562 110 307, E-mail: account.airworth-A380@airbus.com.