EASA AD No.: 2015-0126

## EASA

## **AIRWORTHINESS DIRECTIVE**

AD No.: 2015-0126

Date: 01 July 2015

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, 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 EU 748/2012, Part 21.A.3B. In accordance with 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 [EU 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

| <b>Design Approva</b><br>AIRBUS | l Holder's Name:  | Type/Model designation(s): A330 aeroplanes  |
|---------------------------------|---|---|
| TCDS Number:                    | EASA.A.004  |   |
| Foreign AD:                     | Not applicable  |   |
| Supersedure:                    | This AD supersedes EASA AD  | 2013-0094 dated 16 April 2013.  |
| ATA 71                          | Power Plant – Upper Aft Mount Bolts – Inspection / Replacement  |   |
| Manufacturer(s):                | Airbus (formerly Airbus Industrie)  |   |
| Applicability:                  | Airbus A330-201, A330-202, A330-203, A330-301, A330-302 and A330-303 aeroplanes, all manufacturer serial numbers, except those on which Airbus modification 203947 has been embodied in production.   |   |
| Reason:                         | During a scheduled replacement of a CF6-80E1 engine on an A330 aeroplar a bolt on the aft engine mount upper beam was found sheared. The affected bolt is one out of four bolts that attach the upper beam to the pylon.  |   |
|                                 | Investigation results revealed an unusual contact with the counter-bore edge the beam which induced a significant groove on the bolt during its installation production. It is suspected that the induced groove led to a fatigue crack initiation and subsequent quick propagation leading to the complete fracture the bolt. In case of multiple bolt fractures, the remaining bolts would be insufficient to sustain the residual fatigue and limit loads. |   |
|                                 | This condition, if not detected and corrected, could lead, in case of multiple be fracture, to loss of an engine mount structural integrity and possible in-flight engine detachment, resulting in reduced control of the aeroplane and/or injury to persons on the ground.   |   |
|                                 | require a one-time ultrasor   | nsafe condition, EASA issued AD 2013-0094 to<br>nic (US) inspection of the four aft mount-pylon bolts<br>ared bolts and, depending on findings, |

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|  | Since EASA AD 2013-0094 was issued, further investigation results revealed that the pylon bolt failure was caused by inappropriate upper beam installation during production. An abnormal bending load applied on the bolt during installation of the upper beam could have increased the stress close to or beyond the limit strength, high enough to fracture the bolt.  Prompted by these findings, Airbus issued Service Bulletin (SB) A330-71-3031 providing instructions for repetitive inspections and the applicable corrective actions.  For the reasons described above, this AD, which supersedes EASA AD 2013-0094, requires repetitive US inspections of the aft mount-pylons bolts of each engine and, depending on findings, corrective actions. |  |
|--|---|--|
| Effective Date:                                  | 15 July 2015  |  |
| Required Action(s)<br>and Compliance<br>Time(s): | Required as indicated, unless accomplished previously:  |  |
|  | (1) Within 26 months after the effective date of this AD and, thereafter, at<br>intervals not to exceed 24 months, accomplish an US inspection of each of<br>the four aft mount-pylon bolts of each engine in accordance with the<br>instructions of Airbus SB A330-71-3031.  |  |
|  | (2) If, during any inspection as required by paragraph (1) of this AD, a<br>fractured bolt is detected, before next flight, accomplish the applicable<br>corrective actions in accordance with the instructions of Airbus<br>SB A330-71-3031.   |  |
|  | (3) Accomplishment of the applicable set of corrective actions on an aeroplane<br>as required by paragraph (2) of this AD constitutes terminating action for<br>the repetitive inspections required by this AD for that aeroplane.  |  |
|  | (4) If no fractured bolt is detected during an inspection as required by<br>paragraph (1) of this AD, accomplishment of the applicable set of<br>additional inspections and, depending on findings, corrective actions, as<br>defined in, and in accordance with, the instructions of Airbus SB<br>A330-71-3031, constitutes terminating action for the repetitive inspections<br>required by this AD for that aeroplane.   |  |
| Ref. Publications:                               | Airbus SB A330-71-3031 original issue dated 29 January 2015.  |  |
|  | The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.   |  |
| Remarks:   | If requested and appropriately substantiated, EASA can approve     Alternative Methods of Compliance for this AD.   |  |
|  | <ol> <li>This AD was posted on 02 June 2015 as PAD 15-073 for consultation until<br/>30 June 2015. No comments were received during the consultation period.</li> </ol>   |  |
|  | <ol> <li>Enquiries regarding this AD should be referred to the Safety Information<br/>Section, Certification Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> </ol>  |  |
|  | For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EAL. E-mail: <a href="mailto:airworthiness.A330-A340@airbus.com">airworthiness.A330-A340@airbus.com</a> .   |  |