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| EASA | AIRWORTHINESS DIRECTIVE | |
|  | <p>AD No.: 2011-0088R1</p> <p>Date: 12 September 2012</p> <p>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.</p> | |
| <p>This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p> | | |
| <p>Design Approval Holder's Name :</p> <p>AIRBUS</p> | <p>Type/Model designation(s) :</p> <p>A340-500/-600 aeroplanes</p> | |
| <p>TCDS Number : EASA.A.015</p> | | |
| <p>Foreign AD : Not applicable</p> | | |
| <p>Revision: This AD revises EASA AD 2011-0088 dated 13 May 2011.</p> | | |
| ATA 52 | Doors – Nose Landing Gear (NLG) Aft Doors – Hinge Attachment Fittings and Swan Neck – Inspection/Replacement | |
| <p>Manufacturer(s): Airbus (formerly Airbus Industrie)</p> | | |
| <p>Applicability: Airbus A340-541, A340-542, A340-642 and A340-643 aeroplanes, all manufacturer serial numbers.</p> | | |
| <p>Reason:</p> <p>An operator has reported cracks on the aft hinge forward (FWD) fittings (hinge #5) of the NLG aft doors (Right Hand (RH) side or Left Hand (LH) side). The cracks extended by approximately 15 millimetres from the upper hole to the edge of the fittings.</p> <p>Investigation has revealed that these cracks have initiated due to fatigue loads and propagated under bending load. Cracks on the NLG aft door fittings, if not corrected, could lead to the in-flight detachment of the door, possibly resulting in injury to persons on the ground or damage to the aeroplane.</p> <p>In order to maintain the structural integrity of the NLG aft door aft hinge attachment fittings, EASA issued EASA AD 2010-0028, which requires repetitive inspections at hinge #5.</p> <p>Additional investigations have shown that inspections are also necessary for the hinge #4.</p> <p>For the reasons described above, EASA AD 2011-0088 required repetitive inspections of the FWD and AFT attachment fittings and of the swan neck at the forward hinge #4 and their replacement, as necessary.</p> <p>Since issuance of this AD, Airbus developed a modification to reinforce the</p> | | |

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| | <p>NLG aft door hinges. This modification is to be embodied in service with Airbus Service Bulletin (SB) A340-52-5018.</p> <p>This AD is revised to introduce the reinforced NLG aft door hinges as an optional terminating action for the repetitive inspections required by this AD. In addition, some editorial changes have been made to improve the readability of the AD.</p> |
| <p>Effective Date:</p> | <p>Revision 1 : 19 September 2012</p> <p>Original Issue : 27 May 2011</p> |
| <p>Required Action(s) and Compliance Time(s):</p> | <p>Required as indicated, unless accomplished previously :</p> <p>(1) <u>FWD and AFT attachment fittings of the NLG aft door forward hinge (#4)</u></p> <p>(1.1) Before the accumulation of 4 500 total Flight Cycles (FC) after the aeroplane first flight, or within 50 FC after 27 May 2011 [the effective date of this AD at original issue], whichever occurs later, do a detailed visual inspection of the FWD attachment fittings of the NLG aft door forward hinge (#4), LH and RH side doors to find any crack, in accordance with the instructions of Airbus SB A340-52-5017.</p> <p>(1.2) If no crack is found, repeat the inspection required in paragraph (1.1) of this AD at intervals not to exceed 500 FC from the last inspection.</p> <p>(1.3) If any crack is found during the initial or repetitive inspections required by paragraphs (1.1) and (1.2) of this AD, before next flight, perform High Frequency Eddy Current (HFEC) inspection of FWD and AFT attachment fittings of the forward hinge (#4) on the affected NLG aft door, in accordance with the instructions of Airbus SB A340-52-5017.</p> <p>(1.3.1) If any additional crack is found, before further flight, replace both FWD and AFT fittings by serviceable ones on the forward hinge (#4) of the affected NLG aft door in accordance with the instructions of Airbus SB A340-52-5017.</p> <p>(1.3.2) If no additional crack is found:</p> <ul style="list-style-type: none"> - repeat the HFEC inspection required by paragraph (1.3) of this AD at intervals not to exceed 10 FC from the last inspection, or - perform a Penetrant Inspection at intervals not to exceed 3 FC from the last inspection, in accordance with the instructions of Airbus SB A340-52-5017 <p>up to the limit of 20 FC after the initial crack identification, where the FWD and AFT fitting replacement is anyhow required on the forward hinge (#4) of the affected NLG aft door.</p> <p>(1.3.3) If any additional crack is found during any inspection required by paragraph (1.3.2) of this AD, before further flight, replace both FWD and AFT fittings with serviceable parts on the forward hinge (#4) of the affected NLG aft door, in accordance with the instructions of Airbus SB A340-52-5017.</p> <p>(1.4) After each replacement of the FWD and AFT attachment fittings of the NLG aft door forward hinge (#4) as required by paragraphs (1.3.1) and (1.3.2) of this AD:</p> <p>Before the accumulation of 4 500 FC by the FWD fitting on the aeroplane, perform the inspection required by paragraph (1.1) of</p> |

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| | <p>this AD and do the applicable actions required by paragraph (1.2) or (1.3) of this AD.</p> <p>(2) Swan Neck of the NLG aft door forward hinge (#4)</p> <p>(2.1) Before the accumulation of 4 500 Total FC after the aeroplane first flight, or within 50 FC after 27 May 2011 [the effective date of this AD at original issue], whichever occurs later, perform HFEC inspection of the swan neck of the NLG Aft door forward hinge (#4), LH and RH side doors to find any crack, in accordance with the instructions of Airbus SB A340-52-5017.</p> <p>(2.2) If no crack is found, repeat the inspection required in paragraph (2.1) of this AD at intervals not to exceed 500 FC from the last inspection.</p> <p>(2.3) If any crack is found during the initial or repetitive inspections required by paragraphs (2.1) and (2.2) of this AD, before further flight, replace the swan neck by a serviceable one on the forward hinge (#4) of the affected NLG aft door.</p> <p>(2.4) After each replacement of the swan neck of the NLG aft door forward hinge (#4) as required by paragraph (2.3) of this AD:</p> <p>Before the accumulation of 4 500 FC by the swan neck on an aeroplane, perform the inspection required by paragraph (2.1) of this AD and do the applicable actions required by paragraph (2.2) or (2.3) of this AD.</p> <p>(3) Modification of NLG aft door forward hinges in accordance with the accomplishment instructions of AIRBUS SB A340-52-5018 constitutes terminating action for repetitive actions of this AD for that aeroplane.</p> |
| Ref. Publications: | <p>Airbus SB A340-52-5017 at original issue dated 17 Feb 2011.</p> <p>Airbus SB A340-52-5018 at original issue dated 05 Apr 2012.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p> |
| Remarks: | <ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. The original issue of this AD was posted on 03 March 2011 as PAD 11-027 for consultation until 31 March 2011. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail ADs@easa.europa.eu. 4. For any questions concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EIAL; E-mail: airworthiness.A330-A340@airbus.com. |