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| <b>EASA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>AIRWORTHINESS DIRECTIVE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p><b>AD No.: 2013-0292</b></p> <p><b>Date: 13 December 2013</b></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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| This AD is issued in accordance with EU 748/2012, Part 21.A.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]. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Design Approval Holder's Name:</b><br>AIRBUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Type/Model designation(s):</b><br>A380 aeroplanes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| TCDS Number:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | EASA.A.110                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Foreign AD:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Supersedure:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ATA 53</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Fuselage – Belly Fairing Frame 46 T-Profile and Stiffeners – Inspection / Replacement / Modification</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Manufacturer(s):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Airbus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Applicability:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Airbus A380-841, A380-842 and A380-861 aeroplanes, all manufacturer serial numbers, except aeroplanes on which Airbus modification 71525 has been embodied in production.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Reason:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>During an A380 transit check, Belly Fairing (BF) panels 191HL and 191EL in the underwing area were found displaced out of fuselage contour and loose at the aft end of Frame (FR) 46. After removal of the BF panels, the BF FR 46 T-profile was found broken and the associated underwing spar found cracked.</p> <p>Subsequent investigation determined that the structural damage detected at the FR46 underwing panel was most likely caused by a combination of vibration in the area and a preload force, transmitted from the wing profile to the seal profile in the BF panel, which is dependent on the affected structure assembly tolerances.</p> <p>This condition, if not detected and corrected, could lead to in-flight loss of BF panels, possibly resulting in injury to persons on the ground.</p> <p>To address this potential unsafe condition, Airbus issued Service Bulletin (SB) A380-53-8051 to provide instructions for repetitive inspections of the affected fuselage BF frames, and developed a modification, embodied in production through Airbus mod 71525, and in-service through Airbus SB A380-53-8049.</p> <p>For the reasons described above, this AD requires repetitive detailed inspections (DET) of BF frame T-profile and stiffeners at FR 46 and, depending on findings, accomplishment of applicable corrective actions. This AD also</p> |

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|                                            | introduces an optional terminating action for the repetitive fuselage BF frame inspections.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Effective Date:                            | 27 December 2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Required Action(s) and Compliance Time(s): | <p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> <li>(1) Before exceeding 1 200 flight cycles (FC) accumulated by the aeroplane since first flight, or within 270 FC after the effective date of this AD, whichever occurs later, and, thereafter, at intervals not to exceed 1 200 FC, accomplish a DET of the BF Frame T-profile and stiffeners at FR 46 and of the under wing spar between FR 44 and FR 46 on the left-hand and right-hand sides in accordance with the instructions of Airbus SB A380-53-8051.</li> <li>(2) If, during any inspection as required by paragraph (1) of this AD, any crack is detected, before next flight, accomplish one of the corrective actions, as specified in paragraph (2.1), or (2.2), or (2.3) of this AD: <ol style="list-style-type: none"> <li>(2.1) Replace the affected BF T-profile and stiffeners at FR 46 and the affected under wing spar between FR 44 and FR 46 with serviceable parts in accordance with the instructions of Airbus SB A380-53-8051, or</li> <li>(2.2) Contact Airbus for approved repair instructions and, within the compliance time as specified in those instructions, accomplish the repair accordingly. If no compliance time is defined in the repair instructions, accomplish the repair before next flight, or</li> <li>(2.3) Modify the BF under wing spar at FR 46 in accordance with the instructions of Airbus SB A380-53-8049.</li> </ol> </li> <li>(3) Replacement of the affected BF T-profile and stiffeners at FR 46 and of the affected under wing spar between FR 44 and FR 46 on an aeroplane, as specified in paragraph (2.1) of this AD, does not constitute terminating action for the repetitive inspections required by paragraph (1) of this AD for that aeroplane.</li> <li>(4) Modification of an aeroplane in accordance with the instructions of Airbus SB A380-53-8049, as specified in paragraph (2.3) of this AD, constitutes terminating action for the repetitive inspections required by paragraph (1) of this AD for that aeroplane.</li> </ol> |
| Ref. Publications:                         | <p>Airbus SB A380-53-8049 original issue dated 10 October 2013,<br/>Airbus SB A380-53-8051 original issue dated 11 October 2013.</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"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. This AD was posted on 18 October 2013 as PAD 13-159 for consultation until 15 November 2013. The Comment Response Document can be found at <a href="http://ad.easa.europa.eu">http://ad.easa.europa.eu</a>.</li> <li>3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>4. For any question concerning the technical content of the requirements in this AD, please contact:<br/>AIRBUS SAS - EIANA (Airworthiness Office),<br/>Telephone : +33 562 110 253; Fax: +33 562 110 307<br/>E-mail: <a href="mailto:account.airworth-A380@airbus.com">account.airworth-A380@airbus.com</a>.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |