


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2013-0108R1</p> <p>Date: 13 September 2013</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 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].</p>	
Design Approval Holder's Name: AIRBUS	Type/Model designation(s): A380 aeroplanes
TCDS Number:	EASA.A.110
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2013-0108 dated 21 May 2013.
ATA 57	Wings – Wing Rib Feet – Modification
Manufacturer(s):	Airbus
Applicability:	Airbus A380-841, A380-842, and A380-861 aeroplanes, all manufacturer serial numbers, except aeroplanes on which Airbus modification (mod) 73685 and Airbus mod 73686 have been embodied in production <u>and</u> except aeroplanes on which Airbus mod 73477 has been embodied in production.
Reason:	<p>Following an unscheduled internal inspection of an A380 wing, some rib feet were found with cracks, originating from the rib-to-wing skin panel attachment holes (Type 1 cracks according to Airbus All Operators Transmission (AOT) terminology). Prompted by this finding, inspections were carried out on a number of other aeroplanes, the results of which confirmed the existence of these cracks. During one of those inspections, a new form of rib foot cracking, originating from the forward and aft edges of the vertical web of the rib feet, was identified (Type 2 cracks according to Airbus AOT terminology).</p> <p>This condition, if not detected and corrected, may reduce the structural integrity of the wing.</p> <p>To address this potential unsafe condition, EASA issued AD 2012-0013 to require a one-time detailed visual inspection (DVI) to detect cracks on the wing rib feet and, depending on findings, repair.</p> <p>After that AD was issued, it was confirmed that Type 2 cracks may develop on other aeroplanes after a certain period of time of service. Prompted by this finding, EASA issued AD 2012-0026, superseding EASA AD 2012-0013, extending the applicability to all aeroplane serial numbers and requiring accomplishment of a one-time high frequency eddy current (HFEC) inspection</p>

	<p>of certain wing rib feet and, depending on findings, accomplishment of applicable corrective actions.</p> <p>Subsequently, it was determined that to maintain the safety of the A380 fleet, repetitive inspections were necessary.</p> <p>Consequently, EASA issued EASA AD 2012-0114, which superseded and retained the requirements of EASA AD 2012-0026, to require, for pre mod 68705 aeroplanes only, repetitive inspections of certain wing rib feet and, depending on findings, accomplishment of applicable corrective actions.</p> <p>Since EASA AD 2012-0114 was issued, Airbus developed a set of modifications applicable to all aeroplanes which consists in introducing horizontal stiffeners below the manhole on certain ribs and modifying the rib feet booms with new re-sized rib feet booms manufactured from 7010 aluminium. Metallic 7449 ribs 48 and 49 are also to be replaced with new re-sized ribs manufactured from 7010 aluminium.</p> <p>For the reasons described above, to maintain the structural integrity of the aeroplane wings, EASA issued AD 2013-0108 to require modification of the hybrid rib booms in accordance with the developed terminating solution within the compliance times specified in that AD.</p> <p>That AD also confirmed that for pre-mod 68705 A380 aeroplanes on which the Feed Tanks 1 and 4 bottom rib feet booms have been modified in-service in accordance with the instructions of Airbus Service Bulletin (SB) A380-57-8062, the repetitive inspections of EASA AD 2012-0114 were no longer required.</p> <p>Since that AD was issued, EASA approved Airbus mod 73477, which introduces redesigned ribs manufactured from 7010 material, and is the serial solution to eliminate a rib foot cracking issue.</p> <p>For the reasons described above, this AD is revised to exclude from the applicability those aeroplanes on which Airbus mod 73477 has been embodied in production.</p>
Effective Date:	<p>Revision 1: 13 September 2013</p> <p>Original issue: 04 June 2013</p>
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> (1) For aeroplanes on which Airbus mod 68705 has not been embodied in production, within the compliance times as indicated in Table 1 of this AD, accomplish all actions specified in Table 1 of this AD on the left-hand (LH) and right-hand (RH) wings. (2) Modification of a pre mod 68705 aeroplane in accordance with the instructions of Airbus SB A380-57-8062, as required by paragraph (1) of this AD, constitutes terminating action for the repetitive inspection requirements of EASA AD 2012-0114 for that aeroplane. (3) For aeroplanes on which Airbus mod 68705 has been embodied in production, within the compliance times as indicated in Table 2 of this AD, accomplish all actions specified in Table 2 of this AD on the LH and RH wings.
Ref. Publications:	<p>Airbus SB A380-57-8062 at original issue dated 18 December 2012,</p> <p>Airbus SB A380-57-8063 at original issue dated 19 December 2012,</p> <p>Airbus SB A380-57-8064 at original issue dated 18 December 2012,</p> <p>Airbus SB A380-57-8065 at original issue dated 18 December 2012,</p> <p>Airbus SB A380-57-8066 at original issue dated 20 December 2012 or Revision 01 dated 19 April 2013,</p> <p>Airbus SB A380-57-8067 at original issue dated 18 December 2012,</p>

	<p>Airbus SB A380-57-8068 at original issue dated 18 December 2012 or Revision 01 dated 17 May 2013,</p> <p>Airbus SB A380-57-8069 at original issue dated 18 December 2012 or Revision 01 dated 17 May 2013,</p> <p>Airbus SB A380-57-8070 at original issue dated 18 December 2012 or Revision 01 dated 24 April 2013,</p> <p>Airbus SB A380-57-8077 at original issue dated 24 April 2013,</p> <p>Airbus SB A380-57-8078 at original issue dated 24 April 2013,</p> <p>Airbus SB A380-57-8079 at original issue dated 12 April 2013,</p> <p>Airbus SB A380-57-8082 at original issue dated 12 April 2013,</p> <p>Airbus SB A380-57-8084 at original issue dated 24 April 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"> 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 15 April 2013 as PAD 13-054 for consultation until 13 May 2013. 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 question concerning the technical content of the requirements in this AD, please contact: AIRBUS SAS - EIANA (Airworthiness Office), E-mail: account.airworth-A380@airbus.com.

Table 1 – Hybrid Rib Boom Modification applicable to aeroplanes on which Airbus mod 68705 has **not** been embodied in production

Required Actions	Compliance times
Modify the Feed Tanks 1 and 4 bottom rib feet booms on hybrid Rib 24, Rib 25, Rib 26, Rib 27, Rib 29 and Rib 30 in accordance with the instructions of Airbus SB A380-57-8062.	<p>Whichever occurs first between a) or b) :</p> <p>a) Before the accumulation of 28 500 flight hours (FH) since the aeroplane first flight, or</p> <p>b) within 6 years since the date of issuance of the original certificate of airworthiness or date of issuance of the original export certificate of airworthiness, as applicable, whichever occurs first.</p>
Modify the Mid Tank bottom rib feet booms on hybrid Rib 14 Forward (FWD), Rib 14 Aft (AFT), Rib 15 FWD, Rib 15 AFT, Rib 17 AFT, Rib 18, Rib 19, Rib 20 and Rib 21 in accordance with the instructions of Airbus SB A380-57-8063.	
Modify the Inner Tank top and bottom rib feet booms on hybrid Rib 11 FWD, Rib 12 FWD and Rib 12 AFT in accordance with the instructions of Airbus SB A380-57-8064.	
Modify the full Ribs at Vent Tank Rib 48 and Rib 49 in accordance with the instructions of Airbus SB A380-57-8066.	
Modify the Feed Tanks 2 and 3 top and bottom rib feet booms on hybrid Rib 3 FWD in accordance with the instructions of Airbus SB A380-57-8065.	<p>Within 6 years since the date of issuance of the original certificate of airworthiness or date of issuance of the original export certificate of airworthiness, as applicable, whichever occurs first.</p>
Modify the Outer Tank bottom rib feet booms on hybrid Rib 36, Rib 37, Rib 38 and Rib 39 in accordance with the instructions of Airbus SB A380-57-8067.	
Modify the Mid Tank top rib feet booms on hybrid Rib 14 FWD, Rib 14 AFT, Rib 15 FWD, Rib 15 AFT, Rib 17 AFT, Rib 18, Rib 19, Rib 20 and Rib 21 in accordance with the instructions of Airbus SB A380-57-8068.	
Modify the Feed Tanks 1 and 4 top rib feet booms on hybrid Rib 24, Rib 25, Rib 26, Rib 27, Rib 29 and Rib 30 in accordance with the instructions of Airbus SB A380-57-8069.	
Modify the Outer Tank top rib feet booms on hybrid Rib 36, Rib 37, Rib 38 and Rib 39 in accordance with the instructions of Airbus SB A380-57-8070.	

Table 2 – Hybrid Rib Boom Modification applicable to aeroplanes on which Airbus mod 68705 has been embodied in production

Required Actions	Compliance times
Modify the Feed Tanks 1 and 4 bottom rib feet booms on hybrid Rib 24, Rib 25, Rib 26, Rib 27, Rib 29 and Rib 30 in accordance with the instructions of Airbus SB A380-57-8082.	a) or b) as applicable: a) For aeroplanes on which Airbus <u>Interim Adaptation</u> mod 73022 has not been embodied in production: before the accumulation of 700 flight cycles (FC) since the aeroplane first flight. b) For aeroplanes on which Airbus <u>Interim Adaptation</u> mod 73022 has been embodied in production: before the accumulation of 1 300 FC since the aeroplane first flight.
Modify the Mid Tank bottom rib feet booms on hybrid Rib 14 FWD, Rib 14 AFT, Rib 15 FWD, Rib 15 AFT, Rib 17 AFT, Rib 18, Rib 19, Rib 20 and Rib 21 in accordance with the instructions of Airbus SB A380-57-8079.	
Modify the Inner Tank top and bottom rib feet booms on hybrid Rib 11 FWD, Rib 12 FWD and Rib 12 AFT in accordance with the instructions of Airbus SB A380-57-8078.	Whichever occurs first between a) or b) : a) Before the accumulation of 18 500 FH since aeroplane first flight, or b) within 6 years since the date of issuance of the original certificate of airworthiness or date of issuance of the original export certificate of airworthiness, as applicable , whichever occurs first .
Modify the full Ribs at Vent Tank Rib 48 and Rib 49 in accordance with the instructions of Airbus SB A380-57-8066.	
Modify the Feed Tanks 2 and 3 top and bottom rib feet booms on hybrid Rib 3 FWD in accordance with the instructions of Airbus SB A380-57-8077.	Within 6 years since the date of issuance of the original certificate of airworthiness or date of issuance of the original export certificate of airworthiness, as applicable, whichever occurs first.
Modify the Outer Tank bottom rib feet booms on hybrid Rib 36, Rib 37, Rib 38 and Rib 39 in accordance with the instructions of Airbus SB A380-57-8084.	
Modify the Mid Tank top rib feet booms on hybrid Rib 14 FWD, Rib 14 AFT, Rib 15 FWD, Rib 15 AFT, Rib 17 AFT, Rib 18, Rib 19, Rib 20 and Rib 21 in accordance with the instructions of Airbus SB A380-57-8068.	
Modify the Feed Tanks 1 and 4 top rib feet booms on hybrid Rib 24, Rib 25, Rib 26, Rib 27, Rib 29 and Rib 30 in accordance with the instructions of Airbus SB A380-57-8069.	
Modify the Outer Tank top rib feet booms on hybrid Rib 36, Rib 37, Rib 38 and Rib 39 in accordance with the instructions of Airbus SB A380-57-8070.	