EASA AD No.: 2013-0198R1

**EASA** 

## **AIRWORTHINESS DIRECTIVE**

AD No.: 2013-0198R1 [Correction: 03 June 2014]

Date: 30 May 2014

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 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> AIRBUS		Type/Model designation(s): A380 aeroplanes
TCDS Number:	EASA.A.110	
Foreign AD:	Foreign AD: Not applicable	
Revision:	This AD revises EASA AD 201	3-0198 dated 30 August 2013.
ATA 57	Wings – Droop Nose 1 and 2 Hinge Arm Knuckled Connection – Inspection / Replacement	
Manufacturer(s):	Airbus	
Applicability:	Airbus A380-841, A380-842 and A380-861 aeroplanes, manufacturer serial numbers (MSN): 0003, 0005 through 0017 inclusive, 0019 through 0023 inclusive, 0025 through 0030 inclusive, 0033, 0034, 0038 through 0051 inclusive, 0056, 0057, 0059, 0069 and 0070.	
Reason:	During the A380 final assembly process, several cases of incorrect bushing and bolt installation, at the forward lower attachment of wing leading edge droop nose 1 (hinge arms 1 through 4) and droop nose 2 (hinge arm 5 through 8) knuckle interface connection, were identified. Subsequent investigation results identified a deficient assembly process as the origin for this deviation from the approved design of the affected interface connection. The MSN of aeroplanes that may be affected by this deviation have been identified.	
	This condition, if not detected and corrected, could cause deformation and fatigue damage to the hinge arm forks, leading to in-flight loss of the droop nose and possibly resulting in damage to the tail plane and/or injury to persons on the ground.	
	To address this potential unsafe condition, Airbus issued Service Bulletin (SB) A380-57-8088 to provide inspection instructions.	
	For the reasons described above, EASA issued AD 2013-0198 requiring a one-time Detailed Inspection (DET) of the hinge arms 1 through 8 knuckled connection at droop nose 1 and droop nose 2 on the Left Hand (LH) and Right Hand (RH) wings and, depending on findings, accomplishment of applicable	

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	corrective action(s).  Since that AD was issued, Airbus conducted further investigations, the outcome of which demonstrated that, under specific conditions, more time can be allowed for the replacement of the hinge arm.	
	Consequently, this AD is revised to extend the compliance time for hinge arm replacement.	
	This AD has been republished to correct erroneously indicated original issue date of referenced SB in Ref. Publication section.	
Effective Date:	Revision 1: 30 May 2014	
	Original Issue: 13 September 2013	
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously:	
	(1) Within 4 400 flight cycles (FC) since aeroplane first flight, perform a DET of each hinge arm 1 to 8 assembly at droop nose 1 and 2 on the LH and RH wings to measure the gap between the bolt head and bushing at the lower forward bolt of the knuckle interface connection in accordance with the instructions of Airbus SB A380-57-8088.	
	(2) If, during the DET as required by paragraph (1) of this AD, the gap of any hinge arm between the bolt head and bushing at the lower forward bolt of the knuckle interface connection is less than or equal to 0.10 mm, and visible damage is detected at the affected hinge arm, before next flight, contact Airbus for approved repair instructions and, within the compliance time specified in those instructions, accomplish the repair accordingly.	
	(3) If, during the DET as required by paragraph (1) of this AD, the gap of any hinge arm between the bolt head and bushing at the lower forward bolt of the knuckle interface connection is less than or equal to 0.10 mm, and no visible damage is detected at the affected hinge arm, accomplish the actions as required by paragraphs (3.1) and (3.2) of this AD in accordance with the instructions of Airbus SB A380-57-8088:	
	(3.1) Before next flight, replace the bolts and bushings at the affected hinge arm with new parts.	
	(3.2) Within 2 000 FC after the DET as required by paragraph (1) of this AD, replace the affected hinge arm with a new part.	
	Note: If, during the DET of the hinge arm as required by paragraph (1) of this AD, a gap of more than 0.10 mm is detected, no further action is required for this hinge arm.	
Ref. Publications:	Airbus SB A380-57-8088 original issue dated 09 July 2013, or Revision 1 dated 20 May 2014.	
	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>The original issue of this AD was posted on 24 July 2013 as PAD 13-103 for consultation until 21 August 2013. The Comment Response Document can be found at <a href="http://ad.easa.europa.eu">http://ad.easa.europa.eu</a>.</li> </ol>	
	<ol> <li>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> </ol>	
	<ol> <li>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.</li> </ol>	