

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2010-0168 Date: 11 August 2010 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 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].	
Type Approval Holder's Name : AIRBUS	Type/Model designation(s) : A380 aeroplanes
TCDS Number : EASA.A.110	
Foreign AD : Not applicable	
Supersedure : None	
ATA 52	Doors – Wing Landing Gear Door (WLGD) Hinge and Rods – Inspection / Replacement
Manufacturer(s):	Airbus (formerly Airbus Industrie)
Applicability:	Airbus A380 aeroplanes, -841, -842, and -861 models, all manufacturer serial numbers, if fitted with one of the following part numbers (P/N): L533 80722 000 (Rod WD1-1), or L533 80732 000 (Rod WD1-2), or L533 80722 008 (Rod WD1-3), or L533 80732 020 (Rod WD3-1), or L533 80722 020 (Rod WD3-2), or L533 80722 022 (Rod WD3-3), or L533 83515 000 (Hinge Fitting WD1), or L533 83515 001 (Hinge Fitting WD1), or L533 83515 002 (Hinge Fitting WD1), or L533 83515 003 (Hinge Fitting WD1), or L533 83525 000 (Hinge Fitting WD3), or L533 83525 001 (Hinge Fitting WD3), or L533 83525 002 (Hinge Fitting WD3), or L533 83525 003 (Hinge Fitting WD3), except aeroplanes on which Airbus modification 68900 has been embodied in production on the left-hand (LH) and right-hand (RH) WLGD.
Reason:	Some forward hinge rods (identified as WD1-2) on WLGD have been found broken on Airbus A380 aeroplanes. The results of the investigation have confirmed the presence of unexpected

	bending behaviour of the affected rod end fittings. In addition, assembly deviations or imprecision of WLGD, such as misalignments at WLGD hinge line, or fuselage fittings found out of their expected locations, have been identified as causes able to build stresses on the hinge rods. The unexpected bending behaviour and additional stresses result in a reduction of their design fatigue life. If the forward hinge rod WD1-2 failure is not detected, the WLGD structure might not be able to withstand the limit load, possibly leading to in flight detachment of the WLGD, and thus to damage to the aeroplane and risk of injury to persons on the ground. To detect and prevent such condition, this AD requires repetitive detailed visual inspections (DVI) of the WLGD hinge rods WD1-2 to find any damage, and the accomplishment of the associated corrective actions.
Effective Date:	25 August 2010
Required action(s) and Compliance Time(s):	Required as indicated, unless already accomplished: (1) Before the hinge rods WD1-2 have accumulated 550 Flight Cycles (FC) since their first installation on an aeroplane, or within 55 FC after the effective date of this AD, whichever occurs later, perform a DVI of the hinge rods WD1-2 of the LH and RH WLGD in accordance with the instructions of Airbus Service Bulletin (SB) A380-53-8015. (2) Repeat the inspection required by paragraph (1) of this AD at intervals not to exceed 550 FC from the last inspection. (3) In case of discrepancies found during the initial or the repetitive inspections required by paragraphs (1) or (2) of this AD, before next flight, do the following actions in accordance with the instructions defined in Airbus SB A380-53-8015: (3.1) Perform a DVI of the WLGD hinge fittings WD1 and WD3 (3.1.1) In case of no discrepancies found during the inspection required by paragraph (3.1) of this AD : (3.1.1.1) Replace the WLGD hinge rods WD1-2 and WD3-1 (3.1.1.2) Perform a DVI of the WLGD hinge rods WD1-1, WD1-3, WD3-2 and WD3-3. (3.1.1.3) In case of discrepancies found during the inspection required by paragraph (3.1.1.2) of this AD, replace the affected parts with serviceable parts. (3.1.2) In case of discrepancies found during the inspection required by paragraph (3.1) of this AD, reinforce the WLGD hinges 1 and 3 in accordance with the instructions of Airbus SB A380-53-8011. (4) Within 10 days after accomplishment of each inspection in accordance with paragraphs (1), (2), (3.1) or (3.1.1.2) of this AD, report the inspection results, including no finding, to Airbus. (5) The replacement of the WLGD hinge rod WD1-2 in accordance with paragraph (3.1.1.1) of this AD does not constitute terminating action for the repetitive inspection requirements of this AD. (6) Accomplishment of Airbus SB A380-53-8011 instructions on LH and RH WLGD cancels the requirements of paragraphs (1) and (2) of this AD.

Ref. Publications:	Airbus Service Bulletin A380-53-8015 at original issue; Airbus Service Bulletin A380-53-8011 at original issue. The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.
Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. The required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification 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 SAS - EANA (Airworthiness Office), Phone: +33 562110253 ; Fax:+33 562 110 307. E-mail: account.airworth-A380@airbus.com or Nicolas.Cordeau@airbus.com ;