EASA

EMERGENCY AIRWORTHINESS DIRECTIVE

AD No.: 2014-0030-E

Date: 31 January 2014

Note: This Emergency 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].

Design Approval Holder's Name:

SHORT BROTHERS PLC

Type/Model designation(s): SD3-60 aeroplanes

TCDS Number: United Kingdom CAA BA11

Foreign AD:

Not applicable

Supersedure: None

ATA 32	Landing Gear – Main Landing Gear Wheel Lever Unit – Replacement
Manufacturer(s):	Short Brothers PLC
Applicability:	SD3-60 aeroplanes, all variants, all serial numbers
Reason:	During investigation of an accident with a Short SD3-60 aeroplane, it was established that a main landing gear (MLG) wheel lever failure occurred, due to fatigue cracking. This was initiated by corrosion in the area between the wheel lever bore for the axle bushes and the outer surface of the axle bushes. The absence of cadmium protective treatment on the outer surface of the axle bush was cited as a primary cause of the corrosion and subsequent fatigue cracking.
	A review of maintenance repair organisation (MRO) records for the affected Wheel Lever Unit (WLU) provided no tangible evidence that the repair bushes used had the necessary cadmium protective treatment applied. The MRO record review also identified a further three WLU that were lacking the cadmium protective treatment and were therefore susceptible to corrosion and fatigue cracking.
	This condition, if not detected and corrected, could lead to failure of the WLU and collapse of the main landing gear, possibly resulting in damage to the aeroplane and injury to the occupants.
	For the reason described above, this AD requires identification of the affected WLU and their replacement with serviceable parts.
Effective Date:	04 February 2014

Required Action(s) and Compliance Time(s):	 Required as indicated, unless accomplished previously: (1) Before next flight after the effective date of this AD, inspect the aeroplane to determine whether an affected WLU, as identified by serial number (s/n) in paragraph 2.A.1 of Short Brothers PLC Alert Service Bulletin SD360-32-A38 (hereafter referred to as 'the ASB'), is installed.
	(2) If, during the inspection as required by paragraph (1) of this AD, it is determined that an affected WLU is installed, before next flight, replace it with a serviceable unit in accordance with the instructions of the ASB.
	(3) From the effective date of this AD, do not install on any aeroplane a WLU having a s/n as listed in paragraph 2.A.1 of the ASB, unless it has been inspected and corrected in accordance with the instructions of paragraph 2.A.3 of the ASB.
Ref. Publications:	Short Brothers PLC ASB SD360-32-A38 original issue dated 30 January 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.
	 The results of the safety assessment have indicated the need for immediate publication and notification, without the full public consultation process.
	 Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <u>ADs@easa.europa.eu</u>.
	 For any question concerning the technical content of the requirements in this AD, please contact: Airworthiness, Short Brothers PLC, PO Box 241, Airport Road, Belfast, BT3 9DZ Northern Ireland, the United Kingdom; Telephone +44(0)2890-462469; e-mail <u>Michael.mulholland@aero.bombardier.com</u>.