EASA AD No: 2009-0085

EASA AIRWORTHINESS DIRECTIVE AD No.: 2009-0085 Date: 14 April 2009 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 con-

tinuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless

Type Approval Holder's Name :		Type/Model designation(s):
RUAG Aerospace Services GmbH		Dornier 228 series aeroplanes
TCDS Number: LBA TCDS No. 2031A/SA, 2031B/SA, 2031C/SA		
Foreign AD :	Not applicable	
Supersedure:	This AD supersedes AD 2007	-0028 dated 05 February 2007.
ATA 53	Fuselage – Reinforc	ement and Inspections of Fuselage Frame
Manufacturer(s):	Dornier Luftfahrt GmbH	
Applicability:	Dornier Model 228-100, 228-101, 228-200, 228-201, 228-202 and 228-212 aeroplanes, all serial numbers (s/n).	
Reason:	The TC Holder received from operators, whose fleets are operated in demanding operating-conditions and with very frequent Short Take-Off and Landing (STOL) operations, reports of cracks located in the web of fuselage frame 19 On 05 February 2007, EASA issued Airworthiness Directive (AD) 2007-0028 which mandated Alert Service Bulletin (ASB) 228-266 and required an inspection of the frame 19 on all Dornier 228 aeroplanes. In addition, the TC Holde also initiated a flight-test campaign including strain measurements as well as finite element modelling and fatigue analyses to better understand the stress distribution onto the frame 19 and the associated structural components.	
	The results of these investigations confirmed that STOL operations diminish extensively the fatigue life of the frame 19.	
	Fuselage frame 19 supports the rear attachment of the Main Landing Gear (MLG). This condition, if not corrected, could cause rupture of frame 19, leading to subsequent collapse of a MLG.	
	For the reasons described above, this new AD requires installation of reinforcements and butt straps on frame 19 at the lower part of the fuselage for aeroplanes used in operations where this frame may be subject to high stress and recurring inspections of that frame for all aeroplanes.	

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Effective Date:	28 April 2009	
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously:	
	(1) For aeroplanes with s/n from 7011 to 7168 inclusive and from s/n 8012 up to 8245 inclusive, except s/n 8107 and 8169;	
	(1.1) which HAVE accumulated 120 'short-field' landings or more on Short Take-Off and Landing (STOL) airfields at the effective date of this AD, over the last 1 200 landings done before the effective date of this AD:	
	(1.1.1) Within 800 landings after the effective date of this AD inspect for cracks the lower centre section of fuselage frame 19 in accordance with Structural Significant Item (SSI) Task No. 53.37 of the Structure Inspection Programme of the Dornier 228 Time Limits/Maintenance Checks Manual.	
	(1.1.2) If no crack is found, before accumulation of 800 landings after the effective date of this AD, install the reinforcements and butt straps on fuselage frame 19 in accordance with the accomplishment in- structions of RUAG Aerospace Services GmbH Service Bulletin No. SB-228-273 original issue.	
	If any crack is found, before further flight, repair in accordance with an EASA-approved repair solution.	
	NOTE: For the purpose of this AD, a Short Take-Off is made when the aero- plane clears a 50 ft (15 m) obstacle within 1 500 ft (450 m) of commencing take-off and a Short Landing is made when the aeroplane stops within 1,500 ft (450 m) after passing over a 50 ft (15 m) obstacle.	
	(1.2) which HAVE NOT accumulated 120 'short-field' landings or more on Short Take-Off and Landing (STOL) airfields at the effective date of this AD, over the last 1 200 landings done before the effective date of this AD:	
	(1.2.1) Within the compliance schedule as defined in the Structure Inspection Programme of the Dornier 228 Time Limits/Maintenance Checks Manual (TLMCM), do SSI Task No. 53.37.	
	(1.2.2) If any damage is found, before further flight, repair in accordance with an EASA-approved repair solution.	
	(1.3) After accomplishment of paragraph (1.1) or (1.2) of this AD, as applicable, repeat thereafter SSI Task No. 53.37 at intervals not to exceed 2 400 Landings or 72 Months, whichever occurs first.	
	(2) For all remaining aeroplanes, do SSI Task No. 53.37 within the compliance schedule as defined in the Structure Inspection Programme of the Dornier 228 TLMCM and repeat thereafter the inspection at intervals not to exceed 2 400 Landings or 72 Months, whichever occurs first.	
Ref. Publications:	RUAG Aerospace Services GmbH Service Bulletin No. SB-228-273, original issue.	
	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.	
	 This AD was posted on 12 March 2009 as PAD 09-051 for consultation until 05 April 2009. No comments were received during the consultation period. 	

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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 question concerning the technical content of the requirements in this AD, please contact:

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