EASA

AIRWORTHINESS DIRECTIVE

AD No.: 2008-0114

Date: 12 June 2008

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: Type/Model designation(s):		
Diamond Aircraft Industries GmbH		DA 40 D aircraft	
TCDS Number :	EASA A.022		
Foreign AD :	Not applicable		
Supersedure: None			
ATA 27 Flight Controls – Aileron/Flap Bellcrank and Rod Ends – Replacement			
Manufacturer(s):	Diamond Aircraft Industries GmbH - Austria, and Shandong Bin Ao Aircraft Industries Co., Limited - People's Republic of China		
Applicability:	DA 40 D aircraft, all serial numbers, if Part Number (P/N) DA4-2717-50-00 aileron bellcranks or P/N DA4-2757-30-00 flap bellcranks are installed. Note: The following DA 40 D aircraft are known to have been delivered with P/N DA4-2717-50-00 aileron bellcranks, P/N DA4-2757-30-00 flap bellcranks and bent P/N DAI-9027-00-01 rod ends installed: Serial numbers 40.080, 40.084, D4.001 through D4.188, D4.190 through D4.261, D4.263 through D4.317, D4.326 through D4.329 and 40.DS001 through 40.DS004.		
Reason:	The original designed bellcranks for the aileron and flap control system in the wing needed to be installed with slightly bent rod ends during production of the aircraft to avoid friction and possible chafing. In addition to being a non-preferable production practice, this creates the risk of replacement parts being installed during subsequent in-service maintenance without being bent or not being bent correctly. This condition, if not detected and corrected, could lead to chafing damage of the aileron or flap control system and consequent loss of control of the aircraft. Diamond Aircraft Industries has now developed new bellcranks that allow for additional angular movement of the push rod, thereby eliminating the chafing risk without using bent rod ends.		
	For the reasons described above, this EASA Airworthiness Directive (AD) requires the replacement of the aileron- and flap bellcranks with improved parts and the replacement of any bent rod ends. In addition, this AD prohibits the reinstallation of P/N DA4-2717-50-00 aileron bellcranks, P/N DA4-2757-30-00 flap bellcranks and bent rod ends P/N DAI-9027-00-01 as replacement parts.		
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	Required as indicated, unless accomplished previously:	
Required action(s) and Compliance Time(s):	(1) Within the next 200 flight hours after the effective date of this AD, replace each P/N DA4-2717-50-00 aileron bellcrank with the improved design P/N DA4-2717-50-00_01 aileron bellcrank, replace each P/N DA4-2757-30-00 flap bellcrank with the improved design P/N D60-2757-30-00 flap bellcrank and replace any bent rod ends with straight parts, in accordance with the instructions of Diamond Aircraft Industries GmbH Mandatory Service Bulletin (MSB) D4-059;	
	(2) After the accomplishment on an aircraft of the replacements as required by paragraph (1) of this AD, no person shall install a spare P/N DA4-2717-50-00 aileron bellcrank, or P/N DA4-2757-30-00 flap bellcrank or any bent rod ends on that aircraft as replacement parts.	
Ref. Publications:	Diamond Aircraft Industries GmbH MSB-D4-059 dated 14 February 2008 or MSB-D4-059/1 dated 31 March 2008.	
	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 13 May 2008 as PAD 08-056 for consultation until 10 June 2008. No comments were received during the consultation period. 	
	 Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA; E-mail ADs@easa.europa.eu. 	
	 For any question concerning the technical content of the requirements in this AD, please contact: Diamond Aircraft Industries GmbH, Austria. Telephone +43 2622 26700; Facsimile +43 2622 26780; E-mail office@diamond-air.at 	

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