
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Diamond DA40 Series Aeroplanes**AD/DA40/8****Flight Controls - Aileron Bellcrank
and Rod Ends****9/2008**

Applicability: Diamond Aircraft Industries GmbH - Austria, and Shandong Bin Ao Aircraft Industries Co., Limited - People's Republic of China DA 40 D aircraft with Part Number (P/N) DA4-2717-50-00 aileron bellcranks or P/N DA4-2757-30-00 flap bellcranks installed.

Note 1: 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.

Requirement:

1. Replace the 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 Diamond Aircraft Industries GmbH MSB-D4-059 dated 14 February 2008 or MSB-D4-059/1 dated 31 March 2008 or later NAA approved revision.
2. Do not install a 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.

Note 2: EASA AD 2008-0114 dated 12 June 2008 refers.

Compliance: For Requirement 1: Within the next 200 flight hours after the effective date of this AD, unless previously accomplished.

For Requirement 2: From the effective date of this AD.

This Airworthiness Directive becomes effective on 28 August 2008.

Diamond DA40 Series Aeroplanes

AD/DA40/8 (continued)

Background: 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. This 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 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.



James Coyne
Delegate of the Civil Aviation Safety Authority

16 July 2008