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 DA42 Series Aeroplanes

AD/DA42/5 Aileron Bellcrank and Rod Ends 7/2008

Applicability: Diamond Aircraft Industries GmbH DA 42 and DA 42 M aircraft, fitted with aileron bellcranks Part Number (P/N) DA4-2717-50-00.

Note 1: The following DA 42 and DA 42 M aircraft are known to have been delivered with P/N DA4-2717-50-00 Bellcrank and bent P/N DAI-9027-00-01 rod ends installed: Serial numbers 42.008 through 42.285, 42.287, 42.289 through 42.291, 42.295, 42.297, 42.301, 42.302, 42.306 through 42.308; and 42.AC001 through 42.AC110, inclusive.

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 and replace any bent rod ends P/N DAI-9027-00-01 with straight parts, in accordance with Diamond Aircraft Industries GmbH Mandatory Service Bulletin (MSB) 42-043or later NAA approved revision.

2. Do not install a P/N DA4-2717-50-00 aileron bellcrank or bent rod ends P/N DAI-9027-00-01 on any aircraft as replacement parts.

Note 2: EASA AD 2008-0086 dated 13 May 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 3 July 2008.

Background: The original designed bellcrank for the aileron 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 control system and consequent loss of control of the aircraft.

Diamond DA42 Series Aeroplanes

AD/DA42/5 (continued)

Diamond Aircraft Industries GmbH has now developed a new aileron bellcrank that allows 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 bellcrank with an improved part and the replacement of any bent rod ends P/N DAI-9027-00-01. In addition, this AD prohibits the reinstallation of P/N DA4-2717-50-00 aileron bellcranks and bent rod ends P/N DAI-9027-00-01 as replacement in the future.

James Coyne
Delegate of the Civil Aviation Safety Authority

22 May 2008