



Airworthiness Directive

AD No.: 2017-0074

Issued: 28 April 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, 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 Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 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 [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

DIAMOND AIRCRAFT INDUSTRIES GMBH

Type/Model designation(s):

DA 42 and DA 42 M aeroplanes

Effective Date: 12 May 2017

TCDS Number(s): EASA.A.005 and EASA.A.513

Foreign AD: Not applicable

Supersedure: None

ATA 27 – Flight Controls – Flap Control System / Bell Crank Assembly – Inspection / Modification

Manufacturer(s):

Diamond Aircraft Industries GmbH (Austria), Diamond Aircraft Industries Inc. (Canada)

Applicability:

DA 42, DA 42 M, DA 42 M-NG and DA 42 NG aeroplanes (including those certified in the Restricted category), manufacturer serial numbers 42.004 to 42.427 inclusive, 42.AC001 to 42.AC151 inclusive, 42.M001 to 42.M026 inclusive, 42.N001 to 42.N067 inclusive, 42.N100 to 42.N129 inclusive, 42.NC001 to 42.NC008 inclusive and 42.MN001 to 42.MN033 inclusive.

Reason:

Cracks and deformation have been found on the flap bell crank Part Number (P/N) D60-2757-11-00. Frequent high load conditions have been identified as the root cause.

This condition, if not detected and corrected, could lead to failure of the flap bell crank and consequent reduced control of the aeroplane.

To address this potential unsafe condition, Diamond Aircraft Industries (DAI) issued Mandatory Service Bulletin (MSB) 42-126 / MSB 42NG-066 and the corresponding Work Instruction (WI) MSB 42-126 / WI-MSB 42NG-066 (single document), hereafter referred to as 'the applicable MSB' in this AD, providing inspection and modification instructions.



For the reason described above, this AD requires modification of the flap control system by installing two spacers to replace a single long spacer, repetitive inspections of the flap bell crank, and, depending on findings, replacement of the flap bell crank with an improved part. Installation of an improved flap bell crank constitutes terminating action for the repetitive inspections required by this AD.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) Within the compliance time as specified in Table 1 of this AD and, thereafter, at intervals not to exceed 200 flight hours (FH), inspect the flap bell crank P/N D60-2757-11-00 in accordance with the instructions of the applicable MSB.

Table 1 – Initial Inspection of Flap Bell Crank

FH accumulated by the aeroplane (on the effective date of this AD)	Compliance time
More than 500	Within 100 FH or 6 months, whichever occurs first after the effective date of this AD
500 or less	Before exceeding 600 FH

Modification:

- (2) Concurrent with the first inspection as required by paragraph (1) of this AD, modify the flap control system by installing two spacers P/N DS BU2-10-06-0065-C where the flap actuator rod end bearing is connected to the flap bell crank in accordance with the instructions of the applicable MSB.

Corrective Action(s):

- (3) If, during any inspection as required by paragraph (1) of this AD, discrepancies are found, before next flight, replace the flap bell crank with an improved part P/N D60-2757-11-00_01 in accordance with the instructions of the applicable MSB.

Terminating Action:

- (4) Installation of an improved flap bell crank P/N D60-2757-11-00_01 in accordance with the instructions of the applicable MSB constitutes terminating action for the repetitive inspections required by paragraph (1) of this AD for that aeroplane.

Ref. Publications:

DAI MSB 42-126 / DAI MSB 42NG-066 original issue, dated 27 March 2017.

The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.



Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 28 March 2017 as PAD 17-042 for consultation until 25 April 2017. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact: Diamond Aircraft Industries GmbH, Austria, Telephone +43 2622 26700, Fax +43 2622 26780, E-mail: airworthiness@diamond-air.at.

