



適航指令發布單

Airworthiness Directive Issuance Form

民航局AD編號 AD Number	CAA-2017-05-001	發布日期 Date issued	2017/5/4
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	DIAMOND AIRCRAFT INDUSTRIES GMBH DA 42 and DA 42 M aeroplanes.		
主旨摘要	Flight Controls – Flap Control System / Bell Crank Assembly – Inspection / Modification		
民航局 CAA  <input type="checkbox"/> 本國產品 Native products  <input type="checkbox"/> 其他個案 Other	設計國民航主關機構 Original Authorities <input type="checkbox"/> FAA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____		
	設計國AD編號 Original AD number	2017-0074	
	1. 直接採用原AD之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) ___ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將AD執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	DAI MSB 42-126 / DAI MSB 42NG-066 original issue, dated 27 March 2017.		
註：1. AD內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331-3, Fax：(02)2545-8464, e-mail：adcaa@mail.caa.gov.tw Note：1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331-3, Fax：(02)2545-8464, e-mail：adcaa@mail.caa.gov.tw			



## 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

<b>FH accumulated by the aeroplane</b> (on the effective date of this AD)	<b>Compliance time</b>
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](mailto: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](mailto:airworthiness@diamond-air.at).

