

# MANDATORY SERVICE BULLETIN

## NO. MSB 42-083

## NO. MSB 42NG-014

### **I TECHNICAL DETAILS**

#### **I.1 Category**

Mandatory.

#### **I.2 Airplanes affected**

Type: DA 42, DA 42 M, DA 42 NG, DA 42 M-NG

Serial numbers: 42.004 through 42.199

42.AC001 through 42.AC059

#### **I.3 Date of Effectivity**

13-Jul-2010

#### **I.4 Time of Compliance**

Within the next 200 flight hours from the date of effectivity but not later than 31-Jul-2011.

#### **I.5 Subject**

Replacement of the passenger door retaining bracket.

ATA-Code: 52-00

#### **I.6 Reason**

An improved retaining bracket for the door safety hook has been designed, together with an amended emergency procedure, to prevent opening and most likely detaching of the door during flight with an unlatched door. This Service Bulletin describes the retrofit installation of the retaining bracket on aircraft already in operation.

**I.7 Concurrent Documents**

None.

**I.8 Approval**

The technical information or instructions contained in this document relate to the Design Change Advisories No. MÄM 42-443 and MÄM 42-453, which have been approved under the authority of EASA Design Organization Approval ref. EASA.21J.052.

The technical content of this document has been approved under the authority of DOA ref. EASA.21J.052.

**I.9 Accomplishment/Instructions**

Comply with Work Instruction WI-MSB 42-083 / WI-MSB 42NG-014, latest effective issue.

**I.10 Mass (Weight) and CG**

Mass and Center of Gravity are not affected.

**II PLANNING INFORMATION****II.1 Material & Availability**

See WI-MSB 42-083 / WI-MSB 42NG-014, latest effective issue.

**II.2 Special Tools**

None.

**II.3 Labor Effort**

Approx. 1 hour.

**II.4 Credit**

For all aircraft within warranty period 1 labor hour and Material acc. to WI-MSB 42-083 / WI-MSB 42NG-014 Section II.3.

## **II.5 Reference Documents**

Diamond Aircraft DA 42 Series Airplane Maintenance Manual, Doc. No. 7.02.01, latest effective issue.

Diamond Aircraft DA 42 NG Airplane Maintenance Manual, Doc. No. 7.02.15, latest effective issue.

## **III REMARKS**

- 1) All measures must be carried out by a certified aircraft service station or a certified aircraft maintenance mechanic.
- 2) All works, particular those that are not especially described in this Service Bulletin, must be carried out in accordance with the referenced Maintenance Manual.
- 3) Accomplishment of the measures must be confirmed in the log book.
- 4) If material and/or labor hours are subject to be credited through Diamond Aircraft Industries, the Service Bulletin must be carried out by an authorized Diamond Service Center and the Warranty Application incl. Work Report must be sent not later than 30 days after the end of time of compliance.
- 5) In case of doubt contact Diamond Aircraft Industries GmbH.



Diamond Aircraft Industries GmbH  
N. A. Otto-Straße 5  
A-2700 Wiener Neustadt  
Austria

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**EXECUTION REPORT TO**  
**SERVICE BULLETIN**  
**MSB 42-083**  
**MSB 42NG-014**

AIRPLANE DATA

Airplane Serial Number: \_\_\_\_\_

Airplane Registration: \_\_\_\_\_

Airplane Operator: \_\_\_\_\_

Hours of operation of airplane: \_\_\_\_\_

No. of landings: \_\_\_\_\_

Hours of operation-engine LH \_\_\_\_\_

Hours of operation-engine RH \_\_\_\_\_

Typical operation of airplane: private, club, training, other \_\_\_\_\_

\_\_\_\_\_  
Date, Name, Sign

Please fax the completed form to Fax No. +43-2622-26700-1369 or e-mail to  
airworthiness@diamond-air.at

# WORK INSTRUCTION

WI-MSB 42-083  
WI-MSB 42NG-014

„ Retrofit Retaining Bracket“

## I GENERAL INFORMATION

### I.1 Subject:

Installation of Retrofit Retaining Bracket.

### I.2 Reference Documents:

Diamond Aircraft DA 42 Series Airplane Maintenance Manual, Doc. No. 7.02.01, latest effective issue.

Diamond Aircraft DA 42 NG Airplane Maintenance Manual, Doc. No. 7.02.15, latest effective issue.

### I.3 Remarks:

- a) The work must be carried out by a certified aircraft service station or a certified aircraft maintenance mechanic.
- b) All works, particularly those that are not especially described in this work instruction, must be carried out in accordance with the referenced maintenance manual.
- c) The work must be performed in Workshop conditions, acc. to Airplane Maintenance Manual Section 51-00.
- d) In case of doubt, contact Diamond Aircraft Industries GmbH.
- e) It is recommended to print this Work Instruction in color.

## **II DRAWINGS, SPECIAL TOOLS & MATERIALS**

### **II.1 Drawings:**

None

### **II.2 Special Tools:**

Dispensing Gun for 2C                      P/N: 2744-082

### **II.3 Material:**

Quantity	Part No.	Description
1	DA4-5200-00-69-SB	Retaining Bracket for Retrofit
2	DIN 965 A M4x10-A2	Countersunk cross recessed screw
2	DIN 963 M3x12-A2-BC	Countersunk slot recessed screw
2	830.000.040.800	Thread Insert
1	101970_	Plexus MA300
1	102188	Mixer

Materials and special tools are available from Diamond Aircraft Industries.

### **II.4 Consumable Material:**

Quantity	Part No.	Description
2	DIN 125-A4.3-A2	Washer
a. r.	972 603 KG	Grease 5
a. r.	N000 148	Acetone

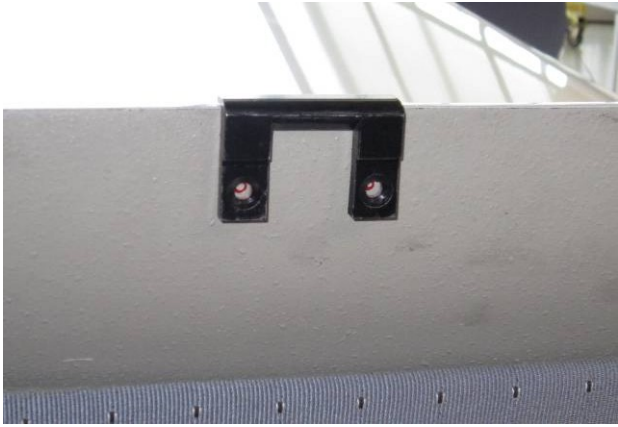
Consumable materials may be procured locally or from Diamond Aircraft Industries.

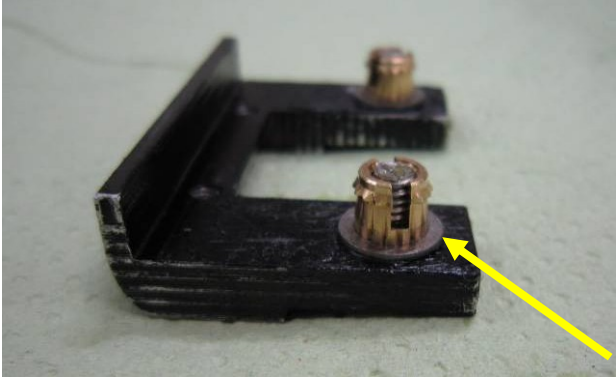
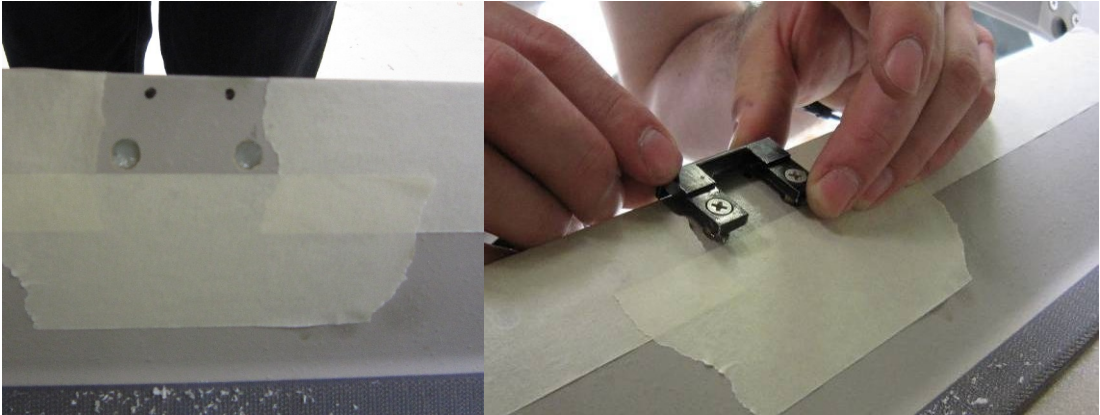
### III INSTRUCTIONS

#### Action 1: Check Retaining Bracket

1	<p>If the Retaining Bracket P/N: DA4-5200-00-69_1 is installed (refer to picture), ensure the function acc. to AMM-TR-MÄM-42-334. No further action necessary.</p> <div data-bbox="614 667 1077 840" data-label="Image"></div> <p data-bbox="683 875 997 904">P/N: DA4-5200-00-69_1</p>
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#### Action 2: Install new Retaining Bracket

2	<p>Remove the two screws from the fuselage which hold the Retaining Bracket (P/N: DA4-5200-00-69).</p>
3	<p>Install the Retrofit Retaining Bracket (P/N: DA4-5200-00-69-SB) on the old position and mark the position of the two holes from inside the fuselage.</p> <div data-bbox="529 1279 1150 1704" data-label="Image"></div>
4	<p>Remove the Retaining Bracket and drill the two holes with a diameter of 7mm (9/32 inch) and a depth of 7mm (9/32 inch) on the marked positions.</p>

5	<p>Prepare the Retaining Bracket for bonding the thread Insert.          Grease the Retaining Bracket, the screws and the washers.          Clean the thread insert from grease and dirt.</p>  <p style="text-align: right;">Washer DIN 125</p>
6	<p><b>WARNING:</b> When handling chemicals always observe Health and Safety Regulations given by the manufacturer of the chemicals.</p>
7	<p>Fill the holes with the two-part adhesive MA300 and install the Retaining Bracket</p> 
8	<p>Let the installation cure for one hour.</p>
9	<p>Remove the Retaining Bracket and carefully remove the washers DIN 125.</p>
10	<p>Install the Retaining Bracket with screws DIN 963 M3x12-A2-BC and DIN 965-AM4-10-A2.</p>
11	<p>Check function of door locking mechanism refer to AMM-TR-MÄM-40-377.</p>
12	<p>Clean the working area and check for foreign objects.</p>
13	<p>Ensure Temporary Revision AFM-TR-MÄM 42-443 has been incorporated into the Airplane Flight Manual.</p>
14	<p>Make necessary entries into aircraft logs.</p>