

## MANDATORY SERVICE BULLETIN

NO. MSB 40-070/1

NO. MSB D4-079/1

NO. MSB F4-024/1

SUPERSEDES MSB 40-070, MSB D4-079, MSB F4-024/1

### **I TECHNICAL DETAILS**

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

Mandatory.

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

Type: DA 40, DA 40 D, DA 40 F  
Serial Numbers: 40.006 through 40.009  
40.011 through 40.080, 40.084  
40.201 through 40.766  
40.FC001 through 40.FC029  
D4.001 through D4.249  
40.DS001 through 40.DS005

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

30-Apr-2010

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

Within the next 200 flight hours from the date of effectivity but not later than 30-Jun-2011.

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

Replacement of the passenger door retaining bracket

ATA-Code: 52-00

## **I.6 Reason**

A improved retaining bracket for the door safety hook has been designed to, together with an amended emergency procedure, 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 40-425 and MÄM 40-428, 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 40-070 / WI-MSB D4-079 / WI-MSB F4-024 / , 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 40-070 / WI-MSB D4-079 / WI-MSB F4-024, 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 40-070 / WI-MSB D4-079 / WI-MSB F4-024 Section II.3.

## **II.5 Reference Documents**

DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, 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

DAI MSB 40-070/1  
DAI MSB D4-079/1  
DAI MSB F4-024/1  
Page 4 of 4  
17-Jan-2011

## EXECUTION REPORT TO SERVICE BULLETIN

**MSB 40-070/1**

**MSB D4-079/1**

**MSB F4-024/1**

### AIRPLANE DATA

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

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

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

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

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

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

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 40-070  
WI-MSB D4-079  
WI-MSB F4-029

### Retrofit Retaining Bracket

#### **I GENERAL INFORMATION**

##### **I.1 Subject**

Installation of Retrofit Retaining Bracket.

##### **I.2 Reference Documents**

Diamond Aircraft DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, 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 (only when using Plexus MA 300) 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 M3x10-A2-BC	Countersunk slot recessed screw
2	830.000.040.800	Thread Insert
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 *)	Fresh Acetone
1	101970_	Plexus MA300
or	or	
a. r.	L20	Resin
a. r.	HAEH91	Hardener
a. r.	FB/035	Cotton Flocks

\*) or equivalent

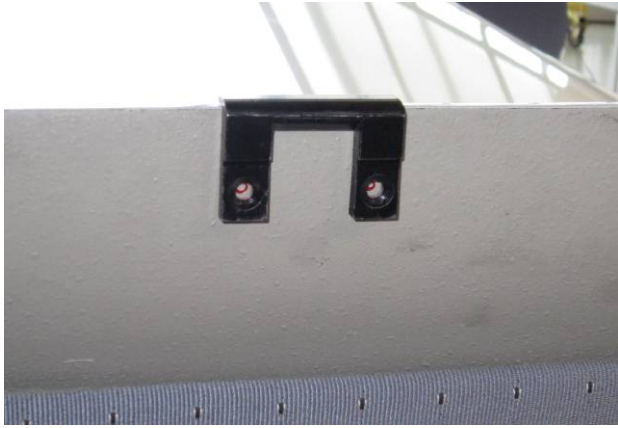
Consumable materials may be procured locally or from Diamond Aircraft Industries.

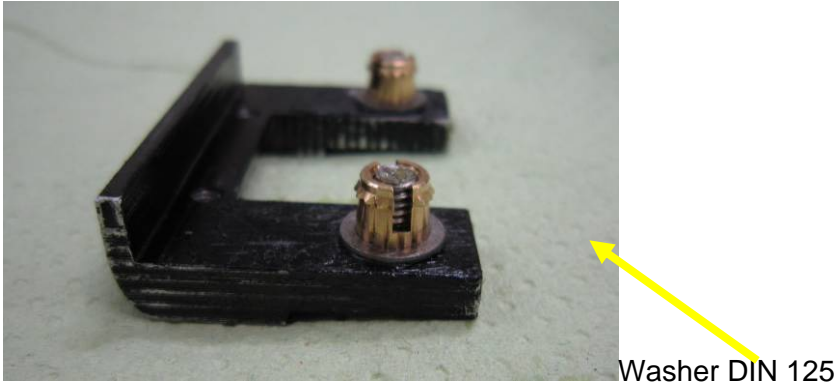
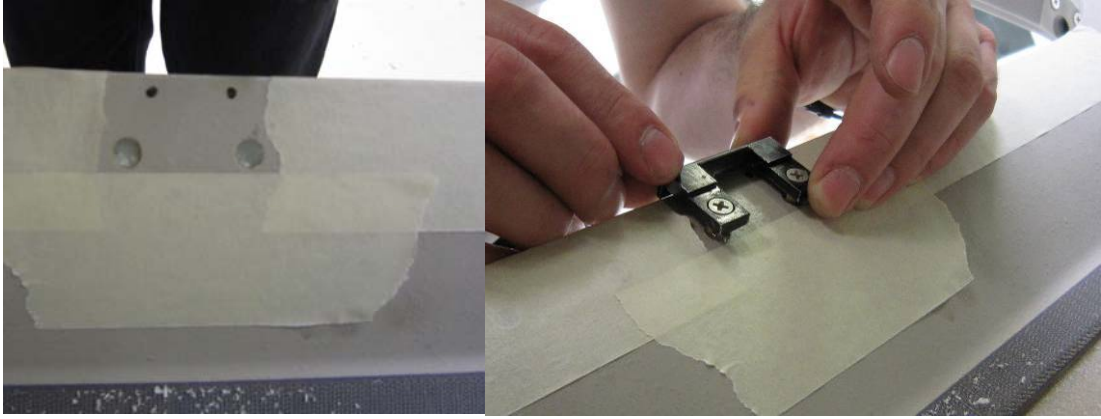
### III INSTRUCTIONS

#### Action 1: Check Retaining Bracket

1	Ensure Temporary Revision TR-MÄM 40-428 has been incorporated into the Airplane Flight Manual.
2	Ensure Temporary Revision AMM-TR-MÄM 40-377 has been incorporated into the Airplane Maintenance Manual.
3	<p>If Retaining Bracket DA4-5200-00-69_1 is installed (refer to picture), ensure correct function acc. to AMM Section 52-10.</p> <div style="text-align: center;">  <p>P/N: DA4-5200-00-69_1</p> </div> <p>If Retaining Bracket DA4-5200-00-69_1 is not installed, continue with Action 2</p>
4	Make necessary entries into aircraft logs.

#### Action 2: Install new Retaining Bracket

5	Remove the two screws from the fuselage which hold the Retaining Bracket (P/N: DA4-5200-00-69).
6	<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 style="text-align: center;">  </div> <p>Note: Ensure the safety hook fits in the gap between the arms. If not fill the old holes with thickened resin and position the retaining bracket.</p>

7	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.
8	<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>
9	<b>WARNING:</b> When handling chemicals always observe Health and Safety Regulations given by the manufacturer of the chemicals.
10	<p>Fill the holes with the two-part adhesive MA300 or thickened resin (L20/H91 thickened with cotton flocks) and install the Retaining Bracket.</p>  <p>Note: L20/H91 mixture: 100 parts resin and 27 parts hardener (by weight).          Supplier: Hexion Specialty Chemicals Stuttgart GmbH.</p> <p><b>Caution:</b> Follow the instructions given in the material data sheet and obey the material safety data sheet.</p>
11	If bonding with Plexus: Cure the installation for one hour. If bonding with resin: Cure 4 hours and post cure 8 hrs 60°C (140°F).
12	Install the Retaining Bracket with screws DIN 963 M3x12-A2-BC and DIN 965-AM4-10-A2.
13	Check function of door locking mechanism i.a.w. AMM Section 52-10.
14	Clean the working area and check for foreign objects.
15	Make necessary entries into aircraft logs.