

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.



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

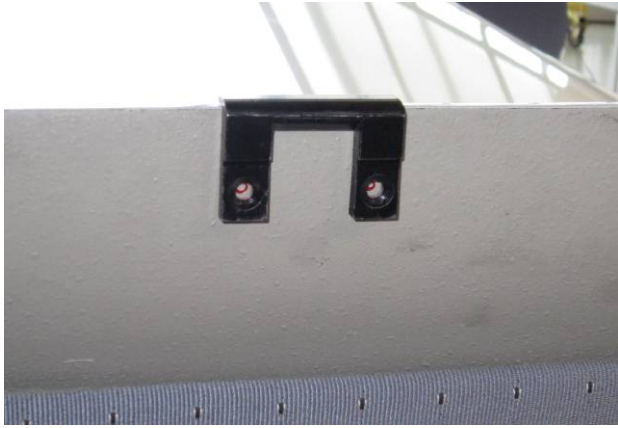
Consumable materials may be procured locally or from Diamond Aircraft Industries.

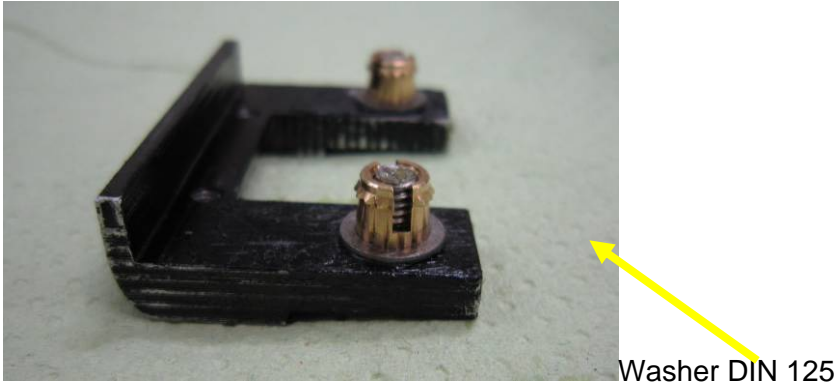
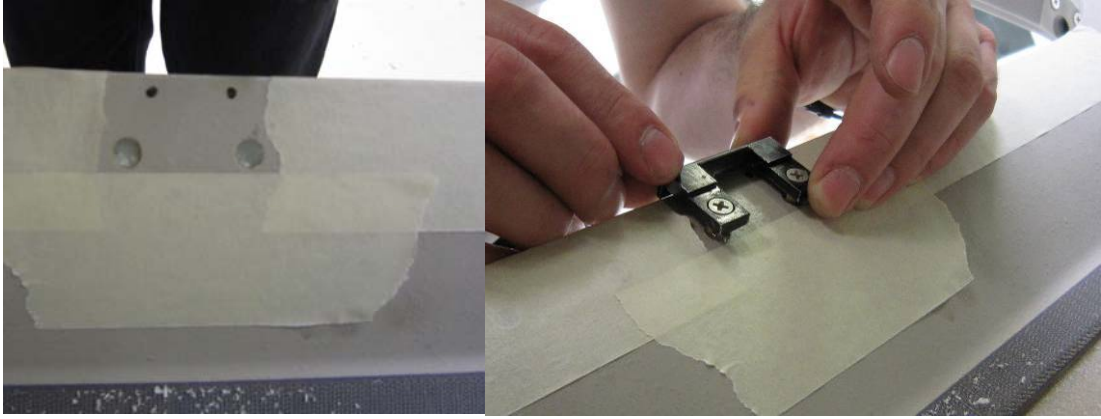
III INSTRUCTIONS

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	WARNING: 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>Caution: 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.