MANDATORY SERVICE BULLETIN

NO. MSB 42-076

I TECHNICAL DETAILS

I.1 Category

Mandatory

I.2 Airplanes affected

Type: DA 42, DA 42 M

Serial Numbers: 42.004 through 42.061,
42.063 through 42.121,
42.123 through 42.300,
42.AC001 through 42.AC132,
42.AC135, 42.AC138,
42.AC142 through 42.AC145,
42.AC148, 42.AC150, 42.AC151
42.M001 through 42.M010, 42.M017

I.3 Date of Effectifity

1-Jun-2010

I.4 Time of Compliance

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

I.5 Subject

This Service Bulletin prescribes the inspection of the firewall for holes that were drilled through the firewall composite structure during production process and if necessary the sealing of these holes.

ATA-Code: 54-00

I.6 Reason

Water which may enter the electrical compartment of the nacelle through these holes may enter the ECU and in further consequences could possibly lead to damage of the ECU and engine malfunction.

I.7 Concurrent Documents

None

I.8 Approval

The technical content of this document has been approved under the authority of DOA No. EASA.21J.052.

I.9 Accomplishment/Instructions

Comply with Work Instruction WI-MSB 42-076, latest effective issue.

I.10 Mass (Weight) and CG

Mass (Weight) and CG are not affected.

II PLANNING INFORMATION

II.1 Material & Availability

WI-MSB 42-076 is attached to this Service Bulletin.

Necessary materials are available through Diamond Aircraft Industries.

II.2 Special Tools

None

II.3 Labour Effort

- 0,5 labor hour for inspection only
- 3 labor hours for inspection, removing the bonding stripe & sealing of holes

II.4 Credit

- No credit for inspection only
- In case holes are found for all aircraft within warranty period 3 labor hours for inspection, removing the bonding stripe & sealing of holes are credited through Diamond Aircraft Industries GmbH provided that detailed photos of the holes are attached to the Warranty Application.

II.5 Reference Documents

WI-MSB 42-076

DA 42 series Airplane Maintenance Manual, Doc. No. 7.02.01, 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 42-076

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 _____

Holes were found in nacelle and had to be sealed:

O – no

O – yes, on LH nacelle

O – yes, on RH nacelle

_____

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 42-076

„Sealing of Holes in Firewall “

I GENERAL INFORMATION

I.1 Subject

This Work Instructions describes the inspection of the firewall for holes that were drilled through the firewall composite structure during production process and if necessary the sealing of these holes.

I.2 Reference Documents

Diamond Aircraft DA 42 Airplane Maintenance Manual, Doc. No. 7.02.01, 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, particular those that are not especially described in this work instruction, must be carried out in accordance with the referenced maintenance manual.

c) In case of doubt, contact Diamond Aircraft Industries.

d) It is recommended to print this Work Instruction in color.

II DRAWINGS, SPECIAL TOOLS & MATERIALS

II.1 Drawings

None

II.2 Special Tools

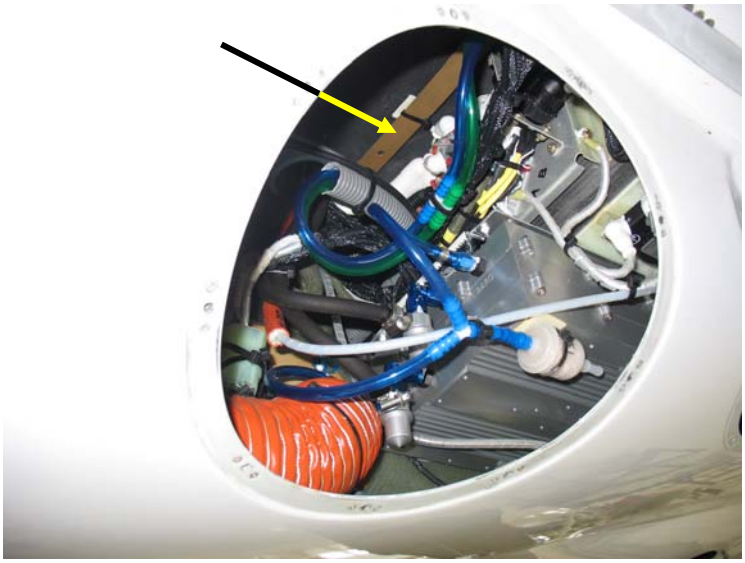
None

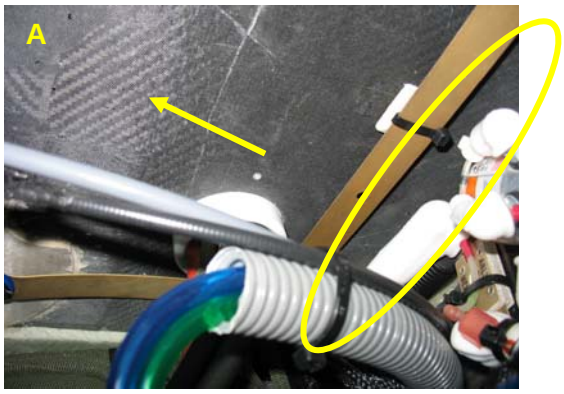
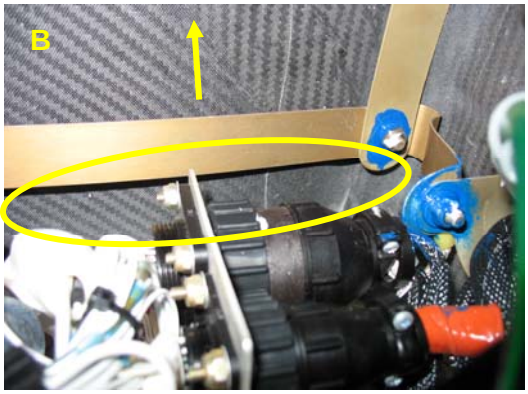
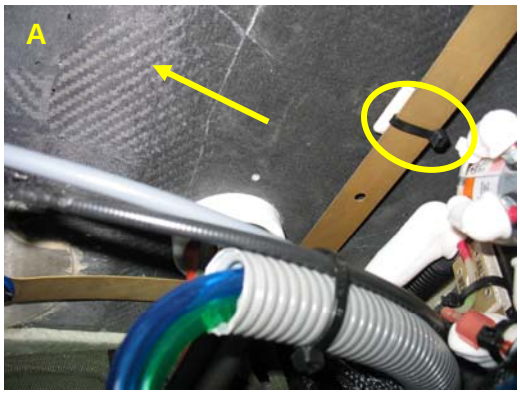
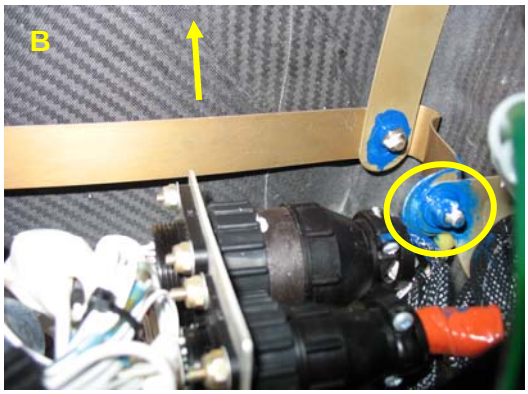
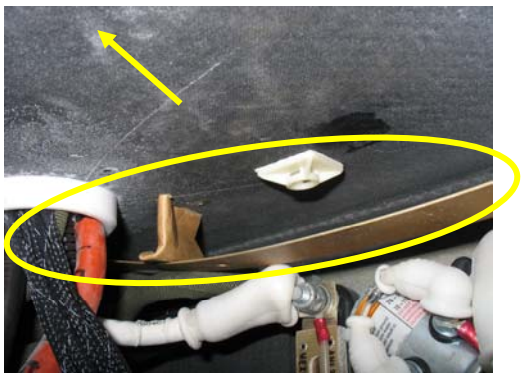
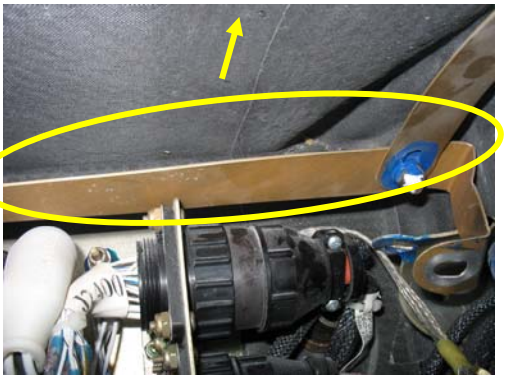
II.3 Material

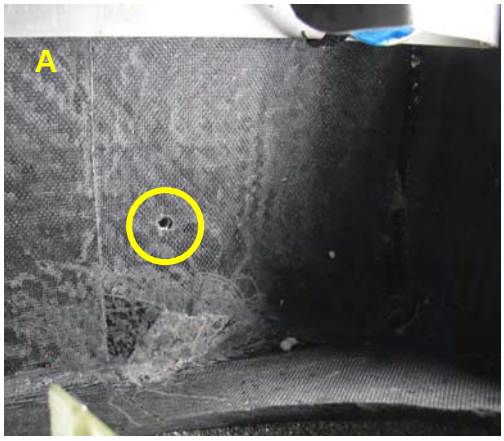
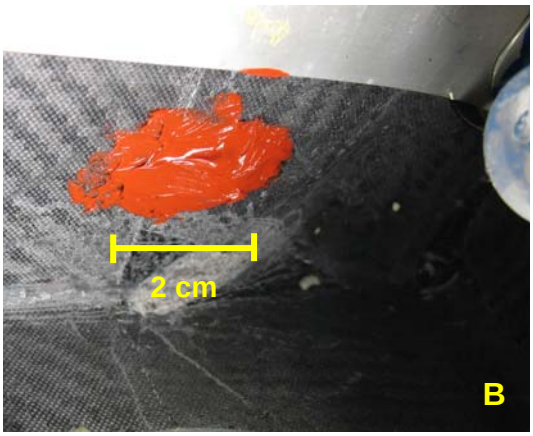
Quantity	Part No.	Description
A/R	Dow Corning DC736 or equivalent	Fireproof sealant
A/R	Nycote 7-11 or equivalent	Coating fluid for bonding connections

III INSTRUCTIONS

III.1 Inspection

1	Remove the ECU access panel from the LH nacelle.
2	The arrow in this picture indicates the bonding stripe in the ECU compartment of the LH engine. Along the area rear of and above the bonding stripe holes possibly might have been drilled through the composite structure during production process. 

3	Inspect the area along the rear edge of the bonding stripe for holes with a diameter of approximately 4 mm that were possibly drilled into the composite structure. The arrows indicate the flight direction.  
4	If no holes are found continue with item 14. If holes are found, typically four holes positioned in a line along the rear edge of the bonding stripe with a distance between 150 mm and 190mm from each other, continue with item 5.
5	Disconnect the airplane main battery for maintenance. Refer to AMM, section 24-31.
6	Remove the tie wrap (Picture A) and the screw that connects the bonding stripes and the bonding cable (Picture B). The arrows indicate the flight direction.  
7	Pull down the bonding stripe carefully. Inspect the composite structure above the bonding stripe and in the area rear of the bonding stripe for holes with a diameter of approximately 4 mm. Again the arrows indicate the flight direction.   Note : Use an appropriate spacer to hold down the bonding stripe.

8	In case holes as shown in picture A can be identified in the composite structure: - Use clean acetone to clean the area around the holes. - Fill the holes with fireproof sealant and seal the holes by applying fireproof sealant in an area around the hole with a diameter of about 2 cm (picture B), e.g. Dow Corning DC736.  
9	Clean the bonding connections. Install the bolt that connects the bonding stripes and the bonding cable. Seal the connection with appropriate coating, e.g. Nycote 7-11.
10	Install a new tie wrap to attach the lightning protection stripe to the tie wrap base.
11	Measure the electrical resistance of the base plate of the LH wing tip light assembly in reference to the negative pole of the airplane main battery on the center relay panel in accordance with the AMM, Section 51-80. The maximum allowable electrical resistance is 8 mOhm.
12	Clean working area and check for foreign objects.
13	In order to receive information about the affected number of aircraft and the position of the holes provide detailed photographs of the holes and their position to Diamond Aircraft Industries GmbH. Attach the photos to the Warranty Application by using the button “Attach File”.
14	Install the ECU access panel to the LH nacelle.
15	Repeat items 1 – 14 on the RH nacelle.
16	If the airplane main battery was disconnected, connect the airplane main battery. Refer to AMM, section 24-31.
17	Perform functional check of altered, repaired and new parts.
18	Test all systems in working area for function.
19	Make necessary entries into aircraft logs.