

DAI OSB 42-122/2 Page 1 of 3 24-Jun-2016

OPTIONAL SERVICE BULLETIN OSB 42-122/2

I TECHNICAL DETAILS

I.1 Category

Optional.

I.2 Airplanes affected

Type:DA 42, DA 42 MSerial numbers:42.004 and subsequent

42.AC001 and subsequent

42.M001 and subsequent

Only airplanes with a TAE 125-02-99 or TAE 125-02-114 envirence affected.

I.3 Date of effectivity

27-May-2016

I.4 <u>Time of Compliance</u>

At owner's discretion.

78-00

I.5 <u>Subject</u>

First time installation of exhaust pipe DAI P/N D60-9078-06-01_01 / Technify P/N 52-7810-H0014 01 (Exhaust pipe without a directly attached heat shield).

ATA-Code:

I.6 <u>Reason</u>

An improved exhaust pipe without a directly attached heat shield has been developed to allow visual inspection over the entire pipe length. The heat shielding with this new design is provided by heatshields and patches that are installed in the engine compartment and on the cowling.

This Service Bulletin describes the work necessary for the first time installation of the improved exhaust pipe DAI P/N D60-9078-06-01_01 / Technify P/N 52-7810-H0014 01.

NOTE: The noise values and noise certification is not affected by the installation the new exhaust pipe.

I.7 Concurrent Documents

Technify Motors GmbH Repair Manual RM-02-02, latest effective issue.

I.8 <u>Approval</u>

The technical information or instructions contained in this document relate to the Design Change Advisories No. MÄM 42-911 and OÄM 42-252/d, 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 Accomplishments / Instructions

Comply with WI-OSB 42-122, latest effective issue.

I.10 Mass (Weight) and CG

The change in mass and CG is negligible.

II PLANNING INFORMATION

II.1 Material and Availability

See WI-OSB 42-122, latest effective issue. Material is available from Diamond Aircraft Industries and Technify Motors.

II.2 Special Tools

None.

II.3 Labour Effort

Approx. 4 hours.

II.4 Credit

None.

II.5 <u>Reference Documents</u>

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

III <u>REMARKS</u>

1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.

\$

- 2. All work, particular that which is not especially described in this Service Bulletin, must be done in accordance with the referenced Maintenance Manual.
- 3. Completion of all work must be recorded in the log book.
- 4. In case of doubt contact Diamond Aircraft Industries GmbH.



DAI OSB 42-122/2 Page 3 of 3 24-Jun-2016

EXECUTION REPORT TO SERVICE BULLETIN OSB 42-122/2

AIRPLANE INFORMATION	
Airplane Serial Number	
Airplane Registration	
Airplane Operator	
Hours of operation of airplane	· · · · · · · · · · · · · · · · · · ·
No. of landings	
Hours of operation-engine	
Typical operation of airplane	private thub, raining, other
N`	
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-OSB 42-122

I GENERAL INFORMATION

I.1 Subject

Replacement of the exhaust pipe with heat shield with an exhaust pipe without heat shield.

I.2 <u>Reference Documents</u>

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

I.3 <u>Remarks</u>

- a) All work must be done by a certified aircraft service tation or a certified aircraft maintenance mechanic.
- b) All work, in particular if not described in this work instruction, must be done in accordance with the referenced maintenance manual.
- c) For conversion factors between SLamics and US/Imperial units refer to AMM Chapter 02.
- d) In case of doubt, contact Diamont Aircraft Industries GmbH.

II DRAWINGS, SPECIAL TOOLS & MATERIALS

II.1 Drawings

None.

II.2 Special Tools

None.



II.3 Material

Material which is available from Diamond Aircraft Industries:

Quantity	Part Number	Description
6	214218	Heat self-locking nut
2	D60-7106-01-02	Heat shield for shock mount
2	D60-7106-01-01	Heat shield for coolant pipe
4	LN 9037-06018	Bolt for coolant pipe heat shield attachment
8	DIN 125 A6.4-A2	Washer for coolant pipe heat shield attachment
4	RSGU 1.28_15W1	Hose clamp for coolant pipe teat shield attachment
4	LN 9338-M6	Self-locking nut for coolant pipe heat shield attachment
500 x 1000 mm	heat_g	Heat protection patches
A/R	425_50mm	And inum tape
1	DC732-90	Dow Corning 273
4	DIN 7337-B3.2x11	Counter sunk blind rivet

Material which is available from Technify Material

Quantity	Part Number	Description
2	52-7810-H0014 01 *	Exhaust pipe

* equivalent DAI P/N D -9078-05-01_01

III INSTRUCTIONS

1	Make sure the airplane is safe.
2	Remove engine cowling in accordance with (i.a.w.) AMM section 71-10.
3	Remove the exhaust tube i.a.w. AMM section 78-00.



4	Install heat shield at the front shock mount:
	 Lift the engine i.a.w. the Engine Repair Manual, Section 71-20.01 to unload the front shock mount. Remove the M10 bolt. Insert heat shield P/N D60-7106-01-02 between engine mount and shock mount. Install the M10 bolt (torque 55 Nm).
	heat shield
5	Install heat protection patch to upper conting
	 Cut heat protection patch i.a.w. the template (refer to Appendix A). Clean bonding surface from dirt, grease and debris with appropriate solvent. Bond heat protection patch to the cowling as shown in the pictures below. The distance between the edge of the cowling and the edge of the heat protection patch is 150 mm. Align the tower edge of the heat protection patch to the small heat protection patch of the lower cowling as shown in item 9.







- 8 Install heat protection patch to the air inlet duct of the lower cowling.
 - Cut heat protection patch i.a.w. the template (refer to Appendix A).
 - Clean bonding surface from dirt, grease and debris with appropriate solvent.
 - Align the heat protection patch along the upper edge of the air inlet duct and along the edge which will be covered by the rubber seal with a distance of 5 mm from edges as indicated by the solid arrows. Cut excessive heat protection patch material with a sharp knife.
 - Align heat protection patch along the lower edge and cut excessive heat protection patch material flush with the composite material as indicated by the slashed arrows.
 - Press the heat protection patch thoroughly to the air inlet duct so that the patch is bonded to the composite material on the entire surface.





- 9 Install small heat protection patch to lower cowling.
 - Cut heat protection patch i.a.w. the template (refer to Appendix A).
 - Clean bonding surface from dirt, grease and debris with appropriate solvent.
 - Align heat protection patch along the edge of the lower cowling with a distance of 5 mm so that the small heat protection patch of the lower cowling is the elongation of the heat protection patch of the upper cowling as shown in the picture below.
 - Press the heat protection patch thoroughly to the cowling so that the patch is bonded to the composite material on the entire surface.









11	Apply Dow Corning 732 to areas where the aluminum foil of the heat protection patch got damaged.
12	Re-install the camlock to the lower cowling.
13	Re-install the rubber seal to the air inlet duct.







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





l

16	Install heat protection shield P/N D60-7106-01-01 to the coolant tube.	
	 Adjust position of the heat protection shield so that there is clearance to all surrounding components. 	
	<image/>	
17	Clean working areas, check for foreign objects.	
18	Check all altered, replaced, repaired parts for proper function.	
19	Test all systems in working area for and ion	
20	Install engine cowlings i.a.w. AMM section 71-10.	
21	Repeat items 2 to 15 on the oner engine.	
22	Make all necessary entries in the airplane logs.	



WI-OSB 42-122 Revision 3 Page 12 of 16 6-Sep-2016

Appendix A – templates for heat protection patches





Diamond Aircraft Industries GmbH N. A. Otto-Straße 5 2700 Wiener Neustadt, Austria WI-OSB 42-122 Revision 3 Page 13 of 16 6-Sep-2016





Diamond Aircraft Industries GmbH N. A. Otto-Straße 5 2700 Wiener Neustadt, Austria WI-OSB 42-122 Revision 3 Page 14 of 16 6-Sep-2016







