MANDATORY SERVICE BULLETIN

MSB D4-075/2

SUPERSEDES MSB D4-075/1

I TECHNICAL DETAILS

I.1 Category

Mandatory.

I.2 Airplanes affected

Type:	DA 40 D
Serial Numbers:	D4.254, D4.279, D4.280, D4.282 through D4.287, D4.296 through D4.353, D4.355 through D4.371, D4.373 through D4.378, D4.381, D4.382, D4.399, 40.DS001 through 40.DS027. All airplanes with TAE 125-02 engine retrofitted via OSB D4-061

Note Only airplanes **without** K16 turbocharger are affected (refer to section 1.9).

I.3 Date of effectivity

14-Jun-2010

I.4 Time of Compliance

Within 100 flight hours, but not later than 31-Jul-2012 and inspection every 100 flight hours thereafter.

I.5 Subject

Air induction system.

ATA-Code: 71-60

I.6 Reason

In-Service experience has shown that the hose between the alternate air valve and the turbo charger is sensitive against chafing if not correctly installed. To provide additional measures against that chafing of the air induction tube on the engine mount the flexible air intake tube is now fixed in a more defined position. This Service Bulletin describes the retrofit installation on aircraft already in service.

I.7 Concurrent Documents

None.

I.8 Approval

The technical information or instructions contained in this document relate to the Design Change Advisory No. MÄM 40-408 and MÄM 40-752, 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

Note This Service Bulletin is applicable, unless the engine has been replaced with an engine with K16 turbocharger (engine S/N 02-02-03724 or higher).

Note The K16 Turbocharger can be recognized by the form of the flange.

K16 turbocharger
Wide flange

turbocharger affected by this SB
Small flange

Comply with WI-MSB D4-075 Revision 1 or higher, always latest effective issue.

Note: WI-MSB D4-075 is attached to this document.

I.10 Mass (Weight) and CG

Negligible.

II PLANNING INFORMATION

II.1 Material and Availability

See WI-MSB D4-075, latest effective issue.

II.2 Special Tools

None.

II.3 Labour Effort

Approx. 1 hour.

II.4 Credit

For installation of Clamps: 1 hour of labour and material as listed in WI-MSB D4-075 for all aircraft within warranty period.

II.5 Reference Documents

DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, latest effective issue.

III 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) 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.

d) In case of doubt, contact Diamond Aircraft Industries GmbH.

EXECUTION REPORT TO SERVICE BULLETIN MSB 40-075/2

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 D4-075

„Turbocharger Hose with Clamps“

I GENERAL INFORMATION

I.1 Subject

Replacement of Air Intake Hose from Turbocharger and installation with P-clamps.

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, 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 GmbH.

II DRAWINGS, SPECIAL TOOLS & MATERIALS

II.1 Drawings

None.

II.2 Special Tools

None.

II.3 Material

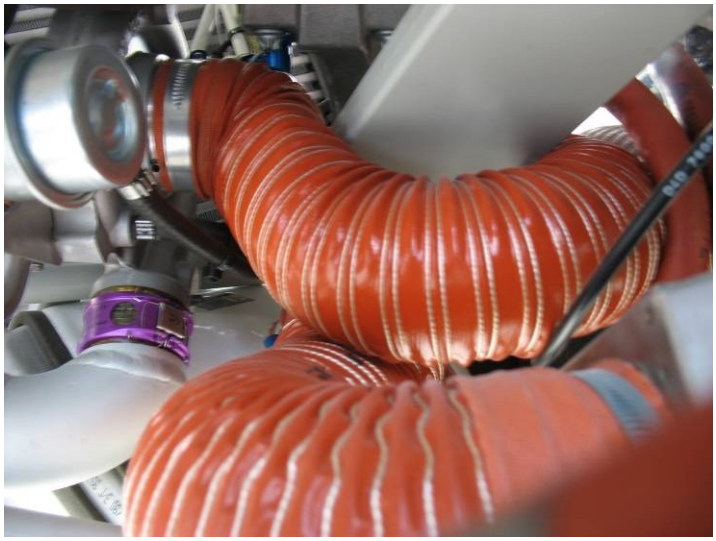
Quantity	Part Number	Description
1	RSGU1-65-20W1	Clamp
1	D4D-7166-00-91	Clamp 25x88
1	DIN 985 M8 A2	Nut
1	DIN 125A-M8-A2	Washer
1	DIN 933 M8x30-8.8-YZP	Screw
1	SG2M-64-920mm	Matzen & Timm ducting inner diameter: 63,5 mm

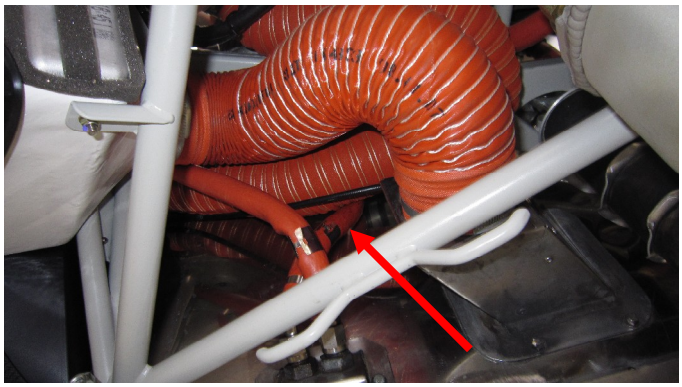
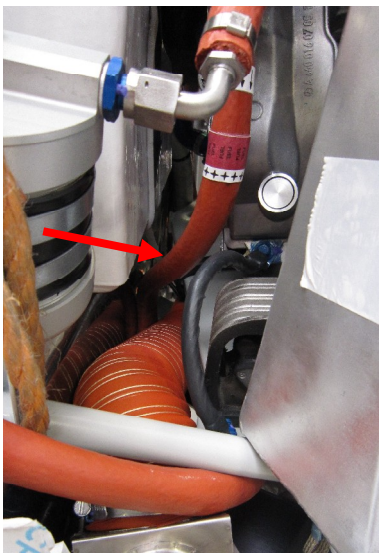
Material including drawings is available from Diamond Aircraft Industries.

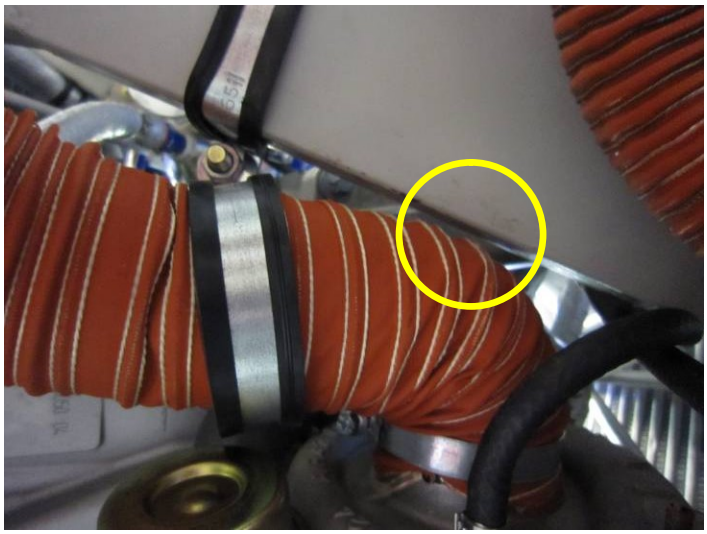
Caution: For air ducting only the air hose specified in the material list may be installed. Similar hoses from other manufacturers are not suitable for this application and must not be used.

III INSTRUCTIONS

1.	Make sure that the engine is secured: Set ELECTRIC MASTER switch to OFF. Set the ENGINE MASTER switch to OFF. Set the power lever to 0%.
2.	Remove cowlings according to AMM, Section 71-10.
3.	Remove exhaust muffler from engine mount.
4.	Remove heating hose from heating valve.
5.	Loosen fuel filter box mounting clamps.
6.	Remove air intake hose from alternate air valve and turbocharger.

7.	Install the new turbocharger hose (ducting P/N SG2M-64-920mm) on the turbocharger and alternate air valve. **Note:** Do not remove the spiral wire from the ends of the new ducting (P/N SG2M-64-920mm). Attach hose and spiral wire with the hose clamps to the alternate air valve and the turbocharger. 

8.	Make sure that the fuel return line- and turbocharger hose routing is according to the following pictures. Torque worm-drive clamps with 5,5 Nm (4 ft lb).  
9.	Install Clamp D4D-7166-00-91 and RSGU1-65 with bolt nut and washer according to the following picture. Flight Direction  Center of engine mount Bottom view Position of clamp 140 mm (6 in) from centre of engine mount cut out.

10.	Check clearance between turbocharger hose and engine mount. Minimum clearance is 5 mm (0,2 in). Re-position clamps if necessary.  Bottom view
11.	The turbocharger hose must not chafe at the engine mount during engine operation. Check for positive clearance by pushing and pulling sideways on propeller blade root.
12.	Install fuel filter box and torque clamps with 6 NM (4,43 ft lb).
13.	Install heating hose on heating valve.
14.	Install exhaust muffler on engine mount.
15.	Check free engine movement by pushing and pulling sideways on propeller blade root.
16.	Apply TORQUE-SEAL Anti Sabotage Inspector’s Laquer (or equivalent) to the hose clamps.
17.	Clean working area and check for foreign objects.
18.	Perform functional check of all new, altered or repaired parts.
19.	Test all systems in working area for function.
20.	Install cowlings according to AMM Section 71-10.
21.	Make necessary entries in the aircraft log book.