

OPTIONAL SERVICE BULLETIN

OSB D4-101

I TECHNICAL DETAILS

I.1 Category

Optional.

I.2 Airplanes affected

Type: DA 40 D
Serial numbers: 40.080, 40.084, D4.001 through D4.399,
40.DS001 through 40.DS135

I.3 Date of effectivity

24-Feb-2014

I.4 Time of Compliance

At first installation of an engine with K16 turbocharger.

I.5 Subject

Modification of the induction system and the charged air system.

ATA-Code: 71-00, 81-00

I.6 Reason

Technify Motors has approved the new K16 turbocharger on the TAE 125-02-99 engine. Due to the different geometry of the turbocharger flanges it is necessary to modify the installation of the induction and the charged air system at the first installation of an engine with K16 turbocharger.

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 40-752, which has 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 can only be installed, when an engine with the previous turbocharger (refer to pictures below) is replaced by an engine with the new K16 turbocharger (engine S/N 02-02-03724 or higher).

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



K16

Wide flange



previous design
small flange

See WI-OSB D4-101, 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 D4-101, latest effective issue.

II.2 Special Tools

None.

II.3 Labour Effort

Approx. 2 hours.

II.4 Credit

None.

II.5 Reference Documents

DA 40 Series Airplane Maintenance Manual, Doc. No. 6.07.01, latest effective issue.

III REMARKS

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.

EXECUTION REPORT TO SERVICE BULLETIN OSB D4-101

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, 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-OSB D4-101

I GENERAL INFORMATION

I.1 Subject

Modification of the induction system and the charged air system at first installation of an engine with K16 turbocharger.

I.2 Reference Documents

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

I.3 Remarks

- a) All work must be done by a certified aircraft service station 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) 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	D4D-9071-66-02	Air Intake Duct
1	D4D-9081-26-01	Pipe Adapter
1	D4D-9081-26-04	Air Hose
1	40-7160-1313R3	Air hose
6	SGTS 50-70/9W1C7	Hose Clamp
1	141 4409 074 B	V-Clamp
1	NM-0000-001391 01	O-Ring (available from Technify Motors GmbH)

Material is available from Diamond Aircraft Industries.

III INSTRUCTIONS

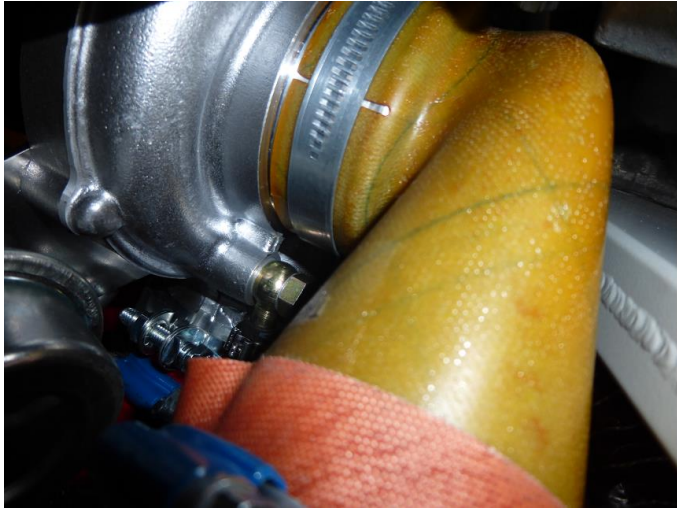
1	Remove Cowlings i.a.w. AMM Section 71-10.
2	Remove the air hose between the alternate air valve and the turbocharger.
3	Remove the clamps that attach the air hose to the engine mount.
4	Install Air Intake Duct D4D-9071-66-02 onto the turbocharger inlet with a hose clamp. <div style="text-align: center;">  </div>

Figure 1

5 Install Air hose 40-7160-1313R3 between the alternate air valve and air intake duct D4D-9071-66-02 with hose clamps.

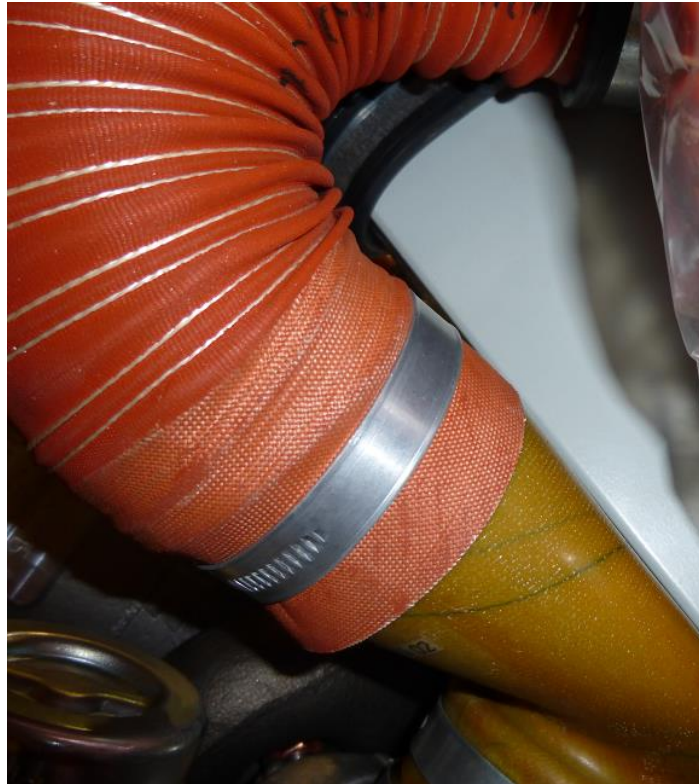


Figure 2

6 Remove the air ducts and hoses between the turbocharger and the charged air cooler.

7 Grease the O-Ring with Lubricant Type 2 i.a.w. AMM Section 12-00 or LPS Heavy-Duty Lubricant.
Install the O-Ring onto Pipe Adapter D4D-9081-26-01.

8 Install Pipe Adapter D4D-9081-26-01 with V-Clamp 141 4409 074 B on the turbocharger outlet.

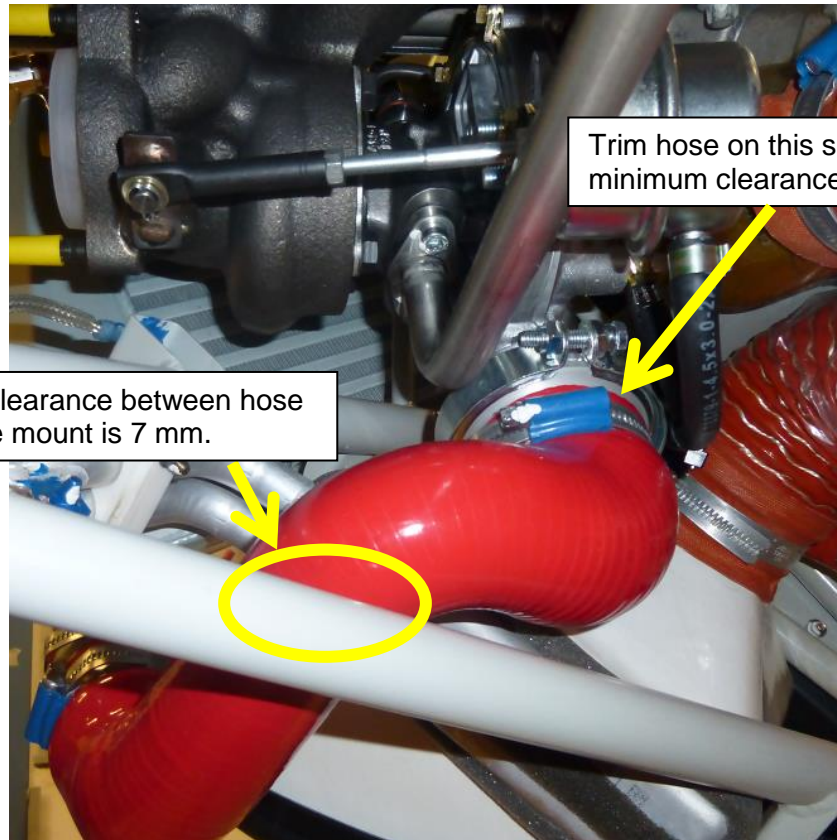


Figure 3

9 Install Air Hose D4D-9081-26-04 between the pipe adapter and the charge air cooler with hose clamps i.a.w. figure 3. If necessary trim hose to obtain 7 mm clearance to the engine mount.
 Use 1 clamp on turbocharger side and 2 clamps on charged air cooler side.
 NOTE: The hose is delivered in overlength condition to cover installation tolerances. If necessary trim hose to the correct length.

10 Test all systems in working area for function.

11 Clean working areas, check for foreign objects.

12 Install Cowlings i.a.w. AMM Section 71-10.

13 Make all necessary entries in the airplane logs.