

OPTIONAL SERVICE BULLETIN

OSB 42-130

I TECHNICAL DETAILS

I.1 Category

Optional.

I.2 Airplanes affected

Type: DA 42, DA 42 M
Serial numbers: 42.004 through 42.427
42.AC001 through 42.AC151
42.M001 through 42.M026

I.3 Date of effectivity

19-Jul-2017

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: 81-00

I.6 Reason

Technify Motors has approved the K16 turbocharger for 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.

Note: A mixed turbocharger installation is permissible.

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 42-930, 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 K16 turbocharger (engine S/N 02-02-04384 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 42-130, 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 42-130, latest effective issue.

II.2 Special Tools

None.

II.3 Labour Effort

Approx. 2 hours per side.

II.4 Credit

None.

II.5 Reference Documents

DA 42 Series Airplane Maintenance Manual, Doc. No. 7.02.01, 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, in 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 42-130

AIRPLANE INFORMATION

Airplane Serial Number _____

Airplane Registration _____

Airplane Operator _____

Hours of operation of airplane _____

No. of landings _____

Hours of operation-engine LH _____

RH _____

Typical operation of airplane private, club, training, other _____

Date, Name, Sign

Please fax the completed form to Fax No. +43-2622-26780 or e-mail to
executionreports@diamond-air.at

WORK INSTRUCTION

WI-OSB 42-130

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 42 Series Airplane Maintenance Manual, Doc. No. 7.02.01, 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	52-7520-H0087 01 /D60-9081-26-22X20	Tube Intercooler TAE 125-02-114
1	52-7520-H0086 02 /D60-9081-26-21X20	Turbo Tube TAE 125-02-114
1	52-7520-H0116 01 /D60-9081-26-20X20	Turbo Connector TAE 25-02-114
1	52-7160-H0020 02 /D60-9081-26-02X20	Connecting Pipe
1	52-7160-H0025 01 /D60-9071-66-03X20	Heat Protection Sheet
8	NM-0000-00170 01 /ABA 50-65-W1	Clamp
1	NM-0000-00172 01 /ABA 68-85x12	Hose Clamp
1	NM-0000-02239 01 /141 4409 074 B	V Clamp
1	NM-0000-01079 01 /DIN 34801-B M6x25-8.8-A2E	Screw with External Torx
1	NM-0000-01391 01 /ISO 3601-46x3-80FKM610	O-Ring
1	NM-0000-02070 01 /D60-9081-26-23X20	Spacer
1	NM-0000-02310 01 /DIN 3016-RSGU1-48/15-W1	Pipe Clamp

Material is available from Technify Motors GmbH.

III INSTRUCTIONS

1	Remove Cowlings i.a.w. AMM Section 71-10.
2	Remove Intercooler Hose between charged air cooler and engine inlet manifold.
3	<p>Install Tube Intercooler 52-7520-H0087 01 between Charged Air Cooler and Engine Inlet Manifold with 2 Clamps NM-0000-00170 01 on each side. Note: ensure chafing protection orientation as shown in Figure 1.</p>  <p style="text-align: center;">Figure 1</p>
4	Remove mouting clamp from pressure accumulator and move pressure accumulator clear to gain access to the turbo charger. Refer AMM Section 61-20
5	Remove mounting bracket from Fire-Detector. Refer AMM Section 26-00
6	<p>Remove Turbo Pipe:</p> <ul style="list-style-type: none"> • Remove Clamps from fuel line and Turbo Pipe. (Figure 2) • Remove all other Clamps from Turbo Pipe. • Remove Turbo Pipe.  <p style="text-align: center;">Figure 2</p>
7	Remove Air hose to Charged Air Cooler.

8 Open clamps and remove short Flexafit Hose, Connecting Pipe and Heat Protection Sheet.

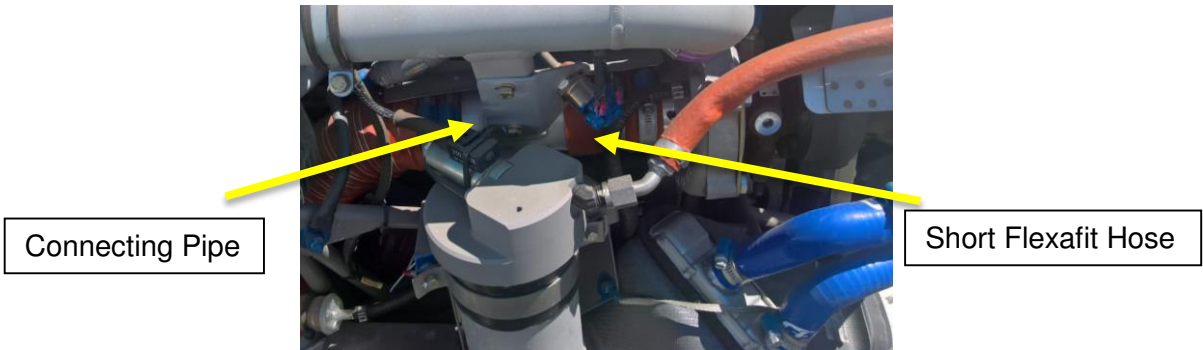


Figure 3

9 Install Connecting Pipe:

- Install Connecting Pipe 52-7160-H0020 02 and Heat Protection Sheet 52-7160-H0025 01
- Install Connecting Pipe on Turbo charger with Hose Clamp NM-0000-00172 01
- Install Connecting Pipe with the Heat Protection Sheet on long Flexafit with 2 Clamps NM-0000-00170 01

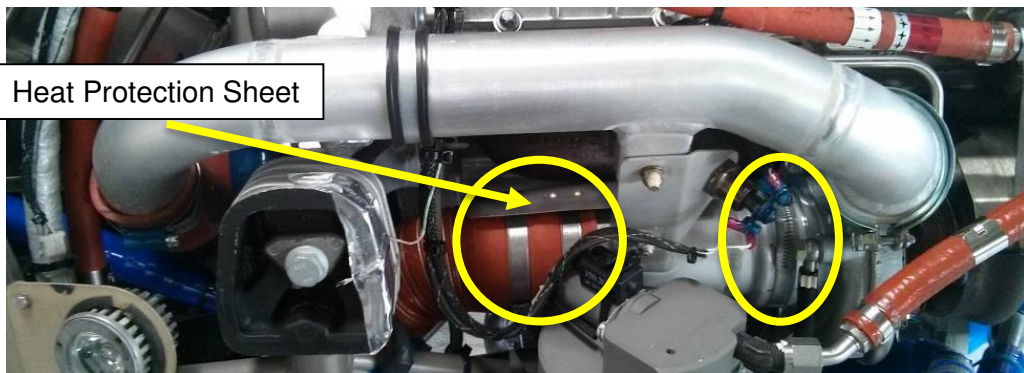


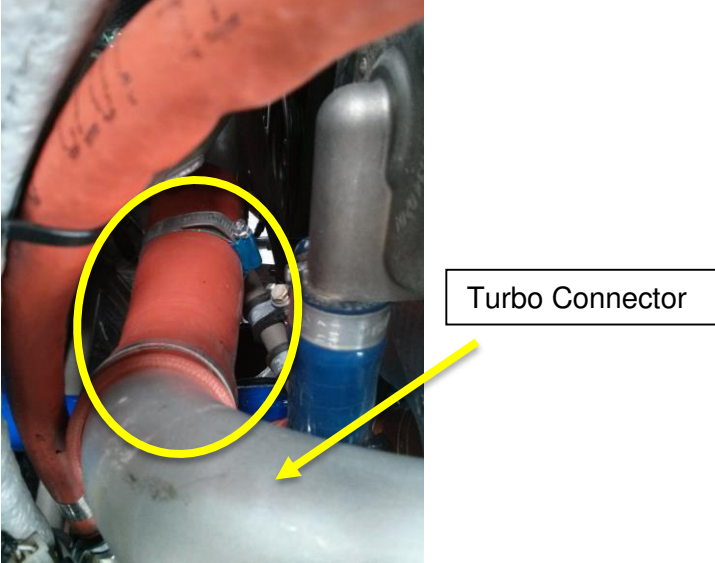
Figure 4

10 Install Turbo Connector:

- Install Turbo Connector 52-7520-H0116 01
- Install Turbo Connector on Turbo charger with O-Ring NM-0000-01391 01 and V-Clamp NM-0000-02239 01
- Install Spacer NM-0000-02070 01 and Pipe Clamp NM-0000-02310 01 on Turbo Connector with Screw with External Torx NM-0000-01079 01



Figure 5

11	<p>Install Turbo Tube 52-7520-H0086 02 between Charged Air Cooler and Turbo Connector with 1 Clamp NM-0000-00170 01 on each side.</p>  <p style="text-align: center;">Figure 6</p>
12	Install mounting bracket from Fire-Detector. Refer AMM 26-00
13	Install pressure accumulator on correct position with mounting clamp. Refer AMM 61-20
14	Make a ground run.
15	Test all systems in working area for function.
16	Clean working areas, check for foreign objects.
17	Install Cowlings i.a.w. AMM Section 71-10.
18	Make all necessary entries in the airplane logs.