

# MANDATORY SERVICE BULLETIN

## NO. MSB 42NG-018/1

Supersedes MSB 42NG-018

### I TECHNICAL DETAILS

#### I.1 Category

Mandatory.

#### I.2 Airplanes affected

Type: DA 42 NG, DA 42 M-NG

Serial Numbers: 42.N001 through 42.N028

42.MN001 through 42.MN009

Aircraft converted to DA 42 NG via OSB 42-068 using Material Kit  
WI-OSB 42-068 App. A up to and including Revision 5

#### I.3 Date of Effectivity

12-Oct-2010

#### I.4 Time of Compliance

At the next scheduled maintenance inspection or within the next 100 flight hours from the date of effectivity, whichever comes first but not later than 15-Feb-2011.

#### I.5 Subject

This Service Bulletin prescribes the replacement of the possibly non conforming turbo connector assy D64-8122-20-00 by a conforming part of an improved design.

ATA-Code: 81-20

## **I.6 Reason**

Due to an unapproved heat treatment during the production process on a batch of turbo connector assy tubes, these have reduced strength and stiffness which may result in deformation of the tube during engine operation. This deformation if not corrected may allow charged air to partially vent into the engine compartment and cause a reduction of engine power available.

## **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 42-467, which has been approved under the authority of EASA Design Organization Approval No. EASA.21J.052.

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 42NG-018, latest effective issue.

## **I.10 Mass (Weight) and CG**

Mass and Center of Gravity are not affected.

# **II PLANNING INFORMATION**

## **II.1 Material & Availability**

Materials are available from Diamond Aircraft Industries.

## **II.2 Special Tools**

None.

### **II.3 Labour Effort**

1 labor hour for replacement per engine

### **II.4 Credit**

For all aircraft within warranty period 1 labor hour for replacement per engine and materials are credited through Diamond Aircraft Industries GmbH, provided that the execution report with the requested information and the defective parts were sent to DAI for the attention of Warranty Department

### **II.5 Reference Documents**

DA 42 series Airplane Maintenance Manual, Doc. No. 7.02.15, 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 and the defective parts must be sent to DAI for the attention of Warranty Department 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 42NG-018/1

### 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 \_\_\_\_\_

Deformation found on turbo connector assy P/N D64-8122-20-00:

LH turbo connector assy            -yes

RH turbo connector assy           -yes

\_\_\_\_\_  
Date, Name, Sign

Please fax the completed form to Fax No. +43-2622-26700-1369 or e-mail to [airworthiness@diamond-air.at](mailto:airworthiness@diamond-air.at)

Please add (a copy of) this form to the part(s) when backsending to DAI-A, Warranty Department

# WORK INSTRUCTION

## WI-MSB 42NG-018

### „Inspection of turbo connector assy “

## **I GENERAL INFORMATION**

### **I.1 Subject**

This Work Instruction describes the replacement of the turbo connector assy with a new improved part.

### **I.2 Reference Documents**

Diamond Aircraft DA 42 Series Airplane Maintenance Manual, Doc. No. 7.02.15, 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.

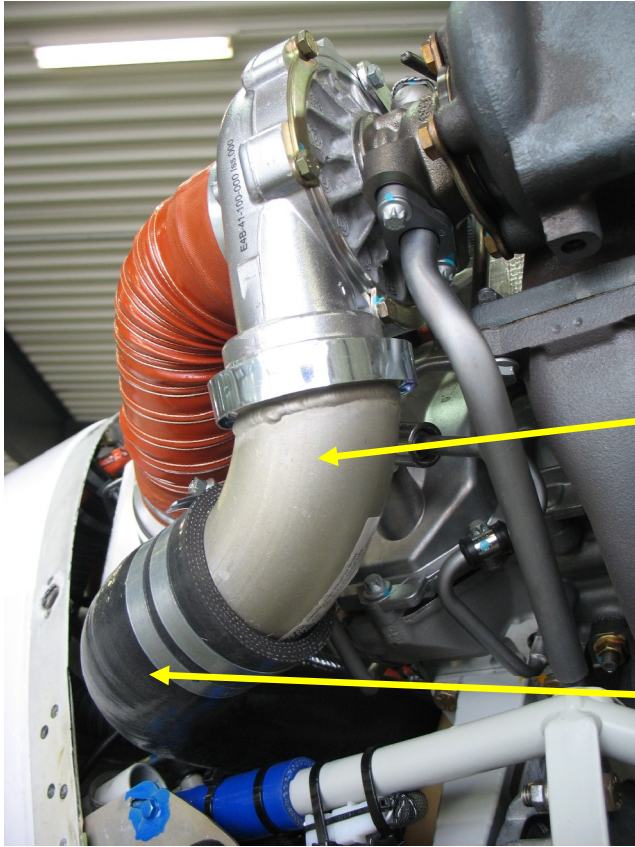
### **II.2 Special Tools**

None.

### II.3 Material (if replacement is required)

Quantity	Part Number	Description
2	D64-8126-10-00	Charge air tube assy (tube assembly (single part) and O-ring)

## III INSTRUCTIONS

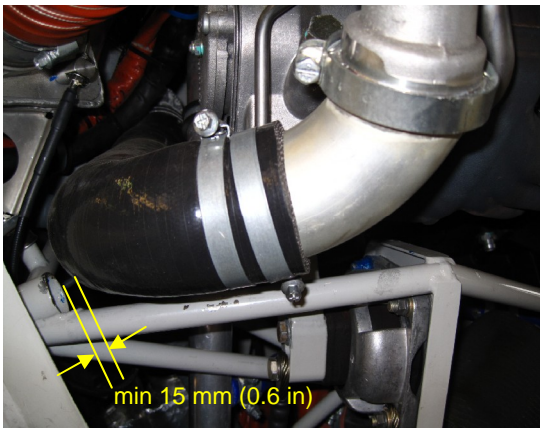
1	Remove the engine cowlings in accordance to AMM, chapter 71.
2	Remove the turbo connector assy. P/N D64-8122-20-00.  
3	Check the O-ring on the new charge air tube assy P/N D64-8126-10-00 for correct position.
4	Install the charge air tube assy P/N D64-8126-10-00 to the turbo charger.  <p>Note: Do not tighten the V-Clamp.</p>

5 Install charged air hose to the turbo connector assy (overlap length min. 45 mm / 1.8 in) with 2 hose clamps TORRO\_60-80\_12\_W1 (refer to drawing 1 and 2). The tightening torque is 5 Nm / 3.7 lb ft.

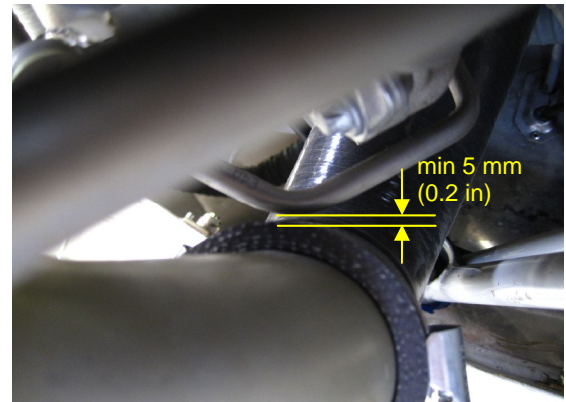
Note: Mark the min. overlap length of 45 mm / 1.8 in on the tube prior installation

Note: Make sure both hose clamps sit on the tube under the hose.

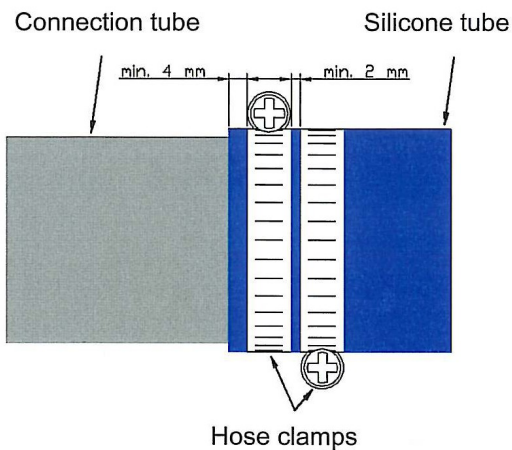
Note: Make sure that the minimum distances shown in pictures 1 and 2 are met.



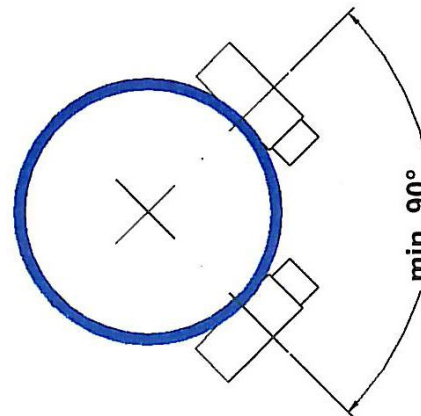
Picture 1



Picture 2



Drawing 1



Drawing 2

6 Tighten the V-Clamp at the turbo charger with 5 Nm / 3.7 lb ft.

7 Clean working areas, check for foreign objects.

8	Check all altered, replaced, repaired parts for proper function.
9	Install the engine cowlings in accordance with AMM, chapter 71.
10	Test all systems in working area for function.
11	Repeat items 1 – 11 on the other engine.
12	Perform an engine ground run in accordance with AMM, chapter 05.
13	Make all necessary entries in the airplane logs.
14	Inspect removed parts P/N D64-8122-20-00 for deformation, fill in execution report and send report to DAI.