

RECOMMENDED SERVICE BULLETIN RSB 40NG-011

I TECHNICAL DETAILS

I.1 Category

Recommended.

I.2 Airplanes affected

Type: DA 40 NG

Serial numbers: 40.N001 through 40.N032, 40.N035 through 40.N044

Airplanes converted to DA 40 NG with WI-RSB 40-000 up to Rev. 3.

I.3 Date of effectivity

28-Feb-2012

I.4 Time of Compliance

At owner's discretion

I.5 Subject

Exchange of charged air elbow

ATA-Code: 81-00

I.6 Reason

The charged air elbow hose between the turbo charger and intercooler has been replaced by an aluminum tube to improve the durability of the charged air system. This service bulletin describes the retrofit installation of the new design.

I.7 Consultant Document

None.

I.8 Approval

The technical information or instructions contained in this document relate to the Design Change Advisory No. MÄM 40-502 and MÄM 40-506, 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-RSB 40NG-011, 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-RSB 40NG-011, latest effective issue.

II.2 Special Tools

None.

II.3 Labour Effort

Approx. 1 hours.

II.4 Credit

None.

II.5 Reference Documents

Diamond Aircraft 40 NG Airplane Maintenance Manual, Doc. No. 6.02.15, 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 those 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 RSB 40NG-011

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-RSB 40NG-011

I GENERAL INFORMATION

I.1 Subject

Replacement of charged air elbow with aluminium bend.

I.2 Reference Documents

Diamond Aircraft DA 40 NG Airplane Maintenance Manual, Part No. 6.00115, latest effective issue.

Diamond aircraft SI 40NG-007 Installation and tightening torque of worm drive clamps.

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) For conversion factors between SI units and US/Imperial units refer to AMM Chapter 02.
- d) 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	D44-8122-20-00	Turbo Connector Assy
1	D44-8126-00-08	Charged Air Hose
4	TORRO_60-80_12_W1	Hose clamps
1	DIN 933-M8x16-YZP	Hexagon head screw
1	DIN 3771 46.2x3.55 MVQ 70	O-ring

Material including drawing is available from Diamond Aircraft Industries

III INSTRUCTIONS

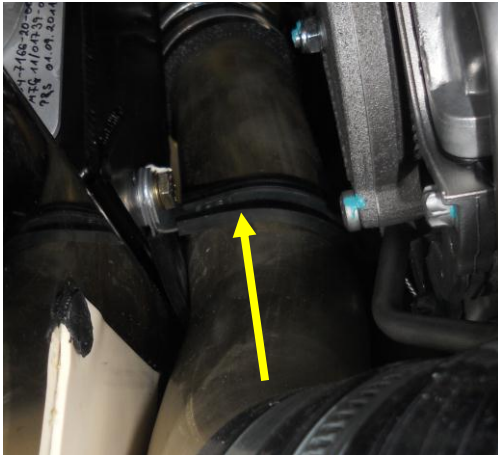
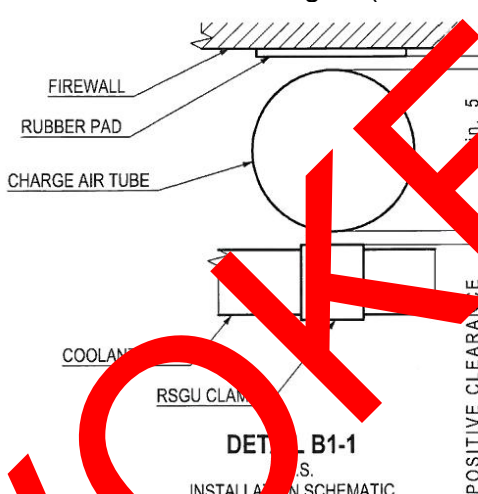
1	Make sure AMM-TR-MÄM 40-502 & AMM-TR-MÄM 40-506 has been incorporated into the AMM.
2	Remove cowlings (refer to AMM section 71-10). WARNING DO NOT STAND WITHIN THE DANGER AREA OF THE PROPELLER. IF THE ENGINE STARTS THE PROPELLER CAN CAUSE DEATH OR INJURY TO PERSONS. WARNING MAKE SURE THAT THE ENGINE IS SAFE BEFORE YOU WORK ON THE ENGINE CONTROLS. IF THE PROPELLER TURNS IT CAN CAUSE INJURY TO PERSONS.
3	Remove charged air elbow.
4	Remove Turbo adapter D44-8126-70-01 from turbo charger.
5	Remove P-clamp which holds the charged air tube on the air filter box. 

Figure 1: Attachment of charged air tube

6	Install screw DIN 933-M8x16-YZP with previously installed washer on air filter box, where the P-Clamp was attached before.
7	Install charged air hose D44-8126-00-08 on charged air tube (refer to SI 40NG-007). CAUTION DO NOT TIGHTEN THE WORM DRIVE CLAMPS WITH THE ENGINE BEING HOT. THIS CAN DAMAGE THE SILICONE HOSES AND MAY RESULT IN LOSS OF ENGINE POWER.
8	Install Turbo Connector D44-8122-20-00 with O-ring (refer to SI 40NG-007). Make sure the charge air tube must have at least 5 mm clearance from the firewall and positive clearance to the coolant tube aft of the engine (refer to figure 2).  Figure 2: Clearance of charged air tube CAUTION DO NOT TIGHTEN THE WORM DRIVE CLAMPS WITH THE ENGINE BEING HOT. THIS CAN DAMAGE THE SILICONE HOSES AND MAY RESULT IN LOSS OF ENGINE POWER.
9	Clean working area, check for foreign objects.
10	Check all altered, replaced, repaired parts for proper function.
11	Test all systems in working area for function.
12	Make necessary entries in the airplane logs.