

MANDATORY SERVICE BULLETIN

NO. MSB 42NG-005/1

Supersedes MSB 42NG-005

I TECHNICAL DETAILS

I.1 Category

Mandatory.

I.2 Airplanes affected

Type: DA 42 NG, DA 42 M-NG

Serial Numbers: 42.339, 42.379,
42.N001 through 42.N011, 42.N013, 42.N018
42.N023 through 42.N027
42.MN001 through 42.MN006
Aircraft converted to DA 42 NG via OSB 42-068
with Material Kit WI-OSB 42-068 App. A Rev. 3 or lower

I.3 Date of Effectivity

21-Jun-2010.

I.4 Time of Compliance

Within the next 50 flight hours from the date of effectivity or next maintenance action whichever comes first but not later than 30-Sep-2010.

NOTE:

Prior compliance with MSB42NG-005 does not preclude compliance with this MSB.

I.5 Subject

Exchange of charged air tubing between turbo charger and intercooler.

ATA-Code: 81-20

I.6 Reason

The tubing between the turbo charger and intercooler is replaced to improve installation and durability of the charged air hose.

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 42-391, 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 WI-MSB 42NG-005, which is attached to this Service Bulletin.

I.10 Mass (Weight) and CG

Negligible.

II PLANNING INFORMATION

II.1 Material & Availability

See WI-MSB 42NG-005, which is attached to this Service Bulletin.

II.2 Special Tools

None.

II.3 Labour Effort

2 hours.

II.4 Credit

2 man hours of work.

Material according to WI-MSB 42NG-005, which is attached to this Service Bulletin.

II.5 Reference Documents

WI-MSB 42NG-005, which is attached to this Service Bulletin.

DA 42 NG 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 must be sent 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-005/1

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 _____

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 42NG-005

„Exchange of charged air tubing“

I GENERAL INFORMATION

I.1 Subject

Exchange of charged air tubing between turbo charger and intercooler.

I.2 Reference Documents

DA 42 NG 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) Accomplishment of the measures must be confirmed in the log book.
- 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 No.	Description
2	D64-8126-00-04_3	Charged Air Hose
2	D64-8122-20-00-OPOS3	Turbo Connector Assy
2	DIN 3771-Ø46.2x3.55 MVQ 70	O-Ring
8	TORRO_60-80_12_W1	Hose Clamp

Materials including drawings are available from Diamond Aircraft Industries.

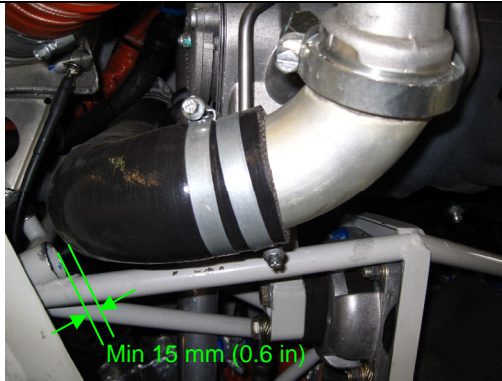
II.4 Consumable Material

a.r.	N56582_T508	Fire paint
a.r.	CA9008/B0900	Clear Coat
a.r.	CA9008B	Hardener
a.r.	CA9008CR	Thinner

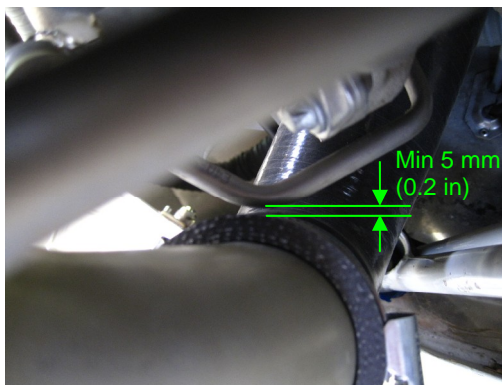
Consumable materials may be procured locally or via from Diamond Aircraft Industries.

III INSTRUCTIONS

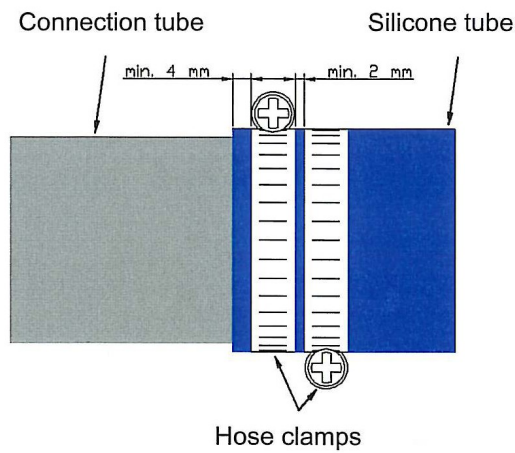
1	Remove the upper cowling on LH and RH engine acc. to AMM Section 71-10.
2	<p>Remove charged air tubing between turbo charger and intercooler (two hoses and an aluminium tube).</p> <p>Note: Let the engine cool down before working on the charged air system.</p> <p>Warning: Contact with a hot engine can cause injury to personnel.</p> <p>Note: Perform items 2 through 9 on LH and RH engine.</p>
3	Remove the Turbo Discharge Connector.
4	Install O-Ring on Turbo Connector Assy.
5	<p>Install the Turbo Connector Assy D64-8122-20-00.</p> <p>Note: Do not tighten the V-Clamp</p>
6	<p>Install Charged Air Hose D64-8126-00-04_3 on the Turbo Connector Assy D64-8122-20-00 and the Intercooler (overlap length min. 45 mm / 1.8 in) acc. to picture 1 with 2 hose clamps TORRO_60-80_12_W1 (refer to drawing 1 and 2) on each end (tightening torque 5 Nm / 3.7 lb ft). Tighten the V-Clamp at the turbo charger with 5 Nm / 3.7 lb ft.</p> <p>Note: Make sure both hose clamps sit on the tube under the hose.</p>



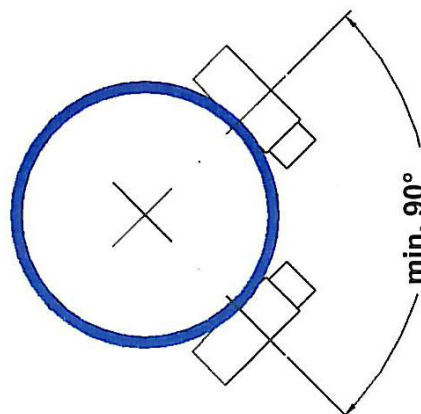
Picture 1

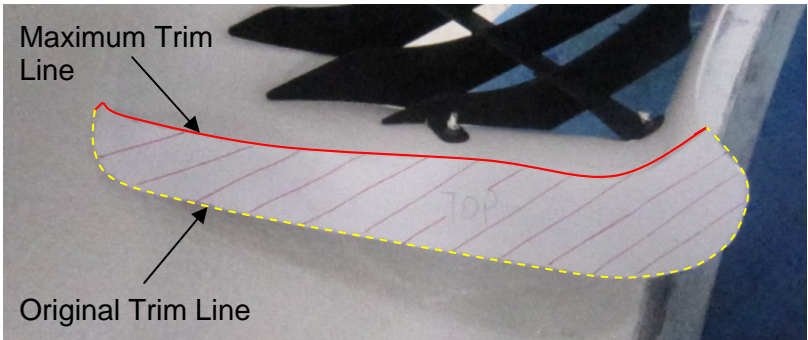


Picture 2



Drawing 1



	Drawing 2
7	<p>Check clearance between charged air hose and cowling outlet duct. If clearance is below a minimum of 15 mm, grind off from edge of cowling outlet duct.</p> <p>Print the template which is attached to this WI with the size indicated on the template. Position it i.a.w. the picture below. Mark the maximum trim line on the cowling.</p>  <p>Trim the cowling to the maximum trim line.</p> <p>Paint cutting edge with 2 layers of fire protective paint and 2 layers of clear coat. (AMM Section 51)</p> <p>Note: If the cowlings are already trimmed to the maximum trim line, the cowlings need not to be trimmed again.</p>
8	Clean working area and check for foreign objects.
9	Perform functional check of altered, repaired and new parts.
10	Install the upper cowling on LH and RH engine acc. to AMM Section 71-10.
11	Test all systems in working area for function.
12	Make necessary entries into aircraft logs.

