

Airworthiness Directive No. A-2005-003	File No.: FL206-1/135-05
Aeroplane DA 42	Supersedes AD A-2005-001R1

Exchange of the Wing Stub Safety Walks, Revision of the Airplane Flight Manual Single Engine Rate of Climb/Descent

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1. Applicability: DA 42, EASA TCDS.A.005

Diamond Aircraft Industries GmbH (DAI), Austria, DOA No. EASA 21J.052

S/N 42.004 and up

2. Subject: Exchange of the wing stub safety walks

Revision of the DA 42 AFM "One Engine Inoperative Climb/Descent Diagram"

AD A2005-003 (EASA Approval No. 2005-6381) supersedes AD A-2005-001R1 (EASA Approval No. 2005-6181).

3. Reason: It has been determined that the surface roughness of the wing stub safety walks

Series 300, gray color (equals sandpaper grid 40), installed during production on some aeroplane S/Ns, adversely affects the aircraft single engine climb performance.

AFM published twin engine climb performance is not affected by this AD.

4. Actions: Perform actions as applicable in accordance with the compliance times listed in

paragraph 5.:

A) For S/N 42.004 through 42.035, and 42.037 perform following actions:

i) Assure that AFM TR-MÄM-42-103, distributed with DAI MSB42-005, is inserted into AFM Doc. 7.01.05-E, rev. 2 or earlier revision.

TR-MÄM-42-103 has to remain in the AFM until action A)ii and A)iii) have been carried out.

Previous compliance with AD A-2005-001 or AD A-2005-001R1 satisfies the requirements of this paragraph.

ii) Exchange the wing stub safety walks in accordance with DAI MSB-42-006/1, issue date September 20, 2005, paragraph 1.8, Action 2 a) to b).

iii) Remove obsolete TR pages from the AFM and insert TR-MÄM-42-111/a in accordance with DAI MSB-42-006/1, issue date September 20, 2005, paragraph 1.8, Action 2 c) to e).

WIN/KEL/ACG Date: October 21, 2005



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B) For S/N 42.036, 42.038 through 42.064, 42.107, 42.109, 42.110, and 42.177 perform following actions:

Single Engine Rate of Climb/Descent

 Assure that AFM TR-MÄM-42-103, distributed with DAI MSB42-005, is inserted into AFM Doc. 7.01.05-E, rev. 2 or earlier revision. TR-MÄM-42-103 has to remain in the AFM until action B)ii) has been carried out.

Previous compliance with AD A-2005-001 or AD A-2005-001R1 satisfies also the requirements of this paragraph.

- ii) Remove obsolete TR pages from the AFM and insert TR-MÄM-42-111/a in accordance with DAI MSB-42-006/1, issue date September 20, 2005, paragraph 1.8, Action 3 a) to c).
- C) For S/N 42.004 and up:
  - i) No wing stub safety walks Series 300 (equals sandpaper grid 40), gray color, P/N D60-1127-10-51 (no revision letter attached) may be installed as spare part on the DA42. Only DAI released safety walk P/Ns with a surface roughness equal to or finer than sandpaper grid 100 are approved for installation as spare parts.
  - ii) AFM-TR-MÄM-42-111/a, or a later TR revision, or an AFM revision containing the information of TR-MÄM-42-111/a, must remain part of the DA42 AFM, Doc. No. 7.01.05-E.
- 5. Compliance: Compliance with A)i), B)i), C)i) is required immediately upon receipt of AD A-2005-003.

Compliance with A)ii), A)iii), B)ii), C)ii) is required at the next scheduled inspection, latest December 31, 2005.

- 6. Accomplishment: The required actions have to be accomplished and documented either by the manufacturer, or a licensed/qualified person/organisation in accordance with national regulations.
- 7. Effective Date: AD A-2005-003 becomes effective upon receipt.

This AD was approved by EASA under reference No.2005-6381

		Date: October 21, 2005	WIN/KEL/ACG
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# MANDATORY SERVICE BULLETIN

NO. MSB-42-006/1

SUPERSEDES MSB-42-005 SUPERSEDES MSB-42-006

# I TECHNICAL DETAILS

# I.1 Category

Mandatory

# I.2 Airplanes affected

Type: DA 42

Serial Numbers: 42.004 through 42.035, 42.037 (Action 1 & Action 2)

42.036, 42.038 through 42.064,

42.107, 42.109, 42.110, 42.177 (Action 3)

# I.3 <u>Time of Compliance</u>

Action 1

Upon receiving of this Service Bulletin

Action 2 and 3

During next scheduled inspection, not later than 31-Dec-2005

### I.4 Subject

Exchange of the Safety Walk on the Wing Stubs.

Issuance of a Temporary Revision to the AFM to amend the one engine inoperative climb/decent performance data.

### I.5 Reason

It has been found that the airplane fails to reach the one engine inoperative climb/descent data shown in the Airplane Flight Manual. In this context it has been determined, that the Safety Walk - 300 Series, color grey –coarse surface, has an adverse influence to the rate of climb – single engine operation. Replacement is necessary. In addition to that a Temporary Revision to the Airplane Flight Manual is



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issued in which the one engine inoperative performance values are reduced to a conservative level.

The normal climb rate (both engines operative) is not affected.

### I.6 Concurrent Documents

none

## I.7 Approval

The technical information or instructions contained in this document relate to the Design Change Advisory No. MÄM 42-107, which has been approved under the authority of EASA Design Organization Approval No. EASA.21J.052 and MÄM 42-111/b which has been approved by EASA.

The technical content of this document has been approved und the authority of DOA No. EASA.21J.052.

# I.8 Accomplishment/Instructions

#### Action 1:

a Check that MSB 42-005 is complied with.

# Action 2:

- a Remove Safety Walk Series 300, color grey coarse surface (surface roughness equal to sandpaper with grid 40). For replacement refer to AMM, Chapter 11-00.
- b Install new Safety Walk D60-1127-10-51 Rev. "a" or later issue (surface roughness equal or finer than sandpaper grid 100) according to drawing D60-1120-20-00SB, latest effective revision. For replacement refer to AMM, Chapter 11-00.
- c Remove AFM-TR-MÄM-42-070, page 5-18a, and AFM-TR-MÄM-42-103, page 5-18b.
- d Mark AFM page 5-18 as superseded.
- e Incorporate Temporary Revision TR-MÄM-42-111/a into the AFM.
- f MSB 42-005 becomes obsolete with compliance to MSB 42-006/1 or later.

#### Action 3:

- a Remove AFM-TR-MÄM-42-070, page 5-18a, and AFM-TR-MÄM-42-103, page 5-18b.
- b Mark AFM page 5-18 as superseded.
- c Incorporate Temporary Revision TR-MAM-42-111/a into the AFM.
- d MSB 42-005 becomes obsolete with compliance to MSB 42-006/1 or later.

### I.9 Mass (Weight) and CG

The change in mass and CG is negligible.



# II PLANNING INFORMATION

# II.1 Material & Availability

2 x D60-1127-10-51 Rev. "a" or later issue. Temporary Revision TR-MÄM-42-111/a is attached to this Service Bulletin. D60-1120-20-00SB is attached to this Service Bulletin.

# II.2 Special Tools

None

# II.3 Credit

Material (Safety Walk D60-1127-10-51 Rev. "a" or later issue) 1 man hour of work

### **II.4** Reference Documents

DA42 Series Airplane Maintenance Manual, Doc. No. 7.02.01, always latest revision. TR-MÄM-42-111/a

# **III REMARKS**

- 1. All measures must be carried out by the manufacturer, a certified repair aircraft station or a certified aircraft mechanic
- 2. Accomplishment of the measures must be confirmed in the log book.
- 3. In case of any doubt, contact Diamond Aircraft Industries.

