



Airworthiness Directive

AD No.: 2016-0126

Issued: 22 June 2016

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

DIAMOND AIRCRAFT INDUSTRIES GmbH

Type/Model designation(s):

DA 40 D aeroplanes

Effective Date: 06 July 2016

TCDS Number(s): EASA.A.022

Foreign AD: Not applicable

Supersedure: None

ATA 24 – Electrical power – Alternator Cable – Inspection

Manufacturer(s):

Diamond Aircraft Industries GmbH (Austria), Shandong Bin Ao Aircraft Industries Company, Ltd (China)

Applicability:

DA 40 D aeroplanes, all manufacturer serial numbers if equipped with G1000 Avionic Suite (modification OÄM 40-193 or OÄM 40-224 or OÄM 40-268 or OÄM 40-278)

Reason:

Occurrences of damaged or broken alternator cable ring terminals on DA 40 D aeroplanes have been reported during maintenance, or after activation of the Low Voltage caution on the instrument panel. Investigations identified as probable cause of these failures an incorrect / not standardized (re)installation of the alternator cable, after engine installation or alternator cable replacement.

This condition, if not detected and corrected, could lead to loss of electrical power generation, causing continuous discharging of the aeroplane battery (indicated to the pilot through the Low Voltage caution and corresponding Ampere meter and Voltmeter indications) and subsequent loss of the electrical power, possibly resulting eventually in engine failure.



Diamond Aircraft Industries (DAI) issued Mandatory Service Bulletin (MSB) D4-103 and relevant Working Instruction (WI) WI-MSB D4-103 (hereafter referred to as “the WI” in this AD), providing instructions to inspect the alternator cable installation.

For the reasons described above, this AD requires visual inspection of the ring terminal of the alternator cable and of the installation of the alternator cable and, depending on findings, accomplishment of applicable corrective action(s). This AD also requires the same inspections following certain maintenance actions on the alternator cable installation.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

- (1) Within 100 flight hours (FH) or 12 months, whichever occurs first after the effective date of this AD, and, thereafter, before next flight following any maintenance action involving engine and/or alternator cable (re)installation, visually inspect the ring terminal of the alternator cable and the alternator cable installation in accordance with the instructions of the WI.
- (2) If, during the inspection as required by paragraph (1) of this AD, any crack is found in the ring terminal, or if the ring terminal is found bent or otherwise deformed, before next flight, replace the alternator cable with a serviceable cable in accordance with the instructions of the WI.
- (3) If, during the inspection as required by paragraph (1) of this AD, an incorrect cable installation (as defined in the WI) is found, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the WI.
- (4) Accomplishment of corrective action(s) on an aeroplane, as required by paragraph (2) or (3) of this AD, as applicable, does not constitute terminating action for the repetitive inspections required by paragraph (1) of this AD.

Ref. Publications:

DAI MSB D4-103 original issue, dated 17 May 2016.

DAI WI-MSB D4-103 original issue, dated 17 May 2016.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 23 May 2016 as PAD 16-076 for consultation until 20 June 2016. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.



4. For any question concerning the technical content of the requirements in this AD, please contact: Diamond Aircraft Industries GmbH, Austria.
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