

Airworthiness Directive

AD No.: 2019-0302

Issued: 13 December 2019

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 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 (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

DIAMOND AIRCRAFT INDUSTRIES GmbH

Type/Model designation(s):

DA 42 aeroplanes

Effective Date: 27 December 2019

TCDS Number(s): EASA.A.005 and EASA.A.513

Foreign AD: Not applicable

Supersedure: None

ATA 27 – Flight Controls – Rudder T-Yoke Axle Self-Locking Nut – Inspection

Manufacturer(s):

Diamond Aircraft Industries GmbH (Austria), Diamond Aircraft Industries Inc. (Canada), CETC Wuhu Diamond Aircraft Manufacture Co. (China)

Applicability:

DA 42, DA 42 M, DA 42 NG and DA 42 M-NG aeroplanes (including those certified in the Restricted category), all manufacturer serial numbers (MSN).

Definitions:

For the purpose of this AD, the following definitions apply:

The applicable MSB: Diamond Aircraft Industries (DAI) Mandatory Service Bulletin (MSB) 42-137 and MSB 42NG-079 (published as a single document), which includes Work Instruction WI-MSB 42-137 and WI-MSB 42NG-079.

Affected part: Rudder T-yoke axle, standard bolt LN 9037 with dimensions M6x90.

Groups: Group 1 aeroplanes are those listed by MSN in the applicable MSB. Group 2 aeroplanes are all other MSN.

Reason:

Occurrences were reported of finding a loose rudder T-yoke axle nut on DA 42 aeroplanes.

This condition, if not detected and corrected, could lead to vertical movement of the axle, possibly resulting in reduced rudder control of the aeroplane.

To address this potential unsafe condition, DAI issued the applicable MSB, providing instructions to inspect for correct installation of the self-locking nut to the affected part.

For the reason described above, this AD requires repetitive inspections for correct installation of the self-locking nut to the affected part and, depending on findings, accomplishment of applicable corrective action(s) and replacement of the self-locking nut. This AD also provides an optional terminating action for the repetitive inspections.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 aeroplanes: Within 100 flight hours (FH) or 12 months, whichever occurs first after the effective date of this AD, and, thereafter, at intervals not to exceed 200 FH or 12 months, whichever occurs first, inspect the self-locking nut for correct installation to the affected part in accordance with the instructions of the applicable MSB.

Note 1: A non-cumulative tolerance of 10 FH or 30 days may be applied to the compliance times specified in paragraph (1) of this AD to allow synchronization of the required inspections, e.g. with a scheduled 200-FH maintenance visit, for which a non-cumulative tolerance is already granted in the applicable Maintenance Manual.

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any looseness of the self-locking nut is detected, before next flight, accomplish the applicable corrective action(s) and replace the self-locking nut with a new (not previously installed) self-locking nut in accordance with the instructions of the applicable MSB.

Terminating Action:

- (3) Corrective action(s) or replacement of a self-locking nut on an aeroplane, as required by paragraph (2) of this AD, does not constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.
- (4) Modification of an aeroplane in accordance with the instructions of DAI Recommended SB (RSB) 42-139 or RSB 42NG-081 (published as a single document), installing an improved T-yoke axle Part Number D60-5320-00-32, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.

Parts Installation:

- (5) Do not install on any aeroplane an affected part, as required by paragraph (5.1) or (5.2) of this AD, as applicable.



(5.1) For Group 1 aeroplanes: After modification of an aeroplane as specified in paragraph (4) of this AD.

(5.2) For Group 2 aeroplanes: From the effective date of this AD.

Ref. Publications:

DAI MSB 42-137 and MSB 42NG-079 (published as a single document) original issue dated 21 October 2019, or Revision 1 (MSB 42-137/1 and MSB 42NG-079/1, respectively) dated 11 December 2019.

DAI RSB 42-139 and RSB 42NG-081 (published as a single document) original issue dated 21 October 2019.

The use of later approved revisions of the above-mentioned 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 as PAD 19-199 on 07 November 2019 for consultation until 05 December 2019. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the compressed (zipped) file attached to the record for this AD.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#).
5. For any question concerning the technical content of the requirements in this AD, please contact: Diamond Aircraft Industries GmbH, Austria, Telephone: +43 2622 26700, Fax: +43 2622 26780, E-mail: airworthiness@diamond-air.at.

