



Airworthiness Directive

AD No.: 2019-0066

Issued: 27 March 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: 10 April 2019

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

Foreign AD: Not applicable

Supersedure: None

ATA 32 – Landing Gear – Nose Landing Gear Leg Assembly – Inspection

Manufacturer(s):

Diamond Aircraft Industries GmbH (Austria), Diamond Aircraft Industries Inc. (Canada)

Applicability:

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

DA 42 NG and DA 42 M-NG aeroplanes (including those certified in the Restricted category), all MSN that have been converted from DA 42 and DA 42 M aeroplanes via Optional Service Bulletin (OSB) 42-068 or OSB 42-081, as applicable.

Definitions:

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

The applicable MSB: Diamond Aircraft Industries (DAI) Mandatory Service Bulletin (MSB) 42-136/1 (Revision 1) and MSB 42NG-078, which includes Work Instruction WI-MSB 42-136 and WI-MSB 42NG-078 (published as a single document).

Affected part: Nose landing gear (NLG) leg assemblies.



Serviceable part: Affected parts that have not exceeded 1 800 flight hours (FH) since new (first installation on an aeroplane); or that have, prior to installation, passed an inspection (no defects detected) in accordance with the instructions of the applicable MSB.

Reason:

An occurrence was reported of a failed NLG actuator attachment lever, resulting in disconnection from the NLG leg. When the landing gear (LG) was retracted, the NLG actuator interfered with the rudder control rods, forcing the rudder into left-hand deflection. After lowering the LG, full rudder control was restored. The investigation results showed that the actuator lever failed due to a crack that had developed over a longer time period.

This condition, if not detected and corrected, could lead to restricted rudder travel in LG retracted configuration, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, DAI issued the applicable MSB, providing instructions to inspect the affected part.

For the reason described above, this AD requires repetitive inspections of the NLG leg actuator attachment lever and, depending on findings, replacement of the NLG leg.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) Within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 200 FH (see Note 1 of this AD), inspect the affected part in accordance with the instructions of the applicable MSB.

Note 1: A non-cumulative tolerance of 10 FH may be applied to the interval specified in paragraph (1) of this AD to allow synchronization of the required inspections with other maintenance tasks, for which a non-cumulative tolerance is already granted in the applicable Maintenance Manual.

Table 1 – Initial NLG Inspection (see Note 2 of this AD)

Time Accumulated	Compliance Time
Less than 1 800 FH	After accumulating 1 800 FH, within 200 FH or 12 months, whichever occurs first
1 800 FH or more	Within 200 FH or 12 months, whichever occurs first after the effective date of this AD

Note 2: Unless specified otherwise, the FH indicated in Table 1 of this AD are those accumulated by the affected part since first installation on an aeroplane.



Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any discrepancy is detected, before next flight, replace the affected part with a serviceable part, as defined in this AD, in accordance with the instructions of the applicable MSB.

Credit:

- (3) Inspection(s) and corrective action(s) on an aeroplane, accomplished before the effective date of this AD in accordance with the instructions of DAI MSB 42-136 at original issue, are acceptable to comply with the initial requirements of paragraphs (1) and (2) of this AD for that aeroplane.

Terminating Action:

- (4) None.

Parts Installation:

- (5) From the effective date of this AD, it is allowed to install on any aeroplane an affected part, provided that it is a serviceable part, as defined in this AD, and that, following installation, the affected part is inspected as required by this AD.

Ref. Publications:

DAI MSB 42-136 original issue dated 02 January 2019, or Revision 1 (MSB 42-136/1) and MSB 42NG-078 (published as a single document) dated 24 January 2019.

The use of later approved revisions of the above-mentioned document 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 14 February 2019 as PAD 19-026 for consultation until 14 March 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 Safety 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.

