



Airworthiness Directive

AD No.: 2016-0190

Issued: 26 September 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 NG, DA 42 NG and DA 42 M-NG
aeroplanes

Effective Date: 10 October 2016

TCDS Number(s): EASA.A.022, EASA.A.005 and EASA.A.513

Foreign AD: Not applicable

Supersedure: None

ATA 22 – Auto Flight – Auto-pilot Bridle Cable Clamps – Inspection / Replacement

Manufacturer(s):

Diamond Aircraft Industries GmbH (Austria), Shandong Bin Ao Aircraft Industries Co. Ltd, Diamond Aircraft Industries Inc. (Canada).

Applicability:

DA 40 NG, DA 42 NG and DA 42 M-NG (including those certified in the Restricted category) aeroplanes, all manufacturer serial numbers.

Reason:

During an inspection of the pitch and roll control system of an aeroplane, cracked autopilot bridle cable clamps were discovered. Over-torqueing has been determined as a possible reason for the cracking.

This condition, if not corrected, could lead to detachment of the clamps from the control system, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Diamond Aircraft Industries (DAI) issued Recommended Service Bulletins DAI RSB 40NG-048, DAI RSB 42NG-059 and DAI RSB 42NG-059 Revision 1. Later DAI issued Mandatory Service Bulletins DAI MSB 40NG-048 Revision 1 and DAI MSB 42NG-059 Revision 2 (referred to as 'the applicable SB' in this AD) to provide inspection instructions. DAI also improved the clamp material in a redesign.



For the reasons described above, this AD requires repetitive inspections of the auto pilot bridle cable clamps, and replacement of clamps with redesigned clamps if cracks are found.

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

Required as indicated, unless accomplished previously:

For aeroplanes identified by serial number in the applicable SB:

- (1) Within the compliance time in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 200 flight hours (FH), inspect each autopilot bridle cable clamp (consisting of two parts) Part Number (P/N) D41-2213-10-53 and P/N D41-2213-10-54 in accordance with the instructions of the applicable SB.

Table 1 – Initial inspection

Aeroplane Configuration	Compliance Time (after the effective date of this AD)
autopilot activated	Within 25 FH or 3 months, whichever occurs first
autopilot deactivated	Within 200 FH or 12 months, whichever occurs first

- (2) Inspection of an aeroplane, accomplished before the effective date of this AD in accordance with the instructions of DAI RSB 40NG-048 original issue, or DAI RSB 42NG-059 original issue or Revision 01, as applicable, is acceptable to comply with the initial inspection as required by paragraph (1) of this AD for that aeroplane. Subsequent inspections have to be accomplished in accordance with the instructions of the applicable SB.
- (3) If, during any inspection as required by paragraph (1) of this AD, a crack is found, before next flight, replace each cracked autopilot bridle cable clamp (both parts) with an improved design clamp P/N D41-2213-10-53_01 (or higher) and P/N D41-2213-10-54_01 (or higher), as applicable, in accordance with the instructions of the applicable SB.
- (4) Modification of an aeroplane by replacing all autopilot bridle cable clamps P/N D41-2213-10-53 and P/N D41-2213-10-54 with improved design clamps P/N D41-2213-10-53_01 (or higher) and P/N D41-2213-10-54_01 (or higher), as applicable, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.

For all aeroplanes:

- (5) From the effective date of this AD, do not install on any aeroplane an autopilot bridle cable clamp (old design) P/N D41-2213-10-53 and P/N D41-2213-10-54.

Ref. Publications:

DAI RSB 40NG-048 original issue dated 24 August 2016, or DAI MSB 40NG-048 Revision 1 dated 09 September 2016.

DAI RSB 42NG-059 original issue dated 30 June 2016, or DAI RSB 42NG-059 Revision 1 dated 24 August 2016, or DAI MSB 42NG-059 Revision 2 dated 09 September 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
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:
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