

# **SERVICE INFORMATION**

## **NO. SI 42-187**

## **NO. SI 42NG-051**

**NOTE:** SI's are used only:  
1) To distribute information from DAI to our customers.  
2) To distribute applicable information/documents from our suppliers to our customers with additional information.  
Typically there is no revision service for SI's. Each new information or change of that will be sent along with a new SI.

## **I. TECHNICAL DETAILS**

### **1.1 Airplanes affected:**

All DA 42, DA 42 M, DA 42 NG and DA 42 M-NG airplanes

### **1.2 Subject:**

EASA Airworthiness Directive No. 2013-0121  
ATA-Code: 32-30

### **1.3 Reason:**

EASA has issued the Airworthiness Directive No. 2013-0121 mandating an inspection to identify certain Nose Landing Gear Actuator P/ N. If an affected unit is installed, a modification of the Nose Landing Gear Actuator is required.


### **1.4 Information:**

For detailed technical information refer to EASA Airworthiness Directive No. 2013-0121 which is applicable without any further additions or restrictions.

## **II. OTHERS**

EASA Airworthiness Directive No. 2013-0121 is attached to this Service Information.

In case of doubt contact EASA or Diamond Aircraft Industries GmbH.

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| <b>EASA</b>  | <b>AIRWORTHINESS DIRECTIVE</b>  |  |
|   | <p><b>AD No.: 2013-0121</b></p> <p><b>Date: 04 June 2013</b></p> <p>Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p> |  |
| <p>This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>   |   |  |
| <p><b>Design Approval Holder's Name:</b><br/>DIAMOND AIRCRAFT INDUSTRIES GmbH</p>  |   | <p><b>Type/Model designation(s):</b><br/>DA 42 aeroplanes</p>                |
| <p>TCDS Numbers: EASA.A.005 and EASA.A.513</p>   |   |  |
| <p>Foreign AD: Not applicable</p>  |   |  |
| <p>Supersedure: None</p>   |   |  |
| <b>ATA 32</b>  |   | <b>Landing Gear – Nose Landing Gear Actuator – Inspection / Modification</b> |
| <p>Manufacturer(s): Diamond Aircraft Industries GmbH (Austria), Diamond Aircraft Industries Inc. (Canada)</p>  |   |  |
| <p>Applicability: DA 42 and DA 42 NG aeroplanes, all serial numbers (S/N), and DA 42 M and DA 42 M-NG aeroplanes (both Normal and Restricted category), all S/N.</p>   |   |  |
| <p>Reason:</p> <p>An incident was reported where a Diamond DA 42 aeroplane experienced an un-commanded rudder input and yaw after landing gear retraction, followed by restricted rudder travel. This situation caused the pilot to misinterpret this as an engine power loss. The rudder restriction could be removed by extending the landing gear and an uneventful landing was made.</p> <p>Subsequent investigation results showed that the rod end of the nose landing gear (NLG) actuator, Part Number (P/N) X11-0006/2, had broken, causing the actuator to block the nearby rudder steering linkage. This failure was likely a result of insufficient clearance between the rod end safety washer and the NLG attachment lever, causing the rod end to bend at each gear retraction sequence.</p> <p>This condition, if not detected and corrected, could result in reduced control of the aeroplane.</p> <p>Prompted by this event, Diamond Aircraft Industries (DAI) issued Mandatory Service Bulletin (MSB) 42-099 / MSB 42NG-035, including Work Instruction (WI) WI-MSB-42-099 / WI-MSB 42NG-035 (published as a single document), providing instructions to identify and modify the affected NLG actuators, which includes installation of a new rod end bearing and safety washer.</p> |   |  |

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|  | <p>For the reasons described above, this AD requires an inspection to identify the affected NLG actuators, P/N X11-0006/2, and, if an affected unit is installed, modification of the actuator.</p> <p>This AD also prohibits installation of any affected P/N X11-0006/2 NLG actuators that may be held as spares, unless they are modified.</p>  |
| Effective Date:                            | 18 June 2013   |
| Required Action(s) and Compliance Time(s): | <p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> <li>(1) Within 100 flight hours or 6 months, whichever occurs first after the effective date of this AD, inspect the NLG actuator to identify the P/N and S/N. If a NLG actuator P/N X11-0006/2 is installed with a S/N between 0001 and 0155 (inclusive), modify the actuator by replacing the NLG rod end bearing and safety washer with new parts in accordance with the instructions of DAI MSB 42-099 / MSB 42NG-035.</li> <li>(2) From the effective date of this AD, do not install on any aeroplane a NLG actuator P/N X11-0006/2 with a S/N between 0001 and 0155 (inclusive), unless the actuator has been modified in accordance with the instructions of DAI MSB 42-099 / MSB 42NG-035.</li> </ol>                                |
| Ref. Publications:                         | <p>DAI MSB 42-099 / MSB 42NG-035 dated 22 April 2013.</p> <p>DAI WI-MSB 42-099 / WI-MSB 42NG-035 dated 22 April 2013.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>   |
| Remarks:                                   | <ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. This AD was posted on 24 April 2013 as PAD 13-059 for consultation until 22 May 2013. No comments were received during the consultation period.</li> <li>3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>4. For any question concerning the technical content of the requirements in this AD, please contact:<br/>Diamond Aircraft Industries GmbH, Austria.<br/>Telephone: +43 2622 26700, Fax: +43 2622 26700 1369<br/>E-mail: <a href="mailto:airworthiness@diamond-air.at">airworthiness@diamond-air.at</a>.</li> </ol> |