


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2012-0174</p> <p>Date: 04 September 2012</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 EC 1702/2003, Part 21A.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>	
Design Approval Holder's Name: Diamond Aircraft Industries GmbH	Type/Model designation(s): DA 42 aeroplanes
TCDS Numbers: EASA.A.005 and EASA.A.513	
Foreign AD: Not applicable	
Supersedure: None	
ATA 32	Landing Gear – Main Landing Gear Shock Absorbers – Modification / Replacement
Manufacturer(s):	Diamond Aircraft Industries GmbH (Austria), and Diamond Aircraft Industries Inc. (Canada)
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.
Reason:	<p>An incident was reported where a Diamond DA 42 experienced main landing gear (MLG) extension problems during approach, with the left hand (LH) MLG not down. An uneventful landing was made with minor damage to the aeroplane and no injuries to occupants.</p> <p>Subsequent investigation results showed that the affected MLG leg shock absorber, P/N D60-3277-10-00, had overextended, resulting in the MLG being jammed in the gear bay. The overextension had been caused by a retaining nut in the MLG shock absorber which had loosened itself during operation.</p> <p>This condition, if not corrected, could inhibit proper extension of the MLG, possibly resulting in damage to the aeroplane and injury to occupants.</p> <p>Prompted by the reported event, Diamond Aircraft Industries (DAI) published Recommended Service Bulletin (RSB) 42-089 / RSB 42NG-017 which includes Working Instruction (WI) WI-RSB-089 / WI-RSB 42NG-017 (published as a single document) to recommend operators to modify the affected dampers to P/N D60-3277-10-00_01 standard, which incorporates installation of a new retaining nut and a new seal system for the MLG damper that is more durable and can withstand a greater temperature range.</p> <p>Since that RSB was issued, further analysis has shown that the risk of a MLG failing to extend is greater than was initially determined. Consequently, DAI</p>

	<p>issued Mandatory Service Bulletin MSB 42-095 / MSB 42NG-026 to alert aeroplane owners and operators accordingly. The new MSB contains the same instructions as the earlier RSB, but is no longer 'at owner's discretion'.</p> <p>For the reasons described above, this AD requires modification of the affected MLG leg shock absorber, P/N D60-3277-10-00. This AD also prohibits installation of unmodified P/N D60-3277-10-00 MLG leg shock absorbers.</p>
Effective Date:	18 September 2012
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> (1) Within 200 flight hours or 12 months, whichever occurs first after the effective date of this AD, modify the LH and right hand (RH) MLG leg shock absorbers P/N D60-3277-10-00 (no P/N change necessary) in accordance with the instructions of DAI MSB 42-095 / MSB 42NG-026, or replace each MLG leg shock absorber P/N D60-3277-10-00 with a modified unit, having P/N D60-3277-10-00_01. (2) Modification of an aeroplane in accordance with the instructions of DAI RSB 42-089 / RSB 42NG-017 (or later revision) is acceptable to comply with the requirement of paragraph (1) of this AD. (3) For an aeroplane that must comply with paragraph (1) of this AD: After modification of the aeroplane, do not install a MLG leg shock absorber P/N D60-3277-10-00 on that aeroplane, unless the shock absorber has been modified in accordance with the instructions of DAI MSB 42-095 / MSB 42NG-026, or in accordance with the instructions of DAI RSB 42-089 / RSB 42NG-017. (4) For an aeroplane that has P/N D60-3277-10-00_01 MLG leg shock absorbers installed on both LH and RH sides: From the effective date of this AD, do not install a MLG leg shock absorber P/N D60-3277-10-00 on that aeroplane, unless the shock absorber has been modified in accordance with the instructions of DAI MSB 42-095 / MSB 42NG-026, or in accordance with the instructions of DAI RSB 42-089 / RSB 42NG-017.
Ref. Publications:	<p>DAI RSB 42-089 / RSB 42NG-017 dated 06 October 2010, or RSB 42-089/1 / RSB 42NG-017/1 dated 19 April 2011</p> <p>DAI WI-RSB 42-089 / WI-RSB 42NG-017 dated 06 October 2010.</p> <p>DAI MSB 42-095 / MSB 42NG-026 dated 11 November 2011.</p> <p>DAI WI-RSB 42-095 / WI-RSB 42NG-026 dated 11 November 2011.</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"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 03 August 2012 as PAD 12-102 for consultation until 31 August 2012. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. 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. Telephone +43 2622 26700, Facsimile +43 2622 26780, E-mail office@diamond-air.at.