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| EASA | AIRWORTHINESS DIRECTIVE |
|  | AD No.: 2006-0085R2 Date: 16 January 2015 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. |
| This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with 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 [EU 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption]. | |
| Design Approval Holder's Name: SOCATA | Type/Model designation(s): TBM 700 aeroplanes |
| TCDS Number: | EASA.A.010 |
| Foreign AD: | Not applicable |
| Revision: | This AD revises EASA AD 2006-0085R1 dated 22 December 2014. |
| ATA 32 | Landing Gear – Main Landing Gear Shock Strut Cylinder – Inspection / Replacement / Modification |
| Manufacturer(s): | SOCATA (formerly EADS SOCATA) |
| Applicability: | SOCATA TBM 700 aeroplanes, manufacturer serial numbers (MSN) 1 through 638, and MSN 687. |
| Reason: | <p>Cracks on several main landing gear (MLG) cylinders have been reported in service.</p> <p>This condition, if not detected and corrected, could lead to fatigue cracks in the shock strut cylinder of the MLG, which could result in a collapsed MLG during take-off or landing runs, and possibly reduce the structural integrity of the aeroplane.</p> <p>To address this unsafe condition, EASA issued AD 2006-0085 to require repetitive special detail inspections (SDI) for cracks of the MLG shock strut cylinder and, depending on findings, relevant investigative and corrective actions.</p> <p>After that AD was issued, SOCATA performed an analysis to demonstrate that the inspection interval could be extended, and developed a reinforced MLG less prone to fatigue, which is embodied in production through SOCATA modification (MOD) 70-0190-32 and can be introduced in service through SOCATA Service Bulletin (SB) 70-130-32 at Revision 03.</p> <p>Prompted by these developments, EASA issued AD 2006-0085R1 to increase the inspection interval and to introduce the installation of a reinforced MLG on the right hand (RH) side and left hand (LH) side as an optional terminating action for the repetitive SDI required by this AD.</p> <p>Since that AD was issued, it was found that aeroplanes MSN 639 to 683 (inclusive) are not affected by this AD. The applicability has therefore been revised to remove those MSN.</p> |

| Effective Date: | Revision 2: 30 January 2015 Revision 1: 05 January 2015 Original issue: 26 April 2006 | | | | | | | | |
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| Required Action(s) and Compliance Time(s): | <p>Required as indicated, unless accomplished previously:</p> <p>(1) For aeroplanes equipped with a MLG with forging body, initially within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 240 landings (LDG), accomplish a SDI of the MLG forging body in accordance with the instructions of SOCATA SB 70-130-32.</p> <p style="text-align: center;">Table 1 – Initial inspection</p> <table border="1" data-bbox="582 604 1476 952"> <tr> <th>LDG accumulated by the MLG on 26 April 2006 [the effective date of the original issue of this AD] since first installation on an aeroplane</th><th>Compliance time after 26 April 2006 [the effective date of the original issue of this AD]</th></tr> <tr> <td>3 500 LDG or more</td><td>Within 25 LDG</td></tr> <tr> <td>1 750 LDG or more, but less than 3 500 LDG</td><td>Within 100 LDG</td></tr> <tr> <td>Less than 1 750 LDG</td><td>Before exceeding 1 850 LDG since first installation on an aeroplane</td></tr> </table> <p>(2) If, during any SDI as required by paragraph (1) of this AD, any crack is suspected or confirmed, before next flight, remove the concerned MLG leg and confirm the presence of the crack with dye penetrant inspection or fluorescent penetrant inspection in accordance with the instructions of SOCATA SB 70-130-32.</p> <p>(3) If, during the dye penetrant inspection or fluorescent penetrant inspection as required by paragraph (2) of this AD, any crack is confirmed, before next flight, contact SOCATA for approved instructions (repair or replacement) and, within the compliance time specified in those instructions, accomplish the repair or replacement, as applicable, accordingly.</p> <p>(4) Aeroplanes on which SOCATA MOD 70-0190-32 has been embodied in production are not affected by the requirements of this AD, provided that, since aeroplane first flight, no MLG shock strut cylinder other than part number (P/N) D68161 or D68161-1 (LH) and P/N D68162 or D68162-1 (RH), has been installed on that aeroplane.</p> <p>(5) Modification of an aeroplane in service, by installation of reinforced MLG shock strut cylinder P/N D68161 or D68161-1 (LH) and P/N D68162 or D68162-1 (RH) in accordance with the instructions of SOCATA Component Maintenance Manuals (CMM) 32-11-01 and 32-11-02 or SOCATA SB 70-130-32 Revision 03 constitutes terminating action for the repetitive SDI as required by paragraphs (1) and (2) of this AD.</p> | LDG accumulated by the MLG on 26 April 2006 [the effective date of the original issue of this AD] since first installation on an aeroplane | Compliance time after 26 April 2006 [the effective date of the original issue of this AD] | 3 500 LDG or more | Within 25 LDG | 1 750 LDG or more, but less than 3 500 LDG | Within 100 LDG | Less than 1 750 LDG | Before exceeding 1 850 LDG since first installation on an aeroplane |
| LDG accumulated by the MLG on 26 April 2006 [the effective date of the original issue of this AD] since first installation on an aeroplane | Compliance time after 26 April 2006 [the effective date of the original issue of this AD] | | | | | | | | |
| 3 500 LDG or more | Within 25 LDG | | | | | | | | |
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| Ref. Publications: | <p>SOCATA SB 70-130-32 original issue dated January 2006, or Revision 1 dated November 2013, or Revision 2 dated June 2014, or Revision 3 dated October 2014.</p> <p>SOCATA Component Maintenance Manuals (CMM) 32-11-01 Revision 4 dated October 2014 and 32-11-02 Revision 3 dated October 2014.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p> | | | | | | | | |

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| Remarks: | <ol style="list-style-type: none">1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.2. The original issue of this AD was posted on 10 February 2006 as PAD 06-029 for consultation until 10 March 2006. No comments were received during the consultation period.3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.4. For any question concerning the technical content of the requirements in this AD, please contact: SOCATA, Direction des services, 65921 Tarbes Cedex 9, France. Tel.: +33 (0) 5 62 41 73 00, Fax : + 33 (0) 5 62 41 76 54. or for the U.S.A SOCATA NORTH AMERICA, North Perry Airport, 7501 South Airport Road, Pembroke Pines, Florida 33023, The United States of America. Tel.: +1 (954) 893 1400 Fax: +1 (954) 964 4141. |
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