


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2007-0223R4</p> <p>Date: 30 September 2013</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>Design Approval Holder's Name:</p> <p>GE Aviation Systems, trading as DOWTY PROPELLERS</p>	<p>Type/Model designation(s):</p> <p>R408 propellers</p>
TCDS Number:	EASA P.002
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2007-0223R3 dated 19 September 2013.
ATA 61	Propellers – Blades Metallic Leading Edge Guard – Inspection
Manufacturer(s):	GE Aviation Systems, trading as Dowty Propellers (formerly Dowty Rotol Ltd, Dowty Aerospace Propellers, Dowty Aerospace Gloucester or Dowty Propellers)
Applicability:	<p>All R408/6-123-F/17 propellers, all serial numbers, if equipped with blade assemblies Part Number (P/N) 697071200-18, P/N 697071210-18, P/N 697071227-18, P/N 697071240-18, P/N 697071245-18, or P/N 697071257-18.</p> <p>These propellers are known to be installed on, but not limited to, Bombardier Inc. (formerly de Havilland Canada) Models DHC-8-400, DHC-8-401 and DHC-8-402 aeroplanes.</p>
Reason:	<p>Three in-service occurrences have been reported where the propeller blades lost the metallic leading edge (L/E) guard. The investigation results showed that these events were caused by deterioration of the bonding between blade and leading edge guard.</p> <p>This condition, if not detected and corrected, could lead to additional events of in-flight loss of the L/E guard, possibly resulting in damage to the aeroplane, or injury to occupants or persons on the ground.</p> <p>To address this potential unsafe condition, EASA issued Emergency AD 2007-0223-E to require repetitive inspections of the blade L/E guards for correct bonding until they accumulate more than 1 200 flight hours (FH) time in service.</p>

	<p>Revision 1 of this AD was issued to clarify the required inspections and follow-up actions depending on findings and to make reference to the latest Dowty Alert Service Bulletin (ASB) revision. Revision 2 was issued to specify that blades repaired at the tip are only allowed to continue up to 500 hours in service after repair. This limitation was already in the original Dowty ASB and a Note was added to 'Required Action(s)' section to avoid the impression that the AD does not impose the same limitation.</p> <p>Revision 3 of this AD is issued to introduce an optional terminating action for the repetitive inspection requirements of this AD.</p> <p>Revision 4 of this AD is issued to highlight that accomplishment of the optional termination action in accordance with the instructions of Dowty SB D8400-61-70 or SB D8400-61-83 at a previous revision is acceptable.</p>
Effective Date:	<p>Revision 4: 30 September 2013</p> <p>Revision 3: 19 September 2013</p> <p>Original issue, R1 and R2: 17 August 2007</p>
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> (1) Within the next 50 FH or within 1 month after 17 August 2007 [the effective date of the original issue of this AD], whichever occurs first, inspect each affected blade assembly where the bonded metallic L/E guard has accumulated 1 200 FH or less since installation, in accordance with the instructions of Dowty Propellers ASB No. D8400-61-A69. (2) Within 50 FH or 1 month after installing a replacement blade, inspect the affected blade assembly where the bonded metallic L/E guard has accumulated 1 200 FH or less since installation, in accordance with the instructions of Dowty Propellers ASB No. D8400-61-A69. (3) After the inspection as required by paragraph (1) or (2) of this AD, as applicable, at intervals not to exceed 100 FH, repeat the inspection of each affected blade assembly in accordance with the instructions of Dowty Propellers ASB No. D8400-61-A69. <p>When the bonded blade L/E guard of an affected blade assembly has accumulated more than 1 200 FH since installation, no further inspections are required on that blade assembly.</p> <ol style="list-style-type: none"> (4) When, during any of the inspections as required by paragraph (1), (2) or (3) of this AD, disbonding is found, apply the criteria as indicated in Appendix A of Dowty Propellers ASB No. D8400-61-A69 Revision 1 and, depending on findings, within the applicable time period, repair or replace the affected blade assembly, in accordance with the instructions of Dowty Propellers ASB No. D8400-61-A69 Revision 1. <p>Note: Blades that have been repaired within the first 101,6 mm (4.0 inches) of the tip of the blade as specified in Appendix D of the referenced ASB are allowed to continue in service for another 500 FH after accomplishment of the repair. Repair does not terminate the repetitive inspection requirements of paragraph (3) of this directive.</p> <ol style="list-style-type: none"> (5) Modification of an affected propeller in accordance with Dowty Propellers Service Bulletin (SB) D8400-61-70, or in accordance with Dowty Propellers SB D8400-61-83, as applicable, constitutes terminating action for the repetitive inspections required by paragraph (3) of this AD for that propeller.
Ref. Publications:	<p>Dowty Propellers ASB D8400-61-A69, initial issue dated 15 August 2007, or Revision 1 dated 18 September 2007.</p> <p>Dowty Propellers SB D8400-61-70 Original issue dated 07 September 2007,</p>

	<p>Revision 1 dated 08 October 2007, Revision 2 dated 01 November 2012, Revision 3 dated 03 June 2013.</p> <p>Dowty Propellers SB D8400-61-83 Original Issue dated 19 February 2009, Revision 1 dated 15 June 2009, Revision 2 dated 25 January 2010, Revision 3 dated 01 November 2012, Revision 4 dated 03 June 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"> 1 If requested and appropriately substantiated, EASA can accept 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 Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any questions concerning the technical content of the requirements in this AD, please contact: Dowty Propellers, Anson Business Park, Cheltenham Road East Gloucester GL2 9QN, United Kingdom Tel +44 (0) 1452 716067 - Fax +44 (0) 1452 716001 e-mail Mike.Towkan@ge.com.