EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2015-0158 **Date: 30 July 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 :	**Type/Model designation(s) :**
GE Aviation Systems Ltd, trading as DOWTY PROPELLERS	R352 and R410 propellers

TCDS Number:	United Kingdom (UK) TC No. 105 & 110
Foreign AD:	Not applicable
Supersedure:	None

ATA 61	**Propellers – Rear Half Hub Dowel Holes – Inspection / Replacement**
Manufacturer(s):	GE Aviation Systems Ltd, trading as Dowty Propellers (formerly Dowty Rotol Ltd, Dowty Aerospace Propellers, Dowty Aerospace Gloucester or Dowty Propellers)
Applicability:	Model R352/6-123-F/1, R352/6-123-F/2 and R410/6-123-F35 propellers, all serial numbers. These propellers are known to be installed on, but not limited to, Fokker F27 Mk 050, F27 Mk 0502 and F27 Mk 0604 aeroplanes.
Reason:	Cracking around the hub location dowel holes in the face of the rear hub half has occurred sporadically. Previous investigations found no manufacturing defects in cracked hubs and concluded that the hub cracking was caused by damage to the dowel holes during propeller installation. Nonetheless, Dowty Propellers issued Service Bulletin (SB) F50-61-165 at original issue to recommend the installation of liners in the hub location dowel holes, in the face of the rear hub half, to reduce the risk of cracks and to extend the serviceable life of the hub assembly. Since that original SB was issued, three hubs have been found to show cracking around the location dowel holes. The hubs were all found cracked within a short period of time and all had low time since new. This condition, if not detected, can adversely affect the structural integrity of the propeller hub, with possible damage to the propeller and to the aeroplane. Prompted by these findings, SB F50-61-165 was revised and re-issued as an Alert Service Bulletin (ASB).

TE.CAP.00110-004 © European Aviation Safety Agency. All rights reserved.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

	For the reason described above, this AD requires identification and inspection of potentially affected propeller hubs, and, depending on findings, accomplishment of applicable corrective action(s).
Effective Date:	13 August 2015
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) During the next removal of the propeller from the aeroplane, or within 7 500 flight hours, whichever occurs first after the effective date of this AD, inspect the propeller to determine whether the hub Part Number (P/N) is listed in Table 1 of this AD, and if so, whether it has been repaired in accordance with Dowty Propellers Component Maintenance Manual (CMM) 61-10-34, Repair No. 53. A review of the propeller maintenance records is acceptable in lieu of the inspection, provided that the propeller configuration can be conclusively determined from that review. **Table 1 – Affected Hub Part Numbers** 660715201 / 660720217 / 660720252 / 660720288 660715255 / 660720241 / 660720260 / (2) If, during the inspection as required by paragraph (1) of this AD, the hub, having a P/N listed in Table 1 of this AD, is found not repaired in accordance with CMM 61-10-34, Repair No. 53, before next flight, install liners into the hub location dowel holes and re-identify the hub P/N in accordance with the instructions of Dowty Propellers ASB F50-61-A165 Revision 1. (3) If, during the inspection as required by paragraph (1) of this AD, the hub, having a P/N listed in Table 1 of this AD, is found repaired in accordance with CMM 61-10-34, Repair No. 53, before next flight, re-identify the hub in accordance with the instructions of Dowty Propellers ASB F50-61-A165 Revision 1. (4) Inspection, modification (as applicable) and hub re-identification of a propeller, accomplished before the effective date of this AD in accordance with the instructions of Dowty Propellers SB F50-61-165 at original issue, is acceptable to comply with the requirements of this AD for that propeller. Note: Repair No. 53 in CMM 61-10-34 relates to repair scheme 650510057 that is an acceptable means of demonstrating compliance with this AD.
Ref. Publications:	Dowty Propellers SB F50-61-165 initial issue dated 19 November 2012, or ASB F50-61-A165 Revision 1 dated 12 May 2015. The use of later approved revisions of this document 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. This AD was posted on 19 June 2015 as PAD 15-085 for consultation until 17 July 2015. The Comment Response Document can be found at http://ad.easa.europa.eu. 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 PAD, please contact: Dowty Propeller's, Bishops Cleeve, Evesham Road, Cheltenham, GL52 8SF, United Kingdom Telephone: +44 (0) 1452 716097, Fax: +44 (0) 1452 716001 E-mail technicalsupport@dowty.com

TE.CAP.00110-004 © European Aviation Safety Agency. All rights reserved.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.