EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2009-0047 **Date: 02 March 2009** 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 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].

Type Approval Holder's Name :	**Type/Model designation(s) :**
Fokker Services B.V.	F27 Mark 050, Mark 0502 and Mark 0604 aeroplanes

TCDS Number :	EASA.A.036
Foreign AD :	Not applicable
Supersedure :	None

ATA 27	**Flight Controls – Flap Mechanical Drive – Inspection**

Manufacturer(s):	Fokker Aircraft B.V.
Applicability:	F27 Mark 050, Mark 0502 and Mark 0604 aeroplanes, all serial numbers, if in a post-SBF50-27-030 configuration.
Reason:	During the walk around check on a Fokker 50 (F27 Mark 050) aeroplane, extensive damage was found on the left hand (LH) inner flap and nacelle. The damage had been caused by a broken fork of the inner flap outboard drive shaft. This resulted in asymmetric flap extension and interference between the flap and the nacelle. A metallurgical investigation showed that the fork end failed in a fatigue mode. Most probably the failure was caused by the "cyclic load" as a result of regularly reaching the mechanical end stop position. A review of the Aircraft Maintenance Manual (AMM) "end stop clearances check" for aeroplane in post-SBF50-27-030 configuration, revealed that this inspection procedure, to determine and correct the clearance between the end stop and the flap drive nut, may need some improvement, which is now being considered. Further investigation showed that this type of failure has occurred previously on other Fokker 50 aeroplanes, but only those modified in accordance with SBF50-27-030. A review of the experience with pre-mod SBF50-27-030 aeroplane indicated that no failures have been reported. This condition, if not corrected, could lead to further cases of asymmetric flap extension, possibly resulting in loss of control of the aeroplane. For the reasons described above, this EASA AD requires a one-time inspection of the clearance between the flap mechanical drive nut and the up and down

	stop and a non destructive inspection of certain components, if abutments marks are present or when the up and/or down stop touches the drive nut after a full up or down selection in the hydraulic mode. Based on the above described failure scenario, the differences in the design properties and the positive experience, aeroplanes in pre-SBF50-27-030 configuration are not affected by this AD.
Effective Date:	16 March 2009
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 12 months after the effective date of this AD, inspect the clearance between the flap mechanical drive nut and the up and down stop in accordance with the Accomplishment Instructions of Fokker Services SBF50-27-043. (2) If, during the inspection as required by paragraph (1) of this AD, abutments marks are found, or when the up and/or down stop touches the drive nut after a full up or down selection in the hydraulic mode, before next flight, accomplish a non destructive inspection and, depending on the results, take follow-on corrective action in accordance with the Accomplishment Instructions of Fokker Services SBF50-27-043.
Ref. Publications:	Fokker Services SBF50-27-043 dated 17 November 2008. 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 published on 22 January 2009 as PAD 09-009 for consultation until 19 February 2009. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical aspects of the requirements in this AD, please contact: Fokker Services B.V., Technical Services Dept., P.O.Box 231, 2150 AE Nieuw-Vennep, The Netherlands telephone +31 (0)252-627-350, facsimile +31 (0)252-627-211 e-mail: technicalservices.fokkerservices@stork.com. The referenced publication can be downloaded from www.myfokkerfleet.com.