## **EASA AIRWORTHINESS DIRECTIVE** AD No: 2007-0203 **Date: 01 August 2007** No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry. Type/Model designation(s): Type Approval Holder's Name: Fokker Services B.V. F27 Mark 050, Mark 0502 and Mark 0604 aircraft TCDS Number: EASA A.036 Foreign AD: Not applicable Supersedure: This AD supersedes CAA Netherlands AD (BLA) 2003-089/2, EASA approval number 2004-12540; and BLA 2004-129, EASA approval number 2004-11563.

ATA 61	Propellers – Feathering Pump Interface Bobbin – Inspection / Replacement
Manufacturer(s):	Fokker Aircraft B.V.
Applicability:	F27 Mark 050, Mark 0502 and Mark 0604 aircraft, all serial numbers, unless engines are installed that have previously been modified in accordance with Fokker Service Bulletin (SB) SBF50-61-024.
Reason:	During the period 2001-2002, a number of in-flight engine shutdown incidents were reported on Fokker 50 (F27 Mk.050) series aircraft. These were found to be mainly the result of oil leakage at the feathering pump. The engine oil leakage was caused by a damaged seal on one of the bobbins between the feathering pump and the engine Reduction Gearbox. A number of actions were introduced to prevent any recurrence and the CAA of The Netherlands (CAA-NL) issued Airworthiness Directive (BLA) 2003-089 to mandate one of those actions. More recently, several new events of oil leakage at the feathering pump occurred, some of which resulted in an in-flight engine shutdown or a rejected take-off. Most of the oil leakages were discovered during pre-flight or overnight checks. This condition, if not corrected, may lead to further engine shut-down events. Since an unsafe condition was identified that that could exist or develop on aircraft of this type design, CAA-NL issued AD (BLA) 2004-129 to require initial and repetitive inspections for oil leakage at the Propeller Feathering Pump and in two specific areas external to the Engine compartment.  Since these AD actions, Fokker issued SBF50-61-024 in March 2006, which constituted a Controlled Service Introduction (CSI) of an improved outlet port (high-pressure) bobbin P/N 638005637 to replace bobbin P/N 638005614.

This CSI was conducted on a voluntary basis with the cooperation of a limited number of operators. Because the improved bobbin is longer, it must be used in combination with a gasket. Gasket P/N W8200-200-001 (with oil leak passages) was introduced in March 2003 with SBF50-61-022 to replace gasket P/N F8200-200-001 (without oil leakage passages). SBF50-61-022 was made mandatory by issuing CAA-NL AD 2003-089/2 (EASA approval nr. 2004-12540), dated 27 December 2004. However, based on subsequent service experience, reintroduction of gasket P/N F8200-200-001 (without oil leakage passages) is now considered preferred. To allow the installation of gasket P/N F8200-200-001, this EASA AD cancels CAA-NL AD 2003-089/2. Based on the positive results of the described CSI, Fokker recently published SBF50-61-025, which cancels SBF50-61-022 and supersedes SBF50-61-023 and SBF50-61-024. The new SB describes the installation of the new bobbin P/N 638005637 and a gasket on all installed engines and Quick Engine Change (QEC) units as terminating action for the currently required repetitive inspections. For the reasons described above, this new EASA AD supersedes the two existing CAA-NL ADs, cancels the requirements of CAA-NL AD (BLA) 2003-089/2, retains the requirements of CAA-NL AD (BLA) 2004-129 and requires the modification of all on-aircraft engines and all spare engines, including QEC units. Effective Date: 15 August 2007 Required as indicated, unless accomplished previously. From 04 November 2004 [the effective date of CAA-NL AD 2004-129]: (1) Prior to each individual take-off, visually inspect both engines of the aircraft externally in two specific areas for any indication of oil leakage. This visual inspection must be performed in accordance with the instructions in Fokker Services All Operator Message AOF50.037 (Fokker Services reference TS04.57535) dated 02 November 2004. That message includes graphics to show the 2 specific areas that need to be inspected; (2) If, during any inspection, specifically as required by paragraph (1) of this directive, indication of oil leakage is found in the affected areas, before further flight, perform the detailed inspection for oil leakage at the feathering pump of the affected engine in accordance with Part 1 of the Accomplishment Instructions of Fokker Services SBF50-61-023 or later approved revisions of this document; Compliance: (3) At the intervals specified in Fokker Services SBF50-61-023, perform the detailed inspection for oil leakage at the feathering pump on both engines of the aircraft in accordance with Part 1 of the Accomplishment Instructions of Fokker Services SBF50-61-023 or later approved revisions of this document: From the effective date of this directive: (4) If during the inspections as required by paragraphs (2) and (3) of this directive, oil leakage is found at the feathering pump mounting pad of an engine, before further flight, replace bobbin P/N 638005614 with bobbin P/N 638005637 and install a gasket on the feathering pump of that engine in accordance with the Accomplishment Instructions in SBF50-61-025, dated 04 July 2007, or later approved revisions of this document. (5) At the next scheduled or unscheduled aircraft maintenance opportunity with sufficient aircraft downtime but not later than 15 August 2009, replace bobbin P/N 638005614 with bobbin P/N 638005637 and install a gasket on the feathering pump in accordance with the Accomplishment

	Instructions of Fokker Services SBF50-61-025, dated 04 July 2007, or later approved revisions of this document;
	(6) After accomplishment of the modification in accordance with Fokker Services SBF50-61-025 on both engines of the aircraft, the repetitive visual and detailed inspections as required by paragraphs (1), (2) and (3) of this directive may be discontinued;
	(7) After accomplishment of the modification in accordance with Fokker Services SBF50-61-025 on an engine, the replacement of that engine with an unmodified (i.e. pre-SBF50-61-024 or pre-SBF50-61-025) unit is no longer authorized;
	(8) After 15 August 2009, no person may install a replacement engine or QEC unit on any aircraft as a replacement engine, unless it has been modified in accordance with the Accomplishment Instructions of Fokker Services SBF50-61-025, dated 04 July 2007, or later approved revisions of this document.
Ref. Publications:	Fokker Services SBF50-61-025, dated 04 July 2007; SBF50-61-024 Revision 1, dated 04 July 2007; and SBF50-61-023 Revision 1, dated 04 July 2007, or later approved revisions of these documents; Fokker Services All Operator Message AOF50.037 (Fokker Services reference TS04.57535) dated November 2, 2004.
Remarks:	<ol> <li>If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOC's) for this AD.</li> </ol>
	<ol> <li>This AD was posted for consultation on 17 July 2007 as PAD 07-126 until 31 July 2007. No comments were received during the consultation period.</li> </ol>
	<ol> <li>Enquiries regarding this AD should be referred to the AD Focal Point - Certification Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a></li> </ol>
	<ol> <li>For any questions concerning the technical aspects of the requirements in this PAD, please contact:         Fokker Services B.V., Technical Services Dept.,         P.O. Box 231, 2150 AE Nieuw-Vennep, The Netherlands;         telephone (31) 252-627-350; facsimile (31) 252-627-211;         e-mail: technicalservices.fokkerservices@stork.com.         The referenced publications can (also) be downloaded from www.myfokkerfleet.com.</li> </ol>