



**Nr. NL-2006-009 R1**

Distribution: **L**

Date: September 28, 2006

Type Certificate Holder:

**FOKKER SERVICES B.V.**  
(formerly Fokker Aircraft B.V.)

F27 Mark 050

EASA Type Certificate Nr

A.036

**Caution**

*This Airworthiness Directive is issued by the Minister of Transport, Public Works and Water Management in accordance with the Aviation Act 2001 (Wet Luchtvaart), Article 3.22. Airworthiness Directives affect aviation safety. These are regulations which require immediate attention. No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements thereof, unless otherwise agreed with the Authority of the State of Registry (EC2042/2003, M.A.201 & M.A.303).*

THIS AIRWORTHINESS DIRECTIVE IS PUBLISHED BY THE CAA-NL:

- acting for and on behalf of the European Aviation Safety Agency (EASA), as Airworthiness Authority (ICAO Annex 8) of the State of Design for the affected product(s) with reference to 21A.3B (a) and (b); and
- has been approved under EASA reference Number 2006-0194 R1 dated September 28, 2006

**Supersedure:** This directive supersedes and cancels AD NL-2006-009 dated July 14, 2006

**Subject:** FUSELAGE - BOTTOM SKIN CHINE LINE - INSPECTION/REPAIR

**Applicability:** Fokker Aircraft B.V. Model F27 Mark 050 aircraft, serial numbers 20103 through 20172

**Reason:** In addition to the mandatory actions of Airworthiness Directive AD NL-2006-009 an eddy-current inspection is now required, therefore this revision of the AD. The eddy-current inspection is described in Fokker Services Service Bulletin SBF50-53-059.

Recently, it was discovered that the inspection procedure as described by Fokker 50 Non-Destructive Testing Manual (NDTM), Part 6, Chapter 53-30-02, which is referenced by Fokker 50 Maintenance Review Board (MRB) Tasks Number 530000-00-04 and 530000-00-08 [currently required per AD (BLA) 2002-061], did not show the correct inspection areas. In addition to the existing procedure, the area at the kink in the bottom fuselage skin, the actual chine line, must be inspected. Investigation revealed that a number of aircraft have already passed the relevant inspection thresholds of 20,000 and 45,000 flight cycles by a considerable margin. As a result, it may be possible that cracks have developed and remained undetected. To prevent future use of the incorrect procedure in NDTM, Part 6, chapter 53-30-02, Fokker Services has removed this procedure from the NDTM and replaced by chapter 53-30-03 (refer to NDTM Temporary Revisions No. 53-004 and 53-005 dated September 15, 2006). Furthermore the Fokker 50/60 Maintenance Planning Document (refer to MPD Temporary Revision No. 53-009 dated August 15, 2006) has been revised to delete references to the incorrect procedure and to include references to the correct procedure of NDTM, Part 6, chapter 53-30-03. This condition, if not corrected, could result in failure of the fuselage bottom skin. Since an unsafe condition has been identified that is likely to exist or develop on aircraft of this type design, CAA-NL has originally published AD NL-2006-009, which is now replaced by NL-2006-009 R1.

This directive requires a one-time inspection of the fuselage bottom skin at the chine line, of the area not covered by the procedure of NDTM, Part 6, chapter 53-30-02. This one-time inspection consists of two parts:

-A detailed visual inspection. The visual inspection is described in Fokker Services Service Bulletin SBF50-53-058 (dated June 30, 2006).

-An eddy-current inspection. The eddy-current inspection is described in Fokker Services Service Bulletin SBF50-53-059 (dated August 24, 2006).

**Effective date:** November 01, 2006

**Mandatory Actions and Compliance Times:**

Required as indicated, unless accomplished previously.

- (a) Upon accumulating 20,000 flight cycles (time since new) or within the next three (3) weeks after August 1, 2006 (the original effective date of this directive), whichever occurs later, visually inspect the Fuselage Bottom Skin Chine Line between Fuselage Station (STA) 6675 and STA 15375 in accordance with Part 3, Steps A and B of the Accomplishment Instructions of Fokker Services Service Bulletin SBF50-53-058 dated June 30, 2006 or a later EASA-approved revision;
- (1) When cracks are found appearing through the paint layer, proceed in accordance with the instructions in SBF50-53-058 and within the time limits as provided in **TABLE 1** of this directive:

**TABLE 1**

Crack length measured	Compliance time	Action(s)
>50 mm	Before next flight	Remove the paint iaw AMM Chapter 51-24-00 and re-inspect
>10 mm and ≤50 mm	Within 50 flight cycles	Remove the paint iaw AMM Chapter 51-24-00 and re-inspect
≤10 mm	Within 1,000 flight cycles	Eddy-current inspect iaw Fokker SBF50-53-059

- (2) When cracks are found after the removal of paint as instructed by paragraph (a)(1) of this directive, proceed in accordance with the instructions in SBF50-53-058 and within the time limits as provided in **TABLE 2** of this directive:

**TABLE 2**

Crack length measured	Compliance time	Action(s)
>100 mm	Before next flight	Repair iaw SRM Chapter 53-00-02 Repair No.10
>50 mm and ≤100 mm	Within 50 flight cycles	Repair iaw SRM Chapter 53-00-02 Repair No.10
>10 mm and ≤50 mm	Within 100 flight cycles after the initial inspection and thereafter at intervals not to exceed 100 flight cycles, until the accomplishment of SBF50-53-059	Repeat visual inspection iaw SBF50-53-058
≤10 mm	Within 1,000 flight cycles	Eddy-current inspect iaw Fokker SBF50-53-059

- (b) Upon accumulating 45,000 flight cycles (time since new) or within the next three (3) weeks after August 1, 2006 (the original effective date of this directive), whichever occurs later, visually inspect the Fuselage Bottom Skin Chine Line between STA 1320 and STA 3100 in accordance with Part 3, Steps C and D of the Accomplishment Instructions of Fokker Services SBF50-53-058 dated June 30, 2006 or a later EASA-approved revision;
- (1) When cracks are found appearing through the paint layer, proceed in accordance with the instructions in SBF50-53-058 and within the time limits as provided in **TABLE 1** of this directive;
- (2) When cracks are found after the removal of paint as instructed by paragraph (b)(1) of this directive, proceed in accordance with the instructions in SBF50-53-058 and within the time limits as provided in **TABLE 2** of this directive;
- (c) In all cases, whether or not cracks were found and repaired in accordance with the requirements in paragraph (a) and (b) of this directive, within 1,000 flight cycles after the visual inspection in accordance with Service Bulletin SBF50-53-058, eddy-current inspect the Fuselage Bottom Skin Chine Line (between the same Fuselage Stations as covered by the visual inspection) in accordance with Part 3, Accomplishment Instructions of Fokker Services Service Bulletin SBF50-53-059 dated August 24, 2006 or a later EASA-approved revision.
- (1) When cracks are found during the eddy-current inspection proceed in accordance with the instructions in Service Bulletin SBF50-53-059 and within the time limits as provided in **TABLE 3** of this directive:

TABLE 3

Crack length measured	Compliance time	Action(s)
>100 mm	Before next flight	Repair iaw SRM Chapter 53-00-02 Repair No.10
>50 mm and ≤100 mm	Within 50 flight cycles	Repair iaw SRM Chapter 53-00-02 Repair No.10
≤50 mm	Within 100 flight cycles after the initial inspection and thereafter at intervals not to exceed 100 flight cycles, until the repair is made.	Repeat eddy current inspection iaw SBF50-53-059

- (d) Whenever cracks are found as a result of the inspection requirements of this directive, within 7 days after the inspection, report all findings to the Type Certificate holder, address listed in the "Remarks"-section of this directive.

**Reference Publication(s):**

Fokker Services SBF50-53-058

Fokker Services SBF50-53-059

Fokker Services All Operators Message AOF50.044 #02, ref. TS06.55035

Fokker Services NDTM Temporary Revisions No. 53-004 and 53-005

Fokker Services MPD Temporary Revisions No. 53-009

Remarks:

- Operators of the affected aircraft may obtain copies of the referenced service information upon request directly from 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](mailto:technicalservices.fokkerservices@stork.com) or can be downloaded from [www.myfokkerfleet.com](http://www.myfokkerfleet.com).
- Compliance with this directive must be recorded in the proper Aircraft Log Book(s).

Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Inspectorate, P.O. Box 575, 2130 AN Hoofddorp, The Netherlands; telephone +31-23-566-3158; facsimile +31-23-566-3006; e-mail [Info.Register@ivw.nl](mailto:Info.Register@ivw.nl).