

#### 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).

# Civil Aviation Authority Netherlands Airworthiness Directive

| Nr.  | NL-2005-012  | Distribution : |
|--|--|----------------|
| Date :<br>Type Certif<br><b>FOKKE</b><br>(formerly<br>F28 Marl | October 17, 2005<br>ficate Holder :<br><b>R SERVICES B.V.</b><br>Fokker Aircraft B.V.)<br>& 0070 and Mark 0100 |                |
| EASA Type  | Certificate Nr.  | A.037          |

| THIS AIRWORTHINESS DIRECTIVE IS PUBLISHED BY THE CAA-NL : |   |  |
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| •   | acting for and on behalf of the European Aviation Safety Agency (EASA), as Airworthiness Authority (ICAO<br>Annex 8) of the State of Design for the affected product(s) with reference to 21A.3B (a) and (b); and |  |
| ٠   | has been approved under EASA reference Number 2005-6363 dated October 14, 2005.   |  |

**Supersedure :** This AD supersedes and cancels BLA 2004-046 dated April 20, 2004.

## Subject : LANDING GEAR - MAIN LANDING GEAR SLIDING MEMBER - INSPECTION

**<u>Applicability</u>: Fokker Aircraft B.V.** Model F.28 Mk.0070 and Mk.0100 aircraft, all serial numbers, if equipped with **Dowty** or **Messier-Dowty** Main Landing Gear Part Number (P/N) 201072011, 201072012, 201072013, 201072014, 201072015 or 201072016, which include sliding member P/N's 201072301 or 201072305.

**<u>Reason</u>**: During pushback from the gate of a Fokker 100 (F28 Mark 0100), the sliding member of a Main Landing Gear (MLG) broke off. The failure occurred during braking while the aircraft was moving backwards, immediately after the towbar was inadvertently disconnected. The subsequent investigation of the fractured surface showed that this had been caused by overload, initiated by a fatigue crack on the aft side of the MLG sliding member, some 3-4 mm above the axle platform. It was also shown that reverse braking is likely to be the only mode that can cause tensile stresses in this location, sufficient to result in cracking and subsequent failure. NDT inspections performed on some operational aircraft and on spare units held by Fokker Services revealed additional MLG units with cracks in the same area. This condition, if not corrected, could result in further incidents of cracked MLG sliding members and possible MLG separation. Since an unsafe condition had been identified that is likely to exist or develop on other aircraft of the same type design, Airworthiness Directives (BLA) 2002-060 and 2004-046 were issued to require, respectively, a one-time inspection and a single repeat inspection of all (Messier-) Dowty Main Landing Gear units. The results from those inspections have identified the need for a repetitive inspection on the MLG Sliding Member to establish fleet safety. For this reason, the present AD requires repetitive magnetic particle inspections of all aircraft equipped with (Messier-)Dowty Main Landing Gear units and replacement of cracked parts.

### Effective date : November 1, 2005

Mandatory Actions and Compliance Times: Required as indicated, unless accomplished previously. (a) For aircraft that are **not** compliant with the requirements of BLA 2002-060 and/or BLA 2004-046, before the next flight after the effective date of this directive, inspect the MLG sliding members for cracks in accordance with the <u>Accomplishment Instructions</u> of Messier-Dowty Service Bulletin (SB) F100-32-110 dated August 25, 2005 or a later CAA(UK) approved revision;

(b) For all other aircraft, within 2,000 flight cycles after the accomplishment of Messier-Dowty SB F100-32-103 (Ref. Fokker SBF100-32-133) or Messier-Dowty SB F100-32-105 (Ref. Fokker SBF100-32-139) or within the next 4 calendar months, whichever occurs later after the effective date of this directive, inspect the MLG sliding members for cracks in accordance with the <u>Accomplishment Instructions</u> of Messier-Dowty SB F100-32-110 dated August 25, 2005 or a later CAA(UK) approved revision;

Note 1: Fokker SBF100-32-144 dated September 19, 2005 also pertains to this subject.

#### Page 2 of 2

### AD nr. NL-2005-012

(c) After compliance with either paragraph (a) or (b) of this directive, at intervals not to exceed 2,000 flight cycles, repeat the inspection of the MLG sliding members in accordance with the <u>Accomplishment</u>. <u>Instructions</u> of Messier-Dowty SB F100-32-110 dated August 25, 2005 or a later CAA(UK) approved revision;

(d) Each time after a High Drag Load landing, before next flight, magnetically inspect the MLG sliding members for cracks in accordance with Fokker 70/100 Aircraft Maintenance Manual (AMM), Task 05-51-01-220-826-A;

(e) Each time when the aircraft brakes have been applied during backward movement of the aircraft, within the next 50 flight cycles thereafter, inspect the MLG sliding members in accordance with Fokker 70/100 AMM, Task 05-51-01-220-876-A;

**Note 2:** Fokker Manual Change Notification - Maintenance Documentation (MCNM) F100-083 Rev.1 dated April 15, 2004 contains the procedures related to the requirements of paragraphs (d) and (e) of this directive.

(f) As of the effective date of this directive, no spare MLG sliding member may be installed on any aircraft as a replacement part, unless it has been inspected in accordance with the <u>Accomplishment</u>. <u>Instructions</u> of Messier-Dowty SB F100-32-110 dated August 25, 2005 or a later CAA(UK) approved revision;

(g) When any crack indication is found, before further flight, replace the MLG sliding member with a serviceable part in accordance with the Fokker 70/100 AMM, Chapter 32-11-08.

(h) Whatever the results of the inspections as required by this directive, report ALL findings to the Type Certificate Holder of the aircraft and the Main Landing Gear manufacturer, addresses listed below.

#### Reference Publication(s) :

Messier-Dowty SB F100-32-103 Messier-Dowty SB F100-32-105 Messier-Dowty SB F100-32-110 Fokker SBF100-32-133 Fokker SBF100-32-139 Fokker SBF100-32-144 Fokker 70/100 AMM Fokker MCNM F100-083 R1

Remarks :

- Operators of the affected aircraft may obtain copies of the referenced service information upon request directly from Messier-Dowty Ltd., Customer Support, Cheltenham Road, Gloucester GL2 9QH, United Kingdom; telephone (44) 1452-712-424; facsimile (44) 1452-713-821; website www.messier-dowty.com; or 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.
- Compliance with this directive must be recorded in the proper Aircraft Log Book(s).
- Where applicable, the requirements of this directive must be integrated into the aircraft's Maintenance Schedule.

#### Address inquiries concerning this AD to :

Civil Aviation Authority of The Netherlands, Airworthiness Inspectorate, Section Product Certification, P.O. Box 575, 2130 AN Hoofddorp, The Netherlands; telephone +31-23-566-3155; facsimile +31-23-566-3006; e-mail <u>Info.Register@ivw.nl</u>.