



Airworthiness Directive of The Netherlands

Bijzondere Luchtwaardigheids Aanwijzing - BLA

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Caution

In accordance with the Civil Air Navigation Regulations (RTL), Articles 76 and 88, the following Airworthiness Directive (BLA) is issued by the Director-General of Civil Aviation of the Netherlands (Directeur-Generaal van de Rijksluchtvaartdienst-RLD). Airworthiness Directives affect aviation safety. These are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive.

BLA nr : 1996-159/2 (A)

Date : July 31, 1997

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

Model F.27 series

RLD Type Certificate Nrs.:

A22F; T-050-87

LANDING GEAR - MLG SLIDING MEMBER PISTON ROD LOCKING - MODIFICATION

Description:

During 1992, RLD received a report of an incident concerning a Fokker F.27 Mk.050, where a main landing gear (MLG) sliding member inadvertently overextended. The sliding member was then restrained only by the torque links. Upon landing, the torque links moved to an overcentre position, subsequently resulting in the failure of the torque link centre joint pin, loss of torsional stability of the wheels and, finally, the breaking off of the sliding member. Further investigation and disassembly of the MLG leg revealed that one castellation at the upper end of piston rod part number (P/N) 200563600 was missing. This had made the dowel pin in adaptor P/N 200532642 come out of its position. This condition, if not corrected, allows the piston rod to unscrew from the adaptor, disabling the sliding member extension out-stop locking mechanism. Airworthiness Directive (BLA) 1992-118 (F50) and 1992-121 (F27) were issued to require periodical inspections of the MLG sliding member out-stop assembly, and modification, as necessary. Despite inspection in accordance with Fokker SB F50-32-025 (Messier-Dowty SB F50-32-48), a recent MLG disassembly revealed that the dowel which locks the MLG sliding member piston rod to the adapter, was missing. A single castellation of the affected piston rod was also missing. Since an unsafe condition has been identified that may still exist or develop on other aircraft of the same type design, BLA 1996-159 retains the inspection requirements of the preceding directives, but also requires modification of the MLG piston rod assembly locking mechanism.

- The present revision only clarifies the intent : there has been no change in requirement.

Applicability : Fokker Aircraft B.V. Model F.27 aircraft, all Marks, all serial numbers, if equipped with Messier-Dowty (formerly Dowty Aerospace) MLG Legs, Part- & Serial Numbers as listed in Messier-Dowty Service Bulletin (SB) 32-77W Revision 4 (R4) dated February 3, 1993, or SB F50-32-27 R4 dated December 18, 1992, as applicable; and Messier-Dowty Ltd. spare MLG units, Part- & Serial Numbers as listed in Messier-Dowty Service Bulletin (SB) 32-77W R4, or SB F50-32-27 R4, as applicable.

Effective date: August 15, 1997

Compliance: Required as indicated, unless accomplished previously in accordance with the requirements of BLA 92-118/3, 92-121/3, or 1996-159, as applicable.

- (a) Within the next 30 days after January 15, 1997 (the effective date of the original issue of this directive) inspect all affected MLG legs, including units held as spare, for correct installation, in accordance with Part A of Dowty SB 32-81W R1, or Part A of Dowty SB F50-32-48 R2, as applicable, both dated October 12, 1992 or a later CAA-approved revision; Fokker SB F27/32-165 dated October 8, 1992 and Fokker SB F50-32-025 dated September 23, 1992 also pertain to this subject.

- (b) Initially within 30 days after January 15, 1997 and thereafter at intervals not exceeding 500 flight cycles, inspect, measure, and record the extension of, each affected MLG shock absorber sliding member in accordance with Part B of Messier-Dowty SB 32-81W R1, or Messier-Dowty F50-32-48 R2, as applicable, both dated October 12, 1992 or a later CAA-approved revision.

- (c) Regardless of the findings, report the results of all inspections as required by paragraphs (a) and (b) of this directive to Fokker Services B.V. and Messier-Dowty Ltd.

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(d) If, during any inspection as required by paragraph (a) or (b) of this directive, parts are found missing or damaged, before further flight, modify the MLG assembly by introducing locktite in accordance with Messier-Dowty SB 32-77W R3 dated September 29, 1992 or a later CAA-approved revision; or SB F50-32-27 R2 dated September 21, 1992 or a later CAA-approved revision, as applicable. Fokker SB's F27/32-169 and F50-32-032, both dated November 11, 1996 also pertain to this subject.

(e) Unless already modified as required by paragraph (d) of this directive, within the next 5,000 flight cycles or 30 calendar months, whichever occurs first after January 15, 1997 (the effective date of the original issue of this directive), modify all affected MLG units, including those held as spares, by introducing locktite in accordance with Messier-Dowty SB 32-77W R4 dated February 3, 1993, or SB F50-32-27 R4 dated December 18, 1992, as applicable, or a later CAA-approved revision; Fokker SBs F27/32-169 and F50-32-032, both dated November 11, 1996 also pertain to this subject.

Note 1 : As an alternative means of compliance with either paragraph (d) or (e) of this directive, the MLG assembly may be modified by introducing a one-piece piston rod, in accordance with Messier-Dowty SB 32-83W dated September 20, 1993 or a later CAA-approved revision; or SB F50-32-49 dated July 22, 1993 or a later CAA-approved revision, as applicable.

Note 2 : The introduction of locktite to the MLG sliding member piston rod assembly in accordance with Messier-Dowty SB 32-77W, or F50-32-27, any revision, as applicable, eliminates the possibility of disassembly, required to perform NDT inspection during scheduled overhaul of the Landing Gear. Therefore, piston rod adapter assemblies modified with locktite must be replaced at each scheduled overhaul.

(f) As of January 15, 1997 (the effective date of the original issue of this directive), no spare MLG assembly may be installed as replacement, unless modified in accordance with the requirements of this directive.

(g) After accomplishment of the locktite modification as required by paragraph (d) and (e) of this directive, or the alternative modification as indicated in **Note 1**, the periodical inspections as required by paragraph (b) of this AD are no longer required.

Remarks:

- Operators of the affected aircraft may obtain copies of the referenced service information upon request directly from **Fokker Services B.V., Technical Support Dept., P.O.Box 75047, 1117 ZN Schiphol Airport, The Netherlands; telephone (31) 20-605-2136; facsimile (31) 20-605-2790, or from Messier-Dowty Ltd, Customer Support, Cheltenham Road, Gloucester GL2 9QH, United Kingdom; telephone (44) 1452-712-424; facsimile (44) 1452-713-821.**
- Compliance with this AD must be recorded in the proper Aircraft Log Book(s).
- Where applicable, the requirements of this AD must be integrated into the aircraft's Maintenance Schedule.
- This revision supersedes and cancels Airworthiness Directive (BLA) 1996-159 dated December 31, 1996.

Address inquiries concerning this AD to:

Bureau Coordination & Technical Information (CTI); Telephone 31-(0)23-566 3155; Facsimile 31-(0)23-562 3848; Telex 74592 rldli nl