

# Airworthiness Directive of the Netherlands



Ministry of Transport, Public Works and Water Management

Directorate-General of Civil Aviation

Aeronautical Inspection Directorate

Bijzondere Luchtwaardigheids Aanwijzing (BLA)

## 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. They 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 : 93-169/2 (A)

Date : April 29, 1994

**FOKKER AIRCRAFT B.V.**

**Model F.27 series, all Marks**

Type Certificate Nr.:

**A22F; T-050-87**

LANDING GEAR - MLG DRAG STAY TUBES - INSPECTION/REPLACEMENT

## Description:

When selecting gear "DOWN" during approach, the flight crew of a Fokker F.27 Mk.500 Rough-field version (RFV) noticed that the red "UNSAFE" light for the RH main landing gear (MLG) remained on. A visual check by the co-pilot revealed that a structural part of the MLG was broken. During the emergency landing, the RH MLG collapsed and the aircraft veered off the runway into the open field. Subsequent investigation indicated that the drag stay tube had failed. This resulted from a fatigue crack which originated at a change in cross-section of the inner tube. A deficiency in the manufacturing process of the affected tube which led to an incorrectly machined radius has been identified as the cause. Fokker Model F.27 Mk.050 series aircraft are equipped with identical Dowty Aerospace MLG drag stay units, P/N 200684001. Since the unsafe condition described may also exist or develop on aircraft of this type design, the present Airworthiness Directive (BLA) is revised to include all Fokker F.27 models, and requires the inspection and, if necessary, rework or replacement of the affected Dowty MLG drag stay units.

**Applicability:** Fokker Aircraft B.V. Model F.27 series aircraft, all marks, all serial numbers, if equipped with Dowty Aerospace Main Landing Gear Drag Stay units part number (P/N) 200684001, 200261001 or 200485001, all serial numbers; and Dowty Aerospace spare Main Landing Gear Drag Stay units P/N 200684001, 200261001 or 200485001, all serial numbers.

**Effective date:** May 15, 1994

**Compliance:** Required as indicated, unless accomplished previously.  
Within 60 days after the effective date of this directive, accomplish the following:

(a) Identify MLG drag stay units P/N 200684001, serial number (S/N) DRG/3298/87, DRG/3299/87, DRG/3300/87, DRG/3303/87, DRG/3304/87, DRG/3305/87, and DRG/6122/90, and withdraw these units from service;

**Note:** Drag stay units P/N 200684001, identified with S/N DRG/6205/85 through DRG/1613/87, DRG/3301/87, DRG/3302/87, DRG/7210/87 through DRG/4859/90, DRG/6122/90 through DRG/7880/91, DLG0001 and subsequent are known to have originally been assembled with drag stay tube P/N 200485300. If these units have been reassembled with a replacement tube since initial build, inspect in accordance with paragraph (b) of this directive. If not, no further action is required.

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(b) Establish, by means of an ultrasonic inspection, which type of tube is installed, either P/N 200259300, with a change in section (stepped bore), or P/N 200485300 with a straight bore, in accordance with Fokker Service Bulletin (SB) F.27/32-167 dated November 19, 1993 or a later RLD-approved revision; and Appendix A, paragraph 3 of Dowty Aerospace SB 32-82W, or SB 32-169B, as applicable, both dated September 10, 1993, or later CAA-approved revisions; or in accordance with Fokker SB F50-32-029 dated February 11, 1994 or a later RLD-approved revision; and Appendix A, paragraph 3 of Dowty Aerospace SB F50-32-50 dated August 16, 1993, or later CAA-approved revisions, as applicable;

(1) MLG drag stay units with tubes identified as P/N 200485300 (straight bore) must be re-identified as P/N 200684004, 200261004 or 200485004, as applicable. After re-identification, no further action is required;

(2) MLG drag stay units P/N 200684001 installed in Model F.27 Mk.050 series aircraft, with tubes identified as P/N 200259300 (stepped bore tube) must be replaced, before further flight, with MLG drag stay units (re-)identified as P/N 200684004 (straight bore tube). After replacement, no further action is required;

(3) MLG drag stay tubes identified as P/N 200259300 with less than 20% signal indication (but greater than zero) have a correctly blended radius. Re-identify the affected MLG drag stay units as P/N 200684003, 200261003, or 200485003, as applicable;

(4) MLG drag stay tubes identified as P/N 200259300 with signal indication of 20% or more have an incorrectly blended radius. Re-identify the affected MLG drag stay units as P/N 200684002, 200261002, or 200485002, as applicable.

(c) Inspect all MLG drag stay units, (re-)identified as required by paragraphs (b)(3) or (b)(4) of this directive, for cracked tubes in accordance with Appendix A, paragraph 4 of Dowty Aerospace SB 32-82W, or SB 32-169B, as applicable;

(1) MLG drag stay units with tubes having crack signal indications of 80% or more must be replaced, before further flight, with MLG drag stay units (re-)identified as P/N 200684004, 200261004, or 200485004 (straight bore tube) or units (re-)identified with P/N 200684003, 200261003, or 200485003 (correct radius or reworked tubes), as applicable;

(2) MLG drag stay units with tubes having crack signal indications less than 80% (but greater than zero) must be re-inspected for cracks at intervals not to exceed 1,500 flight cycles after the last inspection in accordance with Appendix A, paragraph 4 of Dowty Aerospace SB 32-82W, or SB 32-169B, as applicable. Re-identify (unless previously accomplished) the affected MLG drag stay units as P/N 200684002, 200261002, or 200485002, as applicable;

(3) MLG drag stay units identified with P/N 200684003, 200261003, or 200485003 (correctly blended radius tube) having no crack signal indication may be returned to service and require no further action.

(4) MLG drag stay units identified with P/N 200684002, 200261002, or 200485002 (incorrectly blended radius tube) having no crack signal indication must be re-inspected for cracks at intervals not to exceed 1,500 flight cycles after the last inspection in accordance with Appendix A, paragraph 4 of Dowty Aerospace SB 32-82W, or SB 32-169B, as applicable.

(d) Before or at the next scheduled MLG overhaul, accomplish the following:

(1) MLG drag stay units which have been re-identified as P/N 200684002, 200261002, or 200485002 (incorrectly blended radius tube) and that have been verified to have no crack signal indication as required by paragraph (c)(4) of this directive, must be reworked in accordance with Appendix B of Dowty Aerospace SB 32-82W Revision 1, or SB 32-169B Revision 1, both dated November 10, 1993, as applicable. After rework, the MLG drag stay units must be re-identified again with P/N 200684003, 200261003, or 200485003, as applicable. After re-identification, no further action is required.

(2) MLG drag stay units which have been re-identified as P/N 200684002, 200261002, or 200485002 (incorrectly blended radius tube, but with crack signal indication), as required by paragraph (c)(2) of this directive, must be replaced with MLG drag stay units (re-)identified as P/N 200684004, 200261004, or 200485004 (straight bore tube) or units (re-)identified with P/N 200684003, 200261003, or 200485003 (correct radius or reworked tubes), as applicable.

Reason for revision: To add the Fokker Model F.27 Mk.050 series aircraft to the "applicability" of this directive, and to identify a limited number of MLG drag stay units that must be withdrawn from service.

Remarks:

- Operators of the affected aircraft may obtain copies of the referenced service information upon request directly from the manufacturer.
- 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) 93-169 dated December 17, 1993.

Address inquiries concerning this AD to:

Bureau Coordination & Technical Information (CTI)

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