



## Airworthiness Directive

**AD No.:** 2018-0016

**Issued:** 25 January 2018

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

### Design Approval Holder's Name:

FOKKER SERVICES B.V.

### Type/Model designation(s):

F27 aeroplanes

**Effective Date:** 08 February 2018

**TCDS Number(s):** EASA.A.036

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 32 – Landing Gear – Main Landing Gear Drag Stay Units – Inspection / Replacement

### Manufacturer(s):

Fokker Aircraft B.V.

### Applicability:

F27 Mark 050, Mark 0502 and Mark 0604 aeroplanes, all serial numbers.

### Definitions:

For the purpose of this AD, the following definitions apply:

**Affected drag stay unit:** SAFRAN Landing Systems (previously Messier-Dowty, Dowty Aerospace) main landing gear (MLG) drag stay units, Part Number (P/N) 200261001, P/N 200261002, P/N 200261003, P/N 200261004, P/N 200485001, P/N 200485002, P/N 200485003, P/N 200485004, P/N 200684001, P/N 200684002, P/N 200684003 and P/N 200684004.

**Affected drag stay tube:** SAFRAN Landing Systems (previously Messier-Dowty, Dowty Aerospace) MLG drag stay tubes, P/N 200259300, which have a change in section (stepped bore).

**The SB:** Fokker Services Service Bulletin (SB) SBF50-32-040.



**The applicable CMM:** SAFRAN Landing Systems (SLS), previously known as Messier-Dowty, Dowty Aerospace Landing Gear (DALG), MLG Component Maintenance Manual (CMM) 32-10-55 Rev. 6.

**Serviceable Part:** MLG drag stay units, P/N 200684004, for which it is confirmed, in accordance with the instructions of Section 4, step H, of the SB, that no affected drag stay tube is installed.

**Reason:**

In 1993, an occurrence was reported concerning an MLG collapse due to a broken drag stay on a Fokker F27 Mark 500 RFV (rough field version/configuration). The investigation revealed that the drag stay failure was due to fatigue cracks, introduced by incorrect machining (not smooth, with a notch) of the affected drag stay tube bore during production. As the same MLG are part of the Model F27 Mark 050, 0502 and 0604 design definitions, this also affects those aeroplanes.

This condition, if not detected and corrected, could lead to MLG collapse, possibly resulting in damage to the aeroplane during landing and consequent injury to occupants.

To address this unsafe condition, DALG issued SB F50-32-50, and Fokker Services issued SBF50-32-029, to provide inspection instructions. Consequently, the Civil Aviation Authority of the Netherlands (CAA-NL) issued AD (BLA) 93-169 (later revised), requiring a one-time ultrasonic inspection to identify the type of drag stay tube installed (with stepped or straight bore) on each affected drag stay unit, and, for F27 Mark 050 aeroplanes, replacement of affected drag stay tubes with straight-bore drag stay tubes, P/N 200485300.

Since AD (BLA) 93-169/2 was issued, the applicable CMM was changed, although with incorrect P/N information, as a result of which an affected drag stay tube with a stepped bore may inadvertently have been installed on an aeroplane. Prompted by these findings, the applicable CMM was corrected and re-issued, and SLS issued Service Letter (SL) F27-W-8 to inform the operators. Fokker Services introduced the relevant corrections in the F27 Mk 050, 0502 and 0604 Illustrated Parts Catalogue (IPC) in June 2017. Installation on an aeroplane of an affected drag stay unit with an affected drag stay tube, having a non-straight bore, would reintroduce the unsafe condition on that aeroplane. To address this potential unsafe condition, Fokker Services issued the SB to provide instructions to inspect and replace the affected drag stay tubes.

For the reasons described above, this AD requires a one-time inspection of the affected drag stay units to determine whether an affected drag stay tube is installed, and, depending on findings, accomplishment of applicable corrective action(s).

With the issuance of this AD and AD 2018-0015, the requirements of CAA-NL [AD \(BLA\) 93-169/2](#) dated 29 April 1994 are no longer necessary and that AD is also cancelled.

**Required Action(s) and Compliance Time(s):**

Required as indicated, unless accomplished previously:

**Identification:**

- (1) Within 12 months after the effective date of this AD, inspect each affected drag stay unit in accordance with the instructions of Section 4, step E. of the SB.



**Replacement:**

- (2) If, during the inspection as required by paragraph (1) of this AD, an affected drag stay unit, having P/N 200261001, P/N 200261002, P/N 200261003, P/N 200261004, P/N 200485001, P/N 200485002, P/N 200485003 or P/N 200485004 is found to be installed, before next flight, remove that drag stay unit and replace it with a serviceable part, in accordance with the instructions of Section 4, step G. of the SB.

**Corrective Action(s):**

- (3) If, during the inspection as required by paragraph (1) of this AD, an affected drag stay unit, having P/N 200684001, P/N 200684002, P/N 200684003 or P/N 200684004 is found to be installed, before next flight, verify the P/N of the drag stay tube installed on the affected drag stay unit in accordance with the instructions of Section 4, step E.(b) of the SB.
- (4) If, during the verification action as required by paragraph (3) of this AD, it cannot be confirmed that a tube P/N 200485300 (with a straight bore) is installed, within 12 months after the effective date of this AD, accomplish a non-destructive test (NDT) inspection of the affected drag stay unit in accordance with the instructions of Section 4, step F.(1) and F.(2) of the SB.
- (5) If, during the NDT inspection as required by paragraph (4) of this AD, an NDT signal is detected, before next flight, remove that drag stay unit and replace it with a serviceable part, in accordance with the instructions of Section 4, step G. of the SB.

**Re-identification:**

- (6) For affected drag stay units P/N 200684001, P/N 200684002 and P/N 200684003: If, during the verification action as required by paragraph (3) of this AD, no affected drag stay tube is found to be installed, before next flight, re-identify the affected drag stay unit in accordance with the instructions of Section 4, step I.(2) of the SB.
- (7) For affected drag stay units P/N 200684001, P/N 200684002 and P/N 200684003: If, during the inspection as required by paragraph (4) of this AD, no NDT signal is detected, before next flight, re-identify the affected drag stay unit in accordance with the instructions of Section 4, step I.(2) of the SB.

**Parts Installation:**

- (8) From the effective date of this AD, do not install an affected drag stay unit on an aeroplane (which includes installation of a replacement MLG), unless it is a serviceable part as defined in this AD. For the purpose of this requirement, removal of an MLG or an affected drag stay unit from an aeroplane and re-installing that MLG or drag stay unit on the same aeroplane is not 'installation'.

**Ref. Publications:**

Fokker Services SBF50-32-040 original issue dated 30 November 2017.

Dowty Aerospace Landing Gear SB F50-32-50 original issue dated 16 August 1993.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.



**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 22 December 2017 as PAD 17-176 for consultation until 19 January 2018. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact: Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL, Hoofddorp, The Netherlands, Telephone +31-88-6280-350, Fax +31-88-6280-111, E-mail: [technicalservices@fokker.com](mailto:technicalservices@fokker.com).  
The referenced publication can be downloaded from [www.myfokkerfleet.com](http://www.myfokkerfleet.com).

