



## Notification of a Proposal to issue an Airworthiness Directive

**PAD No.: 19-050**

**Issued: 29 March 2019**

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

### Design Approval Holder's Name:

FOKKER SERVICES B.V.

### Type/Model designation(s):

F28 aeroplanes

**Effective Date:** [TBD - standard: 14 days after AD issue date]

**TCDS Number(s):** EASA.A.037

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes Directorate-General of Civil Aviation of The Netherlands (RLD) AD (BLA) [94-095](#) dated 15 July 1995, including its Correction; and EASA AD [2015-0077](#) dated 06 May 2015.

## ATA 32 – Landing Gear – Main Landing Gear Hydraulic Hose Assemblies – Replacement

### Manufacturer(s):

Fokker Aircraft B.V.

### Applicability:

F28 Mark 0070 and Mark 0100 aeroplanes, all serial numbers (s/n); and  
F28 Mark 1000, Mark 2000, Mark 3000 and Mark 4000 aeroplanes, all models, all s/n.

### Definitions:

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

**The applicable SB:** Fokker Services Service Bulletin (SB) SBF28-32-165 and SBF100-32-162 Revision 1, as applicable.

**Affected part:** Hose assemblies, having Part Number (P/N) 97867-1 or P/N 97867-3.

**Serviceable part:** Hose assemblies, having P/N A25509-01 or P/N A25629-01.



**Reason:**

In 1994, an occurrence was reported of a single main landing gear (MLG) collapse on a Fokker F28 Mark 0100 aeroplane. Investigation results showed that sudden movement of the MLG retraction actuator could lead to the pressurization of the MLG downlock actuator and lifting of the MLG toggle links. Sudden movement of the retraction actuator, although a few millimeters only, might occur when the aeroplane touches down at a relatively large “crab-angle”. When subjected to resulting side-loads, the MLG may then retract.

This condition, if not correct, could lead to a runway excursion, possibly resulting in damage to the aeroplane and injury to occupants.

Prompted by this event, Fokker Aircraft revised SBF28-32-123, introducing hydraulic hose assembly P/N 97867-1 to the MLG retraction actuators of F28 Mark 1000 thru Mark 4000 aeroplanes. This hose assembly has a built-in restrictor check valve including wire-mesh filter screens. Consequently, the RLD issued AD (BLA) 94-095 to require replacement of hose assemblies, P/N A71462-401 (without a built-in restrictor check valve) with hose assemblies P/N 97867-1. On all F28 Mark 0070 and Mark 0100 aeroplanes, either hose assemblies P/N 97867-1 or P/N 97867-3 (both having a built-in restrictor check valve, and a wire-mesh filter screen) were installed on the Fokker production line.

After that AD was issued, three reports were received on Fokker F28 Mark 0100 aeroplanes of failure to extend a single MLG. Investigation revealed that these events were caused by debris in the hydraulic circuit, combined with failure of a wire-mesh filter screen. This eventually resulted in debris entering the restrictor check valve, blockage of the restrictor orifice just prior to or during landing gear down selection, consequent hydraulic lock and failure of the affected MLG to extend.

Following the first 2 reports, Fokker Services issued SBF100-32-166, SBF28-32-164 and Component SB CSB-32-026 to provide instructions for the removal of hoses P/N 97867-1 and P/N 97867-3 from all F28 aeroplanes, in-shop inspection of the filter screens on the restrictor check valves of the removed hoses and installation of serviceable hoses P/N 97867-1 and P/N 97867-3, as applicable. Consequently, EASA issued AD 2015-0077 to require those actions.

More recently, Fokker Services developed hose assemblies P/N A25509-01 and P/N A25629-01, equipped with restrictor check valves with strengthened (non-wire mesh) screen filters and issued the applicable SB accordingly, providing installation instructions.

For the reasons described above, this AD cancels the now-redundant requirements of RLD AD (BLA) 94-095 and EASA AD 2015-0077, which are superseded, and requires replacement of the affected parts with serviceable parts.

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

Required as indicated, unless accomplished previously:

**Replacement:**

- (1) Within 18 months after the effective date of this AD, replace each affected part with a serviceable part in accordance with the instructions of the applicable SB.



**Part(s) Installation:**

- (2) After modification of an aeroplane as required by paragraph (1) of this AD, do not install any affected part on that aeroplane.

**Ref. Publications:**

Fokker Services SBF28-32-165 original issue dated 19 March 2019.

Fokker Services SFB100-32-162 Revision 1 dated 19 March 2019.

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

**Remarks:**

1. This Proposed AD will be closed for consultation on 26 April 2019.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the [EU aviation safety reporting system](#).
4. For any question concerning the technical content of the requirements in this PAD, 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).

