

Airworthiness Directive

AD No.: 2017-0068

Issued: 24 April 2017

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): F28 aeroplanes

Effective Date:08 May 2017TCDS Number(s):EASA.A.037Foreign AD:Not applicableSupersedure:None

ATA 32 – Landing Gear – Landing Gear Handle Teleflex Mechanism – Inspection / Lubrication

Manufacturer(s):

Fokker Aircraft B.V.

Applicability:

F28 Mark 0100 aeroplanes, serial number (s/n) 11244 to s/n 11481 inclusive, if the maintenance records show that the aeroplane is in a post Fokker Services Service Bulletin (SB) SBF100-32-107 configuration.

Reason:

A report was received of an alledgedly post-SBF100-32-107 (introducing a teleflex cable conduit with a grease nipple and a stainless steel teleflex cable) Fokker 100 aeroplane landing with a nose landing gear (LG) that was not completely in the extended position, in spite of the application by the crew of the relevant normal and abnormal Airplane Flight Manual LG extension procedures. The investigation revealed that the failure of the nose LG to completely extend had been caused by a jammed teleflex cable of the LG control system, which resulted in a hydraulic lock in the nose LG extension/retraction actuator. The investigation also revealed that the teleflex cable conduit connector on the subject aeroplane did not have the grease nipple installed, so that the aeroplane was actually not in the full post-SBF100-32-107 configuration.



Based on an incorrect assumption with regard to full incorporation of SBF100-32-107 (i.e. the presence of the grease nipple on the conduit connector), Maintenance Review Board (MRB) task 323100-00-04 (removal, inspection, greasing and reinstallation of teleflex cable), which is only applicable for aeroplanes without the grease nipple, had been removed from the scheduled maintenance programme for the aeroplane. As a result, no detailed inspection or greasing of the teleflex cable had been accomplished on the aeroplane during the last 24 000 flight cycles (FC) or 17 years, leading to a lack of lubricant and excessive wear of the cable. Analysis indicates the possibility of more aeroplanes that do not have the grease nipple on the conduit connector, and where MRB task 323100-00-04 has been inadvertently removed from the scheduled maintenance program.

This condition, if not detected and corrected, could lead to further landings with the nose LG not in the fully extended position, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Fokker Services published SBF100-32-167 (hereafter referred to as 'the SB' in this AD) to provide inspection instructions.

For the reasons described above, this AD requires a one-time inspection of the LG handle teleflex cable conduit connector for the presence of the grease nipple and, depending on findings, accomplishment of applicable corrective action(s). This AD also requires the reporting of findings to Fokker Services, and to ensure that the maintenance programme contains those instructions applicable to the aeroplane configuration.

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

Required as indicated, unless accomplished previously:

Inspection / Reporting:

(1) Within 3 months after the effective date of this AD, inspect the LG handle teleflex cable conduit for the presence of the grease nipple and report the findings to Fokker Services in accordance with the instructions of the SB.

Maintenance Records Check / Reporting:

(2) If, during the inspection as required by paragraph (1) of this AD, no grease nipple is found installed, within 3 months after the effective date of this AD, check the maintenance records of the affected aeroplane of the last 3 months for flight crew or mechanics reports of erratic and/or hard-to-move LG handle, and check the maintenance records to determine the date of the last replacement or inspection/lubrication of the LG handle teleflex cable, and report those findings to Fokker Services in accordance with the instructions of the SB.

Corrective Action(s):

(3) Depending on findings during the maintenance records check as required by paragraph (2) of this AD, within the compliance time specified in Table 1 or Table 2 of this AD, as applicable, inspect and lubricate the LG handle teleflex cable in accordance with the instructions of the SB.



Table 1 – LG Handle Reports and Last Teleflex Cable Replacement / Inspection / Lubrication Date Not Known

| Results of Maintenance Records Check | Compliance Time |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Report(s) of erratic and/or hard-to-move LG handle | Before next flight after the check as required by paragraph (2) of this AD |
| Last installation or inspection/lubrication of the LG handle teleflex cable cannot be established | |

Table 2 – Known Last Teleflex Cable Replacement / Inspection / Lubrication Date

| FC / Years (see Note 1 of this AD) | Compliance Time (after the check as required by paragraph (2) of this AD) |
|-------------------------------------------------------------|----------------------------------------------------------------------------------|
| 18 000 FC or more, or 12 years or more | Before next flight |
| More than 12 000 flight hours (FH), but less than 18 000 FC | Within 6 months |
| Between 8 and 12 years | |

Note 1: The FC, FH and years specified in Table 2 of this AD are those accumulated since the last known/recorded replacement or inspection/lubrication, as applicable, of the LG handle teleflex cable.

Aircraft Maintenance Programme (AMP) Amendment:

(4) Within 6 months after the effective date of this AD, amend the approved AMP, on the basis of which the operator or the owner ensures the continuing airworthiness of each operated aeroplane, in accordance with the instructions of the SB, to ensure that the AMP incorporates the applicable tasks and associated thresholds and intervals, depending on aeroplane configuration (pre- or post-SBF100-32-107) as determined by the inspection as required by paragraph (1) of this AD.

Note 2: For affected Fokker F28 Mark 0100 aeroplanes registered in Europe, complying with the approved AMP, as specified in paragraph (4) of this AD, is required by Commission Regulation (EU) No <u>1321/2014</u>, Part M.A.301, paragraph 3.

Ref. Publications:

Fokker Services SBF100-32-167 original issue dated 14 December 2016.

Fokker Services SBF100-32-107 original issue dated 11 July 1997.

The use of later approved revisions of these 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 07 March 2017 as PAD 17-026 for consultation until 04 April 2017. The Comment Response Document can be found in the <u>EASA Safety Publications Tool</u>, in the compressed (zipped) file attached to the record for this AD.
- 3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: <u>ADs@easa.europa.eu</u>.
- 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: <u>technicalservices@fokker.com</u>. The referenced publication can be downloaded from <u>www.myfokkerfleet.com</u>.

