EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0002R1 **Date: 30 March 2012** Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, 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 EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Type Approval Holder's Name :	**Type/Model designation(s) :**
Fokker Services B.V.	F28 Mark 0100 aeroplanes

TCDS Number:	EASA.A.037
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2012-0002 dated 06 January 2012, which superseded CAA Netherlands (CAA-NL) AD (BLA) 1997-116/2, dated 29 October 1999.

ATA 32	**Landing Gear – Nose Landing Gear Main Fitting – Inspection / Modification / Replacement**

Manufacturer(s):	Fokker Aircraft B.V.
Applicability:	F28 Mark 0100 aeroplanes, all serial numbers.
Reason:	In 1997, a report was received concerning a Fokker 100 (F28 Mark 0100) aeroplane, where during landing following nose wheel touch-down, the nose landing gear (NLG) broke off just below the pintle pins. Subsequent inspection by the affected operator of other aeroplanes in the fleet identified three more suspect NLG main fittings. Eddy current (EC) and/or dye penetrant inspections of these units later confirmed that cracks were present on the inner side of the downlock plunger support web. The total number of flight cycles (FC) accumulated by the cracked NLG main fittings at the time of detection were between 9.300 FC and 17.600 FC. This condition, if not detected and corrected, could result in further incidents of NLG collapse, possibly resulting in damage to the aeroplane and/or injury to the occupants. To address this potential unsafe condition, CAA-NL issued AD (BLA) 1997-116 (currently at issue 2) to require repetitive inspections of the NLG main fitting and, depending on findings, rework or replacement of the NLG main fitting. Since AD (BLA) 1997-116/2 was issued, it was determined that replacement of a Messier-Dowty (M-D, formerly Dowty Rotol) Part Number (P/N) 201071001 or P/N 201071002 NLG with, respectively, a P/N 201071003 or P/N 201071004 (which have a so-called 'heavy weight' main fitting installed) or, respectively, with a P/N 201456001 or P/N 201461001 (which are so-called 'heavy weight' NLG units) cancels the need for repetitive inspection and/or rework. The 'heavy weight' main fitting was originally developed for an

	increased weight version (101 000 lbs. maximum take-off weight) of the Fokker 100, as well as for the Fokker 70 (F28 Mark 0070), and introduced on the production line. M-D issued Service Bulletin (SB) F100-32-94 and Fokker Services issued SBF100-32-119, which provide instructions to install the P/N 201071003 or P/N 201071004 NLG on aeroplanes in service. In addition, Fokker Services issued optional SBF100-32-149 to introduce the P/N 201456001 or P/N 201461001 NLG units on aeroplanes in service. In January 2010, a second NLG main fitting failure occurred. The results of the investigation showed that the fracture started from small fatigue cracks in the affected area. Prompted by this new occurrence, combined with the NLG certification methodology (safe life principle), EASA has decided that the existing terminating action, installation of a P/N 201071003 or P/N 201071004 NLG should be made mandatory. Alternatively, a P/N 201456001 or P/N 201461001 NLG can be installed, which meets the same requirement. For the reasons described above, EASA issued AD 2012-0002, retaining the requirements of CAA-NL AD (BLA) 1997-116/2, which was superseded, and to require the replacement of all P/N 201071001 and P/N 201071002 NLG units with, respectively, P/N 201071003 and P/N 201071004 NLG units, or alternatively with, respectively, P/N 201456001 or P/N 201461001 NLG units. Replacement of a NLG main fitting or of a NLG unit on an aeroplane constitutes terminating action for the repetitive inspections for that aeroplane. EASA AD 2012-0002 also prohibits, after modification of an aeroplane, installation of a P/N 201071001 or P/N 201071002 NLG unit on that aeroplane. This AD revises EASA AD 2012-0002, to amend paragraph (9), specifying that reduction of the NDT inspection interval is only required after 36 months, to correct paragraph (12), and to add Fokker Services new contact details.
Effective Date:	Revision 1: 13 April 2012 Original issue: 20 January 2012
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously. **Re-statement of requirements of AD (BLA) 1997-116/2:** (1) For each P/N 201071001 and P/N 201071002 NLG unit that, on 20 November 1999 [the effective date of AD (BLA) 1997-116/2], has accumulated 7 500 FC or more since first installation on an aeroplane, within 50 FC after 20 November 1999, visually inspect the NLG main fitting in accordance with the instructions of paragraph 3.A of M-D SB F100-32-92 Revision 1. The visual inspection as required by paragraph (1) of this AD can be substituted by an NDT inspection as required by paragraph (3) of this AD, provided the NDT inspection is accomplished within the compliance time of paragraph (1) of this AD. **Note 1**: Previous accomplishment of an inspection, in accordance with the instructions of M-D SB F100-32-92, does not constitute compliance with the requirement of paragraph (1) of this AD. (2) If, during the inspection as required by paragraph (1) of this AD, cracking is found, before next flight, accomplish an NDT (non-destructive test) inspection of the NLG main fitting in accordance with the instructions of paragraph 3.B of M-D SB F100-32-92 Revision 1. (3) Within the compliance time(s) indicated in Table 1 of this AD, as applicable, and thereafter at intervals not to exceed 750 FC, accomplish NDT inspections of each P/N 201071001 and P/N 201071002 NLG unit in accordance with the instructions of paragraph 3.B of M-D SB F100-32-92 Revision 1.

Table 1 - Compliance times

FC accumulated by the NLG since first installation on an aeroplane:	**NDT Inspection required:**
Less than 7 500 FC	Before accumulating 7 875 FC
7 500 FC or more	Within 375 FC after 20 November 1999 [the effective date of AD (BLA) 1997-116/2]

(4) If, during any NDT inspection as required by paragraph (2) or (3) of this AD, crack indication is detected, before next flight, rework the NLG main fitting in accordance with the instructions of paragraph 3.B.(9), and within the limits specified in Figure 4, of M-D SB F100-32-92 Revision 1. If a defect cannot be removed within the specified limits, before next flight, contact M-D or Fokker Services for approved repair instructions and accomplish those instructions accordingly.

(5) Rework or repair of a NLG unit, as required by paragraph (4) of this AD, does not constitute terminating action for the repetitive NDT inspections as required by paragraph (3) of this AD.

(6) Within 7 days after each NDT inspection, as required by paragraph (3) of this AD, report all inspection results (including no findings) to Fokker Services, address details as indicated in the Remarks section of this AD.

(7) After 20 November 1999 [the effective date of AD (BLA) 1997-116/2], do not install on an aeroplane a P/N 201071001 or P/N 201071002 NLG unit, unless the main fitting of that NLG unit has passed the NDT inspection, as required by paragraph (3) of this AD, or has been reworked, as required by paragraph (4) of this AD.

Note 2: Fokker Services SBF100-32-118, which was issued as a ‘cover’ for M-D SB F100-32-92, also pertains to the subject of this AD.

New requirements of this AD:

(8) At the next scheduled NLG main fitting overhaul, or within 36 months, whichever occurs first after 20 January 2012 [the effective date of the original issue of this AD], except as specified in paragraph (9) of this AD, replace the P/N 201071001 or P/N 201071002 NLG unit, respectively, with a P/N 201071003 or P/N 201071004 NLG unit, in accordance with the instructions of Fokker Services SBF100-32-119, which references M-D SB F100-32-94.

(9) If the next NLG main fitting overhaul is scheduled to occur later than 36 months after 20 January 2012 [the effective date of the original issue of this AD], NLG replacement as required by paragraph (8) of this AD can be delayed until that scheduled overhaul, although not exceeding 72 months after the effective date of this AD, provided that, from 36 months after 20 January 2012 [the effective date of the original issue of this AD], the interval of the repetitive NDT inspection as required by paragraph (3) of this AD is reduced from 750 FC to 375 FC and all other conditional actions are accomplished as specified in paragraph 1.E (1) (b) of Fokker Services SBF100-32-119 Revision 1.

(10) Installation of a NLG unit P/N 201456001 or P/N 201461001 on an aeroplane, in accordance with the instructions of Fokker SBF100-32-149, is an alternative method of compliance with the modification requirement of paragraph (8) or paragraph (9), as applicable, of this AD for that aeroplane, provided the installation is accomplished within the compliance time specified in each paragraph, as applicable.

	(11) Prior to, or concurrent with, modification of an aeroplane, as required by paragraph (8) or (9) of this AD, or in accordance with the alternative method provided by paragraph (10) of this AD, as applicable, modify the NLG bracket in accordance with the instructions of Fokker Services SBF100-53-074. (12) Modification of an aeroplane, as required by paragraph (8) or (9) of this AD, or in accordance with the alternative method provided by paragraph (10) of this AD, as applicable, constitutes terminating action for the repetitive NDT inspections, as required by paragraph (3) or (9) of this AD, as applicable, for that aeroplane. (13) After modification of an aeroplane, as required by paragraph (8) or (9) of this AD, or in accordance with the alternative method provided by paragraph (10) of this AD, as applicable, do not install a NLG unit P/N 201071001 or P/N 201071002 on that aeroplane.
Ref. Publications:	Fokker Services SBF100-32-118 dated 08 October 1999. Fokker Services SBF100-32-119 original issue dated 31 January 2000, and Revision 1 dated 15 November 2011. Fokker Services SBF100-32-149 Revision 1, dated 25 October 2007. Fokker Services SBF100-53-074 dated 01 November 1999. Messier-Dowty SB F100-32-92 Revision 1 dated 8 October 1999. Messier-Dowty SB F100-32-94 dated 5 January 2000. 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. The original issue of this AD was posted on 25 November 2011 as PAD 11-126 for consultation until 02 January 2012. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA; E-mail 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; facsimile +31-88-6280-111; e-mail: technicalservices@fokker.com. The referenced publications can be downloaded from www.myfokkerfleet.com.