

EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2008-0091</p> <p>Date: 13 May 2008</p> <p>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.</p>
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].	
<p>Type Approval Holder's Name :</p> <p>Fokker Services B.V.</p>	<p>Type/Model designation(s) :</p> <p>F27 Mark 050 and Mark 0502 aircraft; and F28 Mark 0100 aircraft</p>
TCDS Number :	EASA A.036, A.037
Foreign AD :	Not applicable
Supersedure :	None
ATA 24	Electrical Power – AC Bus Transfer Terminal Contactor – Modification
Manufacturer(s):	Fokker Aircraft B.V.
Applicability:	F27 Mark 050 and Mark 0502 aircraft, all serial numbers; and F28 Mark 0100 aircraft, all serial numbers.
Reason:	<p>Several incidents have been reported where an electrical burning smell was noted in the cockpit, originating from the Electrical Power Centre. Troubleshooting revealed a partly molten terminal, which normally attaches a wire or bus bar to a stud of an Electrical Power Contactor, Part Number (P/N) SG02206. Furthermore, heat damage to the contactor stud itself was found. Material investigation revealed that the terminal, which was attached to the stud, was not properly torque tightened when the incident occurred. Loss of torque is considered to have occurred during operation, for reasons not fully understood. Further loosening may have taken place in-service under influence of vibration. As a result, poor contact caused electrical arcing during which extremely high temperatures were developed, leading to partial melting of the terminal.</p> <p>Investigation of some other burned contactors revealed evidence (flat spring lock washer) of a fully torqued terminal/stud connection when the overheating occurred. The exact cause for the increase in temperature in the contactor and the terminal/stud could not be determined. However, it could not be excluded that an increase of the temperature inside the contactor could lead to reduction of the reliability of the contactor stud/terminal connection due to loss of lock washer tension. The affected Electrical Power Contactor is used on several locations in the electrical power system, i.e. Generator Line Contactor (GLC), Bus Tie Contactor (BTC), Auxiliary Power Contactor (APC) and External Power Contactor (EPC).</p>

	<p>This condition, if not corrected, could lead to further cases of overheating of terminals and studs of Electrical Power Contactors P/N SG02206, possibly resulting in the loss of electrical power systems, electrical arcing and fire/smoke in the cockpit.</p> <p>For the reasons described above, this EASA Airworthiness Directive (AD) requires the replacement of the current nut and spring washer of the standard contactor P/N SG02206 with a new self-locking nut.</p>
Effective Date:	27 May 2008
Required action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) Within 36 calendar months after the effective date of this AD, remove the standard nuts and lock washers from the contactors P/N SG02206, install new self-locking nuts and perform the applicable tests on the AC Bus Transfer System in accordance with the Accomplishment Instructions of Fokker Services SBF100-24-041 or SBF50-24-031, as applicable to type;</p> <p>Note 1: Paragraph (1) of this AD is not required for F28 Mark 0100 aircraft that have been modified in service in accordance with SBF100-24-037. Accomplishment of SBF100-24-037 within the indicated compliance time is considered an acceptable Alternative Method of Compliance for the requirements of this AD.</p> <p>Note 2: Paragraph (1) of this AD is not required for F27 Mark 050 and Mark 0502 aircraft that have been modified during production to incorporate this modification by Fokker ECR 51780, and aircraft that have been modified in service in accordance with SBF50-24-030. Accomplishment of SBF50-24-030 within the indicated compliance time is considered an acceptable Alternative Method of Compliance for the requirements of this AD.</p> <p>(2) After 31 May 2011, no person shall install a spare contactor P/N SG02206 on any aircraft as a replacement part, unless it has been modified in accordance with Goodrich Power Systems Service Bulletin (SB) SG02206-24-01.</p>
Ref. Publications:	<p>Fokker Services SBF100-24-041, dated 29 January 2008; Fokker Services SBF50-24-031, dated 29 January 2008; Fokker Services SBF100-24-037, dated 02 October 2003; and Fokker Services SBF50-24-030, dated 06 November 2003.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p> <p>Goodrich Power Systems SB SG02206-24-01, dated 04 March 2008.</p>
Remarks :	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 01 April 2008 as PAD 08-044 for consultation until 29 April 2008. The Comment Response Document can be found at http://ad.easa.europa.eu. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu 4. For any questions concerning the technical content of the requirements in this AD, please contact: Fokker Services B.V., Technical Services Dept., P.O.Box 231, 2150 AE Nieuw-Vennep, The Netherlands; telephone (31) 252-627-350; facsimile (31) 252-627-211; e-mail: technicalservices.fokkerservices@stork.com The referenced publications can be downloaded from www.myfokkerfleet.com