[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1169; Directorate Identifier 2010-NM-050-AD]

RIN 2120-AA64

Airworthiness Directives; Fokker Services B.V. Model F.28 Mark 0100 Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for the products listed above. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

> [T]here have been a number of occurrences with Messier-Dowty MLG [main landing gear] units where the main fitting failed, due to fatigue cracking in the area of the filler and bleeder holes, and occurrences where the sliding member failed, due to fatigue cracking at the area of chrome run-out/lower radius of the sliding tube portion of the sliding member.
>
> Investigation has revealed that the most probable cause of * * * cracks is high compressive stress during braking at higher deceleration levels outside the regular fatigue load spectrum. [T]he high compressive stress locally exceeds the elasticity limit of the material, leaving a residual tensile stress at release of the heavy braking load. Subsequently, this local residual tensile stress results in a negative effect on the fatigue life of the component.

> This condition, if not detected and corrected, could lead to failure of the MLG, possibly resulting in loss of control of the aeroplane during the landing rollout. * * *
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> * * * * * * *

The proposed AD would require actions that are intended to address the unsafe condition described in the MCAI.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-40, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Fokker service information identified in this proposed AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 231, 2150 AE Nieuw-Vennep, the Netherlands; telephone +31 (0)252-627-350; fax +31 (0)252-627-211; e-mail technicalservices.fokkerservices@stork.com; Internet http://www.myfokkerfleet.com.

For Messier-Dowty service information identified in this proposed AD, contact Messier Services Americas, Customer Support Center, 45360 Severn Way, Sterling, Virginia 20166-8910; telephone 703-450-8233; fax 703-404-1621; Internet https://techpubs.services.messier-dowty.com.

You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section.

Include “Docket No. FAA-2011-1169; Directorate Identifier 2010-NM-050-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2009-0269R1, dated March 11, 2010 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

> Since introduction of the F28 Mark 0100 aeroplane into airline service, there have been a number of occurrences with Messier-Dowty MLG [main landing gear] units where the main fitting failed, due to fatigue cracking in the area of the filler and bleeder holes, and occurrences where the sliding member failed, due to fatigue cracking at the area of chrome run-out/lower radius of the sliding tube portion of the sliding member.
>
> Investigation has revealed that the most probable cause of both the main fitting and sliding member cracks is high compressive stress during braking at higher deceleration levels outside the regular fatigue load spectrum. Starting at deceleration stress levels somewhat below limit load, the high compressive stress locally exceeds the elasticity limit of the material, leaving a residual tensile stress at release of

> the heavy braking load. Subsequently, this local residual tensile stress results in a negative effect on the fatigue life of the component.
>
> This condition, if not detected and corrected, could lead to failure of the MLG, possibly resulting in loss of control of the aeroplane during the landing rollout. To address this unsafe condition, the Civil Aviation Authority of the Netherlands (CAA-NL) issued AD NL-2005-012 (EASA approval 2005-6363) [which corresponds to FAA 2007-04-23, Amendment 39-14956 (72 FR 8615, February 27, 2007)] to require repetitive inspections of the sliding member (Fokker Services SBF100-32-144) and AD NL-2006-003 (EASA approval 2006-0041) to require repetitive inspections of the main fitting (Fokker Services SBF100-32-146). Messier-Dowty has now developed a modification, resulting in a strengthened sliding member and a strengthened main fitting, which is the terminating action for these repetitive inspections.
>
> For the reasons described above, this [EASA] AD requires the modification and reidentification of the affected MLG units, or replacement of the affected MLG units with modified units.
>
> This [EASA] AD has been revised to * * * state that modification of an aeroplane * * * also constitutes terminating action for the actions required by CAA-NL AD (BLA) 2002-115/2 dated October 8, 2004 [which partially corresponds to FAA AD 2008-20-03, Amendment 39-15682 (73 FR 56452, September 29, 2008)].

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Fokker Services B.V. has issued:

- Fokker Service Bulletin SBF100-32-155, dated July 23, 2009;
- Fokker Service Bulletin SBF100-32-097, dated September 30, 1995;
- Fokker Service Bulletin SBF100-32-132, dated December 5, 2001; and

- Fokker Service Bulletin SBF100-32-156, Revision 1, dated June 29, 2009.

Messier-Dowty has issued Service Bulletin F100-32-112, dated July 17, 2009. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have proposed different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a NOTE within the proposed AD.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 4 products of U.S. registry. We also estimate that it would take about 30 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is $85 per work-hour. Required parts would cost about $520,000 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these costs. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be $2,090,200, or $522,550 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Fokker Services B.V.: Docket No. FAA-2011-1169; Directorate Identifier 2010-NM-050-AD.

Comments Due Date

(a) We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Affected ADs

(b) This AD affects: AD 98-06-26, Amendment 39-10404 (63 FR 13502, March 20, 1998); AD 98-13-32, Amendment 39-10623 (63 FR 34581, June 25, 1998); AD 2004-14-01, Amendment 39-13710 (69 FR 41391, July 9, 2004); AD 2007-04-23, Amendment 39-14956 (72 FR 8615, February 27, 2007); AD 2008-20-03, Amendment 39-15682 (73 FR 56452, September 29, 2008); and AD 2010-21-12, Amendment 39-16472 (75 FR 63042, October 14, 2010).

Applicability

(c) This AD applies to Fokker Services B.V. Model F.28 Mark 0100 airplanes, certificated in any category, all serial numbers, equipped with Messier-Dowty (formerly Dowty-Rotol, Dowty Aerospace Gloucester) main landing gear (MLG).

Subject

(d) Air Transport Association (ATA) of America Code 32: Landing Gear.

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

> [T]here have been a number of occurrences with Messier-Dowty MLG [main landing gear] units where the main fitting failed, due to fatigue cracking in the area of the filler and bleeder holes, and occurrences where the sliding member failed, due to fatigue cracking at the area of chrome run-out/lower radius of the sliding tube portion of the sliding member.
>
> Investigation has revealed that the most probable cause of * * * cracks is high compressive stress during braking at higher deceleration levels outside the regular fatigue load spectrum. [T]he high compressive stress locally exceeds the elasticity limit of the material, leaving a residual tensile stress at release of the heavy braking load. Subsequently, this local residual tensile stress results in a negative effect on the fatigue life of the component.
>
> This condition, if not detected and corrected, could lead to failure of the MLG, possibly resulting in loss of control of the aeroplane during the landing rollout. * * *
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> * * * * * * *

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions

(g) Within 48 months after the effective date of this AD, do an inspection of the MLG to determine whether Messier-Dowty (formerly Dowty-Rotol, Dowty Aerospace Gloucester) main landing gear (MLG) units having Part Number (P/N) 201072011, 201072012, 201072013, 201072014, 201072015, or 201072016 are installed on the airplane. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the MLG unit can be conclusively determined from that review. If any of those part numbers is found, do the requirements of paragraph (h) of this AD.

(h) If, during the inspection required by paragraph (g) of this AD, any Messier-Dowty (formerly Dowty-Rotol, Dowty Aerospace Gloucester) main landing gear (MLG) units having Part Number (P/N) 201072011, 201072012, 201072013, 201072014, 201072015, or 201072016 are found, within 48 months after the effective date of this AD, do the actions specified in paragraph (h)(1) or (h)(2) of this AD.

(1) Replace each MLG unit having P/N 201072011, 201072012, 201072013, 201072014, 201072015, or 201072016, with a MLG unit having P/N 201072017, P/N 201072019, or P/N 201072021 (for LH), as applicable; or P/N 201072018, P/N 201072020 or P/N 201072022 (for RH), as applicable; in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-155, dated July 23, 2009, and do the actions required in paragraph (j) of this AD.

(2) Modify and re-identify each affected MLG unit identified in paragraph (c) of this AD, in accordance with the Accomplishment Instructions of Messier-Dowty Service Bulletin F100-32-112, dated July 17, 2009, and do the actions required in paragraph (j) of this AD.

Parts Installation

(i) As of the effective date of this AD, no person may install on any airplane a MLG unit having P/N 201072011, P/N 201072012, P/N 201072013, P/N 201072014, P/N 201072015, or P/N 201072016.

Removing Placard and Airplane Flight Manual Amendment

(j) Before further flight after accomplishing the actions required by paragraph (h) of this AD, remove the airplane flight manual amendment and placard that were installed

as required by AD 2008-20-03, Amendment 39-15682 (73 FR 56452, September 29, 2008).

Prior or Concurrent Actions

(k) Prior to or concurrently with the action (replacement or modification) as required by paragraph (h) of this AD, accomplish the following actions:

(1) Install the torque link spacer with changed outer diameter, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-097, dated September 30, 1995.

(2) Remove, if installed, the water spray deflectors, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-132, dated December 5, 2001.

(3) Replace all P/N AE70690E, P/N AE70691E, P/N AE99111E, and P/N AE99119E brake quick-disconnect couplings with improved units in accordance with Part 2 of the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-156, Revision 1, dated June 29, 2009. Accomplishing the actions required by this paragraph terminates the requirements of AD 2010-21-12, Amendment 39-16472 (75 FR 63042, October 14, 2010) for that airplane only.

ADs Affected by Accomplishment of Paragraph (h) of This AD

(l) Accomplishing the actions required by paragraph (h) of this AD terminates the requirements of the following ADs for that airplane only: AD 98-06-26, Amendment 39-10404 (63 FR 13502, March 20, 1998); AD 98-13-32, Amendment 39-10623 (63 FR 34581, June 25, 1998); AD 2007-04-23, Amendment 39-14956 (72 FR 8615,

February 27, 2007); and AD 2008-20-03, Amendment 39-15682 (73 FR 56452, September 29, 2008).

Other AD Affected by Accomplishment of Paragraph (h) of This AD

(m) Accomplishing the actions required by paragraph (h) of this AD terminates the requirements of AD 2004-14-01, Amendment 39-13710 (69 FR 41391, July 9, 2004), for that airplane only.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(n) The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved.

Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

Related Information

(o) Refer to MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0269R1, dated March 11, 2010; Fokker Service Bulletins SBF100-32-155, dated July 23, 2009, SBF100-32-097, dated September 30, 1995, SBF100-32-132, dated December 5, 2001, and SBF100-32-156, Revision 1, dated June 29, 2009; and Messier-Dowty Service Bulletin F100-32-112, dated July 17, 2009; for related information.

Issued in Renton, Washington, on October 26, 2011.

Kalene C. Yanamura,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2011-28756 Filed 11/04/2011 at 8:45 am; Publication Date: 11/07/2011]