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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0636; Directorate Identifier 2007-NM-324-AD; Amendment 39-15657; AD 2008-17-19]

RIN 2120-AA64

Airworthiness Directives; ATR Model ATR42-200, -300, and -320 Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This 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:

One ATR 42-300 experienced a collapse of the Right (RH) Main Landing Gear (MLG) when taxiing, caused by failure of the side brace assembly. Investigations revealed a crack propagation that occurred from a corrosion pit, in a very high stressed area of the upper arm. * * *

* * * * *

The unsafe condition is cracking of the upper arms of the secondary side brace assemblies of the MLG, which could result in collapse of the MLG during takeoff or landing, damage to the airplane, and possible injury to the flightcrew and passengers. We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective November 3, 2008.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of November 3, 2008.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

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

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on June 10, 2008 (73 FR 32659). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

One ATR 42-300 experienced a collapse of the Right (RH) Main Landing Gear (MLG) when taxiing, caused by failure of the side brace assembly. Investigations revealed a crack propagation that occurred from a corrosion pit, in a very high stressed area of the upper arm. Dimensions of the corrosion pit were lower than the minimum defect size that can be detected by usual inspection means used during landing gear overhaul. The superseded EASA (European Aviation Safety Agency) Airworthiness Directive (AD) 2007-0112 was issued to require repetitive inspections on affected high stressed areas on MLG side brace assemblies for crack detection and to replace the affected side brace assembly if any defect was found.

Since the issuance of [EASA] AD 2007-0112, a modification of [the] side brace upper arm has been developed as terminating action. However, production non-conformity of the inspection tool was discovered.

In order to correct the discrepancy of the initial tool, new inspection tool components have been manufactured and the Service Bulletin (SB) Messier Dowty 631-32-191 has been updated to revision 2 accordingly. This directive mandates re-inspection of MLG side brace assemblies previously inspected [in accordance with] revision 1 of the Messier Dowty SB 631-32-191 and reduces the inspection interval initially proposed in [EASA] AD 2007-0112 in order to maintain the same level of confidence.

* * * * *

The unsafe condition is cracking of the upper arms of the secondary side brace assemblies of the MLG, which could result in collapse of the MLG during takeoff or landing, damage to the airplane, and possible injury to the flightcrew and passengers. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

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 required different actions in this AD from those in the MCAI in order to follow our FAA policies. Any such differences are highlighted in a NOTE within the AD.

Costs of Compliance

We estimate that this AD will affect about 31 products of U.S. registry. We also estimate that it will take about 35 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$80 per work-hour. Required parts will cost about \$0 per product. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$86,800, or \$2,800 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 AD will not have federalism implications under Executive Order 13132. This AD will 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 AD:

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 AD and placed it in the AD docket.

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 the NPRM, 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.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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:



2008-17-19 ATR–Gie Avions De Transport Régional (Formerly Aerospatiale): Amendment 39-15657. Docket No. FAA-2008-0636; Directorate Identifier 2007-NM-324-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective November 3, 2008.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to ATR Model ATR42-200, -300, and -320 airplanes, certificated in any category; excluding airplanes on which ATR Modification 8463 has been done.

Subject

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

Reason

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

One ATR 42-300 experienced a collapse of the Right (RH) Main Landing Gear (MLG) when taxiing, caused by failure of the side brace assembly. Investigations revealed a crack propagation that occurred from a corrosion pit, in a very high stressed area of the upper arm. Dimensions of the corrosion pit were lower than the minimum defect size that can be detected by usual inspection means used during landing gear overhaul. The superseded EASA (European Aviation Safety Agency) Airworthiness Directive (AD) 2007-0112 was issued to require repetitive inspections on affected high stressed areas on MLG side brace assemblies for crack detection and to replace the affected side brace assembly if any defect was found.

Since the issuance of [EASA] AD 2007-0112, a modification of [the] side brace upper arm has been developed as terminating action. However, production non-conformity of the inspection tool was discovered.

In order to correct the discrepancy of the initial tool, new inspection tool components have been manufactured and the Service Bulletin (SB) Messier Dowty 631-32-191 has been updated to revision 2 accordingly. This directive mandates re-inspection of MLG side brace assemblies previously inspected [in accordance with] revision 1 of the Messier Dowty SB 631-32-191 and reduces the inspection interval initially proposed in [EASA] AD 2007-0112 in order to maintain the same level of confidence.

The unsafe condition is cracking of the upper arms of the secondary side brace assemblies of the MLG, which could result in collapse of the MLG during takeoff or landing, damage to the airplane, and possible injury to the flightcrew and passengers.

Actions and Compliance

(f) For MLG side brace assemblies with part number (P/N) D22710000, without suffix "-9": Unless already done, do the following actions.

(1) For airplanes on which the MLG side brace assemblies have not been inspected as of the effective date of this AD, in accordance with the Accomplishment Instructions of Messier-Dowty Service Bulletin 631-32-191, Revision 1, dated February 26, 2007: Perform the initial eddy current inspection for cracking of the MLG side brace, in accordance with the Accomplishment Instructions of Messier-Dowty Special Inspection Service Bulletin 631-32-191, Revision 2, dated August 30, 2007, at the applicable time specified in Table 1 of this AD. Unless otherwise specified, the flight cycles and times indicated in Table 1 of this AD must be interpreted as total flight cycles since overhaul, or time since overhaul, and as total flight cycles since new or time since manufacture for side brace assemblies that have not undergone any overhaul yet.

Table 1 – Compliance Times

For a MLG Side Brace Assembly With the Total Flight Cycles Since New or Total Flight Cycles Since Overhaul Specified Below as of the Effective Date of This AD –	Do the Initial Inspection at the Time Specified Below –
More than 8,000 flight cycles	Within 500 flight cycles after the effective date of this AD.
5,000 or more total flight cycles, but not more than 8,000 total flight cycles	Within 1,000 flight cycles after the effective date of this AD or before accumulating 8,500 flight cycles, whichever occurs first.
Less than 5,000 flight cycles	Within 2,000 flight cycles after the effective date of this AD or before accumulating 6,000 flight cycles, whichever occurs first.

(2) For airplanes on which the MLG side brace assemblies have been inspected as of the effective date of this AD, in accordance with the Accomplishment Instructions of Messier-Dowty Service Bulletin 631-32-191, Revision 1, dated February 26, 2007: Within 1,000 flight cycles after the last inspection or within 200 flight cycles after the effective date of this AD, whichever occurs later, perform an eddy current inspection for cracking of the MLG side brace, in accordance with the Accomplishment Instructions of Messier-Dowty Special Inspection Service Bulletin 631-32-191, Revision 2, dated August 30, 2007.

(3) After accomplishment of the inspection required by paragraph (f)(1) or (f)(2) of this AD, repeat the inspection at intervals not to exceed 2,600 flight cycles in accordance with the Accomplishment Instructions of Messier-Dowty Special Inspection Service Bulletin 631-32-191, Revision 2, dated August 30, 2007.

(4) If any crack is found during any inspection required by paragraphs (f)(1), (f)(2) and (f)(3) of this AD, before further flight, replace the affected side brace in accordance with the Accomplishment Instructions of Messier-Dowty Special Inspection Service Bulletin 631-32-191, Revision 2, dated August 30, 2007.

(5) At the applicable time specified in paragraph (f)(5)(i) or (f)(5)(ii) of this AD: Inspect for cracking, corrosion, and defects of the MLG side brace assemblies with P/N D22710000, without suffix "-9", in accordance with the Accomplishment Instructions of Messier-Dowty Service Bulletin 631-32-194, dated June 6, 2007.

(i) For airplanes having side brace assemblies on which Messier-Bugatti Service Bulletin 631-32-072 has not been incorporated: Before accumulating 16,000 total flight cycles or within 8 years after the effective date of this AD, whichever occurs first.

(ii) For airplanes having side brace assemblies on which Messier-Bugatti Service Bulletin 631-32-072 has been incorporated: Before accumulating 19,000 total flight cycles or within 8 years after the effective date of this AD, whichever occurs first.

(6) If no cracking, corrosion, or defect is found during any inspection required by paragraph (f)(5) of this AD, before further flight, modify and re-identify (by adding a suffix "-9" to P/N D22710000) the MLG side brace assemblies in accordance with the Accomplishment Instructions of ATR Service Bulletin ATR42-32-0092, dated June 25, 2007.

(7) If any cracking, corrosion, or defect is found during any inspection required by paragraph (f)(5) of this AD, before further flight, replace the discrepant MLG side brace assembly with a modified and re-identified MLG side brace assembly in accordance with the Accomplishment Instructions of ATR Service Bulletin ATR42-32-0092, dated June 25, 2007.

FAA AD Differences

Note: This AD differs from the MCAI and/or service information as follows: Although the MCAI or service information allows further flight if a crack is found during compliance with the required inspections, this AD requires that you repair the crack before further flight.

Other FAA AD Provisions

(g) 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 on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to MCAI EASA Airworthiness Directive 2007-0263, dated October 3, 2007, and the service information specified in Table 2 of this AD, for related information.

Table 2 – Service Information

Service Bulletin	Revision	Date
ATR Service Bulletin ATR42-32-0092	Original	June 25, 2007
ATR Technical Instruction ATR42 ATR42-07-01	Original	February 5, 2007
Messier-Dowty Service Bulletin 631-32-194	Original	June 6, 2007
Messier-Dowty Special Inspection Service Bulletin 631-32-191	2	August 30, 2007

Material Incorporated by Reference

(i) You must use the service information specified in Table 3 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 3 – Material Incorporated by Reference

Service Bulletin	Revision	Date
ATR Service Bulletin ATR42-32-0092	Original	June 25, 2007
Messier-Dowty Service Bulletin 631-32-194	Original	June 6, 2007
Messier-Dowty Special Inspection Service Bulletin 631-32-191	2	August 30, 2007

Messier-Dowty Special Inspection Service Bulletin 631-32-191, Revision 2, dated August 30, 2007, contains the following effective pages:

Page No.	Revision level shown on page	Date shown on page
1, 3, 8	2	August 30, 2007.
2, 6, 7, 9, 10	1	February 26, 2007.
4, 5	Original	December 13, 2006.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact ATR, 316 Route de Bayonne, 31060 Toulouse, Cedex 03, France.

(3) You may review copies at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 12, 2008.

Michael Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E8-19365 Filed 9-26-08; 8:45 am]