



FAA
Aviation Safety

EMERGENCY

AIRWORTHINESS DIRECTIVE

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DATE: July 25, 2014

AD #: 2014-15-51

Emergency Airworthiness Directive (AD) 2014-15-51 is sent to owners and operators of Embraer S.A. Model EMB-500 airplanes.

Background

This emergency AD was prompted by emergency AD No.: 2014-07-02, dated July 25, 2014 (referred to after this as “the MCAI”), issued by Agencia Nacional De Aviacao Civil (ANAC), which is the aviation authority for Brazil. The MCAI states:

This EAD results from a report of cracking in the barrel nuts at the horizontal stabilizer-to-vertical stabilizer attachment joint found during an inspection at the assembly line. This EAD is being issued to detect and correct cracking of the barrel nuts at the horizontal stabilizer-to-vertical stabilizer attachment joint, which could result in reduced structural integrity of the affected part and consequent detachment of the horizontal stabilizer from the airplane.

Since this condition may exist in other airplanes of the same type and affects flight safety, an immediate corrective action is required. Thus, sufficient reason exists to request compliance with this EAD in the indicated time limit without prior notice.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0511.

Since ANAC issued AD No.: 2014-07-02, Embraer S.A. issued new service information increasing the applicability of the affected airplanes and changing the compliance time to before further flight. The FAA also received information of additional incidences of barrel nut cracking in the field.

The FAA is coordinating with ANAC and Embraer S.A. on this issue. Due to the nature of the immediate safety of flight situation, the FAA worked this AD concurrently with ANAC, the foreign aviation authority.

Relevant Service Information

Embraer S.A. has issued Phenom Alert Service Bulletin No. 500-55-A004, Revision 02, dated July 25, 2014. The actions described in the service bulletin are intended to correct the unsafe condition identified in the MCAI.

FAA’s Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires accomplishing the actions specified in the relevant service information described previously.

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.

Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2014-15-51 Embraer S.A.: Directorate Identifier 2014-CE-23-AD.

(a) Effective Date

This Emergency AD is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Embraer S.A. Model EMB-500 airplanes, serial numbers 50000218 through 50000333, 50000336, 50000337, 50000339, and 50000341, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 55: Stabilizers.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracking of the barrel nuts at the horizontal stabilizer to vertical stabilizer attachment joint. We are issuing this AD to detect and correct cracking of the barrel nuts at the horizontal stabilizer to vertical stabilizer attachment joint that could result in reduced structural integrity of the affected part and consequent detachment of the horizontal stabilizer from the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection

Before further flight, inspect all of the barrel self-locking nuts at the horizontal stabilizer to vertical stabilizer joint, and, before further flight, replace any suspect barrel nuts following the ACCOMPLISHMENT INSTRUCTIONS in Embraer S.A. Phenom Alert Service Bulletin No. 500-55-A004, Revision 02, dated July 25, 2014.

(h) Special Flight Permit

No special flight permits allowed.

(i) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Standards Office, Small Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the Standards Office, send it to the attention of one the people identified in paragraph (k), Related Information, of this AD.

(2) 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.

(k) Related Information

(1) For further information about this AD, contact: Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov.

(2) For copies of the service information referenced in this AD, contact: EMBRAER S.A., Phenom Maintenance Support, Avenida Brigadeiro Faria Lima, 2170, Putim, CEP: 12227-901, Sao Jose dos Campos, Sao Paulo, Brasil; phone: (+55 12) 3927-1000; Fax: (+55 12) 3927-6600, Ext. 1448; email: phenom.reliability@embraer.com.br; Internet: <http://www.embraerexecutivejets.com/en-US/customer-support/Pages/Service-Center-Network.aspx>. You may view this referenced service information at the FAA, Small Airplane Directorate, 901

Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on July 25, 2014.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.