



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-9507; Directorate Identifier 2016-NM-127-AD; Amendment 39-18878; AD 2017-10-04]**

**RIN 2120-AA64**

**Airworthiness Directives; Embraer S.A. Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Embraer S.A. Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes. This AD was prompted by changes to the airworthiness limitations, which add life-limited landing gear parts not previously identified. This AD requires revising the maintenance or inspection program, as applicable, to incorporate new airworthiness limitations that add life limits for previously unidentified landing gear parts. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Empresa Brasileira de Aeronautica S.A. (Embraer), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brasil; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email [distrib@embraer.com.br](mailto:distrib@embraer.com.br); Internet <http://www.flyembraer.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9507.

**Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9507; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425-227-1149.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Embraer S.A. Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes. The NPRM published in the Federal Register on December 21, 2016 (81 FR 93647). The NPRM was prompted by changes to the airworthiness limitations, which add life-limited landing gear parts not previously identified. The NPRM proposed to require revising the maintenance or inspection program, as applicable, to incorporate new airworthiness limitations that add life limits for previously unidentified landing gear parts. We are issuing this AD to prevent life-limited landing gear parts from being used beyond their safe-life limits, which could lead to collapse of the landing gear.

The Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, has issued Brazilian Airworthiness Directive 2016-07-02, dated July 27, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Embraer S.A. Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes. The MCAI states:

This [Brazilian] AD was prompted by changes to the Airworthiness Limitation Section of the Maintenance Review Board Report MRB 120-HI-200, which add life-limited landing gear parts not previously identified. We are issuing this [Brazilian] AD to prevent life-limited landing gear parts from being used beyond their safe-life limits, which could lead to collapse of the landing gear.

This AD requires revising the maintenance or inspection program, as applicable, to incorporate new airworthiness limitations that add life limits for previously

unidentified landing gear parts. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9507.

### **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 relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

We reviewed the following Embraer service information:

- EMB-120 Brasilia Maintenance Review Board (MRB) Report, Temporary Revision 28-1, dated May 17, 2016. This service information adds life-limited landing gear parts not previously identified to the airworthiness limitations section.
- Alert Service Bulletin 120-32-A543, dated July 11, 2016. This service information provides procedures for replacement of affected parts.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

**Costs of Compliance**

We estimate that this AD affects 70 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Maintenance program revision	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$5,950

**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 that 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);
3. Will not affect intrastate aviation in Alaska; and
4. 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.

## **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 airworthiness directive (AD):

**2017-10-04 Embraer S. A.:** Amendment 39-18878; Docket No. FAA-2016-9507; Directorate Identifier 2016-NM-127-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Embraer S.A. Model EMB-120, EMB-120ER, EMB-120FC, EMB-120QC, and EMB-120RT airplanes, certificated in any category, all serial numbers.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by changes to the airworthiness limitations , which add life-limited landing gear parts not previously identified. We are issuing this AD to prevent life-limited landing gear parts from being used beyond their safe-life limits, which could lead to collapse of the landing gear.

**(f) Compliance**

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

**(g) Revision of Maintenance or Inspection Program**

Within 90 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, by incorporating the life-limited landing gear parts and the applicable safe-life limits identified in table 1 to paragraph (g) of this AD, as specified in EMB-120 Brasilia Maintenance Review Board (MRB) Report, Temporary Revision 28-1, dated May 17, 2016.

**Table 1 to Paragraph (g) of this AD - Life-limited landing gear parts**

<b>Part number</b>	<b>Description</b>	<b>Safe-life limits (landings)</b>
19699-001-00	Pin drag strut, lower	104,054
19429-000-00	Piston tube (pre-modification Embraer Service Bulletin 120-032-0514)	30,000
19429-000-00	Piston tube (post-modification Embraer Service Bulletin 120-032-0514)	90,000
19946-001-00	Pin leg hinge	90,000
20030-001-00	Pin torque link	90,000
19437-000-00	Drag strut, upper half	104,054
20031-001-00	Pin drag strut hinge	104,054
19414-000-00	Piston tube	90,000
19919-000-00	Pin leg hinge	90,000

**(h) Replace Affected Parts**

The initial compliance time for the replacement of affected parts is specified in paragraphs (h)(1) and (h)(2) of this AD. Replace affected parts with serviceable parts, in accordance with the Accomplishment Instructions of Embraer Alert Service Bulletin 120-32-A543, dated July 11, 2016.

(1) Before the applicable safe-life limit identified in table 1 to paragraph (g) of this AD, or within 90 days after the effective date of this AD, whichever occurs later.

(2) Within 90 days after the effective date of this AD for parts on which the current status is unknown.

**(i) Parts Installation Prohibition**

As of the effective date of this AD, no person may install on any airplane a main landing gear part or nose landing gear part having a part number identified in table 1 to paragraph (g) of this AD, if it has reached or exceeded its safe-life limit, or if its current status is unknown.

**(j) No Alternative Actions and Intervals**

After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance in accordance with the procedures specified in paragraph (k)(1) of this AD.

**(k) Other FAA AD Provisions**

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. 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 International Branch, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the Agência Nacional de Aviação Civil (ANAC); or ANAC's authorized Designee. If approved by the ANAC Designee, the approval must include the Designee's authorized signature.

**(l) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Brazilian AD 2016-07-02, dated July 27, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9507.

(2) For more information about this AD, contact Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425-227-1149.

**(m) Material Incorporated by Reference**

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

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) EMB-120 Brasilia Maintenance Review Board (MRB) Report, Temporary Revision 28-1, dated May 17, 2016.

(ii) Embraer Alert Service Bulletin 120-32-A543, dated July 11, 2016.

(3) For service information identified in this AD, contact Empresa Brasileira de Aeronautica S.A. (Embraer), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brasil; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email [distrib@embraer.com.br](mailto:distrib@embraer.com.br); Internet <http://www.flyembraer.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference 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 May 2, 2017.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2017-10284 Filed: 5/24/2017 8:45 am; Publication Date: 5/25/2017]