[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0905; Product Identifier 2018-NM-115-AD]

RIN 2120-AA64

Airworthiness Directives; Embraer S.A. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Embraer S.A. Model ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW airplanes. This proposed AD was prompted by reports of corrosion and chromium layer chipping of the forward and aft pintle pins of the main landing gear (MLG) shock struts. This proposed AD would require repetitive inspections for discrepancies of affected forward and aft pintle pins of the MLG shock struts, and corrective actions if necessary. We are proposing this AD to address the unsafe condition on these products.

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, using the procedures found in 14 CFR 11.43 and 11.45, 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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brazil; telephone: +55 12 3927-5852 or +55 12 3309-0732; fax: +55 12 3927-7546; email: distrib@embraer.com.br; Internet: http://www.flyembraer.com. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

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-2018-0905; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Krista Greer, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3221.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2018-0905; Product Identifier 2018-NM-115-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of 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 NPRM.

Discussion

Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, has issued Brazilian Airworthiness Directive 2018-07-01, effective July 24, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Embraer S.A. Model ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW airplanes.

The MCAI states:

> This [Brazilian] AD was prompted by reports of corrosion and chromium layer chipping on the rearward and forward Pintle Pin of the Main Landing Gear (MLG) Shock Struts. We are issuing this [Brazilian] AD to detect and correct Pintle Pin[s] having [discrepancies including] corrosion or chromium layer chipping, which could cause the Pintle Pin[s] to shear under normal load and lead to collapse of the MLG during take-off or landing.

Corrective actions include repair or replacement of affected forward and aft pintle pins of the left- and right-hand MLG shock struts. 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-2018-0905.

Related Service Information under 1 CFR part 51

Embraer has issued Service Bulletin 190-32-0065, Revision 02, dated November 1, 2017. This service information describes procedures for repetitive inspections of affected forward and aft pintle pins of the MLG shock struts for discrepancies, and repair or replacement of any discrepant affected pintle pin.

Embraer has also issued Task 32-11-001-1034, "MLG Shock Strut Pintle Pins – Internal," of the Embraer 190/195 Maintenance Review Board Report (MRBR) 1928, Revision 11, dated May 10, 2017. This service information describes procedures for the inspection of pintle pins of the MLG shock struts at areas covered by the MLG shock strut and trunnion.

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.

FAA's Determination

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 the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed Requirements of this NPRM

This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD affects 96 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 22 work-hours X $85 per hour = Up to $1,870	$0	Up to $1,870 per inspection cycle	Up to $179,520 per inspection cycle

We estimate the following costs to do any necessary on-condition actions that would be required based on the results of any required inspection. We have no way of determining the number of aircraft that might need these on-condition actions:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
6 work-hours X $85 per hour = $510 per MLG (replacement)	$1,750 per MLG	$2,260 per MLG
6 work-hours X $85 per hour = $510 per MLG (repair)	$0	$510 per MLG

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.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

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);

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.

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 airworthiness directive (AD):

Embraer S.A.: Docket No. FAA-2018-0905; Product Identifier 2018-NM-115-AD.

(a) Comments Due Date

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

(b) Affected ADs

None.

(c) Applicability

This AD applies to Embraer S.A. Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW 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 reports of corrosion and chromium layer chipping of the forward and aft pintle pins of the main landing gear (MLG) shock struts. We are issuing this AD to address discrepancies of affected forward and aft pintle pins of the MLG shock struts, which could result in the pintle pin shearing under normal load and consequent collapse of the MLG during takeoff or landing.

(f) Compliance

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

(g) Repetitive Inspections

At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD: Do a detailed inspection for discrepancies of affected forward and aft pintle pins of the left- and right-hand MLG shock struts, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 190-32-0065, Revision 02, dated November 1, 2017. Repeat the inspection thereafter at intervals not to exceed 72 months.

(1) For airplanes on which any MLG pintle pin having part number (P/N) 2821-0067 or 2821-0025 has accumulated fewer than 17,000 total flight cycles since new: Before the accumulation of 17,750 total flight cycles.

(2) For airplanes on which any MLG pintle pin having P/N 2821-0067 or 2821-0025 has accumulated 17,000 or more total flight cycles since new: Within 750 flight cycles after the effective date of this AD.

(h) Corrective Actions

If any discrepancy of any pintle pin is found during any inspection required by paragraph (g) of this AD: Before further flight, repair the affected pintle pin or replace it with a new pintle pin, as applicable, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 190-32-0065, Revision 02, dated November 1, 2017.

(i) Credit for Previous Actions

This paragraph provides credit for the initial inspection required by paragraph (g) of this AD, if that inspection was performed before the effective date of this AD using the applicable service information identified in paragraphs (i)(1) through (i)(5) of this AD.

(1) Embraer 190/195 Maintenance Review Board Report (MRBR) 1928,

Task 57-50-007-1247, Revision 11, dated May 10, 2017.

(2) Embraer 190/195 MRBR 1928, Task 32-11-00-001, Revision 11, dated May 10, 2017.

(3) Embraer Service Bulletin 190-32-0002, Revision 01, dated November 8, 2012.

(4) Embraer Service Bulletin 190-32-0065, dated August 31, 2016.

(5) Embraer Service Bulletin 190-32-0065, Revision 01, dated October 24, 2017.

(j) Equivalent Inspection

Performing a detailed inspection for discrepancies of affected forward and aft pintle pins of the left- and right-hand MLG shock struts, in accordance with Task 32-11-001-1034, "MLG Shock Strut Pintle Pins – Internal," of the Embraer 190/195 MRBR 1928, Revision 11, dated May 10, 2017, at intervals not to exceed 72 months, is equivalent to an inspection required by paragraph (g) 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 Section, Transport Standards Branch, 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 Section, 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 Section, Transport Standards Branch, 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.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Brazilian Airworthiness Directive 2018-07-01, effective July 24, 2018, 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-2018-0905.

(2) For more information about this AD, contact Krista Greer, Aerospace

Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3221.

(3) For service information identified in this AD, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brazil; telephone: +55 12 3927-5852 or +55 12 3309-0732; fax: +55 12 3927-7546; email: distrib@embraer.com.br; Internet: http://www.flyembraer.com. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on October 22, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2018-23691 Filed: 11/2/2018 8:45 am; Publication Date: 11/5/2018]