

# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 96-CE-66-AD]

RIN 2120-AA64

#### Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. Models EMB-110P1 and EMB-110P2 Airplanes

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes to supersede Airworthiness Directive (AD) 87-03-10, which currently requires repetitively inspecting the fillet area of both the left and right main landing gear (MLG) wheel axle/piston tube support junction area for cracks on Empresa Brasileira de Aeronautica S.A. (EMBRAER) Models EMB-110P1 and EMB-110P2 airplanes and replacing any MLG wheel axle/piston tube assembly where a crack is found. AD 87-03-10 also provided the option of reworking this area when no cracks were found as terminating action for the repetitive inspections. The Federal Aviation Administration's policy on aging commuter-class aircraft is to eliminate or, in certain instances, reduce the number of certain repetitive short-interval inspections when improved parts or modifications are available. The proposed action would require the following on EMBRAER Models EMB 110-P1 and EMB 110-P2 airplanes that do not have an "R" stamped on both the left and right MLG wheel axle/piston tube assembly end-piece: inspecting (one-time) the fillet area of each MLG wheel axle/piston tube support junction area to ensure the area is free of cracks, replacing any MLG wheel axle/piston tube assembly if a crack is found, and reworking this area on both the left and right MLG's, as terminating action for the repetitive inspections that are currently required by AD 87-03-10. The

actions specified in the proposed AD are intended to prevent failure of the MLG wheel axle/piston tube assembly caused by fatigue cracking, which could result in loss of control of the airplane during landing operations.

**DATES:** Comments must be received on or before May 30, 1997.

**ADDRESSES:** Submit comments on the proposal in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 96-CE-66-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

Service information that applies to the proposed AD may be obtained from EMBRAER, Av. Brig Faira Lima 2170, 12227-901, Sao Jose dos Campos-SP, Brazil. This information also may be examined at the Rules Docket at the address above.

**FOR FURTHER INFORMATION CONTACT:** Mr. Curtis Jackson, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, Campus Building, 1701 Columbia Avenue, suite 2-160, College Park, Georgia 30337-2748; telephone (404) 305-7358; facsimile (404) 305-7348.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this

proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 96-CE-66-AD." The postcard will be date stamped and returned to the commenter.

#### Availability of NPRM's

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 96-CE-66-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

#### Discussion

The FAA has determined that reliance on critical repetitive inspections on aging commuter-class airplanes carries an unnecessary safety risk when a design change exists that could eliminate or, in certain instances, reduce the number of those critical inspections. In determining what inspections are critical, the FAA considers (1) the safety consequences if the known problem is not detected during the inspection; (2) the probability of the problem not being detected during the inspection; (3) whether the inspection area is difficult to access; and (4) the possibility of damage to an adjacent structure as a result of the problem.

These factors have led the FAA to establish an aging commuter-class aircraft policy that requires incorporating a known design change when it could replace a critical repetitive inspection. With this policy in mind, the FAA conducted a review of existing AD's that apply to EMBRAER Models EMB-110P1 and EMB-110P2 airplanes. Assisting the FAA in this review were (1) EMBRAER; (2) the Regional Airlines Association (RAA); (3) the Centro Tecnico Aeroespacial (CTA), which is the aviation authority for Brazil; and (4) several operators of the affected airplanes.

From this review, the FAA has identified AD 87-03-10, Amendment 39-5524, as one which falls under the FAA's aging aircraft policy. AD 87-03-10 currently requires repetitively inspecting the fillet area in both the left and right main landing gear (MLG)

wheel axle/piston tube support junction area for cracks on EMBRAER Models EMB-110P1 and EMB-110P2 airplanes, and replacing any MLG wheel axle/piston tube assembly if a crack is found. AD 87-03-10 also provides the option of reworking this area of both the left and right MLG's when no cracks are found, as terminating action for the repetitive inspections. Accomplishment of the inspections required by AD 87-03-10 is in accordance with EMBRAER Service Bulletin (SB) No. 110-032-0068, dated December 20, 1985. Accomplishment of the optional rework is in accordance with EMBRAER SB No. 110-032-0071, dated July 29, 1986.

#### Relevant Service Information

Since the issuance of AD 87-03-10, EMBRAER has revised SB No. 110-032-0071 to incorporate minor editorial changes. This revision, EMBRAER SB No. 110-032-0071, Change No. 01, dated June 21, 1988, incorporates revisions of ERAM SB No. 32-25, dated July 1987. ERAM SB No. 32-25 contains the procedures for reworking the fillet area of both the left and right MLG wheel axle/piston tube support junction area on EMBRAER EMB-110 series airplanes.

#### The FAA's Determination

Based on its aging commuter-class aircraft policy and after reviewing all available information, including the referenced service information, the FAA has determined that AD action should be taken to (1) require reworking both the left and right MLG wheel/axle piston tube support junction area on the affected airplanes, as terminating action for the repetitive short-interval inspections required by AD 87-03-10; and (2) prevent structural failure of the MLG wheel axle/piston tube assembly caused by fatigue cracking, which could result in loss of control of the airplane during landing operations.

#### Explanation of the Provisions of the Proposed AD

Since an unsafe condition has been identified that is likely to exist or develop in other EMBRAER Models EMB-110P1 and EMB-110P2 airplanes of the same type design that do not have an "R" stamped on both the left and right MLG wheel axle/piston tube assembly end-piece, the FAA is proposing an AD to supersede AD 87-03-10. The proposed AD would require inspecting (one-time) the fillet area of both the left and right MLG wheel axle/piston tube support junction area to ensure the area is free of cracks, replacing any MLG wheel axle/piston tube assembly if a crack is found, and

reworking this area on both the left and right MLG's, as terminating action for the repetitive inspections that are currently required by AD 87-03-10. Airplanes that have an "R" stamped on both the left and right MLG wheel axle/piston tube assembly end-piece either (1) have a design configuration that does not meet the requirements of the unsafe condition specified in this document; or (2) the airplanes already have both the left and right the MLG wheel axle/piston tube assembly reworked. Accomplishment of the proposed inspection would be in accordance with EMBRAER SB No. 110-032-0068, dated December 20, 1985. Accomplishment of the proposed rework would be required in accordance with EMBRAER SB No. 110-032-0071, Change No. 01, dated June 21, 1988.

#### Cost Impact

The FAA estimates that 50 airplanes in the U.S. registry would be affected by the proposed AD, that it would take approximately 22 workhours (inspection: 8 workhours; rework: 14 workhours) per airplane to accomplish the proposed AD, and that the average labor rate is approximately \$60 an hour. There is no cost for parts to accomplish the proposed AD. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$66,000.

The initial inspection cost of the proposed AD is the same as that required by AD 87-03-10. The difference in the inspection costs of the proposed AD and AD 87-03-10 is that the proposed AD would not require the repetitive inspections and AD 87-03-10 currently requires repetitively inspecting every 1,000 landings. The proposed rework eliminates the repetitive inspection requirement, and was optional in AD 87-03-10.

The FAA does not have any way of determining how many airplanes have an "R" stamped on both the left and right MLG wheel axle/piston tube support junction area end-piece and have these areas reworked, and, therefore already have the proposed AD action accomplished. The affected airplanes are no longer in production with few airplanes being operated in the United States. Since AD 87-03-10 provided the option of reworking the area on both the left and right MLG's as terminating action for the repetitive inspections, the FAA believes that most of the operators will have accomplished the rework and would not be affected by the proposed AD.

#### Regulatory Impact

The regulations proposed herein would not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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. A copy of the draft regulatory evaluation prepared for this action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES**.

#### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

#### The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

#### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:  
Authority: 49 USC 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. Section 39.13 is amended by removing Airworthiness Directive (AD) 87-03-10, Amendment 39-5524, and adding a new AD to read as follows:

Empresa Brasileira De Aeronautica S.A.:  
Docket No. 96-CE-66-AD. Supersedes AD 87-03-10, Amendment 39-5524.

*Applicability:* Models EMB-110P1 and EMB-110P2 airplanes, all serial numbers, certificated in any category, that do not have an "R" stamped on both the left and right main landing gear (MLG) wheel axle/piston tube assembly end-piece.

Note 1: Airplanes that have an "R" stamped on both the left and right MLG wheel axle/piston tube assembly end-piece either (1) have a design configuration that

does not meet the requirements of the unsafe condition specified in this document; or (2) already have both the left and right MLG wheel axle/piston tube support junction area reworked. EMBRAER Service Bulletin (SB) No. 110-032-0071, Change No. 01, dated June 21, 1988, includes procedures for this rework, including stamping an "R" on both the left and right MLG wheel axle/piston tube assembly end-piece.

Note 2: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required within the next 100 landings after the effective date of this AD, unless already accomplished.

Note 3: If the number of landings is unknown, hours time-in-service (TIS) may be used by multiplying the number of hours TIS by 0.50. If hours TIS are utilized to calculate the number of landings, this would make the AD effective "within the next 200 hours TIS after the effective date of this AD."

To prevent failure of a MLG wheel axle/piston tube assembly caused by fatigue cracking, which could result in loss of control of the airplane during landing operations, accomplish the following:

(a) Inspect, using either eddy current, dye penetrant, or magnetic particle methods, the fillet area in both the left and right MLG wheel axle/piston support junction area for cracks in accordance with the instructions contained in EMBRAER SB No. 110-032-0068, dated December 20, 1985. Included in this SB is ERAM SB No. 32-22, which includes procedures for accomplishing this inspection. If any cracks are found, prior to further flight, replace the MLG wheel axle/piston tube assembly with an uncracked assembly.

(b) Visually inspect the fillet radius in both the left and right MLG wheel axle/piston tube support junction area to determine whether the profile requires rework. Accomplish the inspection in accordance with the instructions in ERAM SB No. 32-25, which is part of EMBRAER SB No. 110-032-0071, Change No. 01, dated June 21, 1988.

(1) If the profile of the area of each MLG is like the one presented in image (A) Figure 1 of ERAM SB No. 32-25, which is part of EMBRAER SB No. 110-032-0071, Change No. 01, dated June 21, 1988, prior to further flight, polish the junction area using a fine grit abrasive cloth and stamp the letter "R" on the MLG wheel axle/piston tube assembly end-pipe.

(2) If the profile of the area of each MLG is like the one presented in image (B) Figure 1 of ERAM SB No. 32-25, which is part of EMBRAER SB No. 110-032-0071, Change

No. 01, dated June 21, 1988, prior to further flight, accomplish the following in accordance with EMBRAER SB No. 110-032-0071, Change No. 01, dated June 21, 1988:

(i) Rework each MLG wheel axle/piston tube support junction area;

(ii) Polish each junction area using a fine grit abrasive cloth; and

(iii) Stamp the letter "R" on each MLG wheel axle/piston tube assembly end-pipe.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Atlanta Aircraft Certification Office (ACO), Campus Building, 1701 Columbia Avenue, suite 2-160, College Park, Georgia 30337-2748. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta ACO. Alternative methods of compliance approved in accordance with AD 87-03-10 (superseded by this action) are not considered approved as alternative methods of compliance with this AD.

Note 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Atlanta ACO.

(e) All persons affected by this directive may obtain copies of the document referred to herein upon request to EMBRAER, Av. Brig Faira Lima 2170, 12227-901, Sao Jose dos Campos-SP, Brazil; or may examine this document at the FAA, Central Region, Office of the Assistant Chief Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

(f) This amendment supersedes AD 87-03-10, Amendment 39-5524.

Issued in Kansas City, Missouri, on March 5, 1997.

Michael Gallagher,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 97-6088 Filed 3-11-97; 8:45 am]

BILLING CODE 4910-13-U

#### 14 CFR Part 39

[Docket No. 96-NM-115-AD]

RIN 2120-AA64

#### Airworthiness Directives; Dornier Model 328-100 Series Airplanes

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Dornier Model 328-100 series airplanes. This proposal would require

modification of the cable tension regulator on both the left and right elevators by installing certain parts on the lever arm of the regulator. This proposal is prompted by a report indicating that design testing and analysis have shown applied loads could cause the regulator's lever arm to break. The actions specified by the proposed AD are intended to prevent failure of the regulator, and consequent reduced controllability of the airplane.

**DATES:** Comments must be received by April 21, 1997.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 96-NM-115-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Dornier Luftfahrt GmbH, P.O. Box 1103, D-82230 Wessling, Germany. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

**FOR FURTHER INFORMATION CONTACT:** Connie Beane, Aerospace Engineer, Standardization Branch, ANM-113, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (206) 227-2796; fax (206) 227-1149.

#### SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this