

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-346-AD; Amendment 39-13864; AD 2004-23-09]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-135 and -145 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain EMBRAER Model EMB-135 and -145 series airplanes, that currently requires determining whether a defective auxiliary power unit (APU) exhaust silencer is installed on the airplane; and corrective actions if necessary. For certain airplanes, this amendment requires modification of the APU exhaust silencer, and reidentification of the part number for the APU exhaust silencer once the modification is accomplished. For certain other airplanes, this amendment requires repetitive inspections to determine the structural integrity of the APU exhaust silencer; corrective actions, if necessary; eventual modification of the APU exhaust silencer, which terminates the repetitive inspections; and reidentification of the part number for the APU exhaust silencer once the modification is accomplished. This amendment also adds airplanes to the applicability of the existing AD. The actions specified by this AD are intended to prevent separation of the aft baffle assembly from the APU exhaust silencer and consequent separation of the assembly from the airplane, which could cause damage to other airplanes during takeoff and landing operations, or injury to people on the ground. This action is intended to address the identified unsafe condition.

DATES: Effective December 20, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of December 20, 2004.

ADDRESSES: The service information referenced in this AD may be obtained from Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343—CEP 12.225, Sao Jose dos Campos—SP, Brazil. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 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/code_of_federal_regulations/ibr_locations.html.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1175; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2002-16-06, amendment 39-12845 (67 FR 52398, August 12, 2002), which is applicable to certain EMBRAER Model EMB-135 and -145 series airplanes, was published in the Federal Register on April 6, 2004 (69 FR 17993). For certain airplanes, the action proposed to require modification of the APU exhaust silencer, and reidentification of the part number for the APU exhaust silencer once the modification is accomplished. For certain other airplanes, the action proposed to require repetitive inspections to determine the structural integrity of the APU exhaust silencer; corrective actions, if necessary; eventual modification of the APU exhaust silencer, which terminates the repetitive inspections; and reidentification of the part number for the APU exhaust silencer once the modification is accomplished. That action also proposed to add airplanes to the applicability of the existing AD.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request To Accomplish Terminating Action Without First Doing the Inspections

The commenter, an operator, requests that the proposed AD be revised to allow operators to "bypass" the inspections in Part I of the Accomplishment Instructions of EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003, and do just the modification in Part II of the Accomplishment Instructions of that service bulletin. The modification is the terminating action for the repetitive inspections in the proposed AD.

We agree with the commenter's request to allow operators to do just the modification in Part II of the Accomplishment Instructions of EMBRAER Service Bulletin 145-49-0021, Change 03, instead of first doing the inspections in Part I of the Accomplishment Instructions. The purpose of this AD is to require operators to modify the auxiliary power unit (APU) exhaust silencer. The inspections specified in paragraphs (c) and (d) of the proposed AD are relieving actions that allow airplanes that do not have defective APU exhaust silencers to continue operating for a specified period of time before operators perform the terminating modification. The inspections are the means of determining whether an APU exhaust silencer is defective. We have revised paragraphs (c) and (d) of this AD to specify that operators that have done the terminating modification required by paragraph (e) of this AD do not have to do the inspections required by paragraphs (c) and (d).

Request for Credit for Accomplishment of Previous Revisions of Service Information

The commenter requests that the proposed AD be revised to give credit for actions accomplished previously per the original issue of EMBRAER Service Bulletin 145-49-0021, dated July 11, 2002; or per Change 01 of that service bulletin, dated July 31, 2002.

We agree with the commenter's request. We have determined that the Accomplishment Instructions are essentially the same in the original issue, Change 01, Change 02, and Change 03, of Service Bulletin 145-49-0021. The primary difference between the change levels is the effectivity of the airplanes. We have revised paragraph (g) of this final rule to include the original issue and Change 01 of Service Bulletin 145-49-0021 as additional appropriate sources of service information.

Conclusion

After careful review of the available data, including the comments noted above, we have determined that air safety and the public interest require the adoption of the rule with the changes previously described. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 394 airplanes of U.S. registry that will be affected by this AD.

The repetitive inspections specified in Part I of EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003; and EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002; that are required by this AD will take approximately 1 work hour per airplane to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the repetitive inspections on U.S. operators is estimated to be \$65 per airplane, per inspection cycle.

The modification, including the part number reidentification, specified in Part I of EMBRAER Service Bulletin 145-49-0021, Change 03; and EMBRAER Service Bulletin 145LEG-49-0001, Change 01; will take approximately 4 work hours per airplane to accomplish, at an average labor rate of \$65 per work hour. Required parts will be supplied by the part manufacturer at no cost to operators. Based on these figures, the cost impact of the modification is estimated to be \$102,440, or \$260 per airplane.

The modification, including the part number reidentification, specified in Part II of EMBRAER Service Bulletin 145-49-0021, Change 03, will take approximately 1 work hour per airplane to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the modification is estimated to be \$65 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

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) 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 final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-12845 (67 FR 52398, August 12, 2002), and by adding a new airworthiness directive (AD), amendment 39-13864, to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-23-09 Empresa Brasileira De Aeronautica S.A. (EMBRAER): Amendment 39-13864.
Docket 2002-NM-346-AD. Supersedes AD 2002-16-06, amendment 39-12845.

Applicability: Model EMB-135BJ series airplanes, as listed in EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002; and Model EMB-135 and -145 series airplanes, as listed in EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003; certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent separation of the aft baffle assembly from the APU exhaust silencer and consequent separation of the assembly from the airplane, which could cause damage to other airplanes during takeoff and landing operations, or injury to people on the ground, accomplish the following:

Modification

(a) For airplanes that have incorporated EMBRAER Alert Service Bulletin 145-49-A021, Change 01, dated May 13, 2002: Within 1,500 flight hours after the effective date of this AD, install a spacer and bolts (including torquing the bolts) in the APU exhaust silencer assembly per the Accomplishment Instructions of EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002, (for Model EMB-135BJ series airplanes); or Part II of the Accomplishment Instructions of EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003, (for Model EMB-135 and -145 series airplanes); as applicable.

Reidentification of Modified Part

(b) For airplanes that have incorporated EMBRAER Alert Service Bulletin 145-49-A021, Change 01, dated May 13, 2002: After accomplishment of the modification required by paragraph (a) of this AD, before further flight, change the part number of the modified APU exhaust silencer assembly from 4503801B to 4503801C per the Accomplishment Instructions of EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002; or Part II of the Accomplishment Instructions of EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003; as applicable.

Inspections

(c) For airplanes that have not incorporated EMBRAER Alert Service Bulletin 145-49-A021, Change 01, dated May 13, 2002; or that have not accomplished the modification required by paragraph (e) of this AD: Within 500 flight hours or 3 months after the effective date of this AD, whichever is first, do a one-time general visual inspection of the APU exhaust silencer to determine if

the aft baffle is flush with the end of the cylindrical portion, and an inspection of the movement of the cylindrical portion of the APU exhaust silencer shell assembly, per the Accomplishment Instructions of EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002; or Part I of the Accomplishment Instructions of EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003; as applicable.

(1) If the APU exhaust silencer assembly passes the inspections: Do the actions in paragraph (d) of this AD.

(2) If the APU exhaust silencer assembly does not pass one or both inspections: Before further flight, secure or remove the affected parts from the silencer, and placard the APU as "Inoperative" per the Accomplishment Instructions of the applicable service bulletin. No further action is required unless the APU is reactivated. To reactivate the APU: Before further flight, do the actions required by paragraph (e) of this AD.

Note 1: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Repetitive Inspections

(d) For airplanes that have not incorporated EMBRAER Alert Service Bulletin 145-49-A021, Change 01, dated May 13, 2002; or that have not accomplished the modification required by paragraph (e) of this AD: After doing the inspections required by paragraph (c) of this AD, before further flight, do a mechanical integrity inspection of the APU exhaust silencer assembly per the Accomplishment Instructions of EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002; or Part I of the Accomplishment Instructions of EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003; as applicable.

(1) If the APU exhaust silencer assembly passes the inspection required by paragraph (d) of this AD: Do the same steps for the mechanical integrity inspection required by paragraph (d) of this AD in a counter-clockwise direction, per the Accomplishment Instructions of the applicable service bulletin. Repeat the inspections required by paragraphs (d) and (d)(1) of this AD thereafter at intervals not to exceed 500 flight hours or 3 months, whichever is first. The inspections may be repeated up to two times before accomplishment of the requirements of paragraph (e) of this AD.

(2) If the APU exhaust silencer assembly does not pass the inspection required by paragraph (d) of this AD: Before further flight, disassemble the APU exhaust silencer assembly or placard the APU as "Inoperative" per the Accomplishment Instructions of the applicable service bulletin. No further action is required unless the APU is reactivated. To reactivate the APU: Before further flight, do the actions required by paragraph (e) of this AD.

Modification/Terminating Action

(e) For airplanes that have not incorporated EMBRAER Alert Service Bulletin 145-49-A021, Change 01, dated May 13, 2002: Within 1,500 flight hours or 12 months after the effective date of this AD, whichever is first, except as provided by paragraphs (c)(2) and (d)(2) of this AD, do all of the applicable actions per the Accomplishment Instructions of EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002; or Part I of the Accomplishment Instructions of

EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003; as applicable. This constitutes terminating action for the repetitive inspections required by paragraph (d) of this AD.

Reidentification of Modified Part

(f) For airplanes that have not incorporated EMBRAER Alert Service Bulletin 145-49-A021, Change 01, dated May 13, 2002: After accomplishment of the modification required by paragraph (e) of this AD, before further flight, change the part number of the modified APU exhaust silencer assembly from 4503801B to 4503801C per the Accomplishment Instructions of EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002; or Part I of the Accomplishment Instructions of EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003; as applicable.

Actions Previously Accomplished

(g) Accomplishment of the specified actions before the effective date of this AD per EMBRAER Service Bulletin 145-49-0021, dated July 11, 2002; Change 01, dated July 31, 2002; or Change 02, dated November 12, 2002; is considered acceptable for compliance with the applicable requirements of paragraphs (a), (b), (c), (d), (e), and (f) of this AD.

Parts Installation

(h) As of the effective date of this AD, no person may install on any airplane an APU exhaust silencer having P/N 4503801B.

Alternative Methods of Compliance

(i) In accordance with 14 CFR 39.19, the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, is authorized to approve alternative methods of compliance for this AD.

Incorporation by Reference

(j) Unless otherwise specified in this AD, the actions must be done in accordance with EMBRAER Service Bulletin 145LEG-49-0001, Change 01, dated August 29, 2002; or EMBRAER Service Bulletin 145-49-0021, Change 03, dated September 12, 2003; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343–CEP 12.225, Sao Jose dos Campos–SP, Brazil. Copies may be inspected 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/code_of_federal_regulations/ibr_locations.html.

Note 2: The subject of this AD is addressed in Brazilian airworthiness directive 2002-05-01R2, dated January 6, 2003.

Effective Date

(k) This amendment becomes effective on December 20, 2004.

Issued in Renton, Washington, on November 1, 2004.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 04-24935 Filed 11-12-04; 8:45 am]
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