



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2024-04-03R01

Effective Date: 31 May 2024

The following Brazilian Airworthiness Directive (AD), issued by the Agência Nacional de Aviação Civil (ANAC) in accordance with provisions of Chapter IV, Title III of Código Brasileiro de Aeronáutica - Law No. 7,565 dated 19 December 1986 - and Regulamento Brasileiro da Aviação Civil (RBAC) 39, applies to all aircraft registered in the Registro Aeronáutico Brasileiro. No person may operate an aircraft to which this AD applies, unless it has previously complied with the requirements established herein.

AD No. 2024-04-03R01 - (EMBRAER) / 39-1563.

APPLICABILITY:

(a) This Airworthiness Directive (AD) applies to Embraer S.A. airplane models EMB-145, EMB145ER, EMB-145EU, EMB-145EP, EMB-145LR, EMB-145MR, EMB-145LU, EMB-145MP, EMB-145MK, EMB-145XR, EMB-135ER, EMB-135KE, EMB-135KL e EMB-135LR, all serial numbers.

CANCELLATION / REVISION:

This AD cancels and supersedes the AD No. 2024-04-03 / 39-1550, effective date April 26, 2024, and is being issued to include a grace period for aircraft that have accumulated flight cycles close to the initial inspection limit. In addition, this revision includes the action required if discrepancies are detected.

REASON:

The reason for this AD is a structural assessment, which indicated that certain central fuselage longitudinal splices are subjected to fatigue damage on multiple sites due to working fasteners, which may reduce the structural residual strength below the required levels. These damages may be undetected by the current maintenance tasks. This AD introduces maintenance tasks dedicated to identifying and correcting working fasteners to minimize the likelihood of failure in multiple fasteners, which may jeopardize the airplane's structural integrity.

Since this condition may occur in other airplanes and affects flight safety, preventive action is required. Thus, sufficient reason exists to mandate compliance with this AD in the indicated time limit.

REQUIRED ACTION:

Initial and repetitive inspection in the upper central fuselage II, III, and IV longitudinal splices.

COMPLIANCE:

Required as indicated below, unless already accomplished.

(b) Initial inspection of the upper central fuselage II, III, and IV longitudinal splices fasteners

(1) For airplanes identified in paragraph **(a)** of this AD, before the airplane accumulates 44,000 flight cycles, carry out an external Detailed Inspection (DET) at the upper central fuselage II, III, and IV longitudinal splices to identify working fasteners, according to instructions provided at EMB-145 NONDESTRUCTIVE INSPECTION MANUAL- NDI-145/1138- task number 53-22-00-220-808-A00, dated February 23, 2024 or further revisions approved by ANAC.

(2) For airplanes identified in paragraph **(a)** of this AD that have accumulated more than 43,500 flight cycles in the effective date of this AD, carry out an external Detailed Inspection (DET) at the upper central fuselage II, III, and IV longitudinal splices to identify working fasteners, according to instructions provided at EMB-145 NONDESTRUCTIVE INSPECTION MANUAL- NDI-145/1138- task number 53-22-00-220-808-A00, dated February 23, 2024, or further revisions approved by ANAC in the next 500 flight cycles.

(3) If any discrepancies are found, contact Embraer.

NOTE: For the purpose of this AD, a Detailed Inspection (DET) is defined as follows.

Detailed Inspection (DET): An intensive examination of a specific item, installation or assembly to detect damage, failure, or irregularity. This could include tactile assessment in which a component or assembly can be checked for tightness/security. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors and magnifying lenses may be necessary. Surface cleaning and elaborate access procedures may be required.

(c) Repetitive inspection of the upper central fuselage II, III, and IV longitudinal splices fasteners

For airplanes identified in paragraph **(a)** of this AD, repeat the inspections required by paragraph **(b)** at intervals not exceeding 2,500 flight cycles.

(d) Notification of inspection report

Within the next 96 hours after each inspection conducted according to paragraphs **(b)** and **(c)** of this AD, submit an inspection report to pac@anac.gov.br and also to fleet.performance@embraer.com.br and fleet.reliability@embraer.com.br, containing, at least, the following data:

- (1) Date of inspection.
- (2) Airplane serial number
- (3) Total flight hours and cycles accumulated by the airplane on the inspection date.
- (4) Inspection results.

(e) Alternative methods of compliance (AMOCs).

A different method or a different compliance time from the requirements of this AD may be used if approved by the Manager of the Continuing Airworthiness Technical Branch (GTAC) of ANAC.

(f) Material incorporated by reference.

You must use EMB-145 NONDESTRUCTIVE INSPECTION MANUAL- NDI-145/1138- task number 53-22-00-220-808-A00, dated February 23, 2024 or further revisions approved by ANAC; to do the actions required by this AD, unless this AD specifies otherwise.

Record compliance with this AD in the applicable maintenance log book.

CONTACT:

For additional technical information, contact:

National Civil Aviation Agency (ANAC)
Continuing Airworthiness Technical Branch (GTAC)
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APPROVAL:

ROBERTO JOSÉ SILVEIRA HONORATO
Head of Airworthiness Department
ANAC

NOTA: Original in Portuguese language signed and available in the files of the Continuing Airworthiness Technical Branch (GTAC) of the National Civil Aviation Agency (ANAC).