



## AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

### BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2013-01-01**

**Effective Date: 31 Jan. 2013**

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. 2013-01-01 - EMBRAER / 39-1368.**

**APPLICABILITY:**

This Airworthiness Directive (AD) applies to Embraer S.A. Model ERJ 170-100 LR, ERJ 170-100 SE, ERJ 170-100 STD, ERJ 170-100 SU, ERJ 170-200 LR, ERJ 170-200 STD and ERJ 170-200 SU airplanes, all serial numbers.

**Note:** This AD requires certain operator maintenance documents update to include new inspections. Compliance with these inspections is required by “Regulamento Brasileiro da Homologação Aeronáutica (RBHA)” 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this AD, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with RBHA 91.403(c), the operator must request approval of an alternative method of compliance (AMOC) according to paragraph (c) of this AD. The request should include a description of changes to the inspections procedures that will ensure the continued operational safety (the continued damage tolerance of the affected structure) of the airplane.

**CANCELLATION / REVISION:**

This AD cancels and supersedes the AD 2012-02-01, 39-1350, dated February 22<sup>nd</sup>, 2012.

**REASON:**

This AD was prompted by reports of fatigue cracking in the left hand (LH) and in the right hand (RH) Wing Spar 2, close to the Rib 10. The inspections absence on these structural components according to the new airworthiness limitation inspection (ALI) tasks, at required intervals could prevent a timely detection of fatigue cracking, which if not properly detected and addressed, results in reduced structural integrity of the airplane.

Since this condition may occur in other airplanes of the same type and affects flight safety, a corrective action is required. Thus, sufficient reason exists to request compliance with this AD in the indicated time limit.

**REQUIRED ACTION:**

Perform the inspections in accordance with new airworthiness limitations and perform an update to the approved maintenance manual of the airplane to incorporate new airworthiness limitation and respective compliance times.

**COMPLIANCE:**

Do the actions required by this AD within the compliance times specified, unless the actions have already been done.

**Inspection Threshold Accomplishment:**

(a) Immediately after the effective date of this AD, do the inspections described on table below, in accordance with specified in the "Applicability" column. These inspection threshold accomplishment, for the tasks specified in the table, start from the correspondent threshold times, as applicable, or within 75 flight cycles (FC), whichever occurs later, after the effective date of this AD.

**Table - New Airworthiness Limitation**

MRBR Task Number	Type	Title/Description	Applicability (Note 1)	T: Threshold I: Interval
57-10-004-0002	DET	WING SPAR 02 - INTERNAL Detailed Inspection of Wing Spar 02 Lower Flange at Spar Cap third and Main Box Lower Skin, close to Rib 10 – Inside of Fixed Trailing Edge Box.	ERJ 170-100 LR, -100 SE, -100 STD, and -100 SU airplanes PRE-MOD SB 170-57-0053	T: 2129 FC I: 680 FC
			ERJ 170-200 LR, -200 STD, and -200 SU airplanes PRE-MOD SB 170-57-0053	T: 1579 FC I: 508 FC
57-10-004-0003	DET	WING SPAR 02 - INTERNAL Detailed Inspection of Wing Spar 02 Lower Flange, Region Between Rib 09 and Rib 10 - Inside of Wing Main Box.	POST-MOD SB 170-57-0053 airplanes	I: 20000 FC
57-10-007-0003	SDI	WING MAIN BOX LOWER SKIN PANEL - EXTERNAL Special Detailed Inspection at Reinforced Region in the Wing Main Box Lower Skin Close to Rib 10 - External Side of Wing Main Box Lower Skin Panel.	POST-MOD SB 170-57-0053 airplanes	I: 20000 FC

**Note 1:** The inspection threshold accomplishment depends on the airplane model and the pre-modification or post-modification condition of Embraer Service Bulletin (SB) 170-57-0053, original issuance, dated June 06<sup>th</sup>, 2012, or further revisions approved by the ANAC.

**Maintenance program update:**

(b) Within 60 days after the effective date of this AD, revise the approved maintenance program of the airplane by incorporating the new airworthiness limitations with the respective thresholds and intervals. These maintenance requirements are identified in Embraer Temporary Revision (TR) 8-1, dated August 30<sup>th</sup>, 2012, to Appendix A, Part 2, Airworthiness Limitation Section (ALS) – Structures, of the Embraer 170 Maintenance Review Board Report (MRBR), MRB-1621.

**Note 2:** Further MRBR revision that incorporate these new airworthiness limitations, complies with the requirements of paragraph (b), of this AD.

**Alternative Method of Compliance (AMOC)**

(c) A different method or a different compliance time, with the requirements of this AD, may be used if approved by the General-Manager, Aeronautical Product Certification Branch (Gerência-Geral de Certificação de Produto Aeronáutico – GGCP).

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

**CONTACT:**

For additional technical information, contact:

National Civil Aviation Agency (ANAC)

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**APPROVAL:**

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**NOTE:** Original in Portuguese language signed and available in the files of the Aeronautical Products Certification Branch (GGCP) of the National Civil Aviation Agency (ANAC).

SUPERSEDED