**AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL**

# BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2012-02-01** **Effective Date: 22 Feb. 2012**

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. 2012-02-01 - EMBRAER / 39-1350.**

**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.

**CANCELLATION / REVISION:**

Not applicable.

**REASON:**

It has been found cases of fuel seepage at the Left Hand (LH) wing and close to the Rib 10 area in two different airplanes. Further investigation revealed that the seepage was caused by a crack at the LH wing spar II close to the Rib 10. The ANAC is issuing this AD to detect and correct cracking in the wing spar II, which could result in a fuel leak and 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:**

Inspection for fuel seepage or leakage and cracks on the LH and Right Hand (RH) wing spar II, close to the Rib 10 area.

**COMPLIANCE:**

Required as indicated below, unless already accomplished.

**(a)** At the applicable time specified in paragraphs (a)(1) and (a)(2) of this AD, do a General Visual Inspection (GVI) for fuel seepage or leakage on the RH and LH wings, close to the Rib 10 area, in accordance with Part I of the Accomplishment Instructions of Embraer Alert Service Bulletin (ASB) 170-57-A053.

**(1)** For airplanes that have accumulated between 12,000 and 13,925 Flight Cycles (FC): within 150 FC after the effective date of this AD.

**(2)** For airplanes that have accumulated more than 13,925 FC: within 75 FC after the effective date of this AD or before the airplane have reached 14,075 FC, whichever occurs later.

**(b)** If any sign of fuel seepage or leakage is found during the inspection required by paragraph (a) of this AD, before further flight, do a Detailed Inspection (DI) for cracks on spar II, spar cap third and main box lower skin of the LH and RH wings, close to the Rib 10, in accordance with Part II or Part III, as

applicable, of the Accomplishment Instructions of Embraer ASB 170-57-A053. Repeat the inspection at intervals not to exceed 50 flight cycles until accomplishment of the requirements in paragraph **(d)** of this AD.

**(c)** If no sign of fuel seepage or leakage is found during the inspection required by paragraph (a) of this AD, within 450 flight cycles, repeat the inspection required by paragraph (a) of this AD and; do a Detailed Inspection for cracks on spar II, spar cap third and main box lower skin of the LH and RH wings, close to the Rib 10, in accordance with Part II and Part III, respectively, of the Accomplishment Instructions of Embraer ASB 170-57-A053. Repeat the inspections at intervals not to exceed 450 flight cycles.

**(d)** If during the inspections required in paragraphs (a) and (c) of this AD any fuel seepage or leakage is found, do a Special Detailed Inspection (SDI) for cracking on spar II of the LH and RH wings, in accordance with Part IV or Part V, as applicable, of the Accomplishment Instructions of Embraer ASB 170-57-A053 within 150 flight cycles.

**(e)** If any cracking or fuel leakage is found during any inspection required by this AD, and Embraer ASB 170-57-A053, before further flight, repair the crack or the fuel leakage using a method approved by the ANAC.

**(f)** You must use Embraer ASB 170-57-A053, dated February 13, 2012, or further revisions approved by the ANAC to do the actions required by this AD, unless the AD specifies otherwise.

**(g)** 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 Produtos Aeronáuticos – GGCP).

**NOTE:** This AD is considered to be an interim action to address this condition. As a result of the on-going investigation, further mandatory actions may be necessary.

**CONTACT:**

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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).