AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2017-03-01 **Effective Date: 24 Mar. 2017**

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. 2017-03-01 - EMBRAER / 39-1411.

APPLICABILITY:

(a) This Airworthiness Directive (AD) applies to Embraer S.A. airplanes, as specified in paragraphs (a)(1) and (a)(2) of this AD.

(1) 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, as identified in Embraer Service Bulletin 170-53-0051, Revision 3, dated August 21, 2013.

(2) Model ERJ 190-100STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-100 SR, ERJ 190-200STD, ERJ 190-200 LR, and ERJ 190-200 IGW airplanes, as identified in Embraer Service Bulletin 190-53-0019, Revision 3, dated August 21, 2013.

AFFECTED ADs:

None.

REASON:

This AD was prompted by an evaluation by the design approval holder indicating that the forward pressure bulkhead is subject to widespread fatigue damage. The modification required by this AD is intended to support the airplane reaching its limit of validity (LOV) of the engineering data that support the established structural maintenance program. We are issuing this AD to prevent fatigue cracking of the forward pressure bulkhead, which could result in reduced structural integrity of the airplane.

REQUIRED ACTION:

This AD requires inspections for cracking and the installation of additional doublers and reinforcements on the forward pressure bulkhead.

COMPLIANCE:

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

(b) Repetitive inspections and repairs

(1) For airplanes identified in paragraph (a)(1) of this AD: Before the accumulation of 25,954 total flight cycles, or within 3,600 flight cycles after the effective date of this AD, whichever

occurs later, do a detailed inspection on the Forward Pressure Bulkhead Web Afterward Face, for any cracking, in accordance with Task 53-10-001-0005 of Embraer 170/175 Maintenance Review Board Report, MRB-1621, Temporary Revision 12-3, dated September 19, 2016. Thereafter, repeat this inspection at intervals that do not exceed 6,489 flight cycles. If any cracking or discrepancy is found during any inspection required by this paragraph, before further flight, repair the Forward Pressure Bulkhead using a method approved by the ANAC.

(2) For airplanes identified in paragraph (a)(2) of this AD: Before the accumulation of 25,954 total flight cycles, or within 3,600 flight cycles after the effective date of this AD, whichever occurs later, do a detailed inspection on the Forward Pressure Bulkhead Web Afterward Face, for any cracking, in accordance with Task 53-10-001-0005 of Embraer 190/195 Maintenance Review Board Report, MRB-1928, Temporary Revision 10-4, dated September 19, 2016. Thereafter, repeat this inspection at intervals that do not exceed 6,489 flight cycles. If any cracking or discrepancy is found during any inspection required by this paragraph, before further flight, repair the Forward Pressure Bulkhead using a method approved by the ANAC.

(c) Forward pressure bulkhead modification

(1) For airplanes identified in paragraph (a)(1) of this AD: Before the accumulation of 38,931 total flight cycles, do the modification of the forward pressure bulkhead in accordance with the Accomplishment Instructions of Embraer Service Bulletin 170-53-0051, Revision 3, dated August 21, 2013. Accomplishing the modification required by this paragraph terminates the requirements of paragraph (b)(1) of this AD.

(2) For airplanes identified in paragraph (a)(2) of this AD: Before the accumulation of 38,931 total flight cycles, do the modification of the forward pressure bulkhead in accordance with the Accomplishment Instructions of Embraer Service Bulletin 190-53-0019, Revision 3, dated August 21, 2013. Accomplishing the modification required by this paragraph terminates the requirements of paragraph (b)(2) of this AD.

(d) Credit for previous actions

(1) This paragraph provides credit for the actions specified in paragraph (c)(1) of this AD, if those actions were performed before the effective date of this AD using Embraer Service Bulletin 170-53-0051, dated February 26, 2010, or Embraer Service Bulletin 170-53-0051, Revision 1, dated May 25, 2011, or Embraer Service Bulletin 170-53-0051, Revision 2, May 28, 2012.

(2) This paragraph provides credit for the actions specified in paragraph (c)(2) of this AD, if those actions were performed before the effective date of this AD using Embraer Service Bulletin 190-53-0019, dated February 26, 2010, or Embraer Service Bulletin 190-53-0019, Revision 1, dated May 25, 2011, or Embraer Service Bulletin 190-53-0019, Revision 2, dated May 28, 2012.

(e) Alternative methods of compliance (AMOCs)

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

(f) Service information

You must use Embraer Service Bulletin 170-53-0051, Revision 3, dated August 21, 2013, or Embraer Service Bulletin 190-53-0019, Revision 3, dated August 21, 2013, as applicable, or further revisions approved by the ANAC, to do the actions required by this AD.

CONTACT:

For additional technical information, 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).

Documento assinado eletronicamente por **ROBERTO JOSÉ SILVEIRA HONORATO**, **Superintendente de Aeronavegabilidade**, em 08/03/2017, às 16:26, conforme horário oficial de Brasília, com fundamento no art. 6º, § 1º, do Decreto nº 8.539, de 8 de outubro de 2015.

Documento assinado eletronicamente por **MARIO IGAWA**, **Gerente-Geral de Certificação de Produtos Aeronáuticos**, em 09/03/2017, às 15:12, conforme horário oficial de Brasília, com fundamento no art. 6º, § 1º, do Decreto nº 8.539, de 8 de outubro de 2015.

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