AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2013-11-01 **Effective Date: 04 Nov. 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. 2013-11-01 - (EMBRAER) / 39-1376.

APPLICABILITY:

This Airworthiness Directive (AD) applies to Embraer S.A. model ERJ 170-100 LR, ERJ 170-100 STD, ERJ 170-100 SU, ERJ 170-100 SE, ERJ 170-200 LR, ERJ 170-200 STD and ERJ 170-200 SU airplanes; as identified in Embraer Service Bulletin (SB) 170-36-0019, dated August 23, 2011.

CANCELLATION / REVISION:

Not applicable.

REASON:

This AD results from reports of "BLEED 1(2) LEAK" messages being displayed on the Engine Indication and Crew Alert System (EICAS) panel, and indirect damages to components of the Electrical Wiring Interconnection System (EWIS) on the engine pilone area, zones 419 and 429, adjacent to the exhaust flange of the engine bleed air precooler.

Further investigation has shown that a leakage on the flange of the precooler refrigerating air exhaust duct caused the damaged and triggered the message. We are issuing this AD to prevent EWIS components indirect damage, near to engine bleed air precooler, which could result in a dual engine roll back to idle and the consequent dual engine power loss.

REQUIRED ACTION:

This AD requires the application of sealant and installation of a deflector on the left hand (LH) and right hand (RH) precooler exhaust flange, a onetime general visual inspection of the affected components in the designated zone and, if necessary, appropriate corrective action.

COMPLIANCE:

You are required to do the following actions, unless already accomplished:

Within 8000 flight cycles or 12000 flight hours after the effective date of this AD, whichever occurs latter, do the actions required in paragraph (a), (b), (c), (d), (e) and (f) of this AD:

Note 1: You should consider staggering the maintenance actions required by this AD so both precoolers on the same airplane are not serviced at the same time.

Electrical Wiring Interconnection Systems (EWIS) components inspection – LH Pylon

(a) Do a general visual inspection (GVI) on the Electrical Wiring Interconnection System (EWIS) components, around the left hand (LH) precooler (zone 419) for indirect damage that could be caused by the hot exhausting air leaking from the precooler, and other discrepancies, in accordance with the

Standard Wiring Practice Manual (SWPM) 1590, chapter 20-62-00, Requirements for EWIS Components Inspections and Checks – Maintenance Practices, Revision 23, dated October 8, 2012. Before further flight repair all damage or discrepancies found.

Note 2: General Visual Inspection (GVI) Definition: 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.

Precooler deflector installation – LH Pylon

(b) Install the deflector part number (P/N) 171-15133-001 in the left hand (LH) precooler in accordance with Part "I" of the Accomplishment Instructions of Embraer SB 170-36-0019, dated August 23, 2011.

Sealant application - LH Pylon

(c) Apply high temp silicone sealant to the LH precooler in accordance with Parts "II" of the Accomplishment Instructions of Embraer SB 170-36-0019, dated August 23, 2011.

Electrical Wiring Interconnection Systems (EWIS) components inspection– RH Pylon

(d) Do a general visual inspection (GVI) on the Electrical Wiring Interconnection System (EWIS) components, around the right hand (RH) precooler (zone 429) for indirect damage that could be caused by the hot exhausting air leaking from the precooler, and other discrepancies, in accordance with the Standard Wiring Practice Manual (SWPM) 1590, chapter 20-62-00, Requirements for EWIS Components Inspections and Checks – Maintenance Practices, Revision 23, dated October 8, 2012. Before further flight repair all damage or discrepancies found.

Precooler deflector installation – RH Pylon

(e) Install the deflector part number (P/N) 171-15133-001 in the RH precooler, in accordance with Part "III" of the Accomplishment Instructions of Embraer SB 170-36-0019, original issue, dated August 23, 2011.

Sealant application - RH Pylon

(f) Apply high temp silicone sealant to the RH precooler in accordance with Part "IV" of the Accomplishment Instructions of Embraer SB 170-36-0019, dated August 23, 2011.

Material Incorporated by Reference

(g) You must use Embraer SB 170-36-0019, original issuance, dated August 23, 2011, or further revisions approved by the ANAC, to do the actions required by this AD, unless this AD specifies otherwise.

Alternative Means of Compliance (AMOC)

(h) 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).

CONTACT:

For additional information, please contact the ANAC-GGCP, 12246-870 - São José dos Campos - SP, Brazil, telephone: 55 (12) 3797-2521, Fax: 55 (12) 3797-2330, e-mail: pac@anac.gov.br .

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).