AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2010-06-04 **Effective Date: 26 Jul. 2010**

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 de Homologação Aeronáutica (RBHA) 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. 2010-06-04 – EMBRAER – Amendment 39-1304.

APPLICABILITY:

This Airworthiness Directive is applicable to Embraer Models ERJ 170-100 STD, ERJ 170-100 LR, ERJ 170-100 SU, ERJ 170-100 SE, ERJ 170-200 STD, ERJ 170-200 LR and ERJ 170-200 SU airplanes equipped with Hamilton Sundstrand ram air turbine (RAT), Model ERPS37T, Part Number (P/N) 1703781 Series; with the serial numbers (S/N) contained in Embraer Service Bulletin 170-24-0048, original issue, or further revisions approved by the ANAC.

CANCELLATION / REVISION:

N/A.

REASON:

It has been found occurrence of screw units manufactured with metallographic non-conformity that may increase their susceptibility to brittle fracture. The screw failure may result in loss of the related balance washer causing a possible ram air turbine (RAT) imbalance event, which may result in RAT structural failure, which associated with an electrical emergency situation, could result in loss of power to airplane flight controls hydraulic back-up system.

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, replacement and identification, if necessary, of the airplane ram air turbine.

COMPLIANCE:

Required as indicated below, unless already accomplished.

(a) Within the next 1200 flight hours (FH) or 6 months after the effective date of this AD, whichever occurs first, carry out a RAT general visual inspection (GVI) to check its model, P/N and S/N, or check in the applicable maintenance records, the RAT identification.

(1) If the RAT S/N is not listed as specified in this AD APLICABILITY paragraph, no action is required at this time.

(2) If the RAT S/N is listed as specified in this AD APPICABILITY paragraph, check if the symbol “24-5” is marked on the RAT identification plate. In positive case, no action is required at this time. Nevertheless, if the symbol is not marked, then replace the RAT balance screw and identify the RAT identification plate with the symbol, “24-5”.

(b) After the accomplishment of item (a) above, it is not permitted to install a replacement/spare Hamilton Sundstrand RAT, Model ERPS37T, P/N 1703781 Series with one of the S/Ns listed in this AD APLLICABILITY paragraph, unless it is identified with the symbol “24-5” on the identification plate.

NOTE: For the purpose of this AD, a general visual inspection (GVI) is: "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 drop-light, 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."

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletin No. 170-24-0048, original issue, or further revisions approved by the ANAC.

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

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).