



## AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

### BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2008-05-01**

**Effective Date: 13 June 2008**

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. 2008-05-01 - EMBRAER - Amendment 39-1235.**

#### **APPLICABILITY:**

This Airworthiness Directive is applicable to all Embraer EMB-120 aircraft models of serial numbers (S/N) 120001 to 120359.

#### **CANCELLATION / REVISION:**

Not applicable.

#### **REASON:**

It was found one occurrence of a fuel booster pump circuit breaker opening during an engine maintenance servicing. An inspection inside the fuel tank revealed the fuel booster pumps electrical harness chafing against its body, causing the loss of the electrical wiring protection and resulting in a short circuit. Further in-tank inspections have showed other fuel booster pump electrical harnesses chafing either with the pump body and/or with adjacent fuel lines, causing damage to the harness protective layers and resulting on possible ignition source inside the fuel tank.

Since this condition may occur in other aircraft 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 without prior notice.

#### **REQUIRED ACTION:**

Revision of the Airplane Flight Manual (AFM); inspection of fuel booster pumps electrical harness installed on left (LH) and right (RH) tanks; and installation of clamps on tank structure and tie-raps to attach these electrical harnesses.

#### **COMPLIANCE:**

Required as indicated below, unless already accomplished.

**PART I:** Within the next 30 days after the effective date of this AD, insert in Limitations Section of the ANAC approved AFM a copy of this AD or the following statement:

**“The minimum fuel quantity inside each tank must be 300 kg or 370 liters”**

**NOTE:** After the effective date of this AD, any fuel tank defueling or other maintenance action which demands the fuel booster pumps use is limited to a minimum fuel quantity not to be less than 300 kg or 370 liters inside the respective tank.

**PART II:** Within the next 4000 flight hours or 24 calendar months or at next time the fuel tank is opened (scheduled or unscheduled), after the effective date of this AD, whichever occurs first, execute the following:

**(a)** Inspect the fuel booster pumps electrical harness of the LH/RH tanks due to damage on its external protection. If any damage is found, replace the affected fuel booster pump by another one bearing the same P/N.

- (b) Install clamps on the tank structure and attach each fuel booster pump electrical harness at LH/RH fuel tanks to avoid eventual chafing against the pump body, adjacent fuel lines, structure or any other part, preventing the harness layers damage, in accordance with Embraer Service Bulletin No. 120-28-0016 original issue, or further revisions approved by the ANAC.

**NOTE:** After the compliance with Part II above, the limitations imposed by the Part I above are no longer required.

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletin No. 120-28-0016 original issue, or further revisions approved by the ANAC.

Record compliance of Parts I and II of 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).