



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2000-08-01R3

Effective Date: 06 Aug. 2007

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. 2000-08-01R3 - EMBRAER - Amendment 39-1189.

APPLICABILITY:

This Airworthiness Directive is applicable to all Embraer EMB-145() and EMB-135() aircraft models in operation.

CANCELLATION / REVISION:

This AD cancels and supersedes the AD No. 2000-08-01R2 – Amdt 39-934, dated 13 Feb. 2002, and is being issued to revise and add instructions for the accomplishment of repetitive inspections and terminating action after the replacement of all fuel pumps with a new part number (P/N).

REASON:

It has been reported the occurrence of damage in the pins and elastomeric inserts in the hermetically sealed connectors of the electric fuel pumps on the EMB-145() and EMB-135() aircraft models. Those damages can lead to a failure in the electrical connectors, possibly due to heat generated by degraded spring-tension of the mating connector's female, which may cause arcing between poles. The damage of the pins is shown by partially blackened portions, or charring of the elastomeric insert, adjacent to and surrounding the pin.

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.

REQUIRED ACTION:

Visual inspection on the electrical connector pins and the elastomeric inserts; replacement of the affected fuel pumps, if needed; and, application of anti-corrosion product on the electrical connectors.

COMPLIANCE:

Required as indicated below, unless already accomplished.

Perform a visual inspection on the electrical pins and elastomeric inserts of the electric fuel pumps (RH and LH wings) for general conditions, and replace the affected pumps as necessary, as indicated below:

- (a) For aircraft with less than 1200 flight hours on 03 July 2001, the effective date of the revision 1 of this AD, before the aircraft reaches 1600 flight hours, and thereafter at every 1200 flight hours;
- (b) For aircraft which have logged from 1200 through 4000 flight hours on 03 July 2001, the effective date of the revision 1 of this AD, within the next 400 flight hours, and thereafter at every 1200 flight hours;
- (c) For aircraft with more than 4000 flight hours on 03 July 2001, the effective date of the revision 1 of this AD, before the aircraft reaches 4400 flight hours, or within the next 50 flight hours, whichever occurs later, and thereafter at every 1200 flight hours;

- (d) For aircraft that have already replaced all fuel pumps P/N 2C7-1 with fuel pumps P/N 2C7-4, at every 10000 flight hours until items (e) or (f) below is accomplished;
- (e) For EMB-135ER, EMB-135KE, EMB-135KL, EMB-135LR, EMB-145, EMB-145EP, EMB-145ER, EMB-145EU, EMB-145LR, EMB-145LU, EMB-145MK, EMB-145MP, EMB-145MR and EMB-145XR aircraft models, alter the aircraft approved maintenance plan to include the tasks 28-21-01-220-001-A00 and 28-27-01-220-001-A00 presented in the Appendix 2, Section A2.5.2: Fuel System Limitation Items, as shown in the Maintenance Review Board Report (MRBR), document No. MRB-145/1150 Revision 10, dated 04 Aug. 2006, or further MRBR revisions approved by ANAC, with the interval stated in that document. This task constitutes terminal action to the repetitive inspection of item (d) above; and,
- (f) For EMB-135BJ aircraft model, alter the aircraft approved maintenance plan to include the task 28-21-01-220-001-A00 presented in the Appendix 2, Section A2.5.2: Fuel System Limitation Items, as shown in the Maintenance Planning Guide (MPG), document No. MPG-1483 Revision 5, dated 22 Mar. 2007, or further MPG revisions approved by ANAC, with the interval stated in that document. This task constitutes terminal action to the repetitive inspection of item (d) above.

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletin No. 145-28-0013 original issue, or further revisions approved by ANAC.

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

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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).