

# AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL

## **BRAZILIAN AIRWORTHINESS DIRECTIVE**

AD No.: 2009-02-01 Effective Date: 12 Feb. 2009

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. 2009-02-01 - EMBRAER - Amendment 39-1259.

#### **APPLICABILITY:**

This Airworthiness Directive is applicable to Embraer model EMB-135BJ, EMB-135ER, EMB-135KE, EMB-135KL, EMB-135LR, EMB-145, EMB-145EP, EMB-145ER, EMB-145EU, EMB-145LU, EMB-145MK, EMB-145MP, EMB-145MR and EMB-145XR airplanes.

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

Not applicable.

#### **REASON:**

It has been found occurrences of main landing gear (MLG) trailing arm pins broken due to a fatigue mechanism induced by an excessive torque applied during the assemblage of auxiliary door support attachment and consequent deformation of the MLG trailing arm axle. A broken pin can lead to loss of the MLG trailing arm axle, disconnecting the trailing arm from the main strut, which affects the airplane controllability on ground.

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 and, if necessary, replacement of the MLG trailing arm pin; and modification of the MLG auxiliary door mounting support.

## **COMPLIANCE:**

Required as indicated below, unless already accomplished.

Within the next 2500 flight hours or 24 months after the effective date of this AD, whichever occurs first, perform a detailed visual inspection (DET) on the MLG trailing arm pins.

- (a) If cracks are found, replace the MLG trailing arm pin by a serviceable one; and
- **(b)** Carry out the MLG auxiliary door mounting support modification.
- **NOTE 1:** For the purpose of this AD, a detailed inspection (DET) is: "An intensive examination of a specific item, installation or assembly to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate access procedures may be required."

**NOTE 2:** For the purpose of this AD, a serviceable pin is one that does not have cracks.

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletin Nos. 145-32-0122 original issue and 145-52-0047 original issue, or 145LEG-32-0033 original issue and 145LEG-52-0014 original issue, as applicable, or their respective further revisions approved by the ANAC.

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

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### **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).