AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/EMB-110/53 Amdt 1 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Embraer EMB-110 (Bandeirante) Series Aeroplanes

AD/EMB-110/53 Nasem Landing Gear 13/2006
Rotating Cylinder Assembly

Applicability: All Model EMB-110 aircraft.

Requirement: 1. Inspect the nose landing gear rotating cylinder assembly, externally using dye-penetrant method and internally using a boroscope, in accordance with Embraer Service Bulletin (SB) No. 110-32-0088 Revision 03.

   a. If any cracks are evident during the inspection, replace the rotating cylinder assembly before further flight.

   b. If severe corrosion but no cracks are evident during the inspection, before further flight, perform a Requirement 2 detailed bench inspection of the rotating cylinder assembly.

   c. If light corrosion but no cracks are evident during the inspection, return the rotating cylinder assembly to service and repeat Requirement 1 inspections at the times specified in Compliance 1.c.

2. If no corrosion or cracks are evident during the Requirement 1 inspection, perform a detailed bench inspection of the rotating cylinder assembly in accordance with SB No. 110-32-0088 Revision 03.

   a. If severe corrosion or cracks are evident during the inspection, replace the rotating cylinder assembly before further flight.

   b. If no corrosion or cracks are evident during the inspection, before further flight, apply a protection on the internal area of the rotating cylinder assembly in accordance with SB No. 110-32-0088 Revision 03.

   c. If light corrosion, but no cracks are evident during the inspection, before further flight, apply a protection on the internal area of the rotating cylinder assembly in accordance with SB No. 110-32-0088 Revision 03, and repeat the Requirement 1 inspections at the times specified in Compliance 2.c.; until the required replacement.

Note: Brazil CTA AD 2004-04-01 R1 refers.
Embraer EMB-110 (Bandeirante) Series Aeroplanes

AD/EMB-110/53 Amdt 2 (continued)

Compliance: 1. Within 150 flight hours or 120 calendar days after 28 July 2004, whichever occurs first.

1.c. At intervals not to exceed 150 flight hours or 120 calendar days, whichever occurs first, until accumulating 600 flight hours or 12 calendar months after 28 July 2004, whichever occurs first; when a Requirement 2 detailed bench inspection is required.

2. Within 600 flight hours or 12 calendar months after 28 July 2004, whichever occurs first.

2.c. At intervals not to exceed 600 flight hours or 9 calendar months, whichever occurs first; until replacement of the rotating cylinder assembly, which must be accomplished before accumulating 3,000 flight hours or 36 months after 28 July 2004, whichever occurs first.

The compliance times remain unchanged except for Requirement 3, which was deleted and incorporated into Compliance 2.c., by this issue of the Directive.

This Amendment becomes effective on 21 December 2006.

Background: The manufacturer received in-service reports of corrosion on the nose landing gear rotating cylinder assembly. Such corrosion could lead to cracking and could result in failure of the nose landing gear.

Amendment 1 introduced a requirement for a boroscope internal inspection of the nose landing gear rotating cylinder assembly.

Amendment 2 is issued to clarify the requirements and to correct an error in Amendment 1.

The original issue of this Airworthiness Directive became effective on 8 July 2004.

David Villiers
Delegate of the Civil Aviation Safety Authority

9 November 2006