



SERVIÇO PÚBLICO FEDERAL

DEPARTAMENTO DE AVIAÇÃO CIVIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

EFFECTIVE DATE

27 Jul. 2004

AD No.:

2004-04-01R1

The following Airworthiness Directive (AD), issued by the Departamento de Aviação Civil (DAC) 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. 2004-04-01R1- EMBRAER - Amendment 39-1032.

APPLICABILITY:

This Airworthiness Directive is applicable to all Embraer EMB-110() aircraft models in operation.

CANCELLATION / REVISION:

This AD cancels and supersedes the AD No. 2004-04-01, original issue – Amdt 39-1019, dated 10 May 2004, and is being issued to include a requirement for a boroscopic internal inspection of the rotating cylinder.

REASON:

It has been found the occurrence of corrosion on the rotating cylinder assembly of the nose landing gear, leading to cracks which could result in failure of the nose landing gear.

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 of the nose landing gear rotating cylinder assembly.

COMPLIANCE:

Required as indicated below, unless already accomplished.

- (a) Within the next 150 flight hours or 120 calendar days after the effective date of this Revision 01 of this AD, whichever occurs first, inspect the nose landing gear rotating cylinder assembly, externally using a dye-penetrant procedure and internally using a boroscope.
 - (1) If any cracks are found during the inspection, replace the rotating cylinder assembly before next flight.
 - (2) If severe corrosion, but no cracks, is found during the inspection, perform, before next flight, a detailed bench inspection of the nose landing gear rotating cylinder, as required by item (b) below.
 - (3) If light corrosion, but no cracks or severe corrosion, is found during the inspection, return the assembly to service and re-inspect it with dye-penetrant and a boroscope, as required by item (a) above, at intervals no longer than 150 flight hours or 120 calendar days, whichever is shorter, until completing 600 flight hours or 12 calendar months after the effective date of this Revision 01 of this AD, whichever occurs first, when it is required to proceed to a detailed bench inspection, according to item (b) below.
- (b) If no corrosion or cracks are found during the inspection required in item (a) above, perform, within 600 flight hours or 12 calendar months after the effective date of this Revision 01 of this AD, whichever occurs first, a detailed bench inspection of the nose landing gear rotating cylinder assembly.
 - (1) If severe corrosion or any cracks are found during the inspection, replace the rotating cylinder assembly before next flight.

- (2) If no signs of corrosion or cracks are found during the inspection, apply, before next flight, a protection on the internal area of the rotating cylinder, according to procedures detailed in the Embraer Service Bulletin No. 110-32-0088 Rev. 03, or further revisions approved by the CTA.
- (3) If light corrosion, but no cracks or severe corrosion, is found during the inspection, apply, before next flight, a protection on the internal area of the rotating cylinder, according to procedures detailed in the Embraer Service Bulletin No. 110-32-0088 Rev. 03, or further revisions approved by the CTA. Repeat the dye-penetrant and boroscopic inspection, as required by item (a) above, at intervals no longer than 600 flight hours or 9 calendar months, whichever is shorter, until replacement of the rotating cylinder assembly which must be accomplished before completing 3000 flight hours or 36 calendar months after the effective date of this Revision 01 of this AD, whichever occurs first.

NOTE: The criterion for deciding what is to be considered as a light or severe corrosion is the one introduced at Embraer Service Bulletin No. 110-32-0088 Rev. 03, or further revisions approved by the CTA. The presence of oxidation only, as defined there, is considered as no corrosion, for the purpose of this AD.

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletin No. 110-32-0088 Rev. 03, or further revisions approved by the CTA.

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 Registro Geral de Aeronavegabilidade (RGA/TE-1/STE) of the Departamento de Aviação Civil.