



SERVIÇO PÚBLICO FEDERAL

DEPARTAMENTO DE AVIAÇÃO CIVIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

EFFECTIVE DATE:

03 Nov. 2005

AD No.:

2005-10-03

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. 2005-10-03 - EMBRAER - Amendment 39-1097.

APPLICABILITY:

This Airworthiness Directive is applicable to all Embraer EMB-120() aircraft models in operation.

CANCELLATION / REVISION:

Not applicable.

REASON:

It has been found, during schedule maintenance, the occurrence of corrosion inside the torque tubes of the elevators surface. This fact can cause unbalance of the elevators, which affects the aircraft controllability.

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 for corrosion, protection and rework or replacement, if necessary, of the torque tubes of the elevators.

COMPLIANCE:

Required as indicated below, unless already accomplished.

Within the next 4000 flight hours or 730 calendar days after the effective date of this AD, whichever occurs first, inspect the inner surface of the torque tubes of the elevators for oxidation and/or corrosion, as well as its interior protection.

- (a) If no oxidation and/or corrosion is found and if the torque tube inner surface is protected (painted), clean the interior of the torque tubes with solvent and apply corrosion inhibiting compound.
- (b) If no oxidation or corrosion is found and if the inner surface of the torque tubes is not protected (not painted), clean the interior of the torque tubes according to Embraer Service Bulletin No. 120-55-0015, original issue, or further revisions approved by the CTA, apply the chemical conversion coating, the protection and the corrosion inhibiting compound.
- (c) If only oxidation is found, remove it according to Embraer Service Bulletin No. 120-55-0015, original issue, or further revisions approved by the CTA.
 - (1) If the oxidation is completely removed, apply the chemical conversion coating, the protection and the corrosion inhibiting compound.

- (2) If the oxidation is not completely removed, or if corrosion spots are found, remove the affected elevator. Using a sandpaper remove the existing oxidation or corrosion present in the affected tube (interior and exterior). If the removed corrosion thickness exceeds 0,005 in. (0,127 mm), replace the affected torque tube by another bearing the same P/N. Otherwise, clean the inner surface of the torque tube according to Embraer Service Bulletin No. 120-55-0015, original issue, or further revisions approved by the CTA, apply the chemical conversion coating, the protection and the corrosion inhibiting compound.

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletin No. 120-55-0015, original issue, or further revisions approved by the CTA.

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

CONTACT:

For additional technical information, contact:

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APPROVAL:

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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.