



SERVIÇO PÚBLICO FEDERAL

DEPARTAMENTO DE AVIAÇÃO CIVIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

EFFECTIVE DATE:

23 Dec. 2003

AD No.:

2003-07-01R1

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. 2003-07-01R1- EMBRAER - Amendment 39-1003.

APPLICABILITY:

This Airworthiness Directive is applicable to all EMB-145() and EMB-135() aircraft models in operation, equipped with Air Turbine Starter (ATS) P/N's 3505910-4 or 3505910-5.

CANCELLATION / REVISION:

This AD cancels and supersedes the AD No. 2003-07-01, original issue – Amdt 39-998, dated 18 Aug. 2003, and is being issued to modify the applicability and to introduce a final action through the installation of a new ATS P/N.

REASON:

It has been found the occurrence of several cases of failure of the air turbine starter unit (ATS) resulting in aircraft nacelle flash fire and in-flight engine shutdown.

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:

Check of the ATS oil level/contamination for each engine and replacement of the unit with one of same P/N, if necessary; or replacement of the units by new ones of a new P/N as final action.

COMPLIANCE:

Required as indicated below.

- (a) Within 200 flight operating hours or 90 calendar days after 18 Aug. 2003, the effective date of the original issue of this AD, whichever occurs first, unless already accomplished within the last 400 flight operation hours or 180 calendar days, whichever have occurred later, perform a complete ATS oil drainage, measure the drained oil volume and inspect the drained oil for debris contamination. Perform one of the following actions:
- (1) Replace ATS oil and return the inspected unit to flight operations if no excess contamination or insufficient oil quantity has been observed;
 - (2) Replace the ATS if the contamination level is found to be above the acceptable limits, according to procedures and intervals introduced by Embraer Service Bulletins Nos. 145-80-0005 Rev. 1 or 145LEG-80-0001 Rev. 1, or further revisions approved by the CTA;

- (3) Replace the ATS before next flight if the drained oil quantity is below 140 cc; or,
- (4) For engines that have already incorporated Service Bulletin Rolls-Royce No. AE3007A-72-253, replace the ATS within the next 50 flight operation hours if the drained oil quantity is:
 - (i) Above 140 cc and below 200 cc, for the aircraft LH engine ATS, and
 - (ii) Above 140 cc and below 370 cc, for the aircraft RH engine ATS.
- (b) Repeat the oil change and the inspections required at item (a) above at intervals not exceeding 500 flight operation hours or 180 calendar days, whichever occurs first, until accomplishment of item (c) below.
- (c) Before 01 Mar. 2006, replace the ATS P/N's 3505910-4 or 3505910-5 with ATS P/N 3505910-6 or further.

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletins Nos. 145-80-0005 Rev. 1, 145-80-0006, original issue, 145LEG-80-0001 Rev. 1 and 145LEG-80-0002, 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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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.