



## AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

### BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2009-08-03**

**Effective Date: 20 Aug. 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. 2009-08-03 - EMBRAER - Amendment 39-1284.**

**APPLICABILITY:** This Airworthiness Directive (AD) applies to Embraer model EMB-135BJ, EMB-135ER, EMB-135KE, EMB-135KL, EMB-135LR, EMB-145, EMB-145EP, EMB-145EU, EMB-145ER, EMB-145LR, EMB-145LU, EMB-145MP, EMB-145MR, EMB-145MK and EMB-145XR airplanes.

**NOTE 1:** This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by “Regulamento Brasileiro de Homologação Aeronáutica” - RBHA 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the described inspections. In this situation, to comply with RBHA 91.403(c), the operator must request approval for an alternative method of compliance. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane. An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Product Certification Branch (GGCP).

**CANCELLATION / REVISION:** Not applicable.

**REASON:** An airplane fuel tank systems review required by Special Federal Aviation Regulation Number 88 (SFAR 88) and “RBHA Especial Número 88” (RBHA E 88) has shown that additional maintenance and inspection instructions are necessary to maintain the design features required to preclude the existence or development of an ignition source within the fuel tanks of the airplane.

Since this condition exists 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:** Revision of the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness (ICA) to incorporate new limitations for fuel tank systems.

**COMPLIANCE:** Required as indicated below, unless already accomplished.

- (a) Except for the EMB-135BJ model airplanes, do the Fuel System Limitation (FSL) tasks identified in Table 1 at the later of the applicable threshold and grace period times specified in Table 1 of this AD; and repeat the inspections thereafter at the applicable interval specified in Table 1 of this AD; except as provided by paragraphs (c) of this AD.

**NOTE 2:** The Aircraft Maintenance Task Oriented Support System (AMTOSS) numbering system is used to generate the reference number at the Maintenance Review Board Report (MRBR) and is also used as a cross-reference between the MRBR and the Embraer Aircraft Maintenance Manual (AMM), Non-Destructive Inspection Manual, and Corrosion Prevention and Control Manual. To find the applicable task on the AMM, it is necessary to consult the cross-reference table on the Introduction of this manual.

AMTOSS Task Number	Description	Part Number (P/N)	Component Maintenance Manual (CMM)/Rev.	Compliance time (whichever occurs later)		Repeat inspection interval
				Threshold	Grace period	
28-41-01-720-001-A01	<b>Functional Check of the Safe Life Features of the Fuel Conditioning Unit (FCU)</b> <ul style="list-style-type: none"> <li>Initial Functional Check</li> <li>External Visual Inspection</li> <li>Internal Visual Inspection</li> <li>Functional Check of the Safe-Life Feature</li> <li>Final Functional Check</li> </ul>	367-934-001	28-41-36 Rev 04	Before the accumulation of 10,000 total flight hours on the FCU	Within 90 days after the effective date of this AD	10,000 flight hours on the FCU since the last functional check
		367-934-002	28-41-69 Rev 02			
28-41-04-720-001-A01	<b>Functional Check of the Safe Life Features of the Ventral Fuel Conditioning Unit (VFCU)</b> <ul style="list-style-type: none"> <li>Initial Functional Check</li> <li>External Visual Inspection</li> <li>Internal Visual Inspection</li> <li>Functional Check of the Safe-Life Feature</li> <li>Final Functional Check</li> </ul>	367-934-005	28-41-80 Rev 00	Before the accumulation of 10,000 total flight hours on the VFCU	Within 90 days after the effective date of this AD	10,000 flight hours on the VFCU since the last functional check

Table 1 – Applicable to all airplanes model except EMB-135BJ

(b) For the EMB-135BJ model airplanes, do the Fuel System Limitation (FSL) tasks identified in Table 2 at the later of the applicable threshold and grace period times specified in Table 2 of this AD; and repeat the inspections thereafter at the applicable interval specified in Table 2 of this AD; except as provided by paragraphs (c) of this AD.

AMTOSS Task Number	Description	Part Number (P/N)	Component Maintenance Manual (CMM)/Rev.	Compliance time (whichever occurs later)		Repeat inspection interval
				Threshold	Grace period	
28-46-05-720-001-A01	<b>Functional Check of the Safe Life Features of the Auxiliary Fuel Conditioning Unit (AFCU).</b> <ul style="list-style-type: none"> <li>Initial Functional Check</li> <li>External Visual Inspection</li> <li>Internal Visual Inspection</li> <li>Functional Check of the Safe-Life Feature</li> <li>Final Functional Check</li> </ul>	367-934-004	28-41-66 Rev 01	Before the accumulation of 10,000 total flight hours on the AFCU	Within 90 days after the effective date of this AD	10,000 flight hours on the AFCU since the last functional check
		367-934-006	28-41-90 Rev 00			
28-41-01-720-001-A01	<b>Functional Check of the Safe Life Features of the Fuel Conditioning Unit (FCU).</b> <ul style="list-style-type: none"> <li>Initial Functional Check</li> <li>External Visual Inspection</li> <li>Internal Visual Inspection</li> <li>Functional Check of the Safe-Life Feature</li> <li>Final Functional Check</li> </ul>	367-934-002	28-41-69 Rev 02	Before the accumulation of 10,000 total flight hours on the FCU	Within 90 days after the effective date of this AD	10,000 flight hours on the FCU since the last functional check

Table 2 – Applicable to the EMB-135BJ

- (c) After accomplishing the actions specified in paragraphs (a) or (b) of this AD, as applicable, no alternative inspections, or inspection intervals may be used unless the inspections or intervals are approved as an alternative method of compliance.
- (d) Actions accomplished before the effective date of this AD in accordance with Parker Service Bulletin 367-934-28-110, Revision A, dated December 19, 2006; are considered acceptable for compliance with the corresponding actions specified in this AD.

**NOTE 3:** This AD requires that the tasks be done at compliance times based on flight hours of the component.

The detailed instructions and procedures to accomplish the actions required by this AD, unless the AD specifies otherwise, are described in the following Parker Component Maintenance Manuals (CMM), as applicable.

FCU/AFCU/VFCU P/N	CMM	Revision	Date
367-934-001	28-41-36	4	Mar. 13/2009
367-934-002	28-41-69	2	Mar. 13/2009
367-934-005	28-41-80	0	Apr. 03/2009
367-934-004	28-41-66	1	Mar. 13/2009
367-934-006	28-41-90	0	Apr. 03/2009

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

**CONTACT:**

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**NOTE 4:** Original in Portuguese language signed and available in the files of the Aeronautical Products Certification Branch (GGCP) of the National Civil Aviation Agency (ANAC).