



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2007-03-02R2

Effective Date: 21 Nov. 2008

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. 2007-03-02R2 - EMBRAER - Amendment 39-1250

APPLICABILITY:

This Airworthiness Directive is applicable to Embraer aircraft of models ERJ 190-100 LR, ERJ 190-100 STD, ERJ 190-100 IGW, ERJ 190-200 LR, ERJ 190-200 STD and ERJ 190-200 IGW.

CANCELLATION / REVISION:

This AD cancels and supersedes the Airworthiness Directive No. 2007-03-02R1 - Amdt 39-1244, dated 21 Oct. 2008, and is being issued to include ERJ 190 aircraft models in the Applicability Section.

REASON:

It has been found the occurrence of two events of aircraft being dispatched with the cargo door opened without indication. In one of the events the aircraft took off with the cargo door opened.

Since this condition 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:

Following actions must be taken on the fore and aft cargo door. Visual inspection of the cargo door prior to each departure; removal of the cover plate from the cargo door surround trim lining; rework of the cargo door surround trim liner; repetitive inspection of the cargo door lateral roller fitting; relocation of the cargo door closed sensor; modification of the cargo door lock handle mechanism; replacement of the cargo door roller fitting; and inclusion of certain maintenance tasks on the Airplane Maintenance Program.

COMPLIANCE:

Required as indicated below, unless already accomplished.

(a) Beginning 24 hours after 16 Mar. 2007, the effective date of the original issue of this AD, no aircraft may be dispatched for flight without a visual inspection before takeoff by a qualified person, to ensure that the fore and aft cargo doors are closed flush with fuselage skin, latched and locked, in accordance with approved Minimum Equipment List (MEL) procedures for cargo doors inoperative position indication, Chapter 52 "DOORS", item 70-00.

(1) Definition: For the purposes of this paragraph, a qualified person is defined as an individual, who has received special training on cargo door latching, and, as listed below, shall be:

(i) A mechanic, or,

(ii) A flight crew member.

(b) Within 10 days after 16 Mar. 2007, the effective date of the original issue of this AD, perform the following actions on the fore and aft cargo doors:

(1) Remove and discard the cover plate from the door surround trim lining according to Embraer Alert Service Bulletin (ASB) No. 190-52-A018;

- (2) Perform a detailed inspection (DET) looking for signs of interference of the door lock handle with the aft edge liner assembly:
 - (i) If any interference is found, rework the aft edge liner assembly according to Embraer Service Bulletin (SB) No. 190-50-0006 before further flight;
 - (ii) If no interference is found, rework the aft edge liner assembly according to Embraer SB No. 190-50-0006 within the next 150 flight cycles;
- (3) Remove the aft surround trim lining to perform a detailed inspection (DET) for signs of damage of the lateral roller fitting on the forward and aft cargo door frames at the fuselage according to Embraer ASB No. 190-52-A018:
 - (i) If any damage is found, replace the lateral roller fitting with another one bearing the same part number (P/N) before further flight;
 - (ii) If no damage is found, no immediate corrective action is required.
- (c) At intervals that do not exceed 150 flight cycles after 16 Mar. 2007, the effective date of the original issue of this AD, repeat the inspections required by item (b)(3) above.
- (d) After accomplishing item (b) above, the visual inspection of item (a) above is no longer necessary.
- (e) Within the next 5000 flight cycles after 21 Oct. 2008, the effective date of the revision 1 of this AD, perform the following actions on the fore and aft cargo doors:
 - (1) Relocate the cargo door closed indication sensor according to Embraer SB No. 190-52-0023 original issue, or further revisions approved by the ANAC;
 - (2) Modify the cargo door lock handle mechanism and replace cargo door roller fittings P/N 170-92569-401 and P/N 170-85452-401 by new ones, according to Embraer SB No. 190-52-0027 original issue or further revisions approved by ANAC.
- (f) Within the next 365 days after 21 Oct. 2008, the effective date of the revision 1 of this AD, or within the next 365 days after accomplishment of item (e) above, whichever occurs later, revise the Airplane Maintenance Program to include the operational (OPC) and functional (FNC) checks, of the fore and aft cargo doors, in accordance with the Airplane Maintenance Manual (AMM) tasks 52-31-20-720-801-A/500, 52-31-00-710-801-A/500, 52-32-20-720-801-A/500 and 52-32-00-710-801-A/500, dated 15 July 2008, at repetitive intervals that do not exceed 6000 flight hours.
- (g) The accomplishment of the item (e) above constitutes the terminal action to the repetitive inspections required by the item (c) above. The accomplishment of the item (f) above constitutes the terminal action for this AD.

NOTE 1: For the purpose of this AD, a detailed inspection (DET) is: “An intensive examination of a specific item, installation or assembly to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate access procedures may be required.”

NOTE 2: For the purpose of this AD, a functional check (FNC) is: “A quantitative check to determine if one or more functions of an item performs within specified limits”

NOTE 3: For the purpose of this AD, an operational check (OPC) is: “A task to determine if an item is fulfilling its intended purpose. Since it is a failure finding task, it does not require quantitative tolerances.”

The detailed instructions and procedures to accomplish this AD are described in the Embraer Alert Service Bulletin No. 190-52-A018, and in the Embraer Service Bulletins Nos. 190-50-0006 original issue, 190-52-0023 original issue and 190-52-0027 original issue, or in their further respective revisions approved by the ANAC.

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

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