



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2022-04-02

Effective Date: 03 May 2022

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 da Aviação Civil (RBAC) 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. 2022-04-02 - EMBRAER / 39-1492.

APPLICABILITY:

(a) This Airworthiness Directive (AD) applies to Embraer S.A. airplanes model ERJ 190-300 as identified in Embraer Service Bulletin N. 190E2-57-0001, original issue, dated August 20, 2018.

CANCELLATION / REVISION:

Not applicable.

REASON:

It has been found the occurrence of failed lockwires on the attachment of the Left Hand (LH) Main Landing Gear (MLG) trunnion bearing to spar 2, on a flight test airplane. These lockwires are designed to safety one shear pin to the other, keeping the integrity of the assembly through the torque applied to the shear pins. The structure vibration may cause the rotation of the shear pins causing the lockwire failure and the shear pin migration, which can collapse the MLG structure during takeoff and landing operations.

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 and modification of Left Hand (LH) and Right Hand (RH) MLG trunnion bearing attaching parts.

COMPLIANCE:

Required as indicated below, unless already accomplished.

(b) Inspection of LH and RH MLG trunnion bearing attaching parts.

Within 250 Flight Hours (FH) or 3 months after the effective date of this AD, whichever occurs first, do a Detailed Inspection (DET) on lockwires Part Number (P/N) MS 20995C32 of LH and RH MLG trunnion bearing attaching parts to see if there is any damage on them.

(i) If there is no damage on the lockwires no action is required at this time.

(ii) If there is any damage on them, replace them before the next flight with new ones with the same P/N and apply the applicable torques on shear pins P/N 196-32185-007 and P/N 196-32216-007, according to the detailed instructions and procedures described in Embraer Service Bulletin N. 190E2-57-0001, original issue, dated August 20, 2018; or further revisions approved by ANAC.

(c) Modification of LH and RH MLG trunnion bearing attaching parts.

Within 500 FH or 6 months after the effective date of this AD, whichever occurs first, modify the LH and RH MLG trunnion bearing attaching parts to the spars 2 and 3 according to the detailed instructions and procedures described in Embraer Service Bulletin N. 190E2-57-0001, original issue, dated August 20, 2018; or further revisions approved by ANAC.

(d) Alternative methods of compliance (AMOCs).

A different method or a different compliance time, with the requirements of this AD, may be used if approved by the Manager of the Continuing Airworthiness Technical Branch (GTAC) of ANAC.

(e) Material incorporated by reference.

You must use the Embraer Service Bulletin N. 190E2-57-0001, original issue, dated August 20, 2018; or further revisions approved by ANAC, to do the actions required by this AD, unless this AD specifies otherwise.

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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NOTA: Original in Portuguese language signed and available in the files of the Continuing Airworthiness Technical Branch (GTAC) of the National Civil Aviation Agency (ANAC).