U R G E N T

Organisme pour la sécurité
De l'aviation civile

Département Gestionnaire de la Sécurité

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Destinataire(s) (To): Pour les personnes concernées *(To whom it may concern)*

OBJET : Avis d'émission de l'AD urgente de l'ANAC de référence BR-E2025-07-03
*(***BR-E2025-07-03** *issuing notice)*

EMBRAER S.A.
Avions
BR-E2025-07-03

Le présent avis signale l'émission de la Directive de Navigabilité ANAC citée en objet dont le texte est joint.

This notice reports the issuing of the subject ANAC AD which is enclosed.

Cette AD est, réglementairement, directement applicable sur les aéronefs inscrits au registre français.

According to the rules, this AD is directly applicable to the French registered affected aircraft.

AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN EMERGENCY AIRWORTHINESS DIRECTIVE

EAD No: E2025-07-03 **Effective Date: 29 Jul. 2025**

The following Brazilian Emergency Airworthiness Directive (EAD), 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.

EAD No. E2025-07-03 - (EMBRAER) / 39-1586.

APPLICABILITY: This Emergency Airworthiness Directive applies to Embraer aircraft models ERJ190-300 and ERJ190-400 equipped with Engine Feed Check Valve with Part Number (PN) L85E38-003

CANCELLATION / REVISION: Not applicable.

REASON: A failure of the Engine Feed Check Valve has been identified following an occurrence in which the messages FUEL FEED FAULT and ENG FUEL LO PRESS were displayed on the Crew Alerting System (CAS), indicating a failure in the main engine fuel feed system. These valves are part of the fuel system of Embraer ERJ190-300 and ERJ190-400 aircraft.

It was found that accelerated wear may occur in the Engine Feed Check Valve (dual butterfly check valve). This wear can lead to the disconnection of the butterfly valves of the same valve. Debris released from the disconnection of the butterfly valves may obstruct the fuel flow in the feed line, potentially causing engine flameout, as well as a failed-open condition of the valve, affecting the crossfeed function.

In case of an one engine inoperative (OEI) scneario and a failed-open condition of the Engine Feed Check Valve, the crossfeed operation may result in fuel being transferred from the side feeding the operating engine to the side affected by the butterfly valves disconnection, potentially leading to flameout of the operating engine due to fuel starvation.

Since this condition may occur in other aircraft of the same type and affects flight safety, an immediate corrective action is required. Thus, sufficient reason exists to mandate compliance with this EAD in the indicated time limit without prior notice.

REQUIRED ACTION: Inspection or functional test of the Engine Feed Check Valve.

COMPLIANCE: Required as indicated below, unless already accomplished.

(a) Inspection of the Engine Feed Check Valve or Functional Test of Fuel Crossfeed System

(1) For aircraft that have accumulated more than 14,000 flight hours (FH) on the effective date of this Emergency Airworthiness Directive, perform the left-hand (LH) and right-hand (RH) Engine Feed Check Valve Inspection, according to paragraph **(b)(1)** of this EAD or the functional test, according to paragraph **(d)** of this EAD, before the next flight.

(2) For aircraft that have accumulated more than 11,900 FH and less than 14,000 FH on the effective date of this Emergency Airworthiness Directive, perform the left-hand (LH) and right-hand (RH) Engine Feed Check Valve Inspection, according to paragraph **(b)(1)** of this EAD or the functional test, according to paragraph **(d)** of this EAD, within the next 100 FH.

(3) For aircraft that have accumulated less than 11,900 FH on the effective date of this

Emergency Airworthiness Directive, perform the left-hand (LH) and right-hand (RH) Engine Feed Check Valve Inspection, according to paragraph **(b)(2)** of this EAD before the aircraft accumulates 12,000 FH.

(b) Initial Inspection of the Engine Feed Check Valve

(1) For aircraft that fall under paragraphs (a)(1) or (a)(2), perform the LH and RH Engine Feed Check Valve Inspection in accordance with the Alert Service Bulletin SB190E2-28-A010, original issue, dated July 25, 2025, or later revisions approved by Anac.

(i) If no signs of scratches, deformation, or corrosion on the valve body; scratches, wear, corrosion, or deformation on the flaps; oxidation or deformation on the spring; or slack on the axle are found, no further action is required under this paragraph.

(ii) If any such signs are found, comply with paragraph **(e)(1)** of this EAD before the next flight.

(2) For aircraft that fall under paragraph (a)(3), perform the LH and RH Engine Feed Check Valve Inspection in accordance with Service Bulletin SB190E2-28-0009, revision 03, dated July 25, 2025, or later revisions approved by Anac.

(i) If no signs of scratches, deformation, or corrosion on the valve body; scratches, wear, corrosion, or deformation on the flaps; oxidation or deformation on the spring; or slack on the axle are found, no further action is required under this paragraph.

(ii) If any such signs are found, comply with paragraph **(e)(2)** of this EAD before the next flight.

(c) Repetitive Inspections

Repeat the inspections required by paragraph **(b)(1)** or **(b)(2)**, as applicable, every 10,000 FH.

(d) Functional Test of fuel crossfeed system

Perform the functional test of fuel crossfeed system in the left and right wing tank, in accordance with Alert Service Bulletin SB190E2-28-A010, original issue, dated July 25, 2025, or later revisions approved by Anac, before the first flight of the day and for a maximum of 100 FH.

(1) If fuel tank weight increases less than 50 kg in the tested wing tank, return the system to its initial condition and put the aircraft back to a serviceable condition.

(2) If fuel tank weight increases 50 kg or more in the tested wing tank, return the system to its initial condition and comply with paragraph **(e)(1)** of this EAD before the next flight.

(e) Parts Replacement

(1) Perform the actions in paragraphs **(e)(1)(i) or (e)(1)(ii)**:

(i) If you find damage and the check valve has all parts, replace the affected valve in accordance with Alert Service Bulletin SB190E2-28-A010, original issue, dated July 25, 2025, or later revisions approved by Anac.

(ii) If you find damage in the check valve and the check valve has missing parts, replace the affected valve and inspect the affected fuel feed system (using a borescope, if necessary) for damage in the tube or other parts, in accordance with the same bulletin. If any damage is found, contact Embraer.

(2) Perform the actions in paragraphs **(e)(2)(i) or (e)(2)(ii)**:

(i) If you find damage and the check valve has all parts, replace the affected valve in

accordance with Service Bulletin SB190E2-28-0009, revision 03, dated July 25, 2025, or later revisions approved by Anac.

(ii) If you find damage in the check valve and the check valve has missing parts, replace the affected engine fuel feed check valve and perform an inspection of the affected fuel feed system (using a borescope, if necessary) for damage in the tube or other parts, in accordance with the instructions of Service Bulletin SB190E2-28-0009, revision 03, dated July 25, 2025, or later revisions approved by Anac.

(f) Interim Action

This EAD is considered an interim action. Anac may consider further mandatory actions.

(g) Credit for Previous Actions

Compliance with Service Bulletin SB190E2-28-0009, original issue, dated June 24, 2025; revision 01, dated June 27, 2025; or revision 02, dated July 8, 2025, is considered as accomplishment with the inspection required by paragraphs **(b)(1)** and **(b)(2)** of this EAD. The repetitive inspection required by paragraph **(c)** must be performed 10,000 FH after compliance with the aforementioned Service Bulletins.

(h) Material Incorporated by Reference

Use the Alert Service Bulletin SB190E2-28-A010, original issue dated July 25, 2025, or later revisions approved by Anac; and Service Bulletin SB190E2-28-0009, revision 03 dated July 25, 2025, or later revisions approved by Anac, to perform the actions required by this EAD, unless otherwise specified in this EAD.

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 Continuing Airworthiness Technical Branch (GGCP) of the National Civil Aviation Agency (ANAC).