



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL

## BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2023-02-01R3**

**Effective Date: 25 Oct. 2024**

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. 2023-02-01R3- EMBRAER / 39-1575.**

**APPLICABILITY:**

This Airworthiness Directive (AD) applies to all Embraer S.A. airplanes model EMB-505.

**CANCELLATION / REVISION:**

This AD cancels and supersedes the AD No. 2023-02-01R2 / 39-1572, dated 16 Oct. 2024, and is being issued to revise its APPLICABILITY and COMPLIANCE paragraph.

**REASON:**

It has been found the occurrence of corrosion in the clutch retaining bolt of aileron autopilot servo mount of the airplane. A clutch retaining bolt failure can disengage the clutch from the drive pin and jam the aileron controls, which may affect the airplane controllability.

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:**

Replacement of the aileron autopilot servo mount clutch retaining bolt and washer.

**COMPLIANCE:**

Required as indicated below, unless already accomplished.

**(a) Replacement of the aileron autopilot servo mount clutch retaining bolt and washer.**

(1) Within the applicable intervals established in the "Table 01 - Compliance intervals and limitations" of this AD, replace the aileron autopilot servo mount clutch retaining bolt with Part Number (P/N) 211-00090-03 by a new one bearing the same P/N 211-00090-03 or by a new one bearing a new P/N AN3-10A, and washer with P/N 212-00035-10 by a new one bearing a new P/N 212-00203-04 or a new P/N MS35338-43.

**Table 01 - Compliance intervals and limitations.**

--

Applicable airplane Flight Hours Since New (FHSN) and Time Since New (TSN), in months (MO), intervals.	Accomplishment interval.	Limitations (whichever occurs first).
(1) More than 144 TSN, or; More than 3,800 FHSN and more than 84 TSN, or; More than 5,500 FHSN.	(a) Within the next 3 MO or 50 FH, whichever occurs first, after 06 Feb. 2023, the effective date of the original revision of this AD.	(i) Not applicable.
(2) More than 3,800 FHSN up to 5,500 FHSN and less than 84 TSN.	(a) Within the next 6 MO or 200 FH, whichever occurs first, after 06 Feb. 2023, the effective date of the original revision of this AD.	(i) Limited to 87 TSN or 5,550 FHSN, whichever occurs first, or; (ii) Before accumulating 50 FH after 84 TSN, or; (iii) Before accumulating 3 MO after 5,500 FHSN.
(3) More than 1,200 FHSN up to 3,800 FHSN and more than 48 TSN up to 144 TSN.	(a) Within the next 6 MO or 200 FH, whichever occurs first, after 06 Feb. 2023, the effective date of the original revision of this AD.	(i) Limited to 147 TSN, or; (ii) Before accumulating 3,850 FHSN after 84 TSN, or; (iii) Before accumulating 3 MO after 3,800 FHSN and 84 TSN.

<p>(4) Less than 3,800 FHSN and more than 36 TSN up to 48 TSN.</p>	<p>(a) Within the next 9 MO or 600 FH, whichever occurs first, after 06 Feb. 2023, the effective date of the original revision of this AD.</p>	<p>(i) Limited to 54 TSN or 4,000 FHSN, whichever occurs first, or; (ii) Before accumulating 6 MO after 1,200 FHSN and 48 TSN, or; (iii) Before accumulating 200 FH after 1,200 FHSN and 48 TSN, or; (iv) Before accumulating 6 MO after 3,800 FHSN.</p>
<p>(5) Less than 1,200 FHSN and more than 48 TSN up to 144 TSN.</p>	<p>(a) Within the next 9 MO or 600 FH, whichever occurs first, after 06 Feb. 2023, the effective date of the original revision of this AD.</p>	<p>(i) Limited to 147 TSN or 1,400 FHSN, whichever occurs first, or; (ii) Before accumulating 50 FH after 144 TSN; or; (iii) Before accumulating 6 MO after 1,200 FHSN, or; (iv) Before accumulating 200 FH after 1,200 FHSN.</p>

(2) For the airplanes described to have "an equivalent modification factory incorporated " in the previous version of the Embraer SB N.505-22-0004, Revision 05, dated May 03, 2024, within the next 36 months after its manufacturing date (TSN), replace the aileron autopilot servo mount clutch retaining bolt with P/N 211-00090-03 or with P/N AN3-10A by a new one with P/N 211-00090-03 or with P/N AN3-10A, and the washer with P/N 212-00203-04 or with P/N MS35338-43 by a new one with P/N 212-00203-04 or with P/N MS35338-43.

**NOTE:** If the airplane operation age and/or the flight hours criteria change before the SB accomplishment, the most restrictive criteria must be obeyed.

**(b) Repetitive replacement.**

Replace the aileron autopilot servo mount clutch retaining bolt with P/N 211-00090-03 or with P/N AN3-10A by a new one with P/N 211-00090-03 or with P/N AN3-10A, and the washer with P/N 212-00203-04 or with P/N MS35338-43 by a new one with P/N 212-00203-04 or with P/N MS35338-43, at intervals that do not exceed 36 months after the first replacement according to the paragraph **(a)** of this AD.

**(c) Terminating action - replacement of parts of the aileron servo assembly.**

The replacement of the cable guard with P/N 233-00075-02 by a new one with a new P/N 233-00075-04, of the bolt with P/N 211-00090-03 by a new one with a new P/N 211-00837-01, of the washer with P/N 212-00203-04 by a new one with a new P/N 212-00210-04 and of the clutch cartridge with a P/N 383-00000-72 by a new one with a new P/N 383-000C0-72; according the detailed instructions and procedures described in Embraer Service Bulletin N. 505-22-0006, original revision, dated September 18, 2024; or further revisions approved by ANAC, constitutes a terminating action for the actions required by the paragraphs **(a)** and **(b)** of this AD.

**(d) Credit for previous actions.**

This paragraph provides credit for the actions specified in paragraphs **(a)** and **(b)** of this AD, if those actions were performed before October 25, 2024, the effective date of the Revision 03 of this AD, using Embraer Service Bulletin (SB) No. 505-22-0004, Original Revision, dated September 22, 2022, or Embraer Service Bulletin (SB) No. 505-22-0004, Revision 01, dated September 23, 2022, or Embraer Service Bulletin (SB) No. 505-22-0004, Revision 02, dated September 30, 2022, or Embraer Service Bulletin (SB) No. 505-22-0004, Revision 03, dated October 10, 2022, or Embraer SB N.505-22-0004, Revision 04, dated January 06, 2023.

**(e) 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.

**(f) Material incorporated by reference.**

You must use the Embraer SB N.505-22-0004, Revision 05, dated May 03, 2024, or further revisions approved by ANAC and the Embraer Service Bulletin N. 505-22-0006, original revision, dated September 18, 2024 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:

National Civil Aviation Agency (ANAC)  
Continuing Airworthiness Technical Branch (GTAC)  
Rua Doutor Orlando Feirabend Filho, nº 230  
Centro Empresarial Aquáriu - Torre B - 14º ao 18º andares  
Parque Residencial Aquáriu  
CEP 12246-190 – São José dos Campos - SP, BRAZIL.  
Tel: (12) 3203-6600; E-mail: pac@anac.gov.br

**APPROVAL:**

ROBERTO JOSÉ SILVEIRA HONORATO  
Head of Department  
Department of Airworthiness (SAR)  
ANAC

**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).

---

**Referência:** Processo nº 00066.014634/2022-07

SEI nº 10711258