

**AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL****BRAZILIAN AIRWORTHINESS DIRECTIVE****AD No.: 2017-11-01****Effective Date: 10 Nov. 2017**

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. 2017-11-01 - EMBRAER / 39-1418.****APPLICABILITY:**

(a) This Airworthiness Directive (AD) applies to Embraer S.A. airplanes identified in paragraphs (a)(1) thru (a)(4) of this AD.

(1) Embraer S.A. EMB-500 airplanes with serial numbers (S/N) 50000267, 50000289, 50000291, 50000299, 50000305, 50000306, 50000310 and 50000376.

(2) Embraer S.A. EMB-505 airplanes with S/N 50500185, 50500225, 50500226, 50500275, 50500285, 50500288, 50500289, 50500293, 50500294, 50500296 thru 50500298, 50500302, 50500304, 50500309, 50500311, 50500317, 50500318, 50500323, 50500328, 50500331, 50500335, 50500338, 50500340, 50500345, 50500351, 50500357, 50500362 thru 50500364, 50500385, 50500390, 50500391, 50500394, 50500398, 50500400, 50500407, 50500415 and 50500424.

(3) Embraer S.A. EMB-500 airplanes with S/N 50000246, 50000286, 50000304, 50000348, 50000359, 50000368, 50000370, 50000372, and 50000377 thru 50000380.

(4) Embraer S.A. EMB-505 airplanes with S/N 50500118, 50500122, 50500148, 50500151, 50500167, 50500176, 50500179, 50500188, 50500191, 50500197, 50500203, 50500207, 50500209, 50500212, 50500214, 50500215, 50500219, 50500231, 50500242, 50500244, 50500246, 50500248, 50500250, 50500256, 50500260, 50500266, 50500273, 50500277, 50500280, 50500282, 50500287, 50500292, 50500300, 50500306, 50500333, 50500344, 50500348, 50500361, 50500365, 50500367, 50500368, 50500371, 50500372, 50500379, 50500381, 50500382, 50500386, 50500395, 50500397, 5050399, 50500402 thru 50500404, 50500410 and 50500418.

**CANCELLATION / REVISION:**

This AD supersedes AD 2017-10-01, 39-1417.

**REASON:**

This AD results of a report of one airplane having improperly tied castle nut on the aileron, rudder and elevator trim tab (or autotab) attachment bolts. A disconnected surface may cause an increase in dynamic loads and probable flutter, which may cause structural failure and possible loss of control of the airplane.

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 without prior notice.

**REQUIRED ACTION:**

Inspection and rework, if necessary, of aileron, rudder and elevator trim tab (or autotab).

**COMPLIANCE:**

Required as indicated below, unless already accomplished.

**(b) Retained Requirements of AD 2017-10-01 with revised service information.**

This paragraph restates the actions required by paragraph (b)(1) and (b)(2) of AD 2017-10-01 with revised service information. Within 25 flight hours (FH) or 12 months after October 11, 2017, the effective date of AD 2017-10-01, whichever occurs first, do the actions specified in paragraph (b)(1) or (b)(2) of this AD, as applicable.

(1) For the airplanes identified in paragraph (a)(1) of this AD: Inspect the aileron trim tab, rudder trim tab and elevator trim tab attachment points to make sure the cotter pin is installed on the castle nut of the attaching bolts, and prior to further flight after this inspection, correct any discrepancy; in accordance with the Accomplishment Instructions of Embraer S.A. Alert Service Bulletin 500-27-A026, original issue, dated September 29, 2017; or Embraer S.A. Alert Service Bulletin 500-27-A026, Revision 01 issue, dated October 06, 2017, or further revisions approved by ANAC.

(2) For the airplanes identified in paragraph (a)(2) of this AD: Inspect the aileron trim tab, rudder trim tab and elevator autotab attachment points to make sure the cotter pin is installed on the castle nut of the attaching bolts, and prior to further flight after this inspection, correct any discrepancy; in accordance with the Accomplishment Instructions of Embraer S.A. Alert Service Bulletin 505-27-A028, Revision 01, dated September 29, 2017; or Embraer S.A. Alert Service Bulletin 505-27-A028, Revision 02, dated October 06, 2017 or further revisions approved by ANAC.

**(c) New Requirements of this AD.**

Within 25 FH or 12 months after the effective date of this AD, whichever occurs first, do the actions specified in paragraph (c)(1) or (c)(2) of this AD, as applicable.

(1) For the airplanes identified in paragraph (a)(3) of this AD: Inspect the aileron trim tab, rudder trim tab and elevator trim tab attachment points to make sure the cotter pin is installed on the castle nut of the attaching bolts, and prior to further flight after this inspection, correct any discrepancy; in accordance with the Accomplishment Instructions of Embraer S.A. Alert Service Bulletin 500-27-A026, Revision 01 issue, dated October 06, 2017, or further revisions approved by ANAC.

(2) For the airplanes identified in paragraph (a)(4) of this AD: Inspect the aileron trim tab, rudder trim tab and elevator autotab attachment points to make sure the cotter pin is installed on the castle nut of the attaching bolts, and prior to further flight after this inspection, correct any discrepancy; in accordance with the Accomplishment Instructions of Embraer S.A. Alert Service Bulletin 505-27-A028, Revision 02, dated October 06, 2017, or further revisions approved by ANAC.

**(d) Service Information.**

You must use the service information specified in paragraphs (d)(1) or (d)(2) of this this AD, as applicable, to do the actions required by this AD.

(1) Embraer S.A. Alert Service Bulletin 500-27-A026, Revision 01, dated October 06, 2017, or further revisions approved by the ANAC.

(2) Embraer S.A. Alert Service Bulletin 505-27-A028, Revision 02, dated October 06, 2017, or further revisions approved by the ANAC.

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

(1) This paragraph provides credit for the actions specified in paragraph (b)(1) or (c)(1) of this AD, as applicable, if those actions were performed before the effective date of AD 2017-10-01 using Embraer Alert Service Bulletin No. 500-27-A026, original issue, dated September 29, 2017.

(2) This paragraph provides credit for the actions specified in paragraph (b)(2) or (c)(2) of this AD, as applicable, if those actions were performed before the effective date of AD 2017-10-01 using Embraer Alert Service Bulletin No. 505-27-A028, original issue, dated September 28, 2017 or Embraer S.A. Alert Service Bulletin 505-27-A028, Revision 01, dated September 29, 2017.

**(f) Alternative method of compliance (AMOC).**

(1) A different method or a different compliance time, with the requirements of this AD, may be used if approved by the General Manager of the Aeronautical Product Certification Branch (Gerência Geral de Certificação de Produtos Aeronáuticos – GGCP).

**CONTACT:**

For additional technical information, contact:

National Civil Aviation Agency (ANAC)  
Aeronautical Products Certification Branch (GGCP)  
Rua Laurent Martins, nº 209, Jardim Esplanada  
CEP 12242-431 – São José dos Campos - SP, BRAZIL.  
Tel: 55 (12) 3203-6600; E-mail: pac@anac.gov.br

**APPROVAL:**

MÁRIO IGAWA  
General Manager  
GGCP

ROBERTO JOSÉ SILVEIRA HONORATO  
Airworthiness Superintendent  
ANAC

**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).