



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2021-05-01

Effective Date: 14 May. 2021

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. 2021-05-01 - YABORÃ / 39-1480.

APPLICABILITY:

(a) This Airworthiness Directive is applicable to Yaborã Indústria Aeronáutica S.A. airplanes models ERJ190-300 and ERJ190-400 that have installed the hydraulic system #3 main Alternating Current Motor Pump (ACMP 3A) with Part Number (P/N) 3033041-101.

CANCELLATION / REVISION:

Not applicable.

REASON:

It has been found the occurrence of premature failures of the hydraulic system ACMP 3A with PN 3033041-101 in Yaborã Indústria Aeronáutica S.A. airplanes models ERJ190-300 and ERJ190-400. The ACMP tail bearing has exhibit excessive wear, which, if allowed to progress, increases the probability of ACMP failures. In certain conditions the tail bearing wear may lead to failures that result in loss of hydraulic system #3 and may affect the electrical power distribution system. This condition, considering the combination with an independent failure in one engine, contributes to an unacceptable increase in the likelihood of a failure condition that may lead to loss of control of the aircraft.

Since this condition may occur in other airplane 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:

Repetitive replacement of the hydraulic system ACMP 3A with PN3033041-101.

COMPLIANCE:

Required as indicated below, unless already accomplished.

(b) Within 300 flight hours after the effective date of this AD or before the hydraulic system ACMP 3A with PN 3033041-101 accumulates 2,700 flight hours, whichever occurs later, replace the hydraulic system ACMP 3A with a serviceable one (see Note 3). Repeat the action required by this paragraph before the hydraulic system ACMP 3A with PN 3033041 101 accumulates 2,700 flight hours.

Note 1: If it is not possible to determine the accumulated flight hours of part with PN 3033041-101, this part shall not be considered a serviceable part (see Note 3) for the replacement required in paragraph (b) of this AD.

Note 2: It is recommended to return the removed components to Yaborã Indústria Aeronáutica S.A. for additional investigation of this issue.

Note 3: For the intent of this Airworthiness Directive, it is considered a serviceable ACMP 3A:

(i) ACMP 3A approved for use, as published in the AIPC, with a different PN of 3033041-101.

(ii) ACMP 3A with PN 3033041-101 that have accumulated time since new of less than 2,700 flight hours.

(iii) ACMP 3A with PN 3033041-101 that have accumulated less than 2,700 flight hours since the last detailed inspection in which the tail bearing has been replaced.

(iv) ACMP 3B, PN 3033041-101, as long as it can be determined not having been previously installed in the ACMP 3A position.

Note 4: The requirement to replace the ACMP with PN 3033041-101 is applicable only to the ACMP 3A. There is no requirement associated to the ACMP 3B operation.

(c) Interim action

This AD is considered an interim action. ANAC may consider further mandatory actions resulted from the investigation into the failures.

(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 (Gerência Técnica de Aeronavegabilidade Continuada - GTAC).

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

Parque Residencial Aquáriu

CEP 12246-190 – São José dos Campos, SP – BRAZIL

Tel.: (12) 3203-6600; E-mail: pac@anac.gov.br

APPROVAL:

Original in Portuguese language available at the Continuing Airworthiness Technical Branch (GTAC) of the National Civil Aviation Agency (ANAC). Signed by:

ROBERTO JOSÉ SILVEIRA HONORATO

Head of Department

