AIRWORTHINESS DIRECTIVE



AD RA N° 2024- 05-01

Date: 7-18-2024

RAAC 39, AMENDMENT TO ANAC RESOLUTION N° 602/2014

THIS AIRWORTHINESS DIRECTIVE, DEVELOPED AND ISSUED BY THE AERONAUTICAL CERTIFICATION DEPARTMENT, OFFICE OF AIRWORTHINESS, PURSUANT TO THE PROVISIONS OF ACT N.° 17285, AERONAUTICAL CODE OF THE REPUBLIC OF ARGENTINA, AND PUBLISHED IN THE OFFICIAL GAZETTE ON MAY 23, 1957 CONTAINING THE MODIFICATIONS SUBSEQUENTLY ADDED AND AIRWORTHINESS REGULATIONS, DNAR PART 39, IS APPLICABLE TO ALL AIRCRAFT OF THE SAME MAKE AND MODEL REGISTERED IN THE NATIONAL AIRCRAFT REGISTRY. AN AIRCRAFT TO WHICH AN AD IS APPLICABLE MAY NOT BE OPERATED EXCEPT IN ACCORDANCE WITH THE REQUIREMENTS OF SAID AD.

| APLICABILIDAD | | | | | | | |
|------------------------|---|--|--|--|--|--|--|
| Manufacturer | | Aircraft Type- Model | | | | | |
| | LAVIA SA | PA25 / PA25-235 / PA25-260, INCLUDING AIRCRAFT MANUFACTURED BY PIPER, CHINCUL LAVIASA and FAdeA SA | | | | | |
| Revision | Revision 0 | | | | | | |
| Superseded Document | This Airworthiness Directive supersedes EAD 2023-12-01. | | | | | | |
| Subject | Corrosion found in the front and rear spars of wings and cracks found in the front spar | | | | | | |
| Description | Reports of corrosion found in the front and rear spars and cracks found in the front spar Fitting – drag wire pull (P/N 61212-00, Item 32, Figure 5 of the IPC) were received through the In-Service Difficulties (SDS) Notification System. This Airworthiness Directive is issued given these findings are not included in any maintenance action. Affected parts: 1. Section wingwalk J 61228-00 2. Section wingwalk J 61229-00 3. Front Spar 96006-0 / -1/64055-06 / -07 / 61156-02 /-03 4. Rear Spar 96006-0 / -1/64056-02 / -03 /61157-02 /-03 After the issuance of EAD 2023-12-01, cracks were found in the holes drilled to fix leading edges which may cause these cracks to spread towards the spar web. Considering the CRITICAL NATURE of these findings, instructions are given to prevent any catastrophic failure condition of the aircraft. | | | | | | |

Corrective Action

1. PART I – FRONT AND REAR SPAR INSPECTION FOR CORROSION AND FRONT SPAR ALTERATIONS

If previous EAD 2023-12-01 has been complied with and no findings have been reported, continue Repeated Inspections under Item 1. ii.

i. **INITIAL INSPECTION:** For aircraft that have suffered any type of spar alteration (i.e., change of leading edge, repairs, non-approved perforations) or that have accumulated more than 500 flight hours or are over 5 years old since manufactured, whichever occurs first, before the next 10 flight hours, annual inspection or 100-hour inspection from the effective date, whichever occurs first, the following must be complied with:

LAVIASA Service Bulletin 25-57-09.

If spar corrosion, cracks or alterations are found evidencing the following:

- Overlapping or enlarged holes
- More than 4 holes and at least two of them are less than half an inch away from each other

The aircraft is grounded and LAVIASA should be contacted to obtain specific instructions to return the aircraft to an airworthy condition.

If the spar was replaced prior to the effective date of this Airworthiness Directive and it has not been altered, LAVIASA Service Bulletin 25-27-09 should be complied with once the aircraft has accumulated 500 flight hours or is over 5 years old, whichever occurs first, from the date the spar was changed.

If no findings have been reported, continue repeated inspections under Item 1. ii.

ii. **REPETEAD INSPECTIONS:** Repeat inspections required by LAVIASA Service Bulletin 25-57-09, latest revision, at each annual inspection or 100-hour inspection, whichever occurs first.

Scheduling a PART I and PART II inspection jointly is recommended

2. PART II-INSPECTING FOR CRACKS IN FRONT SPAR

- a) Aircraft over 5 years old but less than 40 years old since manufactured.
 - i. **INITIAL INSPECTION.** If after complying with PART I of this Airworthiness Directive no findings are reported and the aircraft is over 5 years old but less than 40 years old since manufactured, in the next annual inspection or 100-hour inspection, whichever occurs first, from the effective date, the following shall be complied with:
 - a. LAVIASA Service Bulletin 25-57-11. The upper/lower spar flange, particularly the leading-edge fitting area must be inspected for cracks.
 - b. If there are findings after complying with SB 25-57-11 guidelines, an Eddy-current NDT method inspection must take place to identify the affected areas.

If no findings as those mentioned under item 2.a.(iii) are reported, continue with repeated inspections in accordance with item 2a(ii).

If cracks are found, the aircraft will be grounded.

THE RESULT OF THIS INSPECTION MUST BE REPORTED TO THE AERONAUTICAL AUTHORITY TO THE EMAIL BELOW.

- ii. **REPEATED INSPECTIONS.** If the aircraft is over 5 years old but less than 40 old years since manufactured and no findings have been reported under item 2a(i), the inspections required by LAVIASA Service Bulletin 25-57-11, latest revision, must be repeated at each annual inspection or 100-hour inspection, whichever occurs first.
- iii. **AIRCRAFT WITH ALTERED SPARS.** For aircraft where spar alterations have been found evidencing the following:
 - Overlapping or enlarged holes
 - More than 4 holes and at least two of them are less than half an inch away from each other,

the aircraft will be grounded.

iv. If alterations found in spars are not those mentioned in PART 2 (a)iii, an Eddy-current NDT method inspection should take place in the wing holes of each altered spar cap. If there are no cracks, an Eddy Current NDT inspection should be repeated every 50 service hours or 60 calendar days, whichever occurs first.

If cracks are found, the aircraft will be grounded.

If Eddy Current NDT repeated inspections take place every 50 service hours or 60 calendar days, whichever occurs first, the spar should be replaced before December 31, 2026.

- b) AIRCRAFT OVER 40 YEARS OLD SINCE MANUFACTURED
- i. INITIAL INSPECTION. If after complying with PART I of this Airworthiness Directive no findings are reported and the aircraft is over 40 years since manufactured, as of the effective date of this Airworthiness Directive and before the accumulation of 50 service hours or 60 calendar days, whichever occurs first:

LAVIASA Service Bulletin 25-57-11 should be complied with and the upper and lower flange area of the front spar must be inspected for cracks; specifically, the leading-edge fitting area and an Eddy-current NDT method inspection must take place to identify the affected areas.

If cracks are found, the aircraft will be grounded.

THE RESULT OF THE INSPECTION MUST BE REPORTED TO THE AERONAUTICAL AUTHORITY TO THE BELOW E-MAIL.

ii. REPEATED INSPECTIONS: Aircraft with no findings reported regarding item 2b(i), Eddy-current NDT inspections must be repeated and continued at each annual inspection or 100-hour inspection, whichever occurs first.

If cracks are found, the aircraft will be grounded.

| | NOTE 1: If the spar was replaced prior to the effective date of this Airworthiness Directive and it has not been altered, LAVIASA Service Bulletin 25-27-09 should be complied with once the aircraft is over 5 years old from the date the spar is replaced and until the aircraft is 40 years old since manufactured. Once the aircraft is over 40 years old since manufactured, Part 2. b(ii) requirements must be complied with. NOTE 2: In addition to effective compliance with this Airworthiness Directive as well as the initial and repeated inspection requirements reports, the results of complying with this AD are required to be reported to the Aeronautical Certification Department to the e-mail below to be considered approved. | |
|----------------|--|--|
| Effective date | July 18, 2024 | |
| Publications | Maintenance/Aircraft Service Manuals, latest revision of affected aircraft models which may obtained at the manufacturer's website. Advisory Circular (AC) 43-13-1B: Acceptable Methods Techniques and Practice Aircraft Inspection and Repair. LAVIA SA Service Bulletins, BS 25-57-09, and BS 25-57-11 | |

OBSERVATIONS

- 1. Any natural or legal person is entitled to request this Civil Aviation Administration the review and subsequent approval of an Alternative Method of Compliance (AMOC) with respect to this Airworthiness Directive by showing the structural condition of the aircraft and duly substantiating an equivalent level of safety for any repair, modification, or alteration.
- 2. This document may be found at: www.anac.gob.ar.
- 3. Any questions concerning this DA must be email to the Aeronautical Certification Department at: des@anac.gob.ar



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