



Airworthiness Directive

AD No.: 2022-0109

Issued: 15 June 2022

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I Part M.A.301, or Annex Vb Part ML.A.301, as applicable, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I Part M.A.303, or Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

SONACA AIRCRAFT S.A.

Type/Model designation(s):

S2 aeroplanes

Effective Date: 29 June 2022

TCDS Number(s): EASA.A.626

Foreign AD: Not applicable

Supersedure: None

ATA 27 – Flight Controls – Elevator Long Pushrod – Inspection / Replacement

Manufacturer(s):

Sonaca Aircraft S.A.

Applicability:

Sonaca S200 and S201 aeroplanes, all manufacturer serial numbers.

Definitions:

For the purpose of this AD, the following definitions apply:

The SB: Sonaca Aircraft Service Bulletin (SB) SB-SONAIR-S2-025 Revision B.

Affected part: Elevator long pushrods (ELP), except those that have been determined to be conforming, by inspection in accordance with the instructions of the SB.

Serviceable part: An ELP for which the connections of the pushrod ends (both forward and aft) onto the pushrod tube are determined to be conforming, i.e. correct with regard to the positioning of the (4) drilled holes and rivets connecting each part, and free of damage, by inspection in accordance with the instructions of the SB; or a new ELP (not previously installed) delivered after 01 January 2022.

Groups: Group 1 aeroplanes are those that have an affected part installed.



Group 2 aeroplanes are those that have a serviceable part, as defined in this AD, installed.

Reason:

A production deviation has been determined in the assembly of ELPs, as part of the aircraft flight controls. The assembly/connection of the forward pushrod end and/or of the aft pushrod end onto the pushrod tube could therefore be discrepant, due to incorrect positioning of the (4) drilled holes and rivets connecting these parts. Consequently, some aeroplanes could be equipped with a non-conforming ELP.

This condition, if not detected and corrected, could lead to long-term damage of the connection between the pushrod tube and one or both pushrod end(s), due to fatigue in the riveted joints, and subsequent damage or rupture of the ELP and consequent reduced integrity of the flight control system, possibly resulting in loss of control of the aeroplane.

To address this potential unsafe condition, Sonaca Aircraft published the SB, providing instructions to inspect the ELP, especially the connections between (both) the pushrod ends and the pushrod tube, and for the replacement of affected parts.

For the reasons described above, this AD requires a one-time inspection of the installed ELP for conformity and possible damage of the connections of both forward and aft pushrod ends onto the pushrod tube, repetitive inspections of the affected part and, depending on findings, replacement. This AD also prohibits (re)installation of an affected part and requires replacement of installed affected parts with a serviceable part, which is terminating action for the repetitive inspections as required by this AD.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 and Group 2 aeroplanes: Within the compliance time specified in Table 1 of this AD, as applicable, inspect the ELP to determine whether it is an affected part, by checking the conformity (correct positioning of the 4 holes and rivets) and the status of the connections of both forward and aft pushrod ends onto the pushrod tube, in accordance with the instructions of the SB.

Table 1 – Initial ELP Inspection (see Note 1 of this AD)

Aeroplane Flight Hours (FH)	Compliance Time
More than 300 FH	Within 50 FH after the effective date of this AD
300 FH or less	Within 100 FH after the effective date of this AD

Note 1: Unless indicated otherwise, the FH specified in Table 1 of this AD are those accumulated by the aeroplane since first flight.

- (2) For Group 1 aeroplanes: Before next flight after the inspection as required by paragraph (1) of this AD, and, thereafter, at intervals not to exceed 25 FH, provided the affected part does not exceed the criteria specified in points 4 and 5 of section 4.2 of the SB, inspect the affected part in accordance with the instructions of the SB.



Corrective Action(s):

- (3) For Group 1 aeroplanes: If, during any inspection as required by paragraph (2) of this AD, the affected part exceeds the criteria specified in points 4 and 5 of section 4.2 of the SB, before next flight, replace the affected part with a serviceable part in accordance with the instructions of the SB.

Replacement:

- (4) For Group 1 aeroplanes: Within 12 months after the effective date of this AD, replace the affected part with a serviceable part in accordance with the instructions of the SB, unless already accomplished as required by paragraph (3) of this AD.

Reporting:

- (5) Within 30 days after the inspection as required by paragraph (1) of this AD report the results, including no findings, to Sonaca Aircraft.
- (6) For Group 1 aeroplanes: Within 30 days after each replacement of an affected part with a serviceable part, as required by paragraph (3) or (4) of this AD, report that replacement to Sonaca Aircraft.

Part Installation:

- (7) Do not install an affected part on any aeroplane, as required by paragraph (7.1) or (7.2) of this AD, as applicable.
- (7.1) For Group 1 aeroplanes: After the replacement as required by paragraph (3) or (4) of this AD.
- (7.2) For Group 2 aeroplanes: From the effective date of this AD.

Terminating Action:

- (8) For Group 1 aeroplanes: Replacement of the affected part on an aeroplane as required by paragraph (3) or (4) of this AD, as applicable, constitutes terminating action for the repetitive inspections as required by paragraph (2) of this AD for that aeroplane.

Ref. Publications:

Sonaca Aircraft SB SB-SONAIR-S2-025 Revision B dated 11 May 2022.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 16 May 2022 as PAD 22-057 for consultation until 13 June 2022. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the compressed (zipped) file attached to the record for this AD.



3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: Sonaca Aircraft S.A., E-mail: occurrences@sonaca-aircraft.com or Telephone: +32 81 90 00 01.

