



CZECH AIRCRAFT
GROUP

SERVICE BULLETIN

Czech Aircraft Group s.r.o
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No.: SB-SC-078

Date: 2020-04-14

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MODEL AFFECTED:	SportCruiser / PiperSport operating outside EASA rules
SUBJECT:	Rudder stops replacement
AIRCRAFT AFFECTED:	All SportCruiser / PiperSport aircraft.
COMPLIANCE:	According to the respective SportCruiser / PiperSport aircraft owner's decision.

DESCRIPTION:

This Service Bulletin contains instructions for replacement of rudder stops. These stops are used to define and set the maximum deflection of rudder. This deflection is set to $30^{\circ} \pm 2^{\circ}$ on both sides.

AUTHORISATION TO PERFORM:

USA: Repairman (LS-M) or Mechanic (A&P)

Other: Part M or Part 145 Maintenance organization

REASON:

Reinforced rudder stops (P/N: CF0262L and CF0262P) have been developed by the aircraft manufacturer with the objective to further increase operational reliability of the aircraft, mainly in highly demanding operational conditions.

MANPOWER:

4 hours

SPECIAL TOOLS:

Common tools for aircraft maintenance.

WEIGHT AND BALANCE:

No effect

ELECTRICAL LOAD DATA:

N/A

PUBLICATIONS AFFECTED:

N/A

MATERIAL AND COSTS:

All costs to be covered by the aircraft owner/operator.



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MATERIAL:

NOMENCLATURE	PART NUMBER	DESCRIPTION	QUANTITY (PCS)
3171T032	16910512	rivet Avex 5	4
3171T030	16910410	rivet Avex 4	10
ST0050N-510-001	N/A	mounting device	1
3111x611	N/A	bolt M6x35	1
3121x602	N/A	nut M6	2
CF0262L	N/A	left stop	1
CF0262P	N/A	right stop	1
4410V002	N/A ¹	Emfimastic PU50 or	1
N/A	N/A ^{1,2}	3M Marine Adhesive Sealant 5200	1

¹one of these, ²order in local store

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove horizontal stabilizer (SC_MM-1-0-00, Chap 5.3), disconnect trim wires and elevator rod.
2. Remove rudder (SC_MM-1-0-00, Chap 5.3), disconnect control cables.
3. Drill out the rivets both sides (SC_MM-1-0-00, Chapter 15.2). All drilled rivets are marked on the picture (Fig. 1). Rivets marked as Avex 4 with drill bit D3,2 mm and Avex 5 with drill bit D4,1mm.
4. Gently heat up the fairing with a hot-air gun in blue area.

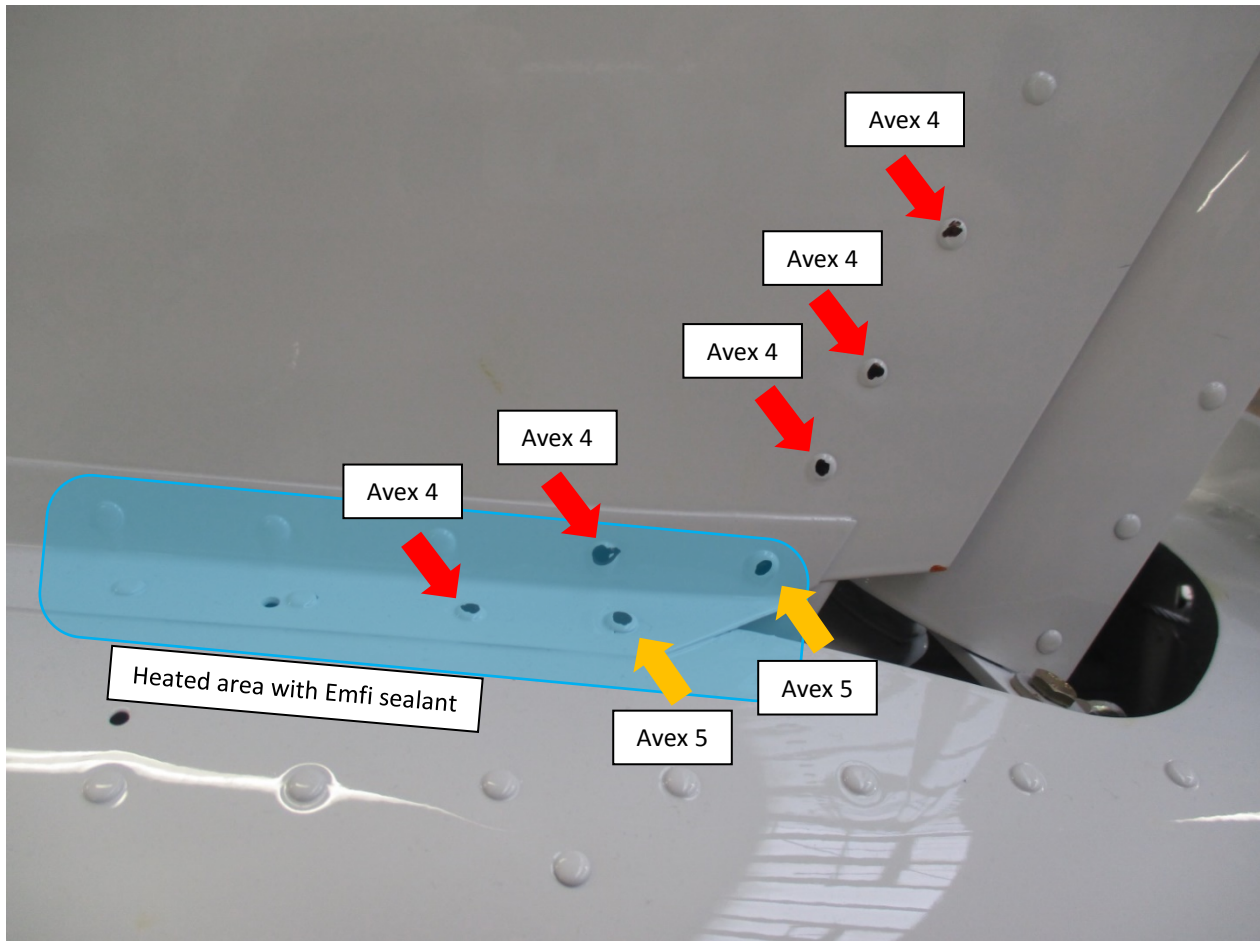


Fig. 1: Marked rivets to be drilled out



5. Remove the stops.
6. Remove any residual Emfi sealant using a snap blade knife.
7. Install the mounting device (Fig. 2) for alignment of the new stops CF0262LP.

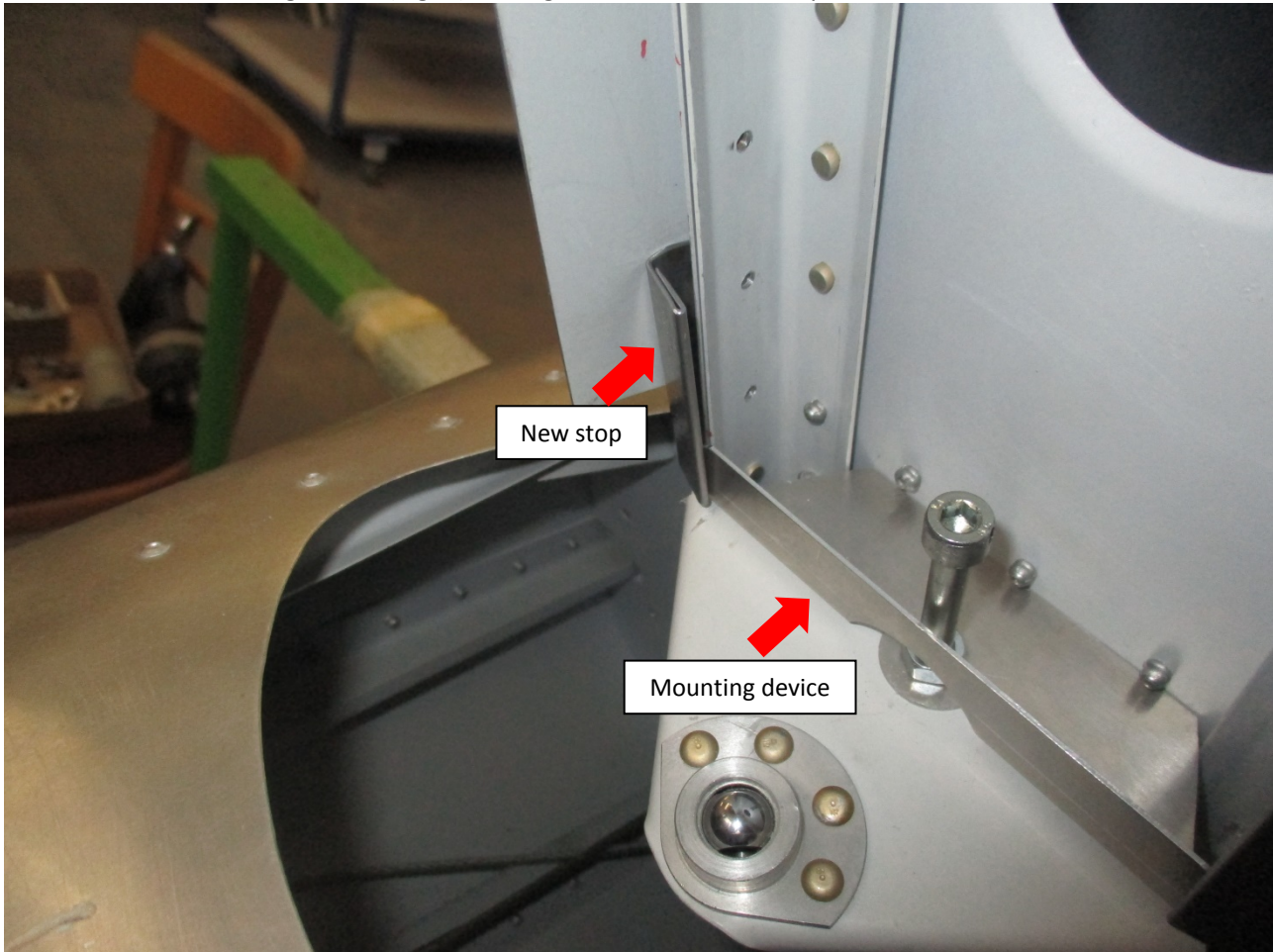


Fig. 2: Mounting device

8. Install the left and the right stop, keep stops in contact with the mounting device.
 9. Drill the holes, D3,2 mm for Avex 4 and D4,1mm for Avex 5, see Fig. 1.
 10. Remove the stops and deburr the holes.
 11. Apply Emfi/3M sealant where was the original sealant.
 12. Install the stops back in place, fix the stops with clecos.
 13. Gradually rivet (SC_MM-1-0-00, Chap 15.3) the rivets Avex 4-10 pcs. and Avex 5-4 pcs. See Fig. 1.
 14. Remove the mounting device.
 15. Clean the airframe from rest of rivets.
 16. Install back the rudder (SC_MM-1-0-00, Chap 5.3), connect control cables.
 17. Install back the horizontal stabilizer (SC_MM-1-0-00, Chap 5.3) and connect trim cables.
 18. Check deflection of the rudder, system function and tension of the control cables (SC_MM-1-0-00, Chap 6.4).
 19. Fill the holes in the rivet heads with Emfi/3M sealant, allow to cure and grind it.
 20. Repair the paint (SC_MM-1-0-00, Chapter 15.6).
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APPROVAL:

This Service Bulletin has been approved by:

Title	Head of Design Organization	Airworthiness Manager
Name	Jiří Sklenář	Miroslav Koukal
Hand written signature	