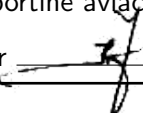


	Service bulletin	Doc. No. 017A.22.002
		Revision 1
		Date: 2022-09-21
"SA ir Ko" EASA.AP160	Wing-tip fixator inspection	Page 1 of 2

- Subject:** Inspection of the wing-tip fixators in the upper shell of the wings.
- Applicability:** LAK-17, models LAK-17A, LAK-17AT
TCDS No. EASA.A.083, issue 09, date of issue 2022/03/24, all serial numbers.
- Urgency:** This bulletin must be accomplished within 90 days after publication.
- Reason:** This bulletin is prepared according to the *Accident Investigation Report, LAK-17A VH-GTV*.
- Actions:**
- Revision of Flight Manual. Exchange or additional insertion of Flight Manual pages.
For model LAK-17A (Flight Manual Revision 1):
 - Record of revisions (pages 0.1, 0.2);
 - List of Effective pages (page 0.3);
 - Page 4.3 of Section 4 ("Normal procedures").
 - Revision of Maintenance Manual. Exchange or additional insertion of Maintenance Manual pages.
For model LAK-17A (Maintenance Manual Revision 5):
 - List of Effective pages (pages i, ii);
 - Record of revisions (pages iii. . . v);
 - Pages 5/7 and 5/8 of Section 5 ("Periodical inspections").
For model LAK-17AT (Maintenance Manual Revision 6):
 - List of Effective pages (pages i, ii);
 - Record of revisions (pages iii, iv);
 - Pages 5/8 and 5/10 of Section 5 ("Periodical inspections").
 - Inspection. Check wing-tip fixators and fixator hubs in the upper shell of the wing (see Maintenance Manual fig. 3-2 d, pos. 12). Look around the metal parts for cracks and splits in glass fiber reinforced plastics.
If the damage is found, report to sailplane manufacturer.
 - Repair. If cracks or splits in glass fiber reinforced plastics are found, these shall be repaired in accordance with instructions obtained from the sailplane manufacturer.

2022-09-21	Pociūnai, Prienai, Lithuania	JSC "Sportinė aviacija ir KO" Chief Designer  /K. Juočas
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Material and Drawings:

For model LAK-17A:

- *Flight Manual for the LAK-17A sailplane, Rev. 1,*
- *Maintenance Manual for the LAK-17A sailplane, Rev. 5.*

For model LAK-17AT: *Maintenance Manual for the LAK-17AT sailplane, Rev. 6.*

Weight and Balance:


Accomplishment of this bulletin does not affect the C.G. of the sailplane. A new weight and C.G. determination is not necessary.

Release to Service:

- Adding, exchanging the AFM and AMM pages can be done and released by the Pilot-Owner (Actions 1 and 2);
- Inspection (Action 3) can be done by the Pilot-Owner;
- Repair (Action 4) shall be done by the certified staff.

Approval:

The technical information contained in this Service Bulletin has been approved by EASA with approval number 10081106.

2022-09-21	Pociūnai, Prienai, Lithuania	JSC "Sportinė aviacija ir KO" Chief Designer  /K. Juočas
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Any revision of the present manual, except actual weighing data, must be recorded in the following table and in the case of approved sections endorsed by the responsible airworthiness authority.

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	0	0.2	2022 06 20				
	0	0.3	2022 06 20				
1	4	4.3	2022 06 20				

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0.2 List of Effective Pages

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	Appr. 2.6	2004 04 05		6.11	2004 04 05
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5. Insert the right wing spar into the fuselage. As the wing root approaches the fuselage look to be sure the automatic hook-ups for the aileron, flap and dive brake properly engage. Look to see if the water ballast control is engaging correctly. Line up the main pin bushings. Insert both spar pins fully. Lock the main wing pin handles.

Warning: Lock the main wing pin handles with fixing studs.

6. Install winglets or wing tips, lock and secure. To connect left and right wingtip: screw bolt M5 into the wingtip/winglet fixator and pull it out until it reaches the stop. While holding fixator in lifted position, push the wingtip or winglet completely into the wing. Release fixator, push it down flush with the wing surface, remove the bolt. Pull on the wingtip or winglet to make sure it is locked.
7. Slide the stabilizer onto the drive pins and look to make sure the automatic hook-ups for the elevator properly engage. Push the stabilizer all the way onto the drive pins. Screw the locking bolt in and make sure that the bolt is fixed. After removing the assembly tool, place a piece of glider tape over the locking bolt.

Caution: Insert battery into vertical tail, connect to electric system and check operation.

Warning: Pull out the locking pin before unscrewing horizontal stabilizer connection bolt.

8. Apply sealing tape to the wing/fuselage gaps.
9. Perform a positive control check of all the controls.
10. If water ballast is necessary, fill each wing tank according to the loading chart (see Section 6) and confirm symmetrical loading by balancing at the wing tip. A light coating of waterproof grease applied to the dump valve seat will help insure the valve is leak free.

Warning: Allow wing tanks to vent while filling. Do not fill with pressure exceeding 1 psi / 0.06 bar as the wing shell could be damaged. Check for proper dump valve operation prior to flight. Do not exceed the maximum gross weight.

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8. To measure clearance in attachment joint of the landing gear. Allowed clearance between an opening and axis is $\Delta = \pm 0.15 \text{ mm}$.
9. To measure friction forces in the control systems:
 - (a) Ailerons control – 0.5 daN;
 - (b) Elevator control with trimmer in neutral position – 0.3 daN;
 - (c) Rudder control (measure in upper point of pedals) – 2 ... 2.5 daN;
 - (d) Adjustment of pedals according to pilot height – 15 daN;
 - (e) Airbrakes control:
 - at opening – 15 daN,
 - at closing – 18 daN;
 - (f) Ventillation control – 3 daN;
 - (g) Landing gear control:
 - at extending – 20 daN,
 - at retracting – 14 daN;
 - (h) towing hook control:
 - without loading on towing hook – 10 daN,
 - with loading on towing hook – 12 daN;
 - (i) emergency opening of a canopy – 13 daN;
 - (j) water ballast control – 4 daN.

- Note:**
1. Measurements according i. 4 and 5 are taken with the control stick fixed.
 2. Measurements according i. 4, 5, 6, 7, 8, 9 shall be taken after cleaning and lubrication of movable surfaces of control systems.
10. To check balancing of ailerons, flaps, elevator and rudder according to the scheme shown in fig. 7-2 if repair or/and repainting of these control surfaces was done.
 11. To check the trimmer condition.
 12. To check the fuselage girder structure and its attachment to the fuselage. Pay special attention to:
 - splits in glass fiber reinforced plastics,
 - splits in sticking seams,
 - condition of girder welding seams,
 - deformations of the girder pipes,
 - condition of attachment joints of landing gear,
 - condition of attachment joint of the towing hook.

13. To check glass fiber reinforced plastics for cracks and splits around these metal parts and joints:

- spar hubs,
- hubs of wing root ribs,
- connection joints of stabilizer and fuselage,
- wingtip fixators and fixator hubs in the upper skin of the wing (fig. 3-2d, pos. 12),
- control and hinge joints of ailerons, flaps, elevator and rudder,
- attachment joints of safety belts,
- fastening joints of cockpit canopy.

Splits on glass fiber reinforced plastics shall be repaired.

14. To check surfaces of ends of wing spars, surfaces of external wing root ribs, paying special attention to connection zones of root ribs to spar ends and wing shells. If there are some splits or other damage on glass fiber reinforced plastics it is necessary to repair the damaged place.
15. To check external surfaces of wings, ailerons, flaps, fuselage, stabilizer, elevators and rudder.
In zones where paint has cracks it is necessary to clean off the paint and check glass fiber reinforced plastic for cracks and if necessary to repair the damage.
Initial clean off of paint shall be done with 180- to 220-grit sandpaper, finishing with 320-grit or even finer.
16. To check external surfaces of galvanized coating of metal parts. Zones with damaged protective galvanized or paint coating, if they are not damaged by corrosion reducing strength, may be repaired. After careful cleaning off the surface with sandpaper till metallic glitter and dust are removed, protective primer and enamel layers are put on following manual and directions of producers of these coatings.
17. To check towing hook, sailplane instruments and additional equipment following corresponding manufacturers' instructions.
18. To check technical condition and tightness of connections of static and dynamic pressure pipes and moisture collecting tanks.
19. To check technical condition of instrument markings and placards. Replace them if necessary.
20. Repair shall be done following guides given in Section 8 of this Manual. If damage isn't included in it repair shall be done according to recommendations of manufacturer of the sailplane.
21. To check water ballast tanks in wings and fin for sealing.
22. After doing all the work the sailplane shall be weighed and C.G. shall be recorded.

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- deformations of the girder pipes,
- condition of attachment joints of landing gear,
- condition of attachment joint of the towing hook.

13. To check glass fiber reinforced plastics for cracks and splits around these metal parts and joints:

- spar hubs,
- hubs of wing root ribs,
- connection joints of stabilizer and fuselage,
- wingtip fixators and fixator hubs in the upper skin of the wing (fig. 3-2d, pos. 12),
- control and hinge joints of ailerons, flaps, elevator and rudder,
- attachment joints of safety belts,
- fastening joints of cockpit canopy.

Splits on glass fiber reinforced plastics shall be repaired.

14. To check surfaces of ends of wing spars (Fig. 1), surfaces of external wing root ribs, paying special attention to connection zones of root ribs to spar ends and wing shells. If there are some splits or other damage on glass fiber reinforced plastics it is necessary to repair the damaged place.

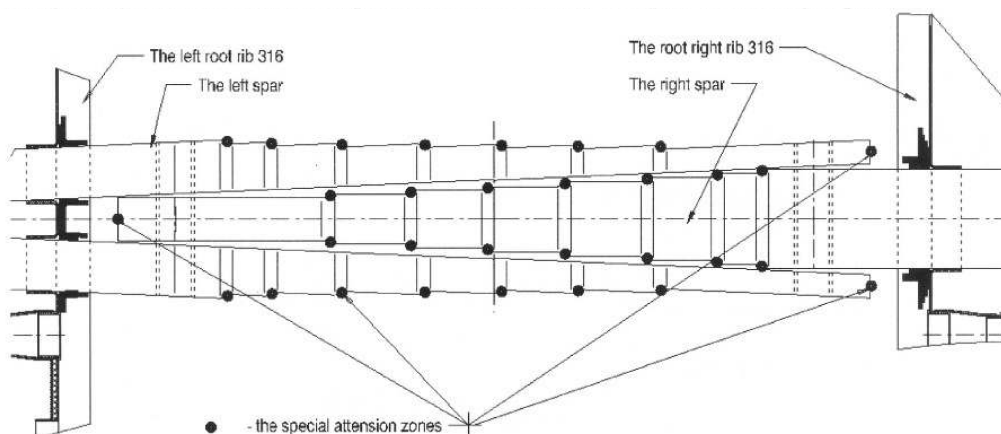
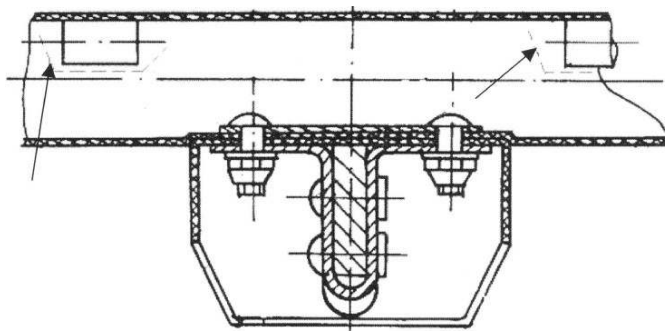


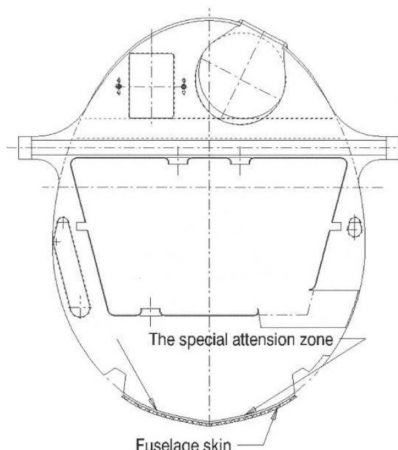
Fig. 1. The wing spar.

15. To check external surfaces of wings, ailerons, flaps, fuselage, stabilizer, elevators and rudder. The special attention zones:

- (a) the surfaces around hinge joints of control unit of elevators on the horizontal tail.



(d) the fuselage bulkhead



In zones where paint has cracks it is necessary to clean off the paint and check glass fiber reinforced plastic for cracks and if necessary to repair the damage.

Initial clean off of paint shall be done with glass-paper No 180, No 220 finishing with No 320 or even finer.

16. To check external surfaces of galvanized coating of metal parts. Zones with damaged protective galvanized or paint coating if they are not damaged by corrosion reducing strength may be repaired. After careful cleaning off of the surface with glass-paper till metallic glitter and its defatting protective prime and enamel layers are put on following manual and directions of producers of these coatings.
17. To check towing hook, sailplane instruments and additional equipment following corresponding manufacturers' instructions.
18. To check technical condition and tightness of connections of static and dynamic pressure pipes and moisture collecting tanks.
19. To check technical condition of instrument markings and placards. Replace them if necessary.
20. Repair shall be done following guides given in Section 8 of this Manual. If damage isn't included in it repair shall be done according to recommendations of manufacturer of the sailplane.
21. To check water ballast tanks in wings and fin for sealing.
22. Check the power-plant extracted/retracted position as indicated in Section 3.3.5 of this manual.
23. Check the completeness of the fire resistant paint. Repair damaged parts of the paint with the right material (see page 8/4 material list).
24. Check the power plant rubber parts and their service life (see Section 6).
25. Check the fastening torque of the engine (refer to the engine manual).
26. After doing all the works the sailplane shall be weighed and C.G. shall be defined.

5.7 Inspections of the sailplane after every 3000 flight hours

It is necessary to check thoroughly the sailplane after every 3000 hours. The sailplane shall be checked by qualified staff having a license for those works.

Inspections must be performed according to "LAK-17AT Inspection Program To Extend the Service Life", Doc. No. IP/17AT-3000. Inspection program should be ordered from the manufacturer of the sailplane.