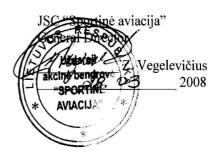
JSC "SPORTINĖ AVIACIJA"	Page 1
Service Bulletin No. 017AT.8.Re.007A	Pages 4



# Service Bulletin No. 017AT.8.Re.007A

# Extension of the approved lifetime from 1000 flight hours to 3000 hrs for the self-sustaining powered sailplane LAK-17AT

AB "Sportinė aviacija"
Design Director

K. Juočas

27

63

2008

JSC "SPORTINĖ AVIACIJA"	Page 2
Service Bulletin No. 017AT.8.Re.007A	Pages 4

# Record of revisions

Revision No.	Date	Affected pages	Revised Section No.

JSC "SPORTINĖ AVIACIJA"	Page 3
Service Bulletin No. 017AT.8.Re.007A	Pages 4

#### 1. Subject:

Extension of the approved life time from 1000 flight hours to 3000 hrs.

The copies of the service bulletin No. 017AT.8.Re.006A are sent to:

- 1. Civil Aviation Administration of the Lithuanian Republic (CAA) 1 copy;
- 2. EASA RP for LAK-17AT, LBA, Germany 1 copy;
- 3. EASA, 1 copy;
- 4. Aviation authorities of countries, which issued Type Certificates for the LAK-17AT, 1 copy;
- 5. For the known owners of the LAK-17AT or administration of organizations (clubs) having LAK-17AT gliders 1 copy.

#### 2. Affected:

**Type:** LAK-17AT

Manufacture: JSC "Sportinė Aviacija", Pociūnai, LT-59327 Prienai, Lithuania.

**Serial numbers affected:** all serial numbers.

**Original type certificate:** EASA Type Certificate No.EASA.A.083 (21 April 2006).

**3. Reason:** possibility to extend the approved lifetime from 1000 flight hours to

3000 hrs.

**4. Time of compliance:** this service bulletin must be accomplished after 1000 flight hours of the

sailplane.

**5. Actions:** 5.1 Replace in existing Sailplane Maintenance Manual:

- 1. List of Effective pages;
- 2. Record of revisions;
- 3. Pages: 5/7, 5/8, 5/9, 5/10, 6/1.

5.2 Perform Inspection of the sailplane after every 1000 flight hours according requirements of the Maintenance Manual, section 5.7 (new

pages).

**6. Mass and balance:** the described actions do not affect C.G of the glider. A new weight and

C.G. determination is not necessary.

7. Documentation and

**materials:** see Action.

New Maintenance Manual pages has to be ordered directly from the manufacture - JSC "Sportinė Aviacija", Pociūnai, LT-59327 Prienai, Lithuania.

## 8. Accomplishment

and log entry: Action to be accomplished by an approved service station and entered in

sailplane log by licensed inspector.

JSC "SPORTINĖ AVIACIJA"	Page 4
Service Bulletin No. 017AT.8.Re.007A	Pages 4

Supplement: 7 pages according item 5.1 of this service bulletin No.017AT.8.Re.007A

LAK-17AT	MAINTENANCE MANUAL			LAK-17AT	
Section	Page	Date of issue	Section	Page	Date of issue
	3/8	01 March 2006		7/10	01 March 2006
	3/9	01 March 2006		7/11	01 March 2006
	3/10	01 March 2006		7/12	01 March 2006
	3/11	01 March 2006		7/13	01 March 2006
	3/12	01 March 2006		7/14	01 March 2006
	3/13	01 March 2006		7/15	01 March 2006
	3/14	01 March 2006		7/16	01 March 2006
	3/15	01 March 2006		7/17	01 March 2006
	3/16	01 March 2006		7/18	01 March 2006
	3/17	01 March 2006		7/19	01 March 2006
	3/18	01 March 2006		7/20	01 March 2006
	3/19	01 March 2006	8	8/1	01 March 2006
	3/20	01 March 2006		8/2	01 March 2006
	3/21	01 March 2006		8/3	01 March 2006
	3/22	01 March 2006		8/4	01 March 2006
	3/23	01 March 2006		8/5	01 March 2006
	3/24	01 March 2006		8/6	01 March 2006
	3/25	01 March 2006		8/7	01 March 2006
	3/26	01 March 2006	9	9/1	01 March 2006
	3/27	01 March 2006			
	3/28	01 March 2006			
	3/29	01 March 2006			
	3/30	01 March 2006			
	3/31	01 March 2006			
	3/32	01 March 2006			
	3/33	01 March 2006			
4	4/1	01 March 2006			
5	5/1	01 March 2006			
	5/2	01 March 2006			
	5/3	01 March 2006			
	5/4	01 March 2006			
	5/5	15 March 2008			
	5/6	01 March 2006			
	5/7	27 March 2008			
	5/8	27 March 2008			
	5/9	27 March 2008			
	5/10	27 March 1 2008			
6	6/1	27 March 2008			
7	7/1	01 March 2006			
	7/2	01 March 2006			
	7/3	01 March 2006			
	7/4	01 March 2006			
	7/5	01 March 2006			
	7/6	01 March 2006			
	7/7	01 March 2006			
	7/8	01 March 2006			
	7/9	01 March 2006			

LAK-17AT	MAINTENANCE MANUAL	LAK-17AT

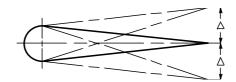
## **Record of revisions**

Any revision of the present Manual, except actual weighing data, must be recorded in the following table and in case of approved Sections endorsed by responsible airworthiness authority. The new or amended text in the revised page will be indicated by black vertical line in the left hand margin, and the Revision No. and date will be shown on the bottom left hand of the page.

			T		Τ	Т	Τ ~.
Rev.	Affected	Affected	Date of	Approval	Date	Date	Signature
No.	Section	Pages	issue		of approval	of Insertion	
Rev.1	5	5/5	15 03 2008				
Rev.2	5	5/7	27 03 2008				
Rev.2	5	5/8	27 03 2008				
Rev.2	5	5/9	27 03 2008				
Rev.2	5	5/10	27 03 2008				
Rev.2	6	6/1	27 03 2008				
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LAK-17AT	MAINTENANCE MANUAL	Section	Page 5/7
		5	Total pages 10

5. To measure clearances of the ailerons and flaps with respect to rear controls edges at their root ribs. Allowed clearance is  $\Delta = \pm 2$  mm.



- 6. Measure wear in the hinges of the elevator, rudder, ailerons and flaps. Allowed radial clearance between the hole diameter and axis is  $\Delta = 0.1$  mm.
- 7. Measure play at the control stick upper part with an elevator and ailerons fixed. Allowed clearance is  $\Delta=\pm~2$  mm (refer to paragraph **2.7.2**).
- 8. To measure clearance in attachment joint of the landing gear. Allowed clearance between an opening and axis is  $\Delta=\pm\,0.15$  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)  $-2 \dots 2.5 \text{ daN}$ ,
  - d) adjustment of pedals according to pilot height 15 daN,
  - e) airbrakes control:
  - at opening -15 daN,
  - at closing 18 daN,
  - f) ventilation control -3 daN,
  - k) landing gear control:
  - at expanding -20 daN,
  - at retracting 14 daN,
  - l) towing hook control:
  - without loading on towing hook -10 daN,
  - with loading on towing hook -12 daN,
  - m) emergency opening of a canopy 13 daN,
  - n) 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.
  - 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,

Date: 27 March 2008	Rev. No.2

- 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,
  - 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.

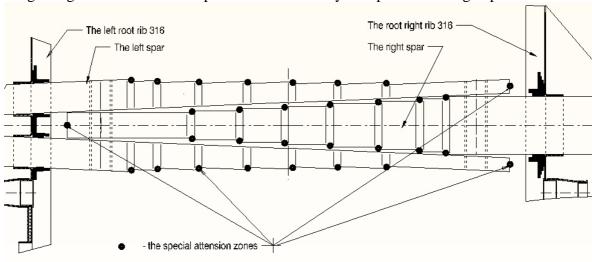
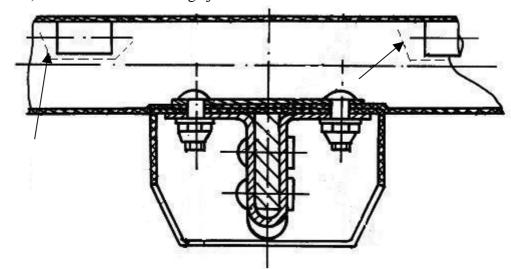


Fig.1. The wing spar.

- 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.



Date: 27 March 2008 Rev. No.2

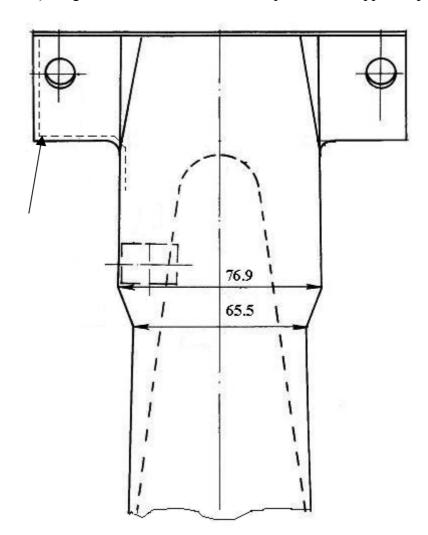
LAK-17AT

MAINTENANCE MANUAL

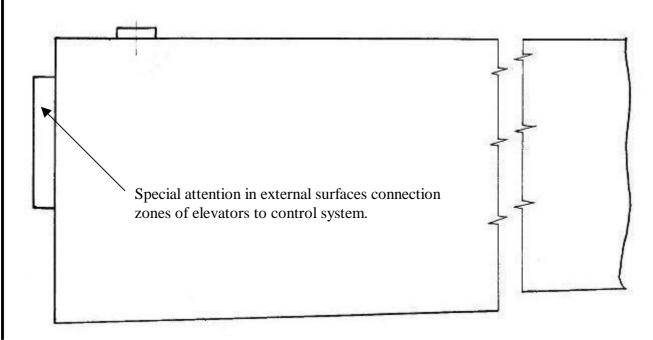
Section 5

Page 5/9 Total pages 10

b) the glued zones of the vertical tail spar onto the upper fin part



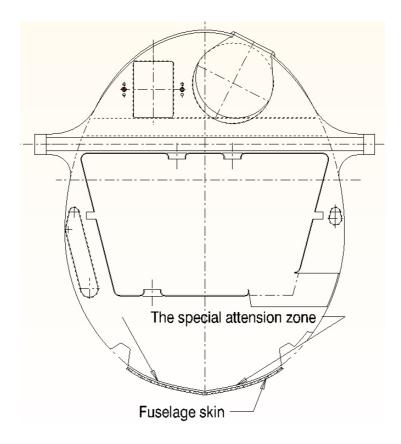
c) the elevator root rib



Date: 27 March 2008

Rev. No.2

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 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 damaged 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 resistance paint. Repair damaged parts of the paint with the right material (see page 8/3 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 work the sailplane shall be weighed and C of G shall be recorded.

Data: 27 March 2008	Day No 2
Date: 27 March 2008	Rev. No.2

#### **SECTION 6**

# The sailplane life limits

The approved lifetime limit of the sailplane LAK-17AT is 3000 flight hours.

The following power-plant rubber parts have 5 years limited service life:

- engine rubber shock mounts;
- all fuel lines;
- engine frame mount rubber shocks (see Fig.2-22, p.4);
- engine retaining cable bungee cord (see Fig.2-27, p.8).

The continued airworthiness of the sailplane is ensured by prescribed inspections and technical maintenance works done during its use:

- 1) annual sailplane inspection before starting the flight season according to requirements of Section 5 of "Maintenance Manual";
- 2) daily (before every flight day) and preflight sailplane inspection according to requirements of Section 4 of "Flight Manual" and Section 3 of "Maintenance Manual";
- 3) special sailplane inspection after a rough landings, ground loops, exceeding of allowed loadings and etc. according to requirements of section 5 of "Maintenance Manual";
  - 4) inspection and works according to requirements of bulletins issued for the sailplane;
- 5) inspection and works according to requirements of maintenance documents (Section 4 of "Maintenance Manual") of parts with limited lifetime (towing hook, safety belts, instruments, engine, propeller and others);
- 6) inspection after every 1000 flight hours according to requirements of Section 5 of "Maintenance Manual";

Checking of a sailplane, maintenance and necessary repair works shall only be done by qualified staff having permission to do the work.

In the case of damage of the sailplane structure not included in the "Maintenance Manual" the repair shall be agreed to by the manufacturer of the sailplane.

Date: 27 March 2008	Rev. No. 2