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**SECTION A1: GENERAL, L 23 SUPER-BLANÍK Type Design**

**A1. General**

Data Sheet No.: EASA.A.044	Issue: 02	Date: 30 May 2006
1. a) Type:	L 23 SUPER-BLANÍK	
b) Variant:	L 23 SUPER-BLANÍK	
2. Airworthiness Category:	Utility	
3. Type Certificate Holder:	Aircraft Industries, a.s Na Záhonech 1177 686 04 Kunovice CZECH REPUBLIC	
4. Manufacturer:	From S/N 897501 to S/N 907625 LET, k.p. 686 04 Kunovice 1177 CZECH REPUBLIC	
	From S/N 907626 to S/N 018809 LET, a.s. 686 04 Kunovice 1177 CZECH REPUBLIC	
	From S/N 018810 LETECKÉ ZÁVODY a.s. 686 04 Kunovice 1177 CZECH REPUBLIC	
5. Certification Application Date:	1989	
6. CAA CZ Type Certification Date:	August 28, 2001	
7. EASA Type Certification Date:	August 12, 2005 (see Note 2)	
8. The EASA Type Certificate replaces:	Czech Type Certificate No.: 89-02	

**A11. Certification Basis**

1. Reference Date for determining the applicable requirements:	---
2. Certification Basis:	---
3. Airworthiness Requirements:	Joint Aviation Requirements JAR 22, Change 4 , May 7th 1987
4. Requirements elected to comply:	None
5. EASA Special Conditions:	None

6. EASA Exemptions: JAR 22.621: For fork casting the lower coefficient 1.25 is used in spite of the fact that only 1 pc was stress tested, instead of required 3 pcs.
7. EASA Equivalent Safety Findings: JAR 22.621: The lower coefficient is used for fork casting based on the non-linear stress analysis of the fork by the FEM in NASTRAN, X-ray examination of each fork casting and long-term operation experiences with fork casting of L 13, L 23, L 33 and L 13 AC gliders.

### **All. Technical Characteristics and Operational Limitations**

1. Type Design Definition: Master Drawing No.: A 710 100 N
2. Description: The L 23 SUPER-BLANÍK glider is all-metal two-seat self-contained high-wing glider with trapezoidal wing and T-tail. The rudder, elevator and ailerons are covered by canvas.
- The fuselage with oval cross section holds all systems and parts of glider. The trapezoidal wing is fitted with ailerons and air brakes. Both parts of wing are attached to the centre section hinges. From S/N 938101 incl. the wing extensions can be installed.
- The fin is an integral part of the fuselage, the rudder has none balancing tab. The stabilizer is attached to the fin. The elevator is divided and each half is fitted with the balancing tab.
- The control of rudders, balancing tabs and air brakes is mechanical from both pilot's places. Retractable braked main landing gear is controlled from both pilot's places. The rear landing gear is either steerable by 360° or fixed.
- Upholstered and ventilated cockpit covered by single canopy is equipped with two seats adapted for the shoulder parachute and fitted with tightening belts.
3. Equipment: air-speed indicator  
altimeter  
variometer  
magnetic compass
4. Dimensions:
- |              |                |                |
|--------------|----------------|----------------|
| Span         | 16,20 or 18,20 | m              |
| Length       | 8.50           | m              |
| Height       | 1,9            | m              |
| Wing Area    | 19,15 or 20,00 | m <sup>2</sup> |
| Aspect Ratio | 13,7 or 16,6   |                |
5. Launching Hooks: Nose towing hook Draw. No. A 740 210 N  
or  
Nose towing hook " E85", LBA approved - No.:60.230/1  
Side towing hooks Draw. No. LN-0399 L (left) and LN-0400 P (right)  
Safety C.G. towing hook " Europa G 88", LBA approved - No.:60.230/2.

6. Weak links: Ultimate strength for winch launching and aerotow max. 6,5 kN

7. Air Speeds:

IAS airspeeds to and including S/N 938030:

Never exceed speed	V <sub>NE</sub>	250	km/h	IAS
Rough air speed	V <sub>RA</sub>	160	km/h	IAS
Manoeuvring speed	V <sub>A</sub>	150	km/h	IAS
Maximum winch-launching	V <sub>W</sub>	120	km/h	IAS
Maximum aerotowing speed	V <sub>T</sub>	150	km/h	IAS
Maximum landing gear operating speed	V <sub>LO</sub>	230	km/h	IAS

IAS airspeeds from and including S/N 938101:

Never exceed speed	V <sub>NE</sub>	230	km/h	IAS
Rough air speed	V <sub>RA</sub>	150	km/h	IAS
Manoeuvring speed	V <sub>A</sub>	150	km/h	IAS
Maximum winch-launching	V <sub>W</sub>	120	km/h	IAS
Maximum aerotowing speed	V <sub>T</sub>	150	km/h	IAS
Maximum landing gear operating speed	V <sub>LO</sub>	230	km/h	IAS

8. Operational Capability: VFR flights only.

9. Weights:

To and including S/N 029004:

Maximum weight	510 kg
Empty weight of sailplane without extensions	310 kg + 2 %.
Empty weight of sailplane with extensions	315 kg + 2 %.

From and including S/N 029005:

Maximum weight	530 kg.
Empty weight of sailplane without extensions	310 kg + 2 %.
Empty weight of sailplane with extensions	315 kg + 2 %.

Minimum pilot weight (including the parachute) during solo flight 55 kg. (see note 1.)

10. Centre of Gravity Range: 23 to 40 % of M.A.C. (M.A.C. = 1253 mm)

11. Datum: The datum is located 2376.5 mm behind the fuselage nose (the beginning of wing rib No. 1).

12. Levelling Means: Sailplane adjustment for levelling:  
- Longitudinal direction - levelling points No. 3 and 4 on the left side of fuselage  
- Lateral direction - levelling point No. 9 on the left wing  
Levelling points coordinates at sailplane's coordinates system [mm] (origin of coordinates - fuselage nose tip, x-axis - rearward, y-axis - upward, z-axis - to the left):  
Leveling point 3 [4238; -90; 265.919]  
Leveling point 4 [65.22; -90; 142.475]  
Leveling point 9 [2295.087; 281.054; 4597.0]

13. Minimum Flight Crew: 1 (Pilot)
14. Maximum Passenger Seating Capacity: 1
15. Lifetime limitations: Refer Maintenance Manual
16. Deflection angles of control surfaces:
- |                   |             |     |      |
|-------------------|-------------|-----|------|
| Elevator          | Up          | 32° | ± 2° |
|                   | Down        | 25° | ± 2° |
| Ailerons          | Up          | 34° | + 2° |
|                   | Down        | 13° | + 2° |
| Air brakes        | Up          | 65° | ± 3° |
|                   | Down        | 75° | ± 3° |
| Rudder            | left, right | 30° | ± 1° |
| Elevator trim tab | Up          | 15° | ± 1° |
|                   | Down        | 35° | ± 1° |
17. Load Factors:
- To and including S/N 938030:  
- 2.65; + 5.3 to 150 km/h  
- 1.5; + 4.0 to 250 km/h
- From and including S/N 938101:  
- 2.65; + 5.3 to 150 km/h  
- 1.5; + 4.0 to 230 km/h

#### **AIV. Operating and Service Instructions**

1. L 23 Flight Manual:

- In Czech language: up-to and including 80th series Do-L23.1011.1  
from 81st series Do-L23.1012.1  
from 84th series Do-L23.1013.1  
from and including S/N 029005 Do-L23.1014.1
- In English language (for the USA): up-to and including 80th series Do-L23.1011.5  
from 81st series Do-L23.1012.5  
from S/N 029005 Do-L23.1014.5
- In English language (for Canada): from and including 80th series Do-L23.1011.3  
from 81st series Do-L23.1012.3
- In German language: Do-L23.1011.4
- In Russian language: Do-L23.1011.2

2. L 23 Maintenance Manual:

- In Czech language: Do-L23.1031.1
- In English language: Do-L23.1031.3
- In German language: Do-L23.1031.4
- In Russian language: Do-L23.1031.2

3. Illustrated Parts Catalogue:

- In English language: Do-L23-2021.3

#### **AV. Notes**

1. In case of pilot weight more than 55 kg but less than 70 kg (including the parachute) it is necessary to use a seat with ballast 15 kg.
2. This aircraft type was transferred to EASA on Accession of the Czech Republic ('grandfathered').

**SECTION A2: Reserved**

**Change record**

Issue 1: initial issue

Issue 2: change in the address of the TC holder

Issue 3: change in the address of the TC Holder