

## *European Aviation Safety Agency*

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**EASA**

**TYPE-CERTIFICATE  
DATA SHEET**

**L-13 "BLANÍK"**

**Type Certificate Holder:**

**Aircraft Industries a.s.**

Na Záhonech 1177  
686 04 Kunovice  
Czech Republic

**Manufacturer:**

**Aircraft Industries, a.s**

Na Záhonech 1177  
686 04 Kunovice  
Czech Republic

**Strojírny první pětiletky n.p.**

Uherské Hradiště - Kunovice 1177  
Czechoslovakia

**LET, n.p.**

Uherské Hradiště - Kunovice 1177  
Czechoslovakia

**LET, a.s.**

686 04 Kunovice 1177  
CZECH REPUBLIC

**LETECKÉ ZÁVODY a.s.**

686 04 Kunovice 1177  
CZECH REPUBLIC

For variants:

L-13 "BLANÍK"  
L-13 AC "BLANÍK"  
L-13 A "BLANÍK"



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## **SECTION C2: Reserved**

## **Change record**



## **AII. Certification Basis**

- |  |  |
|--|--|
| 1. Reference Date for determining the applicable requirements: | ---  |
| 2. Certification Basis:  | - Bauvorschriften für Segelflugzeuge (BSV) issued August 1939<br>- BCAR, Section E, issued June 16, 1966 |
| 3. Airworthiness Requirements:                                 | see (2) above  |
| 4. Requirements elected to comply:                             | None   |
| 5. EASA Special Conditions:                                    | None   |
| 6. EASA Exemptions:  | None   |
| 7. EASA Equivalent Safety Findings:                            | None   |

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

- |                            |  |
|----------------------------|--|
| 1. Type Design Definition: | Drawing No. A 101 310 N  |
| 2. Description:            | All-metal, cantilever, high-wing monoplane. Wing fitted with wing flaps and DFS air brakes. Landing gear consists of a semi-retractable landing wheel with a mechanical brake, and a tail skid or (an optional) tail wheel. Horizontal tail surfaces consist of a two-piece tail-plane and elevator, vertical tail surfaces consist of a fin and a rudder.   |
| 3. Equipment:              | Minimum equipment:<br>2 airspeed indicators, range to 400 km/h<br>2 altimeters<br>2 four-point safety harnesses (symmetric)<br>2 parachutes or backrests (approx. 10 cm thick when compressed)   |
| 4. Dimensions:             |  |
| Span                       | 16.2 m   |
| Length                     | 8.4 m  |
| Height                     | 2.1 m  |
| Wing Area                  | 19.15 m <sup>2</sup>   |
| Aspect Ratio               | 13,7   |
| 5. Launching Hooks:        | Nose tow release Dwg. No. A 740 210 N, or nose tow release "E85", LBA Type Certificate No. 60.230/1<br>Side tow release left Dwg. No. LN-0399L and right Dwg. No. LN-0400P<br>"Europa G 72" safety tow release LBA Type Certificate No. 60.230/2, or<br>"Europa G 73" safety tow release LBA Type Certificate No. 60.230/2, or<br>"Europa G 88" safety tow release LBA Type Certificate No. 60.230/2 |

6. Weak links:	Ultimate Strength: - for winch launching - for aero-tow	max. 6300 N max. 6300 N
7. Air Speeds:		
Manoeuvring Speed $V_A$	145 km/h IAS	
Never Exceed Speed $V_{NE}$		
up to 2500 m MSL	253 km/h IAS	
2500 to 3000 m MSL	245 km/h IAS	
3000 to 4000 m MSL	230 km/h IAS	
4000 to 5000 m MSL	215 km/h IAS	
5000 to 6000 m MSL	201 km/h IAS	
6000 to 7000 m MSL	187 km/h IAS	
7000 to 8000 m MSL	174 km/h IAS	
8000 to 9000 m MSL	161 km/h IAS	
9000 to 10000 m MSL	150 km/h IAS	
Rough Air Speed $V_{RA}$	145 km/h IAS	
Max. Aerotow Speed $V_T$	140 km/h IAS	
Max. Flap Extended Speed $V_{FE}$	110 km/h IAS	
Max. Winch-launch Speed $V_W$	120 km/h IAS	
Max. Landing Gear Operating Speed $V_{LO}$	---	
8. Operational Capability:	VFR Day Cloud flying	
9. Maximum Weights:		
Maximum Weight:	500 kg	
Maximum Weight of non-lifting parts:	340 kg	
Empty Weight:	292 kg $\pm$ 2%	
10. Centre of Gravity Range:	Fore most c.g. limit aft of reference plane 112 mm Aft most c.g. limit aft of reference plane 300 mm [MAC is 1253 mm]	
11. Datum:	Wing leading edge at root rib	
12. Levelling Means:	Leveling points on fuselage	
13. Minimum Flight Crew:	1 (Pilot)	
14. Maximum Passenger Seating Capacity:	1	
15. Lifetime limitations:	Refer to Maintenance Manual	
16. Deflection angles of control surfaces:		
Elevator	up	32° + 2°
	down	25° $\pm$ 1°
Rudder	left, right	30° + 1°
Ailerons	up	34° + 2°
	down	13° + 2°
Wing flaps	down	08° $\pm$ 1°
Elevator trim tab	up	12° $\pm$ 1°
	down	35° $\pm$ 1°

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

### 1. Flight Manual:

– In Czech language Do-L13-1111.1	Směrnice pro pilota větroně L 13
– In English language Do-L13-1111.3	Pilots Notes for the L-13 Sailplane
– In German language Do-L13-1111.2	Fluganweisung für das Segelflugzeug L-13
– In Russian language Do-L13-1111.5	Rukovodstvo po letnoj ekspluatácii planera L 13
– In Spanish language Do-L13-1111.4	Planeador L 13 Blaník Instruciones Para el Piloto

### 2. Maintenance Manual:

– In Czech language Do-L13-1132.1 Do-L13-1131.1	Technická příručka větroně L 13 Příručka pro provoz a údržbu větroně L 13 Blaník bez generálních oprav
– In English language Do-L13-1132.3 Do-L13-1131.3	Technical Manual of the L 13 Sailplane, Manual for Operation and Maintenance of the L 13 Blaník Sailplane without overhauls
– In German language Do-L13-1132.2	Technisches Handbuch für das Segelflugzeug L-13
– In Russian language Do-L13-1131.5	Rukovodstvo po tehničeskoj ekspluatácii L 13 Blaník bez kapitalnych remontov

### 3. Illustrated Parts Catalogue:

– In Czech language Do L13-2121.6	Kusovník větroně L 13 Blaník (C-A-N)
– In English language Do-L13-2121.6	Spare Parts Catalogue L 13 Blaník (C-A-N)
– In German language Do-L13 2121.6	Katalog der Bestandteile L-13 Blaník

### 4. Overhaul Manual

– In Czech language Do-L13-3031.1	Příručka pro generální opravu kluzáku L 13, L 13A
– In English language Do-L13-3031.3	Overhaul Manual for L 13, L 13A Gliders
– In Russian language Do-L13-3131.5	Rukovodstvo po kapitalnomu remontu planera L 13

### 5. Operating Manuals for Tow Releases

– In German and in English language	Operating Manual for Nose Tow Releases TOST "Europa E 85" Operating Manual for Safety Tow Releases TOST "Europa G 88" Operating Manual for Safety Tow Releases TOST "Europa G 72" and "Europa G 73"
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**AV. Notes**

1. Six-position Serial Numbers starting with 17 precede the six-position Serial Numbers starting with 02.

**SECTION A2: Reserved**

## **SECTION B1: GENERAL, L - 13 AC Blaník Type Design**

### **B1. General**

Data Sheet No.: EASA.A.024	Issue: 04	Date: 23 May 2006
1. a) Type:	L - 13 "BLANÍK"	
b) Variant:	L - 13 AC Blaník	
2. Airworthiness Category:	Acrobatic Cloud flying	
3. Type Certificate Holder:	Aircraft Industries, a.s Na Záhonech 1177 686 04 Kunovice Czech Republic	
4. Manufacturer:	from S/N 988601 to S/N 008606 LET, a.s. 686 04 Kunovice 1177 CZECH REPUBLIC  S/N 018901 from S/N 028902 LETECKÉ ZÁVODY a.s. 686 04 Kunovice 1177 CZECH REPUBLIC	
5. Certification Application Date:	---	
6. CAA CZ Type Certification Date:	July 15, 1999	
7. EASA Type Certification Date:	February 4, 2005	
8. The EASA Type Certificate replaces Czech Type Certificate No. 2725-59		

### **BII. Certification Basis**

1. Reference Date for determining the applicable requirements:	August 31, 1998
2. Certification Basis:	CRI-A-01, issue 2, issued August 31, 1998
3. Airworthiness Requirements:	BCAR, Section E, issued June 6, 1966
4. Requirements elected to comply:	None
5. EASA Special Conditions:	Appendix H, Joint Airworthiness Requirements, Sailplanes and Powered Sailplanes, Change 5 of October 28, 1995
6. EASA Exemptions:	None
7. EASA Equivalent Safety Findings:	None

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

1. Type Design Definition: Drawing No. A 500 020 N
2. Description: L - 13 AC BLANÍK sailplane is all-metal, cantilever, highwing monoplane. Wing fitted with wing flaps and DFS air brakes. Landing gear consists of a semi-retractable landing wheel with a mechanical brake and a tail wheel. Horizontal tail surfaces consist of a two-piece tail-plane and elevator, vertical tail surfaces consist of a fin and a rudder. The S/N 018901 and from S/N 039102 there are installed ailerons outer stops, left aileron balance tab and there exists an option of wing tip extensions installation. Among the standard equipment there belongs AMU-1B recording unit.
3. Equipment:

Minimum equipment:  
2 airspeed indicators, range to 400 km/h  
2 altimeters  
2 five-point safety harnesses (symmetric)  
2 accelerometers  
2 parachutes or backrests (approx. 10 cm thick when compressed)  
1 AMU-1B recording unit
4. Dimensions:

Span	14.2 m without wing-tip extensions 16.2 m with wing-tip extensions
Length	8.4 m
Height	2.09 m
Wing Area	17.44 m <sup>2</sup> without wing-tip extensions 19.15 m <sup>2</sup> with wing-tip extensions
Aspect Ratio	11.186 without wing-tip extensions 13.7 with wing-tip extensions
5. Launching Hooks:

Nose tow release Dwg. No. A 740 210 N, or nose tow release "E85", LBA Type Certificate No. 60.230/1  
Side tow release left Dwg. No. LN-0399L and right Dwg. No. LN-0400P  
"Europa G 88" safety tow release LBA Type Certificate No. 60.230/2
6. Weak links:

Ultimate Strength:  
- for winch launching max. 6230 N  
- for aero-tow max. 6230 N

7. Air Speeds:
- |  |  |
|--|--|
| Manoeuvring Speed $V_A$                    | Air speeds of sailplane without wing tip extensions: |
| Never Exceed Speed $V_{NE}$                | 160 km/h IAS   |
| up to 2500 m MSL                           | 230 km/h IAS   |
| 2500 to 3000 m MSL                         | 223 km/h IAS   |
| 3000 to 4000 m MSL                         | 209 km/h IAS   |
| 4000 to 5000 m MSL                         | 195 km/h IAS   |
| 5000 to 6000 m MSL                         | 182 km/h IAS   |
| 6000 to 7000 m MSL                         | 170 km/h IAS   |
| 7000 to 8000 m MSL                         | 158 km/h IAS   |
| 8000 to 9000 m MSL                         | 147 km/h IAS   |
| 9000 to 10000 m MSL                        | 136 km/h IAS   |
| Rough Air Speed $V_{RA}$                   | 160 km/h   |
| Max. Aerotow Speed $V_T$                   | 150 km/h   |
| Max. Winch-launch Speed $V_W$              | 120 km/h   |
| Max. Landing Gear Operating Speed $V_{LO}$ | ---  |
- 
- |  |   |
|--|---|
| Maneuvering Speed $V_A$                    | Air speeds of sailplane with wing tip extensions: |
| Never Exceed Speed $V_{NE}$                | 150 km/h IAS                                      |
| up to 2500 m MSL                           | 230 km/h IAS                                      |
| 2500 to 3000 m MSL                         | 223 km/h IAS                                      |
| 3000 to 4000 m MSL                         | 209 km/h IAS                                      |
| 4000 to 5000 m MSL                         | 195 km/h IAS                                      |
| 5000 to 6000 m MSL                         | 182 km/h IAS                                      |
| 6000 to 7000 m MSL                         | 170 km/h IAS                                      |
| 7000 to 8000 m MSL                         | 158 km/h IAS                                      |
| 8000 to 9000 m MSL                         | 147 km/h IAS                                      |
| 9000 to 10000 m MSL                        | 136 km/h IAS                                      |
| Rough Air Speed $V_{RA}$                   | 150 km/h  |
| Max. Aerotow Speed $V_T$                   | 150 km/h  |
| Max. Winch-launch Speed $V_W$              | 120 km/h  |
| Max. Landing Gear Operating Speed $V_{LO}$ | ---   |
8. Operational Capability: VFR Day  
Cloud flying
9. Maximum Weights:
- |                                      |   |
|--------------------------------------|---|
| Maximum Weight:                      | 500 kg (without extensions)<br>510 kg (with extensions)                   |
| Maximum Weight of non-lifting parts: | 355 kg  |
| Empty Weight:                        | 305 kg $\pm$ 2% (without extensions)<br>315 kg $\pm$ 2% (with extensions) |
10. Centre of Gravity Range: Fore most c.g. limit aft of reference plane 143 mm  
Aft most c.g. limit aft of reference plane 337 mm  
[MAC is 1295 mm without wing tip extensions]  
[MAC is 1252.3 mm with wing tip extensions]
11. Datum: Wing leading edge at root rib
12. Levelling Means: Leveling points on fuselage in horizontal position.
13. Minimum Flight Crew: 1 (Pilot)

14. Maximum Passenger Seating Capacity:	1		
15. Lifetime limitations:	Refer to Maintenance Manual		
16. Deflection angles of control surfaces:			
	Elevator	up	32° + 2°
		down	27° ± 1°
	Rudder	left, right	29° + 1°
	Ailerons	up	34° + 2°
		down	13° + 2°
	Left aileron balance tab	up	20° ± 2°
		down	15° ± 2°
	Elevator trim tab	up	12° ± 1°
		down	35° ± 1°

#### **BIV. Operating and Service Instructions**

##### 1. Flight Manual:

– In Czech language  
Do-L13AC-1013.1

Do-L13AC-1014.0

– In English language  
Do-L13AC-1013.3

Do-L13AC-1014.2

Letová příručka L 13 AC Blaník  
(to S/N 008606 from S/N 028902 to 029101)  
Letová příručka L 13 AC Blaník  
(S/N 018901 from S/N 039102)

Sailplane Flight Manual L 13AC Blaník  
(to S/N 008606 from S/N 028902 to 029101)  
Sailplane Flight Manual L 13AC Blaník  
(S/N 018901 from S/N 039102)

##### 2. Maintenance Manual:

– In Czech language  
Do-L13AC-1032.1  
– In English language  
Do-L13AC-1032.3

Provozně technická příručka kluzáku L 13 AC  
Maintenance Manual for the Sailplane L 13 AC

##### 3. Illustrated Parts Catalogue:

– In Czech language  
Do-L13AC-2051.0

– In English language  
Do-L13AC-2051.0

Katalog dílů a montážních jednotek kluzáku  
L-13AC Blaník (C/A)

Illustrated parts catalogue for the sailplane  
L 13 AC Blaník (C/A)

##### 4. Operation book

– In Czech language  
Do-L13AC.1015.02  
– In English language  
Do-L13AC.1015.02

L 13AC Blaník Záznamník provozu kluzáku (C/A)

L 13 AC Blaník Sailplane operation book of records (C/A)

##### 5. Operating Manuals for Tow Releases

– In German and in English language  
Operating Manual for Nose Tow Releases TOST "Europa E 85"  
Operating Manual for Safety Tow Releases TOST "Europa G 88"

**BV.** **Notes**

None

**SECTION B2: Reserved**

**SECTION C1: GENERAL, L 13 A Blaník Type Design**

**CI. General**

Data Sheet No.:	EASA.A.024	Issue:	04	Date:	23 May 2006
1. a) Type:		L - 13 "BLANÍK"			
b) Variant:		L 13 A Blaník			
2. Airworthiness Category:		Acrobatic Cloud flying			
3. Type Certificate Holder:		Aircraft Industries, a.s Na Záhonech 1177 686 04 Kunovice Czech Republic			
4. Manufacturer:		from S/N 817401 to S/N 827420 LET, n.p. 686 04 Kunovice 1177 CZECH REPUBLIC			
		from S/N 968501 to S/N 968505 LET, a.s. 686 04 Kunovice 1177 CZECH REPUBLIC			
5. Certification Application Date:		---			
6. CAA CZ Type Certification Date:		December 16, 1981			
7. EASA Type Certification Date:		12 August 2005			
8. The EASA Type Certificate replaces Czech Type Certificate No. 2725-59					

**CII. Certification Basis**

1. Reference Date for determining the applicable requirements:		---
2. Certification Basis:		BCAR, Section E, issued June 6, 1966
3. Airworthiness Requirements:		see (2) above
4. Requirements elected to comply:		None
5. EASA Special Conditions:		None
6. EASA Exemptions:		None
7. EASA Equivalent Safety Findings:		None

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

- |  |   |
|--|---|
| 1. Type Design Definition:                 | Drawing No. A 101 310 N   |
| 2. Description:                            | All-metal, cantilever, high-wing monoplane. Wing fitted with wing flaps and DFS air brakes. Landing gear consists of a semi-retractable landing wheel with a mechanical brake, and a tail skid or (an optional) tail wheel. Horizontal tail surfaces consist of a two-piece tail-plane and elevator, vertical tail surfaces consist of a fin and a rudder.  |
| 3. Equipment:                              | <p>Minimum equipment:<br/>                 2 airspeed indicators, range to 400 km/h<br/>                 2 altimeters<br/>                 2 four-point safety harnesses (symmetric)<br/>                 2 parachutes or backrests (approx. 10 cm thick when compressed)</p>   |
| 4. Dimensions:                             |   |
| Span                                       | 16.2 m  |
| Length                                     | 8.4 m   |
| Height                                     | 2.1 m   |
| Wing Area                                  | 19.15 m <sup>2</sup>  |
| Aspect Ratio                               | 13.7  |
| 5. Launching Hooks:                        | <p>Nose tow release of type SR-L13.225, or nose tow release Dwg. No. A 740 210 N, or nose tow release "E85", LBA Type Certificate No. 60.230/1<br/>                 Side tow release left Dwg. No. LN-0399L and right Dwg. No. LN-0400P<br/>                 "Europa G 72" safety tow release LBA Type Certificate No. 60.230/2, or<br/>                 "Europa G 73" safety tow release LBA Type Certificate No. 60.230/2, or<br/>                 "Europa G 88" safety tow release LBA Type Certificate No. 60.230/2</p> |
| 6. Weak links:                             | <p>Ultimate Strength:<br/>                 - for winch launching                   max. 6230 N<br/>                 - for aero-tow                            max. 6230 N</p>   |
| 7. Air Speeds:                             |   |
| Manoeuvring Speed $V_A$                    | 145 km/h IAS  |
| Never Exceed Speed $V_{NE}$                |   |
| up to 2500 m MSL                           | 253 km/h IAS  |
| 2500 to 3000 m MSL                         | 245 km/h IAS  |
| 3000 to 4000 m MSL                         | 230 km/h IAS  |
| 4000 to 5000 m MSL                         | 215 km/h IAS  |
| 5000 to 6000 m MSL                         | 201 km/h IAS  |
| 6000 to 7000 m MSL                         | 187 km/h IAS  |
| 7000 to 8000 m MSL                         | 174 km/h IAS  |
| 8000 to 9000 m MSL                         | 161 km/h IAS  |
| 9000 to 10000 m MSL                        | 150 km/h IAS  |
| Rough Air Speed $V_{RA}$                   | 145 km/h  |
| Max. Aerotow Speed $V_T$                   | 140 km/h  |
| Max. Winch-launch Speed $V_W$              | 120 km/h  |
| Max. Landing Gear Operating Speed $V_{LO}$ | ---   |

8. Operational Capability:	VFR Day Cloud flying		
9. Maximum Weights:			
Maximum Weight:	500 kg		
Maximum Weight of non-lifting parts:	340 kg		
Empty Weight:	306 kg ± 2%		
10. Centre of Gravity Range:	Fore most c.g. limit aft of reference plane 112 mm Aft most c.g. limit aft of reference plane 300 mm [MAC is 1253 mm]		
11. Datum:	Wing leading edge at root rib		
12. Levelling Means:	Leveling points on fuselage in horizontal position.		
13. Minimum Flight Crew:	1 (Pilot)		
14. Maximum Passenger Seating Capacity:	1		
15. Lifetime limitations:	Refer to Maintenance Manual		
16. Deflection angles of control surfaces:			
	Elevator	up	32° + 2°
		down	25° ± 1°
	Rudder	left, right	30° + 1°
	Ailerons	up	34° + 2°
		down	13° + 2°
	Wing flaps	down	8° ± 1°
	Elevator trim tab	up	12° ± 1°
		down	35° ± 1°

#### **CIV. Operating and Service Instructions**

##### 1. Flight Manual:

- In Czech language  
Do-L13A-1011.1
- In English language  
Do-L13A-1011.3
- In German language  
Do-L13A-1011.2

Letová příručka L 13 A

Flight Manual of the L 13 A

Flughandbuch für das Segelflug L 13 A

##### 2. Maintenance Manual:

- In Czech language  
Do-L13A-1031.1
- In English language  
Do-L13A-1031.3
- In German language  
Do-L13A-1031.2

Příručka pro obsluhu, údržbu a opravy kluzáku L 13

Technical Manual of the L 13 A Sailplane

Handbuch für die Reparatur, Instandhaltung und Wartung  
des Segelflugzeuges L 13 A

3. Illustrated Parts Catalogue:

– In Czech language  
Do-L13-2126.6

Kusovník větroně L 13 Blaník (C-A-N)

– In English language  
Do-L13-2126.6

Spare Parts Catalogue L 13 Blaník (C-A-N)

– In German language  
Do-L13-2126.6

Katalog der Bestandteile L-13 Blaník (C-A-N)

4. Overhaul Manual

– In Czech language  
Do-L13-3031.1

Příručka pro generální opravu kluzáku L 13, L 13A

– In English language  
Do-L13-3031.3

Overhaul Manual for L 13, L 13A Gliders

5. Sailplane Technical Description L 13A

– In Czech language  
Do-L13A-1021.1

Sailplane Technical Description L 13A

6. Operating Manuals for Tow Releases

– In German and in English language

Operating Manual for Nose Tow Releases TOST "Europa E 85"

Operating Manual for Safety Tow Releases TOST "Europa G 88"

Operating Manual for Safety Tow Releases TOST "Europa G 72" and "Europa G 73"

**CV. Notes**

None

**SECTION C2: Reserved**

**Change Record**

Issue 1: Initial Issue

Issue 2: To record the change in the name of the TC holder and to include the L13A variant.

Issue 3: Editorial changes

Issue 4: Change in address of the TC holder