CIVIL AVIATION AUTHORITY
OF THE CZECH REPUBLIC

2725-59
Revision 8
Aircraft Industries, a.s.
L - 13 “BLANÍK”
L 13 A Blaník
L - 13 AC BLANÍK
05.09.2005

TYPE CERTIFICATE DATA SHEET No. 2725-59

This data sheet which is a part of Type Certificate No. 2725-59 prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Czech Republic.

Model	Application Date	Certification Date
L - 13 “BLANÍK”	-	29.05.1959
L 13 A Blaník	-	16.12.1981
L - 13 AC BLANÍK	-	15.07.1999

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Model L - 13 “BLANÍK”

I. General

1.	Data Sheet No.:	2725-59
2.	Model:	L - 13 “BLANÍK”
3.	Airworthiness category:	Acrobatic Cloud flying
4.	Type Certificate Holder:	Aircraft Industries, a.s. Kunovice 1177 686 04 Kunovice Czech Republic
5.	Manufacturer:	from S/N 170101 to S/N 173337, from S/N 173341 to S/N 173343, from S/N 173345 to S/N 173346, S/N 173350, S/N 173353, from S/N 173356 to S/N 173359, from S/N 173402 to S/N 173404, S/N 173407, from S/N 173415 to S/N 173416, from S/N 173422 to S/N 173439, S/N 173441 Strojírny první pětiletky n.p. Uh. Hradiště - Kunovice 1177 from S/N 173338 to S/N 173 340 S/N 173344 from S/N 173347 to S/N 173349 from S/N 173351 to S/N 173352 from S/N 173354 to S/N 173355 from S/N 173360 to S/N 173401 from S/N 173405 to S/N 173406 from S/N 173408 to S/N 173414 from S/N 173417 to S/N 173421 S/N 173440 from S/N 173442 to S/N 027361 LET, n.p. Uh. Hradiště - Kunovice 1177
6.	Application Date:	-
7.	Certificate Date:	29.05.1959

II. Certification Basis

1.	Certification Basis:	- Bauvorschriften für Segelflugzeuge (BSV) issued August 1939 - BCAR, Section E, issued June 16, 1966
2.	Special Conditions:	None
3.	Exemptions:	None
4.	Equivalent Safety Findings:	None

III. 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: 2 airspeed indicators, range to 400 km/h 2 altimeters 2 four-point safety harnesses (symmetric) 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^2 Aspect Ratio: 13,7
5.	Tow hook:	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 72” safety tow release LBA Type Certificate No. 60.230/2, or “Europa G 73” safety tow release LBA Type Certificate No. 60.230/2, or “Europa G 88” safety tow release LBA Type Certificate No. 60.230/2

6. Air Speeds:	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
	Manoeuvring speed v_A	145 km/h IAS
	Rough-air speed v_{RA}	145 km/h IAS
	Maximum flap extended speed v_{FE}	110 km/h IAS
	Maximum winch-launching speed v_W	120 km/h IAS
	Maximum aerotow speed	140 km/h IAS
7. Load factors:	- 2,5 g to + 5 g for weight not exceeding 500 kg - 3 g to + 6 g for weight not exceeding 400 kg	
8. Weights:	Maximum weight	500 kg
	Maximum weight of non-lifting parts	340 kg
	Empty weight	292 kg±2%
9. 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
10. Datum:	Wing leading edge at root rib.	
11. Mean Aerodynamic Chord (MAC):	1,253 m	
12. Leveling Means:	Leveling points on fuselage.	
13. Weak links:	Maximum strength 6300 N for both winch launching and aero-towing.	
14. Minimum Flight Crew:	1	
15. Number of seats	2	

16. Control surface deflections:	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°
17. Wheels and Tyres::	Main wheel HP 4741-Z with 135 x 350 tyre.		
	Tail wheel A 751 201 N.		
18. Other Limitations:	The glider is approved for VFR Day flying.		

IV. 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 fur das Segelflugzeug L-13
   - In Russian language
     Do-L13-1111.5 — Rukovodstvo po letnoj ekspluatacii planera L 13
   - In Spanish language
     Do-L13-1111.4 — Planeador L 13 Blaník Instructiones Para el Piloto

2. Maintenance Manual:
   - In Czech language
     Do-L13-1132.1 — Technická příručka větroně L 13
     Do-L13-1131.1 — Příručka pro provoz a údržbu větroně L 13 Blaník bez generálních oprav
   - In English language
     Do-L13-1132.3 — Technical Manual of the L 13 Sailplane,
     Do-L13-1131.3 — Manual for Operation and Maintenance of the L 13 Blaník Sailplane without overhauls
   - In German language
     Do-L13-1132.2 — Technisches Handbuch fur das Segelflugzeug L-13
   - In Russian language
     Do-L13-1131.5 — Rukovodstvo po techničeskoj ekspluatacii 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”

V. Notes

1. Six-position Serial Numbers starting with 17 precede the six-position Serial Numbers starting with 02.
2. **EASA TC No. EASA.A.024 has been issued for Model L - 13 “BLANÍK” sailplane on February 4, 2005**

Model L 13 A Blaník

I. General

1.	Data Sheet No.:	2725-59
2.	Model:	L 13 A Blaník
3.	Airworthiness category:	Acrobatic Cloud flying
4.	Type Certificate Holder:	Aircraft Industries, a.s. Kunovice 1177 686 04 Kunovice Czech Republic
5.	Manufacturer:	from S/N 817401 to S/N 827420 LET, n.p. Uh. Hradiště - Kunovice 1177 from S/N 968501 to S/N 968505 LET, a.s. 686 04 Kunovice 1177
6.	Application Date:	-
7.	Certificate Date:	16.12.1981

II. Certification Basis

1.	Certification Basis:	BCAR, Section E, issued on 6.6.1966
2.	Special Conditions:	L 8/0, issued on 1.7.1976 (translation of OSTIVAR Regulation, issued on September 19, 1971) for modified wing stress analysis
3.	Exemptions:	None
4.	Equivalent Safety Findings:	None

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:
2 airspeed indicators, range to 400 km/h
2 altimeters
2 four-point safety harnesses (symmetric)
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^2
Aspect Ratio:	13,7

5. Tow hook: 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

Side tow release left Dwg. No. LN-0399L and right Dwg. No. LN-0400P

"Europa G 72" safety tow release LBA Type Certificate No. 60.230/2, or
"Europa G 73" safety tow release LBA Type Certificate No. 60.230/2, or
"Europa G 88" safety tow release LBA Type Certificate No. 60.230/2

6. Air Speeds: 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

	Manoeuvring speed v_A		145 km/h IAS
	Rough-air speed v_{RA}		145 km/h IAS
	Maximum flap extended speed v_{FE}		110 km/h IAS
	Maximum winch-launching speed v_W		120 km/h IAS
	Maximum aerotow speed		140 km/h IAS
7. Load factors:	- 2,5 g to + 5 g for weight not exceeding 500 kg - 3 g to + 6 g for weight not exceeding 400 kg		
8. Weights:	Maximum weight		500 kg
	Maximum weight of non-lifting parts		340 kg
	Empty weight		306 kg±2%
9. 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
10. Datum:	Wing leading edge at root rib.		
11. Mean Aerodynamic Chord (MAC):	1,253 m		
12. Leveling Means:	Leveling points on fuselage.		
13. Weak links:	Maximum strength 6230 N for both winch launching and aero-towing.		
14. Minimum Flight Crew:	1		
15. Number of seats	2		
16. Control surface deflections:	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°
17. Wheels and Tyres::	Main wheel HP 4741-Z with 135 x 350 tyre.		
	Tail wheel A 751 201 N.		
18. Other Limitations:	The glider is approved for VFR Day flying.		

IV. Operating and Service Instructions

1. Flight Manual:
   - In Czech language
     Do-L13A-1011.1 Letová příručka L 13A
   - In English language
     Do-L13A-1011.3 Flight Manual for the glider L 13A
   - In German language
     Do-L13A-1011.2 Flughandbuch fur das Segelflug L 13A

2. Maintenance Manual:
   - In Czech language
     Do-L13A-1031.1 Příručka pro obsluhu, údržbu a opravy kluzáku L 13A
   - In English language
     Do-L13A-1031.3 Technical Manual of the L 13A Sailplane
   - In German language
     Do-L13A-1031.2 Handbuch fur die Reparatur, Instandhaltung und Wartung des Segelflugzeuges L13A

2. 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 (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”

V. Notes

EASA TC No. EASA.A.024 has been issued for model L 13 A Blaník sailplane on August 12, 2005.

Model L - 13 AC BLANÍK

I. General

1. Data Sheet No.:	2725-59
2. Model:	L - 13 AC BLANÍK
3. Airworthiness category:	Acrobatic Cloud flying
4. Type Certificate Holder:	Aircraft Industries, a.s. Kunovice 1177 686 04 Kunovice Czech Republic
5. Manufacturer:	from S/N 988601 to S/N 008606 LET, a.s. 686 04 Kunovice 1177 S/N 018901 from S/N 028902 LETECKÉ ZÁVODY a.s. 686 04 Kunovice 1177
6. Application Date:	-
7. Certificate Date:	15.07.1999

II. Certification Basis

1. Certification Basis:	BCAR, Section E, issued on 6.6.1966
2. Special Conditions:	Appendix H, Joint Airworthiness Requirements, Sailplanes and Powered Sailplanes, Change 5 of October 28, 1995
3. Exemptions:	None
4. Equivalent Safety Findings:	None

III. 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, 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 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^2 without wing-tip extensions
	19,15 m^2 with wing-tip extensions
Aspect Ratio:	11,186 without wing-tip extensions
	13,7 with wing-tip extensions

5. Tow hook: 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. Air Speeds:

Air speeds of sailplane without wing tip extensions:

Never-exceed speed v_{NE}	
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
Manoeuvring speed v_A	160 km/h IAS
Rough-air speed v_{RA}	160 km/h IAS
Maximum winch-launching speed v_W	120 km/h IAS
Maximum aerotow speed	150 km/h IAS

Air speeds of sailplane with wing tip extensions:

Never-exceed speed v_{NE}	
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
Manoeuvring speed v_A	150 km/h IAS
Rough-air speed v_{RA}	150 km/h IAS
Maximum winch-launching speed v_W	120 km/h IAS
Maximum aerotow speed	150 km/h IAS

7. Load factors:

- 4 to 6,3, without extensions, solo
- 4 to 5,5, without extensions, two pilots
- 2,5 to 5 with extensions

8. Weights:

Maximum weight	
without extensions	500 kg
with extensions	510 kg
Maximum weight of non-lifting parts	355 kg
Empty weight	
without extensions	305 kg$\pm$2%
with extensions	315 kg$\pm$2%

9. 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
10. Datum:	Wing leading edge at root rib.		
11. Mean Aerodynamic Chord (MAC):	1,295 m - without wing tip extensions 1,2523 m - with wing tipextensions		
12. Leveling Means:	Leveling points on fuselage in horizontal position.		
13. Weak links:	Maximum strength 6230 N for both winch launching and aero-towing.		
14. Minimum Flight Crew:	1		
15. Number of seats	2		
16. Control surface deflections:	Elevator	up	32° + 2°
		down	27° $\pm$ 1°
	Rudder	left, right	29° + 1°
	Ailerons	up	34° + 2°
		down	13° + 2°
	Left aileron balance tab		
		up	$20^{O} \pm 2^{O}$
		down	$15^{O} \pm 2^{O}$
	Elevator trim tab		
		up	12° $\pm$ 1°
		down	35° $\pm$ 1°
17. Wheels and Tyres::	Main wheel HP 4741-Z with 135 x 350 tyre.		
	Tail wheel A 751 201 N.		
18. Other Limitations:	The glider is approved for VFR Day flying.		

IV. Operating and Service Instructions

1. Flight Manual:
   - In Czech language
     to S/N 008606
     from S/N 028902 to 029101
     Do-L13AC-1013.1 Letová příručka L 13 AC Blaník
     S/N 018901
     from S/N 039102
     Do-L13AC-1014.0 Letová příručka L 13 AC Blaník
   - In English language
     to S/N 008606
     from S/N 028902 to 029101
     Do-L13AC-1013.3 Sailplane Flight Manual L 13AC Blaník
     S/N 018901
     from S/N039102
     Do-L13AC-1014.2 Sailplane Flight Manual L 13AC Blaník

2. Maintenance Manual:
   - In Czech language
     Do-L13AC-1032.1 Provozně technická příručka kluzáku L 13 AC
   - In English language
     Do-L13AC-1032.3 Maintenance Manual for the Sailplane L 13 AC

3. Illustrated Parts Catalogue:
   - In Czech language
     Do-L13AC-2051.0 Katalog dílů a montážních jednotek kluzáku L-13AC Blaník(C/A)
   - In English language
     Do-L13AC-2051.0 Illustrated parts catalogue for the sailplane L 13 AC Blaník(C/A)

4. Operation Book:
   - In Czech language
     Do-L13AC.1015.02 L 13AC Blanik Záznamník provozu kluzáku (C/A)
   - In English language
     Do-L13AC.1015.02 L 13 AC Blanik 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”

V. Notes

1. **EASA TC No. EASA.A.024 has been issued for Model L - 13 AC BLANÍK sailplane on February 4, 2005**