

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

G24EU  
Revision 9  
Aircraft Industries a.s.  
L-13 Blanik  
L-13 AC Blanik  
April 12, 2011

**TYPE CERTIFICATE DATA SHEET NO. G24EU**

This data sheet, which is a part of type certificate No. G24EU prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Aircraft Industries a.s.  
686 04 Kunovice 1177  
Czech Republic

Type Certificate Holder Record: LETECKÉ ZÁVODY a.s. transferred TC G24EU to Aircraft Industries a.s. on September 26, 2005  
LET Aeronautical Works transferred TC G24 EU to LETECKÉ ZÁVODY a.s. on October 15, 2002.

**I - Model L-13 "Blanik" (Acrobatic Category) approved 10 November 1971**

Airspeed limits (I.A.S.).	Vne (Never exceed)	136 knots	(156 m.p.h.)
	Va (Maneuvering)	76 knots	( 87 m.p.h.)
	Vfe (Flaps Extended)	60 knots	( 69 m.p.h.)
	Airplane Tow	76 knots	( 87 m.p.h.)
	Auto-Winch Tow	65 knots	( 75 m.p.h.)
	Dive Brakes Extended	136 knots	(156 m.p.h.)

C.G. range +96.8 in. (+2458 mm) to +104.2 in. (+2647 mm) at all weights.

Empty weight C.G. range None

Datum Most forward point on fuselage nose.

Leveling means Between points marked on side of fuselage.

Maximum weight Acrobatic Category (1 occupant): 880 lb.  
Limited Acrobatic Category (2 occupants): 1100 lb.  
Cloud Flying (2 occupants): 1100 lb.

No. of seats 2 (one at +43.7 in. (+1110 mm) and one at +87.8 in. (+2229 mm)).

Maximum baggage 61 lb. +113.4 in. (+2880 mm).

Control surface movements	Elevator	Up:	32° ± 1°
		Down:	25° ± 1°
	Rudder	Right:	30° ± 1°
		Left:	30° ± 1°
	Aileron	Up:	34° ± 1°
		Down:	13° ± 1°

Serial Nos. eligible 173205, 173213, 173310, 173334, 173337, 173341, 173345, 173404, 173460, 173629, 173630, 173901, 173920, 173921, 173922, 173924, 173928, 173930, 174130, 174215, 174216, 174422, 174423, 174525, 174526, 174533, 174534, 174707, 174708, 174712, 174713, 174714, 174715, 174805, 174806, 174811, 174812, 174930, 175001, 175002,

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175008, 175009 through 175230; 025301 and subsequent up to and including 027361. (See Note 4).

Import Requirements

1. For glider serial numbers 175008 and before, a U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by the State Aviation Inspection (SAI) authority of Czechoslovakia after the following have been accomplished:
  - a. The glider must be modified in accordance with the list of modifications set forth by LET Information Bulletin No. L13/032, dated 16 December 1971 for conformity with the type design approved under Type Certificate G24EU, except paragraph 1.5 tow hook guard, P/N SK-L13.320-01, need not be installed and/or may be removed; and paragraph 1.6, pot pitot head (P/N L1301) need not be installed provided the original pitot head is installed and appropriate calibration pages are incorporated into the Flight Manual. (See NOTE 5).

In addition -

    - (i) Glider Serial Nos. 174800 and before must be modified in accordance with LET Service Bulletin No. L13/031, dated 22 December 1970 to improve the security of the wing attachment pins.
    - (ii) Gliders, Serial Nos. 173404 and before must have the control rod eye-ends replaced in accordance with LET Service Bulletin L13/025 dated 23 January 1967.
  - b. All modifications accomplished subsequent to original production (other than those associated with Item (a)) must be FAA-approved.
  - c. The glider must be found to be in a condition for safe operation.
2. For gliders Serial Nos. 175009 through 175230 and 025301 through 027361, The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Civil Aviation Authority of the Czech Republic (CAA-CZ) on behalf of the European Community. The Export C of A should contain the following statement: 'The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. airworthiness regulations 14 CFR Federal Aviation Regulations Part 21.17(b), U.S. Type Certificate No. G24EU and to be in a condition for safe operation.'

Certification Basis

FAR 21.29 and FAR 21.23, effective 1 February 1965.

British Civil Airworthiness Requirements, Section E, Issue 2, dated 16 May 1960 (Czechoslovakian Certification Basis) were found to provide a level of safety equivalent to provisions of FAR 21.23 to enable certification under the provisions of FAR 21.29.

Type Certificate No. G24EU issued 10 November 1971.

Date of Application for Type Certificate, 31 May 1971.

The Civil Aviation Authority of the Czech Republic (CAA-CZ) originally type certificated this glider under its type certificate Number 2725-59. The FAA validated this product under U.S. Type Certificate Number G24EU. Effective May 17, 2006, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the Czech Republic. The EASA TCDS number is EASA.A.024.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the glider for standard airworthiness certification. In addition the following equipment must be installed:

1. Instruments:
  - (a) Airspeed indicator marked as follows:

- Red Radial: 136 knots (156 m.p.h.)  
 Green arc: 136 knots – 33 knots (156 m.p.h. – 38 m.p.h.)  
 White arc: 60 knots – 31 knots (69 m.p.h. – 36 m.p.h.)
- (b) Altimeter  
 (c) Magnetic Compass

2. "Pilot's Notes for the L-13 sailplane" (Flight Manual).

**Service Information**

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before May 17, 2006 – by the Civil Aviation Authority of the Czech Republic (CAA-CZ).

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

The FAA accepts such documents and considers them FAA-approved for type design data only unless one of the following conditions exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

NOTES:

- NOTE 1. Current weight and balance report including list of equipment in certificated empty weight, and loading instructions when necessary, must be provided for each glider at the time of original airworthiness certification.
- NOTE 2. The following placards must be installed in full view of the pilot:
- (a) "THIS GLIDER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS."
- (b) "Cloud flying: Permitted only when the following instruments are installed:
- Airspeed indicator
  - Altimeter
  - Turn and Bank
  - Variometer
  - Compass
- (c) "Acrobatic maneuvers including spins must be accomplished in accordance with the "Pilot's Notes" for the L-13 sailplanes."
- (d) "Night flying is prohibited."
- (e) "Never exceed speed 136 knots (156 m.p.h.)  
 Maneuvering speed 76 knots ( 87 m.p.h.)  
 Flaps extended speed 60 knots ( 69 m.p.h.)  
 Airplanes tow speed 76 knots ( 87 m.p.h.)  
 Auto-winch tow speed 65 knots ( 75 m.p.h.)  
 Dive brakes extended 136 knots" (156 m.p.h.)
- (f) "Maximum weight:  
 Cloud flying category (2 occupants) 1100 lb.  
 Limited acrobatics (2 occupants) 1100 lb.

Acrobatic category (1 occupant)

880 lb.

C.G. Limits: 96.8 in. to 103.8 in. aft of datum - all weights."

NOTE 3. Information essential for the proper maintenance, inspection, and repair of the glider is contained in the LET Document: "Technical Manual of the L-13 Sailplane."

NOTE 4. Six digit serial numbers beginning with "17" precede serial numbers beginning with "02".

NOTE 5. All serial numbers subsequent to 175008 (See NOTE 4) may utilize exception noted in import requirements for S/B L13/032. See Let N.P. Operating Bulletin No. L13/038 on Pilots Notes.

**II - Model L-13 AC "Blanik" (Acrobatic Category) approved August 25, 1999 and amended January 14, 2005**

Airspeed Limits (I.A.S.)

$V_{NE}$  Speed Limit versus Altitude

With and without (w/o) wing tip extensions

Altitude	[knots]	Altitude	[km/h]
0 - 8200 ft	124	0 - 2500 m	230
10,000 ft	120	3000 m	223
13,000 ft	113	4000 m	209
16,500 ft	105	5000 m	195
20,000 ft	98	6000 m	182
23,000 ft	92	7000 m	170
26,000 ft	85	8000 m	158
30,000 ft	79	9000 m	147

[knots] [km/h]

$V_A$ (Maneuvering Speed) w/o wing tip extensions with wing tip extensions	86 81	160 150
$V_{RA}$ (Rough Air Speed) w/o wing tip extensions with wing tip extensions	86 81	160 150
$V_W$ (Winch Launch) w/o wing tip extensions with wing tip extensions	65 65	120 120
$V_T$ (Aero Tow Speed) w/o wing tip extensions with wing tip extensions	81 81	150 150
$V_{LO}$ (Max. Landing Gear Operating Speed) w/o wing tip extensions with wing tip extensions	124 124	230 230

Datum

Wing leading edge at root rib

C.G. range

Forward limit: 5.63 in (143 mm) aft of datum

Aft limit: 13.27 in (337 mm) aft of datum

Empty weight C.G. range measured from datum:

w/o wing tip extensions: 27.32 ± 0.51 in (694 ± 13 mm) aft of datum  
 With wing tip extensions: 25.67 ± 0.51 in (652 ± 13 mm) aft of datum

Leveling means:

Fuselage leveling points are noted in the Maintenance Manual

Maximum Take-off Weight:

w/o wing tip extensions: 1100 lbs (500 kg)  
 With wing tip extensions: 1125 lbs (510 kg)

No. of Seats

2

Maximum Baggage:

22 lb (10 kg)

Control surface movements

Elevator:	Up	32° ± 2°
	Down	27° ± 1°
Rudder:	Right	29° ± 1°
	Left	29° ± 1°
Aileron:	Up	34° ± 2°
	Down	13° ± 2°
Balance Tab (if installed, left aileron only)	Up	20° ± 1°
	Down	20° ± 1°

Serial Nos. Eligible

For the L-13 AC:  
 S/N 988601, 988603, 008605, 008606, 028902 through 028905, and 029101.

For the L-13 AC with aileron balance tab and option for wing extension:  
 S/N 018901, 049102 and subsequent.

Import Requirements.

The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Civil Aviation Authority of the Czech Republic (CAA-CZ) on behalf of the European Community. The Export C of A should contain the following statement: 'The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. airworthiness regulations 14 CFR Federal Aviation Regulations Part 21.17(b), U.S. Type Certificate No. G24EU and to be in a condition for safe operation.'

FAA Type Certificate G24EU was issued pursuant to FAR 21.29 upon validation of the Czech Republic Civil Aviation Authority's certification of compliance with the certification basis, and in accordance with the standard airworthiness certificate provisions of FAR 21.183(c).

Certification Basis

FAR 21.29, Amdt 21-68 effective September 10, 1990

British Civil Airworthiness Requirements, Section E, Issue 2, dated June 6, 1966

FAA Type Certificate No. G24EU Rev. 5, issued August 25, 1999

JAR 22, Change 5, Appendix H: Flight Manual Requirements

Date of application for type certification: March 11, 1998.

Date of application for amended type certification to include options for wing tip extensions and aileron balance tab: June 30, 2003

The Civil Aviation Authority of the Czech Republic (CAA-CZ) originally type certificated this glider under its type certificate Number 2725-59. The FAA validated this product under U.S. Type Certificate Number G24EU. Effective May 17, 2006, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the Czech Republic. The EASA TCDS number is EASA.A.024.

## Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the glider for standard airworthiness certification.

Basic equipment and instruments:

Day VFR:

- a) (2) Airspeed indicators with markings per Flight Manual
- b) (2) Altimeters
- c) (2) Accelerometers
- d) (1) Registration accelerometer (AMU-1B recording unit, required **only** for L-13 AC series with aileron balance tab, S/N 018901, 049102 and subsequent)
- e) (2) Five-point safety harnesses (symmetrical)
- f) (2) Parachutes (aerobatic flights only) or Back Cushions (thickness approx. 3.9 inches (10 cm) when compressed).

Cloud flying (day):

- g) (2) Magnetic Compass
- h) (2) Vertical Speed Indicator
- i) (2) Turn and Bank Indicator
- j) Two-way radio communication system

Tow Releases:

1. Nose tow release mechanism model A 740210 N
2. Nose tow release mechanism model "E 85", LBA Data Sheet No. 60.230/1 (optional)
3. Safety tow release mechanism model "Europa G 88" (optional), LBA Data Sheet No. 60.230/2
4. Side winch launch release mechanism models (optional): LN-0399 (left), LN-0400 P (right)

## Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before May 17, 2006 – by the Civil Aviation Authority of the Czech Republic (CAA-CZ).

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

The FAA accepts such documents and considers them FAA-approved for type design data only unless one of the following conditions exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

## Available Documents for the L-13 AC Blanik:

1. CAA Czech Republic approved Flight Manual for sailplane model L-13 AC Blanik, dated May 21, 2001.
2. CAA Czech Republic approved Maintenance Manual for the L-13 AC Blanik, original dated June 30, 1998 accompanied by all latest updates.
3. Operating instruction for the TOST nose tow release mechanism model "E85", dated March 1989 and LBA approved.
4. Operating instructions for the TOST safety tow release mechanism model "Europa G 88", dated February 1989 and LBA approved.

NOTES:

NOTE 1 A current weight and balance report including a list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each glider at the time of original airworthiness certification.

NOTE 2 The following placards must be installed in full view of the pilot:

- (a) "THIS GLIDER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS."
- (b) "Night flying is prohibited."
- (c) For the aerobatic configuration:

Aerobatic: the following maneuvers and associated entry speeds are permitted:

Sailplane w/o Wing Tip Extensions		
Max. Gross Weight:	1100 lb	
Empty Weight (standard)	672 lb	
Solo Flights From Front Seat Only		
Approved Maneuvers and Entry Speeds		
	Solo Operation	Dual Operation
Loop	92 knots (170 km/hr)	97 knots (180 km/hr)
½ Loop & ½ Roll	103-113 knots (190-210 km/hr)	103-113 knots (190-210 km/hr)
½ Roll & ½ Loop	70 knots (140 km/hr)	81 knots (150 km/hr)
Lazy Eight	97 knots (180 km/hr)	97 knots (180 km/hr)
Chandelle (climb)	97-103 knots (180-190 km/hr)	97-103 knots (180-190 km/hr)
Inverted Flight	70-76 knots (130-140 km/hr)	76-81 knots (140-150 km/hr)
Slow Roll	92 knots (170 km/hr)	97 knots (180 km/hr)
Spin	35 knots (65 km/hr)	35 knots (65 km/hr)
Flick Roll	70 knots (130 km/hr)	70 knots (130 km/hr)
Flick ½ Roll & ½ Loop	65 knots (120 km/hr)	65 knots (120 km/hr)
Inverted Spin	49-51 knots (90-95 km/hr)	49-51 knots (90-95 km/hr)
Steep Turn	92 knots (170 km/hr)	97 knots (180 km/hr)
Stall Turn	97 knots (180 km/hr)	103 knots (190 km/hr)

NOTE 3 Information essential for the proper maintenance, inspection, and repair of the glider is contained in the LET Maintenance Manual for the L-13 AC Blanik, dated November 1998.

NOTE 4 Major structural repairs must be accomplished at FAA certificated repair stations in accordance with LETECKÉ ZÁVODY repair methods that are approved by the FAA.

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