

LET, 686 04 KUNOVICE, CZECHOSLOVAKIA

SAILPLANE FLIGHT MANUAL

Model : **L 23 SUPER - BLANIK**

Serial No. : **938018**

Registration : **N258BA**

Document No.: Do - L 23. 1011.5

Date of Issue : June 12, 1992

This Sailplane Flight Manual is FAA Approved for U.S.-registered sailplanes in accordance with provisions of 14 CFR Section 21.29, and as required by FAA Type Certificate Data Sheet No. **66080**. Pages identified as "Appr." provide information required to be furnished by the Federal Aviation Regulations.

Approved by The Civil Aviation Inspectorate of Czech and Slovak Federal Republic in Prague, on August 28, 1989 under No. 4694/ 1034/ 89/ OL.

Signature:



Authority:

Civil Aviation Inspectorate
of CSFR

Stamp:



Original date of approval: October 14, 1992

This Sailplane Flight Manual must be carried in the sailplane at all times

This sailplane is to be operated in compliance with information and limitations contained herein.

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SECTION 2

Limitations

CONTENTS

- 2.1 Introduction
- 2.2 Airspeed
- 2.3 Airspeed indicator markings
- 2.4 Weight Limits
- 2.5 Centre of gravity Limits
- 2.6 Approved manoeuvres
- 2.7 Manoeuvring load factors
- 2.8 Flight crew
- 2.9 Kinds of operation
- 2.10 Aerotow and winch-launching
- 2.11 Other limitations
- 2.12 Limitation placards



2.1 INTRODUCTION

Section 2 includes operating limitations and basic placards necessary for safe operation of the sailplane, its standard systems and standard equipment. Compliance with the limitation in this section is required by regulation.

2.2 AIRSPEED

	Speed	(KIAS)	Remarks
V _{NE}	Never exceed speed up to a pressure altitude of 11,000 ft	133	Do not exceed this speed in any operation and do not use more than 1/3 of control deflection
V _{RA}	Rough air speed	86	Do not exceed this speed except in smooth air, and then only with caution. Examples of rough air are lee-wave rotor thunderclouds etc.
V _A	Manoeuvring speed	81	Do not make full or abrupt control movement above this speed, because under certain conditions the sailplane may be overstressed by full control movement
V _W	Maximum winch-launching speed	65	Do not exceed this speed during winch- or autotow-launching
V _T	Maximum aerotowing speed	81	Do not exceed this speed during aerotowing
V _{LO}	Maximum landing gear operating speed	133	Do not extend or retract the landing gear above this speed

Note: v_{NE} airspeed limits above 11,000 ft Pressure Altitude are reduced as follows:

15,000 - 123 KIAS
20,000 - 111 KIAS
25,000 - 100 KIAS
30,000 - 89 KIAS
35,000 - 79 KIAS



2.3 AIRSPPEED INDICATOR MARKINGS

Marking	KIAS (value - range)	Significance
Green arc	36 - 86	Normal Operating Range. (Lower limit is maximum weight 1.1 vs ₁ at most forward c.g. Upper limit is rough air speed)
Yellow arc	86 - 133	Manoeuvres must be conducted with caution and only in smooth air.
Red line	133	Maximum speed for all operations
Yellow triangle	41	Approach speed at maximum weight.

2.4 WEIGHT LIMITS

Maximum take - off landing weight:

- with two occupants 1124 lb

- with one pilot 925 lb

Empty weight with standard equipment 683 lb \pm 2 %

and the corresponding centre
of gravity position 67.30 \pm 1% MAC

Note : Refer to weight and Balance (Section 6.0) to determine actual
empty weight / c.g. as established by the installed equipment
and manufacturing tolerances.

Pilot's weight (including parachute):

- minimum pilot's weight (solo) 154 lb

**WARNING: IT IS NECESSARY TO USE FRONT SEAT REMOVABLE
BALLAST OF 33 LB WHEN FLOWN SOLO BY A PILOT
(INCLUDING PARACHUTE) WEIGHING LESS THAN 154 LB
IN THE FRONT COCKPIT.**

(Cont.)



Note: Installation of the front seat ballast is described in Section 7, paragraph 7.2 of this Flight Manual.

- maximum pilot's weight (solo) 242 lb

Maximum useful load (occupants,
baggage, optional equipment) 440 lb

Maximum baggage compartment load 22 lb

2.5 CENTRE OF GRAVITY

Centre of gravity range

- front limit 23 % MAC i.e. 4.397 in
(112 mm) aft of
reference datum
- rear limit 40 % MAC i.e. 12.783 in
(325 mm) aft of
reference datum

The reference datum is located 93.6 in aft of the sailplane nose.

2.6 APPROVED MANOEUVRES (UTILITY CATEGORY)

Manoeuvre	Airspeeds - KIAS				Procedures
	SOLO	DUAL	ENTRY	RECOVERY	
Loop	86	97	X		Section 4.3.6 item 1.
Stall turn	92	97	X		Section 4.3.6 item 2.
Lazy Eight	97	97	X		Section 4.3.6 item 3.
Spin	32 86	32 86	X	X	Section 4.3.6 item 4.
Chandelle(climbing)	97	97	X		Section 4.3.6 item 5
Steep turn	92	97	X		Section 4.3.6 item 6.

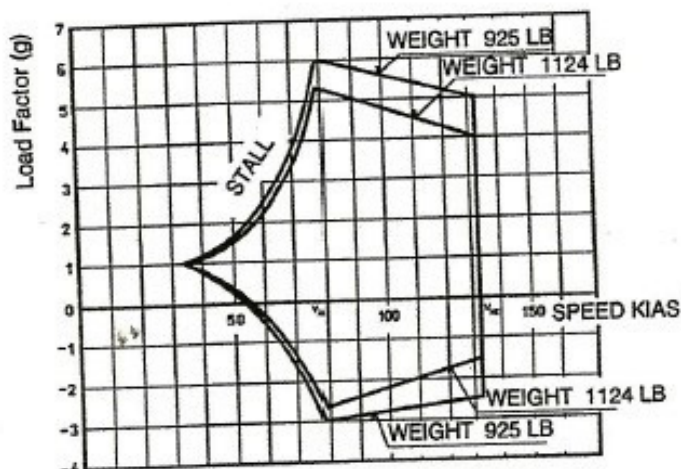
2.7. MANOEUVRING LOAD FACTORS

FIG. 2 - 1

2.8 FLIGHT CREW

Maximum number of occupants is two. If the sailplane is to be flown solo, the pilot must be sitting in the front seat and his weight (including parachute) must be 154 lb at least. If the pilot's weight is less than 154 lb, it is necessary to use the cushion with 33 lb ballast.

WARNING: THE REAR SEAT MUST BE SECURED AGAINST FOLDING AND SAFETY HARNESSES ON THE REAR SEAT MUST BE CONNECTED, DRAWN TOGETHER AND SECURED.

2.9 KINDS OF OPERATION

The sailplane is certified in the Utility Category with a limited selection of approved aerobatic manoeuvres (see paragraph 2.6). The sailplane is approved for Day VFR operations. Cloud-flying is permitted where operational regulations permit.

WARNING: OPERATIONS IN ICING CONDITIONS ARE PROHIBITED. OPERATIONS ARE LIMITED BY THE INSTALLED EQUIPMENT AS LISTED IN SECTION 6.

IT IS NECESSARY TO RECORD THE AEROBATIC MANOEUVRES INTO THE SAILPLANE LOG BOOK SO AS TO BE POSSIBLE TO FIND OUT WHENEVER TOTAL FLIGHT TIME OF ACROBATICS FROM DATA OF SAILPLANE MANUFACTURE.



2.10 AEROTOW AND WINCH LAUNCHING

Aerotow

- the maximum cable strength or cable safety device (weak link) strength is 1460 lb .
- the minimum cable length for aerotowing is 50 ft , recommended length is 100-130 ft .

Winch-launching

- the maximum cable strength or cable safety device (weak link) is 1460 lb .

2.11 OTHER LIMITATIONS

A. Maximum crosswind component

- maximum demonstrated crosswind component for safe approach, landing and aerotow launching is 16 kt for angle 90° .

Maximum demonstrated crosswind component for winch-launching:

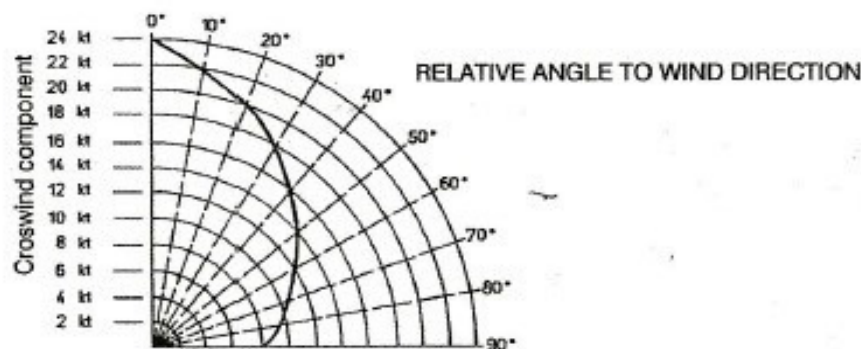


FIG. 2 - 2

B. Maximum demonstrated operating altitude - 13,780 ft

C. Maximum Tire Pressure 37 psi.



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L 23 SUPER - BLANÍK

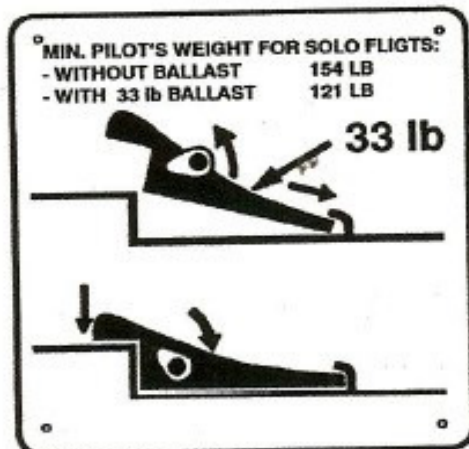
SAILPLANE FLIGHT MANUAL

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2.12 LIMITATIONS PLACARDS

The following operating limitations are emphasized on the limitation placards in both cockpits:

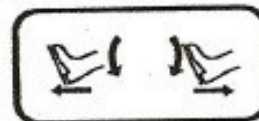
a) front cockpit



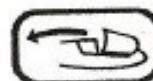
SEAT BACK



PEDAL ADJUSTMENT



AIR VENT



CANOPY - JETTISON see para 3.2

CENTRE OF GRAVITY RANGE

FRONT LIMIT . 23 % MAC

REAR LIMIT . . 40 % MAC

b) both front and rear cockpits

MAX. WINCH - LAUNCHING SPEED 65 KIAS
MAX. AERO - TOWING SPEED 81 KIAS
MAX. MANOEUVRING SPEED 81 KIAS

See para 2.2

OPERATING LIMITATIONS

THE MARKING AND PLACARDS INSTALLED IN THIS SAILPLANE CONTAIN OPERATING LIMITATIONS WHICH MUST BE COMPLIED WITH WHEN OPERATING IN UTILITY CATEGORY. OTHER LIMITATIONS ARE CONTAINED IN SAILPLANE FLIGHT MANUAL.

MAX. GROSS WEIGHT 1124 LB

PERMITTED AEROBATIC MANOEUVRES:

LOOP SPIN
STALL TURN CHANDELLE(Climbing)
LAZY EIGHT STEEP TURN

SOLO FLIGHT FROM FRONT SEAT ONLY

VNE . . . 133 KIAS
VRA . . . 86 KIAS



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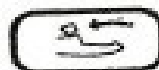
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MAX. ALLOWABLE SPEED VS ALTITUDE

PRESSURE ALTITUDE (FT) UP TO	11 000	15 000	20 000	25 000	30 000	35 000
SPEED KIAS, MAX.	133	123	111	100	89	79



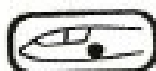
AIR BRAKES



JETTISON/LIFT OFF
(REAR SEAT ONLY)
see para 3.2



WHEEL BRAKE



LANDING GEAR



FRONT LIFT OFF
see para 3.2



BAGAGGE
(REAR SEAT ONLY)



TRIMMER



RELEASE

THIS GLIDER MUST
BE OPERATED IN
COMPLIANCE
WITH THE OPERA-
TING LIMITATIONS
STATED IN THE
FORM OF
PLACARDS,
MARKINGS AND
MANUALS

BLANK 1-23 N-258BA

MAX. TOTAL - 1124 #

EMPTY - 702 #

USEFUL LOAD - 422 #

EMPTY MOMENT - 81280 IN-IN
(NOSE REFERENCE)

BLANK HAS NOT
(APPROVED OVER 270#
IN FRONT SEAT

MAX. SOLO - 270 #

(USE DUAL G LIMITS)

MIN. SOLO - 163 #

FRONT SEAT - POUNDS

300

250

200

150

100

50

0

0

50

100

150

200

250

300

REAR SEAT - POUNDS

APRIL 1994



BLANK AMERICA, INC.

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Telex 213778 • Phone/Fax (206) 368-0761

July 7, 1994

RED WING SOARING
c/o Charles E. Matson
2368 Joy Ave
White Bear Lake MN 55110

Dear Chuck,

Thank you for your telecon of today and a report on your club's soaring activities. We are pleased to confirm that the LET factory approved the Weight and Balance diagram which you submitted, dated April 1993 Blank L23 N-258BA, for the empty moment of 84281 in4.

Also enclosed is the L23 Undercarriage Service Letter you requested.

Sincerely,

BLANK AMERICA, INC.

Vitek Siroky
President