

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

G40EU
Revision 1
Intreprinderea De
Constructii
Aeronautice
IS-28B2
December 4, 1978

TYPE CERTIFICATE DATA SHEET NO. G40EU

This data sheet which is a part of the type certificate No. G40EU 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 Intreprinderea De Constructii Aeronautice
2200 Brasov
Casuta Postala Nr.118
ROMANIA

I - Model IS-28B2 sailplane, approved July 3, 1978

Airspeed Limits (I.A.S.)	<u>km/h</u>	<u>knots</u>	<u>mph</u>
Never Exceed (Vne)	230	124	143
Maximum Speed in Rough Air (Vb)	165	89	103
Maneuvering (Va)	165	89	103
On Aerotow (Vt)	140	75	87
On Winch Tow (Vw)	125	67	78
Landing Gear (Vl)	230	124	143
Flap Extended 15° or less (Vf)	130	70	81
Airbrakes Extended			
Up to S/N 54	200	108	124
S/N 55 and on	230	124	143
 C.G. range	 22 to 47% MAC (+9.8 in. to +20.9 in. aft of reference - See Flight and Maintenance Manual page 2.2)		
Empty weight C.G. range	None		
Datum	Wing leading edge at wing root rib.		
Leveling means	A, B, and C points of fuselage are horizontal. (See Flight Manual, Section 6, Page 6.40, 6.44 and 6.45).		
Maximum weight	520 kg (1146 lb.) acrobatic category 590 kg (1308 lb.) utility category		
No. of seats	Two adjustable seats (See Flight Manual Section 6, Pages 6.46 and 6.48)		
Ballast Fixed	At station corresponding to front control panel and for certain single control and pilot weight, 13.3 lb. applicable to aircraft up to and including S/n 45 and a maximum 46 lb. applicable to aircraft S/N 46 and up. (See Flight Manual).		
Baggage	44 lb. max essentially at CG.		

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Control surface movements	Flap Position "-1"		"1"	"2"	"3"
	Up $5^{\circ} \pm 2^{\circ}$	Down	$5^{\circ} (+2^{\circ})$	$10^{\circ} (+2^{\circ})$	$15^{\circ} (+2^{\circ})$
	Ailerons up $28^{\circ} \pm 2^{\circ}$	Down	10°	$\pm 2^{\circ}$	
	Elevator up $27^{\circ} \pm 2^{\circ}$	Down	22°	$\pm 2^{\circ}$	
	Rudder right $30^{\circ} \pm 2^{\circ}$	Left	30°	$\pm 2^{\circ}$	
	(See Flight and Maintenance Manual Page 6.45)				
Weak Link Rating for Winch and Aero Tow.	500 kg (1100 lb.)				
Serial Nos. eligible	See Import Requirements.				
Certification Basis	FAR 21.23 and FAR 21.19 effective February 1, 1965. Type Certificate G40EU issued July 3, 1978. Date of Application for Type Certificate April 15, 1977.				
Validation Basis	Type Certificate G40EU was issued in accordance with FAR 21.29(a)(1) in validation of the Department of Civil Aviation of Romani certification of compliance with the International Scientific and Technical Organization for Sailplanes (OSTIV) airworthiness requirements for sailplanes dated September 1971 acrobatics and utility categories for sailplanes, which were found to provide a level of safety equivalent to the certification basis.				
Import Requirements	<p>A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the Department of Civil Aviation of Romania, containing the following statement:</p> <p>"The glider covered by this certificate has been examined, tested, and found to conform to the type design approved under FAA Type Certificate G40EU and is in condition for safe operation".</p> <p>IS-28B2 glider serial numbers 08 through 140 are eligible for a U.S. Standard Airworthiness Certificate when modified in accordance with Modification Kit No. 1, approved by the Romanian DCA June 28, 1978 and the other import requirements of this TCDS are satisfied.</p>				
Required equipment	<p>The basic required equipment as prescribed in the applicable airworthiness regulations (as listed in Flight and Maintenance Manual Section 6, Page 6.38) must be installed in the glider for standard airworthiness certification.</p> <p>In addition the following equipment must be installed:</p> <ol style="list-style-type: none"> 1. Instruments (non-cloud flying) <ol style="list-style-type: none"> (a) Airspeed indicator - marked per Flight Manual Page 2.2 (b) Altimeter (c) Magnetic compass 2. Additional Instruments for Cloud Flying <ol style="list-style-type: none"> (a) Turn and bank indicator (b) Variometer 3. Accelerometer for Acrobatic Flying 4. IS-28B2 Flight and Maintenance Manual approved by Romanian DCA dated 6-28-78 or later approved revisions. 				

NOTE 1: Current weight and balance report including list of equipment in certificated empty weight, and loading instructions when necessary, must be provided at the time of original airworthiness certification.

NOTE 2:

A. The following placards and markings must be displayed in full view of the pilot.

(1) Limitations	<u>km/h</u>	<u>knots</u>	<u>mph</u>
Vne (Never Exceed Speed)	230	124	143
Vb (Maximum Speed at 15 m/s.gust)	165	89	103
Vt (Maximum Speed on Aerotowing)	140	75	87
Vw (Maximum Speed on Winch Launch)	125	67	78
VI (Maximum Speed with Extended Landing Gear)	230	124	143
Vf (Maximum Speed with Flap Deflected at +3)	130	70	89
V brake (Maximum Speed with Extended airbrakes)	230	124	143

Load factor (\pm g) at:

1301 lb. (gross weight) + 5.3, -2.65

1146 lb. (gross weight) + 6.5, -4.0

Applicable to gliders S/N 46 and up (Single control):

Minimum front pilot weight without ballast (Single control) 83 kg (183 lb.)

If pilot's weight with parachute is below 183 lb. ballast weight must be installed under front control panel per Flight Manual, Page 2.3.

Applicable to gliders up to and including S/N 45:

Minimum front pilot weight without ballast (Single control) 61 kg (134.5 lb.)

If pilot's weight with parachute is below 134.5 lb. ballast weight must be installed under front control panel per Flight Manual, Page 2.4.

(2) Operating Limitations

This sailplane must be operated in compliance with the operating limitations as stated in the form of markings, placards, and Flight and Maintenance Manual. Approved acrobatic maneuvers recommended entry speeds.

Maneuver	Entry Speed		
	<u>km/h</u>	<u>knots</u>	<u>mph</u>
Spin	70	38	43
Looping	170	92	106
Turn	170	92	106
Stall turn	150	81	93

All acrobatic maneuvers including spins must be accomplished in accordance with the approved IS-28B2 Flight and Maintenance Manual. Accelerometer must be installed.

B. Other Markings or Placards

Above the main wheel	2.5 Aty (35 p.s.i.)
On the shock absorber for main wheel	60-65 Aty (840-910 p.s.i.)
Above the tail wheel	2.5 Aty (35 p.s.i.)
Adjacent to static pressure entry on fuselage skin	Red Ring
On rudder, elevator and flaps	"DO NOT PUSH"
On rear cabin panel	Maximum baggage load 44 lb.

The airspeed limitations must be marked on the dial of the airspeed indicator in accordance with the light and Maintenance Manual (See Page 2.2)

NOTE 3.

Inspection, maintenance, and repairs must be accomplished in accordance with manufacturer's IS-28B2 Flight and Maintenance Manual and Repair Manual.

Tost release shall be repaired according to TOST manual.

- NOTE 4. Major repairs must be performed in accordance with manufacturer's repair methods and approved by Department of Civil Aviation if not covered in Repair Manual.
- NOTE 5. For required instrument installation, refer to Master Equipment List (Instruments) which contains a list of installed instruments approved during initial type certification testing, and information concerning acceptable replacement instruments (See Flight and Maintenance Manual, Page 6.38)
- NOTE 6. Gliders having a S/N up to 140 are eligible for a Standard Airworthiness Certificate after applying Modification Kit No. 1, which includes:
- Limitations placards
 - Red buttons for opening the cabin
 - Flight and Maintenance Manual approved by the Romanian DCA
 - IS-28B2/ER-02 recommended Service Bulletin

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