

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

G41EU
Intreprinderea De Constructii
Aeronautice
IS-29D2
July 3, 1978

TYPE CERTIFICATE DATA SHEET NO. G41EU

This data sheet which is a part of the type certificate No. G41EU 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-29D2 sailplane, approved July 3, 1978

Airspeed Limits (I.A.S.)	<u>km/h</u>	<u>knots</u>	<u>mph</u>																								
Never Exceed (Vne)	225	121	140																								
Maximum Speed in Rough Air (Vb)	172	93	107																								
On Aerotow (Vt)	140	75	87																								
On Winch Tow (Vw)	125	67	78																								
Landing Gear (Vl)	225	121	140																								
Flap Extended 15° or less (Vf)	140	75	87																								
Airbrakes Extended	225	121	140																								
Manuevering (Va)	172	93	107																								
 C.G. range	18.75% to 43% MAC (+5.47 in. to +12.52 in. aft of reference)																										
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 and Maintenance Manual).																										
Maximum weight	360 kg (794 lb.)																										
No. of seats	One adjustable seat (See Flight Manual Section 6, Pages 6.38)																										
Baggage	44 lb. maximum, essentially at C.G.																										
Control surface movements	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Position "-1"</th> <th style="text-align: center;">"1"</th> <th style="text-align: center;">"2"</th> <th style="text-align: center;">"3"</th> </tr> </thead> <tbody> <tr> <td>Flaps Up 5° ±2°</td> <td style="text-align: center;">Down 5° (+2°)</td> <td style="text-align: center;">10° (+2°)</td> <td style="text-align: center;">15° (+2°)</td> </tr> <tr> <td>Ailerons up 29° ±4°</td> <td style="text-align: center;">Down 15°</td> <td style="text-align: center;">± 2°</td> <td></td> </tr> <tr> <td>Elevator up 25° ±2°</td> <td style="text-align: center;">Down 20°</td> <td style="text-align: center;">± 2°</td> <td></td> </tr> <tr> <td>Rudder right 40° ±2°</td> <td style="text-align: center;">Left 40°</td> <td style="text-align: center;">± 4°</td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">- 2°</td> <td></td> </tr> </tbody> </table>			Position "-1"	"1"	"2"	"3"	Flaps Up 5° ±2°	Down 5° (+2°)	10° (+2°)	15° (+2°)	Ailerons up 29° ±4°	Down 15°	± 2°		Elevator up 25° ±2°	Down 20°	± 2°		Rudder right 40° ±2°	Left 40°	± 4°				- 2°	
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	(See Flight and Maintenance Manual Page 6.37)																										
Rated Load on Winch and Aerotow (Weak Link).	500 kg (1100 lb.)																										
Serial Nos. eligible	See Import Requirements.																										

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Certification Basis	FAR 21.23 and FAR 21.29 effective February 1, 1965. Type Certificate G41EU issued July 3, 1978. Date of Application for Type Certificate: April 15, 1977.
Validation Basis	Type Certificate G41EU was issued in accordance with FAR 21.29(a)(1) in validation of the Department of Civil Aviation of Romania certification of compliance with the International Scientific and Technical Organization for Sailplanes (OSTIV) airworthiness requirements for sailplanes dated December 1966 utility category for sailplanes which were found to provide a level of safety equivalent to the certification basis.
Import Requirements	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: "The glider covered by this certificate has been examined, tested, and found to conform to the design approved under FAA Type Certificate G41EU and is in condition for safe operation". IS-29D2 glider serial numbers 56 through 110 are eligible for a U.S. Standard Airworthiness Certificate when modified in accordance with ICA Modification Kit No. 1, approved by the Romanian DCA June 28, 1978 and the other import requirements of this TCDS are satisfied.
Required equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (as listed in Flight and Maintenance Manual Page 5.31) must be installed in the glider for standard airworthiness certification. In addition the following equipment must be installed: <ol style="list-style-type: none"> 1. Instruments (non-cloud flying) <ol style="list-style-type: none"> (a) Airspeed indicator (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. An Accelerometer for Approved Acrobatics 4. IS-29D2 Flight and Maintenance Manual approved by the Romanian DCA dated June 28, 1978 or later approved revision.

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 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)	225	121	140
Vb (Maximum Speed at 15 m/s.gust)	172	93	107
Vt (Maximum Speed aerotow)	140	75	87
Vw (Maximum Speed Winch Launch)	125	67	78
Vl (Maximum Speed, extended landing gear)	225	121	140
Vf (Maximum Speed, flap deflected at 3)	140	75	87
V brake (Maximum Speed, extended airbrakes)	225	121	140
Va (Maneuvering Speed)	172	93	107

NOTE 2 (Cont'd)

Load factor (\pm g) at:

794 lb. (gross weight) + 5.3, -2.65 g

Min Pilot Weight without Ballast 121 lb.

(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.

(a) Approved acrobatic maneuvers recommended entry speeds.

Maneuver	Entry Speed		
	km/h	knots	mph
Turn	190	103	118
Looping	175	95	109
Spin	75	40	47
Immelman	200	108	124

All acrobatic maneuvers including spins must be accomplished in accordance with the approved IS-29D2 Flight and Maintenance Manual. Accelerometer must be installed.

B. Other Markings or Placards

Above the main wheel 35 p.s.i.

Above the tail wheel 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 luggage load 44 lb.

The flight speed limitations must be marked on the dial of the airspeed indicator in accordance with the Flight and Maintenance Manual (See Page 2.1)

NOTE 3. Inspections, maintenance, and repairs must be accomplished in accordance with manufacturer's IS-29D2 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 list of installed instruments approved during initial type certification testing, and information concerning acceptable alternate replacement instruments (See Flight and Maintenance Manual, Page 6.31)

NOTE 6. Sailplanes with S/N 56-110 are eligible for a Standard Airworthiness Certificate after applying Modification Kit No. 1, which comprises:
Limitations placards
Red buttons for opening the cabin
Romanian DCA approved Flight and Maintenance Manual.

...END...