

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

G41EU Revision 1 Aeroclubul Romaniei IS-29D2 December 18, 2017

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	Aeroclubul Romaniei Bd. Lascar Catargiu, Nr. 54, cod: 010673 Sector 1, Bucharest Romania
Type Certificate Holder Record	Intreprinderea De Constructii Aeronautice transferred TC G40EU to S.C. IAR S.A. Braşov in January, 1991. S.C. IAR S.A. Braşov transferred TC G40EU to S.C. Construcţii Aeronautice S.A. Braşov in December, 2004. S.C. Construcţii Aeronautice S.A. Braşov transferred TC G40EU to Aeroclubul Romaniei on October 21, 2016.

I. Model IS-29D2 Glider, approved July 3, 1978

Description	The IS-29D2 is a single-seat glider with metallic construction, a retractable landing gear, and a "T" type tailplane.			
Airspeed Limits (I.A.S.)		<u>km/h</u>	<u>knots</u>	<u>mph</u>
	Never Exceed (V_{ne})	225	121	140
	Maximum Speed in Rough Air (V_b)	172	93	107
	On Aerotow (V_t)	140	75	87
	On Winch Tow (V_w)	125	67	78
	Landing Gear (V_l)	225	121	140
	Flap Extended 15° or less (V_f)	140	75	87
	Airbrakes Extended (V_{brake})	225	121	140
	Maneuvering (V_a)	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.			

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Control Surface Movements	Flap Position	"-1"	"1"	"2"	"3"	
	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° - 6°	Left	40° - 6°	
	(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.					
Certification Basis	<p>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.</p> <p>The Department of Civil Aviation (DCA) of Romania originally type certificated this glider under its type certificate Number PN-06. The FAA validated this product under U.S. Type Certificate Number G41EU. Effective March 28, 2007, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Romania. The EASA TCDS number is EASA.A.453.</p>					
Validation Basis	<p>Type Certificate G41EU was issued in accordance with FAR 21.29(a)(1) in validation of the Romanian DCA 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.</p>					
Import Requirements	<p>A U.S. Standard Airworthiness Certificate may be issued on the basis of an Export Certificate of Airworthiness (Export C of A) signed by a representative of the Romanian Civil Aviation Authority (RO CAA), on behalf of the European Community. The Export C of A should contain 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".</p> <p>IS-29D2 glider serial numbers 56 through 110 are eligible for a U.S. Standard Airworthiness Certificate when modified in accordance with Modification Kit No. 1, approved by the Romanian DCA on 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 Page 6.31) must be installed in the glider for standard airworthiness certification. 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 (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. 					

- Service Information Each of the documents listed below must state that it is approved by EASA or – for approvals made before March 28, 2007 – by the Romanian DCA or RO CAA.
- Service bulletins
 - Structural repair manuals
 - Vendor manuals
 - Aircraft flight manuals
 - Overhaul and maintenance manuals

The FAA accepts such documents and considers them FAA-approved for type design data unless the documents change the limitations, performance, or procedures of the FAA approved manuals. If this is the case, the FAA uses the post type validation procedures to approve these documents. The FAA may delegate case-by-case approval to EASA 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 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>
V _{ne} (Never Exceed Speed)	225	121	140
V _b (Maximum Speed at 15 m/s Gust)	172	93	107
V _t (Maximum Speed Aerotow)	140	75	87
V _w (Maximum Speed Winch Launch)	125	67	78
V _l (Maximum Speed, Extended Landing Gear)	225	121	140
V _f (Maximum Speed, Flap Deflected at 3)	140	75	87
V _{brake} (Maximum Speed, Extended Airbrakes)	225	121	140
V _a (Maneuvering Speed)	172	93	107

Load factor (\pm g) at:

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

Minimum 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. Approved acrobatic maneuvers recommended entry speeds.

<u>Maneuver</u>	<u>Entry Speed</u>		
	<u>km/h</u>	<u>knots</u>	<u>mph</u>
Turn	190	103	118
Looping	175	95	109
Spin	75	40	47
Immelmann	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 accomplished by a properly certificated mechanic in accordance with data approved by the FAA.

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 Gliders 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.

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