

European Aviation Safety Agency

EASA TYPE-CERTIFICATE DATA SHEET

IS 29D

Type Certificate Holder:

S.C. Constructii Aeronautice S.A
Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania

EASA TCDS No. A.452

For variants: IS-29D
 IS-29D2

Issue 01, 28 March 2007

0.I. Table of Content

SECTION 0: General

- 0.I. Table of Content
- 0.II. List of Effective Pages
- 0.III. Change Record

SECTION A: IS-29D

- A.I. General
- A.II. Certification Basis
- A.III. Technical Characteristics and Operational Limitations
- A.IV. Operating and Service Instructions
- A.V. Notes

SECTION B: IS-29D2

- B.I. General
- B.II. Certification Basis
- B.III. Technical Characteristics and Operational Limitations
- B.IV. Operating and Service Instructions
- B.V. Notes

0.II. List of effective Pages:

Page	0-1	A-1	A-2	A-3	B-1	B-2	B-3				
Issue	01	01	01	01	01	01	01				

0.III. Change Record

Issue	Date	Changes
01	28 March 2007	Initial release, Transfer from Romanian TCDS

Section A: IS-29D

A.I. General

Allgemeines

1. Data Sheet No.: EASA.A.452
Kennblatt-Nr.
2. a) Type: (Muster) IS 29D
b) Variant: (Baureihe) IS-29D
3. Airworthiness Category: Sailplane, OSTIV – Normal “N”
Lufttüchtigkeitskategorie :
4. Type Certificate Holder: S.C. Constructii Aeronautice S.A
Halter der Musterzulassung Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania
5. Manufacturer: S.C. Constructii Aeronautice S.A
Hersteller Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania
6. Certification Application Date: November 14, 1970
Datum der Antragstellung
7. Romanian CAA Certification Date: August 11, 1973
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. PN-01

A.II. Certification Basis

Zulassungsbasis

1. Certification Basis: C. Av. C. DTA letter nr. /June 15, 1971
Zulassungsbasis:
2. Airworthiness Requirements: OSTIV Airworthiness Requirements for Sailplanes, issue
Lufttüchtigkeitsforderungen: 1966
3. Requirements elected to comply: None
Gewählte Forderungen:
4. Special Conditions: None
Sonderforderungen:
5. Exemptions: The following paragraphs are excepted from the Certification
Ausnahmen: Basis:
 - Par.2.531 the sailplane is capable of performing sideslip only at bank angle of
10° instead of 15°
 - Par.2.72 the sailplane meets the requirements of OSTIV issue 1,
paragraph 2.71 i.e. it is capable to demonstrate the
efficiency of air-brakes at any angle up to 45° at all speeds
below the value of V_{NE}
 - Par.5.121 for sailplanes S/N 21 to 35 only : the highest stress taken in
consideration during the design and calculation for the
commercial material used for the following parts :
 - 29D-12.01-200, 201, 240, 241 master
fitting

- 29D-12.01-202, 203 master bolt
 - 29D-11.02-0125 rudder bar,
- when applying loads at ultimate stress, is 100% of the generally accepted values, instead of 75% .

Note: The materials used for the above mentioned parts are going to be approved as aviation materials. During static tests, parts manufactured from these materials demonstrated that at 100% load of the generally accepted values, no fractures occurred.

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|----|---|------|
| 6. | Equivalent Safety Findings:
Nachweise gleichwertiger Sicherheit: | None |
| 7. | Environmental Standard
Lärmschutzforderungen: | None |

A.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

- | | | | | | | | | | | |
|----------------|--|---|-----------|---------|--------------|---------|----------------|---------|-----------|-----------------------|
| 1. | Type Design Definition:
Musterdefinition: | Document No. 29D-0001, current issue | | | | | | | | |
| 2. | Description:
Beschreibung: | single-seat sailplane, metallic construction, "T"- tail | | | | | | | | |
| 3. | Equipment:
Ausrüstung: | Mandatory equipment according to Aircraft Flight Manual, Chapter 1.4.11.1 | | | | | | | | |
| 4. | Dimensions:
Abmessungen: | <table border="0"> <tr> <td style="padding-right: 20px;">Wing Span</td> <td>15,000m</td> </tr> <tr> <td>Total Length</td> <td>7,300 m</td> </tr> <tr> <td>Maximum Height</td> <td>1,640 m</td> </tr> <tr> <td>Wing Area</td> <td>10,400 m²</td> </tr> </table> | Wing Span | 15,000m | Total Length | 7,300 m | Maximum Height | 1,640 m | Wing Area | 10,400 m ² |
| Wing Span | 15,000m | | | | | | | | | |
| Total Length | 7,300 m | | | | | | | | | |
| Maximum Height | 1,640 m | | | | | | | | | |
| Wing Area | 10,400 m ² | | | | | | | | | |
| 5. | Engines
Triebwerk | N/A | | | | | | | | |
| | 5.1 Engine Limits
Triebwerksgrenzwerte | N/A | | | | | | | | |
| 6. | Propellers
Propeller: | N/A | | | | | | | | |
| 7. | Fluids and Fluid
capacities:
Kraftstoffmengen: | N/A | | | | | | | | |
| 8. | Launching Hooks:
Schleppkupplungen: | Nose and center of gravity tow hooks TOST „E 72G”/”E73G” | | | | | | | | |
| 9. | Weak links:
Sollbruchstellen: | For winch launching or aero-tow: 500daN | | | | | | | | |

10.	Air Speeds: Geschwindigkeiten:	Never exceed speed	V_{NE}	225 km/h IAS
		Demonstrated diving speed	V_{DF}	236 km/h CAS
		Maxim operating speed with wing flaps fully deflected	V_{FO}	150 km/h CAS
		Stalling speed	V_S	75 km/h CAS
		Maximum landing gear operating speed V_{LG}		140 km/h IAS
		Maximum aerotow speed		
		- undisturbed air	V_T	140 km/h IAS
		- gust of ± 10 m/s	V_T	120 km/h IAS
	Maximum winch launching speed V_W		110 km/h IAS	
11.	Operational Capability Betriebsart	Approved for VFR - day Cloud flying approved according to Aircraft Flight Manual Chapter 4.4.3. Fly by night prohibited.		
12.	Maximum Masses: Höchstzulässige Massen:	Take-off	360 kg	
13.	Centre of Gravity Range: Schwerpunktsbereich:	Datum: leading edge of wing root rib Leveling means: Longitudinal axis: marked points on fuselage sides Lateral axis: marked points on left and right wing (see AFM) Forward Limit 16% of MAC Rearward Limit 43% of MAC		
14.	Seating Capacity: Anzahl der Sitze:	1		
15.	Lifetime limitations: Lebensdauerbegrenzte Teile:	Refer to Aircraft Flight Manual (AFM) Siehe Wartungshandbuch		
16.	Deflection of control surfaces: Ruderausschläge	Refer to Aircraft Flight Manual (AFM) Siehe Wartungshandbuch		

A.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

1. Aircraft Flight Manual issue 2 / Amd 17 or later amd. approved by the Agency (AFM)
2. Aircraft Maintenance Manual issue 1 / Amd 20 or later amd. approved by the Agency (AMM)

A.V. Notes

Bemerkungen

1. The Type Certificate No. PN-01 was initially issued on 11.08.1973, for Intreprinderea de Construcții Aeronautice Braşov, which has changed its name in S.C. IAR S.A. Braşov since January 1991. Since December 2004, this Type Certificate has been transferred to its present Holder, S.C. Construcții Aeronautice S.A. Braşov.

Section B: IS-29D2

B.I. General

Allgemeines

1. Data Sheet No.: EASA.A.452
Kennblatt-Nr.
2. a) Type: (Muster) IS 29D
b) Variant: (Baureihe) IS-29D2
3. Airworthiness Category: Sailplane, OSTIV - Normal "N"
Lufttüchtigkeitskategorie :
4. Type Certificate Holder: S.C. Constructii Aeronautice S.A
Halter der Musterzulassung Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania
5. Manufacturer: S.C. Constructii Aeronautice S.A
Hersteller Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania
6. Certification Application Date: December 18, 1974
Datum der Antragstellung
7. Romanian CAA Certification Date: May 12, 1976
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. PN-06

B.II. Certification Basis

Zulassungsbasis

1. Certification Basis: D. Av. C. letter nr. 128/January 6, 1975
Zulassungsbasis:
2. Airworthiness Requirements: OSTIV Airworthiness Requirements for Sailplanes, issue
Lufttüchtigkeitsforderungen: 1966
3. Requirements elected to comply: None
Gewählte Forderungen:
4. Special Conditions: None
Sonderforderungen:
5. Exemptions: None
Ausnahmen:
6. Equivalent Safety Findings: Par.2.71 "Capacity of Air Brakes" of OSTIV issue 1971 instead of par. 2.72
Nachweise gleichwertiger Sicherheit: of OSTIV issue 1966
Par.3.26 "Gust loads" of OSTIV issue 1971 instead of par. 3.3 of
OSTIV issue 1966
7. Environmental Standard None
Lärmschutzforderungen:

B.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1.	Type Design Definition: Musterdefinition:	Document No. 29D2-0001/0002, current issue	
2.	Description: Beschreibung:	single-seat sailplane, metallic construction, "T"- tail	
3.	Equipment: Ausrüstung:	Mandatory equipment according to Aircraft Flight and Maintenance Manual	
4.	Dimensions: Abmessungen:	Wing Span	15,000m
		Total Length	7,300 m
		Maximum Height	1,680 m
		Wing Area	10,300 m ²
5.	Engines Triebwerk	N/A	
	5.1 Engine Limits Triebwerksgrenzwerte	N/A	
6.	Propellers Propeller:	N/A	
7.	Fluids and Fluid capacities: Kraftstoffmengen:	N/A	
8.	Launching Hooks: Schleppkupplungen:	Nose and center of gravity tow hooks TOST „E 72G”/”E73G”	
9.	Weak links: Sollbruchstellen:	For winch launching or aero-tow: 500daN	
10.	Air Speeds: Geschwindigkeiten:	Never exceed speed V_{NE}	225 km/h IAS
		Maneuvering speed V_M	172 km/h IAS
		Maximum speed in gust (± 15 m/s) V_B	172 km/h IAS
		Maxim speed with wing flaps fully deflected V_F	140 km/h IAS
		Maximum landing gear extension speed V_{LG}	140 km/h IAS
		Maximum aerotow speed V_T	140 km/h IAS
		Maximum winch launching speed V_W	125 km/h IAS
		Stalling speed in landing configuration V_{SO}	65 km/h IAS
11.	Operational Capability Betriebsart	Approved for VFR - day Cloud flying approved according to Aircraft Flight and Maintenance Manual Fly by night prohibited.	
12.	Maximum Masses: Höchstzulässige Massen:	Take-off	360 kg

- | | |
|--|--|
| 13. Centre of Gravity Range:
Schwerpunktsbereich: | Datum: leading edge of wing root rib
Leveling means:
Longitudinal axis: marked points on fuselage sides
Lateral axis: marked points on left and right wing (see AFM)
Forward Limit 18,75% of MAC
Rearward Limit 43,00% of MAC |
| 14. Seating Capacity:
Anzahl der Sitze: | 1 |
| 15. Lifetime limitations:
Lebensdauerbegrenzte Teile: | Refer to Aircraft Flight Manual (AFMM)
Siehe Wartungshandbuch |
| 16. Deflection of control surfaces:
Ruderausschläge | Refer to Aircraft Flight Manual (AFMM)
Siehe Wartungshandbuch |

B.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

1. Aircraft Flight and Maintenance Manual issue 4 / Amd 10 or later amd. approved by the Agency (AFMM) – for S/N 1÷ 55
2. Aircraft Flight and Maintenance Manual issue 5 / Amd 21 or later amd. approved by the Agency (AFMM) – for S/N 56 and on

B.V. Notes

Bemerkungen

1. The Type Certificate No. PN-06 was initially issued on 12.05.1976, for Intreprinderea de Construcții Aeronautice Braşov, which has changed its name in S.C. IAR S.A. Braşov since January 1991. Since December 2004, this Type Certificate has been transferred to its present Holder, S.C. Construcții Aeronautice S.A. Braşov.