

European Aviation Safety Agency

EASA

**TYPE-CERTIFICATE
DATA SHEET**

IS-28B2

Type Certificate Holder:

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

EASA TCDS No. A.453

For variants: IS-28B2
IS-30
IS-32A

Issue 01, 28 March 2007

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0.III. Change Record

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

Section A: IS-28B2

A.I. General

Allgemeines

1. Data Sheet No.: EASA.A.453
Kennblatt-Nr.
2. a) Type: (Muster) IS-28B2
b) Variant: (Baureihe) IS-28B2
3. Airworthiness Category: Sailplane, OSTIV aerobatic "A" and utility "U"
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 23, 1974
Datum der Antragstellung
7. Romanian CAA Certification Date: February 28, 1975
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. PN-03

A.II. Certification Basis

Zulassungsbasis

1. Certification Basis: C. Av. C-Tarom letter nr. 586/January 15, 1975
Zulassungsbasis:
2. Airworthiness Requirements: OSTIV Airworthiness Requirements for Sailplanes, issue
Lufttüchtigkeitsforderungen: 1971
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.2.72 up to S/N 55, the extension of the air-brakes is permitted up to
only 85% V_{NE}

Par.3.54 and the stretch and operational test results for elevator and
Par.4.562 rudder control system do not comply with the requirements

Par.4.331 ground vibration tests have not been performed.
6. Equivalent Safety Findings: None
Nachweise gleichwertiger Sicherheit:
7. Environmental Standard: None
Lärmschutzforderungen:

A.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1.	Type Design Definition: Musterdefinition:	Document No. 28B2-0016, current issue	
2.	Description: Beschreibung:	double-seat (tandem) sailplane, metallic construction, partial retractable landing gear, "T"- tail	
3.	Equipment: Ausrüstung:	Mandatory equipment according to Aircraft Flight and Maintenance Manual, Chapter 6.4.7	
4.	Dimensions: Abmessungen:	Wing Span	17,000m
		Total Length	8,450 m
		Maximum Height	1,870 m
		Wing Area	18,240 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}	230 km/h IAS
		Demonstrated diving speed V_{DF}	240 km/h IAS
		Maxim operating speed with wing flaps fully deflected V_{FO}	130 km/h IAS
		Maximum landing gear operating speed V_{LO}	140 km/h IAS
		Maximum aerotow speed V_T	140 km/h IAS
		Maximum winch launching speed V_W	125 km/h IAS
		Maximum speed in gust (± 15 m/s) V_B	165 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 Chapter 3.4.3. Fly by night prohibited.	
12.	Maximum Masses: Höchstzulässige Massen:	Take-off – aerobatic category "A"	520 kg
		Take-off – utility category "U"	590 kg

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| 13. Centre of Gravity Range:
Schwerpunktsbereich: | Datum: first fuselage panel
Leveling means:
Longitudinal axis: marked points on fuselage sides
Lateral axis: marked points on left and right wing (see AFMM)
Forward Limit 22% of MAC
Rearward Limit 47% of MAC |
| 14. Seating Capacity:
Anzahl der Sitze: | 2 |
| 15. Lifetime limitations:
Lebensdauerbegrenzte Teile: | Refer to Aircraft Flight and Maintenance Manual (AFMM)
Siehe Wartungshandbuch |
| 16. Deflection of control surfaces:
Ruderausschläge | Refer to Aircraft Flight and Maintenance Manual (AFMM)
Siehe Wartungshandbuch |

A.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

1. Aircraft Flight and Maintenance Manual issue 2 / Amd 24 or later amd. approved by the Agency (AFMM) – for S/N 1÷140
2. Aircraft Flight and Maintenance Manual issue 3 / Amd 39 or later amd. approved by the Agency (AFMM) – for S/N 141 and on

A.V. Notes

Bemerkungen

1. The Type Certificate No. PN-03 was initially issued on 28.02.1975, 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-30

B.I. General

Allgemeines

1. Data Sheet No.: EASA.A.453
Kennblatt-Nr.
2. a) Type: (Muster) IS-28B2
b) Variant: (Baureihe) IS-30
3. Airworthiness Category: Sailplane, OSTIV aerobatic "A" and utility "U"
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 4, 1979
Datum der Antragstellung
7. Romanian CAA Certification Date: May 18, 1981
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. PN-10

B.II. Certification Basis

Zulassungsbasis

1. Certification Basis: D. Av. C. letter nr. 21746/November 22, 1979
Zulassungsbasis:
2. Airworthiness Requirements: OSTIV Airworthiness Requirements for Sailplanes, issue
Lufttüchtigkeitsforderungen: 1971
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.1.5 the minimum flight weight cannot be defined according to OSTIV 1971 requirements. For one seat occupied it is obtained with a pilot of 70 kg. For pilots below 70 kg. removable ballast has to be used.
 - Par.3.54 the elasticity of elevator and rudder control systems is over the allowed values of 50%.
 - Par.4.331 ground vibration tests have not been performed.
 - Par.4.332 aero-elastic phenomena were checked only by flight tests, without records

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

B.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

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| 1. | Type Design Definition:
Musterdefinition: | Document No. 30-0001, current issue | |
| 2. | Description:
Beschreibung: | double-seat (tandem) sailplane, metallic construction, "T"- tail | |
| 3. | Equipment:
Ausrüstung: | Mandatory equipment according to Aircraft Flight Manual, Chapter 3.3 | |
| 4. | Dimensions:
Abmessungen: | Wing Span | 17,000m |
| | | Total Length | 8,450 m |
| | | Maximum Height | 2,27 m |
| | | Wing Area | 18,240 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_A | 166 km/h IAS |
| | | Maximum speed in gust (± 15 m/s) V_B | 160 km/h IAS |
| | | Stalling speed V_S | 75 km/h CAS |
| | | Maximum aerotow speed V_T | 140 km/h IAS |
| | | Maximum winch launching speed V_W | 125 km/h IAS |
| | | Maximum allowed speed V_B
with airbrake extended | 225 km/h IAS |
| 11. | Operational Capability
Betriebsart | Approved for VFR - day
Cloud flying approved according to Aircraft Flight Manual (AFM) Chapter 3.3.
Fly by night prohibited. | |
| 12. | Maximum Masses:
Höchstzulässige Massen: | Take-off – aerobatic category “A” | 520 kg |
| | | Take-off – utility category “U” | 610 kg |

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| 13. Centre of Gravity Range:
Schwerpunktsbereich: | Datum: first fuselage panel
Leveling means:
Longitudinal axis: marked points on fuselage sides
Lateral axis: marked points on left and right wing (see AFM)
Forward Limit 22% of MAC
Rearward Limit 47% of MAC |
| 14. Seating Capacity:
Anzahl der Sitze: | 2 |
| 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 |

B.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

1. Aircraft Flight Manual issue 2 / Amd 3 or later amd. approved by the Agency (AFM)
2. Aircraft Maintenance Manual issue 2 / Amd 8 or later amd. approved by the Agency (AMM)

B.V. Notes

Bemerkungen

1. The Type Certificate No. PN-10 was initially issued on 18.05.1981, 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 C: IS-32A

C.I. General

Allgemeines

1. Data Sheet No.: EASA.A.453
Kennblatt-Nr.
2. a) Type: (Muster) IS-28B2
b) Variant: (Baureihe) IS-32A
3. Airworthiness Category: Sailplane, BCAR-E utility "U"
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: January 16, 1979
Datum der Antragstellung
7. Romanian CAA Certification Date: October 13, 1984
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. PN-12

C.II. Certification Basis

Zulassungsbasis

1. Certification Basis: D. Av. C. letter nr. 1697/January 31, 1979
Zulassungsbasis:
2. Airworthiness Requirements: BCAR-E Airworthiness Requirements for Sailplanes, issue
Lufttüchtigkeitsforderungen: 2, 1960
3. Requirements elected to comply: None
Gewählte Forderungen:
4. Special Conditions: None
Sonderforderungen:
5. Exemptions: The landing gear is design according to OSTIV 1971,
Ausnahmen: without static strength tests.

The safety belts are not of an approved type, according to
British standards.

The aileron – flap control stretch is 47% in stead of 25%
admitted
6. Equivalent Safety Findings: The drawings are according to Romanian norms and not
Nachweise gleichwertiger Sicherheit: according to British standards.

The instruments are PZL type and the wheels are Tost
(German manufacturer).
7. Environmental Standard None
Lärmschutzforderungen:

C.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1.	Type Design Definition: Musterdefinition:	Document No. 32-0001, current issue	
2.	Description: Beschreibung:	double-seat (tandem) sailplane, metallic construction, partial retractable landing gear, "T"- tail	
3.	Equipment: Ausrüstung:	Mandatory equipment according to Aircraft Flight and Maintenance Manual, Chapter 6.4.7	
4.	Dimensions: Abmessungen:	Wing Span	20,000m
		Total Length	8,360 m
		Maximum Height	1,550 m
		Wing Area	14,680 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}	195 km/h IAS
		Maxim speed with wing flaps fully deflected V_F	140 km/h IAS
		Maximum landing gear extension speed V_L	140 km/h IAS
		Maximum aerotow speed V_T	140 km/h IAS
		Maximum speed in gust (± 15 m/s) V_B	172 km/h IAS
		Stalling speed in landing configuration V_{SO}	80 km/h CAS
11.	Operational Capability Betriebsart	Approved for VFR - day Aerobatics prohibited. Cloud flying prohibited. Fly by night prohibited.	
12.	Maximum Masses: Höchstzulässige Massen:	Take-off	590 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 AFMM)	
		Forward Limit	19,3% of MAC
		Rearward Limit	44,1% of MAC

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| 14. Seating Capacity: | 2 |
| Anzahl der Sitze: | |
| 15. Lifetime limitations: | Refer to Aircraft Flight and Maintenance Manual (AFMM) |
| Lebensdauerbegrenzte Teile: | Siehe Wartungshandbuch |
| 16. Deflection of control surfaces: | Refer to Aircraft Flight and Maintenance Manual (AFMM) |
| Ruderausschläge | Siehe Wartungshandbuch |

C.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

1. Aircraft Flight and Maintenance Manual issue 1 / Amd 17 (AFMM)

C.V. Notes

Bemerkungen

1. The Type Certificate No. PN-12 was initially issued on 13.10.1984, 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.