



EASA

**TYPE-CERTIFICATE
DATA SHEET**

EASA.A.453

IS sailplanes

Type Certificate Holder:

Aeroclubul Romaniei
Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania

Models: IS-29D
IS-29D2
IS-28B2
IS-28M2
IS-28M2/80HP
IS-28M2/G
IS-28M2/GR
IS-30
IS-32A

Table of Content

<u>Table of Content</u>	2
<u>Section A: IS-29D</u>	4
A.I. General	4
A.II. Certification Basis	4
A.III. Technical Characteristics and Operational Limitations	5
A.IV. Operating and Service Instructions	6
A.V. Notes	7
<u>Section B: IS-29D2</u>	8
B.I. General	8
B.II. Certification Basis	8
B.III. Technical Characteristics and Operational Limitations	9
B.IV. Operating and Service Instructions	10
B.V. Notes	10
<u>Section C: IS-28B2</u>	11
C.I. General	11
C.II. Certification Basis	11
C.III. Technical Characteristics and Operational Limitations	12
C.IV. Operating and Service Instructions	13
C.V. Notes	13
<u>Section D: IS-28M2</u>	14
D.I. General	14
D.II. Certification Basis	14
D.III. Technical Characteristics and Operational Limitations	15
D.IV. Operating and Service Instructions	16
D.V. Notes	16
<u>Section E: IS-28M2/80HP</u>	17
E.I. General	17
E.II. Certification Basis	17
E.III. Technical Characteristics and Operational Limitations	18
E.IV. Operating and Service Instructions	19
E.V. Notes	19
<u>Section F: IS-28M2/G</u>	20
F.I. General	20
F.II. Certification Basis	20
F.III. Technical Characteristics and Operational Limitations.....	21
F.IV. Operating and Service Instructions	22
F.V. Notes	22
<u>Section G: IS-28M2/GR</u>	23
G.I. General.....	23
G.II. Certification Basis.....	23

G.III. Technical Characteristics and Operational Limitations	24
G.IV. Operating and Service Instructions.....	25
G.V. Notes.....	25
Section H: IS-30	26
H.I. General.....	26
H.II. Certification Basis.....	26
H.III. Technical Characteristics and Operational Limitations	27
H.IV. Operating and Service Instructions.....	28
H.V. Notes.....	28
Section I: IS-32A	29
I.I. General.....	29
I.II. Certification Basis	29
I.III. Technical Characteristics and Operational Limitations.....	30
I.IV. Operating and Service Instructions	31
I.V. Notes.....	31
Administrative section	32

Section A: IS-29D

A.I. General

Allgemeines

1. Data Sheet No.: EASA.A.453 (since 21 October 2016; before A.452)
Kennblatt-Nr.
2. a) Type: (Muster) IS-sailplanes
b) Model: (Baureihe) IS-29D
3. Airworthiness Category: Sailplane, OSTIV – Normal “N”
Lufttüchtigkeitskategorie :
4. Type Certificate Holder: Aeroclubul Romaniei
Halter der Musterzulassung Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
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.

- | | | |
|----|---|------|
| 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>Wing Span</td> <td>15,000 m</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 | 15,000 m | Total Length | 7,300 m | Maximum Height | 1,640 m | Wing Area | 10,400 m ² |
| Wing Span | 15,000 m | | | | | | | | | |
| 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 „E72G“/“E73G“ | | | | | | | | |
| 9. | Weak links:
Sollbruchstellen: | For winch launching or aero-tow: 500 daN | | | | | | | | |

10.	Air Speeds: Geschwindigkeiten:	Never exceed speed km/h IAS	V_{NE}	225
		Demonstrated diving speed km/h CAS	V_{DF}	236
		Maxim operating speed with wing flaps fully deflected km/h CAS	V_{FO}	150
		Stalling speed CAS	V_S	75 km/h
		Maximum landing gear operating speed km/h IAS	V_{LG}	140
		Maximum aerotow speed - undisturbed air	V_T	140
		- gust of ± 10 m/s	V_T	120
		Maximum winch launching speed km/h IAS	V_w	110
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 Brașov, which has changed its name in S.C. IAR S.A. Brașov since January 1991. Since December 2004, this Type Certificate has been transferred to its present Holder, S.C. Construcții Aeronautice S.A. Brașov.
2. The following Service Bulletins classified as 'mandetory' by the Romanian Civil Aeronautical Authority (RCAA) are to be considered as mandated by Airworthiness Directive (AD) in accordance with Commission Regulation (EU) No 748/2012:
CO-3, CO-5, CO-6, CO-7, EO-10, EO-11, EO-14

Section B: IS-29D2

B.I. General

Allgemeines

- | | |
|---|--|
| 1. Data Sheet No.:
Kennblatt-Nr. | EASA.A.453 (since 21 October 2016; before A.452) |
| 2. a) Type: (Muster)
b) Model: (Baureihe) | IS sailplanes
IS-29D2 |
| 3. Airworthiness Category:
Lufttüchtigkeitskategorie : | Sailplane, OSTIV - Normal "N" |
| 4. Type Certificate Holder:
Halter der Musterzulassung | Aeroclubul Romaniei
Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania |
| 5. Manufacturer:
Hersteller | S.C. Constructii Aeronautice S.A
Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania |
| 6. Certification Application Date:
Datum der Antragstellung | December 18, 1974 |
| 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:
Zulassungsbasis: | D. Av. C. letter nr. 128/January 6, 1975 |
| 2. Airworthiness Requirements:
Lufttüchtigkeitsforderungen: | OSTIV Airworthiness Requirements for Sailplanes, issue 1966 |
| 3. Requirements elected to comply:
Gewählte Forderungen: | None |
| 4. Special Conditions:
Sonderforderungen: | None |
| 5. Exemptions:
Ausnahmen: | None |
| 6. Equivalent Safety Findings:
Nachweise gleichwertiger Sicherheit: | Par.2.71 "Capacity of Air Brakes" of OSTIV issue 1971 instead of par. 2.72 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
Lärmschutzforderungen: | None |

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} IAS	225 km/h
		Maneuvering speed V_M IAS	172 km/h
		Maximum speed in gust (± 15 m/s) V_B IAS	172 km/h
		Maxim speed with wing flaps fully deflected V_F IAS	140 km/h
		Maximum landing gear extension speed V_{LG} IAS	140 km/h
		Maximum aerotow speed V_T IAS	140 km/h
		Maximum winch launching speed V_W IAS	125 km/h
		Stalling speed in landing configuration V_{SO} IAS	65 km/h
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.
2. The following Service Bulletins classified as 'mandatory' by the Romanian Civil Aeronautical Authority (RCAA) are to be considered as mandated by Airworthiness Directive (AD) in accordance with Commission Regulation (EU) No 748/2012:
IS-29D2-EO-01, IS-29D2-EO-04, IS-29D2-EO-06, IS-29D / IS-29D2-EO-14

Section C: IS-28B2

C.I. General

Allgemeines

- | | |
|---|--|
| 1. Data Sheet No.:
Kennblatt-Nr. | EASA.A.453 |
| 2. a) Type: (Muster)
b) Model: (Baureihe) | IS sailplanes
IS-28B2 |
| 3. Airworthiness Category:
Lufttüchtigkeitskategorie : | Sailplane, OSTIV aerobatic "A" and utility "U" |
| 4. Type Certificate Holder:
Halter der Musterzulassung | Aeroclubul Romaniei
Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania |
| 5. Manufacturer:
Hersteller | S.C. Constructii Aeronautice S.A
Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania |
| 6. Certification Application Date:
Datum der Antragstellung | December 23, 1974 |
| 7. Romanian CAA Certification Date: | February 28, 1975 |
| 8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. PN-03 | |

C.II. Certification Basis

Zulassungsbasis

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|--|--|
| 1. Certification Basis:
Zulassungsbasis: | C. Av. C-Tarom letter nr. 586/January 15, 1975 |
| 2. Airworthiness Requirements:
Lufttüchtigkeitsforderungen: | OSTIV Airworthiness Requirements for Sailplanes, issue 1971 |
| 3. Requirements elected to comply:
Gewählte Forderungen: | None |
| 4. Special Conditions:
Sonderforderungen: | None |
| 5. Exemptions:
Ausnahmen: | The following paragraphs are excepted from the Certification 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 Par.4.562 the stretch and operational test results for elevator and rudder control system do not comply with the requirements

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

C.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} km/h IAS	230
		Demonstrated diving speed V_{DF} km/h IAS	240
		Maxim operating speed with wing flaps fully deflected V_{FO} km/h IAS	130
		Maximum landing gear operating speed V_{LO} km/h IAS	140
		Maximum aerotow speed V_T km/h IAS	140
		Maximum winch launching speed V_w km/h IAS	125
		Maximum speed in gust (± 15 m/s) V_B km/h IAS	165
		Stalling speed in landing configuration V_{so} km/h IAS	65

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| 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 |
| 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 |

C.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

C.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.
2. The following Service Bulletins classified as 'mandatory' by the Romanian Civil Aeronautical Authority (RCAA) are to be considered as mandated by Airworthiness Directive (AD) in accordance with Commission Regulation (EU) No 748/2012:
IS-28B2-EO-02, IS-28B2-EO-03, IS-28B2-EO-06, IS-28B2-EO-07, IS-28B2-EO-09, IS-28B2-EO-10, IS-28B2-EO-12, IS-28B2-EO-13, IS-28B2-EO-14, IS-28B2-CO-18, IS-28B2-EO-25, IS-28B2-EO-26

Section D: IS-28M2

D.I. General

Allgemeines

1. Data Sheet No.: EASA.A.453 (since 21 October 2016; before A.454)
Kennblatt-Nr.
2. a) Type: (Muster) IS sailplanes
b) Model: (Baureihe) IS-28M2
3. Airworthiness Category: Powered Sailplane, OSTIV – Utility “U”
Lufttüchtigkeitskategorie :
4. Type Certificate Holder: Aeroclubul Romaniei
Halter der Musterzulassung Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania
5. Manufacturer: S.C. Constructii Aeronautice S.A
Hersteller Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania
6. Certification Application Date: October 24, 1976
Datum der Antragstellung
7. Romanian CAA Certification Date: November 12, 1977
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. MP-02

D.II. Certification Basis

Zulassungsbasis

1. Certification Basis: D. Av. C. letter nr. 34134/November 10, 1976
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 Up to S/N 40, the maximum allowed weight for pilots is less than
180 kgf
 - Par. 2.71 Drag-increasing devices ensure an angle to the horizon of 25°
at V_{NE}
 - Par. 3.251 Up to S/N 40, the maximum allowed load factor is +5,0 g
 - Par. 4.121 Up to S/N 30, the parts which are not manufactured of
aviation approved materials are oversized, in order to
provide a safety factor of at least 1,95
 - Par. 4.331 The ground vibration tests were not carried out

Par. 4.332 Aero-elastic phenomena were studied only by flight tests,
without records

Par. 5.12a

Beginning with S/N 41, the maximum allowed flight weight is
760 kgf

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

D.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

- | | | | |
|----|---|---|-----------------------|
| 1. | Type Design Definition:
Musterdefinition: | Document No. 28M2.00.0006, current issue | |
| 2. | Description:
Beschreibung: | Double-seat (side-by-side) powered sailplane, metallic construction, partially retractable landing gear with dampers, "T"-tail. | |
| 3. | Equipment:
Ausrüstung: | Mandatory equipment according to Flight and Maintenance Manual, Chapter 2..7 | |
| 4. | Dimensions:
Abmessungen: | Wing Span | 17,000 m |
| | | Total Length | 7,800 m |
| | | Maximum Height | 2,150 m |
| | | Wing Area | 18,240 m ² |
| | | Mean aerodynamic chord | 1,108 m |
| 5. | Engines
Triebwerk | Model: | Limbach SL 1700 E1 |
| | | Type Certificate: | EASA.E.082 |
| | 5.1 Engine Limits
Triebwerksgrenzwerte | Maximum Take-off Power | 50 kW at 3600 RPM |
| | | Maximum continuous Power | 44 kW at 3200 RPM |
| 6. | Propellers
Propeller: | Hoffmann HO-V62-R/L 160BT or 160T | |
| 7. | Fluids and Fluid capacities:
Kraftstoffmengen: | Fuselage tank
Rumpftank | 40 liters |
| 8. | Launching Hooks:
Schleppkupplungen: | None | |
| 9. | Weak links:
Sollbruchstellen: | None | |

10.	Air Speeds: Geschwindigkeiten:	Never exceed speed V_{NE} Maneuvering speed V_A Maximum speed in rough air V_B Maxim operating speed with wing flaps fully deflected V_{FO} Maxim landing gear operating speed V_{LO} Stalling speed in cruise configuration V_{S1}	210 km/h IAS 170 km/h IAS 170 km/h IAS 140 km/h IAS 210 km/h IAS 75 km/h IAS
11.	Operational Capability Betriebsart	VFR-day allowed except icing condition Cloud flying prohibited Fly by night prohibited Inverted flying with engine operating prohibited	
12.	Maximum Masses: Höchstzulässige Massen:	Take-off 745 kg up to S/N 40 760 kg from S/N 41 on	
13.	Centre of Gravity Range: Schwerpunktsbereich:	Datum: 2m in front of the 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 21,4% of MAC Rearward Limit 35,0% of MAC	
14.	Seating Capacity: Anzahl der Sitze:	2	
15.	Lifetime limitations: Lebensdauerbegrenzte Teile:	Refer to Aircraft Flight and Maintenance Manual (AFMM)	
16.	Deflection of control surfaces: Ruderausschläge	Refer to Aircraft Flight and Maintenance Manual (AFMM)	

D.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

1. Aircraft Flight and Maintenance Manual issue 2 / Amd 31 or later amd. approved by the Agency (AFMM) for S/N 1÷40
2. Aircraft Flight and Maintenance Manual issue 2 / Amd 14 or later amd. approved by the Agency (AFMM) for S/N 41 and on

D.V. Notes

Bemerkungen

1. Current weight and balance data, loading information and a list of equipment included in empty weight must be provided for each aeroplane at the time of original certification.
2. All placards required in the approved AFMM must be installed in the appropriate location.
3. The following Service Bulletins classified as 'mandatory' by the Romanian Civil Aeronautical Authority (RCAA) are to be considered as mandated by Airworthiness Directive (AD) in accordance with Commission Regulation (EU) No 748/2012:
IS-28M2 / CO-2, IS-28M2 / EO-03, IS-28M2 / CO-4, IS-28M2 / EO-5, IS-28M2 / EO-8, IS-28M2 / EO-10, IS-28M2 / EO-11, IS-28M2 / EO-12, IS-28M2 / EO-13, IS-28M2 / CO-14

Section E: IS-28M2/80HP

E.I. General

Allgemeines

1. Data Sheet No.: EASA.A.453 (since 21 October 2016; before A.454)
Kennblatt-Nr.
2. a) Type: (Muster) IS sailplanes
b) Model: (Baureihe) IS-28M2/80HP
3. Airworthiness Category: Powered Sailplane, OSTIV – Utility “U”
Lufttüchtigkeitskategorie :
4. Type Certificate Holder: Aeroclubul Romaniei
Halter der Musterzulassung Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania
5. Manufacturer: S.C. Constructii Aeronautice S.A
Hersteller Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania
6. Certification Application Date: July 3, 1981
Datum der Antragstellung
7. Romanian CAA Certification Date: September 30, 1981
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. MP-04

E.II. Certification Basis

Zulassungsbasis

1. Certification Basis: D.Av. C. letter nr. 11223/July 25, 1981
Zulassungsbasis:
2. Airworthiness Requirements: Airworthiness Requirements NTAZ Part 2 “Sailplanes and
Lufttüchtigkeitsforderungen: powered sailplanes”, Issue 1978 / OSTIV Issue 1976
3. Requirements elected to comply: None
Gewählte Forderungen:
4. Special Conditions: None
Sonderforderungen:
5. Exemptions: Paragraph 5.1.2.3.(a) – “Maximum weight” from NTAZ 2, 1978
Ausnahmen: / OSTIV, 1976 has been replaced with JAR-22.1(a)(2)
6. Equivalent Safety Findings: Nachweise gleichwertiger Sicherheit:
CESZ-044 In regard of NTAZ Part 2, 1978 /OSTIV, 1976 par. 2.7.1 – Air
brakes capability
CESZ-045 In regard of NTAZ Part 2, 1978 /OSTIV, 1976 par. 4.3.3 –
Aeroelastic phenomena
CESZ-048 In regard of NTAZ Part 2, 1978 /OSTIV, 1976 par. 5.3.2 –
Propeller clearance
7. Environmental Standard Noise: Acoustical certification standard STAS 10922/1-77
Lärmschutzforderungen: (similar with ICAO Annex 16 Third Edition, 1993, Part 2, Vol.
1, Chapter 6)

E.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

- | | | | |
|-----|---|--|-----------------------|
| 1. | Type Design Definition:
Musterdefinition: | Document No. 28M2.00.0006, current issue | |
| 2. | Description:
Beschreibung: | Double-seat (side-by-side) powered sailplane, metallic construction, partially retractable landing gear with dampers, "T"- tail. | |
| 3. | Equipment:
Ausrüstung: | Mandatory equipment according to Aircraft Flight and Maintenance Manual, Chapter 2.7 | |
| 4. | Dimensions:
Abmessungen: | Wing Span | 17,000 m |
| | | Total Length | 7,800 m |
| | | Maximum Height | 2,150 m |
| | | Wing Area | 18,240 m ² |
| | | Mean aerodynamic chord | 1,108 m |
| 5. | Engines
Triebwerk | Model: | Limbach L 2000 EO1 |
| | | Type Certificate: | EASA.E.083 |
| | 5.1 Engine Limits
Triebwerksgrenzwerte | Maximum Take-off Power | 59 kW at 3400 RPM |
| | | Maximum continuous Power | 58 kW at 2900 RPM |
| 6. | Propellers
Propeller: | Hoffmann HO-V62-R/L 160BT or 160T | |
| 7. | Fluids and Fluid capacities:
Kraftstoffmengen: | Fuselage tank | 55 liters |
| | | Rumpftank | |
| 8. | Launching Hooks:
Schleppkupplungen: | None | |
| 9. | Weak links:
Sollbruchstellen: | None | |
| 10. | Air Speeds:
Geschwindigkeiten: | Never exceed speed V_{NE}
IAS | 220 km/h |
| | | Maneuvering speed V_A
IAS | 190 km/h |
| | | Maximum speed in rough air V_B
IAS | 190 km/h |
| | | Maxim operating speed with
wing flaps fully deflected V_{FO}
IAS | 140 km/h |
| | | Maxim landing gear operating speed V_{LO}
IAS | 220 km/h |
| | | Stalling speed in cruise configuration V_{S1}
IAS | 75 km/h |
| 11. | Operational Capability
Betriebsart | VFR-day allowed except icing condition
Cloud flying prohibited
Fly by night prohibited
Inverted flying with engine operating prohibited | |
| 12. | Maximum Masses:
Höchstzulässige Massen: | Take-off: | 760kg |

- | | | |
|-----|--|--|
| 13. | Centre of Gravity Range:
Schwerpunktsbereich: | Datum: 2m in front of the 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 21,4% of MAC
Rearward Limit 35,0% of MAC |
| 14. | Seating Capacity:
Anzahl der Sitze: | 2 |
| 15. | Lifetime limitations:
Lebensdauerbegrenzte Teile: | Refer to Aircraft Flight and Maintenance Manual (AFMM) |
| 16. | Deflection of control surfaces:
Ruderausschläge | Refer to Aircraft Flight and Maintenance Manual (AFMM) |

E.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

1. Aircraft Flight and Maintenance Manual issue 1 / Amd 12 or later amd. approved by the Agency (AFMM)

E.V. Notes

Bemerkungen

1. The Type Certificate No. MP-04 was initially issued on 30.09.1981, 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.
2. The following Service Bulletins classified as 'mandatory' by the Romanian Civil Aeronautical Authority (RCAA) are to be considered as mandated by Airworthiness Directive (AD) in accordance with Commission Regulation (EU) No 748/2012:
IS-28M2 / 80HP / EO-01, IS-28M2 / 80HP / EO-2, IS-28M2 / 80HP / CO-03

Section F: IS-28M2/G

F.I. General

Allgemeines

1. Data Sheet No.:
Kennblatt-Nr. EASA.A.453 (since 21 October 2016; before A.454)
2. a) Type: (Muster) IS sailplanes
b) Model: (Baureihe) IS-28M2/G
3. Airworthiness Category:
Lufttüchtigkeitskategorie : Powered Sailplane, OSTIV – Utility “U”
4. Type Certificate Holder:
Halter der Musterzulassung Aeroclubul Romaniei
Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania
5. Manufacturer:
Hersteller S.C. Constructii Aeronautice S.A
Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania
6. Certification Application Date:
Datum der Antragstellung February 13, 1995
7. Romanian CAA Certification Date: June 25, 1995
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. MP-04

F.II. Certification Basis

Zulassungsbasis

1. Certification Basis:
Zulassungsbasis: AACR letter nr. 7445/June 5, 1995
2. Airworthiness Requirements:
Lufttüchtigkeitsforderungen: Airworthiness Requirements NTAZ Part 2 “Sailplanes and powered sailplanes”, Issue 1978 / OSTIV Issue 1976
3. Requirements elected to comply:
Gewählte Forderungen: JAR-22 “Sailplanes and Powered Sailplanes”, issue 1980, Amdt. 3, for: Subpart A – General, Subpart B – Flight, Subpart C – Structure and the following paragraphs: 22.595, 22.629, 22.671, 22.697(c), 22.777(c)(6), 22.785(d) and (e), 22.787, 22. 807, 22.905, 22.925(a), 22.1041, 22.1047, 22.1149, 22.1307, 22.1505, 22.1529, 22.1581, 22.1583, 22.1585.
4. Special Conditions:
Sonderforderungen: None
5. Exemptions:
Ausnahmen: from NTAZ 2 /OSTIV 1976: par. 5.1.2.3.(a) – “Maximum weight of powered sailplanes” has been replaced with JAR-22.1(a)(2)

no exemption from JAR-22
6. Equivalent Safety Findings:
Nachweise gleichwertiger Sicherheit: For NTAZ 2/OSTIV 1976

- CESZ-044 In regard of NTAZ Part 2, 1978 /OSTIV, 1976 par. 2.7.1 – Air brakes capability
- CESZ-045 In regard of NTAZ Part 2, 1978 /OSTIV, 1976 par. 4.3.3 – Aeroelastic phenomena
- For JAR-22
- CESZ-044 In regard of JAR 22.73 – Descent, high speed
- CESZ-045 In regard of JAR 22.629 - Flutter
- CESZ-046 In regard of JAR 22.161 (c)(2)(i) - Trim
- CESZ-047 In regard of JAR 22.411 (a) – Control system stiffness and stretch
7. Environmental Standard
Lärmschutzforderungen: Noise: LBA – noise requirement (LSL), chapter VI /01.01.1991

F.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition:
Musterdefinition: Document No. 28M2.00.0006, current issue
2. Description:
Beschreibung: Double-seat (side-by-side) powered sailplane, metallic construction, partially retractable landing gear with dampers, "T"- tail.
3. Equipment:
Ausrüstung: Mandatory equipment according to Aircraft Flight Manual, Chapter 2.11
4. Dimensions:
Abmessungen:
- | | |
|------------------------|-----------------------|
| Wing Span | 17,000 m |
| Total Length | 7,500 m |
| Maximum Height | 2,150 m |
| Wing Area | 18,240 m ² |
| Mean aerodynamic chord | 1,108 m |
5. Engines
Triebwerk
- | | | |
|-------------------|--------------------|--|
| Model: | Limbach L 2000 EO1 | |
| Type Certificate: | EASA.E.083 | |
- 5.1 Engine Limits
Triebwerksgrenzwerte
- | | |
|--------------------------|-------------------|
| Maximum Take-off Power | 59 kW at 3400 RPM |
| Maximum continuous Power | 58 kW at 2900 RPM |
6. Propellers
Propeller: Hoffmann HO-V62-R/L 160T-10
7. Fluids and Fluid capacities:
Kraftstoffmengen: Fuselage tank 55 liters
Rumpftank
8. Launching Hooks:
Schleppkupplungen: None
9. Weak links:
Sollbruchstellen: None

10.	Air Speeds: Geschwindigkeiten:	Never exceed speed V_{NE}	220 km/h IAS
		Maneuvering speed V_A	190 km/h IAS
		Maximum speed in rough air V_B	190 km/h IAS
		Maxim operating speed with wing flaps fully deflected V_{FO}	140 km/h IAS
		Maxim landing gear operating speed V_{Lo}	220 km/h IAS
		Stalling speed in cruise configuration V_{S1}	75 km/h IAS
11.	Operational Capability Betriebsart	VFR-day allowed except icing condition Cloud flying prohibited Fly by night prohibited Inverted flying with engine operating prohibited	
12.	Maximum Masses: Höchstzulässige Massen:	Take-off: 780kg	
13.	Centre of Gravity Range: Schwerpunktsbereich:	Datum: 2m in front of the 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 21,4% of MAC Rearward Limit 35,0% of MAC	
14.	Seating Capacity: Anzahl der Sitze:	2	
15.	Lifetime limitations: Lebensdauerbegrenzte Teile:	Refer to Aircraft Flight Manual (AFM)	
16.	Deflection of control surfaces: Ruderausschläge	Refer to Aircraft Flight Manual (AFM)	

F.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

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

F.V. Notes

Bemerkungen

1. The Type Certificate No. MP-04 was initially issued on 30.09.1981, 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 G: IS-28M2/GR

G.I. General

Allgemeines

1. Data Sheet No.:
Kennblatt-Nr. EASA.A.453 (since 21 October 2016; before A.454)
2. a) Type: (Muster) IS sailplanes
b) Model: (Baureihe) IS-28M2/GR
3. Airworthiness Category:
Lufttüchtigkeitskategorie : Powered Sailplane, OSTIV – Utility “U”
4. Type Certificate Holder:
Halter der Musterzulassung Aeroclubul Romaniei
Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania
5. Manufacturer:
Hersteller S.C. Constructii Aeronautice S.A
Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania
6. Certification Application Date:
Datum der Antragstellung June 5, 1996
7. Romanian CAA Certification Date: November 07, 1997
8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. MP-04

G.II. Certification Basis

Zulassungsbasis

1. Certification Basis:
Zulassungsbasis: A.A.C.R. letter nr. 8479/ June 6, 1996
2. Airworthiness Requirements:
Lufttüchtigkeitsforderungen: Airworthiness Requirements NTAZ Part 2 “Sailplanes and powered sailplanes”, Issue 1978 / OSTIV Issue 1976
3. Requirements elected to comply:
Gewählte Forderungen: JAR-22 “Sailplanes and Powered Sailplanes”, issue 1980, Amdt. 3, for: Subpart A – General, Subpart B – Flight, Subpart C – Structure, Subpart H - Engine and the following paragraphs : 22.601, 22.603, 22.607, 22.609, 22.611, 22.613, 22.619, 22.627, 22.629, 22.671, 22.697(c), 22.777(c)(6), 22.779, 22.785(d) and (e), 22.787, 22.807, 22.831, 22.901, 22.902, 22.903, 22.905, 22.925(a), 22.955, 22.993, 22.1011, 22.1013, 22.1015, 22.1017, 22.1041, 22.1047, 22.1091, 22.1093, 22.1103, 22.1105, 22.1121, 22.1125, 22.1141, 22.1145, 22.1149, 22.1163, 22.1165, 22.1193, 22.1301, 22.1305, 22.1307, 22.1321, 22.1337, 22.1365, 22.1501, 22.1505, 22.1521, 22.1529, 22.1545, 22.1549, 22.1553, 22.1557, 22.1581, 22.1583, 22.1585.

JAR 22.857 from JAR-22, Change 4, 1987;

JAR-P “Propellers” Change 7
4. Special Conditions:
Sonderforderungen: according to FPC-A4 – Exhaust system heat exchangers
5. Exemptions:
Ausnahmen: from NTAZ 2 /OSTIV 1976: par. 5.1.2.3.(a) – “Maximum weight of powered sailplanes” has been replaced with JAR-22.1(a)(2)

- no exemption from JAR-22
6. Equivalent Safety Findings:
Nachweise gleichwertiger Sicherheit:
- CESZ-044 In regard of NTAZ Part 2, 1978 /OSTIV, 1976 par. 2.7.1 – Air brakes capability
- CESZ-045 In regard of NTAZ Part 2, 1978 /OSTIV, 1976 par. 4.3.3 – Aeroelastic phenomena
- For JAR-22
- CESZ-044 In regard of JAR 22.73 – Descent, high speed
- CESZ-045 In regard of JAR 22.629 - Flutter
- CESZ-046 In regard of JAR 22.161 (c)(2)(i) - Trim
- CESZ-047 In regard of JAR 22.411 (a) – Control system stiffness and stretch
7. Environmental Standard
Lärmschutzforderungen:
- Noise: LBA – noise requirement (LSL), chapter VI /01.01.1991

G.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition:
Musterdefinition: Document No. 28M2.00.0006, current issue
2. Description:
Beschreibung: Double-seat (side-by-side) powered sailplane, metallic construction, partially retractable landing gear with dampers, "T"- tail.
3. Equipment:
Ausrüstung: Mandatory equipment according to Aircraft Flight Manual, Chapter 2.11
4. Dimensions:
Abmessungen:
- | | |
|------------------------|-----------------------|
| Wing Span | 17,000 m |
| Total Length | 7,700 m |
| Maximum Height | 2,150 m |
| Wing Area | 18,240 m ² |
| Mean aerodynamic chord | 1,108 m |
5. Engines
Triebwerk
- | | |
|-------------------|----------------|
| Model: | Rotax 912F3/A3 |
| Type Certificate: | EASA.E.121 |
- 5.1 Engine Limits
Triebwerksgrenzwerte
- | | |
|--------------------------|---------------------|
| Maximum Take-off Power | 59,6 kW at 5800 RPM |
| Maximum continuous Power | 58 kW at 5500 RPM |
6. Propellers
Propeller: Hoffmann HO-V-352F-S1/S 170FQ
7. Fluids and Fluid capacities:
Kraftstoffmengen: Fuselage tank 55 liters
Rumpftank
8. Launching Hooks:
Schleppkupplungen: None
9. Weak links:
Sollbruchstellen: None

10.	Air Speeds: Geschwindigkeiten:	Never exceed speed V_{NE} IAS	220 km/h
		Maneuvering speed V_A IAS	190 km/h
		Maximum speed in rough air V_B IAS	190 km/h
		Maxim operating speed with wing flaps fully deflected V_{FO} IAS	140 km/h
		Maxim landing gear operating speed V_{Lo} IAS	220 km/h
		Stalling speed in cruise configuration V_{S1} IAS	75 km/h
11.	Operational Capability Betriebsart	VFR-day allowed except icing condition Cloud flying prohibited Fly by night prohibited Inverted flying with engine operating prohibited	
12.	Maximum Masses: Höchstzulässige Massen:	Take-off: 780kg	
13.	Centre of Gravity Range: Schwerpunktsbereich:	Datum: 2m in front of the 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 21,4% of MAC Rearward Limit 35,0% of MAC	
14.	Seating Capacity: Anzahl der Sitze:	2	
15.	Lifetime limitations: Lebensdauerbegrenzte Teile:	Refer to Aircraft Flight Manual (AFM)	
16.	Deflection of control surfaces: Ruderausschläge	Refer to Aircraft Flight Manual (AFM)	

G.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

1. Aircraft Flight Manual issue Aug. 1997 / Amd 5 or later amd. approved by the Agency (AFM)
2. Aircraft Maintenance Manual issue Aug. 1997 / Amd 5 or later amd. approved by the Agency (AMM)

G.V. Notes

Bemerkungen

1. The Type Certificate No. MP-04 was initially issued on 30.09.1981, 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.
2. The following Service Bulletins classified as 'mandatory' by the Romanian Civil Aeronautical Authority (RCAA) are to be considered as mandated by Airworthiness Directive (AD) in accordance with Commission Regulation (EU) No 748/2012:
IS-28M2/GR / CO-01, IS-28M2/GR / CO-02, IS-28M2/GR / CO-04, IS-28M2/GR / EO-04

Section H: IS-30

H.I. General

Allgemeines

1. Data Sheet No.: EASA.A.453
Kennblatt-Nr.
2. a) Type: (Muster) IS sailplanes
b) Model: (Baureihe) IS-30
3. Airworthiness Category: Sailplane, OSTIV aerobatic "A" and utility "U"
Lufttüchtigkeitskategorie :
4. Type Certificate Holder: Aeroclubul Romaniei
Halter der Musterzulassung Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
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

H.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
6. Equivalent Safety Findings: None
Nachweise gleichwertiger Sicherheit:

- | | |
|---|------|
| 7. Environmental Standard
Lärmschutzforderungen: | None |
|---|------|

H.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

- | | | | |
|--|--|-----------------------|----------|
| 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 „E72G“/“E73G“ | | |
| 9. Weak links:
Sollbruchstellen: | For winch launching or aero-tow: 500daN | | |
| 10. Air Speeds:
Geschwindigkeiten: | Never exceed speed V_{NE}
IAS | | 225 km/h |
| | Maneuvering speed V_A
IAS | | 166 km/h |
| | Maximum speed in gust (± 15 m/s) V_B
IAS | | 160 km/h |
| | Stalling speed V_S
CAS | | 75 km/h |
| | Maximum aerotow speed V_T
IAS | | 140 km/h |
| | Maximum winch launching speed V_W
IAS | | 125 km/h |
| | Maximum allowed speed V_B
IAS
with airbrake extended | | 225 km/h |

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” kg Take-off – utility category “U” kg	520 610
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	

H.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)

H.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.
2. The following Service Bulletins classified as ‘mandatory’ by the Romanian Civil Aeronautical Authority (RCAA) are to be considered as mandated by Airworthiness Directive (AD) in accordance with Commission Regulation (EU) No 748/2012:
IS-30 / EO 1, IS-30 / EO 2

Section I: IS-32A

I.I. General

Allgemeines

- | | |
|---|--|
| 1. Data Sheet No.:
Kennblatt-Nr. | EASA.A.453 |
| 2. a) Type: (Muster)
b) Model: (Baureihe) | IS sailplanes
IS-32A |
| 3. Airworthiness Category:
Lufttüchtigkeitskategorie : | Sailplane, BCAR-E utility "U" |
| 4. Type Certificate Holder:
Halter der Musterzulassung | Aeroclubul Romaniei
Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania |
| 5. Manufacturer:
Hersteller | S.C. Constructii Aeronautice S.A
Str. Aeroportului Nr. 1
507075 Ghimbav, Brasov
Romania |
| 6. Certification Application Date:
Datum der Antragstellung | January 16, 1979 |
| 7. Romanian CAA Certification Date: | October 13, 1984 |
| 8. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. PN-12 | |

I.II. Certification Basis

Zulassungsbasis

- | | |
|--|---|
| 1. Certification Basis:
Zulassungsbasis: | D. Av. C. letter nr. 1697/January 31, 1979 |
| 2. Airworthiness Requirements:
Lufttüchtigkeitsforderungen: | BCAR-E Airworthiness Requirements for Sailplanes, issue 2, 1960 |
| 3. Requirements elected to comply:
Gewählte Forderungen: | None |
| 4. Special Conditions:
Sonderforderungen: | None |
| 5. Exemptions:
Ausnahmen: | The landing gear is design according to OSTIV 1971, 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:
Nachweise gleichwertiger Sicherheit: | The drawings are according to Romanian norms and not according to British standards.

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

I.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} IAS	195 km/h
		Maxim speed with wing flaps fully deflected V_F IAS	140 km/h
		Maximum landing gear extension speed V_L IAS	140 km/h
		Maximum aerotow speed V_T IAS	140 km/h
		Maximum speed in gust (± 15 m/s) V_B IAS	172 km/h
		Stalling speed in landing configuration V_{SO} CAS	80 km/h
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 |
| 17. | Seating Capacity:
Anzahl der Sitze: | 2 |
| 18. | Lifetime limitations:
Lebensdauerbegrenzte Teile: | Refer to Aircraft Flight and Maintenance Manual (AFMM)
Siehe Wartungshandbuch |
| 19. | Deflection of control surfaces:
Ruderausschläge | Refer to Aircraft Flight and Maintenance Manual (AFMM)
Siehe Wartungshandbuch |

I.IV. Operating and Service Instructions

Betriebs- und Instandhaltungsanweisungen

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

I.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.

Administrative section

I. Acronyms

N/A

II. Type Certificate Holder Record

Aeroclubul Romaniei
Bd.Lascar Catargiu, Nr.54, cod: 010673
Sector 1, Bucharest
Romania

III. Change Record

Issue	Date	Changes
01	28 March 2007	Initial release, transfer from Romanian TCDS
02	21 October 2016	TCDS A452 and A454 included, general format changed
03	15 December 2017	Correction of type designations, mandatory SBs No included.