European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

IAR-46 / -46S

Type Certificate Holder:
S.C. Constructii Aeronautice S.A.

S.C. Constructii Aeronautice S.A.
Str. Aeroportului nr. 1
507075 Ghimbav, Brasov
ROMANIA

Manufacturer:
S.C. Constructii Aeronautice S.A.

S.C. Constructii Aeronautice S.A.
Str. Aeroportului nr. 1
507075 Ghimbav, Brasov
ROMANIA

For variants: IAR-46
IAR-46S

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

SECTION 1: IAR-46

I. General

Data Sheet No.: EASA.A.113 Issue: 01 Date: January 2, 2006

1.	a) Type: b) Variant:	IAR-46 IAR-46
2.	Airworthiness Category:	Very Light Aeroplane
3.	Type Certificate Holder:	S.C. Constructii Aeronautice S.A. Str. Aeroportului nr. 1 507075 Ghimbav, Brasov ROMANIA
4.	Manufacturer:	S.C. Constructii Aeronautice S.A. Str. Aeroportului nr. 1 507075 Ghimbav, Brasov ROMANIA
5.	Certification Application Date:	October 19, 1993
6.	Romanian CAA Certification Date:	November 25, 1999

7. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. AM-25

II. Certification Basis

1.	Reference Date for determining the applicable requirements:	December, 1996
2.	(Reserved)	
3.	(Reserved)	
4.	Certification Basis:	As defined in FPC A-1, latest Issue
5.	Airworthiness Requirements:	JAR-VLA, issued April 26, 1990, including amendments VLA/91/1, dated October 22, 1991 and VLA/92/1, dated January 1, 1992
6.	Requirements elected to comply:	None
7.	EASA Special Conditions:	Induction System Icing Protection (see FPC A-5) Firewalls (see FPC A-6)
8.	EASA Exemptions:	None

9. EASA Equivalent Safety Findings:

JAR-VLA 683	46.C.001 Control System Elasticity (see FPC D-3)
JAR-VLA 731(a)	46.D.001 Wheel approval (see FPC D-1)
JAR-VLA 777 (e),(f) 779 (a)(2), (b)(2)	46.D.002 Flaps and Landing Gear Cockpit Controls Location (see FPC D-2)

10.	EASA Environmental Standards:	Noise: ICAO Annex 16, Volume I, Chapter 10, Third Edition – July 1993, Amdt. 6, November 4, 1999 Emission: N/A

III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Document No. 46A-00-0000.02/06, current issue

2. Description: IAR-46 is a single reciprocating engine aeroplane, a two-seater of a conventional design. The landing gear is semiretractable, with steerable tail wheel.

3. Equipment: The basic required equipment as prescribed in the applicable airworthiness requirements must be installed in the aeroplane for certification.

4. Dimensions:

Wing Span	11.420 m
Total Length	7.850 m
Maximum Height	2.150 m
Wing Area	13.870 m²
Mean aerodynamic chord	1.237 m

5. Engine/s:

No.	1
Model:	Rotax 912 F3
Type Certificate:	TW9 – ACG issued by AUSTRO CONTROL (Austria)

5.1 Engine Limits:

Maximum Take off Power
59.6 kW/5800 RPM (max. 5 min.)
Maximum Continuous Power
58 kW/5500 RPM

6. (Reserved)

7. Propeller/s:

No.	1
Model	Hoffmann HO-V352F-/170FQ
Type Certificate	LBA 32.130/88
Number of blades	2
Diameter:	1700 mm
Sense of Rotation	clockwise

8. Fluids:

8.1 Fuel: EUROSUPER RON unleaded according to EN 228 or AVGAS 100 LL.

8.2 Oil: any registered brand engine oil for the automotive market (see AFM)

8.3 Coolant: see Rotax Operator's Manual for Rotax 912, P/N 899 370

9. Fluid capacities:

9.1 Fuel:

Total:	70 liters
Usable:	68 liters

9.2 Oil:

Maximum:	3.0 liters
Minimum:	2.0 liters

10. Air Speeds:	
Design Manoeuvring Speed V_A	176 km/h IAS
Maximum Flap Extended Speed V_{FE}	140 km/h IAS
Maximum structural cruising speed V_{NO}	190 km/h IAS
Never exceed speed V_{NE}	279 km/h IAS
11. (Reserved)	
12. Operational:	VFR Day Flight into expected or actual icing conditions is prohibited.
13. Maximum Masses:	
Take-off	750 kg
14. Centre of Gravity Range:	19.57 – 30.47 % MAC
15. Datum:	leading edge of MAC
16. (Reserved)	
17. Levelling Means:	
Longitudinal axis:	painted points A and C on fuselage side
Lateral axis:	painted points No. 7 on left and right wing
18. Minimum Flight Crew:	1 (Pilot)
19. Maximum Passenger Seating Capacity:	1
20. (Reserved)	
21. Baggage / Cargo Compartments	N/A
22. Wheels and Tyres	
Main wheel:	MATCO W51L
Dimensions :	5.00 X 5”
Tail wheel dimensions :	210 x 65 mm
23. Serial numbers eligible	02 and subsequent

IV. Operating and Service Instructions

Airplane Flight Manual (AFM)	46A-04-0025
Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations)	46A-04-0026

V. Notes

Note 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.

Note 2 All placards required in the approved AFM must be installed in the appropriate location.

SECTION 2: IAR-46S

I. General

Data Sheet No.: EASA.A.113 Issue: 01 Date: January 2, 2006

1.	a) Type: b) Variant:	IAR-46 IAR-46S
2.	Airworthiness Category:	Very Light Aeroplane
3.	Type Certificate Holder:	S.C. Constructii Aeronautice S.A. Str. Aeroportului nr. 1 507075 Ghimbav, Brasov ROMANIA
4.	Manufacturer:	S.C. Constructii Aeronautice S.A. Str. Aeroportului nr. 1 507075 Ghimbav, Brasov ROMANIA
5.	Certification Application Date:	November 30, 1999
6.	Romanian CAA Certification Date:	December 08, 2000

7. The EASA Type Certificate replaces the Romanian CAA Type Certificate No. AM-25

II. Certification Basis

1.	Reference Date for determining the applicable requirements:	December, 1996
2.	(Reserved)	
3.	(Reserved)	
4.	Certification Basis:	As defined in FPC A-1, latest Issue
5.	Airworthiness Requirements:	JAR-VLA, issued April 26, 1990, including amendments VLA/91/1, dated October 22, 1991 and VLA/92/1, dated January 1, 1992
6.	Requirements elected to comply:	None
7.	EASA Special Conditions:	Induction System Icing Protection (see FPC A-5) Firewalls (see FPC A-6)
8.	EASA Exemptions:	None

9. EASA Equivalent Safety Findings:

JAR-VLA 683	46.C.001 Control System Elasticity (see FPC D-3)
JAR-VLA 731(a)	46.D.001 Wheel approval (see FPC D-1)
JAR-VLA 777 (e),(f) 779 (a)(2), (b)(2)	46.D.002 Flaps and Landing Gear Cockpit Controls Location (see FPC D-2)

10.	EASA Environmental Standards:	Noise: ICAO Annex 16, Volume I, Chapter 10, Third Edition – July 1993, Amdt. 6, November 4, 1999 Emission: N/A

III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Document No. 46A-00-0000.07, current issue

2. Description: IAR-46S is the same as IAR-46, except the type and installation of the propulsion system.

3. Equipment: The basic required equipment as prescribed in the applicable airworthiness requirements must be installed in the aeroplane for certification.

4. Dimensions:

Wing Span	11.420 m
Total Length	7.850 m
Maximum Height	2.150 m
Wing Area	13.870 m²
Mean aerodynamic chord	1.237 m

5. Engine/s:

No.	1
Model:	Rotax 912 S3
Type Certificate:	TW9 – ACG issued by AUSTRO CONTROL (Austria)

5.1 Engine Limits:

Maximum Take off Power
73.5 kW/5800 RPM (max. 5 min.)
Maximum Continuous Power
69 kW/5500 RPM

6. (Reserved)

7. Propeller/s:

No.	1
Model	Hoffmann HO-V352F-/170FQ+6
Type Certificate	LBA 32.130/88
Number of blades	2
Diameter:	1760 mm
Sense of Rotation	clockwise

10. Fluids:

8.1 Fuel: EUROSUPER RON unleaded according to EN 228 or AVGAS 100 LL.

8.2 Oil: any registered brand engine oil for the automotive market (see AFM)

8.3 Coolant: see Rotax Operator's Manual for Rotax 912, P/N 899 370

11. Fluid capacities:

9.1 Fuel:

Total:	70 liters
Usable:	68 liters

9.2 Oil:

Maximum:	3.0 liters
Minimum:	2.0 liters

10. Air Speeds:	
Design Manoeuvring Speed V_A	176 km/h IAS
Maximum Flap Extended Speed V_{FE}	140 km/h IAS
Maximum structural cruising speed V_{NO}	190 km/h IAS
Never exceed speed V_{NE}	279 km/h IAS
11. (Reserved)	
12. Operational:	VFR Day Flight into expected or actual icing conditions is prohibited.
13. Maximum Masses:	
Take-off	750 kg
15. Centre of Gravity Range:	19.57 – 30.47 % MAC
15. Datum:	leading edge of MAC
16. (Reserved)	
18. Levelling Means:	
Longitudinal axis:	painted points A and C on fuselage side
Lateral axis:	painted points No. 7 on left and right wing
18. Minimum Flight Crew:	1 (Pilot)
19. Maximum Passenger Seating Capacity:	1
20. (Reserved)	
21. Baggage / Cargo Compartments	N/A
22. Wheels and Tyres	
Main wheel:	MATCO W51L
Dimensions :	5.00 X 5”
Tail wheel dimensions :	210 x 65 mm
23. Serial numbers eligible	03 and subsequent

IV. Operating and Service Instructions

Airplane Flight Manual (AFM)	46A-04-0030
Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations)	46A-04-0035

V. Notes

Note 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.

Note 2 All placards required in the approved AFM must be installed in the appropriate location.