



EASA

**TYPE-CERTIFICATE
DATA SHEET**

EASA.A.113

IAR-46 / -46S

Type Certificate Holder:

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

Models: IAR-46
 IAR-46S

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Change Record

| Issue | Date | Changes |
|--------------|-----------------|--|
| 01 | 2 January 2007 | Initial release, transfer from Romanian TCDS |
| 02 | 24 October 2016 | TC transfer |
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SECTION 1: IAR-46

I. General

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|---|---|-----------------------|
| Data Sheet No.: EASA.A.113 | Issue: 01 | Date: January 2, 2006 |
| 1. a) Type: | IAR-46 | |
| b) Variant: | IAR-46 | |
| 2. Airworthiness Category: | Very Light Aeroplane | |
| 3. Type Certificate Holder: | Aeroclubul Romaniei Bd.Lascar Catargiu, Nr.54, cod: 010673 Sector 1, Bucharest 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 m ² |
| 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 |

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| 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

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|--|-------------|
| 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.

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 m ² |
| 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 |

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|--|---|
| 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.