

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

A00011WI  
Original  
Rans Inc.  
Model S-7C  
September 14, 2001

**TYPE CERTIFICATE DATA SHEET NO. A00011WI**

This Data Sheet, which is part of Type Certificate No. A00011WI prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

**Type Certificate Holder:** Rans Inc.  
4600 Highway 183 Alternate  
Hays, Kansas 67601

**MODEL S-7C (PRIMARY CATEGORY) - APPROVED SEPTEMBER 14, 2001.**

**ENGINE:** Rotax 912 ULS

**FUEL:**

Unleaded automotive (ASTM D 4814) gasoline with minimum AKI (Anti Knock Index) of 91(R+M)/2 – no alcohol permitted.  
Or Avgas 100 LL Grade Aviation Fuel  
For other fuel see Rotax Operators Manual supplied with engine.

**OIL:**

SAE- Motorcycle oil of registered brand with gear additives.  
Use only oil with API classification “SF” or “SG”.  
Minimum recommended viscosity SAE 10W-40.  
For additional information refer to Rotax Operators – and Maintenance Manual.

**COOLANT:**

50%/50% glycol antifreez / water (ASTM D4985) with additives against corrosion. For additional information refer to Rotax Operators Handbook.

**ENGINE LIMITS:**

Maximum Takeoff (max. for 5 minutes): 98.5 HP at 5800 RPM  
Maximum Continuous: 92.5 HP at 5500 RPM  
(Power tolerance + 5%)

**PROPELLER AND PROPELLER LIMITS:**

Sensenich W72RR  
Diameter: not over 72” in., not under 70 in.

Page No.	1	2	3
Rev. No.	-	-	-

**AIRSPPEED LIMITS (MPH CAS):**

Never exceed: 130 mph  
Maneuvering: 97 mph  
Flaps extended: 69mph

**CG RANGE:**

(+46.1) in to (+50.25) in at 950 lb. or less  
(+48.4) in to (+50.25) in at 1200 lb.  
Straight line variation between points given.

**EMPTY WEIGHT CG RANGE:**

None

**MAXIMUM WEIGHT:**

Maximum Ramp: 1200 lb.  
Maximum Take off: 1200 lb.  
Maximum Landing: 1200 lb.

**MINIMUM CREW:**

One (1) Pilot

**NO. OF SEATS AND LOADING:**

Pilot (+37.4) in  
Passenger (+65.4) in

**MAXIMUM BAGGAGE:**

50 lb. at (+92.5) in

**FUEL CAPACITY:**

18 gal total (16.75 gal usable, two 9 gal tanks in wings at +52.2)

**OIL CAPACITY:**

6.4 liq pt, min. 4.2 liq pt)

**MAXIMUM OPERATING ALTITUDE:**

12500 ft

**CONTROL SURFACE MOVEMENTS:**

Rudder:	Right	28°	Left	28°
Elevators:	Up	28°	Down	20°
Elevator trim tab:	Right	30°	Left	20°
Ailerons:	Up	28°	Down	20°
Wing Flaps:	Half	17°	Full	34°

**DATUM:**

Front of firewall.

**LEVELING MEANS:**

Top of upper cabin longeron (below door).

**CERTIFICATION BASIS:**

Primary Category FAR Part 21 Certification using Canadian TP10141E and FAR Part 36.  
Equivalent Safety Findings have been granted as follows:

JAR- VLA Paragraph 145(a) was used in lieu of Transport Canada TP10141E  
Paragraph 145 as an Equivalent Level of Safety per FAA letter dated September 13, 2001.

Application for Type Certificate was dated January 27, 1994. The Model S-7C Type Certificate was obtained by RANS under authority of FAR Part 21, Subpart J.

**PRODUCTION BASIS:**

None

**EQUIPMENT:**

N/A

NOTE 1. Current weight and balance data, loading information and a list of equipment included in empty weight must be provided for each airplane at the time of original certification.

(a) Basic empty weight includes unusable fuel of 7.5 lb (1.25 gall) at (+52.2) in.

NOTE 2. All Placards required in the FAA Approved Flight Manual P/N CPAC0103 must be installed in the appropriate location.

NOTE 3. The type design of the RANS S-7C is defined by RANS Corporation Master Drawing CVAC0001, Revision None, dated August 10, 2001.

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