



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

TYPE CERTIFICATE DATA SHEET Nº EP-7901

Type Certificate Holder:

EIRIAVION OY
38800 Jämijärvi
Finland

EP-7901-01

Page 1

PIK-20D

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This data sheet, which is part of Type Certificate No. 7901, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

I - MODEL "PIK-20D" (Utility Category), approved 12 February 1979.

AIRSPPEED LIMITS (IAS)	Never exceed (VNE):	292 km/h
	Maximum speed in rough air (VB) (airspeed limit changes linearly depending on amount of water ballast):	
	- with full water ballast or maximum gross weight):	240 km/h
	- without water ballast):	200 km/h
	Maneuvering speed (VA):	190 km/h
	Maximum speed	
	- on aerotow (VT):	190 km/h
	- on winch tow (VW):	125 km/h
	- with flaps down (VF):	150 km/h
C.G. RANGE	20% to 40% MAC (2085 mm to 2225 mm aft of datum).	
DATUM	1900 mm forward of wing leading edge at wing root.	
LEVELING MEANS	Slope of rear top surface of fuselage, between stations 3500 mm and 4500 mm, 1000 to 28 tail down (See Flight Manual, Section II - Service Manual).	
NUMBER OF SEATS	1 (one) adjustable seat, pilot's c.g. range 1 400 mm to 1 460 mm aft of datum.	
MAXIMUM WEIGHT	450 kg including water ballast.	
FIXED BALLAST	Station 230 mm aft of datum (See Flight Manual). Max 10 kg lead plates, attaching by bolts and nuts or inserts.	
WATER BALLAST	2 (two) water ballast tanks at station 2 130 mm aft of datum, each 70 kg.	
CONTROL SURFACES DEFLECTIONS		
		<u>Up</u> <u>Down</u>
	Flaps	12° ± 1° 16° ± 1°
	Ailerons (+16° flap)	13° ± 2° 12.5° ± 2°
	(0° flap)	12° ± 2° 11° ± 2°
	(-12° flap)	11° ± 2° 9.5 ± 2°
	(Aileron neutral position travels 1° up and 1° down with flaps 12° ± 1° up thru 16° ± 1° down).	

Panor

CONTROL SURFACES DEFLECTIONS (Cont.)	Elevator: Rudder:	<u>Up</u> 20° ± 1° <u>Down</u> 20° ± 1° Right and Left 33° ± 2°
RATED LOAD ON WINCH AND AERO TOW	500 kg	
SERIAL NUMBERS ELIGIBLE	20504 and up. The National Board of Aviation (NBA) of Finland Certificate of Airworthiness for Export endorsed as noted below under "Import Requirements" must be submitted for each individual sailplane for which application for certification of airworthiness is made.	
CERTIFICATION BASIS	Brazilian Requirements for Airworthiness Certification - RBHA 1331/01 and RBHA 1111/01 chapters 7 and 10, effective 30 September 1975. Type Certificate nº 7901 issued on 12 February 1979. The application for Type Certification is dated 02 November 1978. <u>Validation:</u> The Type Certificate nº 7905 was issued in accordance with the RBHA 1111/01 article 10.2 in validation of the National Board of Aviation (NBA) of Finland certification of compliance with the International Scientific and Technical Organization for Sailplanes (OSTIV) airworthiness requirements for sailplanes dated September 1971 utility category for gliders and sailplanes.	
IMPORT REQUIREMENTS	A Brazilian Airworthiness Certificate may be issued on the basis of the Certificate of Airworthiness for Export issued by National Board of Aviation (NBA) of Finland containing the following statement: "The sailplane covered by this Certificate was inspected, tested and was found to comply with the Brazilian approved type design as defined by the ANAC Type Certificate nº 7901 and is in condition for safe operation".	
REQUIRED EQUIPMENT	The basic required equipment as prescribed in the applicable airworthiness regulations (as listed in Flight Manual, Section II - Service Manual) must be installed in the sailplane for standard airworthiness certification. In addition the following equipment must be installed (See NOTE 6). 1. Instruments for non-cloud flying a) Airspeed indicator b) Altimeter c) Magnetic compass d) Side slip indicator 2. Additional instruments for cloud flying a) Turn indicator b) Variometer 3. Instrument for aerobatic flying a) Accelerometer 4. PIK-20D CTA Approved Flight Manual (containing Service Manual and Repair Manual). (See NOTE 8)	

NOTES:**NOTE 1**

A weight and balance report listing all equipment included in the empty weight must be supplied with each sailplane, including instructions for weight and balance calculations if applicable.

NOTE 2

A. The following placards and markings must be displayed in full view of the pilot:

- (1) Maximum airspeed

In calm weather (VNE)	292 km/h
In rough air (VB)	
- With full water ballast or 450 kg flying weight	240 km/h
- Without water ballast	200 km/h
Maneuvering (VA)	190 km/h
In aero tow (VT)	190 km/h
On winch tow (VW)	125 km/h
Down deflected flaps (VF)	150 km/h

- (2) Weights

Gross weight including water ballast	450 kg
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If the pilot's weight with the parachute is below 75 kg ballast weight must be installed in the nose (see Flight Manual and Weight and Balance Report).

- (3) Preflight check

Tail dolly	removed
Barograph (if installed)	on
Loading and ballast	checked
Parachute	secured
Seat and rudder pedals	adjusted
Safety belts	secured
Canopy	locked
Altimeter	set
Electrical instruments	on
Flaps	in takeoff position
Airbrakes	closed and locked
Trim	set for takeoff
Tow rope	coupled on
Controls	free

- (4) Before landing

Water ballast	drained
Landing gear	down
Flaps	12° ... 16°
Trim	set for landing

- (5) Operating Limitations

This sailplane must be operated in compliance with the operating limitations stated in the form of markings, placards and Flight Manual.

Cloud flying is only permitted when the following instruments are installed: airspeed indicator, altimeter, magnetic compass, variometer and turn and side slip indicator.

- NOTE 2 (Cont.)** Approved aerobatic maneuvers, maximum entry speeds and maximum load factors:
- A) Refer to PIK-20D Airplane Flight Manual for approved aerobatic maneuvers, flight load factors and related operating limitations.
Night flying prohibited.
- B) Other Markings and Placards
- | | |
|--|------------------------------|
| Near the tow coupling | Rated load 500 kg |
| Above the main wheel | 2.5 Aty (35 psi) |
| Above the tail wheel | 2.0 Aty (28 psi) |
| On fuselage nose (inside) | "BALLAST" |
| Adjacent to static pressure entry on fuselage skin | "Static pressure/Keep clear" |
| On rudder, elevator and flaps | "Do not push" |
| Adjacent to oxygen control valve (if installed) | "Duration Table" |
- C) The controls or handles for tow coupling release, canopy opening and jettisoning, landing gear, flaps, airbrakes, trim tab, pedals, ventilating and water ballast draining must be equipped with unmistakable symbol or text placards.
- The flight speed limitations must be marked on the dial of the airspeed indicator in accordance with the Flight Manual.
- The load factor limitations must be marked on the accelerometer with red radial lines.
- NOTE 3** Inspections, maintenance, repairs and repainting must be accomplished in accordance with manufacturer's PIK-20D Flight Manual, Section II - Service Manual and Section III - Repair Manual.
- NOTE 4** For painting exterior surfaces use only two component paints with ultra-violet protection as listed in Flight Manual, Section III - Repair Manual.
- NOTE 5** Major repairs must be performed in accordance with manufacturer's repair methods and must be NBA of Finland approved.
- NOTE 6** For required instrument installation, refer to Master Equipment List (Instruments), dated 20 January 1977, or posterior revisions approved by NBA of Finland, which contains a list of the installed instruments approved and information concerning acceptable alternate replacement instruments.
- NOTE 7** Tailplane and rudder of sailplanes s/n 20566 and up have been modified in accordance with manufacturer's Drawings nº 0-20D-52-100a, 1-20D-53-100b, 1-20D-58-100b and 1-20D-59-100c.
- NOTE 8** The CTA approved Flight Manual is the "Flight Manual for Sailplane PIK-20D" approved by National Board of Aviation of Finland, on 21 September 1976, or posterior revisions approved by NBA of Finland.
A Portuguese language version of the referred Flight Manual issued by "Aeroclube de Vôo a Vela do CTA – São José dos Campos/SP – Brasil" was approved by Brazilian Authority on 27 June 1979.



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