

MINISTÉRIO DA AERONÁUTICA  
DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO  
CENTRO TÉCNICO AEROESPACIAL

TYPE CERTIFICATE DATA SHEET No. EA-9309

This data sheet, which is part of Type Certificate No.9309, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Brazilian Aeronautical Regulations

EA-9309
WEATHERLY CO. INC.
MODEL 620A
MODEL 620B
NOVEMBER 1993

TYPE CERTIFICATE HOLDER:

WEATHERLY AVIATION COMPANY, INC.  
2100 FLIGHTLINE DRIVE, SUITE 1  
P.O. Box 68  
LINCOLN, CA 95648  
U. S. A.

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I - MODEL 620A AND 620B (Restricted Category), Approved on Nov 03, 1993  
Data pertain to both models except as noted:

ENGINE

Pratt Whitney R985-AN-1, AN-3, or AN-14B.

FUEL

80/87 Minimum Grade Aviation Gasoline. Alternative fuel AVGAS 100/130

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## ENGINE LIMITS

<u>Engine Model AN-1 &amp; AN-3</u>	<u>HP</u>	<u>RPM</u>	<u>in Hg</u>	<u>Press.Alt.</u>
Takeoff (1min) at SL	450	2300	37.5	Sea level.
Maximum Continuous at SL	350	2100	33.0	Sea level.
Maximum Continuous	350	2100	32.0	3000 ft
(Rated Press alt)	350	2100	31.0	6000 ft

Straight line variation of manifold pressure between points listed.

<u>Engine Model AN-14B</u>	<u>HP</u>	<u>RPM</u>	<u>in Hg</u>	<u>Press.Alt.</u>
Takeoff (1min) at SL	450	2300	36.5	Sea level.
Maximum continuous at SL	350	2100	31.5	Sea level.
Maximum Continuous	350	2100	30.5	3000 ft
(Rated Press Alt.)	350	2100	29.5	6000 ft
	350	2100	29.0	7800 ft

Straight line variation of manifold pressure between points listed.

PROPELLER &  
PROPELLER LIMITS

620 A

Hartzell HC-B3R30-4 or -4B Hub with R10152-5 ½ R Blades

Diameter: Not over 242.6 cm (95,5 in); Not under 242.6 cm (95.5 in.)

Pitch Settings at 76.2 cm (30") Station:-

(Constant Speed) - 16° Low, 28° High

Static RPM at Maximum throttle setting: Not over 2300 RPM; Not under 2200 RPM

620 B

Hartzel HC-B3R30-4B Hub with R10152-5 1/2 R Blades

Diameter: Not over 242.6 cm (95.5 in); Not under 242.6 em (95.5 in)

Pich Setting at 76.2 em (30") Station:-

(Constant Speed) - 16° Low, 28° High.

Static RPM at Maximum throttle setting: Not over 2300 RPM; Not under 2200 RPM

## AIR SPEED LIMITS

Without Spreader.

V<sub>ne</sub> - Never Exceed - 153 knots (176 mph) IAS or CAS.

V<sub>no</sub> - Normal Operating - 122 knots (140 mph) IAS or CAS.

V<sub>a</sub> - Maneuvering - 112 knots (129 mph) IAS or CAS.

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With P/N 50453 Spreader Installed

Vne - Never Exceed ~ 135 knots (155 mph) IAS or CAS.

Air Speed Limits are unchanged with Cowl Speed Ring installed P/N 50784 per drawing 50783.

MAXIMUM OPERATING  
ALTITUDE

15,000 ft.

C.G. RANGE

620 A

Aft of Datum:+561.3mm (+22.1 in.) to +679.5mm (+26.75in) at all weights.

620 B

Aft of Datum:+561.3mm (+22.1 in.) to +698.50mm (+27.5in) at all weights.

EMPTY WEIGHT  
C.G. RANGE

None.

MAX. WEIGHT

1814.4 kg (4000 lb).

No. OF SEATS

620 A

1 at + 1727 mm (+ 68.0 in.).

620 B

1 at 1778 mm (+ 70.0 in.).

HOPPER CAPACITY

908.0 kg (2000 lb) at + 381mm (+15.0 in.).

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## BAGGAGE SHELF

620 A

11.4kg (25 lb.) at + 2317,7 mm (+ 91,25 in.).

620 B

11.4kg (25 lb.) at + 2368,5 m (93,25 in.)

## FUEL CAPACITY

620 A

274,4 l (72,5 gal.) Total.

Right Wing Tank 104,1 l (27,5 gal.) with unusable 9,4 l (2,5 gal.) at + 914,4mm (+36,0 in.).

Left Wing Tank (Combined with Center Tank) 170,3 l (45 gal.) with unusable 18,9 l (5 gal.) at + 914,4mm (+36,0 in.).

620 B

369,0 l (97,5 gal.) Total.

Right Wing Tank 151,4 l (40,0 gal.) with unusable 9,4 l (2,5 gal.) at +914,4mm (+36,0 in.).

Left Wing Tank (Combined with Center Tank) 217,6 l (57,5 gal.) with unusable 18,9 l (5 gal.) at +914,4mm (36,0 in.).

## OIL CAPACITY

25.4 l(6.7 gal.) plus 3,78 l(1 gal.) in System at -563,9mm(-22.2 in.)

## CONTROL SURFACE

Rudder	Left 20° +/- 1°	Right 20° +/- 1°
Elevator	Up 27° +/- 1°	Down 15° +/- 1°
Aileron	UP 26° +/- 1 1/2	Down 13 1/2° +/- 1 1/2°

## SERIAL Nos

## ELIGIBLE

620 A

1520 and subsequent.

620 B

1550 and subsequent.

## DATUM

Wing leading edge outboard of fillet

## LEVELING MEANS

Leveling lugs on outboard side of right hand fuselage frame near pilot's seat.

## CERTIFICATION BASIS

RBHA 21.25, equivalent to FAR 21.25 effective february 1, 1905, with policies contained in CAM 8 Appendix B Airworthiness Requirements.

Brasilian special requirements set forth in CTA report H.10-1220.01 - "BRASILIAN REQUIREMENTS FOR ACCEPTANCE OF THE WEATHERLY AVIATION COMPANY, INC. AIRPLANE MODELS 620 A AND 620 B".

## IMPORT ELIGIBILITY

A Brazilian Airworthines Certificate may be issued on the basis of an Export Certificate of Airworthiness, issued by the FAA, including the following statement:

"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate Data Sheet No. EA-9309 and in condition for safe operation".

## EQUIPMENT

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

In addition the following items of equipment are required:

620 A

- Brazilian Airplane Flight Manual and Pilot's Operating Handbook approved on Nov 5, 1993 and subsequent approved revisions.
- Weatherly 620A Basic Weight Equipment List.

620 B

- Brazilian Airplane Flight Manual and Pilot's Operating Handbook approved on Nov 5, 1993 and subsequent approved revisions.
- Weatlterly 620B Basic Weight & Equipment List.

NOTE 1.

Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original certification.

The certification weight and corresponding center of gravity must include for Models 620A, and 620B undrainable system oil of 1,04 kg (2.3 lb) at - 563,9 mm (-22.2 in.) and unusable fuel of 28,4 l (7.5 gal) at + 914,4mm (+36.0 in.).

NOTE 2.

In addition to the operating limitations in this data sheet, area, economic, passenger and other appropriate operating limitations in accordance with RBHA 21.25 shall be shown on placard or listing accessible to the pilot.

The following placard must be displayed in front of and in clear view of the pilot:

"This airplane must be operated as a restricted category airplane in compliance with the operating limitations stated in the form of placards, markings, and manuals".

For additional placards, see Weatherly Models 620A or 620B Airplane Flight manuals..

NOTA 3.

620 A

Alternator 24 volt, Motorola Model AN24N900 is approved for this installation. Maximum current load is limited to a total load of 20.8 amperes.

NOTE 4.

Noise Certification: This airplane has not been shown to comply with the noise limits in RBHA Part 36 and must be operated in accordance with the noise operating limitation required by RBHA 91.815.

-END-

CLODOALDO MATIAS DE OLIVEIRA  
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Diretor do CTA