



TYPE CERTIFICATE DATA SHEET Nº EA-2012T01

Type Certificate Holder:

QUEST AIRCRAFT DESIGN, LLC
1200 Turbine Drive
Sandpoint, Idaho 83864
USA

EA-2012T01-00
Sheet 01

QUEST
KODIAK 100

19 January 2012

This data sheet, which is part of Type Certificate No. 2012T01, 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 Kodiak 100 (Normal Category), approved 19 January 2012.

ENGINE	1 Pratt & Whitney Canada, Inc. PT6A-34 (EM-8005)
FUEL	Jet A, Jet A-1, JP-1, JP-5, and JP-8 Fuels conforming to Pratt and Whitney Canada Specification CPW204.
ENGINE LIMITS	Maximum takeoff power = 750 horsepower at 2,200 rpm, subject to ambient temperature and pressure conditions. See Airplane Flight Manual and Engine Type Certificate Data Sheet EM-8005 for additional limitations.
OIL	See Pratt & Whitney Canada Engine Service Bulletin Number 1001 for type of oil.
PROPELLER AND PROPELLER LIMITS	Hartzell Model HC-E4N-3P(Y)/D9511FSB, Propeller Type Certificate 9107 Minimum diameter = 2.41 m (95 in) Maximum diameter = 2.44 m (96 in) Low Pitch = $17.5^\circ \pm 0.5^\circ$ High Pitch = $86.1^\circ \pm 0.5^\circ$ Reverse = $-10.0 \pm 0.5^\circ$ Pitch limits measured at 0.76 m (30 in) radial distance. Stabilized ground operation is prohibited between 450 and 1050 RPM. See Propeller Type Certificate Data Sheet EH-9107 for additional
AIRSPEED LIMITS (CAS)	Maximum operating (V_{MO}): 180 kcas (182 kias) Maneuvering (V_A) - sea level: 143 kcas (142 kias) Flaps extended (V_{FE}) - 35° (landing): 108 kcas (108 kias) - 20° (takeoff and approach): 120 kcas (120 kias)

	- 10° (takeoff):	139 kcas (138 kias)
CG RANGE (Straight line variation between points.)	Aft Limits 2.05 m (80.775 in) aft of datum from 1 846 kg (4 070 lb) to 3 291 kg (7 255 lb) Forward Limits 1.62 m (63.896 in) aft of datum from 1 846 kg (4 070 lb) to 2 268 kg (5 000) lb then to 1.80 m (71.037 in) aft of datum at 3 291 kg (7,255 lb)	
DATUM	The forward face of the firewall represents datum 0.00 m (0.00 in).	
LEVELING MEANS	Place a level on the seat tracks in the aft cabin next to the cargo door forward post. See latest approved revision of "Pilots Operating Handbook and ANAC Approved Flight Manual".	
MAXIMUM WEIGHT	Takeoff:	3 291 kg (7 255 lb)
	Landing:	3 035 kg (6 690 lb)
	Zero Fuel:	2 944 kg (6 490 lb)
	Ramp:	3 314 kg (7 305 lb)
	Design minimum flight weight:	1 846 kg (4 070 lb)
MINIMUM CREW	1 pilot	
NO. OF SEATS	Up to 10 seats total, including 2 seats located at 1.02 m (40 in) aft of datum and up to 8 additional seats located in accordance with latest approved revision of "Pilots Operating Handbook and ANAC Approved Flight Manual"	
MAXIMUM BAGGAGE	As defined in latest approved revision of "Pilots Operating Handbook and ANAC Approved Flight Manual".	
FUEL CAPACITY	1211.3 l (320 gal) total; 1192.4 l (315 gal) useable. (Two 605.65 l (160 gal) tanks in wings at 2.12 m (83.4 in) aft of datum).	
OIL CAPACITY	8.52 l (9 qts) drainable, 12.3 l (13 qts) total.	
MAXIMUM OPERATING ALTITUDE	4 267 m (14 000 ft) without ANAC approved oxygen system installed.(max. 30 min) 7 620 m (25 000 ft) with ANAC approved oxygen system installed.	
CONTROL SURFACE MOVEMENTS	Elevator:	Up 30° ±1° Down 22° ±1°
	Elevator trim tab:	Up 15° ±2° Down 12° ±1°
	Rudder:	Right 26° ±1° Left 26° ±1°
	Aileron:	Up 28° ± 1° Down 15° ± 1°
	Aileron trim tab:	Up 30° ± 2° Down 30° ± 2°
	Wing flaps:	Down 0° ± 0°, 10° + 1° -2°, 20° ± 2°, 35° ± 2°,
ADDITIONAL LIMITATIONS	Minimum Operating OAT -55°C for aircraft Serial Numbers 100-0018 and on and Serial Numbers 100-0001 thru 100-0017 that have complied with Quest KODIAK Service Bulletin SB-016 (FLAP SYSTEM, Flap Drive Actuator Replacement). Minimum Operating OAT -25°C for Aircraft 100-0001 thru 100-0017 that have not complied with Quest KODIAK Service Bulletin SB-016 (FLAP SYSTEM, Flap Drive Actuator Replacement).	

Airframe life limit: 1,000 flight hours for airplane serial numbers 100-0001 through 100-0036 except as described below.

5000 hours for airplane serial numbers 100-0001 through 100-0036 when the latest FAA approved revision of Service Bulletin SB-028 has been accomplished.

5000 hours for airplane serial numbers 100-0037 and on.

Kinds of operations allowed: Day, Night, Visual Flight Rules (VFR), and Instrument Flight Rules (IFR). Flight into known icing conditions allowed when the required equipment listed in Quest POH/AFM Supplement 6 "TKS Known Icing System" was installed when the airplane was produced (may have required system activation in accordance with Quest Service Notice SN-043) or installed in accordance with the latest FAA approved revision of Quest Field Service Instruction FSI-013.

For Brazilian registered aircraft S/N 100-0001 thru 100-0034 the Kodiak Service Notice SN-025 must be accomplished.

SERIAL NUMBER ELIGIBLE

100-0001 and on

IMPORT ELIGIBILITY

A Brazilian Certificate of Airworthiness may be issued on the basis of an FAA Export Certificate of Airworthiness (or a third country Export Certificate of Airworthiness, in case of used aircraft imported from such country), 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 no. 2012T01 and in condition of safe operation".

CERTIFICATION BASIS

Brazilian Type Certificate No. 2012T01 issued on 18 January 2012 based on the RBAC 21.29 and RBAC 23, which endorses the 14 CFR Part 23 effective 01 February 1965, as amended by 23-1 through 23-55.

Special Conditions:

Special Condition 23-207-SC for high intensity radiated fields (HIRF) protection, effective January 31, 2007.

Noise requirements:

FAR 36 as amended through 36-28. Application for type certificate dated April 7, 2005.

REQUIRED EQUIPMENT

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

DATA PERTINENT TO ALL MODELS:

NOTES:

NOTE 1 Weight and balance.

A current weight and balance report with a list of equipment included in the certificated empty weight must be provided for each aircraft at the time of original airworthiness certification.

- NOTE 2** Markings and placards.
For the approved markings and placards translations contact the TC holder and/or ANAC at the following address: ggcp-gr@anac.gov.br
- NOTE 3** Continuing Airworthiness. The airplane must be maintained in accordance with the instructions for continued airworthiness contained in the latest FAA approved revision of "Airplane Maintenance Manual".
- NOTE 4** The differences of the Brazilian airplanes in relation to the basic FAA type design are summarized below:
1. The Brazilian Airplane Flight Manual Supplement
 2. Markings and placards


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