

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A00007SE Revision 12 (May 4, 2010) QUEST Kodiak 100 Original Issue Date: May 31, 2007

TYPE CERTIFICATE DATA SHEET A00007SE

This data sheet, which is part of Type Certificate No. A00007SE, 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: Quest Aircraft Design, LLC
 1200 Turbine Drive
 Sandpoint, Idaho 83864

I - Model Kodiak 100 (Normal Category), Approved May 31, 2007

Engine: Pratt and Whitney Canada, Inc. PT6A-34, Engine Type Certificate E4EA.

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 E4EA for additional limitations.

Propeller: Hartzell Model HC-E4N-3P(Y)/D9511FSB, Propeller Type Certificate P10NE
 Hartzell Spinner Assembly, Part No. D-630-6(P)

Propeller Limits: Minimum diameter = 95 inches
 Maximum diameter = 96 inches
 Low Pitch = 17.5° ± 0.5°
 High Pitch = 86.1° ± 0.5°
 Reverse = -10.0 ± 0.5°
 Pitch limits measured at 30 inches radial distance.
 Stabilized ground operation is prohibited between 450 and 1050 RPM.
 See Propeller Type Certificate Data Sheet P10NE for additional

Airspeed Limits *(S/N 100-0001 thru 100-0034 without KODIAK Service Notice SN-025 compliance):*
 V_O (6,750 lb) 143 KCAS (142 KIAS)
 V_{FE} (10°) 139 KCAS (138 KIAS)
 V_{FE} (20°) 120 KCAS (120 KIAS)
 V_{FE} (35°) 108 KCAS (108 KIAS)
 V_{MO} 180 KCAS (182 KIAS)
 *(S/N 100-0035 and above and S/N 100-0001 thru 100-0034 with KODIAK
 Service Notice SN-025 compliance):*
 V_O (7,255 lb) 143 KCAS (142 KIAS)
 V_{FE} (10°) 139 KCAS (138 KIAS)
 V_{FE} (20°) 120 KCAS (120 KIAS)
 V_{FE} (35°) 108 KCAS (108 KIAS)
 V_{MO} 180 KCAS (182 KIAS)

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C.G.Range: (Straight line variation between points.)	<p><i>(S/N 100-0001 thru 100-0034 without KODIAK Service Notice SN-025 compliance):</i> Aft Limits 80.775 inches aft of datum from 3,620 lb to 6,750 lb Forward Limits 63.896 inches aft of datum from 3,620 lb to 5,000 lb then to 69.414 inches aft of datum at 6,750 lb</p> <p><i>(S/N 100-0035 and above and S/N 100-0001 thru 100-0034 with KODIAK Service Notice SN-025 compliance):</i> Aft Limits 80.775 inches aft of datum from 4,070 lb to 7,255 lb Forward Limits 63.896 inches aft of datum from 4,070 lb to 5,000 lb then to 71.037 inches aft of datum at 7,255 lb</p>																		
Datum:	The forward face of the firewall represents datum 0.00 inches.																		
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 <i>"Pilots Operating Handbook and FAA Approved Flight Manual"</i> .																		
Weight limits:	<p><i>(S/N 100-0001 thru 100-0034 without KODIAK Service Notice SN-025 compliance):</i> Maximum ramp = 6,800 lb Maximum takeoff weight = 6,750 lb Maximum landing weight = 6,690 lb Design minimum flying weight = 3,620 lb</p> <p><i>(S/N 100-0035 and above and S/N 100-0001 thru 100-0034 with KODIAK Service Notice SN-025 compliance):</i> Maximum ramp = 7,305 lb Maximum takeoff weight = 7,255 lb Maximum landing weight = 6,690 lb Maximum zero fuel weight = 6,490 lb Design minimum flying weight = 4,070 lb</p>																		
Minimum Crew:	1 Pilot.																		
No. of Seats:	Up to 10 seats total, including 2 seats located at 40 inches aft of datum and up to 8 additional seats located in accordance with latest approved revision of <i>"Pilots Operating Handbook and FAA Approved Flight Manual"</i>																		
Maximum Baggage/Cargo:	As defined in latest approved revision of <i>"Pilots Operating Handbook and FAA Approved Flight Manual"</i> .																		
Fuel Capacity:	320 gallons total; 315 gallons useable. (Two 160 gallon tanks in wings at 83.4 inches aft of datum).																		
Oil Type and Capacity:	See Pratt & Whitney Canada Engine Service Bulletin Number 1001 for type of oil. 9 qts drainable, 13 qts total.																		
Maximum Operating Altitude:	14,000 feet without FAA approved oxygen system installed. 25,000 feet with FAA approved oxygen system installed.																		
Control Surface Movements:	<table border="0"> <tr> <td>Wing Flaps:</td> <td colspan="2">0° ±0°, 10° +1° or -2°, 20° ±2°, 35° ±2°,</td> </tr> <tr> <td>Ailerons:</td> <td>Up 28° ±1°</td> <td>Down 15° ±1°</td> </tr> <tr> <td>Aileron Trim Tab:</td> <td>Up 30° ±2°</td> <td>Down 30° ±2°</td> </tr> <tr> <td>Elevator:</td> <td>Up 30° ±1°</td> <td>Down 22° ±1°</td> </tr> <tr> <td>Elevator trim tab:</td> <td>Up 15° ±2°</td> <td>Down 12° ±1°</td> </tr> <tr> <td>Rudder:</td> <td>Right 26° ±1°</td> <td>Left 26° ±1°</td> </tr> </table>	Wing Flaps:	0° ±0°, 10° +1° or -2°, 20° ±2°, 35° ±2°,		Ailerons:	Up 28° ±1°	Down 15° ±1°	Aileron Trim Tab:	Up 30° ±2°	Down 30° ±2°	Elevator:	Up 30° ±1°	Down 22° ±1°	Elevator trim tab:	Up 15° ±2°	Down 12° ±1°	Rudder:	Right 26° ±1°	Left 26° ±1°
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- 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:
- 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).
- Required Maintenance: The airplane must be maintained in accordance with the instructions for continued airworthiness contained in the latest FAA approved revision of "*Airplane Maintenance Manual*", Part No. 490770
- Required Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification.
- In addition to the above required equipment, the following equipment is also required: The latest FAA Approved Revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*".
- Design Data: The airplane shall be manufactured in accordance with the latest FAA approved revision of "*Master Drawing List*", Document No. 100-101-000, or other FAA approved data.
- Serial Numbers Eligible: 100-0001 and on.
- Certification Basis: Part 23 of the Federal Aviation Regulations (FAR) effective February 1, 1965, as amended by 23-1 through 23-55. FAR 36 as amended through 36-28. Application for type certificate dated April 7, 2005.
- Special Conditions: Special Condition 23-207-SC for high intensity radiated fields (HIRF) protection, effective January 31, 2007.
- Production Basis: Production Certificate 728NM.
- NOTE 1: 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: The placards specified in the latest FAA approved revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*" are required.

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