

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A00003SE
Revision 2
PACUSA
LC40-550G
Original Issue Date: August 3, 1997
October 23, 1998

TYPE CERTIFICATE DATA SHEET A00003SE

This data sheet, which is part of Type Certificate No. A00003SE, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Provisional Type Certificate Holder: Pacific Aviation Composites, USA, LLC
22550 Nelson Road
Bend, Oregon 97701

I - Model LC40-550G (Utility Category), Approved September 18, 1998

Engine: Teledyne Continental Model IO-550-N, Engine Type Certificate E3SO.

Fuel: 100 (green) or 100LL (blue) grade aviation fuel.

Engine Limits: Maximum takeoff power and maximum continuous power = 310 horsepower at 2700 rpm.
See Engine Type Certificate Data Sheet E3SO for additional limitations.

Propeller: Hartzell Model PHC-J3YF-1RF/F7691D-1, Propeller Type Certificate P36EA
Hartzell Spinner Assembly, Part No. C-6446

Propeller Limits: Minimum diameter = 76 inches
Maximum diameter = 77 inches
Low Pitch = $13.5^\circ \pm 0.5^\circ$
High Pitch = $35^\circ \pm 1.0^\circ$
Pitch limits measured at 30 inches radial distance.
Do not exceed 20 inches manifold pressure with propeller RPM below 2200.
See Propeller Type Certificate Data Sheet P14BO for additional limits.

Airspeed Limits:

V _o (3400 lbs)	149 KCAS (148 KIAS)
V _o (2500 lbs)	128 KCAS (127 KIAS)
V _{FE} (Fully Extended)	120 KCAS (119 KIAS)
V _{FE} (Intermediate Setting)	130 KCAS (129 KIAS)
V _{NO}	180 KCAS (178 KIAS)
V _{NE}	235 KCAS (232 KIAS)

Note: V_{NO} and V_{NE} decrease by 5 KIAS for each 1000 feet above 12,000 feet (pressure altitude).

C.G.Range: Straight line variation between points.

Aft Limits	110 inches aft of datum from 2500 lbs to 3400 pounds
Forward Limits	103 inches aft of datum from 2240 lbs to 2500 lbs then to 107 inches aft of datum at 3400 lbs.
Maximum zero fuel weight	103 inches aft of datum at 2725 lbs to 110 inches at 3228 lbs.
Minimum flying weight	103 inches aft of datum at 2240 lbs to 110 inches at 2500 lbs.

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Datum:	The forward edge of the wing saddle is located 97.05 inches aft of the reference datum. Refer to the latest FAA approved revision of " <i>Airplane Maintenance Manual</i> ", Document No. RA050000, for detailed instructions.		
Leveling Means:	Plumb target and plumb line hanger are located in the baggage compartment.		
Weight limits:	Maximum ramp and takeoff = 3400 pounds. Maximum landing weight = 3230 pounds. Maximum empty weight = 2580 pounds. Maximum zero fuel weight = 2725 lbs at 103 inches varying linearly to 3228 lbs at 110 inches. Minimum flying weight = 2240 lbs at 103 inches varying linearly to 2500 lbs at 110 inches.		
Minimum Crew:	1 Pilot in left front seat.		
No. of Seats:	2 seats located at 110 inches aft of datum.		
Maximum Baggage:	None allowed.		
Fuel Capacity:	106 gallons total; 98 gallons useable. (Two 53 gallon tanks in wings at 118.0 inches aft of datum).		
Oil Type and Capacity:	8 qts drainable. See Engine Type Certificate Data Sheet E3SO.		
Maximum Operating Altitude:	14,000 feet without FAA approved oxygen system installed. 18,000 feet with FAA approved oxygen system installed.		
Control Surface Movements:	Wing flaps:	Cruise $0^{\circ} \pm 1^{\circ}$	Take off $12^{\circ} \pm 1^{\circ}$ Landing $40^{\circ} \pm 1^{\circ}$
	Ailerons:	Up $22^{\circ} \pm 1^{\circ}$	Down $18^{\circ} \pm 1^{\circ}$
	Aileron Trim Tab:	Up $22.4^{\circ} \pm 1^{\circ}$	Down $19.6^{\circ} \pm 1^{\circ}$
	Aileron Servo Tab:	Up $20^{\circ} \pm 1^{\circ}$	Down $12^{\circ} \pm 1^{\circ}$
	Elevator:	Up $13^{\circ} +0^{\circ}-1^{\circ}$	Down $12^{\circ} \pm 1^{\circ}$
	Elevator trim tab:	Up $21^{\circ} \pm 1^{\circ}$	Down $30^{\circ} \pm 1^{\circ}$
	Rudder:	Right $17^{\circ} \pm 1^{\circ}$	Left $17^{\circ} \pm 1^{\circ}$ Left, rudder limiter $11.5^{\circ} \pm 0.5^{\circ}$
	Rudder tab:	Right $17^{\circ} \pm 1^{\circ}$	Left $15^{\circ} \pm 1^{\circ}$
Additional Limitations:	Airframe life limit:	1200 flight hours.	
	Kinds of operations:	Daytime only, 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 " <i>Airplane Maintenance Manual</i> ," Document No. RA050000.		
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 " <i>Pilots Operating Handbook and FAA Approved Flight Manual</i> ," Document No. RA050001.		
Design Data:	The airplane shall be manufactured in accordance with the latest FAA approved revision of " <i>Master Drawing List</i> ," Document No. RX011003, or other FAA approved data.		
Serial Numbers Eligible:	40004 and on		

- Certification Basis: Part 23 of the Federal Aviation Regulations (FAR) effective February 1, 1965, as amended by 23-1 through 23-46. FAR 36 as amended through 36-20. Application for type certificate dated June 14, 1995.
- Equivalent Level of Safety (ELOS) Findings: Stall and spin requirements of FAR's 23.201, 23.203, and 23.221 in accordance with ELOS No. ACE-98-1 as detailed in the FAA memo dated September 3, 1998 (FAA memo reference no. 98-190S-581) and ELOS No. ACE-98-2 as detailed in the FAA memo dated October 7, 1998 (FAA memo reference no. 98-190S-608).
- Production Basis: None. Prior to original certification of each aircraft, an FAA representative must perform a detailed inspection for workmanship, materials, conformity with the approved technical data, and a check of the flight characteristics.
- 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*," Document No. RA050001, must be displayed.
- NOTE 3: Major structural repairs must be accomplished at FAA certified repair stations rated for composite aircraft structure work, in accordance with FAA approved Pacific Aviation Composites repair methods or other methods approved by the FAA.
- NOTE 4: Exterior colors are limited to those specified in the latest FAA approved revision of "*Airplane Maintenance Manual*," Document No. RA050000.

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