

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A00009CH
Revision 1
Cirrus Design Corporation
SR20
July 20, 1999

TYPE CERTIFICATE DATA SHEET NO. A00009CH

This data sheet, which is part of Type Certificate No. A00009CH, prescribes conditions and limitations under which the product for the which type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Cirrus Design Corporation
4515 Taylor Circle
Duluth, MN 55811

I - Model SR20, (Normal Category), Approved October 23, 1998

Engine Teledyne Continental IO-360-ES, Type Certificate Data Sheet (TCDS) E1CE

Fuel 100/100LL minimum grade aviation gasoline

Engine Limits Maximum Take-off 2700 RPM (200 hp)
Maximum Continuous Power 2700 RPM (200 hp)

Propeller and 1. Hartzell Propeller Inc. P/N BHC-J2YF-1BF/F7694
Propeller limits TCDS P37EA
Maximum Diameter: 76 inches
Minimum Diameter: 73 inches
Number of Blades: 2
Low Pitch: 14.6°+/-0.1°
High Pitch: 35.0°+/-1.0°
Not to be operated above 24 inches of manifold pressure
between 1900 and 2200 RPM.
Spinner: Hartzell P/N A-2295P

2. Hartzell Propeller Inc. P/N PHC-J3YF-1MF/F7392-1
Propeller limits TCDS P36EA
Maximum Diameter: 74 inches
Minimum Diameter: 72 inches
Number of Blades: 3
Low Pitch: 14.1°+/-0.1°
High Pitch: 35.0°+/-1.0°
No operating limitations to 2800 RPM
Spinner: Hartzell P/N A-2295-1P

Airspeed Limits	VNE	Never Exceed Speed	200 KIAS
	VNO	Maximum Structural Cruising Speed	165 KIAS
	VO	(2900 lbs) Operating Maneuvering Speed	135 KIAS
	VO	(2600 lbs) Operating Maneuvering Speed	126 KIAS
	VO	(2200 lbs) Operating Maneuvering Speed	116 KIAS
	VFE	Maximum Flap Extension Speed	100 KIAS
	VPD	Maximum Parachute Deployment Speed	135 KIAS

C.G. Range Forward Limits: 138.7 inches at 2110 lbs with a straight line taper to 141.0 inches at 2694 lbs, and 143.0 inches at 2900 lbs.

Aft Limits: 144.6 inches at 2110 lbs, with straight line taper to 147.4 inches at 2570 lbs, and to 147.9 inches at 2745 lbs, and 148.2 inches at 2900 lbs.

Page No.	1	2	3
Rev. No.	1	1	-

Empty C.G. Range	None
Reference Datum	100 inches in front of the forward face of firewall bulkhead
Leveling Means	Door sill and leveling points as defined in AFM
Maximum Weight	2900 lbs.
Minimum Crew	One (1) Pilot
Number of Seats	4 (2 at 143.5 inches aft of datum, 2 at 185 inches aft of datum)
Maximum Baggage	130 lbs at 208 inches
Fuel Capacity Total:	60.5 gal at 153.75 inches Usable: 56 gal (See Note 1)
Oil Capacity	8 quarts at 76.2 inches
Maximum Operating Altitude:	With a portable oxygen system, the aircraft is limited to 17,500 ft MSL. Oxygen must be provided as required by the operating rules Only portable oxygen systems listed and used in accordance with the FAA Approved Flight Manual document number 11934-001, or later FAA approved revisions are approved.
Control Surface Movements	Wing Flaps: Up $0^{\circ} \pm 0.5^{\circ}$ Down 50% $16^{\circ} \pm 0.5^{\circ}$ Down 100% $32^{\circ} \pm 0.5^{\circ}$ Aileron: Up $12.5^{\circ} \pm 1^{\circ}$ Down $12.5^{\circ} \pm 1^{\circ}$ Elevator: Up $25.0^{\circ} \pm 1^{\circ}$ Down $15^{\circ} \pm 1^{\circ}$ Rudder: Right $20.0^{\circ} \pm 1^{\circ}$ Left $20.0^{\circ} \pm 1^{\circ}$

| Additional Limitations: Airframe life limit: 12,000 flight hours

Design Data: The airplane shall be manufactured in accordance with the latest FAA approved revision of "Master Drawing List", Document No. 12609, or other FAA approved data.

| Serial Nos. Eligible 1005 and on

Certification Basis Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by 23-1 through 23-47, except as follows:

FAR 23.573, 23.575, 23.611, 23.657, 23.673 through Amendment 23-48;

FAR 23.783, 23.785, 23.867, 23.1303, 23.1307, 23.1309, 23.1311, 23.1321, 23.1323, 23.1329, 23.1361, 23.1383, 23.1401, 23.1431, 23.1435 through Amendment 23-49;

FAR 23.3, 23.25, 23.143, 23.145, 23.155, 23.1325, 23.1521, 23.1543, 23.1555, 23.1559, 23.1567, 23.1583, 23.1585, 23.1589 through Amendment 23-50;

FAR 23.777, 23.779, 23.901, 23.907, 23.955, 23.959, 23.963, 23.965, 23.973, 23.975, 23.1041, 23.1091, 23.1093, 23.1107, 23.1121, 23.1141, 23.1143, 23.1181, 23.1191, 23.1337 through Amendment 23-51;

FAR 23.1305 through Amendment 23-52

FAR 36 dated December 1, 1969, as amended by current amendment as of the date

of type Certification.

Certification Basis (continued) Equivalent Safety Items:
 Equivalent Levels Of Safety finding (ACE-96-5) made per the provisions of 14 CFR Part 23.221; Refer to FAA ELOS letter dated, June 10, 1998

Special Conditions:
 Special Condition (23-ACE-88) for ballistic parachute; Refer to FAA letter dated, September 30,1998

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.

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

In addition to the above required equipment, the following equipment are also required: The latest FAA approved Revision of the "PILOT'S OPERATING HANDBOOK AND FAA APPROVED AIRPLANE FLIGHT MANUAL for the CIRRUS DESIGN SR20", Document No. 11934-001.

Note 1. A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification. The certificated empty weight and loading corresponding center of gravity location must include unusable fuel of 27 lb. at (+153.8).

Note 2. All placards specified in the FAA Approved Airplane Flight Manual (AFM), document number 11934-001 or later FAA approved revisions must be displayed in the airplane in the appropriate locations. Exterior colors are to be limited to those specified in AFM (Cirrus Design Document 11934-001).

Note 3. FAA approved Airworthiness Limitations for inspection time limits and maintenance checks are included in Section 4 and 5 of the Airplane Maintenance Manual (AMM) Document No. 12137.

Note 4. Exterior colors are limited to those specified in the latest FAA approved revision of the Airplane Maintenance Manual (AMM) Document No. 12137.

Note 5. Major structural repairs must be accomplished in accordance with FAA approved Cirrus Design repair methods or other methods approved by the FAA.

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