

TYPE-CERTIFICATE

DATA SHEET

EASA.IM.A.007

for SR20, SR22, SR22T

Type Certificate Holder Cirrus Design Corporation

4515 Taylor Circle Duluth, Minnesota 55811 United States of America

For models: SR20, SR22, SR22T



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SECTION A: SR20

<u>A.I.</u>	General	
1.	a) Type: b) Variant:	SR20 N/A
2.	Airworthiness Category:	JAR-23 Normal Category
3.	Type Certificate Holder:	Cirrus Design Corporation 4515 Taylor Circle Duluth, MN 55811 U.S.A.
4.	Manufacturer:	Cirrus Design Corporation 4515 Taylor Circle Duluth, MN 55811 U.S.A.
5.	JAA Certification Application Date:	18-Mar-1999
6.	JAA recommendation Date:	TBD
7.	EASA Type Certification Date:	27-May-2004
<u>A.II.</u>	Certification Basis	
1.	Reference Date for determining the applicable requirements:	07-Mar-1996
2.	(Reserved)	
3.	(Reserved)	
4.	Certification Basis:	As defined in CRI A-1, Issue 5
5.	Airworthiness Requirements:	JAR-23, Change 1, dated 11-Mar-1994
6.	Requirements elected to comply:	None
7.	EASA Special Conditions:	CRI B-1, Cirrus Airframe Parachute
	System	CRI B-2, Spins CRI F-1, Protection from the Effects of HIRF CRI F-2, Protection from the Effects of Lightning Strikes, Direct Effects

CRI F-3, Protection from the Effects of Lightning Strikes, Indirect Effects None

8. EASA Exemptions:



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- 9. EASA Equivalent Safety Findings: None
- 10. EASA Environmental Standards: ICAO Annex 16, Volume 1, Amdt 4, third edition, Chapter X JAR 36, issued 23-May-1997 CRI A-3 (See Note 1)

A.III. Technical Characteristics and Operational Limitations

1.	Type Design Definition:	Master Drawing latest FAA Appro	J List, Document No. 13750, oved Revision.
2.	Description:	Single-engine, composite cons gear.	four-seat, low-wing airplane, truction, fixed tricycle landing
3.	Equipment:	Equipment list, 11934-003E, 119 (See Note 2)	AFM, Doc. No. 11934-002E, 934-004E, 11934-005 Section 6.
4.	Dimensions:		
	a. Serial Numbers 1005 thru	1877, and 1879 th	nru 1885:
	Span	10.7 m	(35.3 ft)
	Length	7.9 m	(25.9 ft)
	Height	2.8 m	(9.2 ft)
	Wing Area	12.6 m²	(135.2 ft ²)
	b. Serial Numbers 1878, 188	6 and subsequent	t:
	Span	11.67 m	(38.3 ft)
	Length	7.92 m	(26.0 ft)
	Height	2.71 m	(8.9 ft)
	Wing Area	13.46 m²	(144.90 ft ²)
5.	Engines:	1. One (1) Teled EASA TC IM.E.0	yne Continental IO-360-ES 005
		2. One (1) Lycon EASA TC IM.E.0	ning IO-390-C3B6 197
	5.1 Firmware:	Not Applicable	
	5.2 Mapping:	Not Applicable	
5.3	B Engine Limits:	Continental Moto Maximum Take- Maximum Contin hp)	ors, Inc IO-360-ES off 2700 RPM (200 hp) nuous Power 2700 RPM (200
			as 10-390-03B6

Lycoming Engines IO-390-C3B6 Maximum Take-off 2700 RPM (215 hp) Maximum Continuous Power 2700 RPM (215 hp)

For power-plants limits refer to AFM, Doc. No. 11934-002E, 11934-003E, 11934-004E or 11934-005 Section 2



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7. Propellers:	 a. Hartzell Propeller Inc. P/N PHC-J3YF-1MF/F7 note 6) EASA TC IM.P.132 Maximum Diameter: 74 inches Minimum Diameter: 72 inches Number of Blades: 3 Low Pitch: 14.1°+/-0.5° High Pitch: 35.0°+/-1.0° No operating limitations to 2800 RPM 	'392-1 (See
	 b. Hartzell Propeller Inc. P/N PHC-J3YF-11 (See note 6) EASA TC IM.P.187 Maximum Diameter: 74 inches Minimum Diameter: 72 inches Number of Blades: 3 Low Pitch: 13.9°+/-0.5° High Pitch: 35.0°+/-1.0° No operating limitations to 2800 RPM 	RF/F7392-1
	 c. Hartzell Propeller Inc. P/N HC-E3YR-1R (See note 7) EASA TC IM.P.132 Maximum Diameter: 74 inches Minimum Diameter: 73 inches Number of Blades: 3 Low Pitch: 13.4°+/-0.5° High Pitch: 30.0°+/-1.0° No operating limitations to 2850 RPM 	F/F7392S-1
	 d. Hartzell Propeller Inc. P/N 3C1-R919A1/76 note 7) EASA TC IM.P.137 Maximum Diameter: 74 inches Minimum Diameter: 74 inches Number of Blades: 3 Low Pitch: 11.9°+/-0.5° High Pitch: 30.0°+/-1.0° No operating limitations to 2700 RPM 	C03-2 (See
8. Fluids:		
8.1Fuel: 8.2Oil: Engine	Aviation Grade 100LL or 100 AFM, Doc. No.11934-002E, 11934-003 004E, 11934-005 Section 2	E, 11934-

8.3 Coolant:

Not Applicable



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9.	Flι	uid capaciti	es:				
	9.1	I Fuel:	Standard Fuel Tank	S/N 1005 t	hru 1877, 1	879 thru 1885	
				Total: Usable:	229.0 liters 212.0 liters	s 60.5 US Gallo s 56.0 US Gallo	ons ons
				S/N 1878,	1886 and s	ubsequent:	
				Total:	221.4 liters	s 58.5 US Gallo	ons
				USable.	212.0 11613	5 50.0 00 Callo	/13
	9.2	2 Oil:		Maximum: Minimum:	7.6 liters 5.7 liters	8.0 US qts 6.0 US qts	
10.	Air	Speeds:					
	a.	Serial Nur	<u>mbers 1005 through 1147 wit</u> l	hout Service	e Bulletin Sl	<u>B 20-01-00:</u>	
		Never Exc	ceed Speed V _{NE}		2	200 KIAS	
		Maximum	Structural Cruising Speed V	0		165 KIAS	
		1315 kg (2	2900 lb) Operating Maneuver	ing Speed \		135 KIAS	
		11/9 Kg (2	2600 lb) Operating Maneuver	ing Speed \		126 KIAS	
		998 Kg (2. Maximum	Elan Extension Speed V	ig Speed Vo)	100 KIAS	
		Maximum	Parachute Deployment Spee	ed V _{PD}		135 KIAS	
	h	Serial Nu	mbers 11/8 through 1877 18	870 through	1885 and	serials 1005 th	rough
	D.	1147 with	SB 20-01-00:	ore unough	1005, anu		lougn
		Never Exc				200 KIAS	
		Maximum	Structural Cruising Speed V		2	165 KIAS	
		1361 kg (3000 lb) Operating Maneuver	ing Speed \	/o ^	131 KIAS	
		1179 kg (2	2600 lb) Operating Maneuver	ing Speed \	/o *	122 KIAS	
		1043 kg (2	2300 lb) Operating Maneuver	ing Speed \	/o ^	114 KIAS	
		Maximum	Flap Extension Speed V _{FE}		-	100 KIAS	
		Maximum	Parachute Deployment Spee	ed V _{PD}		135 KIAS	
	C.	<u>Serial Nur</u>	mbers 1878, 1886 and subse	quent (see r	<u>note 6):</u>		
		Never Exc	ceed Speed V _{NE}			200 KIAS	
		Maximum	Structural Cruising Speed V _N	10		163 KIAS	
		1383 kg (3050 lb) Operating Maneuver	ing Speed \	/ ₀	130 KIAS	
		Maximum	Flap Extension Speed V _{FE}	-1.17		104 KIAS	
		Maximum	Parachute Deployment Spee	O VPD		133 KIAS	
	d.	Serial Nur	mbers 2339 and subsequent	(see note 7)	<u>):</u>		
		Never Exc	ceed Speed VNE		2	201 KIAS	
		Maximum	Structural Cruising Speed V		,	164 KIAS	400
		1429 Kg (Operating Maneuver	ing Speed \	/0		133
		Maximum	Flan Extension Speed V		r		
		Maximum	Parachute Deployment Spee	ed V _{PD}		133 KIAS	
			r			. –	



11. Maximum Operating Altitude:

The aircraft is limited to 5334 m (17500 ft MSL).

- 12. Operational Capability: VFR Day and Night (see Note 3) IFR Day and Night
- 13. Maximum Masses:
 - a. <u>Serial Numbers 1005 through 1147 without Service Bulletin SB 20-01-00:</u> Take-Off 1315 kg (2900 lb) Landing 1315 kg (2900 lb)
 - b. <u>Serial Numbers 1148 through 1877, 1879 through 1885, and serials 1005 through 1147 with SB 20-01-00:</u>

Take-Off1361 kg (3000 lb) All weights in excess of
1315 kg (2900 lb) must consist of wing fuel.Landing1315 kg (2900 lb)

c. Serial Numbers 1878, 1886 and subsequent (See note 6):

Take-Off	1383 kg (3050lb)
Landing	1383 kg (3050lb)

d. Serial Numbers 2339 and subsequent (See note 7):

Take-Off	1429 kg (3150lb)
Landing	1429 kg (3150lb)

- 14. Centre of Gravity Range:
 - a. Serial Numbers 1005 through 1147 without Service Bulletin SB 20-01-00:

Forward Limits: 3.523 m at 952 kg with a straight line taper to 3.581 m at 1222 kg, and 3.632 m at 1315 kg.

Aft Limits: 3.673 m at 952 kg, with straight line taper to 3.744 m at 1166 kg, and to 3.757 m at 1245 kg, and 3.764 m at 1315 kg.

b. <u>Serial Numbers 1148 through 1877, 1879 through 1885, and serials 1005 thru 1147</u> with SB 20-01-00:

Forward Limits: 3.523 m at 952 kg with a straight line taper to 3.581m at 1222 kg, and 3.660 m at 1361 kg.

Aft Limits: 3.673 m at 952 kg, with straight line taper to 3.744 m at 1166 kg, and to 3.762 m at 1315 kg, and 3.759 m at 1361 kg.

c. Serial Numbers 1878, 1886 and subsequent (See note 6):

Forward Limits: 3.500 m at 953 kg with a straight line taper to 3.533m at 1225 kg, and 3.574 m at 1383 kg.

Aft Limits: 3.762 m at 953 kg, with straight line to 3.762 m at 1383kg.



d. Serial Numbers 2339 and subsequent (See note 7):

Forward Limits: 3.500 m at 953 kg with a straight line taper to 3.533m at 1225 kg, and 3.584 m at 1429 kg.

Aft Limits: 3.762 m at 953 kg, with straight line to 3.762 m at 1429kg.

(100 inches) in front of leading firewall
Spirit Level: Cabin door sill Optical Level: Fuselage leveling points
1 (Pilot)
pacity:
3 (S/N 1005 thru 2126) 3+1 (S/N 2127 and subsequent) (see Note 5)
59 kg (130 lb) at 5.283 m (208 in)
5.00 x 5

A.IV. Operating and Service Instructions

Airplane Flight Manual (AFM): Document No.11934-002E, 11934-003E, 11934-004E or 11934-005 Approved by the FAA and, Supplement for aeroplanes registered in Europe No 11934-S29 or later approved revision.

Airplane Maintenance Manual (AMM) (Including Airworthiness Limitations)

Document No. 12137-001 or later EASA approved Revisions.

A.V. Notes

1. Deleted, please refer to TCDS-N IM.A.007

- 2. Serial Numbers 1337 and subsequent with SRV (VFR Only) Option are eligible for VFR Day and Night only.
- 3. Cirrus Design Service Advisories and Service Bulletins are listed on the internet at http://www.cirrusaircraft.com/support/
- 4. For Optional Equipment Garmin G1000/G1000NXi:

CS23, Original issue plus Special Conditions:



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CRI B-52:	Human Factors
CRI F-51:	Equipment Systems and Installations
CRI F-52:	Protections from the Effects of HIRF
CRI F-53:	Protection from the effects of Lightning
	Strike; Direct Effects
CRI F-54:	Protection from the Effects of Lightning
	Strike; Indirect Effects
CRI F-5:	Databases and Configuration Files
CRI F-6:	Digital Devices Design Assurance
CRI F-7:	Software Aspects of Certification,
	Application of DO-178B Field Loadable
	Software and User Modifiable Software

- 5. For Maximum Passenger Seating Capacity 3+1 maximum occupancy limit according to 11934-004E, Reissue A, or later approved revision.
- 6. For aircraft equipped with Teledyne Continental IO-360-ES and Garmin G1000 avionics or Garmin G1000 avionics with Garmin GFC-700 autopilot system.
- 7. For aircraft equipped with Lycoming Engines, IO-390-C3B6 and Garmin G1000 NXi avionics or Garmin G1000 NXi avionics with Garmin GFC-700 autopilot system.



SECTION B: SR 22

B.I. General

1.	a) Type: b) Variant:	SR22 N/A
2.	Airworthiness Category:	JAR-23 Normal Category
3.	Type Certificate Holder:	Cirrus Design Corporation 4515 Taylor Circle Duluth, MN 55811 U.S.A.
4.	Manufacturer:	Cirrus Design Corporation 4515 Taylor Circle Duluth, MN 55811 U.S.A.
5.	JAA Certification Application Date:	10-June-2004
6.	JAA recommendation Date:	TBD
7.	EASA Type Certification Date:	27 January 2006
<u>B.II.</u>	Certification Basis	
1.	Reference Date for determining the applicable requirements:	06-Jan-2000
2.	(Reserved)	
3.	(Reserved)	
4.	Certification Basis:	As defined in CRI A-1
5.	Airworthiness Requirements:	JAR-23, Change 1, dated 11-Mar-1994
6.	Requirements elected to comply:	None
7.	EASA Special Conditions:	CRI B-1: Cirrus Airframe Parachute System CRI B-2, Spins CRI F-1: Protection from the Effects of HIRF CRI F-2: Protection from the Effects Lightning Strike; Direct Effects CRI F-3: Protection from the Effects

CRI F-4: Human factors in integrated avionics

of

of

CRI F-5: Equipment Systems and Installations

CRI F-6: Software CRI F-7: BRNAV CRI F-8: Use of Sandel HSI SN3308

8. EASA Exemptions:

None

None

- 9. EASA Equivalent Safety Findings:
- 10. EASA Environmental Standards:

ICAO Annex 16, Volume 1, Amdt 4, third edition, Chapter X JAR 36, issued 23-May-1997 CRI A-3 (See Note 1)

B.III. Technical Characteristics and Operational Limitations

1.	Type Design Definition:	Master Drawing List, Document No. 13750, latest FAA Approved Revision.
2.	Description:	Single-engine, four-seat, low-wing airplane, composite construction, fixed tricycle landing gear.
3.	Equipment:	Equipment list, AFM, Doc. No. 13772- 001E or Equipment list, AFM, Doc. No. 13772-002E (for aircraft equipped with optional G1000 avionics) or Equipment list, AFM, Doc. No. 13772-004E (for aircraft equipped with 1633kg MTOW) or Equipment list, AFM, Doc. No. 13772-006 (for aircraft equipped with optional Garmin G1000 NXi avionics)
4.	Dimensions: Span Length Height Wing Area	11.67 m (38.3 ft) 7.92 m (26.0 ft) 2.71 m (8.90 ft) 13.46 m ² (144.90 ft ²)
5.	Engines:	Teledyne Continental IO-550-N EASA TC IM.E.100
	5.1 Firmware:	Not Applicable
	5.2 Mapping:	Not Applicable
	5.3 Engine Limits:	Maximum Take-off 2700 RPM (310 hp) Maximum Continuous Power 2700 RPM (310 hp)

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For power-plants limits refer to AFM, Doc. No. 13772-001E, 13772-002E, 13772-004E or 13772-006 Section 2

- Propellers: a. Hartzell Propeller Inc. P/N PHC-J3YF-1RF/F7694 or F7694B EASA TC IM.P.187 Maximum Diameter: 78 inches Minimum Diameter: 76 inches Number of Blades: 3 Low Pitch: 14.1°+/-0.5° High Pitch: 35.0°+/-1.0° No operating limitations to 2700 RPM
 - b. Hartzell Propeller Inc. P/N PHC-J3YF-1RF/F7393DF or F7693DFB EASA TC IM.P.187 Maximum Diameter: 78 inches Minimum Diameter: 76 inches Number of Blades: 3 Low Pitch: 13.9°+/-0.5° High Pitch: 40.0°+/-1.0° No operating limitations to 2700 RPM
 - c. Hartzell Propeller Inc. P/N PHC-J3YF-1N/N7605 or N7605B EASA TC IM.P.187 Maximum Diameter: 78 inches Minimum Diameter: 78 inches Number of Blades: 3 Low Pitch: 12.2°+/-0.5° High Pitch: 35.0°+/-1.0° No operating limitations to 2700 RPM
 - d. Hartzell Propeller Inc. P/N PHC-J3Y1F-1N/N7605, N7605B, N7605C or N7605CB

TCDS P36EA Hartzell Maximum Diameter: 78 inches Minimum Diameter: 78 inches Number of Blades: 3 Low Pitch: 12.2°+/-0.5° High Pitch: 35.0°+/-1.0° No operating limitations to 2700 RPM when using type design throttle-propeller controls Spinner: Hartzell P/N 102870() or A-2295-11() NOTE: () indicates various finish options.

8. Fluids:

8.1Fuel:		Aviation Grade 100LL or 100
8.2 Oil:	Engine	AFM, Doc. No. 13772-001E, 13772-002E, 13772-004E or 13772-006 Section 2
8.3Coola	ant:	Not Applicable



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9. Fluid capacities:

9.1 Fuel:

9.1.1	Aircraft serials 0002 thr	<u>u 2333</u>	8 <u>, 233</u>	<u>5 thru</u>	2419, and	<u>2421 thru 2437</u>
	Standard Fuel Tank	ד נ	Fotal: Jsabl	e: :	318.0 liters 306.6 liters	84 US Gallons 81 US Gallons
9.1.2	Aircraft serials 2334, 24	120, 24	38 ar	nd sub	sequent	
	Standard Fuel Tank	ד נ	Fotal: Jsabl	e: :	357.7 liters 348.3 liters	94.5 US Gallons 92 US Gallons
		C	Dr			
		T L	Fotal: Jsabl	e: 2	221.4 liters 212.0 liters	58.5 US Gallons 56.0 US Gallons
9.2 Oil: Ma	aximum:	7.6 lite	rs	8.0 qts	6	

10. Air Speeds:

a. Aircraft serials 0002 thru 3914:

Never Exceed Speed V _{NE}	204 KCAS
Maximum Structural Cruising Speed V _{NO}	180 KCAS
(3400 lb) Operating Maneuvering Speed Vo	133 KIAS
(2900 lb) Operating Maneuvering Speed Vo	124 KIAS
(2400 lb) Operating Maneuvering Speed Vo	112 KIAS
Maximum Flap Extension Speed V _{FE} (50%)	119 KIAS
Maximum Flap Extension Speed V _{FE} (100%)	104 KIAS
Maximum Parachute Deployment Speed V _{PD}	133 KIAS

b. Aircraft serials 3915 and subsequent:

Never Exceed Speed V _{NE}	208 KCAS
Maximum Structural Cruising Speed V _{NO}	179 KCAS
1633 kg (3600 lb) Operating Maneuvering Speed V_{O}	140 KIAS
1542 kg (3400 lb) Operating Maneuvering Speed V_0	133 KIAS
1315 kg (2900 lb) Operating Maneuvering Speed V_0	124 KIAS
1089 kg (2400 lb) Operating Maneuvering Speed V_0	112 KIAS
Maximum Flap Extension Speed V _{FE} (50%)	150 KIAS
Maximum Flap Extension Speed V _{FE} (100%)	110 KIAS
Maximum Parachute Deployment Speed VPD	140 KIAS

11. Maximum Operating Altitude:

The aircraft is limited to 5334 m (17500 ft MSL).

12. Operational Capability:

VFR Day and Night (see Note 3) IFR Day and Night Flight into known icing (see Note 4)



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13. Maximum Masses:

a. Aircraft serials 0002 thru 3914:	
Take-Off and Landing	1542 kg (3400 lb)
b. Aircraft serials 3915 and subsequent:	
Take-Off and Landing Zero fuel	1633 kg (3600 lb) 1542 kg (3400 lb)

14. Centre of Gravity Range:

a. Aircraft serials 0002 thru 3914:

Forward Limits: 3.500 m at 952 kg with a straight line taper to 3.533 m at 1225 kg, and to 3.614 m at 1542 kg.

NOTE: For aircraft serial numbers 0002 thru 2333, 2335 thru 2419, and 2421 thru 2437, a no-landing zone applies forward of the line between 3.592 m at 1456 kg and 3.625 m at1542 kg.

Aft Limits: 3.762 m at 952 kg, with straight line to 3.762 m at 1542 kg.

b. Aircraft serials 3915 and subsequent:

Forward Limits: 3.500 m at 952 kg with a straight line taper to 3.533 m at 1225 kg, and to 3.637 m at 1633 kg.

Aft Limits: 3.762 m at 952 kg, with straight line to 3.762 m at 1633 kg.

- 15. Datum: 2.54 m (100 inches) in front of leading firewall
- 16. (Reserved)
- Levelling Means:
 Spirit Level: Cabin door sill Optical Level: Fuselage leveling points
 Minimum Flight Crew:
 1 (Pilot)
- 19. Maximum Passenger Seating Capacity:

3 (S/N 0002 thru 3827) 3+1 (S/N 3828 and subsequent) (see Note 5)

- 20. (Reserved)
 21. Baggage / Cargo Compartment 59 kg (130 lb) at 5.283 m (208 in)
 22. Wheels and Tires
 - Nose Wheel Tire Size5.00 x 5Main Wheel Tire Size15 x 6.00 x 6

B.IV. Operating and Service Instructions

Airplane Flight Manual (AFM): Document No. 13772-001E, 13772-002E Approved by EASA or later approved revisions for aircraft serials 0002 and subsequent, or Document No. 13772-002E Approved by EASA or later Approved revisions for aircraft serials 2979, 2992, 3002 thru 3914. Or



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Document No. 13772-004E Approved by EASA or later approved revisions for aircraft serials 3915 thru 4434. Or Document No. 13772-006 Approved by the FAA or later approved revisions for aircraft serials 4435 and subsequent. And Supplement No 13772-122 for aeroplanes registered in Europe or later approved revision.

Airplane Maintenance Manual (AMM) (Including Airworthiness Limitations)

Document No. 13773-001 or later EASA approved revisions

B.V. Notes

- 1. Deleted, please refer to TCDS-N IM.A.007
- 2. EASA Certification Basis as following: As defined in CRI A-1:

JAR 23, Change 1, dated 11 March 1994 plus

Special Conditions:	
CRI B-1:	Cirrus Airframe Parachute System
CRI B-2:	Spins
CRI F-1:	Protection from the Effects of HIRF
CRI F-2:	Protection from the effects of Lightning Strike;
	Direct Effects
CRI F-3:	Protection from the Effects of Lightning Strike;
	Indirect Effects
CRI F-4	Human Factors in integrated avionics
CRI F-5	Equipment Systems and Installations
CRI F-6:	Software
CRI F-7:	BRNAV
CRI F-8:	Use of Sandel HSI SN3308

For Optional Equipment Garmin G1000: CS23, Original issue plus

Special Conditions:	
CRI B-52:	Human Factors
CRI F-51:	Equipment Systems and Installations
CRI F-52:	Protections from the Effects of HIRF
CRI F-53:	Protection from the effects of Lightning Strike;
	Direct Effects
CRI F-54:	Protection from the Effects of Lightning Strike;
	Indirect Effects
CRI F-5:	Databases and Configuration Files
CRI F-6:	Digital Devices Design Assurance
CRI F-7:	Software Aspects of Certification, Application of
	DO-178B Field Loadable Software and User
	Modifiable Software



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3. Flight into known icing only allowed for SR22 serial numbers 3003, 3310, 3326, 3403 and subsequent, if equipped according to AFM 13772-002E, 13772-004E or 13772-006 and AFM-S No 13772-134

4. For Maximum Passenger Seating Capacity 3+1 maximum occupancy limit according to 13772-002E,13772-004E or 13772-006



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SECTION C: SR 22T

<u>C.I.</u>	<u>General</u>	
1.	a) Type: b) Variant:	SR22T N/A
2.	Airworthiness Category:	CS-23 Normal Category
3.	Type Certificate Holder:	Cirrus Design Corporation 4515 Taylor Circle Duluth, MN 55811 U.S.A.
4.	Manufacturer:	Cirrus Design Corporation 4515 Taylor Circle Duluth, MN 55811 U.S.A.
5.	JAA Certification Application Date:	n/a
6.	JAA recommendation Date:	n/a
7.	EASA Type Certification Date:	09 Jul 2010
<u>C.II.</u>	<u>Certification Basis</u>	
1.	the applicable requirements:	06-Jan-2000
2.	(Reserved)	
3.	(Reserved)	
4.	Certification Basis:	As defined in CRI A-01
5.	Airworthiness Requirements:	CS 23, Original Issue
6.	Requirements elected to comply:	CS 23, except 23.301
7.	EASA Special Conditions: CRI B-1: CRI B-2, CRI B-52: CRI F-51: CRI F-52: CRI F-53: CRI F-54:	Cirrus Airframe Parachute System Spins Human Factors Equipment, Systems an Installations Protection from the Effects of HIRF Protection from the Effects of Lightning Strike; Direct Effects Protection from the Effects of Lightning Strike;



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Indirect Effects

	CRI F-5: CRI F-6: CRI F-7:	Databases and Configuration Files Digital Devices Design Assurance Software Aspects of Certification 23-163-SC for inflatable restraint system (adopted)
8.	EASA Exemptions:	None
9.	EASA Equivalent Safety Findings:	ACE-00-09-A for Engine and Mixture Controls ACE-08-05A for Cockpit control knob shape ACE-09-06A for Pitot heat indication system ACE-10-08 for alternate air door override means
10	. EASA Environmental Standards:	ICAO Annex 16, Volume I, Chapter X CS 36, Amdt 2 (See Note 1)

C.III. Technical Characteristics and Operational Limitations

1.	Type Design Definition:		Master Drawing List, Document No. 13750, latest FAA Approved Revision.
2.	Description:		Single-engine, four-seat, low-wing airplane, composite construction, fixed tricycle landing gear.
3.	Equipment:		Equipment list, AFM, Doc. No. 13772- 003E, 13772-005E or 13772-007
4.	Dimensions: Span Length Height Wing Area		11.67 m (38.3 ft) 7.92 m (26.0 ft) 2.71 m (8.90 ft) 13.46 m ² (144.90 ft ²)
5.	Engines:		Teledyne Continental TSIO-550-K EASA TC IM.E.105
	5.1 Firmware:		Not Applicable
	5.2 Mapping:		Not Applicable
	5.3 Engine Limits:		Maximum Take-off 2500 RPM (315 hp)
			(315 hp)
-			For power-plants limits refer to AFM, Doc. No. 13772-003E, 13772-005E or 13772- 007 Section 2
1.	Propellers: a. Hartzel N7605	II Pro B, N76	opeller Inc. P/N PHC-J3Y1F-1N/N7605, 605C or N7605CB



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		E N N L H N C S S	EASA TC IM Maximum Dia Minimum Dia Number of B Low Pitch: 12 High Pitch: 3 No operating design thrott Spinner: Har ndicates var	I.P.187 ameter: 78 lades: 3 2.2°+/-0.5° 5.0°+/-1.0° limitations le-propelle tzell P/N 1 ious finish	inches inches to 2700 RP r controls 02870() or A options.	M when using type -2295-11() NOTE: ()	
8.	Fluids:						
	8.1Fuel:			Aviation (Grade 100LL	. or 100	
	8.20il: Ei	ngine		AFM, Doc 13772-00	:. No. 13772- 7 Section 2	003E, 13772-005E o	r
	8.3Coolant:			Not Appli	cable		
9.	Fluid capaci 9.1Fuel:	ties:					
	911	Aircraft serials ()001 and su	Ibsequent			
	0.1.1	Standard Fuel T	ank	Total: Usable:	357.7 liter 348.3 liter	s 94.5 US Gallons s 92 US Gallons	
	9.20il:			Maximun	n: 7.6 liters	8.0 qts	
10	. Air Speeds:						
	<u>a. Aircraft se</u>	erials 0001 thru 04	4 <u>1:</u>				
	Never Ex	ceed Speed V_{NE}	204	KCAS fron	n S/L to 5334	1 m (17,500 ft MLS)	
			Line (17,	early reduct 500 ft) to 1	ing from 204 73 KCAS @	KCAS @ 5334 m 7620 m (25,000 ft)	
	Maximur	n Structural Cruisi	ing Speed V	'NO	180 KCAS fr (17,500 ft Ml Linearly redu KCAS @ 53 153 KCAS @	rom S/L to 5334 m LS) ucing from 180 34 m (17,500 ft) to ⊉ 7620 m (25,000 ft)	
	1542 kg 1315 kg 1089 kg Maximur Maximur Maximur	(3400 lb) Operatir (2900 lb) Operatir (2400 lb) Operatir n Flap Extension S n Flap Extension S n Parachute Deple	ng Maneuve ng Maneuve ng Maneuve Speed V _{FE} (Speed V _{FE} (oyment Spe	ring Speed ring Speed ring Speed 50%) 100%) ed V _{PD}	I Vo I Vo I Vo	133 KIAS 124 KIAS 112 KIAS 119 KIAS 104 KIAS 133 KIAS	

b. Aircraft serials 0442 and subsequent:



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	Never Exceed Speed V_{NE}	208 KCAS from Linearly reduct (17,500 ft) to 2	n S/L to 5334 m (17,500 ft MLS) ing from 208 KCAS @ 5334 m I78 KCAS @ 7620 m (25,000 ft)
	Maximum Structural Cruising Spe	eed V _{NO}	179 KCAS from S/L to 5334 m (17,500 ft MLS) Linearly reducing from 179 KCAS @ 5334 m (17,500 ft) to 152 KCAS @ 7620 m (25,000 ft)
	1633 kg (3600 lb) Operating Man 1542 kg (3400 lb) Operating Man 1315 kg (2900 lb) Operating Man 1089 kg (2400 lb) Operating Man Maximum Flap Extension Speed Maximum Flap Extension Speed Maximum Parachute Deployment	euvering Speed euvering Speed euvering Speed euvering Speed VFE (50%) VFE (100%) t Speed VPD	$\begin{array}{cccc} 4 \ V_0 & 140 \ \text{KIAS} \\ 4 \ V_0 & 133 \ \text{KIAS} \\ 4 \ V_0 & 124 \ \text{KIAS} \\ 4 \ V_0 & 112 \ \text{KIAS} \\ 150 \ \text{KIAS} \\ 110 \ \text{KIAS} \\ 140 \ \text{KIAS} \end{array}$
11.	Maximum Operating Altitude:	The aircı MSL).	raft is limited to 7620 m (25,000 ft
12.	Operational Capability:	VFR Day IFR Day Flight int	v and Night (see Note 3) and Night o known icing (see Note 4)
13.	Maximum Masses:		
<u>a.</u>	Aircraft serials 0001 thru 0441:		
	Take-Off and Landing	1542 kg	(3400 lb)
<u>b.</u>	Aircraft serials 0442 and subseque	<u>ent:</u>	
	Take-Off and Landing	1633 kg	(3600 lb)

15. Centre of Gravity Range:

Zero fuel

a. Aircraft serials 0001 thru 0441:

Forward Limits: 3.500 m at 952 kg with a straight line taper to 3.533 m at 1225 kg, and 3.614 m at 1542 kg.

1542 kg (3400 lb)

NOTE: For aircraft serial numbers 0002 thru 2333, 2335 thru 2419, and 2421 thru 2437, a no-landing zone applies forward of the line between 3.592 m at 1456 kg and 3.625 m at1542 kg.

Aft Limits: 3.762 m at 952 kg, with straight line to 3.762 m at 1542 kg.

b. Aircraft serials 0442 and subsequent:

Forward Limits: 3.500 m at 952 kg with a straight line taper to 3.533 m at 1225 kg, and to 3.637 m at 1633 kg.

Aft Limits: 3.762 m at 952 kg, with straight line to 3.762 m at 1633 kg.

15. Datum: 2.54 m (100 inches) in front of leading firewall

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16. (Reserved)

19.	Levelling Means:	Spirit Level: Cabin door sill Optical Level: Fuselage leveling points
18.	Minimum Flight Crew:	1 (Pilot)

19. Maximum Passenger Seating Capacity:

	3 (S/N 0001 thru 0250, and 0252 thru 0267) 3+1 (S/N 0251, 0268 and subsequent) (see Not				
20.	(Reserved)				
21.	Baggage / Cargo Compartment	59 kg (130 lb) at 5.283 m (208 in)			
22.	Wheels and Tires				
	Nose Wheel Tire Size	5.00 x 5			
	Main Wheel Tire Size	15 x 6.00 x 6			

C.IV. Operating and Service Instructions

Airplane Flight Manual (AFM):	Document No. 13772-003E Approved by EASA or later approved revisions for aircraft serials 0001 thru 0441, or Document No. 13772-005E Approved by EASA or later Approved revisions for aircraft serials 0442 thru 1459, 1461 thru 1470 and 1472. Or 13772-007 Approved by the FAA or later Approved revisions for aircraft serials 1460, 1471, 1473 and subsequent. And Supplement No 13772-122 for aeroplanes registered in Europe or later approved revision.
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Airplane Maintenance Manual (AMM) (Including Airworthiness Limitations)

Document No. 13773-001 or later EASA Approved revisions

C.V. Notes

- 1. For further details to noise please refer to TCDS-N IM.A.007
- 2. Flight into known icing only allowed for SR22T serial numbers 0001 and subsequent, if equipped according to AFM 13772-003E, 13772-005E or 13772-007Eand AFM-S No 13772-134
- 3. For Maximum Passenger Seating Capacity 3+1 maximum occupancy limit according to 13772-003E,13772-005E or 13772-007



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SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

AFM	Aircraft flight manual
AMM	Aircraft maintenance manual
CRI	Certification review item
EASA F.S.	European aviation safety agency Fuselage Station
IPC	Illustrated parts catalogue
IFR	Instrumental flight rules
KIAS	Indicated airspeed in knots
KTAS	True airspeed in knots
MAC	Mean aerodynamic chord
MSL	Mean sea level
MDL	Master document list
РОН	Pilot's operating handbook
RPM	Revolutions per minute
VFR	Visual flight rules

II. Type Certificate Holder Record

Cirrus Design Corporation 4515 Taylor Circle Duluth, Minnesota 55811 United States of America

III. Change Record

Issue	Date	Changes
Issue 1	27 May 2004	Initial issue SR20
Issue 2	23 August 2004	SR20 Correction of noise levels
Issue 3	26 November 2004	SR20, Increased gross weight
Issue 4	27 January 2006	Introduction of model SR22
Issue 5	25 May 2007	General update and corrections throughout TCDS. Add composite propeller, add updated fuel quantities for serialized SR22 aircraft. Update C.G. envelope for SR22 aircraft, deletion of noise levels.
Issue 6	11 December 2007	Updates regarding SR20 serial numbers 1878, 1886 and subsequent. Updates to Airspeed limits, C.G. range, Maximum Weight for takeoff and Landing, and Fuel Capacity.
Issue 7	23 June 2008	Updates regarding SR22 serial numbers 2979, 2992, 3002 and subsequent. Updates are for aircraft equipped with optional G1000 avionics or Garmin avionics with GFC



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Issue 8	05 March 2009	Updates regarding SR20 serial numbers 2016 and subsequent. Updates are for aircraft equipped with Optional G1000 avionics or Garmin G1000 avionics with GFC-700 autopilot system.
Issue 9	28 Sep 2009	General update and corrections throughout TCDS. Add composite propeller for SR22 aircraft.
Issue 10	12 Nov 2009	Updates regarding SR22 serial numbers 3003, 3310, 3326,3403 and subsequent. Updates are for aircraft equipped for Flight Into Known Icing.
Issue 11	09 Jul 2010	Update to add Model SR22T serial numbers 0001 and subsequent.
Issue 12	16 August 2011	General update and corrections throughout TCDS.
Issue 13	30 January 2012	Update regarding SR20 (S/N 2127 and subsequent), SR22 (S/N 3828 and subsequent) and SR22T (S/N 0251, 0268 and subsequent) of maximum Passenger Seating Capacity to 3+1. General update and corrections throughout TCDS.
Issue 14	17 May 2013	Update regarding SR22 (3915 and subsequent) and SR22T (0442 and subsequent) for increase gross weight to 1633 kg (3600 lb). General update and corrections throughout TCDS.
Issue 15	23 July 2014	Update regarding SR22 and SR22T adding Hartzell propellers PHC-J3Y1F-1N/7605C and PHC-J3Y1F-N/N7605CB.
Issue 16	06 November 2017	Updated regarding addition of Lycoming IO-390-C3B6 engine installation and gross weight increase for SR20 and Garmin G1000 NXi avionics for SR20, SR22 and SR22T.

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