



CIRRUS SR20 – N774PT

GVML - Gruppo Volo Motore Lugano



Version: 01.12.2022

TECHNICAL DATA

Model and Series No.	SR20 G2, Series 1612				
Year	Build 2005, First registration 2006				
Category Airplane	Category: Airplane	Class: Single-Engine Land (SEP/L)	Approach Category: A (V _{APP} < 91 KIAS)		
	Noise Category: C	Performance: B (max. 9 seats, < 5700 Kg)	Airport Design Group: I (Wingspan < 15m)		
Engine	Continental IO-360-ES, 6 cylinders fuel injected and air cooled (5'899cm ³) 200 HP (-3% each 1000 ft D.A.) 2'700 RPM TBO: 2000h/12 years SeriesNo: 1043192 (y2022)				
Propeller	MT-Propeller 3-blade constant speed Clearance between Tip of propeller and Ground: 20 cm (8") at 3'000 lb				
Speed (KIAS)	V_{ROT} 67 (short: 65) V_X 81 V_Y 96 V_{CRUISE} Pwr:55%-75% (max. 2500 RPM) V_{NE} 200				
	V_{NO} 165 V_{O-2300lb} 114 V_{O-3000lb} 131 V_{FE-50%} 120 V_{FE-100%} 100 V_{PD} 135				
	V_{LAND-100%} 75 V_{LAND-50%} 80 V_{LAND-0%} 85 V_{DEM-CROSS-WIND} 21 V_{GLIDE-2500lb} 87 V_{GLIDE-3000lb} 96				
	Best Glide: 10.9:1 (at 10'000 ft = ca 18 NM)		TAS = IAS + 2% each 1000 ft D.A.		GS = TAS+Wind
Stall speed (KIAS) 3000lb (most FWD C.G.)	BANK 0°: 65 (0-flaps)	61 (50%-flaps)	56 (100%-flaps)		
	BANK 15°: 66 (0-flaps)	62 (50%-flaps)	57 (100%-flaps)		
	BANK 30°: 70 (0-flaps)	65 (50%-flaps)	61 (100%-flaps)		
	BANK 45°: 78 (0-flaps)	72 (50%-flaps)	67 (100%-flaps)		
	BANK 60°: 92 (0-flaps)	86 (50%-flaps)	80 (100%-flaps)		
	Horn sounds between 5 and 10 kts before the stall (full flaps and power off configuration).				
Measures	Length: 7.92 m (26.0')	Wingspan: 10.82 m (35.5')	Height: 2.8 m (9.2')		
Fuel Tanks	USABLE: 2 x 28 USG (56 USG = 212 l)	TAB: 2 x 13 USG (98.4l)	Max fuel imbalance (between tanks): 7.5 USG (28.4 l)		
	AVGAS min grade 100LL (blue) or 100	FUEL caution light: both tanks below 8.5 USG	Switch tank only if boostPump On/Boost		
Weight & Balance	MTOM: 1'361 Kg (3'000 lb)	MLDM: 1'315 Kg (2'900 lb)	MinimumFuelBurned BeforeLandWithMaxLoad 17.3 USG (66 l)		
	Empty Mass: 958.2 Kg (2'112.5 lb)		Max Useful Load: 402.8 Kg (888 lb)		
	Full Fuel Payload: 253.8 Kg (560 lb)		Max baggages: 59 Kg (130 lb)		
W&B Setting	Center of gravity: 142.19	ARM: Fuel: 153.8	Pilot/FrontPax: 143.5	RearPax: 180.0	Baggage: 208.0
	EnvelopeData: 138.7/957.08 - 144.6/957.08 - 147.4/1'165.73 - 148.1/1'315.42 - 148.0/1'360.78 - 144.1/1'360.78 - 141.0/1'221.98				
Takeoff Distance (Ground roll in m) (3000 lb / 2500 lb)	PA: SL 0° C: 392 / 248	20° C: 456 / 288	40° C: 526 / 332		
	PA: 2000 0° C: 473 / 299	20° C: 550 / 348	40° C: 633 / 401		
	PA: 4000 0° C: 572 / 361	20° C: 665 / 421	40° C: 767 / 485		
	Headwind: -10% each 12kts	Tailwind: +10% each 2kts	Grass (dry/wet): +20%/+30%		
Range	75%, BestPower, 11.6 USG/h	Endurance: 4 hours	Range: 576 NM (SL) - 627 NM (8'000 ft)		
	65%, BestPower, 10.5 USG/h	Endurance: 4.4 hours	Range: 608 NM (SL) - 666 NM (12'000 ft)		
	55%, BestEconomy, 8.4 USG/h	Endurance: 5.5 hours	Range: 708 NM (SL) - 776 NM (12'000 ft)		

EQUIPMENT

PFD	Avidyne Entegra FlightMax EXP5000 R6.2	Serial Number: 22580135, SW/PN: 530-00183-000 Rev 02
MFD	Avidyne Entegra EX5000C R6.2.1, CMAX	Electronic Approach Plates SN: 22812505, SW part no. 530-00180-100 Rev 03
GPS / Radio / NAV	Dual Garmin GNS430 (GPS/COM/NAV)	Main SW ver. 5.01, GPS SW ver. 3.03
	Antenna - COM1+GPS: Top-center	COM2: Underside-center 2 x NAV: Vertical stabilizer
Transponder	Mode S with ADS-B Out	Transponder Antenna: Nose underside (small)
ELT	406 Mhz	
Audio Panel	Garmin GMA340	
Autopilot	S-TEC 55X (Two-Axis autopilot and Altitude selector/alerter). Max 185 KIAS. < 95 KIAS set flaps 50%. Minimum engage altitude: 400 ft. Not permitted with 100% flaps and during TakeOff/Landing. Disconnect in moderate or severe turbulence and when speed is less than V _{STALL} + 20%.	
CAPS	Parachute (TBO 10 years, Last: December 2015). In case of emergency below 2000 ft AGL deploy it immediately. Minimum engage altitude: 400-500 ft AGL	
Alternators and Batteries	Alternator 1: 28V – 75A – Main buses (FuelPump, TurnCoord.2, Attitude2, PFD2) Alternator 2: 28.75V – 20A - Essential buses (Engine instr., TurnCoordin.1, Attitude1, COM1, Avionics, PFD1, Bat2) Battery 1: 1x"12-cell" 24V 10A/h Battery 2: 2x12V=24V 7A/h - Duration: 30 min only PFD	

ASSURANCE AND COVERAGE

Assurer	Axis Specialty Europe SE Belgian Branch <i>via</i> Hudson Sky Holding (Martin Accola). Expiration: End of March
Uses and Pilots	Private business and pleasure, Industrial AID and Rental/Club uses. Type rated PPL subject being individually checked by appointed flight instructor.
Coverages	Liability Third Party: 12 mio, Hull agreed value: 250'000.- (PIC Deductible: 3'000.- only for partial loss) Pers. Accident (Death/PTD): 100'000/100'000 (PIC+PAX). Geographical limitations: Yes, details on site.

MOVEMENT AND PARKING

Towbar	Towbar always in the airplane baggage area. Don't leave it in the hangar.
Parking	Always put the pitot cover and the nose air inlet cover on, inside and outside the hangar. Outside the hangar: use chocks. In case of wind risk, use anchor points for wing tiedowns.
Movements	Use Aircraft tug (with remote control) for movements into/from the hangar. Otherwise manually, using the towbar (pushing or pulling only on the <i>Wing base</i> or on the <i>Propeller base</i> (never from ogive).

MAINTENANCE, CONTROLS AND CHECKS

Cleaning	Clean the airplane after every flight using the specific products available in the hangar: " <i>blue liquid</i> " for fuselage and wings, " <i>pink liquid</i> " for windows, otherwise water only.
Oil type	< 4° C: SAE 30 or 10W-30 > 4° C: SAE 50. All temperatures: SAE 15W-50 or 20W-50.
Oil quantity & measuring	Capacity: 8 quarts (7.6l) Operation: min. 6 QTS, max. 7 QTS Always check oil quantity before each flight!! (Dipstick oriented to cabin: match "red marks").
Oil on board	Before each flight, assure to have the necessary Oil reserve in the baggage compartment. Never let empty oil boxes in the baggage compartment. Remember to fill in the <i>Oil form</i> located in the case.
Emergency key	An emergency airplane key is available inside the GPU compartment (unscrew the external small door).
Next inspection	Before each flight, remember to check the remaining hours available before the next inspection. Inform a member of the GVML committee in case of insufficient hours remaining.
Fuel Flow	During TakeOff check if the FF is 17.0 USG/h or more (reference pressure altitude 0 - 1'000ft).
Fuel measuring	The analog Fuel level indicators (left and right tank) are quite inaccurate, particularly when indicating low fuel. When departing with full tanks, the preferential indication is the <i>Fuel Flow (FF)</i> indicator on the MFD, instead. If tank is below ¼ capacity, pay attention to extreme turns.

USES AND BEST PRACTICES

Engine start (Warm / Hot Start)	In case of "Warm" or "Hot" engine (restart between few minutes and after 2-3 hours) follow the standard checklist, without activating the "Boost Pump". After 5-6 secs the propeller will start, then immediately activate the Boost pump. Maintain RPM to max. 1'300 RPM for 10-20 secs, then reduce slowly to 1'000 RPM. In any case engage start-key during max. 10 sec., then wait minimum 30 sec. before retrying. After 3-4 negative tries, wait 15-20 minutes before restarting again.
Engine start (Cold start)	If engine doesn't start, it probably needs more <i>prime</i> (check FF). Prime only when you are really ready for ignition. With temperature below -7°C for 2 hours or more, engine <i>Pre-heating</i> is needed to prevent damage caused by frozen oil. Put the airplane in a hangar (min. 4 hours) and activate the pre-heating system.
Leaning	The SR20 has an automatic mix compensation (thru the aneroid capsule). <i>Taxi, TakeOff, Climb</i> and <i>Cruise</i> <u>always</u> " <i>Mixture full rich</i> ". Only at cruise level and when the maximum power is less than 75% is possible to lean the mixture with the aim to increase the range. In case of doubt, maintain Mixture full rich (mandatory if CHT is 420° F or more). <i>Best Power</i> : 75% power or less (reach 1 st EGT peak. Than +75°F) <i>Best Economy</i> : 65% or less (reach Last EGT peak. Than +50°F) Instead of this formal procedure, use the standard configuration (Power% + FF) explained on " <i>Schema fasi volo</i> ".
GPU	BAT 1 set to ON (Bat2 OFF) before connecting external GPU (needed to close the <i>relay</i>). Use the checklist.
Engine cold caution	During a fast/steep descent, do not cool down the engine too much, avoiding a possible thermal shock. A possible Go-around requires maximum power. Anticipate the Flap-configuration to favor the "back side of the power curve".
EGT e CHT	Maintain CHT (Cylinder Head Temperature) always below 420° F (better if below 400° F or 380° F), particularly during TakeOff. Verify EGT rising (6x) during magnetos check (left and right).
Taxiing	Max. 1000 RPM. More power permitted only to start motion and for short time.
Refueling	Refueling in Lugano is at PIC's discretion prior flight, contacting C-Office or GND staff. Write name of PIC on the copy of the receipt and join it to the " <i>Rapporto di volo</i> ". After refueling on other aerodromes, join the receipt to the " <i>Rapporto di volo</i> " for reimbursement (write/highlight fuel quantity). Never refuel after the landing in Lugano (next PIC decides the amount of fuel, based on his W&B).
Check-list	The only permitted Check-list is the Cirrus SR20 official one, available on the airplane. The use of a personalized check-list is at own risk.
Hour Meter	There's an "Hour-Meter" installed on the airplane. Its data is used for filling in the " <i>Rapporto di volo</i> " and for "billing" purposes. Track the start and end value for each single trip. It starts when speed is more than 30 KIAS.

All information on this card is given without any warranty. Refer in any case to the Cirrus SR20 POH and others official documents.