



Socata TB20GT Trinidad

Microsoft Flight Simulator 2002

Aircraft and panel by Fr. Bill Leaming
with Fabio Miguez, Bob Samuelson and Warren Tucker
with technical advice from Peter Holmes

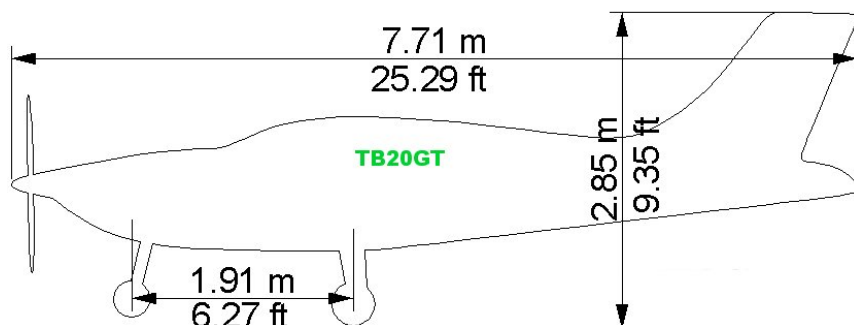


Werner Schott
Switzerland
w.schott@abbts.ch

Pre-Start Checklist

External Inspection	COMPLETE
Parking Brakes	SET
Throttle	IDLE
Landing Gear Lever	CHECK DOWN
Fuel selector	OPEN (LEFT TANK)
Main switch	OFF
Alternator field	OFF
Fuel pump ... Landing light	OFF (7 switches in line OFF)
(Fuel Pump, Recognition Lights, Strobe Lights, Nav Lights, Pitot Heat, Taxi Lights, Landing Light)	
Magneto switch	OFF, KEYS REMOVED
Propeller	HIGH RPM
Mixture/Fuel Flow	CUTOFF
Main switch	ON
Fuel gauges	Matches actual fuel levels
Voltage	YELLOW (24V)
Annunciator panel	CHECK FOR WARNINGS
Landing gear lights	3 GREEN
Flaps	UP
Strobes ... Landing light	ON (5 switches in line ON)
All external lights	CHECK
Pitot	HOT
Strobes ... Landing light	OFF (5 switches in line OFF)
Flaps	TEST 2 POS., RETRACT
Instrument illumination	CHECK & OFF
Seat belts	ADJUSTED & SECURE
Flight controls	CHECK FULL MOVEMENT
Pitch trim	CHECK FULL MOVEMENT
Rudder trim	CHECK FULL MOVEMENT
Fuel selector	ON LESS FULL TANK
Parking brakes	CHECK "PARK" LIGHT ON
Flight controls	CHECK
Check Weather	(Atis, Flight Services)
Request Clearance	
Transponder	SET
Beacon + Strobes	ON
Recognition Lights	ON





Speeds (KIAS)

Vx	81
Vy	95
Vs0	59
Vs1	70
Va	129
Vlo	129
Vle	139
Vfe(10)	129
Vfe(40)	103
Vne	187
Best glide	92 (clean config)

Capacities

Usable fuel	86.2 usg (327 litres)
Oil	9 qts
MTOW	3086 lb (1400 kg)
Empty weight	1981lb (900kg)
Useful load (incl. fuel)	1105 lb (503kg)
Fuel weight	517 lb (234kg)
Useful load (with max fuel)	585 lb (266 kg)

Quick GPS & VOR Setup

Radio Master	ON
KLN94 GPS	Enter or select flight plan (01..19) & sel., Use Check selected flight plan appears under FPL0 and appears correctly on KMD550
COM/NAV & ADF	Select frequencies
Radio Master	OFF

Startup Checklist

Engine and Propeller Area	CLEAR
Alternator Field	CHECK OFF
Circuit breakers	CHECK ALL IN
Throttle	OPEN ¼ INCH
Propeller	HIGH RPM
Mixture	IDLE/CUTOFF
Fuel Pump Switch	ON
Mixture	FULL RICH until fuel flow displayed (or 5 secs max) then IDLE CUT OFF
Fuel pump Switch	OFF
Magneto/Starter Switch	START
Mixture	FULL RICH
Throttle	SET 1200 RPM
Oil pressure	GREEN SECTOR within 30 sec. otherwise shut down engine
Throttle	IDLE
ALT warning light	CHECK ON
Voltmeter	YELLOW SECTOR
Alternator Switch	ON
ALT warning light	CHECK OFF
Voltmeter	GREEN SECTOR
Digital battery voltage	27 to 29V
Ammeter	CHECK LOADING
Engine Instruments	CHECK
Turn coordinator	ON & CHECK FLAG
Stormscope ... Horizon	ON (4 switches in line including Autopilot)

All individual avionics	ON
Vacuum gauge	CHECK (GREEN)
Panel lamp test	CHECK
Landing gear lamp test	CHECK (4 LAMPS)
Fuel selector	ON LESS FULL TANK

Before Taxi Checklist

Nav Lights	ON
Taxi Lights	ON
Heading Indicator	SET
Altimeter	SET
Instruments	NORMAL OPERATION
Radios and Avionics	CHECKED and SET
Autopilot	SET and OFF
GPS	CHECK satellite reception (AUX1)
	CHECK FPL0 is correct for route
	CHECK FOB (AUX15) is correct
MFD	CHECK present location & flight plan showing
	Test Stormscope
	Clear Stormscope

Request Taxi Clearance

Taxi Checklist

Throttle	MIN. POWER
Propeller	HIGH RPM
Mixture	RICH
Parking Brake	RELEASE
Brakes	CHECK during taxi
Directional Gyro	PROPER IND. during turns
Turn Coordinator	PROPER IND. during turns
Artificial Horizon	ERECT during turns
Taxi to assigned runway	SPEED Max. 20 knots

Taxi To Ramp

Flaps	RETRACT
Taxi Lights	ON
Landing Lights	OFF
Fuel Pump Switch	OFF
All avionics not required	OFF
Speed	Max. 20 knots
Elevator Trim	TAKEOFF SETTING
Avionics/Radios	AS REQUIRED
Transponder	1200

Shutdown and Securing Aircraft Checklist

Parking Brake	SET
Throttle	IDLE
Taxi Lights	OFF
Nav Lights	OFF
Strobe Light	OFF
Pitot Heat	OFF
Mixture/Fuel Flow	CUTOFF
Fuel Selector Valve	OFF
Magneto/Starter Switch	OFF
Beacon	OFF
Recognition Lights	OFF
Battery Switch	OFF
Alternator Switch	OFF

Securing Aircraft

Parking Brake	Verify SET
Throttle	Verify IDLE
All Switches	Verify OFF

Approach Checklist

Localizer Level Flight :

Fuel Pump Switch	ON	
Fuel Selector	FULLEST TANK	
Speed: Establish	110 KIAS	18"
Landing Lights	ON	
Flaps	Pos. 1	
Speed: Establish	90 KIAS	19"
Flaps	Pos. 2	
Landing Gear	DOWN	23"

Final Glideslope Descent :

Turning toward runway: set flaps	FULL DOWN	22"
Propeller	HIGH RPM (on final)	
Mixture	RICH (on final)	
Elevator Trim	AS DESIRED	
Parking Brake	VERIFY OFF	

Go-around

Throttle	FULL POWER
Landing gear	UP at positive vert.speed
Flaps	CHECK SPEED, THEN TAKEOFF SETTING
Airspeed	90 KIAS
Flaps	RETRACT
Climb	95 KIAS

Landing Checklist

Landing Gear	CHECK DOWN, 3 GREEN
Autopilot	OFF
Landing Speed	85 KIAS
Touchdown	MAIN WHEELS FIRST
Landing Roll	LOWER NOSE WHEEL
Brakes	MINIMUM REQUIRED

Engine Tests

Parking brakes	SET
Friction	SET
Oil temperature / Oil pressure	GREEN
Mixture	RICH
Fuel pump	ON
Fuel selector	FULLEST TANK
Fuel pump	OFF
Propeller	FULL FORWARD
Throttle	2000RPM (CHECK BRAKES HOLDING)
Propeller	Cycle twice: All the way back for just long enough to see a 500RPM drop, return immediately to FULL FORWARD
Magnetos:	CHECK L then BOTH CHECK R then BOTH Max 175 RPM drop Max 50 RPM difference NO "ALT" LIGHT, POSITIVE CURRENT Slowly reduce to idle, check oil pressure holds up
Alternator	
Idle check	

Before Take-off Checklist

Doors	CLOSED & LOCKED
Pitot Heat	ON
Landing Lights	ON
Parking Brake	SET
Fuel Quantity	CHECK
Fuel Selector Valve	FULLEST TANK
Fuel Pump Switch	ON
Throttle	IDLE
Propeller	HIGH RPM
Mixture	RICH
Alternator Switch	VERIFY ON
Ammeter	CHECK Positive charge ind.
Throttle	IDLE

Oil temperature / Oil pressure
 Voltmeter
 Altimeter
 Elevator Trim
 Rudder Trim
 Flaps
 Flight Controls
 Engine Instruments
 Radios and Avionics
 HSI & RMI
Autopilot
Request Takeoff Clearance

GREEN
 GREEN
 QFE/QNH SET
 SET for takeoff
 SET for takeoff
 Pos. 1, check visually
 FREE AND CORRECT
 CHECK
 SET
 Check against compass
CHECK DISENGAGED

Take-off Checklist

Lined up on runway
 Smoothly increase thrust to
 Brakes
 V1 =
 Vr =
 Pitch
 At Positive Climb Rate
 Landing Gear
 Trim for climb to maintain
 At 500' AGL
 At 1000' AGL Fuel pump
 Engine Instruments

Check heading (compass)
 FULL 28"
 RELEASE
 60 KIAS (descision)
 70 KIAS (rotate)
 10-15 degrees
 Touch Brakes
 RETRACT
 90 KIAS 25"
 RETRACT Flaps if set
 OFF
 CHECK

Climb-out Checklist

Mixture
 Autopilot
 Taxi Lights
 Landing Lights
 Fuel Pump Switch
 Engine Instruments
 Airspeed
ATC

RICH
 CHECK and SET
 OFF
 OFF
 OFF
 CHECK
 100 KIAS 23"
AS REQUIRED

Cruise Checklist

Accelerate to cruise speed	145 KIAS	23"
Ceiling Altitude	20'000 ft	
Engine+Instruments	CHECK	
Engine Temperatures	STABILIZE at cruise cond.	
Fuel Quantity	CHECK	
Radios	TUNED and SET	
Autopilot	CHECK and SET	
GPS	CHECK ON TRACK	
NAV	CHECK ON TRACK	
Lights	as required	
Engine Instruments	CHECK	

En-route checks

Fuel selector	Change every 30 min (with fuel pump ON)
Fuel gauges	SUFFICIENT
GPS	CHECK TRACK ERROR
COMM's	CHECK frequency
NAV's	CHECK VOR & tracking
Alternator	CHARGING
Vacuum	CHECK (GREEN)

Descent Checklist

Atis/Airport Information	CHECK
Altimeter	CHECK
Radios	SET
Autopilot	SET
Descent Speed	120 KIAS 14"
Flaps	CHECK UP
Landing Gear	CHECK UP
Check Weather	(Atis, Flight Services)