

Sample Saratoga II TC Checkout

Rob French, 11/5/2006

- Weight and Balance
 - Useful load often requires partial fuel and careful fuel planning
 - Two adults in front + full fuel is usually out of C.G.
- Special Preflight Items
 - External
 - Landing gear
 - Gear actuators (check for leakage)
 - Gear down latches
 - Gear up and down microswitches and wires
 - Torque links
 - Stall warning horn
 - Inner switch with 0-10 flaps
 - Outer switch with 25-40 flaps
 - Lights
 - Landing lights steady and pulsing
 - Oxygen filler door
 - Two static ports
 - In Cockpit
 - Fuel drain
 - Pitot-static drain
 - Standby attitude indicator (see supplement)
 - Electric trim (see supplement)
 - Autopilot (see supplement)
- Engine and Turbocharging
 - Do not exceed 26" below 2100 RPM
 - Leaning procedure
 - Maximum 400 F on any CHT
 - Maximum 1525 TIT
 - Lean aggressively during taxi
 - Emergencies
 - Fire on start
 - Power loss in flight
 - Fire in flight
 - Loss of oil pressure
 - High oil temperature
 - Loss of fuel flow
 - High CHT
 - TIT gauge failure
 - Turbocharger failure
 - Propeller overspeed
 - Engine roughness

- Electrical System
 - Standby alternator
 - Emergencies
 - Alternator failure
 - Electrical overload
- Landing Gear
 - V_{lo} for retraction is less than V_{le} for extension
 - Emergencies
 - Failure to extend
 - Failure to retract
- Oxygen system
- Flying Profiles
 - Takeoff
 - Wait until oil pressure is in the green arc before taking off. When applying full throttle, advance throttle slowly to avoid overboosting. Watch MP gauge during throttle motion and don't allow more than 38".
 - All takeoffs and landings at PAO are short field
 - Short field takeoff
 - 25 Flaps
 - Advance throttle gently to full power
 - Rotate at 70 KIAS, climb at 75 KIAS
 - When safely climbing, tap brakes and retract landing gear (warn passengers about the gear alarm in advance)
 - Accelerate to 90 while slowly removing remaining flaps
 - Climb at 95
 - Passing 1000' reduce throttle to 35"
 - Enroute climb
 - 35" MP / 2500 RPM, full rich
 - Cruise
 - *High performance* is approximately 85% power
 - *Normal* is approximately 75% power
 - *Economy* is approximately 65% power
 - *Long range* is approximately 55% power
 - Normal cruise is 30" MP / 2300 RPM
 - Leaning to 400 F CHT / 1525 F TIT will give 19-21 GPH
 - See Maximum Manifold Pressure chart for limitations (e.g. 34" above 18,000')
 - Descent
 - Plan descent far in advance (a comfortable high speed descent from 16,500' to PAO must start over Tahoe!)
 - Reduce throttle slowly to cool engine. Do not exceed 50 F/min CHT change. 30 F/min is preferred.
 - Landing
 - 20" MP 5NM from pattern at pattern altitude, 110-115 KTS
 - On 45 or downwind: Lower gear, slow to 100-105 KTS
 - Downwind: 10 flaps, 100 KTS
 - Abeam approach numbers: 15" MP/1800 RPM, 100 KTS
 - Turning base: 25 flaps, 90 KTS
 - Turning final: 40 flaps, 80 KTS

- Pattern work
 - Normal or short field takeoff as appropriate
 - Turning crosswind reduce throttle to 30"
 - Reaching pattern altitude reduce throttle to 20"
- IFR profile
 - Approach level: Gear down, 10 flaps, 20", 100 KTS
 - Non-precision descent: Gear down, 10 flaps, 11", 800-1000 fpm descent, 100 KTS
 - Precision descent: Gear down, 10 flaps, 13", 600 fpm descent, 100 KTS
- Avionics
 - Autopilot
 - Limitations
 - Not authorized above 180 KIAS
 - Not authorized during go around or missed approach operations
 - Off for takeoff and landing
 - Maximum 10 flaps
 - Use prohibited below 250' during coupled operations
 - PFD/MFD
 - Limitations
 - IFR flight prohibited when PFD, MFD, or any standby instrument is inop
 - IFR flight prohibited upon total loss of essential engine parameter display
 - Any flight prohibited when MFD is inop
 - Back-up charts are required when using CMAX