



M20J-201 Checklist

BEFORE STARTING ENGINE

- ✓ Preflight COMPLETE
- ✓ Baggage door LATCHED/LOCKED
- ✓ Door LATCHED/LOCKED
- ✓ Seatbelts FASTENED
- ✓ Passenger brief [seatbelts/exits/smoking/talking/traffic]
- ✓ Circuit breakers IN
- ✓ Transponder set
- ✓ Landing gear switch..... DOWN position
- ✓ Clock SET
- ✓ Radio master OFF
- ✓ Alternate Static OFF
- ✓ Propeller HIGH
- ✓ Ram air door..... CLOSED
- ✓ Parking brake SET
- ✓ Cowl Flaps OPEN
- ✓ Fuel selector LOWEST tank
- ✓ Fuel drain piddle drain, 5 seconds each
side and then push plunger down.
- ✓ Controls FREE & CORRECT
- ✓ STARTING ENGINE WHEN COLD
- ✓ Mixture FULL RICH
- ✓ Throttle 1/4 throttle
- ✓ Master switch ON
- ✓ Anti-collision ON
- ✓ Boost pump 2-3 pumps of throttle when cold.
- ✓ Propeller area CLEAR
- ✓ Starter engage

- ✓ Throttle 1000 RPM and then lean for taxi.
- ✓ STARTING ENGINE WHEN WARM
- ✓ Parking brake SET
- ✓ Mixture IDLE CUT OFF
- ✓ Throttle 1/4 throttle
- ✓ Master switch ON
- ✓ Anti-collision ON
- ✓ Boost pump..... ON for 3 seconds to establish fuel pressure behind mixture cutoff
- ✓ Propeller area CLEAR
- ✓ Starter engage
- ✓ Mixture advance
- ✓ Throttle Small jiggles or pumps help keep it running after start and then 900-1000 RPM
- ✓ STARTING ENGINE WHEN FLOODED
- ✓ Parking brake SET
- ✓ Mixture IDLE CUT OFF
- ✓ Throttle open FULL
- ✓ Boost pump On for 3 seconds
- ✓ Master switch ON
- ✓ Anti-collision ON
- ✓ Propeller area CLEAR
- ✓ Starter engage
- ✓ Mixture advance
- ✓ Throttle retard to 1000
- ✓ WARM UP N222BH
- ✓ Throttle 900-1000 RPM
- ✓ Mixture Lean aggressively
- ✓ Oil Press/Temp NORMAL
- ✓ Fuel selector switch tanks to fullest
- ✓ Radio Master ON
- ✓ Electric Trim ON
- ✓ TAXIING
- ✓ Lights as required
- ✓ Clearance RECEIVED
- ✓ Brakes release, CHECK
- ✓ Magnetic compass swings freely to known headings
- ✓ Attitude indicator shows level attitude $\pm 5^\circ$
- ✓ Turn coordinator shows correct turns/ball free
- ✓ Directional gyro moves with Magnetic compass
- ✓ GROUND CHECK
- ✓ Brakes SET, hold
- ✓ Trim SET for TAKEOFF
- ✓ Flaps SET for TAKEOFF
- ✓ Transponder ALT, correct code

- ✓ Annunciators PRESS to test
- ✓ Anti-collision/position lights ON/as required
- ✓ Mixture SET
- ✓ Throttle 2000 RPM
- ✓ Propeller cycle 1 (warm) to 3 (cold), leave HIGH
- ✓ Throttle 1800-2000 RPM
- ✓ Magnetos max drop 175 RPM
- ✓ max diff. 50 RPM
- ✓ Throttle 1000 RPM
- ✓ Oil press/temp NORMAL
- ✓ Flight instruments SET (DG/Alt)
- ✓ BEFORE TAKE OFF
- ✓ Door LATCHED/LOCKED
- ✓ Seat belts/harness FASTENED
- ✓ IFR? Pitot Heat ON
- ✓ Speedbrakes RETRACTED
- ✓ Clearance RECEIVED
- ✓ Boost pump ON
- ✓ TAKE-OFF, NORMAL N222BH
- ✓ Accelerate to 62 to 70 kts
- ✓ Airspeed (Vy), 90 kts
- ✓ Landing gear tap brakes and then up before
109 kts or as soon as positive climb rate achieved.
- ✓ Power/RPM @ 500 ft 26"/2600 RPM
- ✓ TAKE-OFF, SHORT FIELD/SOFT FIELD
- ✓ SHORT FIELD/OBSTACLE SOFT FIELD
- ✓ Accelerate to..... 62 kts Roll onto runway, Hold brakes, apply full throttle, release
brakes.
- ✓ Climb at 66 kts (Vx) Yoke
- ✓ Gearoverride UP Accelerate to 90 kts in ground effect
- ✓ Once clear accelerate to 90 kts (Vy) Gear UP
- ✓ Flaps Retract once climb established
climb established
- ✓ CRUISE
- ✓ Boost pump OFF
- ✓ Flaps UP
- ✓ Cowl Flaps CLOSED, monitor temps.
- ✓ Normal max. power 75%
- ✓ Best POWER lean to: 100° RICH of PEAK
- ✓ Best ECONOMY lean to: PEAK (or LOP) Best combo of
power and economy, lean to 50 ROP.
- ✓ DESCENT
- ✓ Ram air door..... CLOSED (do not operate in
IMC or dirty air)
- ✓ Mixture ENRICHEN
- ✓ Fuel selector FULLEST tank

- ✓ APPROACH AND LANDING
- ✓ Landing light as required
- ✓ Landing Gear DOWN, 133 kts, 150mph max
- ✓ Mixture SET
- ✓ Propeller HIGH but push slowly so as not to accidentally over speed the propeller.
- ✓ Seat belts/harness FASTENED
- ✓ Seat backs ERECT
- ✓ Power 15"/12"
- ✓ Airspeed Final 70-78 kts
- ✓ Flaps 115 kts max,
- ✓ Final Check Gear down/Prop high and verify.
- ✓ AFTER LANDING
- ✓ Pitot Heat OFF
- ✓ Flaps UP
- ✓ Cowl Flaps OPEN
- ✓ Speedbrakes RETRACT (best not used in the pattern) Easy to forget gear when you have drag from speed brakes.
- ✓ STOPPING ENGINE
- ✓ Transponder 1200
- ✓ Flaps retract and then set for take off once slowed.
- ✓ Trim SET for takeoff (Important)
- ✓ Lights OFF
- ✓ Electric Trim OFF
- ✓ Radio Master OFF
- ✓ Throttle 900 RPM
- ✓ Propeller HIGH
- ✓ Mixture IDLE CUT OFF
- ✓ Master OFF
- ✓ Magnetos OFF
- ✓ PARKING
- ✓ Overhead Air Scoop CLOSED
- ✓ Control wheel If tied outside then SECURE with seatbelt when wind suspected
- ✓ Door/luggage door LOCKED
- ✓ Tie downs SECURE
- ✓ Flightplan CLOSED?
- ✓ ENGINE POWER LOSS IN FLIGHT
- ✓ Airspeed best glide, 91 kts
- ✓ Mixture full RICH
- ✓ Boost pump ON
- ✓ Fuel selector tank WITH FUEL
- ✓ Propeller LOW PITCH
- ✓ Cowl Flaps CLOSED
- ✓ FIRE IN FLIGHT

- ✓ Source? Electrical (smoke in cabin), or Engine
- ✓ ELECTRICAL ENGINE
- ✓ Master switch OFF Mixture IDLE CUT OFF
- ✓ Vents OPEN Boost pump OFF
- ✓ Storm window OPEN Throttle CLOSED
- ✓ Heat/defrost OFF Fuel selector OFF
- ✓ Heat/defrost OFF
- ✓ SPEEDS
- ✓ Vy (gear up) 90 kts Vx (gear up) 71 kts
- ✓ Va 120 kts Vlo 135 kts
- ✓ Vfe 115 kts Vle 133 kts
- ✓ Glide (gear up) 91 kts Gear up by 109 kts
- ✓ Preflight Inspection
- ✓ Cockpit/Cabin
- ✓ Landing gear switch DOWN position
- ✓ Radio Master OFF
- ✓ Master switch ON
- ✓ Landing gear light "Gear Down"
- ✓ Annunciator lights press to test
- ✓ Gyro listen, spooling?
- ✓ Fuel gauges check, note quantity but never fully trust fuel gages
- ✓ Master switch OFF
- ✓ Magnetos OFF
- ✓ Controls FREE and CORRECT
- ✓ Cabin Clean?
- ✓ Outside
- ✓ Airframe ALL ice and snow removed
- ✓ Wings damage?, check flap and aileron hinges for security,
- ✓ wingtips for damage, pitot
- ✓ drain clear, stall warn vane free,
- ✓ all tiedowns removed.
- ✓ Landing gear Check tire condition/pressure,
- ✓ check for hydraulic leaks,
- ✓ check wheel wells, clean?
- ✓ wheel chocks removed?
- ✓ Fuel drains 1 each wing
- ✓ Fuel quantity adequate? agree with gauges?
- ✓ Windshield secure? clean?
- ✓ Fuselage damage? antennas secure?
- ✓ static drain free of moisture?
- ✓ Empennage damage? hinges secure?,
- ✓ stabilizer free? rudder secure?
- ✓ tie down removed?
- ✓ Nose cowl secure? oil (6+ qts),

- ✓ alternator belt tight? air intakes clear?
- ✓ Propeller nicks, leaks, twist, spinner secure?
- ✓ Electrical
- ✓ Master ON
- ✓ Nav lights ON
- ✓ Anti-collision ON
- ✓ Landing light ON
- ✓ Pitot heat ON
- ✓ Walk around the airplane and verify that all lights are lit and the pitot heat works.
- ✓ Check the operation of the stall warning horn.
- ✓ TURN OFF THE MASTER AND ALL ABOVE EQUIPMENT BEFORE
- ✓ PROCEEDING
- ✓ Fuel Consumption Approximations
- ✓ 75% Best Power 11.5 GPH 65% Best Power 10.5 GPH
- ✓ 75% Best Economy 10.0 GPH 65% Best Economy 9.5 GPH
- ✓ Best power = 50° C rich of peak EGT Best Economy = Peak EGT (or LOP)
- ✓ To maintain constant power, correct manifold pressure approximately 0.15" Hg for each 10° variation in temperature from
- ✓ standard altitude temperature. ADD manifold pressure for air temperatures above standard; SUBTRACT manifold
- ✓ pressure for temperatures below standard.