

**Take Off**

Brakes **ON**.....Throttle to **25”MP** .....Brakes **Release**  
 Throttle after roll start.....**Full Forward**  
 Rotate.....**65 - 70 Kts**  
 Flaps .....(above 200 AGL) **Up**  
**Vx 79 Kts**.....**Vy 89 Kts**  
 Engine Instruments .....Check in **Green**

**Cruise Climb**

**Light** - Throttle **25”MP**...Prop **2500 RPM** .....Pitch **100 Kts**  
**Heavy** - Throttle **26”MP**.Prop **2600 RPM** .....Pitch **85 Kts**

**Cruise**

**Throttle/Prop** ...(or check visor chart)...**24”MP** .....**2400 RPM**  
**Mixture** .....Initial Lean **16 gal/Hr**  
**Mixture Final Lean** .....EGT Gauge **1400 Deg (+- 10 Deg)**  
**Fuel Pump** .....**Off**

**Descent / Approach & Landing**

**Throttle** .....**20”MP** .....**2400 RPM**  
**Propeller** .....**Full Increase**  
**Mixture** .....**Full Rich**  
**Fuel Pump** .....**On**  
**Landing Light** .....**On**  
**Position Feet** .....**OFF Brakes**  
**Downwind**...**GUMPS**...**14”MP**... **10° Flaps**..... **90 Kts**  
**Base**.....**GUMPS**.....**25° Flaps**..... **85 Kts**  
**Final**.....**GUMPS**.....**40° Flaps** (if desired) ....**80 Kts**

**After Landing**

**Exit Runway** .....Flaps **UP**  
**Fuel Pump** .....**Off**  
**Mixture** .....Lean as required

**Shut Down**

**Avionics Switch** .....**Off**  
**Throttle** .....**Full Off**  
**Mixture** .....**Idle Cut Off**  
**Master** .....**Off**  
**Mags Off** .....Switches **Off**, .....**Key Out**

**Pre-Flight Inspection**

**AROW** (Air W, Reg, ELT, AD's, Static/Transponder, W&B).....**Check Cabin**

Master Switch .....**On**  
 Fuel Gauges.....**Check**  
 Turn Coordinator.....**Listen for Gyro Sound**  
**Lights, Pitot Heat On**...(Stall Warning)...**Walk around and Check**  
**Master Switch & Lights** .....**Off**  
**Drain Fuel Strainer Sump**.....Repeat for fuel selector **Off, Left, & Right**  
 (Lever is behind seat. Put clean tray below drain outlet to collect fuel)  
**Flaps**.....**Down**

**Right Wing**

Flap, Aileron, Lights, Leading edge, .....**Check Condition**  
**Fuel Drain 2 each** (Take full Sample).....**Check Color/Contamination**  
**Fuel Vent** .....**Check Open**  
**Fuel Tank – 47 Gals Max** .....**Check Quantity**  
**Tire, Strut, Wheel Pants**.....**Check Leaks/Condition**

**Engine Compartment / Propeller**

**Baggage Door** .....**Secure**  
**Alternator Belt** .....**Check Tension**  
**Prop and Spinner** .....**Check Condition**  
**Oil Level** Only fill to **9 qts.** .....**Add if below 8 qts**  
**Engine Compartment** .....**Check for Leaks, Condition**  
**Tire, Strut, Wheel Pants** .....**Check Condition**  
**Air Intake** .....**Clean & Not Blocked**

**Left Wing**

**Tire, Strut, Wheel Pants**.....**Check Leaks/Condition**  
**Fuel Drain 2 each** (Take full Sample).....**Check Color/Contamination**  
**Fuel Tank – 47 Gals Max** .....**Check Quantity**  
**Fuel Vent** .....**Check Open**  
**Pitot / Static Head** .....**Holes Clear**  
**Leading edge, Lights, Aileron, Flap,**.....**Check Condition**

**Fuselage / Empennage**

**Rear Passenger Door**.....**Check & Lock**  
**Antennas** .....**Secure**  
**Stabilator, Anti Servo Tab, & Rudder**.....**Check Condition**

**Before Starting Engine**

Tow Bar ..... **Removed & Stowed**  
 Parking Brake ..... **Engage**  
 Seat Belt & Passenger Briefing ..... **Complete**  
 Avionics Switch ..... **OFF**  
 Master Switch ..... **ON**  
 Beacon / Anti Collision Switch ..... **ON**

**Cold Engine (Normal Start)**

Throttle ..... **¼ Inch Open**  
 Propeller ..... **Full Forward**  
 Mixture ..... **Idle Cut Off**  
 Fuel Pump ..... **ON**  
 Area ..... **Clear**  
**Mixture Rich to Prime ( 6 Sec) ..... Then Idle Cut Off**  
**(Hot Start – No Prime – Be Patient Aprox 10 Sec)**  
 Key Switch Starter ..... **Engage**  
 Mixture ..... **Full Rich**  
 Oil Pressure ..... **Check in Green**

**Flooded Start**

Fuel Pump ..... **Off**  
 Throttle ..... **Full Open**  
 Mixture ..... **Idle Cut-Off**  
 Area ..... **Clear**  
 Key Switch Starter ..... **Engage**  
 When Engine Starts ..... **Mixture Full Rich & Throttle Retard**  
 Oil Pressure ..... **Check in Green**

**Taxi**

Avionics Switch ..... **On**  
 GPS ..... **Acknowledge Initial Screen with Enter Key**  
 Transponder ..... **Code set, ALT**  
 Mixture ..... **Lean as required**  
 Parking Brake ..... **Release**  
 Brakes & Steering ..... **Test Operation**  
 Flight Instruments (Turn Coord, HI, AI, Compass) ..... **Check Operation**

**Engine Failure - Emergency Checklist**

Squawk **7700**

Best Glide **87 kts** **Locate** Landing **Switch** Fuel Tanks Fuel Pump **On**  
 Mixture **Rich** Alt Air **Open** Mags. **L&R**

**Run-Up Check List**

Parking Brake ..... **Set**  
 Flight Controls ..... **Free and Correct**  
 Propeller ..... **Full Forward**  
 Alternate Air ..... **OFF**  
 Mixture ..... **Full Rich**  
 Throttle ..... **2000 RPM**  
 Magnetos ..... **(175 Max Drop, 50 Diff.) Check**  
 Vacuum ..... **(4.9 to 5.1 Hg) Check**  
 Ammeter ..... **Add a Load – Check Ammeter Rise**  
 Engine Gauges (Oil Press & Temp, Fuel Press) ..... **Check in Green**  
 Annunciator Lights ..... **Press to Test**  
 Propeller - Cycle for response ..... **Approx. 200 RPM Drop**  
 Throttle Full **OFF** (To Check Idle Then Set) . **800–1000 RPM**  
 Fuel Pump ..... **OFF** (Check for Engine Fuel) – Then **ON**  
 Circuit Breakers ..... **Check In**  
 Lights - (NAV, Landing, Panel) ..... **As Required**  
 Heading Indicator ..... **Check & Set**  
 Altimeter ..... **Check & Set**  
 Attitude Indicator ..... **Check & Set**  
 Radios & GPS (Frequencies, Data, Fields) ..... **Set**

**Before Each Take-Off**

**Propeller ..... Full Increase**  
**Mixture ..... Full Rich**  
**Flaps ..... Cycle all then set to 10 Degs**  
**Trim ..... Set**  
**Door, Window, Seat Belts .... Latched and Locked**

**Emergency Landing Checklist:**

Throttle **Off** Mixture **Idle Cutoff** Mag Switch **Off** Master **Off**  
 Fuel Tanks **Off** Belts **Tight** Door **Unlatch** Land **Soft**