

BEFORE STARTING ENGINE

Tach Time.....in Blue Book
 Pre-Flight inspection complete
 Rudder pedals adjusted
 Passengers instructed
 Safety harnesses..... ON
 Baggage..... check, secured
 Rear door.....closed and locked
 Front Canopy..... Position 1 or 2
 Parking brake.....set
 Flight Controls.....free movement
 Trim wheel.....T/O
 Throttle..... IDLE
 RPM lever.....HIGH RPM
 Mixture Control lever.....LEAN
 Throttle Frictionadjusted
 Alternate air..... CLOSED
 Alternate static valve.....CLOSED
 Avionics Master switch.....OFF
 Essential Bus switch.....OFF
 Master switch (BAT).....ON
 Annunciator panel.....test
 Fuel tank selector.....on full tank

STARTING ENGINE

Strobe light ON
 Fuel pumpON

Diamond DA-40

Cold Start

Throttle 1" fwd
 MixtureRICH for 3-5 sec, then LEAN
 Throttle1/2" fwd

Warm Engine

Throttle 1" fwd
 MixtureRICH for 1-3 sec. then LEAN

Flooded Engine

Fuel Pump.....OFF
 Mixture.....LEAN
 Throttle...MID position. [W/ lightoff.....IDLE]

Ignition.....START

when engine fires:

Mixturerapidly move to RICH
 Oil Press.....green in 15sec. or shutdown
 Fuel pump.....OFF
 Master switch (ALT).....ON
 Ammeter.....check
 Fuel pressure.....check (14-35psi)
 Annunciator panel.....check

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BEFORE TAXI

Avionics Master switchON
 Electrical equipmentON
 Flapscycle: T/O - LNDG - T/O
 Flight instruments/avionicsset
 FloodlightON/test/as required
 Ammeter.....check (increase RPM as req'd)
 Fuel tank selector.....each tank
 [min. of 1 minute@1500 rpm]
 Pitot heatON/test (see ammeter)
 Pitot heatOFF
 Exterior lights as required
 Idle RPM check, 600-800 RPM

TAXI

Parking brake..... release
 Brakes TAXI-TEST
 Flight instruments/avionics.....check correct
 Mixture.....(Consider) LEAN

BEFORE TAKEOFF

Harnesses.....ON
 Door/CanopyClosed/Locked
 Warning light "DOOR".....check OFF
 Fuel tank selector fullest tank
 Engine instruments in green
 Circuit breakerspressed in
 Fuel pressure indicator.....(14-35PSI)
 Fuel Pump ON
 Mixture RICH
 FlapsT/O
 TrimT/O
 Flight controlsfree & correct

- Throttle2000 RPM
- PROP levercycle
[down 250-500 RPM, then HIGH RPM; 3 x]
- Magneto check(175 max drop/50 diff)
- Circuit breakers.....check in
- Voltmeter in green range
- Throttle..... IDLE

Parking brake..... release
 Alternate air check CLOSED
 Landing lightON/as required
 Pitot heat..... ON/as required
 Takeoff briefing.....complete

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AFTER TAKEOFF-CLIMB-CRUISE

Flaps.....UP
 Prop..... 2400 RPM
 Fuel Pump OFF
 Landing Light.....as required
 Fuel Tanks..... MANAGE
 Fuel Pump.....ON at high altitudes
 Mixture in Climb...RICH <5000', LEAN above
 Mixture in Cruise.....LEAN

DESCENT

Weather/Approach.....prepare/brief
 Mixtureas required for the altitude
 PROP operate slowly 1800-2400 RPM
 Throttle as required
 Fuel Pump.....ON at high altitude

LANDING SPEEDS [with flaps]

2535 LBS (max T.O.).....	71KTS
2407 LBS (max LNDG).....	67KTS
2205 LBS.....	63 KTS
1874 LBS.....	58 KTS

- *Blue Book
- *Personal items, tie-downs, chocks & cover
- *Blue Sky Credit Card - in side pocket
- *Do you need to CLOSE FLIGHT PLAN?

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BEFORE LANDING

Fuel Selector..... fullest tank
 Fuel Pump.....ON
 Safety Harnesses.....ON
 Landing Light.....ON
 Mixture..... RICH
 PROP.....HIGH RPM
 Flaps.....LDG

AFTER LANDING

Fuel Pump OFF
 Pitot heat OFF
 Lights..... as required
 Flaps UP
 Mixture.....(Consider) LEAN

SHUTDOWN - SECURING

Avionics Master.....OFF
 Lights/SwitchesOFF (Strobe - ON)
 Magscheck to OFF/BOTH @ 1000 RPM
 MixtureIDLE CUT OFF
 IgnitionOFF (remove key)
 Master (Alt/Bat)OFF
 Rudder Pedals.....Pull aft for Gust Lock
 Overhead lights - OFF (not on Master switch)
 Power port - nothing plugged in (not on Master)

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