

PREFLIGHT

A/C documents	check
Landing gear control	check down position
Master switch	check off
Magnetos	check off
All Avionics	check off
All Electric	check off
Mixture control	check idle cut off
Wing flaps	extend and retract
Flight controls	check free
Pitot and static system	drain
Master switch	on
Landing gear lights	check 3 green
Electric fuel pump	check (on+off)
Fuel indication	check quantity
Fuel selector	fuller tank
Pitot tube	cover removed
Pitot heat	on - check (outside)
External lights	on - check (outside)
Stall warning	check (outside)
All electric	off
Master switch	off

Chocks	check removed
Tow bar	check removed
Nose gear	check
Engine oil	check quantity (min 5 qts)
Air intakes	check unobstructed
Propeller+spinner	check
Fuel sump	drain

PREFLIGHT cont.

LH fuel quantity	check visual
LH fuel drain	drain
LH main gear	check
LH wing+aileron+flap	check
Tail section	check
RH wing+aileron+flap	check
RH main gear	check
RH fuel drain	drain
RH fuel quantity	check visual
Antennas	check undamaged
Baggage door	latched and unlocked

BEFORE STARTING ENGINE

Seats	adjust
Seat belts and shoulder harness	fasten
Circuit breakers	check in
Alternate air	check off

STARTING ENGINE

Propeller control	forward
Mixture	cut off
Master switch+alternator	on
ACL	on
Magnetos	on

COLD ENGINE

Throttle control	open half way
Electric fuel pump	on
Mixture	open (5-10sec) then cut off
Electric fuel pump	off
Throttle	½ inch open
Propeller area	check clear
Starter	engage
Mixture	full rich (when engine fires)

HOT ENGINE

Electric fuel pump	check off
Throttle	½ inch open (full open when engine is flooded)
Propeller area	check clear
Starter	engage
Mixture	full rich (when engine fires)

STARTING ENGINE**continued**

Throttle	1000 RPM
Oil pressure	check green arc
Electric fuel pump	check off

BEFORE TAXI

Directional gyro	set heading
Heading bug	set to RWY heading
Electric	on as required
Annunciator panel	press test
Elevator+rudder trim	set
Altimeters	2x set+compare
Avionics	on+set for departure

TAXI

Brakes	check
Flight instruments	check
Fuel selector	switch tanks

BEFORE TAKE OFF

Fuel selector	check fuller tank
Mixture control	check full rich
Propeller control	check full RPM
Throttle control	2000 RPM
Propeller control	3x exercise
Magnetos	check 175/50 then both
Alternate air	check then off
Ammeter	check – pitot heat on/off
Suction	check
Engine instruments	check green arc
Throttle control	1000 RPM
Wing flaps	as required
Flight controls	check free
Trim indicators	set neutral
Doors/windows	latched/closed
Seat belts	tighten
Electric fuel pump	on
Departure briefing	completed
T/O briefing	completed

LINE UP / TAKE OFF

Transponder	set ALT
Runway	identify
Pitot heat	on
Landing light	on
Time	check

Throttle full open	check RPM/MP/fuel flow
70 / 77 / 87 KIAS	rotate / Vx / Vy
Positive ROC	brakes+gear up

CLIMB CHECK

Climb Power	25"MP/2500 RPM
Gear	check up position
Wing flaps	check up position
Mixture	check full rich
Electric fuel pump	off
Landing light	off
Rudder trim	set

CRUISE CHECK

Altimeters	standard+compared
Power	65% (23"MP/2300RPM)
Mixture	fuel flow / EGT
Rudder trim	set

DESCENT CHECK

Seat belts	tighten
Fuel quantity	check balance L/R
Power	adjust
Mixture	as required

APPROACH CHECK

Electric fuel pump	on
Fuel selector	fuller tank
Landing light	on
Mixture control	full forward
Altimeters	2x set QNH+compared
Directional gyro	check heading
Approach briefing	completed

FINAL CHECK

Gear	below 129 KIAS	select down/3 green
Brakes		checked
Wing flaps	below 108 KIAS	1 st notch (white arc)

Gear	check 3 green
Mixture control	check full forward
Propeller control	full forward

AFTER LANDING CHECK

Alternate air	off
Time	check
Transponder	standby
Wing flaps	retract
Electric fuel pump	off
Pitot heat	off
Landing light	as required

PARKING CHECK

Avionics and electric (exc. ACL)	off
Throttle	close
Mixture control	idle cut off
Magnetos	off
ACL	off
Master switch+Alternator	off

KIAS

Rotate Vr	70
Best angle Vx	77
Best rate Vy	87
Cruise climb	100
Gear up	109
Gear down	130
Flaps Vfe	108

P Alt	Manifoldpressure				
	55%		65%		75%
	2100 rpm	2400 rpm	2100 rpm	2400 rpm	2400 rpm
0	22,9	20,4	25,9	22,9	25,5
1000	22,7	20,2	25,6	22,7	25,2
2000	22,4	20,0	25,4	22,5	25,0
3000	22,2	19,8	25,1	22,2	24,7
4000	21,9	19,5	24,8	22,0	24,4
5000	21,7	19,3	full Throttle	21,7	full Throttle
6000	21,4	19,1		21,5	
7000	21,2	18,9		21,3	
8000	21,0	18,7		21,0	
9000	full Throttle	18,5		full Throttle	
10000		18,3			
11000		18,1			
12000		17,8			
13000		17,6			
14000		full Throttle			