

C172 SP N212BS

Preflight Inspection

Pitot cover – REMOVE & STOW

COCKPIT

Hobbs hours – RECORD
Aircraft Documents (AROW)
Garmin 430 Ref Guide - AVAILABLE

Control Lock - REMOVE

Compass – FLUID/HEADING

Master - OFF

Ignition - OFF

Circuit breakers - IN

Electrical Switches – OFF

Master – ON

Flaps – 30° DOWN

Fuel Gauges – CHECK L & R

Annunciators –

 Low Fuel L – NOT SHOWN

 Low Fuel R – NOT SHOWN

 Oil Pressure – SHOWN

 Low Vacuum L&R – SHOWN

 Low Volts - SHOWN

Pitot Heat – ON. Verify warm to touch within 30 sec

Pitot Heat – OFF

Master - OFF

Trim Tab—SET TO TAKE OFF

Fuel Selector – BOTH

Alt Static Air Valve - OFF

Fire Extinguisher – CHECK GREEN

ARC

Fuselage

Baggage Door - LOCK WITH KEY

Elevator & Trim Tab—CHECK

Rudder - CHECK

Beacon & Position Light - CHECK

Tiedown – REMOVE

Antennas - CHECK

RIGHT WING

Fuel Sumps—DRAIN (5)

Flap—CHECK GENERAL
CONDITION

Aileron—CHECK GENERAL
CONDITION AND FREEDOM OF
MOVEMENT

Wing Tip—CHECK

Position Light—CHECK

Leading edge—CHECK

Tiedown - REMOVE

Tire, Brake Line - CHECK

Fuel Tank—CHECK QUANTITY

Fuel Cap - SECURE

NOSE SECTION

Windshield – CLEAN

Fuel Sumps – DRAIN (3)

Engine Cowling—CHECK

CONDITION & SECURITY

Engine Oil—CHECK QUANTITY

Dipstick & Door—SECURE

Propeller—EXAMINE FOR

NICKS, SECURITY

Spinner –SECURE

Alternator belt – CHECK

Air Filter - CHECK

Tire – CHECK

Static Port—CLEAR

LEFT WING

Fuel Sumps — DRAIN (5)

Tire, Brake Line - CHECK

Fuel Vent - CLEAR

Fuel Tank—CHECK QUANTITY

Cap—SECURE

Leading edge---CHECK

Tiedown & Chocks—REMOVE

Stall Warning Vent—CHECK

Pitot/Drain hole—CLEAR

Landing/taxi light – CHECK (night
operations)

Wing Tip—CHECK

Position Light—CHECK

Aileron—CHECK CONDITION

AND FREEDOM OF

MOVEMENT

Flap—CHECK GENERAL

CONDITION

Roll to check tires

NORMAL PROCEDURES

BEFORE STARTING

Preflight Inspection - COMPLETE
Passenger Briefing - COMPLETE
Seats—POSITION & LOCK
Seat Backs—UPRIGHT
Seat Belts — FASTEN
Flight Controls - CHECK PROPER
DIRECTION & FREEDOM OF
MOVEMENT
Parking Brake—SET (optional)
All Switches—OFF
Circuit Breakers---CHECK IN
Fuel Selector Valve – BOTH
Fuel Shutoff Valve – ON (push in)
Beacon – ON

STARTING

CAUTION

*Maximum starter engage duty cycle
is 10 seconds ON, followed by 20
seconds OFF*

Repeat up to 2 additional times
then 10 minutes OFF

For starting with External power – see
aircraft checklist

Throttle – OPEN 1/4 INCH
Mixture – RICH
Master Switch—ON

COLD START

Aux Fuel Pump—ON until rise in
fuel flow
Aux Fuel Pump – OFF
Mixture – IDLE CUT-OFF

HOT START

Mixture—IDLE CUT-OFF

ENGINE FLOODED START

Mixture—IDLE CUT-OFF
Throttle— HALF to FULL OPEN

STARTING

Brakes – TESTED & HOLD
Propeller - CLEAR
Ignition — START
when engine starts
Mixture - ADVANCE SLOWLY
TO RICH
Throttle – 1000 RPM
Oil Pressure – GREEN ARC
Mixture – LEAN for taxi
Flaps—UP
Amps—POSITIVE
Low Volts Annun – NOT SHOWN
Transponder – 1200 & ALT
Avionics---ON
Comm Freqs – SET
NAV Freqs – SET
Audio Panel – SET
Flight Controls –CHECK
Flight Instruments--CHECK
ATIS – Listen
Area--CLEAR
Parking Brake – OFF
Make radio call
Brakes—RELEASE & TEST

BEFORE TAKEOFF

Mixture - FULL RICH OR LEAN
FOR SMOOTH OPERATION
Seatbelts - CHECK
Parking Brake -optional
Throttle - 1800 RPM
Magneto - CHECK (175 rpm max
drop, within 50 rpm each other)
Engine Instruments - Green Arc
Throttle – IDLE CHECK 650 RPM
Throttle — 1000 RPM
A/P ON/OFF switch – OFF
DOORS & Windows - SECURE
Engine Instruments – CHECK
Emergency T.O. Briefing - GIVEN
Parking Brake – OFF

TAKEOFF

Flaps – 0-10°
Mixture - FULL RICH OR LEAN
FOR SMOOTH OPERATION
Position – CENTERLINE
Runway—ASSIGNED, HI,
COMPASS
Engine Instruments—CHECK
Brakes---RELEASE
Throttle – FULL
Rotate – 55 kts
Airspeed - \geq 60 kts
Flaps – UP
Climb – V_y – 74 KTS

SHORT FIELD TAKEOFF

Flaps - 10°
Taxi into Position – STOP
Brakes – HOLD
Throttle – FULL
Brakes – RELEASE
Rotate – 55 KTS
Climb – V_x – 58 KTS
Obstacles CLEARED
Airspeed - \geq 60 kts
Flaps – UP
Climb – V_y – 74 KTS

CRUISE CLIMB

Throttle: FULL
Engine Temp—MONITOR
Power—SET
Airspeed – 90 kts
Mixtures—LEAN ABOVE 3000'
100° rich of peak

CRUISE

Power—SET AS DESIRED
Mixture - LEAN AS REQUIRED
(50° rich of peak)
Trim – SET

DESCENT

Altimeter—SET
Windshield Defroster—AS
REQUIRED
Power—AS REQUIRED
Mixtures—ENRICH AS REQUIRED

BEFORE LANDING

Seatbelts – FASTENED
Seat Backs - UPRIGHT
Fuel Selector— BOTH
Aux FUEL Pump—OFF
Mixture — AS REQUIRED
Landing & Taxi Lights—AS
REQUIRED
Wing Flaps—AS REQUIRED
Auto Pilot - OFF
Airspeed — 65 KTS

BALKED LANDING

Mixture—FULL RICH
Throttle—FULL FORWARD
Airspeed—80 kts
Wing Flaps—RETRACT to 20°
Side Step runway
Airspeed >60KTS- FINISH
CLEAN UP AND MAKE RADIO
CALL

AFTER LANDING

CLEAR ACTIVE RUNWAY
Landing Light—AS REQUIRED
Wing Flaps — UP
Pitot Heat—OFF
Mixture—LEAN FOR TAXI
Contact ground or taxi to ramp

SHUTDOWN

Switches — OFF
Throttle—1200 RPM
Mixture—IDLE CUTOFF
Ignition—AFTER ENGINE
STOPS, OFF
Master – OFF
Beacon – OFF
Hobbs hours – RECORD
Tach Time - RECORD
Control Lock – INSTALL
Checklist - STOW
Chock wheels or tie down
Pitot cover – INSTALL

CLOSE FLIGHT PLAN

AUTOPILOT

SEE POH FOR PRE-TAKEOFF
CHECKS

Airspeeds KIAS

V_{so} 40
 V_{s1} 48
 V_x 58
 V_y 74
 V_{FE} 110 10°
 V_{FE} 85 10° to FULL
 V_{NO} 129
 V_{NE} 163
 V_{Glide} 68

PRACTICE OR REAL EMERGENCY PROCEDURES

ENGINE FAILURE DURING GROUND ROLL

Throttle—IDLE
Braking—AS REQUIRED
Directional Control—MAINTAIN
Exit runway if/when able
Shutdown

ENGINE FAILURE IN FLIGHT

Emer. glide speed $V_g = 68$ KIAS
Identify landing site (WIND)
Trim
Turn to it
Fuel selector —BOTH
Fuel Shutoff --- IN
Mixture — RICH
Aux fuel pump — ON
Ignition — to best operating Mag
L, R or Both

SECURING THE ENGINE

Mixture Control—IDLE CUT OFF
Fuel Shutoff—OUT
Aux Fuel Pump—OFF
Magnetos—OFF