C-172 G1000 Skyhawk Checklist

PreFlight Actions
IMSAFE
Weather
Equipment Required
Weight and Balance
TO/Land Distances
Runway lengths
Fuel Requirements

Interior Preflight
Pitot Tube Cover
POH/Weight and Balance
G1000 Reference Guide
Discrepancy Record
Hobbs/Tach Times
Verify
Documents
VOR Log
Verify
Control Wheel Lock
Circuit Breakers
Verify In
Beacon
Ignition
Avionics Master
Throttle
Mixture
Propeller Area
Clear
Master
PFD
Verify
Flaps
Down
Fuel Quantity
Check
Fuel L and R Annunciators
Oil Pressure Annunciator
Low Vacuum Annunciator

Low Volts Annunciator
Avionics Bus 1
Avionics Bus 2
Lights/Pitot Heat
Pitot Heat
Master
Fuel Selector Valve
Fuel Shutoff Valve
Fire Extinguisher

Exterior Preflight
Autopilot Static Port
Fuselage Left/Under
Empennage
Left Elevator
Tail Tie Down
Rudder
Trim Tab
Right Elevator
Antennas
Right Fuselage
Windows
Right Flap
Right Aileron
Right Wingtip and Lights
Right Wing Leading Edge
Right Strut
Tie down
Right Main Gear
Right Wing Fuel Sumps
Belly Fuel Sumps
Right Wing Fuel Quantity
Oil Quantity
Prop/Spinner/Alt Belt

Air Intakes/Filter
Nose gear Assembly
Engine Cowling
Static Source
Left Wing Fuel Sumps (5)
Left Main Gear
Left Strut
Left Fuel Vent
Stall Horn
Left Wing Leading Edge
Left Wingtip and Lights
Left Aileron
Left Flap
Windscreen
Baggage and Door
Secure

Before Starting Engine
Chocks
Preflight (Prayer)
Complete
Passengers
Briefed
Seats/Seat Belts
Adjust/Locked
Starts
Elec. Switches
Off (Except Beacon)
Avionics Master
Fuel Selector
Fuel Shutoff Valve

Starting Engine
Brakes
Standby Battery
Test
Standby Battery
Arm
PFD
Verify On
Engine gauges
Check
Bus E Volts
24 Volts Min.
Bus M Volts
< 1.5 Volts
Batt S Amps
Discharge
Standby Batt Annunciator
On
Gals Remaining
Set
Throttle
¾ Inch Open
Announce
“Master On”
Master Switch
On
If Engine is Warm
Mixture
Rich
Fuel Pump
On
Fuel Flow
Rise and Stable
Fuel Pump
Off
Mixture
Idle Cut Off
Announce
“Clear prop”

A/C Secure
Not Moving
Throttle
1000 RPM
Oil Pressure
Check
Amps (M Batt & Batt S)
Charging
Low Volt Annunciator

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C-172 G1000 Skyhawk Checklist
**Before Taxi**
Throttle 1200 RPM ............ Set
Mixture ............ Lean to slight rise
Throttle ............ 1000 RPM
Avionics Master ............ On
Flaps ............ Up
ATIS/Weather ............ Receive
Altimeter ............ Set
PFD Instruments ............ Check
Stby Instruments ............ Check
Radios ............ Set
Clearance ............ As Required
Airport Diagram ............ Reviewed
Lights ............ Set

**Taxi**
Brakes ............ Test
Steering ............ Check
IFR ............ (see below)

**IFR Instrument Check**
Compass ............ Check
Slip/Skid ............ Check
Attitude Indicator ............ Check
Turn Coordinator ............ Check
HSI ............ Check

**Run-up (Into the Wind)**
Brakes ............ Set
Flight Controls ............ Check
Trim ............ Check & Set
PFD ............ Check
Fuel Quantity ............ Verify
Oil Temperature ............ Check
Selector Valve ............ Both
Mixture ............ Rich
Throttle ............ 1800 RPM
a. Magneto ............ Check
d. Engine Indicators ............ Check
de. Engine Indicators ............ Check
e. Alternator ............ Check
Throttle ............ Idle
Throttle ............ 1000 RPM
Electric Trim ............ Test
Auto Pilot ............ Test
Auto Pilot Disconnect ....... Off
Avionics ............ Set
GPS #2 ............ Verify Availability
Taxi ............ Verify Clearance
Airport Diagram ............ Reviewed

**Before Takeoff**
Takeoff Briefing ............ Complete
Emergency Briefing ............ Standard
Wing Flaps ............ Set
Cabin Door ............ Secured
Windows ............ Secured
Time Off ............ Noted
Strobe/Ldg/Taxi Light ............ On
Transponder ............ Set to ALT
Mixture ............ Rich
T/O Clearance ............ As Required

**Takeoff**
RWY/Compass/HSI ............ Align
Power ............ Full RPM
Airspeed ............ Alive
Elevator ............ Back Pressure

**After Takeoff**
Airspeed ............ As Required
Flaps 0 .... over obst. >60KIAS

**Climb** (After Pattern Departure)
Airspeed ............ 85 KIAS
Mixture ............ Lean above 3000'

**Cruise**
Power ............ As Required
Elevator Trim ............ Set
Mixture ............ Lean
Ldg/Taxi Light ............ Off
Engine Instruments .... Monitor
FMS/GPS .... Monitor

**Descent**
ATIS/Weather ............ Receive
Altimeter ............ Set
Ldg/Taxi Light ............ On
Power ............ As Required
Mixture ............ ½ turn per 1000'
Fuel Selector Valve ............ Both
Approach Briefing ............ Complete

**Before Landing**
Seatbelts ............ Secured
Brakes ............ Check
Fuel Selector Valve ............ Both
Mixture ............ Rich
Autopilot ............ Off

**Landing**
Wing Flaps ............ As Needed
Braking ............ As Needed

**Takeoff (Stop and Go)**
Trim ............ Set
Flaps ............ Set
Mixture ............ Rich
Power ............ Full

**After Landing**
Flaps ............ Set
Lights ............ Set
Transponder ............ As Needed
Taxi Clearance ...... As Required
Airport Diagram .. As Required

**Securing Aircraft**
Throttle ............ 1000 RPM
Electrical Equipment ............ Off
Avionics Master ............ Off
Mixture ............ Idle Cut-Off
Magnetos ............ Off
Master ............ Off
Hobbs/Tach/Fuel ............ Recorded
Standby Battery ............ Off
Control Wheel Lock ....... Install
Aircraft ............ Chock/Tie Down
Pitot Cover ............ Install
Aircraft/Windows .... Left Clean
Discrepancies ............ Recorded
Post Flight .... Walk Around
EMERGENCY PROCEDURES
(Memory Items in Bold Print.)

ENGINE FIRE DURING START
Magnetos................. Start
(Continue Cranking to Start Engine. Do Not Stop Cranking Unless Engine Starts.)

If Eng Starts:
Power .................... 1800 RPM
....................(For a few minutes)
Engine ... Shutdown & Inspect

If Eng Fails to Start:
Throttle............ Full Open
Mixture............ Idle Cut-Off
Magnetos.............. Start
Fuel Shut-Off Valve ...... Out
Fuel Pump.................. Off
Magnetos.................. Off
Master(Alt & Bat)......... Off
Engine .................... Secure
Fire Extinguisher ........ Obtain Airplane ........................ EVACUATE

ENGINE FIRE – FLIGHT
Mixture .............. Idle Cut-Off
Fuel Shut-Off Valve ...... Out
Fuel Pump.................. Off
Master(Alt & Bat)......... Off
Standby Battery.......... Off
Cabin Heat & Air .......... Off
Airspeed ............. 100 KIAS
Note: If fire is not extinguished, increase glide speed to an Airspeed within limits which will provide an incombustible mixture.
Power-Off Landing Complete

WING FIRE
Landing & Taxi Light ...... Off
Nav & Strobe Light .......... Off
Pitot Heat .................... Off
Note: Sideslip aircraft to keep flames away from fuel tanks

ELECTRICAL FIRE – FLIGHT
Standby Battery .......... Off
Master(Alt & Bat)......... Off
Vents/CabinAir/Heat. Closed
Fire Extinguisher .. If Needed
Avionics Master .......... Off
All Switches (Except Magnetos) .......... Off
Note: Ensure Fire is extinguished before reintroducing exterior air back into cabin.
Vents / Air / Heat ........... Open

ENGINE FAILURE BELOW
VR (LU Standard)
Throttle ...................... Idle
Brakes ........................ As Needed
Wing Flaps ............ Retract
Mixture ...................... Idle Cut-off
Magneto(s) .......... Off
Master (Alt & Bat) .......... Off

ENGINE FAILURE ABOVE
VR (Runway remaining)
Flaps ........................ Full
Airspeed ............. 60 KIAS
Land ............... Straight Ahead
Fuel Shut-off .............. Out
Mixture ...................... Idle Cut-off
Magneto(s) .......... Off
Master (Alt & Bat) .......... Off
Standby Battery ......... Off
Cabin Door ........ Unlatch

ENGINE FAILURE – FLIGHT
Airspeed (Best Glide) 68 KIAS
Best Place To Land .... Select Check Controls (Backward 7)
-Fuel Selector .......... Both
Fuel Shut Off ............... In
-Mixture .............. Rich
-Fuel Pump .......... On
-Magnetos .......... Both/Start

POWER RESTORED
Fuel Pump Switch ............ Off

POWER NOT RESTORED
Power off Landing ... Complete

POWER OFF LANDING
Declare Emergency
-Transponder ........... 7700
-ELT........................ ON
-Radio .................. Transmit
-Passenger/Baggage Secure
Execute Emergency landing (Backward 7)
-Fuel Shut Off ............ Out
-Mixture .............. Idle Cut-Off
-Throttle .............. Idle
-Magnetos .......... Off
-Doors .................... Unlatch
-Standby Battery ......... Off
-Flaps ..................... As Required
-Master (Alt & Bat) ..... Off

SPIN RECOVERY
Power .................... Idle
Ailerons ............... Neutral
Rudder .. Full Opposite Spin
Elevator ...... Briskly Forward
(When rotation stops)
Rudder .......... Neutralize
Elevator ........ Gentle Pull
Throttle ...... As Required
START MALFUNCTIONS

ENGINE START HOT
Brakes ......................... Set
Throttle .................... ¼ Inch Open
Prop. Area .................. Clear
Master Switch .............. On
Ignition ...................... Start
Mixture Rich When Engine Fires
Throttle ..................... 1000 RPM
Oil Pressure ............... Check

ENGINE START FLOODED
Brakes ......................... Set
Throttle ............. Half to Full Open
Mixture .............. Idle Cut-Off
Prop Area ............... Clear
Master ...................... On
Ignition ...................... Start
Mixture ................. Rich
Throttle ............. 1000 Rpm
Oil Pressure ............ Check

ENGINE START WITH EXTERNAL POWER
Brakes ......................... Set
Throttle ............. ¼ inch Open
Mixture .............. Idle Cut-Off
Standby Batt Test then Arm
Avionics Master Off
Master ...................... Off
External Power Connect
Prop Area ............... Clear
Master ...................... On
Beacon ...................... On
Mixture .................. Rich
Fuel Pump................. On
Fuel Flow ............ Rise and Stable
Fuel Pump .......... Off
Mixture .............. Idle Cut Off
Ignition ...................... Start
Mixture .................. Rich
Throttle ............. 1000 RPM
Oil Pressure ............ Check
Throttle ............. Idle
External Power Disconnect
Throttle ............. 1000 RPM

Best Glide (Max Wt) 68 KIAS
Vs0 .......................... 40 KIAS
Vs .......................... 48 KIAS
Vx (Best Angle) ......... 62 KIAS
Vy (Best Rate) .......... 74 KIAS
Vfe 10º ...................... 110 KIAS
10º- Full ............ 85 KIAS
Va 2550 lbs .......... 105 KIAS
1900 lbs .......... 90 KIAS
Vno .......................... 129 KIAS
Vne .......................... 163 KIAS
Obstacle clearance
- Gross weight ........ 56 KIAS
- 2400 lbs .......... 54 KIAS
- 2200 lbs .......... 50 KIAS

Max T/O Weight ....... 2550 lbs
Max Baggage “A” ....... 120 lbs
Max Baggage “B” ....... 50 lbs
**Max Combined A&B 120 lbs
Total Fuel .............. 56 Gallons
Useable .................. 53 Gallons
Oil Capacity (Sump) 8 Quarts
Oil Minimum ........... 5 Quarts
Demonstrated X-Wind 15 KIAS
Max Ramp Weight ....... 2558
Max T/O Weight ........ 2550
Max Landing Weight ...... 2550
Fuel Tank Tabs ..... 35 Gallons

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