

Cessna 172: Preflight

WX & personal minimums ..Checked
Weight and balance.....Checked
Airplane squawks/obsChecked
Fuel quantity Check visually
Pitot tube coverRemove

Cockpit

Control wheel lock.....Remove
Ignition switch..... Off
Radio master Off
All lights (exterior & interior)..... Off
Hobbs time.....Check and record
AROW documents Check present
Master switch On
Fuel quantity indicators.....Check
Turn coordinator gyro Listen for
Flaps..... Lower
Exterior lights & Pitot heat..... On
..... Walk around and check
Exterior lights & Pitot heat..... Off
Master switch Off

Left Side

Static portCheck for blockage
Door hingesCheck
Wing air vent.....Check for blockage
Wing strut.....Check secure
Wing tiedown.....Remove
Fuel vent.....Check for blockage
Pitot tubeCheck for blockage
Stall warning Check and test
Wing leading edgeCheck
Wing tipCheck
Wing bottomCheck access ports
Aileron Check movement
..... Check hinges
.....Check actuator arm
..... Check anti-flutter weights
Flap Check security
.....Check actuator arm
Main tire.....Check inflation and tread
..... Check brakes, fairing

Rear

Horizontal stabilizerCheck secure
Access ports (if any)...Check secure
Elevator..... Check movement
.....Check secure
..... Check hinges

..... Check elevator trim tab
Rudder.....Remove gust lock
.....Check movement
..... Check control cables
.....Check rudder trim tab
Rear tiedown..... Remove
Under fuselage..... Check
Top of fuselage & wings Check

Right Side

Access ports (if any)..... Check secure
ELT antenna Check secure
Wing bottom..... Check access ports
Main tire Check inflation and tread
..... Check brakes, fairing
Flap.....Check security
..... Check actuator arm
Aileron.....Check movement
..... Check hinges
..... Check actuator arm
..... Check anti-flutter weights
Wing tip..... Check
Wing leading edge Check
Wing tiedown Remove
Wing strut Check secure
Wing air vent Check for blockage
Door hinges Check

Front

Cowl Check secure
Oil..... Check (min 2 qts below top)
Propeller .. Check for nicks & damage
Spinner Check for damage
Cowl openings..... Check
Alternator belt..... Check tight
Landing light Check condition
Air filter..... Check for blockage
Nose wheel strutCheck inflation
Nose tire Check inflation and tread

Fluids

Wing fuel sumps (2) ... Drain & check
Nose fuel sump Drain & check
Fuel quantity (2) Check visually
Fuel filler caps (2)Secure

All tires Roll and check
Baggage door..... Closed and locked

Cessna 172: Engine Start, Taxi, and Runup

Engine Start

Passengers briefed
..... Seats, belts and harnesses
..... Door operation
..... Headset
..... Emergency procedures
..... Emergency supplies
..... Sterile cockpit
..... Looking for traffic
Cell phones..... Off
Seats Adjust and lock
Seat belts & harnesses Adjust
Fuel selector valve Both
Radio master Off
Circuit breakers Check in
Brakes Test and hold
Parking brake Set

Mixture..... Rich
Throttle open..... ¼ inch
Carburetor heat..... Off
Prime As required (3 strokes)
Primer..... Check locked
Master switch On
Tail beacon (anti-collision light) ... On
Brakes Hold tight
Propeller area Check & yell
Ignition switch..... Start
Throttle..... Adjust to 1000 RPM
Oil pressure Check
Ammeter&low volt light Check
Mixture..... Lean as appropriate

Flaps..... Up
Transponder Standby
Radio master On
Lights As required
Radios Get ATIS
Altimeter Set
Heading indicator Set

(Contact ground for taxi instructions)

➔ Execute taxi checklist ←
➔ during taxi ←

Taxi

Pilot brakes Test
Copilot brakes..... Test
Attitude indicator.. Level during turns
..... No dip during acceleration
Heading indicator Turns
Turn coordinator..... Banks
Compass Moves freely

Engine Runup

Parking brake..... Set
Cabin doors Closed and latched
Flight controls..... Free and correct
Ailerons, elevator, rudder,
elevator trim
Elevator trim..... Set for takeoff
Rudder trim Set for takeoff
Fuel selector valve..... Both
Mixture Rich (below 3000 feet)
Throttle 1700 RPM
Magnetos Check
(Max 125 RPM drop, 50 RPM diff)
Oil temp & pressure..... Check
Suction gauge Check
Ammeter Check
Carburetor heat On
(RPM drop, no further increase)
Carburetor heat Off
(RPM increase)
Carburetor heat On
Throttle Full idle, check smooth
Carburetor heat Off
Throttle 1000 RPM
Mixture Lean as appropriate

➔ Go to takeoff checklist ←

Cessna 172: Takeoff through Shutdown

Takeoff (EVERY ONE!)

Flight instruments Check & Set
Radios Check & Set
Transponder Appropriate code
Fuel selector valve Both
Takeoff technique Choose
Flaps Up (see POH for soft/short)
Elevator trim Set
Carburetor heat Off
Mags Both
Seat belts & harnesses Adjust
Doors and windows Latched
Speeds & emergency plans Review
Abort point/speed Choose
Minimum static RPM 2280
Rotate at 53 KIAS
Climb at 73 KIAS
..... (see POH for short field)

Parking brake Off
Radios Contact tower/CTAF

When cleared onto the runway:
Takeoff time Record
Lights All on
Transponder Altitude
Mixture Rich (below 3000 feet)

Cruise

Power 2200-2700 RPM
Mixture Lean as appropriate
Lights As required
Heading indicator Set

Before Landing

(L) Lights On
(C) Carburetor heat On
(G) Fuel selector valve Both
(U) Brakes Test, heels on floor
(M) Mixture Rich (< 3000 feet)
(P) Propeller N/A
(S) Seats, belts, and harnesses
..... Adjust and lock

Final approach speed 65 KIAS
..... (60 KIAS short field)

Best glide..... 65 KIAS

Go-Around

Throttle Full
Carburetor heat Off
Flaps Retract to 20°
Airspeed 55 KIAS
Flaps Retract slowly

After Landing

Flaps Up
Mixture Lean as appropriate
Elevator trim Set
Carburetor heat Off
Lights As required
Transponder Standby
Radios... Contact ground if applicable

Shutdown and Securing

Radio master Off
Throttle Idle
Mags Check briefly in off position,
then both
Throttle 1000 RPM
Mixture Idle cut-off
Ignition switch... Off and remove key
Master switch Off
Lights (exterior and interior) Off

In tie-down spot:

Tiedown ropes Tie
Hobbs time Record
Fuel selector valve Left/right tank
Control lock Install
Pitot tube cover Install
Door Lock
Baggage door Lock

Important Airspeeds

Vx 59 KIAS
Vy 73 KIAS
Vne 160 KIAS
Vno 128 KIAS
Va 80-97 KIAS
Vfe (10°) *if placarded* 110 KIAS
Vfe (> 10°) 85 KIAS
Max window open 160 KIAS

Cessna 172: In-Flight Emergency Procedures

Engine Failure During Flight

Airspeed 65 KIAS (flaps up)
Turn toward preselected field

If time permits, try to restart:

Fuel selector valve Both
Mixture..... Rich
Throttle..... Full
Carburetor heat..... On
Ignition switch..... Both
.....Start (if propeller stopped)
Primer..... In and locked

If time permits, call for help:

Transponder 7700
Radio Last frequency or 121.5
... Announce MAYDAY and position

Seat belts Tight
Passengers Brief
(Door operation, seat belts,
seat/crash position, exiting airplane)

When committed to landing:

Fuel selector valve Off
Mixture..... Idle cut-off
Ignition switch..... Off
Flaps..... As required [40°]
Master switch..... Off
Doors..... Unlatch

Engine Fire During Start

Starter Continue cranking

If engine starts:

RPM 1700 for a few minutes
Engine Shutdown

If engine fails to start:

Starter..... Continue cranking
to draw fire into engine
Master switch Off
Ignition switch..... Off
Fuel selector valve..... Off
Fire extinguisher Activate

Engine Fire in Flight

Fuel selector valve Off
Mixture Idle cut-off
Ignition switch..... Off
Master switch Off
Cabin heat and air Off
Wing vents..... Open
Airspeed 100 KIAS
Increase as necessary to put out fire
Seat belts Tight
Passengers Brief
(Door operation, seat belts,
seat/crash position, exiting airplane)
Doors Unlatch

Electrical Fire in Flight

Master switch Off
Radio master Off
All switches (except ignition)..... Off
Vents, cabin air, heat Closed
Fire extinguisher Activate
Airplane Land ASAP

Cabin Fire

Master switch Off
Vents, cabin air, heat Closed
Fire extinguisher Activate
Cabin Ventilate
Airplane Land ASAP

Excessive Rate of Charge

Alternator Off
Nonessential electrical equip Off
Airplane Land ASAP

Low-Voltage Light

Ammeter..... Verify discharge
Radio master Off
Master switch Off (both sides)
Master switch On (both sides)
Low-voltage light Check off
Radio master..... On

If low-voltage light illuminates again:

Alternator Off
Nonessential electrical equip Off
Flight Terminate ASAP