

Expanded Flight Checklist Cessna 172**OUTSIDE CHECK**

INSIDE CABIN

- 1 **Magnetos** OFF
- 2 **Mixture** IDLE CUT OFF
- 3 **Master switch** ON
- 4 **Fuel quantity**..... CHECKED
- 5 **Master switch** OFF
- 6 **Static pressure alternate source valve** OFF

OUTSIDE CABIN

- 1 **Left wing** CHECKED
 - Surface condition
 - Flap and aileron
 - Wing tip with light
 - Fuel and filler cap
 - Drain wing tank
 - Landing gear, strut, tires and brakes (no leaks)
 - Pitot tube and fuel vent
 - Stall warning opening
- 2 **Nose section**..... CHECKED
 - General condition
 - Nose gear, strut and tire
 - Prop and spinner
 - Oil quantity
 - Fuel drain
 - Static port
- 3 **Right wing**..... CHECKED
 - Surface condition
 - Flap and aileron
 - Wing tip with light
 - Fuel and filler cap
 - Drain wing tank
 - Landing gear, strut, tire and brake (no leak)
- 4 **Fuselage**..... CHECKED
 - General condition
- 5 **Empennage**..... CHECKED
 - Stabilizer and control surfaces
 - Trim tabs

OUTSIDE CHECK COMPLETED

FLIGHT DECK PREPARATION

- 1 **Outside check**..... COMPLETED
- 2 **Airplane papers** ABOARD and CHECKED
 - Papers, AFM and flight log / tech log
- 3 **Magnetos** OFF
- 4 **Electrical switches** OFF
 - All switches off
- 5 **Circuit breakers** CHECKED
 - Check all circuit breakers in
- 6 **Master switch** ON
- 7 **Fuel check**
 - **Quantity** CHECK ENDURANCE
 - **Fuel valve** BOTH
 - **Mixture** FULL RICH

FLIGHT DECK PREPARATION COMPLETED

BEFORE ENGINE START

- 1 **Doors** CLOSED
 - Check all doors closed and locked
- 2 **Parking brake** SET
- 3 **Seat belts** ON
 - Shoulder harness on and seat belts on, empty seats secured
- 4 **ATIS** (if available) RECEIVED

BEFORE ENGINE START CHECK COMPLETED

TAXI CHECK

- 1 **Brakes** CHECKED
 - Check braking action after first movement

- 2 **Instruments**..... CHECKED
 - Check gyro instruments:
 - Turning right: horizon stable, directional gyro is increasing, turn and bank indicator right, ball left
 - Turning left: horizon stable, directional gyro is decreasing, turn and bank indicator left, ball right

TAXI CHECK COMPLETED

RUN UP CHECK

- 1 **Parking brake** SET

- 2 **Run up**
 - a) **Throttle**..... 1700 RPM
Check airplane not moving

 - b) **Magnetos** CHECKED
Max. drop 125 RPM, difference L/R max. 50 RPM

 - c) **Carburetor heat** CHECKED
Drop between 50 and 100 RPM according OAT

 - d) **Alternator output**..... CHECKED

 - e) **Gyro suction** CHECKED
Indication in green arc

 - f) **Throttle idle** CHECK RPM
Move throttle fully aft and check min. 500 RPM

 - g) **Throttle**..... 1000 RPM

RUN UP CHECK COMPLETED

BEFORE DEPARTURE

- 1 **Flight controls** FREE & CORRECT
 - Check controls for full travel, check surface movements outside

- 2 **Trim** CHECKED and SET
 - Check trim for free movement and set for T/O

- 3 **Flaps**..... SET
 - 0° to 10° (short field T/O = 10°)

- 4 **Fuel check**
- **Quantity** CHECK ENDURANCE
 - Read actual fuel quantity and say endurance
 - **Fuel valve**..... BOTH
 - **Mixture** FULL RICH (or best power)
- 5 **Carburetor heat** OFF (COLD)
- 6 **Friction** SET
- 7 **Doors and windows** CLOSED AND LOCKED
- 8 **Take off briefing** COMPLETED
- Call out for take off briefing:
- Runway in use and condition
 - Vr, Vx, Vy
 - Routing, altitude restrictions
 - Engine failure or serious malfunction on ground, engine failure after take off

BEFORE DEPARTURE CHECK COMPLETED

LINE UP

- 1 **Approach**..... CLEAR
- 2 **Wind** (TAIL, HEAD, X-WIND)CHECKED
- 3 **Lights** AS REQUIRED (Ldg. Light ON)
- 4 **Transponder** AUTOMATIC
- 5 **Time check**..... PERFORM

LINE UP CHECK COMPLETED

TAKE OFF

- 1 **RWY heading** CHECKED
- 2 **Full power** SET AND CHECKED (2400RPM)
- 3 **Speed rise** CHECKED

CLIMB CHECK

Perform, when workload is reduced and situation permits!

- 1 **Flaps**..... UP
- 2 **Climb power**..... SET
 - Check full power and carburetor heat cold
- 3 **Climb speed**..... CHECKED
- 4 **Lights** AS REQUIRED
 - Landing lights off when leaving the circuit
 - Leave landing lights on within control zone and when visibility is bad
- 5 **Mixture** SET
 - Above 5000 ft, lean to best power according EGT (peak - 100 °F)

CLIMB CHECK COMPLETED

CRUISE CHECK

- 1 **Altimeter**..... SET
 - When passing TA or min. 3000 ft AGL, set altimeter to 1013 hpa
- 2 **Directional gyro**..... COMPARED
 - Compare and adjust DG with magnetic compass all 20 min.
- 3 **Power** SET
 - Set cruise power according AFM
- 4 **Mixture** SET
 - Lean slowly to peak EGT and watch for smooth engine run
- 5 **Engine instruments**..... CHECKED
- 6 **Fuel quantity**..... CHECKED

CRUISE CHECK COMPLETED

DESCENT CHECK

- A **Atis**..... NOTED
- B **Briefing**..... COMPLETED
 - Call out for approach briefing:
 - Runway in use
 - Routing, altitude
 - Missed approach
 - NAV and COM frequencies preselected
- C **Circuit breakers and cabin**..... CHECKED AND SECURED
 - Check all passengers secured and controls free
- D **Directional gyro**..... SET

- E **Electric equipment** AS REQUIRED
 – Switch landing lights on when entering a control zone or when visibility is bad
- F **Fuel (mixture)** SET FOR DESCENT
 – Enrich mixture for descent

DESCENT CHECK COMPLETED

APPROACH CHECK

- 1 **Altimeter** SET QNH
- 2 **Fuel check**
- a) **Quantity** CHECK ENDURANCE
- b) **Valve** BOTH
- c) **Mixture** FULL RICH
 except high field elevation
- 3 **Carburetor heat** ON (HOT)
- 4 **Landing light** ON

APPROACH CHECK COMPLETED

APPROACH CONFIGURATION

- 1 **Speed** CHECKED
 – Reduce speed to V_{FE} (110 KIAS)
- 2 **Flaps** 10° (recommended)
- 3 **Power** SET
 – Set power for level flight (approx. 2100 RPM)

FINAL CHECK

- 1 **Flaps** SET
 – Check flaps in the required landing position
 According RWY-length and wind conditions
 Short field = 30°
- 2 **Speed** CHECKED
 – Normal APP = 65 KIAS
 – Short field / no wind = 60 KIAS

FINAL CHECK COMPLETED

AFTER LANDING CHECK

Perform the after landing check only when runway is vacated and taxi speed is reached

- 1 **Transponder** CHECK "GND"
- 2 **Flaps** UP
- 3 **Carburetor heat** OFF (COLD)
- 4 **Lights** AS REQUIRED
 - Switch landing lights and strobe lights off, keep all other lights on.
- 5 **Time check** PERFORM

AFTER LANDING CHECK COMPLETED

PARKING

- 1 **Parking brake** AS REQUIRED
- 2 **Avionic switch and all electrical consumers** OFF
- 3 **Throttle** 1000 RPM
- 4 **Mixture** IDLE CUT OFF
- 5 **Magnetos and master switch** OFF
 - Key out!
- 6 **Flight log / tech log** FILL OUT

PARKING CHECK COMPLETED

MISSED APPROACH PROCEDURE

- Power** INCREASE TO FULL POWER
- Carburetor heat** OFF (COLD)
- Flaps** RETRACT
Retract flaps step by step to the T/O position
- Climb check** PERFORM