

Expanded Flight Checklist Cessna 172RG Cutlass**OUTSIDE CHECK**

INSIDE CABIN

- 1 **Landing gear lever** DOWN
- 2 **Magnetos** OFF
- 3 **Mixture** IDLE CUT OFF
- 4 **Master switch** ON
- 5 **Landing gear position indicator light (green)** ILLUMINATED
- 6 **Fuel quantity**..... CHECKED
- 7 **Master switch** OFF
- 8 **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, tire and brake (no leak)
 - Pitot tube and fuel tank vent
 - Stall warning switch
- 2 **Nose Section** CHECKED
 - General condition
 - Nose gear, nose gear doors, strut and tire
 - Propeller and spinner
 - Oil quantity
 - Fuel drain
 - Static ports (one on each side)
- 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
 - Stabilizers and control surfaces
 - Trim tabs

OUTSIDE CHECK COMPLETED

FLIGHT DECK PREPARATION

- 1 **Outside check** COMPLETED
- 2 **Airplane papers** ABOARD and CHECKED
 - Papers, AFM, flight log / tech log
- 3 **Magnetos** OFF
- 4 **Gear lever** DOWN
- 5 **Propeller** HIGH RPM
- 6 **Electrical switches** OFF
 - All switches off
- 7 **Circuit breakers** CHECKED
 - Check all circuit breakers IN
- 8 **Cowl flaps** OPEN
- 9 **Master switch** ON
- 10 **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**..... 1800 RPM
Check airplane not moving

 - b) **Magnetos** CHECKED
Max. drop 150 RPM, difference L/R max. 50 RPM

 - c) **Carburetor heat** CHECKED

 - d) **Propeller**..... CYCLE
Cycle twice from high to low RPM. Return to high RPM.

 - e) **Alternator output**..... CHECKED

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

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

 - h) **Throttle**..... 1000 RPM

RUN UP CHECK COMPLETED

BEFORE DEPARTURE

- 1 **Flight controls** CHECKED
 - 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
 - **Valve** BOTH
 - **Mixture** FULL RICH (or best power)
- 5 **Carburetor heat** OFF (COLD)
- 6 **Propeller** HIGH RPM
- 7 **Friction** SET
- 8 **Doors and Windows** CLOSED
- 9 **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 **Lights** AS REQUIRED
- 3 **Transponder** AUTOMATIC
- 4 **Heading** CHECKED
 - Check and compare with RWY HDG, adjust DG if needed
- 5 **Time check** PERFORM

LINE UP CHECK COMPLETED

CLIMB CHECK

Perform, when workload is reduced and situation permits!

- 1 **Gear** UP
- 2 **Flaps** UP
- 3 **Climb power** SET
 - 25 inch manifold, 2500 RPM
- 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
 – Lean according EGT (peak - 100°F)
- 6 **Cowl flaps** OPEN

CLIMB CHECK COMPLETED

CRUISE CHECK

- 1 **Altimeter** SET
 – When passing TA or min. 3000 ft AGL set altimeter to 1013 hpa
- 2 **Cowl flaps** CLOSED
 – Check cylinder head temperature
 – Close cowl flaps 200 ft before reaching cruising altitude
- 3 **Power** SET
- 4 **Mixture** LEAN
 – Lean slowly to peak EGT and watch for smooth engine run
- 5 **Engine instruments** CHECKED
- 6 **Directional gyro** COMPARED
 – Compare and adjust DG with magnetic compass all 20 min.

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
check V_{LO} and V_{FE}
- 2 **Landing gear** EXTEND
check green light on
- 3 **Flaps** 10° or AS REQUIRED
- 4 **Power** SET
- recommended power setting: approx. 20 inches manifold pressure

FINAL CHECK

- 1 **Gear** CHECKED
 - Check visually left main gear down
 - Check green landing gear light illuminated
- 2 **Propeller** HIGH RPM
- 3 **Flaps** SET
 - Check flaps in the required landing position according RWY-length and wind conditions, short field = 30°
- 4 **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
- 6 **Cowl flaps** OPEN

AFTER LANDING CHECK COMPLETED

PARKING

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

PARKING CHECK COMPLETED

MISSED APPROACH PROCEDURE

Power/Pitch SET / INCREASE
 Simultaneously set full power and increase pitch (2 - 3 ° nose up)

Carburetor heat OFF (COLD)

Flaps RETRACT
 Retract flaps step by step to the T/O position

Climb check PERFORM