

## *Section I*

### **OPERATING CHECK LIST**

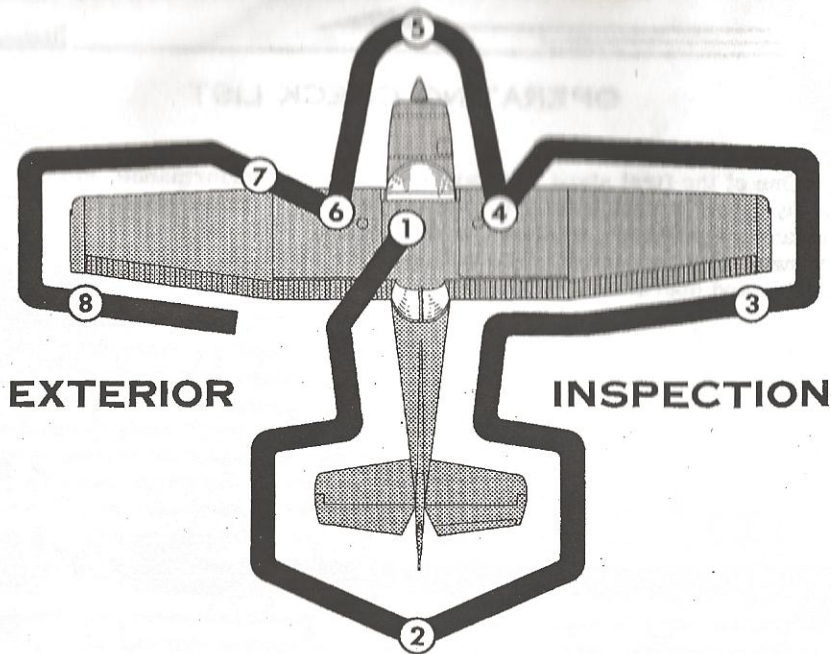
One of the first steps in obtaining the utmost performance, service, and flying enjoyment from your Cessna is to familiarize yourself with your airplane's equipment, systems, and controls. This can best be done by reviewing this equipment while sitting in the airplane. Those items whose function and operation are not obvious are covered in Section II.

Section I lists, in Pilot's Check List form, the steps necessary to operate your airplane efficiently and safely. It is not a check list in its true form as it is considerably longer, but it does cover briefly all of the points that you should know for a typical flight. An abbreviated check list covering the "Before Take-Off" and "Before Landing" phases of aircraft operation is provided on a plastic card and normally stowed in the map compartment. This abbreviated check list is a convenient reference of key items to be rechecked immediately prior to taxiing into position for take-off and before entering the final approach for landing.

The flight and operational characteristics of your airplane are normal in all respects. There are no unconventional characteristics or operations that need to be mastered. All controls respond in the normal way within the entire range of operation. All airspeeds mentioned in Sections I, II and III are indicated airspeeds. Corresponding calibrated airspeeds may be obtained from the Airspeed Correction Table in Section VI.

#### **BEFORE ENTERING THE AIRPLANE.**

- (1) Make an exterior inspection in accordance with figure 1-1.



**Note**

Visually check aircraft for general condition during walk-around inspection. In cold weather, remove even small accumulations of frost, ice or snow from wing, tail and control surfaces. Also, make sure that control surfaces contain no internal accumulations of ice or debris. If night flight is planned, check operation of all lights, and make sure a flashlight is available.

- ① a. Remove control wheel lock.
- b. Check ignition switch "OFF."
- c. Turn on master switch and check fuel quantity indicators, then turn master switch "OFF."
- d. Check fuel shutoff valve handle "ON."

- ② a. Remove rudder gust lock, if installed.
- b. Disconnect tail tie-down.
- c. Check control surfaces for freedom of movement and security.
- ③ a. Check aileron for freedom of movement and security.
- ④ a. Disconnect wing tie-down.
- b. Check main wheel tire for proper inflation.
- c. Visually check fuel quantity, then check fuel filler cap secure.
- ⑤ a. Check oil level. Do not operate with less than four quarts. Fill to six quarts for extended flight.
- b. Before first flight of day and after each refueling, pull out strainer drain knob for about four seconds to clear fuel strainer of possible water and sediment. Check strainer drain closed. If water is observed, there is a possibility that the wing tank sumps contain water. Thus, the wing tank sump drain plugs and fuel line drain plug should be removed to check for presence of water.
- c. Check propeller and spinner for nicks and security.
- d. Check carburetor air filter for restrictions by dust or other foreign matter.
- e. Check landing light for condition and cleanliness.
- f. Check nose wheel strut and tire for proper inflation.
- g. Disconnect nose tie-down.
- h. Inspect flight instrument static source opening on left side of fuselage for stoppage.
- ⑥ a. Visually check fuel quantity, then check fuel filler cap secure.
- b. Check main wheel tire for proper inflation.
- ⑦ a. Remove pitot tube cover, if installed, and check pitot tube opening for stoppage.
- b. Check stall warning vent opening for stoppage.
- c. Check fuel tank vent opening for stoppage.
- d. Disconnect wing tie-down.
- ⑧ a. Check aileron for freedom of movement and security.

Figure

## BEFORE STARTING THE ENGINE.

- (1) Seats, Seat Belts, and Shoulder Harnesses -- Adjust and lock.
- (2) Fuel Shutoff Valve Handle -- "ON."
- (3) Brakes -- Test and set.
- (4) Radios and Electrical Equipment -- "OFF."

## STARTING THE ENGINE.

- (1) Carburetor Heat -- Cold.
- (2) Mixture -- Rich.
- (3) Primer -- As required.
- (4) Throttle -- Open 1/4 inch.
- (5) Master Switch -- "ON."
- (6) Propeller Area -- Clear.
- (7) Ignition Switch -- "START" (release when engine starts).
- (8) Oil Pressure -- Check.

## BEFORE TAKE-OFF.

- (1) Cabin Doors -- Latched.
- (2) Flight Controls -- Check for free and correct movement.
- (3) Elevator Trim Control Wheel -- "TAKE-OFF" setting.
- (4) Throttle Setting -- 1700 RPM.
- (5) Engine Instruments -- Within green arc.
- (6) Suction Gage -- Check in green arc (4.6 to 5.4 inches of mercury).
- (7) Magnetos -- Check (RPM drop should not exceed 150 RPM on either magneto or 75 RPM differential between magnetos).
- (8) Carburetor Heat -- Check operation.
- (9) Flight Instruments and Radios -- Set.
- (10) Optional Wing Leveler -- "OFF."

## TAKE-OFF.

### NORMAL TAKE-OFF.

- (1) Wing Flaps -- Up.
- (2) Carburetor Heat -- Cold.
- (3) Throttle - Full "OPEN."

- (4) Elevator Control -- Lift nose wheel at 55 MPH.
- (5) Climb Speed -- 70 to 80 MPH.

### MAXIMUM PERFORMANCE TAKE-OFF.

- (1) Wing Flaps -- Up.
- (2) Carburetor Heat -- Cold.
- (3) Brakes -- Hold.
- (4) Throttle -- Full "OPEN."
- (5) Brakes -- Release.
- (6) Elevator Control -- Slightly tail low.
- (7) Climb Speed -- 70 MPH (with obstacles ahead).

## CLIMB.

- (1) Airspeed -- 75 to 85 MPH.

### NOTE

If a maximum performance climb is necessary, use speeds shown in the Maximum Rate-Of-Climb Data Chart in Section VI.

- (2) Throttle -- Full "OPEN."
- (3) Mixture -- Rich (unless engine is rough).

## CRUISING.

- (1) Power -- 2000 to 2750 RPM.
- (2) Elevator Trim Control Wheel -- Adjust.
- (3) Mixture -- Lean to maximum RPM.

## BEFORE LANDING.

- (1) Mixture -- Rich.
- (2) Carburetor Heat -- Apply full heat before closing throttle.
- (3) Airspeed -- 70 to 80 MPH (flaps up).
- (4) Wing Flaps -- As desired below 100 MPH.
- (5) Airspeed -- 60 to 70 MPH (flaps extended).

### **BALKED LANDING (GO-AROUND).**

- (1) Throttle -- Full "OPEN."
- (2) Carburetor Heat -- Cold.
- (3) Wing Flaps -- Retract to 20°.
- (4) Upon reaching an airspeed of approximately 65 MPH, retract flaps slowly.

### **NORMAL LANDING.**

- (1) Touchdown -- Main wheels first.
- (2) Landing Roll -- Lower nose wheel gently.
- (3) Braking -- Minimum required.

### **AFTER LANDING.**

- (1) Wing Flaps -- Up.
- (2) Carburetor Heat -- Cold.

### **SECURING AIRCRAFT.**

- (1) Parking Brake -- Set.
- (2) Radios and Electrical Equipment -- "OFF."
- (3) Mixture -- Idle cut-off (pulled full out).
- (4) Ignition and Master Switches - "OFF."
- (5) Control Lock -- Installed.