C170B

NORMAL CHECKLIST

operating check list

AFTER FAMILIARIZING YOURSELF with the equipment of your Cessna 170 , your primary concern will normally be the operation of your airplane. This section lists, in Pilot's Check List form, the steps necessary to operate your Cessna 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 would want to or should know concerning the operation of your Cessna 170.

The flight and operational characteristics of the Model 170 Cessna 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 of the airplane.

A. BEFORE ENTERING THE AIRPLANE.

(1) Check oil level. Do not operate on less than four quarts. Fill for extended flights.
(2) On first flight of the day, drain a small (one-ounce) quantity of fuel from fuel strainer drain to insure that no free water is in the fuel line.
(3) Check quantity of fuel (two gages).
(4) Make a visual check of the airplane.
(5) Remove control locks, if installed.

B. BEFORE STARTING THE ENGINE.

(1) Operate controls and make a rapid visual check for proper operation.
(2) Make sure windshield is clean for maximum visibility.
(3) Adjust seat for comfort and distance to rudder pedals.
(4) Check brakes and set parking brake.
(5) Fasten and check safety belt.

C. STARTING THE ENGINE.

(1) Set carburetor heat to "cold" (full in).
(2) Set mixture control to "full rich" (full in).
(3) Set fuel tank selector to "both tanks". (Take-off on less than ¼ tank is not recommended.)

(4) In normal weather temperatures use two to four strokes of the engine primer just before the engine start. In extremely cold (−20°F) weather prime the engine as follows:
Clear propeller.
Turn master switch "on".
With magneto switch "off" and throttle closed, prime the engine four to ten strokes as the engine is being turned over.
(5) Turn magneto switches "on".
(6) Open throttle ⅛ (to idle position) and start engine by pulling starter control. Note: In extremely cold weather a few strokes of the primer as the engine fires will enable the engine to keep running. (Avoid over-priming.) After priming, push primer all the way in and turn to locked position to avoid possibility of engine drawing fuel through the primer. *Do not pull out on starter* for a second starting attempt until engine has come to a complete stop from the first attempt. Failure to do this may result in damage to the starting gear.

D. WARM-UP AND GROUND TEST.

(1) Do not allow engine to operate at more than 800 r.p.m. for first 60 seconds after starting. (Especially important in cold weather as lubricating oil will be slow in circulating.) After starting if oil gage does not *begin* to show pressure within 30 seconds in the summertime and about twice that long in very cold weather, stop engine and investigate. Lack of oil pressure may cause serious engine damage.
(2) Avoid the use of carburetor heat unless icing conditions prevail.
(3) After two to three minutes running at 800 r.p.m., open the throttle gradually to 1000 r.p.m. and allow to run for three to five minutes or until engine is sufficiently warm for take-off. Warm-up may be accomplished during taxiing. Do not overheat the engine by running engine at high speed while on the ground. It is not necessary to run the engine until oil is "hot"; if engine accelerates smoothly and oil pressure remains steady, you are ready for take-off.

E. BEFORE TAKE-OFF.

(1) Apply toe brakes.
(2) Set altimeter.
(3) Set trim tab to "take-off" position.
(4) Check oil pressure—should show 30 to 40 lbs./sq. in. (Minimum idling oil pressure—5 lb./sq. in.).
(5) Check engine magnetos at 1600 r.p.m. by opening the throttle and switching off separately each magneto momentarily.

The maximum allowable r.p.m. drop on either magneto is 100 r.p.m. Switch to both magnetos before continuing.

(6) Check carburetor heat and leave on full heat until take-off.

(7) Full throttle r.p.m. check is optional but not recommended. The engine should run smoothly and turn, with carburetor heat off, 2230 to 2330 r.p.m. The engine should idle between 300 and 400 r.p.m. Except for short check do not idle below 600 r.p.m.

F. TAKE-OFF.

(1) Set flaps (20° — second notch) if desired.
(2) Release brakes.
(3) Turn carburetor heat "off" (full in).
(4) For take-offs use full throttle, or power required.
(5) Heels on the floor to avoid dragging brakes.
(6) Climb at full throttle, or power required for safety. Best rate of climb—88 m.p.h. indicated airspeed.
(7) If flaps were used, retract them slowly as soon as a reasonable altitude has been attained.

G. CRUISING.

(1) Recommended cruising r.p.m.—2450.
(2) Trim airplane by adjusting elevator tab.
(3) Oil pressure—30-40 lbs./sq. in.
(4) Oil temperature—within green arc range.
(5) Lean mixture to maximum r.p.m.; then enrichen mixture until r.p.m. begins to decrease.
(6) Lean mixture as required to obtain smooth engine operation when using carburetor heat in cruise.

H. BEFORE LANDING.

(1) Set fuel valve to both tanks.
(2) Set mixture control full rich (full in).
(3) Apply full carburetor heat before closing throttle. If a long letdown is available, avoid "chopping" the throttle.
(4) Suggested glide speed—70-75 m.p.h.
(5) Lower flaps as desired (do not lower flaps when indicated airspeed is above 100 m.p.h.)
(6) Retain cruising elevator trim tab setting.

I. AFTER LANDING.

(1) Raise flaps.
(2) Normal glide and taxiing should cool engine sufficiently;

however, if excessive amount of taxiing is necessary, allow engine to cool before cutting ignition by allowing to idle at 800 r.p.m. two to three minutes.

(3) Stop engine by pulling mixture control knob to full lean position. *Do not open throttle as engine stops.*

(4) After engine stops, turn ignition switch "off".

(5) Turn all switches "off". Be sure—otherwise your battery may run down over night.

(6) Set parking brake, if required.