

THERE ARE MORE CESSNAS FLYING THAN ANY OTHER MAKE

1967

CESSNA

MODEL

310 L

OWNER'S MANUAL

WORLD'S LARGEST PRODUCER OF GENERAL AVIATION AIRCRAFT SINCE 1956

PERFORMANCE AND SPECIFICATIONS

GROSS WEIGHT	5200 lbs
SPEED: BEST POWER MIXTURE	
Maximum at Sea Level	237 mph
Maximum Recommended Cruise	
75% Power at 6500 ft.	222 mph
RANGE: NORMAL LEAN MIXTURE	
Maximum Recommended Cruise	
75% Power at 6500 ft.	777 mi
100 Gallons, No Reserve	3.55 hrs
75% Power at 6500 ft.	219 mph
140 Gallons, No Reserve	1086 mi
140 Gallons, No Reserve	4.96 hrs
140 Gallons, No Reserve	219 mph
Maximum Range at 10,000 ft.	
100 Gallons, No Reserve	966 mi
100 Gallons, No Reserve	5.4 hrs
100 Gallons, No Reserve	179 mph
140 Gallons, No Reserve	1351 mi
140 Gallons, No Reserve	7.55 hrs
140 Gallons, No Reserve	179 mph
RATE OF CLIMB AT SEA LEVEL:	
Twin Engine	1540 fpm
Single Engine	330 fpm
SERVICE CEILING:	
Twin Engine	19,900 ft
*Single Engine	6850 ft
TAKEOFF PERFORMANCE: Takeoff Speed 93 MPH	
Ground Run	1451 ft
Total Distance over 50 ft. obstacle	1716 ft
LANDING PERFORMANCE: Approach Speed 105 MPH	
Landing Roll	1002 ft
Total Distance over 50 ft. obstacle	1582 ft
EMPTY WEIGHT (Approximate)	3125 lbs
BAGGAGE ALLOWANCE:	600 lbs
WING LOADING:	29.1 lbs/sq ft
POWER LOADING:	10.0 lbs/hp
FUEL CAPACITY: Total	
Standard	102 gal
Optional Auxiliary Tanks	143 gal
OIL CAPACITY: Total	6 gal
POWER: Two Continental, 6-Cylinder, Fuel Injection, IO-470-V Engines, 260 Rated Horsepower at 2625 rpm	
PROPELLER: Constant Speed, Full Feathering	
Two Bladed, Dia.	81 inches

*Single Engine Service Ceiling increases 425 feet each 30 minutes of flight.

CONGRATULATIONS.....

Welcome to the ranks of Cessna owners! Your Cessna has been designed and constructed to give you the most in performance, economy, and comfort. It is our desire that you will find flying it, either for business or pleasure, a pleasant and profitable experience.

This Owner's Manual has been prepared as a guide to help you get the most pleasure and utility from your Model 310. It contains information about your Cessna's equipment, operating procedures, and performance; and suggestions for its servicing and care. We urge you to read it from cover to cover, and to refer to it frequently.

Our interest in your flying pleasure has not ceased with your purchase of a Cessna. World-wide, the Cessna Dealer Organization, backed up by the Cessna Service Department, stands ready to serve you. The following services are offered by most Cessna Dealers:

FACTORY TRAINED PERSONNEL to provide you with courteous expert service.

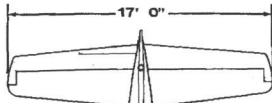
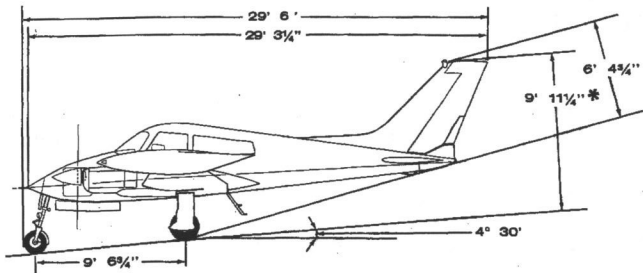
FACTORY APPROVED SERVICE EQUIPMENT to provide you with the most efficient and accurate workmanship possible.

A STOCK OF GENUINE CESSNA SERVICE PARTS on hand when you need them.

THE LATEST AUTHORITATIVE INFORMATION FOR SERVICING CESSNA AIRPLANES, since Cessna Dealers have all of the Service Manuals and Parts Catalogs, kept current by Service Letters and Service News Letters published by Cessna Aircraft Company.

We urge all Cessna owners to use the Cessna Dealer Organization to the fullest.

A current Cessna Dealer Directory accompanies your new airplane. The Directory is revised frequently, and a current copy can be obtained from your Cessna Dealer. Make your Directory one of your cross-country flight planning aids; a warm welcome awaits you at every Cessna Dealer.



**PRINCIPAL
DIMENSIONS**

310 L

*Maximum height of airplane with nose gear depressed is 10' - 8 3/4", if rotating beacon is installed, add 3" to maximum height.

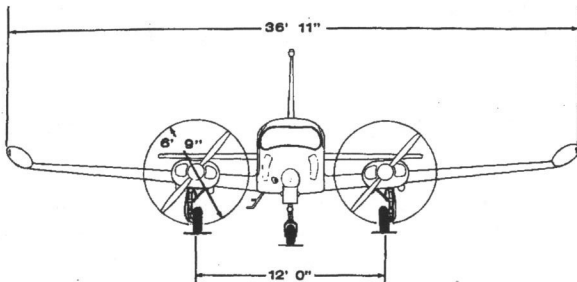
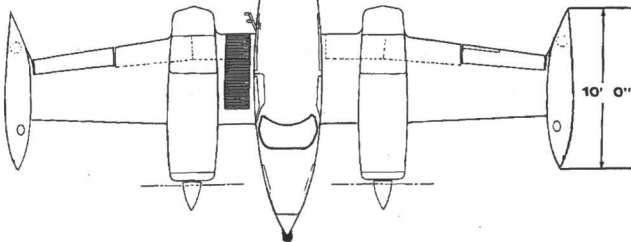


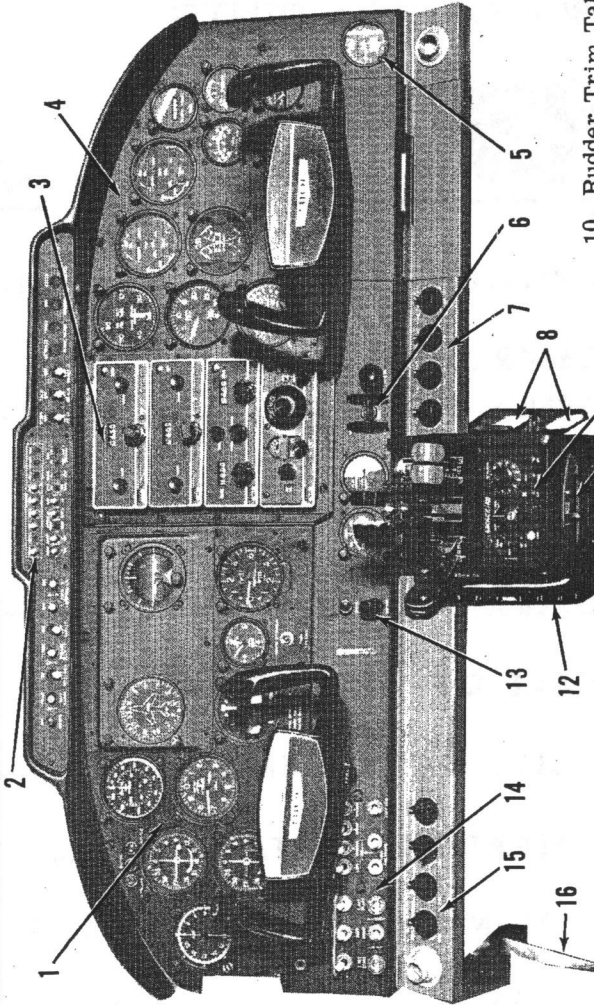
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INSTRUMENT PANEL



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|--|--|
| <ol style="list-style-type: none"> 1. Flight Instrument Grouping 2. Glare Shield Switch Panel 3. Radio Communication and Navigation Control Panel (Optional Equipment) 4. Engine Instrument Grouping 5. Oxygen Cylinder Pressure Gage (Optional Equipment) 6. Flap Position Switch | <ol style="list-style-type: none"> 7. Heater and Cabin Air Control Panel 8. Alternate Air Control Handles 9. Autopilot Control Head (Optional Equipment) 10. Rudder Trim Tab Control Wheel 11. Aileron Trim Tab Control Wheel 12. Elevator Trim Tab Control Wheel 13. Landing Gear Position Switch 14. Left Hand Switch Panel 15. Lighting Rheostat Panel 16. Parking Brake Handle |
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SECTION I OPERATING CHECKLIST

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 Checklist form, the steps necessary to operate your airplane efficiently and safely. It covers briefly all the points that you should know concerning the information you need for a typical flight.

The flight and operational characteristics of your airplane are normal in all respects. All controls respond in the normal way within the entire range of operation. All airspeeds mentioned in Sections I and II are indicated airspeeds. Corresponding calibrated speeds may be obtained from the Airspeed Correction Table, Figure 6-1.

MAKE AN EXTERIOR INSPECTION IN ACCORDANCE WITH FIGURE 1-1.

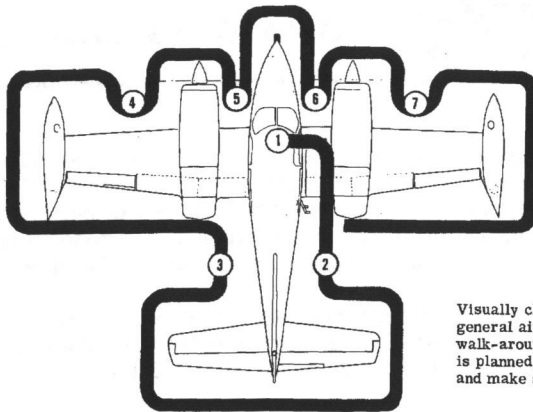
BEFORE STARTING THE ENGINES

- (1) Seats and Safety Belts -- Adjust and lock.
- (2) Brakes -- Test and set.
- (3) Landing Gear Switch -- Check DOWN.
- (4) Emergency Power Switch -- OFF.
- (5) Battery Switch -- ON.

NOTE

When using an external power source, do not turn on the battery or alternator switch until external power is disconnected, to avoid damage to the alternators and a weak battery draining off part of the current being supplied by the external source.

- (6) Alternator Switches -- ON.
- (7) Voltage Regulator Switch -- MAIN.



EXTERIOR INSPECTION

NOTE

Visually check inspection plates and general airplane condition during walk-around inspection. If night flight is planned, check operation of all lights, and make sure a flashlight is available.

1. a. Turn on battery switch and check fuel quantity gages and check operation of stall warning transmitter tab and horn, by raising tab on left wing, then turn battery switch OFF.
- b. Check ignition switches OFF.
- c. Check left fuel selector valve handle in LEFT MAIN position and right fuel selector valve handle in RIGHT MAIN position (feel for detent).
- d. Remove control lock.
2. a. Check baggage door for security.
- b. Check static pressure source holes for obstructions (both sides of fuselage).
- c. Remove control surface locks, if installed.
- d. Remove tie down.
3. a. Check nacelle wing locker door for security.
- b. Check main fuel tank cap for security.
- c. Check main fuel tank vent for obstructions (especially water and ice accumulations in tank vent shield during cold weather operation).
- d. On first flight of day and after each refueling, drain small amount of fuel from quick-drain valves in main and optional auxiliary fuel tanks.
- e. Check auxiliary fuel tank cap for security.
- f. Check battery drain and battery compartment cover panel for security (left side only).
- g. Remove wing tie down.
4. a. Check oil level, (do not operate on less than 9 quarts. Fill to 10 quart level for flights of less than 3 hours. Fill to capacity for extended flights). Dipstick secure, generator belt tight, and general condition.
- b. Check main landing gear strut and tire inflation. Check gear doors for security.
- c. On first flight of day and after each refueling, drain about two ounces of fuel from fuel strainer to clean of any water and sediment.
- d. Check propeller and spinner for nicks, cracks, and security, and propeller for oil leaks.
- e. Check oil filler cap for security through cooling air inlet in cowl nose cap.
- f. Check cowl access doors for security.
5. a. Check left nose access panel for security.
- b. Check nose gear strut and tire inflation, nose gear door for security.
- c. Remove tie down.
- d. Check right nose access panel for security.
- e. Remove pitot tube cover, if installed, and check pitot tube opening for obstructions.
- f. Check heater inlet for obstructions.
6. Same as 4.
7. Same as 3, except in reverse order.

Figure 1-1.

- (8) Landing Gear Lights -- Press to test (check iris - open).
- (9) Trim Controls -- Set.
- (10) Flight Controls -- Check free and correct.
- (11) Alternate Air Controls -- Check in.
- (12) Altimeter and Clock -- Set.
- (13) Turn All Radio Switches -- OFF.
- (14) Throttle -- Open 1 inch.
- (15) Propeller -- High RPM.
- (16) Mixture -- Full Rich.
- (17) Fuel Selectors -- Left Engine - LEFT MAIN (feel for detent).
Right Engine - RIGHT MAIN (feel for detent).

STARTING ENGINES (Left Engine First)

- (1) Magneto Switches -- ON.
- (2) Start Engine.
 - (a) Starter Button -- Press.
 - (b) Primer Switch -- Left Engine - LEFT.
Right Engine - RIGHT.

NOTE

● If the primer switch is actuated longer than two or three seconds with the engines inoperative on the ground, damage may be incurred to the engine and/or airplane due to excessive fuel accumulation.

● During very hot weather, caution should be exercised to prevent overpriming the engines. If there is an indication of vapor in the fuel system (fluctuating fuel flow) with engines running, place the auxiliary fuel pump switch to the LOW position until the system is purged.

- (3) Auxiliary Fuel Pumps -- LOW.

BEFORE TAKEOFF

- (1) Parking Brake -- SET.
- (2) Throttle Settings -- 1700 RPM.
- (3) Alternators -- Check.
- (4) Magnetos -- Check (50 RPM maximum differential between magnetos).
- (5) Propellers -- Check feathering to 1200 RPM; return to high RPM (full forward position).

- (6) Vacuum Source -- Check source and suction (4.75 to 5.25 inches of mercury).
- (7) Oil Temperature -- Check green arc.

NOTE

It is important that the engine oil temperature be within the normal operating range prior to applying takeoff power.

- (8) Trim Controls -- Check.
- (9) Alternate Air Controls -- Check in.
- (10) Wing Flaps -- 0°.
- (11) Flight Controls -- Check (free and correct).
- (12) Cabin Door and Windows -- Closed and locked.
- (13) Flight Instruments and Radios -- Set.
- (14) Engine Instruments -- Check.
- (15) Parking Brake -- Released.

TAKEOFF

NORMAL TAKEOFF

- (1) Auxiliary Fuel Pumps -- ON.
- (2) Power -- Full throttle and 2625 RPM.

NOTE

Apply full throttle smoothly to avoid propeller surging.

- (3) Mixtures -- Lean for field elevation.

NOTE

Leaning during the takeoff roll is normally not necessary; however, should maximum takeoff or subsequent engine-out performance be desired, fuel flow should be adjusted to match field elevation.

- (4) Maintain Level Attitude.
- (5) Elevator Control -- Raise nosewheel at 90 MPH.
- (6) Break Ground at 105 MPH.
- (7) Brakes -- Apply momentarily.
- (8) Landing Gear -- Retract.

- (9) Climb Speed -- 124 MPH (best twin-engine rate-of-climb speed).
(Set up climb speed as shown in "NORMAL CLIMB" paragraph.)
- (10) Auxiliary Fuel Pumps -- OFF.

MAXIMUM PERFORMANCE TAKEOFF

- (1) Auxiliary Fuel Pumps -- ON.
- (2) Wing Flaps -- 15°.
- (3) Power -- Full throttle and 2625 RPM.
- (4) Maintain Level Attitude.
- (5) Elevator Control - Lift nose wheel at 84 MPH.
- (6) Break Ground at 93 MPH -- Hold speed until all obstacles are cleared.
- (7) Brakes -- Apply momentarily.
- (8) Landing Gear -- Retract.
- (9) Flaps -- Retract (after obstacles are cleared).
- (10) Auxiliary Fuel Pumps -- OFF.

CLIMB

NORMAL CLIMB

- (1) Airspeed -- 130-150 MPH
- (2) Power -- 24 inches Hg. and 2450 RPM.
- (3) Mixtures -- Adjust to climb fuel flow.
- (4) Auxiliary Fuel Pumps -- ON (above 12,000 feet altitude to minimize vapor formation).

NOTE

During very hot weather, if there is an indication of vapor in the fuel system (fluctuating fuel flow) or anytime when climbing above 12,000 feet, turn the auxiliary fuel pumps ON until cruising altitude has been obtained and the system is purged (usually 5 to 15 minutes after establishing cruising flight).

MAXIMUM PERFORMANCE CLIMB

- (1) Airspeed -- 124 MPH at sea level; 122 MPH at 10,000 feet.
- (2) Power -- Full throttle and 2625 RPM.
- (3) Mixtures -- Adjust for altitude and power.

- (4) Auxiliary Fuel Pumps -- ON (above 12,000 feet altitude to minimize vapor formation).

NOTE

During very hot weather, if there is an indication of vapor in the fuel system (fluctuating fuel flow) or anytime when climbing above 12,000 feet, turn the auxiliary fuel pumps ON until cruising altitude has been obtained and the system is purged (usually 5 to 15 minutes after establishing cruising flight). It is recommended that the mixture remain at the climb mixture setting for approximately 5 minutes after establishing cruising flight before leaning is initiated.

CRUISING

- (1) Cruise Power -- 15-24 inches Hg. and 2100-2450 RPM.
- (2) Mixtures -- Lean for desired cruise fuel flow as determined from your Cessna Model 310 Power Computer.

NOTE

After 60 minutes of flight, if optional auxiliary fuel tanks are installed, turn fuel selector valves to AUXILIARY position, and feel for detent. Turn auxiliary fuel pumps LOW and mixtures to FULL RICH when switching tanks.

- (3) Trim Tabs -- Adjust.

LETDOWN

- (1) Power -- As required.
- (2) Mixtures -- Adjust for smooth operation with gradual enrichment as altitude is lost.

BEFORE LANDING

- (1) Fuel Selectors -- Left Engine - LEFT MAIN (feel for detent).
Right Engine - RIGHT MAIN (feel for detent).
- (2) Alternate Air Controls -- Check in.
- (3) Mixtures -- Full Rich - or lean as required for smooth operation.
- (4) Propellers -- High RPM.
- (5) Wing Flaps -- 15° below 180 MPH; 15° to 35° below 160 MPH.

- (6) Landing Gear -- Extend below 160 MPH.
- (7) Landing Gear Position Indicator Lights -- Check green lights ON.
- (8) Auxiliary Fuel Pumps -- ON.
- (9) Approach -- 105 MPH.

LANDING

- (1) Touchdown -- Main wheels first.
- (2) Landing Roll -- Lower nosewheel gently.
- (3) Braking -- As required.

GO-AROUND (Twin Engine)

- (1) Increase engine speed to 2625 RPM and apply full throttle if necessary.
- (2) Reduce flaps setting to 15°.
- (3) Trim airplane for climb.
- (4) Retract flaps as soon as all obstacles are cleared and a safe altitude and airspeed are obtained.

NOTE

Do not retract landing gear if another landing approach is to be conducted.

AFTER LANDING

- (1) Auxiliary Fuel Pumps -- LOW.
- (2) Wing Flaps -- Retract.

SECURE AIRPLANE

- (1) Auxiliary Fuel Pumps -- OFF.
- (2) Throttles -- Idle.
- (3) Propellers -- Forward
- (4) Mixtures -- IDLE CUT-OFF.
- (5) Magneto Switches -- OFF, after engines stop.
- (6) All Switches -- OFF.
- (7) Brakes -- Set.
- (8) Control Lock -- Install.
- (9) Cabin Door -- Close and rotate exterior door handle clockwise to latch cabin door.

NOTE

To securely latch the cabin door from the outside, the exterior door handle must be rotated clockwise to its stop.

Notes