

MORE PEOPLE BUY AND
FLY CESSNA AIRPLANES
THAN ANY OTHER MAKE

**All Appropriate
Tables
Corrected for
1967
Model 150G**

WORLD'S LARGEST PRO-
DUCER OF GENERAL
AVIATION AIRCRAFT
SINCE 1956

MODEL
150

OWNER'S
MANUAL

PERFORMANCE - SPECIFICATIONS

	STANDARD AND TRAINER	COMMUTER
GROSS WEIGHT	1600 lbs	1600 lbs
SPEED:		
Top Speed at Sea Level	123 mph	125 mph
Cruise, 75% Power at 7500 ft	120 mph	122 mph
RANGE:		
Cruise, 75% Power at 7500 ft	480 mi	490 mi
22.5 Gallons, No Reserve	4.0 hrs	4.0 hrs
Cruise, 75% Power at 7500 ft	120 mph	122 mph
Long Range Version, 35.0 Gallons	745 mi	760 mi
	6.2 hrs	6.2 hrs
Optimum Range at 10,000 ft	120 mph	122 mph
22.5 Gallons, No Reserve	560 mi	565 mi
	5.7 hrs	5.7 hrs
Optimum Range at 10,000 ft	98 mph	99 mph
Long Range Version, 35.0 Gallons	870 mi	885 mi
	8.9 hrs	8.9 hrs
	98 mph	99 mph
RATE OF CLIMB AT SEA LEVEL	580 fpm	580 fpm
SERVICE CEILING	11,400 ft	11,400 ft
TAKE-OFF:		
Ground Run	735 ft	735 ft
Total Distance Over 50-ft Obstacle	1385 ft	1385 ft
LANDING:		
Landing Roll	445 ft	445 ft
Total Distance Over 50-ft Obstacle	1075 ft	1075 ft
EMPTY WEIGHT: (Approximate)	<u>Standard</u>	<u>Trainer</u>
With Standard Fuel Tanks	975 lbs	1005 lbs
With Long Range Fuel Tanks	980 lbs	1010 lbs
BAGGAGE	120 lbs	120 lbs
WING LOADING: Pounds/Sq Foot	10.2	10.2
POWER LOADING: Pounds/HP	16.0	16.0
FUEL CAPACITY:		
Total (Standard Tanks)	26 gal.	26 gal.
Total (Long Range Tanks)	38 gal.	38 gal.
OIL CAPACITY: Total	6 qts	6 qts
PROPELLER: Fixed Pitch (Diameter)	69 inches	69 inches
ENGINE: Continental Engine	O-200-A*	O-200-A*
100 rated HP at 2750 RPM		

C-150G
1967
7/96

*The Model F150, which is manufactured by Reims Aviation S.A., Reims (Marne) France, is identical to the 150 except that it is powered by an O-200-A engine manufactured under license by Rolls Royce, Crewe, England. All 150 information in this manual pertains to the F150 as well.

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 150. 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 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.

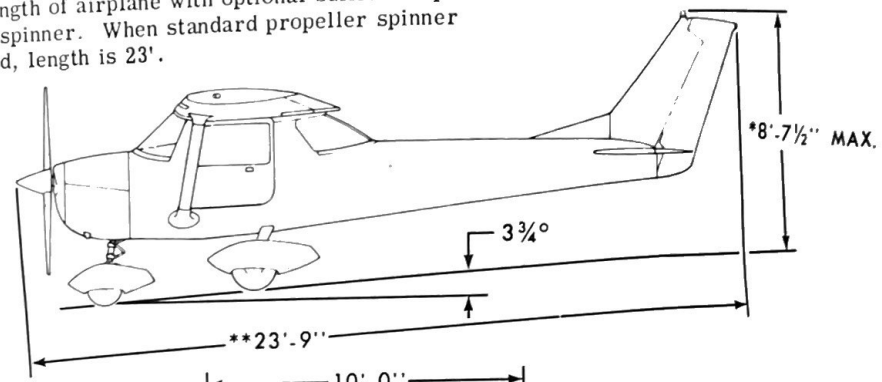
A STOCK OF GENUINE CESSNA SERVICE PARTS on hand when you need them.

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.

- * Maximum height of airplane with nose gear depressed and an optional flashing beacon installed.
- ** Overall length of airplane with optional bullet - shaped propeller spinner. When standard propeller spinner is installed, length is 23'.



PRINCIPAL DIMENSIONS

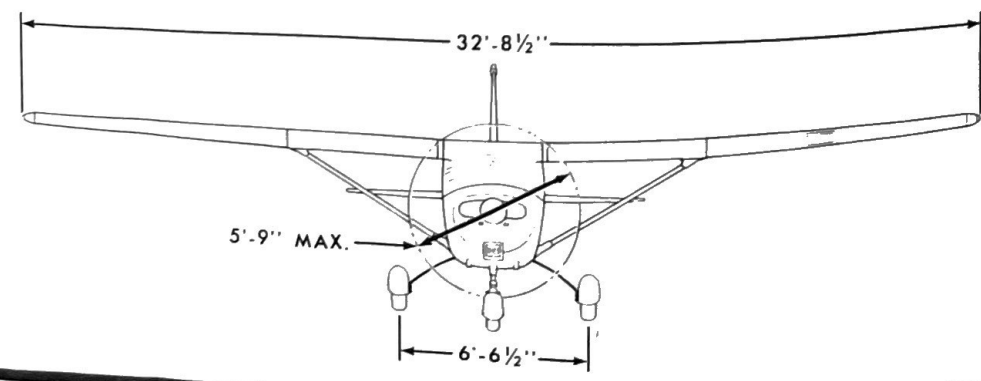
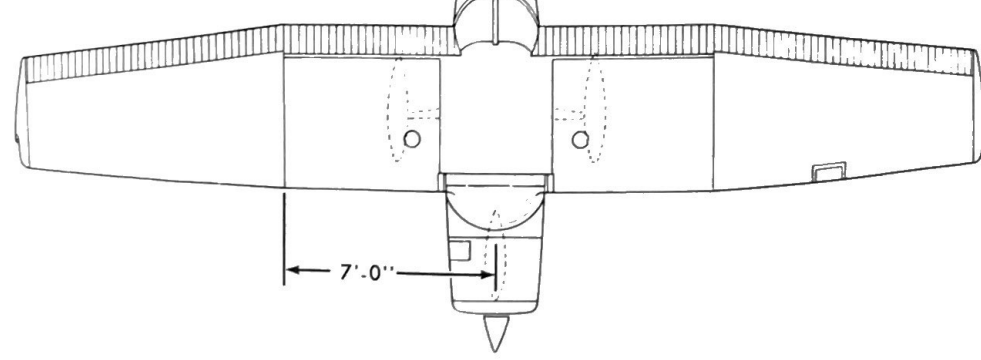
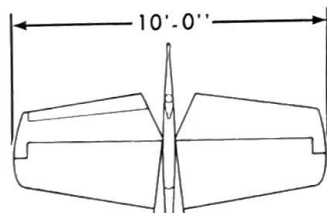
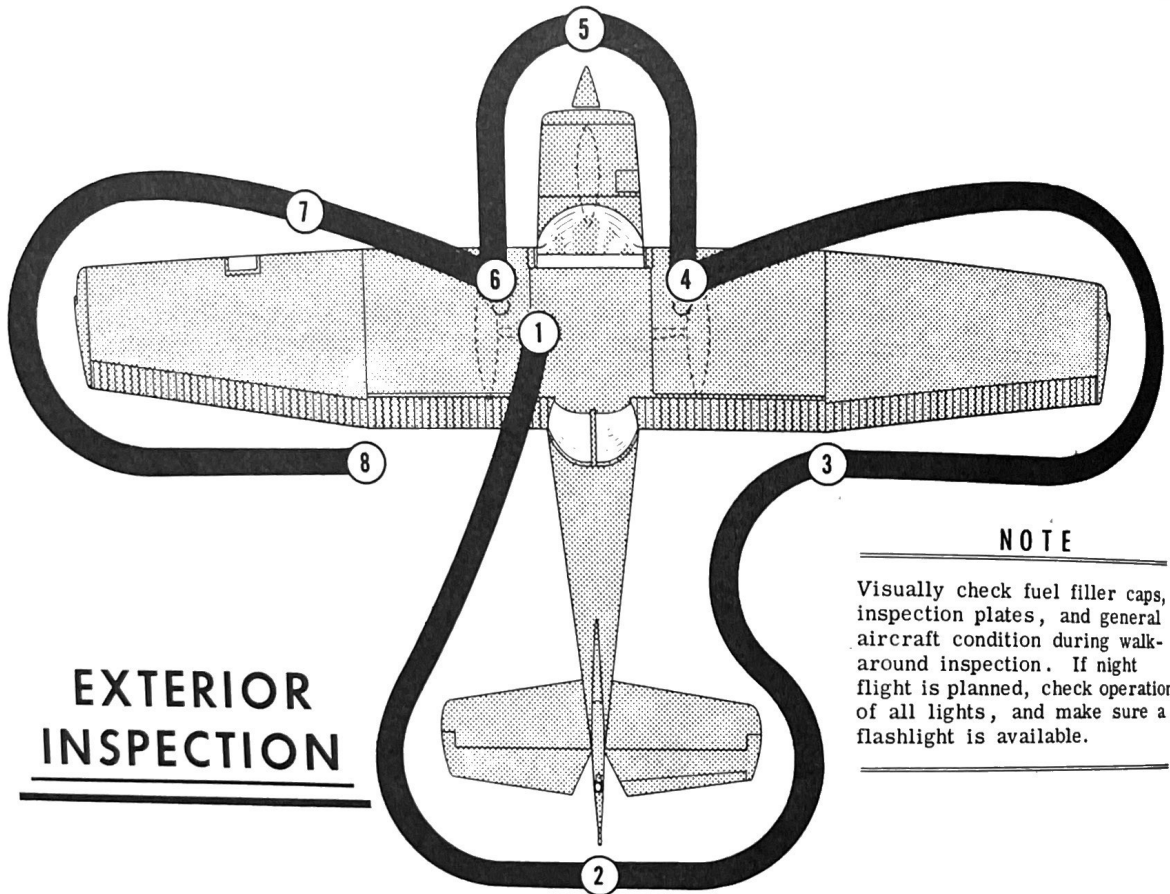


TABLE OF CONTENTS

	Page
SECTION I - OPERATING CHECK LIST	1-1
SECTION II - DESCRIPTION AND OPERATING DETAILS	2-1
SECTION III - OPERATING LIMITATIONS	3-1
SECTION IV - CARE OF THE AIRPLANE	4-1
OWNER FOLLOW-UP SYSTEM	4-9
SECTION V - OPERATIONAL DATA	5-1
SECTION VI - OPTIONAL SYSTEMS	6-1
ALPHABETICAL INDEX	Index-1

This manual describes the operation and performance of the Standard Model 150, the Trainer and the Commuter. Equipment described as "Optional" denotes that the subject equipment is optional on the Standard airplane. Much of this equipment is standard on the Trainer and Commuter.

EXTERIOR INSPECTION



NOTE

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

- | | |
|--|--|
| <p>① (a) Turn on master switch and check fuel quantity indicators, then turn master switch "OFF."
 (b) Check ignition switch "OFF."
 (c) Check fuel valve handle "ON."
 (d) Remove control wheel lock.</p> <p>② (a) Remove rudder gust lock, if installed.
 (b) Disconnect tail tie-down.</p> <p>③ (a) Remove gust lock, if installed.</p> <p>④ (a) Disconnect wing tie-down.
 (b) Check main wheel tire for proper inflation.
 (c) Inspect airspeed static source hole on side of fuselage for stoppage (left side only).</p> <p>⑤ (a) Check oil level. Do not operate with less than 4 quarts. Fill for extended flights.
 (b) Before first flight of day and after each refueling, pull out strainer drain knob for about</p> | <p>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.</p> <p>(c) Check propeller and spinner for nicks and security.
 (d) Check carburetor air filter for restrictions by dust or other foreign matter.
 (e) Check nosewheel strut and tire for proper inflation.
 (f) Disconnect nose tie-down.</p> <p>⑥ Same as ④</p> <p>⑦ (a) Remove pitot tube cover, if installed, and check pitot tube opening for stoppage.
 (b) Check fuel tank vent opening for stoppage.
 (c) Check stall warning vent opening for stoppage.</p> <p>⑧ Same as ③</p> |
|--|--|

Figure 1-1.

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.

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 and II are indicated airspeeds. Corresponding calibrated airspeeds may be obtained from the Airspeed Correction Table in Section V.

BEFORE ENTERING THE AIRPLANE.

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

BEFORE STARTING THE ENGINE.

- (1) Seats and Seat Belts -- Adjust and lock.
- (2) Fuel Valve Handle -- "ON."
- (3) Brakes -- Test and set.
- (4) Radios and Flashing Beacon -- "OFF."

STARTING THE ENGINE.

- (1) Carburetor Heat -- Cold.
- (2) Mixture -- Rich.

- (3) Primer -- As required.
- (4) Throttle -- Open 1/4".
- (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.
- (3) Trim Tab -- "TAKE-OFF" setting.
- (4) Throttle Setting -- 1700 RPM.
- (5) Engine Instruments -- Within green arc.
- (6) Suction Gage -- Check (4.6 to 5.4 inches of mercury).
- (7) Carburetor Heat -- Check operation.
- (8) Magnetos -- Check (75 RPM maximum differential between magnetos.)
- (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 50 MPH.
- (5) Climb Speed -- 73 MPH until all obstacles are cleared, then set ^{to} up climb speed as shown in "NORMAL CLIMB" paragraph.

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 -- 64 MPH (with obstacles ahead). JY

CLIMB.

NORMAL CLIMB.

- (1) Air Speed -- 75 to 80 MPH.

- (2) Power -- Full throttle.
- (3) Mixture -- Rich (unless engine is rough).

MAXIMUM PERFORMANCE CLIMB.

- (1) Air Speed -- 73 MPH.
- (2) Power -- Full throttle.
- (3) Mixture -- Rich (unless engine is rough).

CRUISING.

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

BEFORE LANDING.

- (1) Mixture -- Rich.
- (2) Carburetor Heat -- Apply full heat before closing throttle.
- (3) Airspeed -- 65 to 75 MPH.
- (4) Wing Flaps -- As desired below 100 MPH.
- (5) Airspeed -- 60 to 70 MPH (flaps extended).

NORMAL LANDING.

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

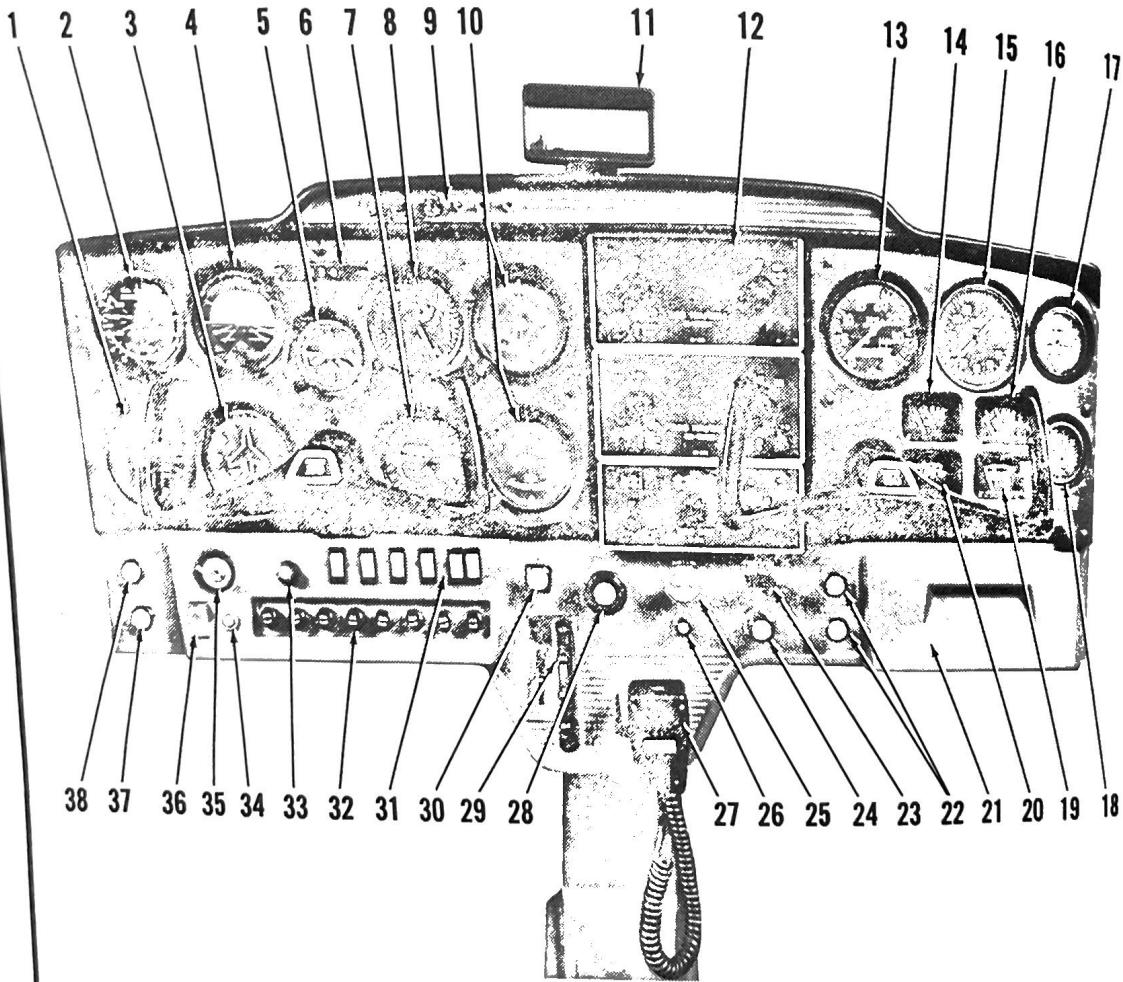
AFTER LANDING.

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

SECURE AIRCRAFT.

- (1) Mixture -- Idle cut-off.
- (2) All Switches -- Off.
- (3) Parking Brake -- Set.
- (4) Control Lock -- Installed.

INSTRUMENT PANEL



- | | | |
|---|--------------------------------------|--------------------------------------|
| 1. Turn Coordinator (Opt.) | 13. Tachometer | 26. Wing Leveler Control Knob (Opt.) |
| 2. Airspeed Indicator | 14. Left Fuel Quantity Indicator | 27. Microphone (Opt.) |
| 3. Directional Gyro (Opt.) | 15. Bearing Indicator (Opt.) | 28. Throttle |
| 4. Gyro Horizon (Opt.) | 16. Right Fuel Quantity Indicator | 29. Elevator Trim Control Wheel |
| 5. Clock (Opt.) | 17. Suction Gage (Opt.) | 30. Carburetor Heat Control Knob |
| 6. Aircraft Registration Number | 18. Ammeter | 31. Electrical Switches |
| 7. Vertical Speed Indicator (Opt.) | 19. Oil Temperature Gage | 32. Fuses |
| 8. Altimeter | 20. Oil Pressure Gage | 33. Radio Dial Light Rheostat |
| 9. Marker Beacon Lights/Radio Transmitter Selector Switch | 21. Map Compartment | 34. Alternator Circuit Breaker |
| 10. Omni Course Indicator (Opt.) | 22. Cabin Air and Heat Control Knobs | 35. Ignition/Starter Switch |
| 11. Rear View Mirror (Opt.) | 23. Wing Flap Switch | 36. Master Switch |
| 12. Radios (Opt.) | 24. Cigar Lighter (Opt.) | 37. Engine Primer |
| | 25. Mixture Control Knob | 38. Parking Brake Knob |

Figure 2-1.

Section II

DESCRIPTION AND OPERATING DETAILS

The following paragraphs describe the systems and equipment whose function and operation is not obvious when sitting in the airplane. This section also covers in somewhat greater detail some of the items listed in Check List form in Section I that require further explanation.

FUEL SYSTEM.

Fuel is supplied to the engine from two tanks, one in each wing. From these tanks, fuel flows by gravity through a fuel shutoff valve and fuel strainer to the carburetor.

Refer to figure 2-2 for fuel quantity data. For fuel system service information, refer to Lubrication and Servicing Procedures in Section IV.

FUEL STRAINER DRAIN KNOB.

Refer to fuel strainer servicing procedure, Section IV.

FUEL QUANTITY DATA (U.S. GALLONS)

TANKS	USABLE FUEL ALL FLIGHT CONDITIONS	UNUSABLE FUEL	TOTAL FUEL VOLUME
TWO, STANDARD WING (13 GAL. EACH)	22.5	3.5	26.0
TWO, LONG RANGE WING (19 GAL. EACH)	35.0	3.0	38.0

Figure 2-2.

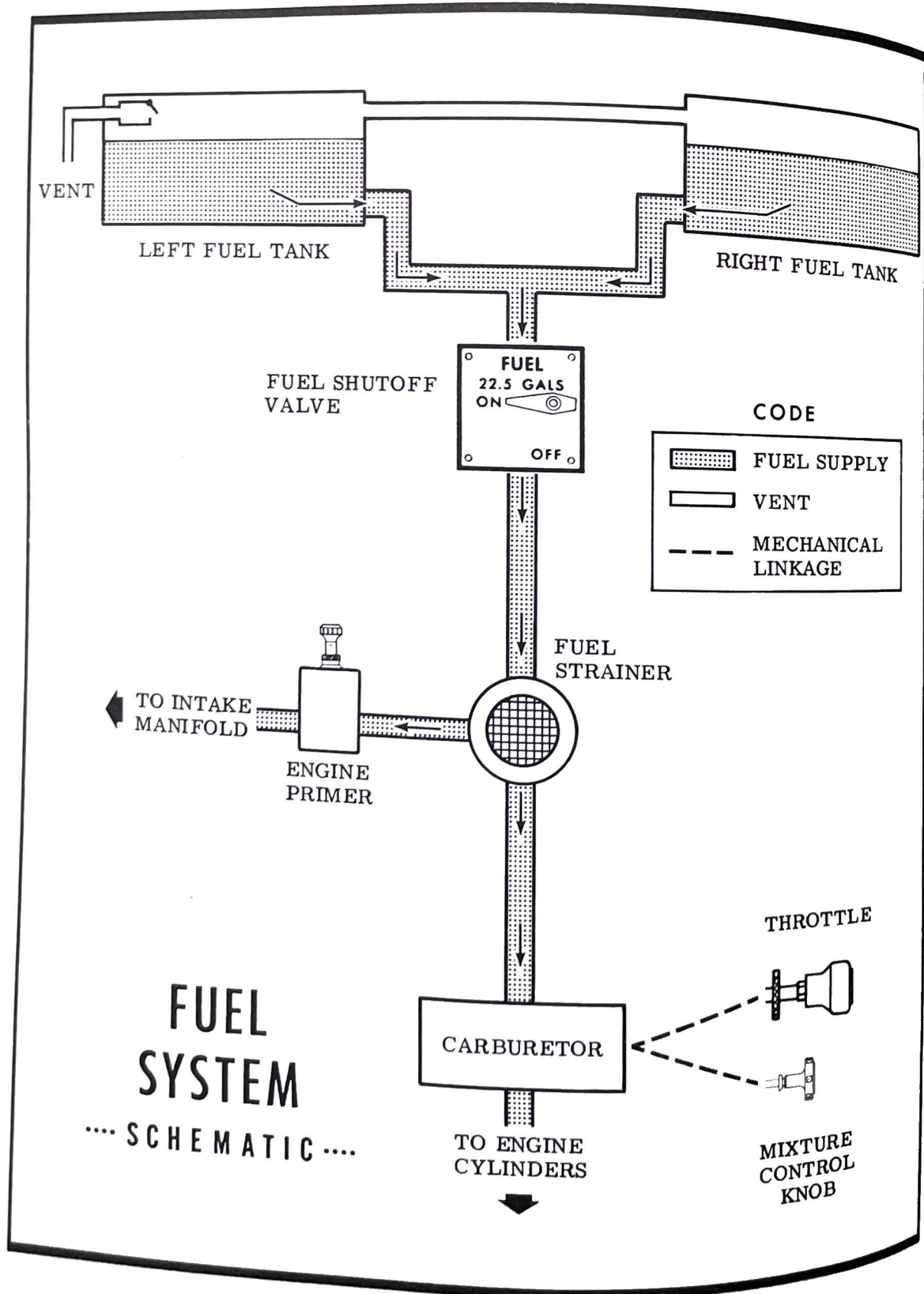


Figure 2-3.

ELECTRICAL SYSTEM.

Electrical energy is supplied by a 14-volt, direct-current system powered by an engine-driven alternator (see figure 2-4). A 12-volt battery is located on the right, forward side of the firewall just inside the cowl access door. Power is supplied through a single bus bar; a master switch controls this power to all circuits, except the engine ignition system, optional clock and optional flight hour recorder (operative only when the engine is operating).

AMMETER.

The ammeter indicates the flow of current, in amperes, from the alternator to the battery or from the battery to the aircraft electrical system. When the engine is operating and the master switch is "ON," the ammeter indicates the charging rate applied to the battery. In the event the alternator is not functioning or the electrical load exceeds the output of the alternator, the ammeter indicates the discharge rate of the battery.

FUSES AND CIRCUIT BREAKERS.

Fuses on the left lower portion of the instrument panel protect the majority of electrical circuits in the airplane. Labeling below each fuse retainer indicates the circuits protected by the fuses. Fuse capacity is shown on each fuse retainer cap. Fuses are removed by pressing the fuse retainers inward and rotating them counterclockwise until they disengage. The faulty fuse may then be lifted out and replaced. Spare fuses are held in a clip on the inside of the map compartment door.

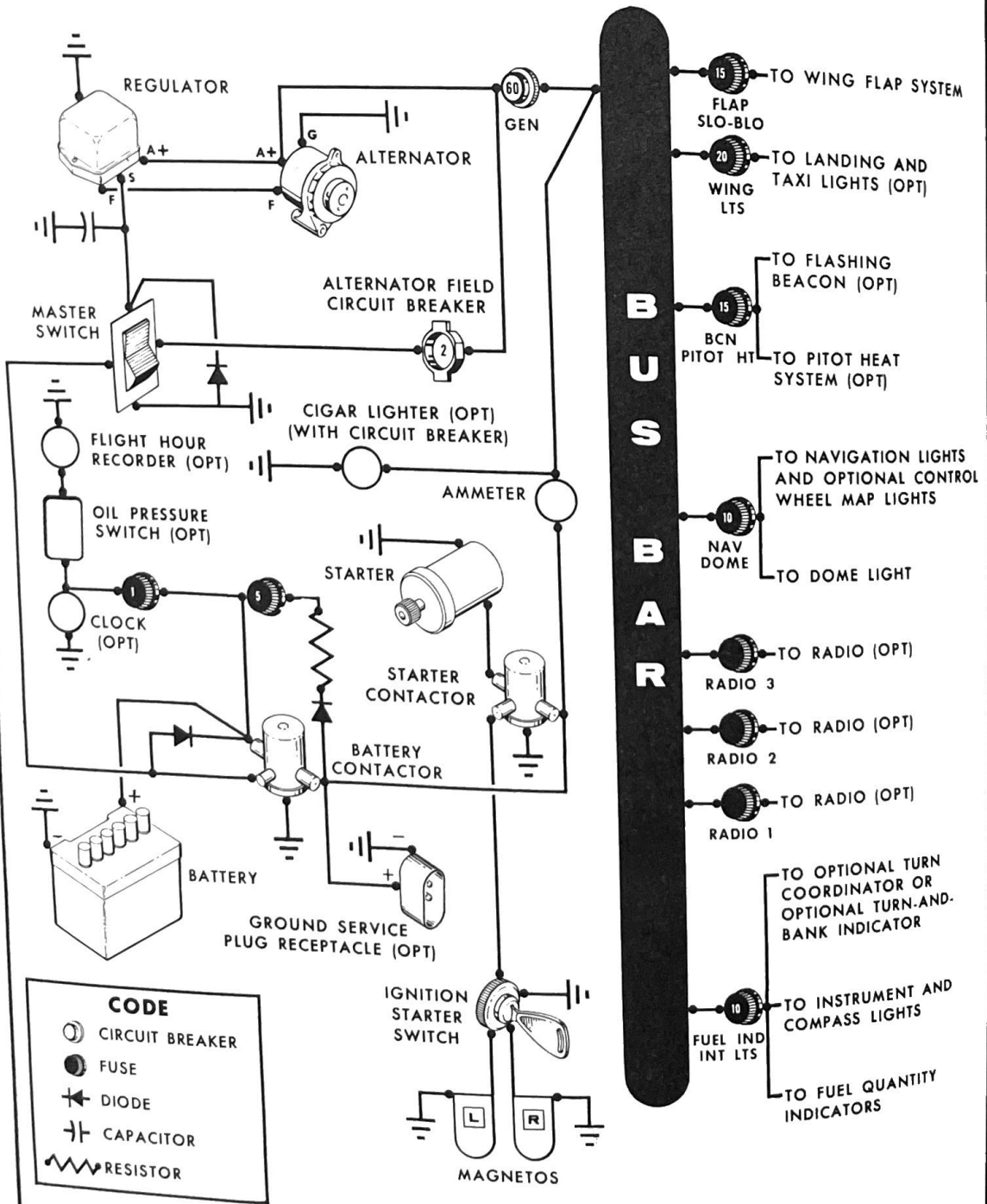
NOTE

A special "SLO-BLO" fuse protects the wing flaps circuit. If this fuse is replaced, care should be taken to assure that the replacement fuse is of the proper type and capacity. A "SLO-BLO" fuse is identified by an integrally mounted spring encircling the fuse element.

Two additional fuses are located adjacent to the battery; one fuse protects the battery contactor closing circuit, and the other fuse protects the optional clock and optional flight hour recorder circuits.

The airplane utilizes three circuit breakers for circuit protection. A "push-to-reset" circuit breaker (labeled "GEN") is located on the left side of the instrument near the fuses and protects the alternator circuit. The

ELECTRICAL SYSTEM SCHEMATIC



F
S
L
E
E
V
F
F
C
F
E
C
E
L

Figure 2-4.

alternator field and wiring is protected by an automatically resetting circuit breaker mounted behind the left side of the instrument panel. The cigar lighter has a manually reset type circuit breaker mounted directly on the back of the lighter behind the instrument panel.

CONTROL WHEEL MAP LIGHT (OPT).

A map light may be mounted on the bottom of the pilot's control wheel. The light illuminates the lower portion of the cabin just forward of the pilot and is helpful when checking maps and other flight data during night operations. To operate the light, first turn on the "NAV LIGHTS" switch, then adjust the map light's intensity with the knurled rheostat knob located at the bottom of the control wheel.

FLASHING BEACON (OPT).

The flashing beacon should not be used when flying through clouds or overcast; the flashing light reflected from water droplets or particles in the atmosphere, particularly at night, can produce vertigo and loss of orientation.

CABIN HEATING AND VENTILATING SYSTEM.

The temperature and volume of airflow into the cabin can be regulated to any degree desired by manipulation of the push-pull "CABIN HEAT" and "CABIN AIR" knobs.

Heated fresh air and outside air are blended in a cabin manifold just aft of the firewall by adjustment of the heat and air controls; this air is then vented into the cabin from outlets in the cabin manifold near the pilot's and passenger's feet. Windshield defrost air is also supplied by a duct leading from the manifold.

A separate adjustable ventilator near each upper corner of the windshield supplies additional outside air to the pilot and passenger.

PARKING BRAKE SYSTEM.

To set parking brake, pull out on the parking brake knob, apply and release toe pressure to the pedals, and then release the parking brake knob. To release the parking brake, apply and release toe pressure on the pedals while checking to see that the parking brake knob is full in.

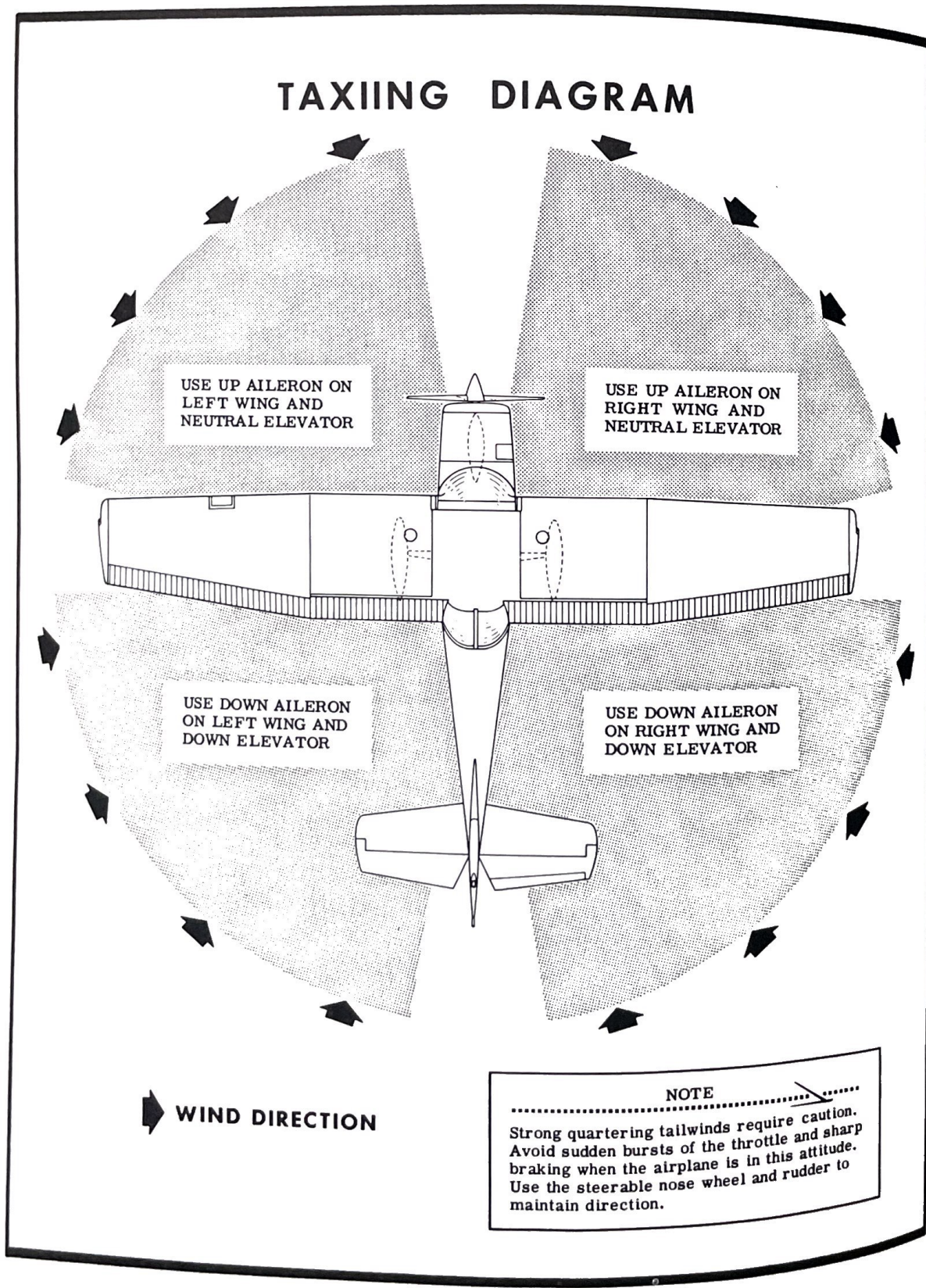


Figure 2-5.

STARTING ENGINE.

Ordinarily the engine starts easily with one or two strokes of primer in warm temperatures to six strokes in cold weather, with the throttle open approximately 1/4 inch. In extremely cold temperatures, it may be necessary to continue priming while cranking.

Weak intermittent explosions followed by puffs of black smoke from the exhaust stack indicate overpriming or flooding. Excess fuel can be cleared from the combustion chambers by the following procedure: Set the mixture control in full lean position, throttle full open, and crank the engine through several revolutions with the starter. Repeat the starting procedure without any additional priming.

If the engine is underprimed (most likely in cold weather with a cold engine) it will not fire at all, and additional priming will be necessary. As soon as the cylinders begin to fire, open the throttle slightly to keep it running.

After starting, if the 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 can cause serious engine damage. After starting, avoid the use of carburetor heat unless icing conditions prevail.

TAXIING.

When taxiing, it is important that speed and use of brakes be held to a minimum and that all controls be utilized (see taxiing diagram, figure 2-5) to maintain directional control and balance.

Taxiing over loose gravel or cinders should be done at low engine speed to avoid abrasion and stone damage to the propeller tips.

The nose wheel is designed to automatically center straight ahead when the nose strut is fully extended. In the event the nose strut is over-inflated and the airplane is loaded to a rearward center of gravity position, it may be necessary to partially compress the strut to permit steering. This can be accomplished prior to taxiing by depressing the airplane nose (by hand) or during taxi by sharply applying brakes.