SYSTEMS

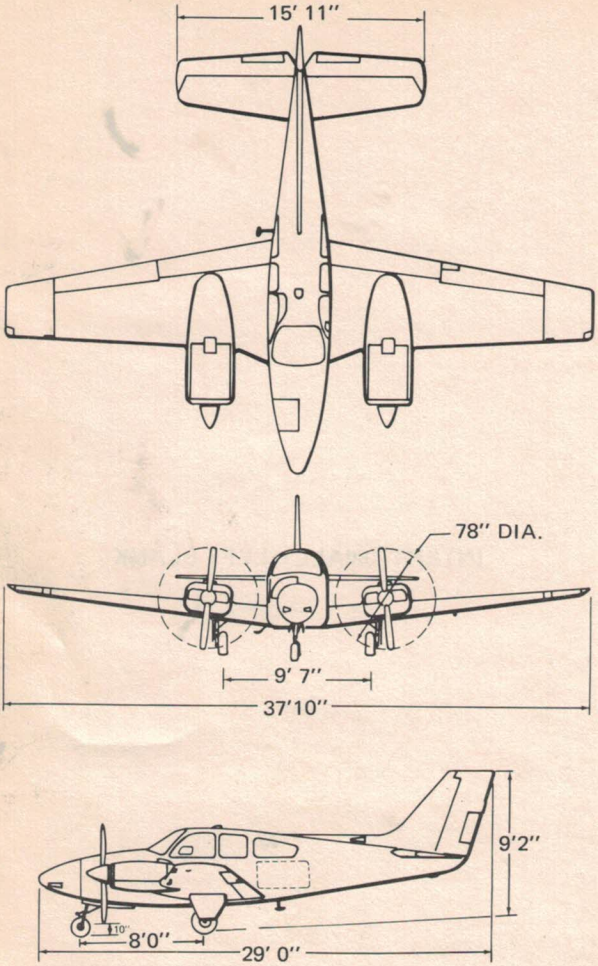
SECTION VI

SYSTEMS

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont'd)

INTENTIONALLY LEFT BLANK



THREE VIEW

E55-607-9

GENERAL SPECIFICATIONS

WEIGHTS

Maximum Take-off (E55)	5300 lbs
Maximum Landing (E55)	5300 lbs
Maximum Take-off (E55A)	4990 lbs
Maximum Landing (E55A)	4990 lbs

DIMENSIONS:

Interior cabin length	11 ft 9 in.
Interior cabin width (Max)	3 ft 6 in.
Interior cabin height (Max)	4 ft 2 in.
Entrance door	37 in. wide x 36 in. high
Standard baggage door	18.5 in. x 22.5 in.
Optional baggage door	38 in. x 22.5 in.

BAGGAGE:

Aft cabin compartment (400 lbs) less occupants and equipment	35 cu ft
Extended rear compartment (120 lbs)	10 cu ft
Nose compartment (300 Lbs) baggage less equipment	18 cu ft

FUEL CAPACITY:

Standard System	106 gallons
Optional System	142 gallons
Optional System	172 gallons

OIL CAPACITY: 12 quarts each engine

INTENTIONALLY LEFT BLANK

Your BEECHCRAFT Baron E-55 is a four to six-place, all-metal, low-wing, twin-engine monoplane with fully retractable tricycle landing gear. It is powered by Continental IO-520-C six-cylinder, horizontally opposed, fuel injected engines rated at 285 horsepower each. Each engine drives either a two-bladed propeller or an optional three-bladed propeller. Both type propellers are constant speed, full feathering and hydraulically controlled.

CONTROL SURFACES

Control surfaces are bearing supported and operated through push-pull rods and conventional cable systems terminating in bell cranks.

CONTROL COLUMN

The throw-over type control column for elevator and aileron control can be placed in front of either the pilot's or copilot's seat. Pull the T-handle latch at the base of the control arm and position the control column as desired.

RUDDER PEDALS

To adjust the rudder pedals, press the spring-loaded lever on the side of each pedal and move the pedal to its forward or aft position. The adjustment lever can also be used to place the right set of rudder pedals against the floor (when the copilot brakes are not installed) when not in use.

TRIM CONTROLS

All trim tabs are adjustable from the control console. A position indicator is provided for each. The left aileron tab

incorporates servo action in addition to its trimming purpose. Elevator trim is controlled by a hand wheel located to the left of the throttle. An elevator tab indicator dial is located above and to the left of the trim control hand wheel.

ELECTRIC ELEVATOR TRIM

The electrical elevator trim system is controlled by the ON-OFF switch located on the instrument panel, a thumb switch on the control wheel and a circuit breaker panel on the left sidewall. The ON-OFF switch must be in the ON position to operate the system. The thumb switch is moved forward for nose down, aft for nose up and when released returns to the center OFF position. When the system is not being electrically actuated, the manual trim control wheels may be used.

WING FLAPS

The wing flaps have three positions; UP, 15° (approach), and DOWN, (30°), with no intermediate positions. A flap position indicator and a control switch are located on the left side of the control console. The switch must be pulled out of a detent to change the flap position as required. The flaps will move to any position selected from any previously selected position.

POWER PLANT CONTROLS

PROPELLER, THROTTLE, AND MIXTURE

The control levers are grouped along the upper face of the control console. Their knobs are shaped to government standard configuration so they can be identified by touch. A single controllable friction knob below and to the left of the control levers prevents creeping.

INDUCTION AIR

Induction air is available from two sources, filtered ram air or alternate air. Filtered ram air enters from the intake air scoop on top of the cowling. Should the filter become obstructed, a spring-loaded door on the alternate air intake will open automatically and the induction system will operate on alternate air taken from the engine accessory section.

COWL FLAPS

The cowl flap for each engine is controlled by a manual control lever located on the lower center console. The cowl flap is closed when the lever is in the up position and open when the lever is down.

LANDING GEAR SYSTEM

CONTROL SWITCH

The landing gear is controlled by a two-position switch on the right side of the control console. The switch handle must be pulled out of the safety detent before it can be moved to the opposite position.

POSITION INDICATORS

Landing gear position lights are located above the control switch. Three green lights, one for each gear, are illuminated whenever the landing gears are down. The red light illuminates anytime one or all of the landing gears are in transit or in any intermediate position. All of the lights will be out when the gears are up. Pressing the press-to-test button on the instrument panel will verify the landing gear lamp bulbs are illuminating. The intensity of the lamps are automatically lowered for night flights when the navigation lights are turned on.

SAFETY SWITCH

A safety switch on the left main strut prevents inadvertent retraction of the landing gear. Never rely on the safety switch to keep the gear down during taxi, take-off or landing roll. Always make certain that the landing gear switch is in the down position during ground operation.

WARNING HORN

If either or both throttles are retarded below an engine setting sufficient to sustain flight with the landing gear retracted, a warning horn will sound intermittently. During single-engine operation, the horn can be silenced by advancing the throttle of the inoperative engine until the throttle warning horn switch opens the circuit.

MANUAL EXTENSION

The landing gear can be manually extended, but not retracted, by operating the handcrank on the rear of the pilot's seat. Make certain that the landing gear handle is in the down position and pull the landing gear MOTOR circuit breaker before manually extending the gear. When the electrical system is operative, the landing gear may be checked for full down with the gear position lights, provided the landing gear RELAY circuit breaker is engaged. After the landing gear is down, disengage the handcrank. For electrical retraction of the landing gear after a practice manual extension use procedures outlined in the EMERGENCY PROCEDURES section.

If the landing gear was extended for emergency reasons do not move any landing gear controls or reset any switches or circuit breakers until the aircraft is on jacks, to prevent a gear retraction on the ground. These procedures are outlined in the EMERGENCY PROCEDURES section.

BRAKES

The brakes on the main landing gear wheels are operated by applying toe pressure to the top of the rudder pedals. The parking brake T-handle control is located just left of the elevator tab wheel on the pilot's subpanel. To set the parking brakes, pull the control out and pump each toe pedal until solid resistance is felt. Push the control in to release the brakes.

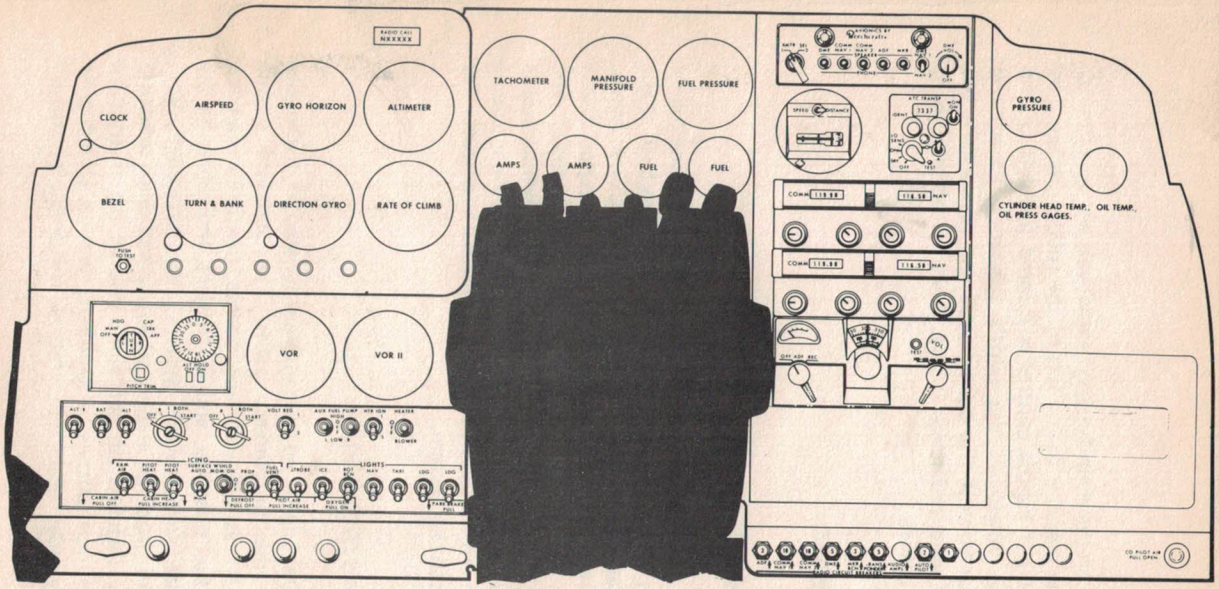
INSTRUMENTS

FLIGHT INSTRUMENTS

The flight instruments are located on a floating panel directly in front of the pilot's seat. Standard flight instrumentation includes attitude and directional gyros, airspeed, altimeter, vertical speed, turn coordinator, and a clock. A magnetic compass is mounted above the instrument panel and an outside air temperature indicator is located on the left side panel. Located on the right side of the instrument panel is the standard pressure indicator for the instrument air system.

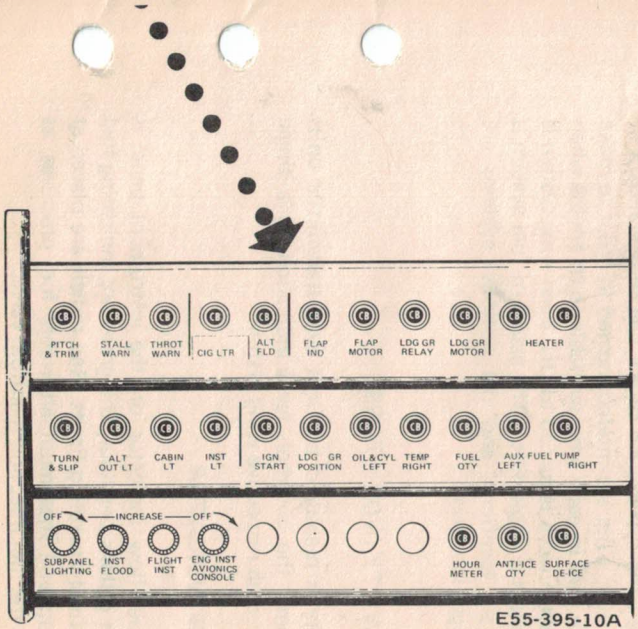
ENGINE INSTRUMENTS

Most of the engine instruments are located in the upper center of the instrument panel. The standard engine indicators are as follows: tachometers, manifold pressure, fuel flow, fuel quantity, and loadmeters. Indicators for the exhaust gas temperature system, the propeller deice ammeter (or propeller alcohol quantity and deice pressure) are usually installed on the right side of the instrument panel. Two multi-purpose instruments, one for each engine, indicate cylinder head temperature, oil pressure, and oil temperature.

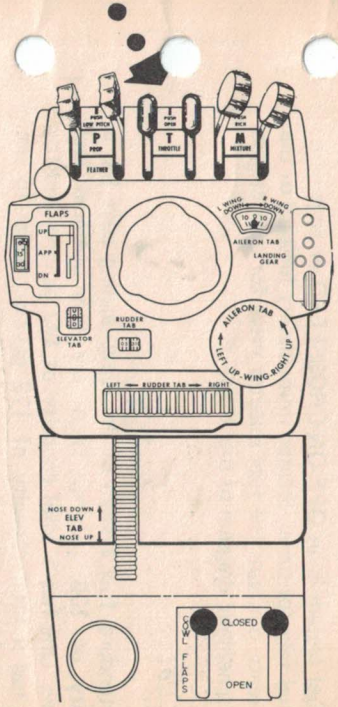


58-390-8A

TYPICAL INSTRUMENT PANEL



LEFT SIDE PANEL



CONTROL CONSOLE AND PEDESTAL

FUEL SYSTEM

The fuel system is an OFF-ON-CROSSFEED arrangement. The fuel selector panel, located immediately forward of the front seats, contains the fuel selector valve for each engine and a schematic diagram of fuel flow.

FUEL CELLS

The standard fuel system in the wing leading edge has a capacity of 106 gallons. There are two optional fuel systems. One has a total capacity of 142 gallons, and the other has a total capacity of 172 gallons. Refer to the LIMITATIONS section for the usable fuel in each system.

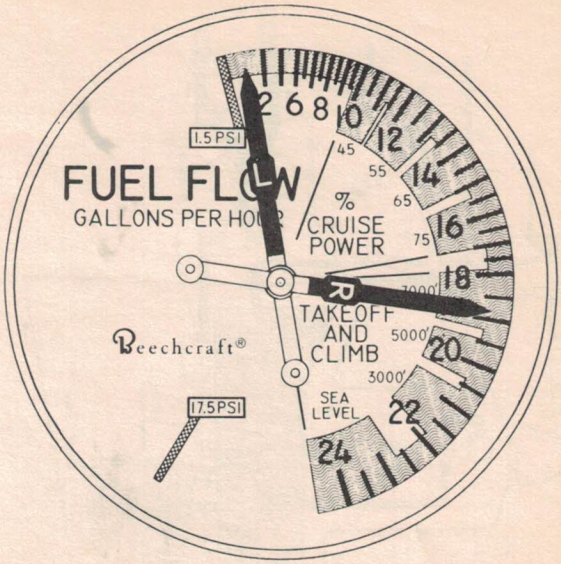
A vapor return line returns excess fuel from the engine to its respective wing system. All of the fuel cells, standard or optional, in each wing are interconnected in order to make all the usable fuel in each wing available to its engine when the fuel selector valve is turned to ON. Each wing system is serviced through a single filler. The standard fuel system is drained at six locations, and the optional systems are drained at eight locations.

FUEL QUANTITY INDICATORS

Fuel quantity is measured by float type transmitter units which transmit the common level indication to a single indicator for each respective wing system.

FUEL FLOW INDICATOR

The dual fuel flow indicator on the instrument panel is calibrated in gallons per hour, the green arc indicating fuel flow for normal operating limits. Red radials are placed at the minimum and maximum allowable fuel pressures, as indicated at the fuel injection manifold valve.

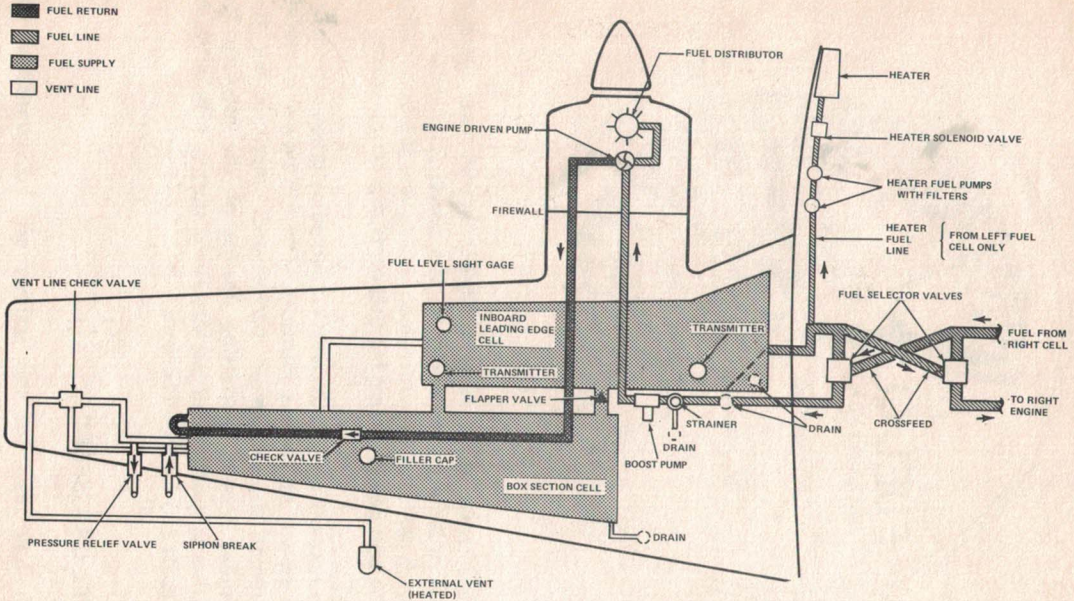


In the cruise power range the green sectors cover the fuel pressure required from 45% to 75% power. The lower edge of each sector is the cruise-lean setting and the upper edge is the best power setting for that particular power range.

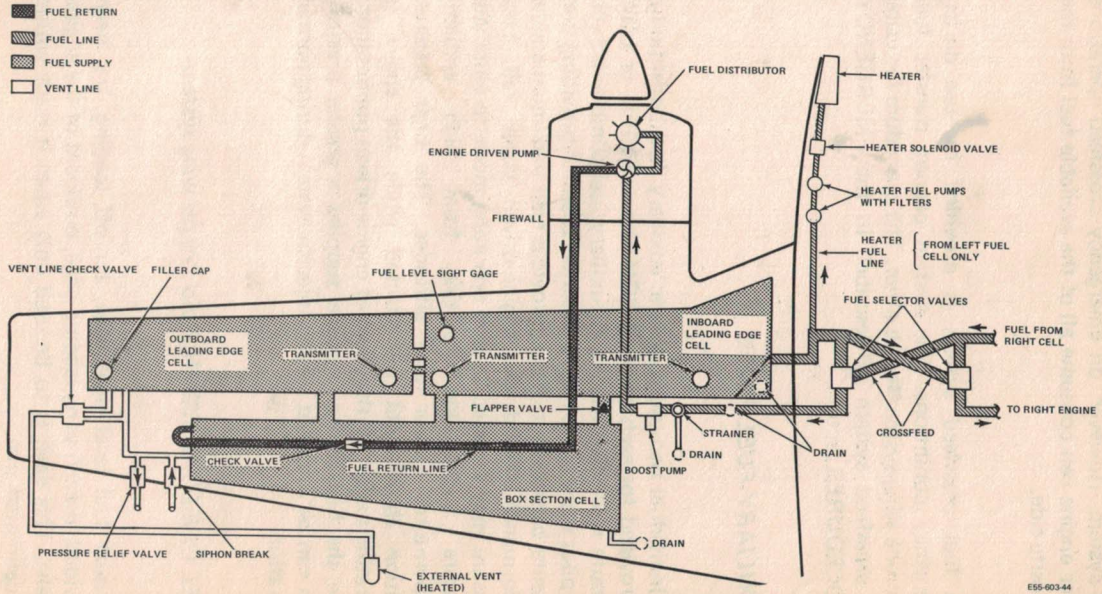
The take-off and climb range is covered by green sectors for full power at various altitudes. The full power markings represent the maximum performance mixtures for the altitudes shown, permitting leaning of the mixture for maximum power and performances during high altitude takeoffs and full power climbs.

FUEL CROSSFEED

The fuel lines for the engines are interconnected by crossfeed lines. During normal operation each engine uses its own fuel pumps to draw fuel from its respective wing



142 GALLON FUEL SYSTEM SCHEMATIC



172 GALLON FUEL SYSTEM SCHEMATIC

fuel system. However, on emergency crossfeed operations either engine can consume all of the available fuel from the opposite side.

The fuel crossfeed system is provided for use during emergency conditions. The system cannot transfer fuel from one wing system to the other. The procedure for using the crossfeed system is described in the EMERGENCY PROCEDURES section.

AUXILIARY FUEL PUMPS

An individual two-speed electric auxiliary fuel boost pump is provided for each engine. HIGH pressure, OFF, or LOW pressure is selected with each auxiliary fuel pump switch on the pilot's subpanel. High pressure is used for providing fuel pressure before starting and provides near maximum engine performance should the engine-driven pump fail. Low pressure may be used in any operating mode to eliminate pressure fluctuations resulting from high ambient temperatures and/or high altitudes. The high pressure position should not be selected while the engine is operating except in the event of engine driven pump failure since the high pressure mode supplies a greater pressure than can be accepted by the injector system during normal operation.

FUEL OFF LOADING (142 and 172 gal wing system)

A visual fuel level sight gage, for off loading, has been provided in each wing leading edge, outboard of the engine nacelle. This gage is to be used only when it reads within the calibrated area.

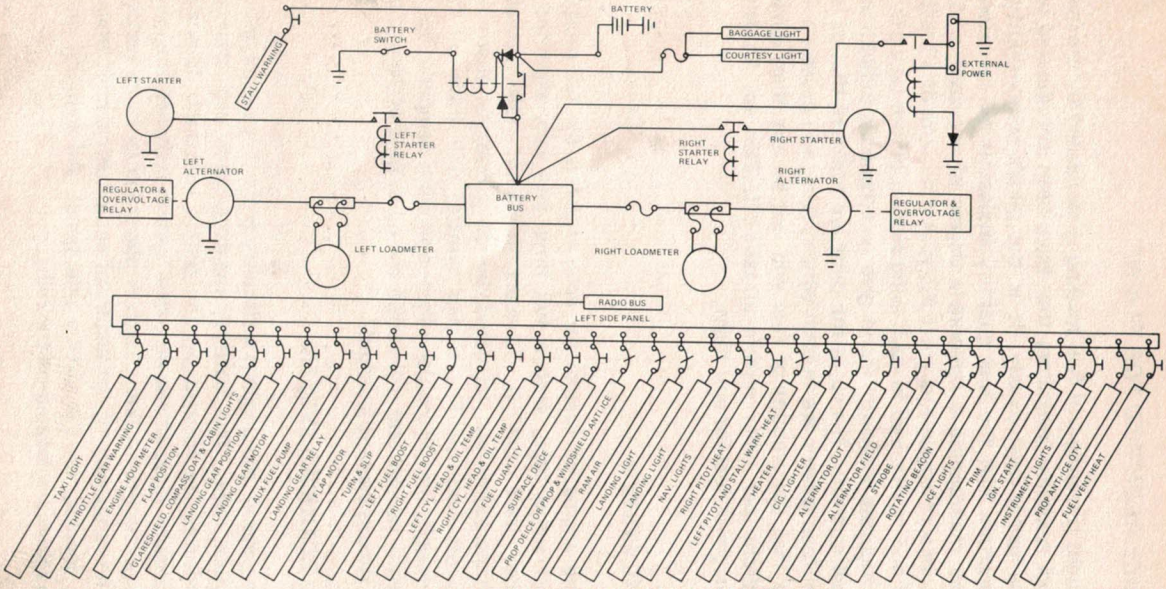
Flight planning and fuel loading is facilitated by the use of fuel quantity indicators that have been coordinated with the usable fuel supply. It is the pilot's responsibility to ascertain that the fuel quantity indicators are functioning and maintaining a reasonable degree of accuracy, and be certain of ample fuel for a flight. A minimum of 13 gallons of fuel is required in each wing system before take-off. An inaccurate indicator could give an erroneous indication of fuel quantity. If you as the pilot are not sure that at least thirteen gallons are in each wing system, add necessary fuel so that the amount of fuel will not be less than thirteen gallons per wing system at take-off. Plan for an ample margin of fuel for any flight.

OIL SYSTEM

The engine oil system for each engine is the full-pressure, wet sump type, with a full flow, integrally mounted oil filter and has a 12-quart capacity. Oil operating temperatures are regulated by an automatic thermostat bypass control. The bypass control will limit oil flow through the oil cooler when operating temperatures are below normal and will permit the oil to bypass the cooler if it should become blocked.

ELECTRICAL SYSTEM

In general, the airplane's circuitry is the single-wire, ground return type. The battery, magneto/start, and alternator switches are located on the pilot's subpanel. This panel contains most of the electrical system switches and switch type circuit breakers. Each is placarded as to its function. The remainder of the electrical equipment circuit breakers is located on the pilot's side panel. All avionics circuit breakers are located on the right.



POWER DISTRIBUTION SCHEMATIC

E55-603-47

BATTERY

One 17 ampere-hour, 24-volt lead acid battery is standard; two 25 ampere-hour, 12-volt lead acid or nickel-cadmium batteries, connected in series, are offered as options. The battery installation is located beneath the floor of the nose baggage compartment. Battery servicing procedures are described in the SERVICING section.

ALTERNATORS

Two 50-ampere, 24-volt, gear-driven alternators are standard equipment.

The alternators are controlled by two fully transistorized electronic voltage regulators. Only one regulator is operable in the system at any one time. The remaining regulator is used as an alternate or standby unit. When switched into the circuit, either regulator will automatically adjust alternator output to the required electrical load, including battery recharging. Selection of the regulators is provided by a two-position selector switch on the pilot's subpanel.

Individual alternator output is indicated by two loadmeters (as opposed to the charge-discharge type ammeter) on the instrument panel. The loadmeters give a percentage reading of the load on the system while an ammeter reading will increase or decrease in direct proportion to the electrical load applied.

Two warning lights placarded ALTERNATOR L-R are located in the floating instrument panel, and will illuminate whenever the respective alternator is disconnected from the bus by low voltage or an over-voltage condition or with the switch in the OFF position. Anytime a failure is detected the appropriate alternator should be turned off. These lights can be tested by the PRESS TO TEST - WARN LIGHT SYSTEM switch located on the floating instrument panel.

STARTERS

The starters are relay-controlled to minimize the length of heavy cable required to carry the high amperage of the starter circuit. They are actuated by rotary type, momentary-on switches incorporated in the magneto/start switches located on the pilot's subpanel. To energize the starter circuit, hold the magneto/start switch in the START position.

INTERIOR LIGHTING

A courtesy light located in the door will be illuminated any time the door is in an open position. The cabin dome light is operated by a switch beside the light. The switches for the individual reading lights above the standard rear seats are located adjacent to the lights. Four rheostat switches are located on the lower level of the circuit breaker panel. One switch adjusts the intensity of the individual instrument lights for the instruments directly above the pilot's subpanel. The second switch controls the intensity of the lighting for the radio panel, fuel selector panel and trim tab indicators. The third switch controls the intensity of the instrument lights in the glareshield. The fourth switch controls the electroluminescent lighting in the pilot's subpanel. The magnetic compass light and the outside air temperature indicator light are controlled by a switch on the pilot's control wheel.

EXTERIOR LIGHTING

The switches for the navigation lights and landing lights plus the switches for the rotating beacons, nose gear, taxi light, and wing ice lights, are grouped along the top of the pilot's subpanel. The landing lights in the leading edge of each wing tip are operated by separate switches. For longer battery and lamp service life, use the landing lights only

when necessary. Avoid prolonged operation, during ground maneuvering, which could cause overheating. An optional taxi light is offered as an alternate for use during ground operation. At night, reflections from rotating anti-collision lights on clouds, dense haze, or dust can produce optical illusions and vertigo. The use of these lights may not be advisable under instrument or limited VFR conditions.

PRESSURE SYSTEM

Pressure for the flight instruments, deice boots, and autopilot (if installed) is supplied by two, engine-driven, dry, pressure pumps interconnected to form a single system. If either pump fails, check valves automatically close and the remaining pump continues to operate all gyro instruments. A pressure gage on the instrument panel indicates pressure in inches of mercury. Two red buttons on the pressure gage serve as source failure indicators, each for its respective side of the system. The pressure system incorporates two filters per engine. One is located on the rear baffle of the engine to filter intake air to the pressure pump. The other is down stream of the pump and is located aft of the firewall in the upper nacelle. This filter protects the instruments.

STALL WARNING

A stall warning horn on the cabin forward bulkhead sounds a warning signal while there is time for the pilot to correct the attitude. The horn is triggered by a sensing vane on the leading edge of the left wing and is equally effective at all flight attitudes, weights, and airspeeds. The signal is irregular and intermittent at first, but will become steady as the airplane approaches a complete stall.

In icing conditions, stalling airspeeds should be expected to increase due to the distortion of the wing airfoil when ice has accumulated on the airplane. For the same reason, stall

warning devices tend to lose their accuracy. The sensing vane is installed on a plate that can be electrically heated, preventing ice from forming on the vane of the transducer. A switch on the pilot's subpanel, placarded PITOT HEAT, supplies power to the heated pitot mast and to the heating plate at the stall warning transducer. However, any accumulation of ice in the proximity of the stall warning vane reduces the probability of accuracy in the stall warning system whether or not the vane itself is clear of ice. For this reason, it is advisable to maintain an extra margin of airspeed above the stall speed.

EMERGENCY STATIC AIR SOURCE

The emergency static air source is designed to provide a source of static pressure to the instruments from inside the fuselage should the outside static air ports become blocked. An abnormal reading of the instruments supplied with static air could indicate a restriction in the outside static air ports. A lever on the right side panel is placarded NORMAL OFF, EMERGENCY ON. When it is required, select EMERGENCY ON position. Refer to the Airspeed Calibration and Altimeter Correction tables in the EMERGENCY PROCEDURES section.

SURFACE DEICE SYSTEM

Deice boots cemented to the leading edges of the wings and the tail surfaces are operated by engine-driven pump pressure. Compressed air, after passing through the pressure regulator, goes to the distributor valve. When the deice system is not in operation, the distributor valve applys vacuum to the boots to deflate and hold the boots flat against the surface. Then, when the deice system is operated, the distributor valve changes from vacuum to pressure and the boots inflate. After the cycle is completed, the valve returns to vacuum hold down.

A three-position, spring loaded switch, with a center OFF position, a MAN (manual) down position, and an up AUTO (automatic) position, controls the system. When the switch is in the AUTO position, the deice boots inflate for a period of five to six seconds, then deflate automatically and return to the vacuum hold down condition. The switch must be tripped for each complete cycle. In the MAN position the deice boots inflate as long as the switch is held in this position. When the switch is released, the boots deflate and go to the vacuum hold down condition.

Deice boots are intended to remove ice after it has accumulated, rather than prevent its formation. If the rate of ice accumulation is slow, best results are obtained by leaving the deice system off until 1/2 to 1 inch of ice accumulates. Bridging can occur if boots are activated too early or too frequently. Best results are obtained by applying a cycle of the AUTO position each 60 seconds to avoid the possibility of ice growing outside the contour of the inflated boots preventing ice removal.

Wing ice lights, used to check for ice accumulation during night operation, are located on the outboard side of each nacelle. The light switch is on the pilot's subpanel.

PROPELLER ANTI-ICE SYSTEM OR PROPELLER AND WINDSHIELD ANTI-ICE SYSTEM (FLUID FLOW)

The system is designed to prevent the formation of ice. Always place the system in operation before encountering icing conditions.

Ice is prevented from forming on the propeller blades by wetting the blade anti-ice boots with anti-icing fluid. The anti-ice pump delivers a constant flow of fluid from the supply tank to the blade boots. The pump is controlled by an ON-OFF switch located on the pilot's subpanel.

Windshield anti-ice (when installed) receives anti-ice fluid

from the same source as the propeller anti-ice system. Ice is prevented from forming on the windshield by wetting the windshield surface with anti-ice fluid. This system is controlled by a three position switch, MOM ON-OFF-ON, on the pilot's subpanel. The system will not function unless the propeller anti-ice pump switch is turned ON. An indicator on the right side of the instrument panel indicates the amount of fluid in the supply tank.

ELECTROTHERMAL PROPELLER DEICE (2 and 3 BLADES)

Propeller ice removal is accomplished by the electrically heated deice boots bonded to each propeller blade. The system uses the aircraft electrical power to heat portions of the deice boots in a sequence controlled by a timer. The system is controlled by an ON-OFF switch on the pilot's subpanel. When the system is turned on the ammeter will register 7 to 12 amperes on the 2 blade propeller, or 14 to 18 amperes on the 3 blade propeller. A small momentary deflection of the ammeter needle may be noticed approximately every 30 seconds; this is due to the switching action of the timer and is an indication of normal operation. The system can be operated continuously in flight; it will function automatically until the switch is turned off. Propeller imbalance can be relieved by varying rpm. Increase rpm briefly, then return to the desired setting. Repeat if necessary.

CAUTION

Do not operate the system with the engines inoperative.

CABIN HEATING

A combustion heater in the nose cone supplies heated air to five outlets in the cabin. Outlets are located forward of the pilot and copilot seats, at the rear of the copilot's seat, and at the rear of the right passenger seat. The fifth outlet provides heated air for windshield defrosting.

In flight, ram air enters an intake on each side of the nose cone, passes through the heater, and is distributed to the cabin outlets. For ground operation, a blower maintains airflow through the system.

If a malfunction resulting in dangerously high temperatures should occur, a thermostat will ground a fuse in the heater power circuit. This renders the heater system, except the blower, inoperative. MAKE CERTAIN ANY MALFUNCTION CAUSING THE OVERHEAT FUSE TO BLOW IS CORRECTED BEFORE ATTEMPTING TO OPERATE THE HEATER AGAIN.

HEATER OPERATION

1. A three-position switch, placarded BLOWER, OFF, and HEATER, is located on the pilot's subpanel. To place the heating system in operation, move the switch to the HEATER position.
2. The CABIN AIR T-handle control, which regulates the amount of intake air, is below the left side of the pilot's subpanel. Push the CABIN AIR control full forward.
3. Pull out the CABIN HEAT control to the right of the CABIN AIR control to raise the temperature of the heated air. Push the CABIN HEAT control in to decrease temperature.

4. For windshield defrosting, push in the DEFROST control located to the right of the CABIN HEAT control.
5. To direct heated air onto the pilot's feet, pull out the PILOT AIR control to the right of the DEFROST control.
6. The COPILOT AIR control, identical to the PILOT AIR control, is located below the right side of the instrument panel.

HEAT REGULATION

For maximum heat, the CABIN AIR control can be pulled partially out to reduce the volume of incoming cold air and permit the heater to raise the temperature of the admitted air. However, if the CABIN AIR control is pulled out more than halfway, the heater will not operate.

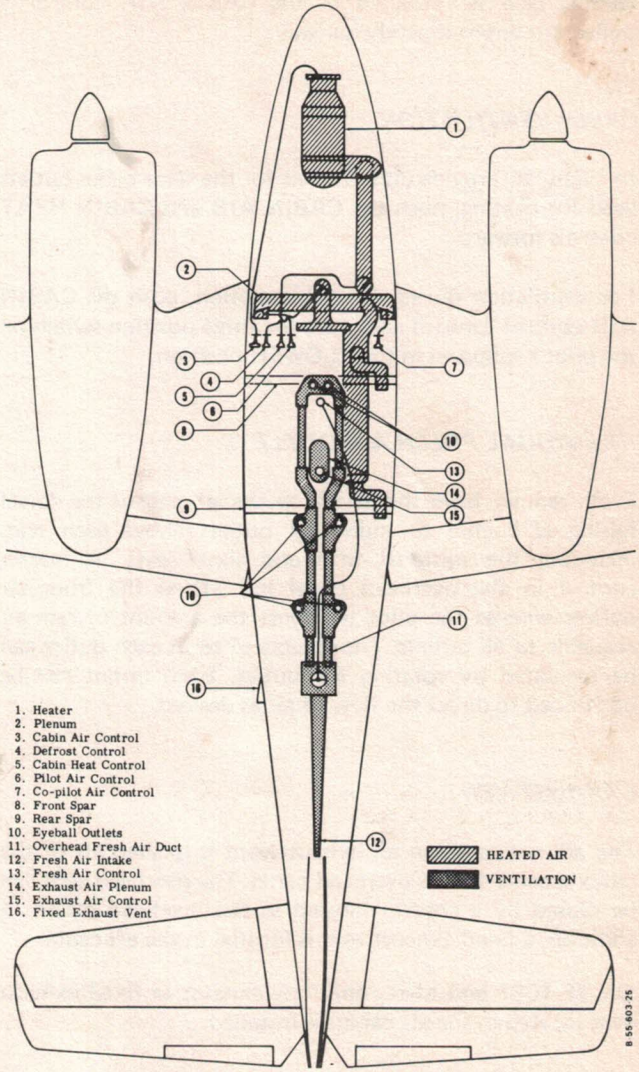
The volume of air available for the pilot outlet and the copilot outlet can be divided between the two outlets as desired by adjusting each control individually.

More heated air will be available for defrosting by reducing the flow of air from the pilot outlet, copilot outlet, or both.

The PILOT AIR and the COPILOT AIR controls can be used to regulate the amount of air distributed to the two rear outlets.

HEATER BLOWER

When the three-position switch on the pilot's subpanel is placed in either the HEATER position or the BLOWER position, the blower will operate if the landing gear is in the extended position and the CABIN AIR control is more than halfway in. The blower will automatically shut off if the



HEATING AND VENTILATING SCHEMATIC

landing gear is retracted or the CABIN AIR control is pulled out approximately halfway.

CABIN VENTILATION

In flight, to provide unheated air for the same cabin outlets used for heating, push the CABIN AIR and CABIN HEAT controls forward.

For ventilation during ground operation, push the CABIN AIR control forward and place the three-position switch on the pilot's subpanel in the BLOWER position.

INDIVIDUAL FRESH AIR OUTLETS

Fresh ram air from the intake on the left side of the dorsal fairing is ducted to individual outlets above each seat, including the optional fifth and sixth seats. A master control in the overhead panel just aft of the front air outlets enables the pilot to adjust the amount of ram air available to all outlets. The volume of air at each outlet can be regulated by rotating the outlet. Each outlet can be positioned to direct the flow of air as desired.

EXHAUST VENT

The adjustable cabin air exhaust vent is located aft of the radio speaker in the overhead panel. The overhead vent can be closed by a control located in the overhead panel. In addition, a fixed exhaust vent is located in the aft cabin.

On TE-1087 and after, only one exhaust (a fixed exhaust vent located in the aft cabin) is installed.

SEATING

To adjust any of the four standard seats forward or aft, pull up on the release bar below the seat and slide the seat to the desired position. The seat backs of all standard seats can be placed in any of four positions by operating a gray release lever on the inboard side of each seat. An option is available that provides for the seat backs on the 3rd, 4th, and copilot's seats to be placed in any position from vertical to fully reclined. Outboard armrests for all standard seats are built into the cabin sidewalls. Center armrests can be elevated or positioned flush with the seat cushions. On TE-1078 and after, the 3rd and 4th place chairs are equipped with a locking back to accommodate the shoulder harness, and the seat back can be folded over for access by rotating the red handle located on the lower inboard side of the seat back. The optional 5th & 6th seats can be folded up to provide additional floor space, or folded down to provide access to the extended baggage compartment.

SHOULDER HARNESS INSTALLATION (Prior to TE-1078)

The shoulder harness installation is available for the pilot seats only. The belt is in the "Y" configuration with the single strap being contained in an inertia reel attached to the overhead canopy structure of the cockpit. The two straps are worn with one strap over each shoulder and fastened by metal loops into the seat belt buckle. The harness should be used with the seats in the upright position. The spring loading at the inertia reel keeps the harness snug but will allow normal movement required during flight operations. The inertia reel is designed with a locking device that will secure the harness in the event of sudden forward movement or an impact action.

SHOULDER HARNESS (TE-1078 and After)

The shoulder harness is a standard installation for all seats and should be used with the seats in the upright position. The spring loading at the inertia reel keeps the harness snug but will allow normal movement during flight operations. The inertia reel is designed with a locking device that will secure the harness in the event of sudden forward movement or an impact action.

The strap is worn over the shoulder and down across the body, where it is fastened by a metal loop into the seat belt buckle. For the pilot seats, the harness strap is contained in an inertia reel attached to the side canopy structure of the cockpit. The inertia reel is covered with an escutcheon and the strap runs up from the reel location to a looped fitting attached to the window frame just aft of the pilot seats. For the 3rd & 4th seats, the inertia reel is attached into the seat back structure and is covered with the seat back upholstery. The strap runs up the seat back and over the outboard corner of the seat back. For the 5th & 6th seats, the strap is contained in an inertia reel attached to the upper fuselage side structure, just aft of the seat back and is covered with an escutcheon.

NOTE

The seat belt is independent of the shoulder harness, but the outboard seat belt and the shoulder harness must be connected for stowage when the seat is not occupied.

OXYGEN SYSTEM

WARNING

Proper safety measures must be employed when using oxygen, or a serious fire hazard will be created. NO SMOKING PERMITTED.

DESCRIPTION

The recommended masks are provided with the system. The masks are designed to be easily adjustable to fit the average person comfortably, with minimum leakage of oxygen.

CAUTION

Since 90% of the system efficiency is determined by the fit of the oxygen mask, make certain the masks fit properly.

Properly fitted, the masks are considered adequate for continuous use to 30,000 feet.

The oxygen cylinder is located at the aft end of the forward baggage compartment. The system is available with either four, five, or six outlets and with a 49.8 or 66 cu ft oxygen bottle. Supply of oxygen to the system is controlled by a push-pull control on the pilot's subpanel. The pressure indicator shows the supply of oxygen available (1850 psi is nominal pressure for a full supply in the cylinder).

The system regulator is altitude compensated to provide a varying flow of oxygen with altitude. Flow is varied automatically from 0.5 liters per minute at 5,000 feet to 3.5 liters per minute at 30,000 feet. The use of oxygen is recommended to be in accordance with current FAR operating rules.