

## **EMERGENCY PROCEDURES - ELECTRICAL**

### **ALTERNATOR/ELECTRICAL FAILURE**

An alternator failure is indicated by a steady discharge on the ammeter.

- 1) Master switch ⇒ CYCLE in attempt to reset the over-voltage relay
- 2) If excessive battery discharge continues, turn OFF all non-essentials electrical equipment to conserve battery power.
- 3) Land as soon as practical as the battery will furnish electrical power for a limited time only.

If only one circuit (e.g. Radio) appears to be inoperative, remove and replace the suspected fuse with a spare of the same amperage rating. The spare fuses are located above the regular fuses in use.

### **NOTE**

Engine operation is unaffected by a complete electrical system failure with the exception of the engine starter.



**BELLANCA CITABRIA  
Model 7ECA**

**N8503**

**Checklist**

Ver. July 2<sup>nd</sup>, 2003

## OPERATING LIMITATIONS

All the restrictions required by the Airplane Flight Manual apply.

### Flight Conditions:

ONLY day flight in VFR condition is approved.

### Airspeeds:

Never Exceed speed (red line)  $V_{NE}$ : 162 MPH  
Maximum Structural Cruising speed  $V_{NO}$ : 120MPH  
Maneuvering speed  $V_A$ : 120MPH@1650 LBS  
104MPH@1250 LBS  
Stall speed  $V_S$ : 51MPH Best Glide speed  $V_{GL}$ : 65MPH  
Best Angle of climb  $V_X$ : 58MPH Best Rate of climb  $V_y$ : 69MPH  
Approach Speed 60-70MPH

### Engine instruments

Lycoming Engine model 0-235-C1 115HP@2800RPM

Oil pressure gauge

Minimum idling (red line) 25 psi  
Normal (green arc) 60 to 100 psi  
Maximum start and warm-up 100 psi  
Caution (yellow arc) 25-60 psi

Oil temperature gauge

Maximum (red line) 245° F  
Normal (green arc) 100° to 245° F

Tachometer

Maximum RPM (red line) 2800 RPM  
Normal (green arc) 1800 to 2800 RPM

### FUEL

Fuel type: 80 or 100LL

Tanks capacity: 2 x 13 gals =26 gals

Usable fuel: 2 x 11 gals = 22 gals.

Take off prohibited with any fuel indicator at ¼ or less.

Typical fuel consumption: 7.5 GPH.

### OIL

Oil weight

Summer: W100 (SAE 50) Winter: W80 (SAE 40)

Oil capacity

Minimum for flight : 5 quarters Maximum: 6 quarters

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## EMERGENCY PROCEDURES - FIRE

### ENGINE FIRE DURING START

If the fire is believed to be confined in the intake or exhaust system (result of flooding engine):

- 1) Continue cranking engine with starter
- 2) Mixture control ⇒ IDLE CUT-OFF
- 3) Throttle ⇒ FULL OPEN
- 4) Inspect aircraft thoroughly for damage and cause prior to restart

If fire persists or is not limited to intake or exhaust system:

- 1) Mixture control ⇒ IDLE CUT-OFF
- 2) Fuel shut-off valve ⇒ OFF
- 3) Electrical and magneto switches ⇒ ALL OFF
- 4) Exit aircraft
- 5) Direct fire extinguisher through the bottom of the nose cowl or through the cowl inspection door

### ENGINE FIRE IN FLIGHT

- 1) Mixture control ⇒ IDLE CUT-OFF
- 2) Fuel shut-off valve ⇒ OFF
- 3) Electrical and magneto switches ⇒ ALL OFF
- 4) Cabin heat ⇒ OFF
- 5) Use hand fire extinguisher if available
- 6) Land immediately using "Forced Landing Procedures"

### ELECTRICAL FIRE

An electrical fire is usually indicated by an odor of hot or burning insulation.

- 1) Electrical switches ⇒ ALL OFF (leave magneto switches ON)
- 2) Air vents/windows ⇒ OPEN if necessary for smoke removal and ventilation
- 3) Use hand fire extinguisher if available
- 4) If fire continues, land immediately

If fire/smoke stops and electrical power is required for the remainder of the flight, turn master switch ON followed by the desired circuit switch. Allow sufficient time between turning ON each switch in order that the faulty circuit may be located and switched OFF.

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## **EMERGENCY PROCEDURES -DITCHING**

### **DITCHING**

Should it become necessary to make a forced landing over water, follow the “Forced Landing Procedures” in addition to the following:

- 1) Cabin side door ⇒ JETTISON
- 2) Land into the wind if high winds are evident or parallel to swells with calm winds
- 3) Contact the water with nose high attitude
- 4) DO NOT STALL prior to touchdown
- 5) After coming to a complete stop ⇒ EXIT AIRCRAFT

### **NOTE**

Aircraft cannot be depended on to provide floatation after contacting water.

## **EMERGENCY PROCEDURES -ENGINE MALFUNCTIONS**

### **ENGINE FAILURE ON TAKEOFF**

If sufficient runway remains:

- 1) Throttle ⇒ CLOSED
- 2) Land using maximum braking after touchdown

If airborne and insufficient runway remains for landing, attempt an engine restart if sufficient altitude permits:

- 1) Fuel shut-off valve ⇒ check ON
- 2) Mixture control ⇒ FULL RICH
- 3) Carburetor ⇒ FULL HOT
- 4) Magneto switches ⇒ BOTH ON (up)

If no restart is possible:

- 1) Select most favorable landing area ahead

### **WARNING**

Maintain flying speed at all times and do not attempt to turn back toward the runway unless sufficient altitude has been achieved.

### **ENGINE AIR RESTART**

- 1) Maintain airspeed ⇒ 65 MPH minimum recommended
- 2) Magneto switches ⇒ BOTH ON (up)
- 3) Mixture ⇒ FULL RICH or as required at high altitude
- 4) Fuel shut-off valve ⇒ CHECK ON
- 5) Carburetor air ⇒ FULL HOT
- 6) Engine primer ⇒ CHECK OFF
- 7) If restart is not possible, change throttle, mixture, primer, magneto, carburetor air heat settings, in attempt to restart
- 8) Follow “Forced Landing Procedures” if unable to restart

### **NOTE**

The engine starter may be engaged in flight should the engine stop windmilling.

### **PARTIAL POWER LOSS/ROUGH RUNNING**

- 1) Follow engine air restart procedure
- 2) Land as soon as practical using "Precautionary landing Approach" procedures

Carburetor icing is indicated if a gradual RPM loss is noticed. The carburetor air should be FULL HOT as long as suspected icing conditions exist.

### **ABNORMAL OIL PRESSURE/TEMPERATURE INDICATIONS**

Oil pressure and temperature problems are usually related with one affecting the other. Before any drastic action is taken, cross check other engine instruments and control settings in an attempt to determine the source of the problem.

High oil temperature is generally a result of loss of oil, overheating (note CHT if available) or a malfunctioning oil cooler by-pass valve. If the situation remains unchecked, oil pressure usually drops resulting in possible engine damage. Power should be reduced while maintaining cruise airspeed; place mixture in FULL RICH position and land as soon as practical.

Little or no oil pressure is usually caused by a failed pressure relief valve, pump, loss of oil, clogged oil line, high oil temperature or a defective gauge. A landing should be made as soon as practical using minimum RPM changes. Plan a "Precautionary Landing Approach" as complete engine failure is possible at any time.

### **EMERGENCY PROCEDURES -LANDINGS**

#### **PRECAUTIONARY LANDING APPROACH**

A precautionary landing approach should be used whenever power is still available but a complete power failure is considered imminent. Maintain a higher and closer pattern than normal in attempt to remain in gliding distance of the intended touchdown point. Use the normal landing procedures in addition:

- 1) Airspeed  $\Rightarrow$  65 MPH recommended (60 MPH minimum)
- 2) Throttle  $\Rightarrow$  CLOSED  
when in gliding distance from the runway

#### **NOTE**

Slipping the aircraft by cross controlling the rudder and ailerons will increase the rate of descent. If crosswind exists place the lower wing into the wind.

#### **FORCED LANDING (Complete Power Failure)**

If the engine cannot be restarted in flight, trim the aircraft to the recommended glide speed. Remain within gliding distance of the intended point of landing. Maintain a higher and closer pattern than normal making allowance for wind.

Additional altitude can be lost slipping the aircraft. Diving the aircraft in an attempt to lose altitude will only increase the required landing distance.

- 1) Airspeed  $\Rightarrow$  Maintain 60 to 65 MPH
- 2) Mixture  $\Rightarrow$  IDLE CUT-OFF
- 3) Fuel shut-off valve  $\Rightarrow$  OFF
- 4) Master switch  $\Rightarrow$  ON
- 5) Radio  $\Rightarrow$  MAYDAY (Emergency frequency 121.5MHz)
- 6) Transponder  $\Rightarrow$  7700
- 7) Attempt to position the aircraft approximately 1000ft above ground level (AGL) over the intended point of landing or 500 ft when downwind and abeam the intended point of landing.
- 8) Electrical switches  $\Rightarrow$  ALL OFF
- 9) Airspeed on final  $\Rightarrow$  65 MPH recommended  
(60 MPH minimum)
- 10) Touchdown with minimum airspeed (three point full stall) if landing on rough terrain.

#### **NOTE**

If necessary, after airplane has come to a complete stop, remove and activate the emergency locator transmitter from the aircraft for increased transmitting range. -7-

#### 4) NOSE SECTION

- a) Windshield ⇒ CHECK condition, cleanliness
- b) Oil ⇒ CHECK quantity, dip stick secure
- c) Fuel ⇒ DRAIN gascolator, CHECK leakage
- d) Engine compartment ⇒ CHECK condition, leakage, etc.
- e) Cowling and inspection door ⇒ CHECK condition, security
- f) Propeller and spinner ⇒ CHECK condition, security
- g) AIR filter ⇒ CHECK condition
- h) Landing light ⇒ CHECK condition
- i) Fuel drain ⇒ DRAIN, check leakage

#### 5) LEFT MAIN GEAR

- a) Chocks ⇒ REMOVE
- b) Tires ⇒ CHECK condition, inflation
- c) Brakes ⇒ CHECK condition, leakage

#### 6) RIGHT WING

- a) Wing root fairing ⇒ CHECK secure
- b) Aileron ⇒ CHECK condition, freedom of movement, security
- c) Wing tip and light ⇒ CHECK condition
- d) Wing struts ⇒ Inspect front and rear lift struts for straightness, dents and other damage. Check struts drain holes to insure they are not plugged and the struts do not contain water.
- e) Tie-down ⇒ REMOVE
- f) Pitot tube/Static ports ⇒ CHECK unobstructed
- g) Fuel ⇒ CHECK quantity (compare with fuel gauges indication), color, cap secure
- h) Fuel vent ⇒ CHECK unobstructed
- i) Stall warning vane (if installed) ⇒ CHECK freedom of movement

#### 7) FUSELAGE LEFT SIDE

- a) Fabric ⇒ CHECK condition, oil, battery acid leakage, etc.
- b) Windows ⇒ CHECK condition, cleanliness
- c) Fuel belly drain ⇒ DRAIN, check leakage
- d) Radio Antennas ⇒ CHECK secure

## UNUSUAL FLIGHT CONDITIONS

### TURBULENCE

To prevent overstressing the aircraft do not exceed 120 MPH in rough air. To minimize personal discomfort, decrease the indicated airspeed below 80 MPH.

Maintain a level flight attitude rather than flying by reference to the altimeter and airspeed indicator as the pitot-static instruments may become very erratic.

### STALLS

The Citabria stall characteristics are conventional. The stall warning horn (if installed) will precede the actual stall by 5 to 10 MPH depending on the amount of power used. There is sufficient aerodynamic buffeting preceding the stall to provide the pilot with adequate warning.

Aileron control response in a fully stalled condition is marginal. Large aileron deflections will aggravate a near stalled condition and their use is not recommended to maintain lateral control. The rudder is very effective and should be used for maintaining lateral control in a stalled condition with the aileron placed in a neutral position.

To recover from a stall proceed as follows:

- 1) Nose attitude ⇒ LOWER  
with forward movement of control stick
- 2) Throttle ⇒ FULL OPEN  
simultaneously with control stick movement
- 3) Use rudder to maintain lateral control

### SPINS

If a spin is inadvertently entered, immediate recovery should be initiated. The recovery procedure is as follows:

- 1) Throttle ⇒ CLOSED
- 2) Rudder ⇒ FULL DEFLECTION opposite direction of rotation
- 3) Elevator ⇒ SLIGHTLY FORWARD OF NEUTRAL
- 4) Ailerons ⇒ NEUTRAL POSITION

When rotation stops (1/2 to 1 turn after recovery initiated)

- 5) Rudder ⇒ NEUTRALIZE
- 6) Nose attitude ⇒ RAISE smoothly to level flight attitude

### WARNING

During spin recovery, the airspeed will build very rapidly with a nose low attitude. Do not use full or abrupt elevator control movements.

## **OVERSTRESSING**

Should an overstress occur due to exceeding the airspeed or load factor limits, maneuvering should be terminated immediately. Fly at reduced airspeed (60 to 70 MPH) to a suitable landing point. DO NOT under any circumstances, make large control movements or subject the aircraft to additional G loadings above the required for straight and level flight. After landing, the aircraft should be inspected by a mechanic prior to the next flight.

## **EMERGENCY EXIT/BAIL OUT**

- 1) Throttle ⇒ CLOSED
- 2) Door ⇒ JETTISON
- 3) Use the cabin door frame for support.  
Dive straight out and slightly aft of wing struts.
- 4) Parachute ⇒ OPEN immediately when clear of aircraft  
(preflight and familiarize yourself with operating procedures of the parachute before the flight).

## **NOTE**

Emergency exit is also possible through the left window.

## **NORMAL PROCEDURES - PREFLIGHT**

### **PREFLIGHT INSPECTION**

- 1) CABIN
  - a) Documents/equipment required for the flight:  
Airworthiness, Registration, Flight Manual  
Pilot documents, Maps, Airport Facility Directory, FSS Briefing
  - a) Cabin door ⇒ CHECK condition, security
  - b) TACH time ⇒ Take note.
  - c) Flight controls ⇒ CHECK freedom of movement
  - d) Magneto and electrical switches ⇒ OFF  
(check operation of lights if required and stall warning system with respective switches ON)
  - e) Fuel quantity gauges ⇒ CHECK quantity
  - f) Fuel shutoff valve ⇒ ON
  - g) Seat belts ⇒ CHECK CONDITION,  
secure rear belt and harness if not in use
  - h) Emergency locator transmitter ⇒ ARMED
- 2) RIGHT WING
  - a) Wing root fairing ⇒ CHECK secure
  - b) Aileron ⇒ CHECK condition, freedom of movement, security
  - c) Wing tip and light ⇒ CHECK condition
  - d) Wing struts ⇒ Inspect front and rear lift struts for straightness, dents and other damage. Check struts drain holes to insure they are not plugged and the struts do not contain water.
  - e) Tie-down ⇒ REMOVE
  - f) Pitot tube ⇒ CHECK unobstructed
  - g) Fuel ⇒ CHECK quantity  
(compare with fuel gauges indication), color, cap secure
- 3) RIGHT MAIN GEAR
  - a) Chocks ⇒ REMOVE
  - b) Tires ⇒ CHECK condition, inflation
  - c) Brakes ⇒ CHECK condition, leakage

## **NORMAL PROCEDURES -TAXI, TAKEOFF, CLIMB**

### **TAXI**

Taxi operations during high winds require the conventional use of the flight controls. With a headwind or quartering headwind, place the control stick full aft and into the wind. With a tailwind or quartering tailwind, place the control stick full forward and away from the wind. The use of the wheel brakes in conjunction with the rudder will assist the pilot in maintaining directional control.

### **BEFORE TAKEOFF**

- 1) Brakes ⇒ SET
- 2) Flight controls ⇒ CHECK freedom of movement, proper operation
- 3) Elevator trim ⇒ SET takeoff position
- 4) Flight instrument/radio ⇒ CHECK and SET
- 5) Fuel shut-OFF valve ⇒ ON
- 6) Mixture ⇒ FULL RICH (lean as required for high altitude)
- 7) Primer ⇒ CHECK LOCKED
- 8) Engine instruments ⇒ CHECK normal indications
- 9) Engine run-up ⇒ 1800 RPM (elevator control FULL BACK)
  - a) Magnetos ⇒ CHECK (200 RPM maximum drop, 50 RPM maximum differential)
  - b) Carburetor ⇒ CHECK operation then return to COLD position
  - c) Engine instruments ⇒ CHECK normal indications
  - d) Throttle ⇒ 1000 RPM
- 10) Cabin door and windows ⇒ CLOSED and LATCHED
- 11) Seat belts/shoulder harness ⇒ FASTENED

High power operations (above 2200 RPM) and engine run-up should be made into the wind and kept to a minimum especially during high temperature conditions. The stick should also be held full aft to prevent the possibility of the aircraft nosing over.

### **8) EMPENNAGE**

- a) Horizontal stabilizer and brace wires ⇒ CHECK condition, security
- b) Vertical stabilizer and tail light ⇒ CHECK condition
- c) Elevator, trim tab and rudder ⇒ CHECK condition, freedom of movement, security
- d) Tail wheel ⇒ CHECK condition, inflation, and security
- e) Tie-down ⇒ REMOVE

### **9) FUSELAGE RIGHT SIDE**

- a) Fabric ⇒ CHECK condition, oil, battery acid leakage, etc.
- b) Windows ⇒ CHECK condition, cleanliness
- c) Radio Antennas ⇒ CHECK secure

## NORMAL PROCEDURES -STARTING

### BEFORE STARTING

- 1) Passenger briefing
- 2) Seat belts/shoulder harness ⇒ FASTENED
- 3) Seat belts ⇒ Verify no interference with rudder controls
- 4) Fuel shut-off valve ⇒ ON
- 5) Brakes ⇒ SET
- 6) Electrical switches ⇒ OFF
- 7) Cabin door ⇒ CLOSED (window as desired)

### STARTING

- 1) Master switch ⇒ ON
- 2) Magneto switches ⇒ ON (2 switches)
- 3) Throttle ⇒ CRACKED OPEN (1/2" to 1")
- 4) Carburetor air ⇒ COLD
- 5) Mixture ⇒ FULL RICH
- 6) Primer ⇒ AS REQUIRED, check locked
- 7) Propeller ⇒ CLEAR, front and rear
- 8) Starter button ⇒ PUSH, release after engine starts
- 9) Throttle ⇒ 1000 RPM
- 10) Oil pressure ⇒ CHECK,  
must indicate pressure within 30 seconds maximum
- 11) Radio/lights switches ⇒ AS DESIRED

### CAUTION

Do not over-prime or excessively pump the throttle (carburetor accelerator pump) due to the resulting fire hazard.

To clear an engine that has been flooded due to excessive priming, proceed as follows:

- 1) Mixture ⇒ IDLE CUT-OFF
- 2) Throttle ⇒ FULL OPEN
- 3) Magneto switches ⇒ OFF
- 4) Starter ⇒ ENGAGE for several propeller revolutions
- 5) Repeat ⇒ Normal starting procedures using no prime.

### CAUTION

Limit the use of the starter to 30 seconds duration maximum with two minute cooling off period between each starter engagement.

### WARNING

Do not attempt to turn over and/or start the engine by hand unless you have had proper instruction and experience. If pulling the propeller through by hand is necessary, be sure the master and magnetos are in the OFF position and the throttle is closed. Have a pilot at the controls and chock/tie down the aircraft.

When pulling the propeller through by hand, treat it as if the ignition switch is turned ON. A loose or broken ground wire on either magneto could cause the engine to fire.

During cold weather operations (below 20° F), it is recommended that the engine be preheated by directing warm air through the opening in the bottom or front of the engine cowl. This practice will prolong the service life of the engine and starter.

In very cold weather, it is important to use the proper viscosity engine oil and to run the engine sufficiently long to bring the engine oil to the normal operating temperature.

During ground operations, the mixture should be FULL RICH and the carburetor air COLD to insure good engine cooling and filtered air. Prolonged idle below 1000 RPM is not recommended due to plug fouling and insufficient cooling air when the aircraft is not in motion.

## **NORMAL PROCEDURES -LANDING**

### **NORMAL LANDING**

- 1) Seat belt and shoulder harness ⇒ FASTENED
- 2) Mixture ⇒ RICH
- 3) Brakes ⇒ CHECK FIRM (parking brake OFF)
- 4) Approach airspeed ⇒ 60-70 MPH
- 5) Throttle ⇒ AS DESIRED to control rate of descent
- 6) After touchdown ⇒ Brakes as required

Aircraft landing characteristics are conventional. Either wheel landings or full stalls (3 point) are permissible. During gusty wind conditions, increase airspeed approximately 5MPH above normal followed by a wheel landing.

Full stall (3 point) landings are recommended for soft and rough fields.

Crosswind approaches can be best accomplished by using the wing down top rudder (side slip) method followed by either a full stall or wheel landing technique. Keep the lower wing into the wind after touchdown. Do not drop the tail until airspeed is well below flying speed.

### **CAUTION**

The use of wheel brakes is not recommended until after the tailwheel is in contact with the ground. For maximum braking, the control stick should be FULL AFT.

### **LANDING OVERFLYING AN OBSTACLE**

Use of normal landing procedures and in addition:

- 1) Approach airspeed ⇒ 60 MPH
- 2) Throttle as desired to control rate of descent
- 3) Slip aircraft as necessary to increase rate of descent

### **WARNING**

A relatively high rate of descent is possible in this configuration when at full gross and the throttle closed. If airspeed is allowed to decrease below 60 MPH, level off can only be assured with the application of power.

## **NORMAL TAKEOFF**

- 1) Throttle ⇒ FULL OPEN apply smoothly
- 2) Engine instruments ⇒ CHECK normal indications
- 3) Attitude ⇒ RAISE TAIL to level flight attitude
- 4) Lift off ⇒ 55-60 MPH
- 5) Climb ⇒  $V_x$  (58 MPH, best angle of climb) or  $V_y$  (69 MPH best rate of climb)
- 6) At a safe altitude ⇒ Normal climb 75-80 MPH

Takeoff characteristics are conventional. It is recommended to raise the tail with the elevator during the takeoff roll for better forward visibility and directional control. Transition into flight with a smooth but positive rotation.

### **CAUTION**

In the level flight attitude, the wheel brakes are very sensitive. It is recommended that directional control be maintained with the use of the rudder only.

During crosswind conditions, place the control stick into the wind (up wind aileron up) and assume a tail high attitude with the elevator to prevent drifting or premature lift-off.

High altitude takeoffs are accomplished by using the normal takeoff procedures with the addition of leaning the mixture control for smooth engine operation.

### **SHORT FIELD TAKEOFF**

For short field takeoff, use the normal takeoff procedures with the following exceptions:

- 1) Lift-off  $\Rightarrow$  50-55 MPH
- 2) Climb  $\Rightarrow$   $V_x$  (58 MPH best angle of climb)  
After the obstacle  $V_y$  (69 MPH best rate of climb)
- 3) At a safe altitude  $\Rightarrow$  Normal climb 75-80 MPH

### **SOFT FIELD TAKEOFF**

For soft field takeoff, use the normal takeoff procedures with the following exceptions:

- 1) Attitude  $\Rightarrow$  TAIL LOW but clear of the ground
- 2) Lift-off  $\Rightarrow$  AS SOON AS POSSIBLE
- 3) After lift-off  $\Rightarrow$  STAY in GROUND EFFECT until  $V_x$  (58 MPH)
- 4) Climb  $\Rightarrow$   $V_x$  (58 MPH, best angle of climb) or  
 $V_y$  (69 MPH best rate of climb)
- 5) At a safe altitude  $\Rightarrow$  Normal climb 75-80 MPH

### **WARNING**

The aircraft will lift-off at very low IAS but continued climb-out below 58 MPH immediately after takeoff is not recommended.

### **CLIMB**

- 1) Throttle  $\Rightarrow$  FULL OPEN
- 2) Mixture  $\Rightarrow$  FULL RICH below 5000 feet
- 3) Airspeed  $\Rightarrow$   $V_x$  (58 MPH, best angle of climb) or  
 $V_y$  (69 MPH best rate of climb)  
75-80 MPH (normal climb)

## **NORMAL PROCEDURES - CRUISE, DESCENT**

### **CRUISE**

- 1) Level-off  $\Rightarrow$  TRIM
- 2) Airspeed  $\Rightarrow$  ACCELERATE to desired cruise airspeed
- 3) Throttle  $\Rightarrow$  SET RPM to cruise power
- 4) Mixture  $\Rightarrow$  LEAN when below 75% power

The fuel mixture should be leaned at any altitude when below 75% of maximum power. Lean to peak EGT if equipped. If no EGT is installed, lean until engine roughness is noted then enrich until smooth.

### **WARNING**

Flight manual range and endurance information is based on a properly leaned fuel mixture. Failure to lean the fuel mixture will increase fuel consumption appreciably.

### **DESCENT**

- 1) Mixture  $\Rightarrow$  FULL RICH
- 2) Carburetor air  $\Rightarrow$  FULL HOT  
when below RPM green arc range
- 3) Throttle  $\Rightarrow$  REDUCE as desired
- 4) Airspeed  $\Rightarrow$  AS DESIRED

The descent should be made with enough power to maintain cylinder head and oil temperatures in green arc. If possible, avoid windmilling the engine with the propeller by reducing airspeed or increasing power.

## **NORMAL PROCEDURES SHUTDOWN**

### **SHUTDOWN**

- 1) Brakes ⇒ SET
- 2) Electrical equipment ⇒ OFF
- 3) Mixture ⇒ IDLE CUT-OFF
- 4) Magnetos and master switches ⇒ OFF after propeller stops
- 5) Controls ⇒ SECURE  
with lap-belt around forward control stick only.
- 6) Wheel ⇒ CHOCKED
- 7) Wing and tail tie downs ⇒ SECURE
- 8) Engine heater (winter only) ⇒ CONNECT
- 9) TACH time ⇒ Take note.

## WEIGHT AND BALANCE

CITABRIA 7ECA      Registration: N8503

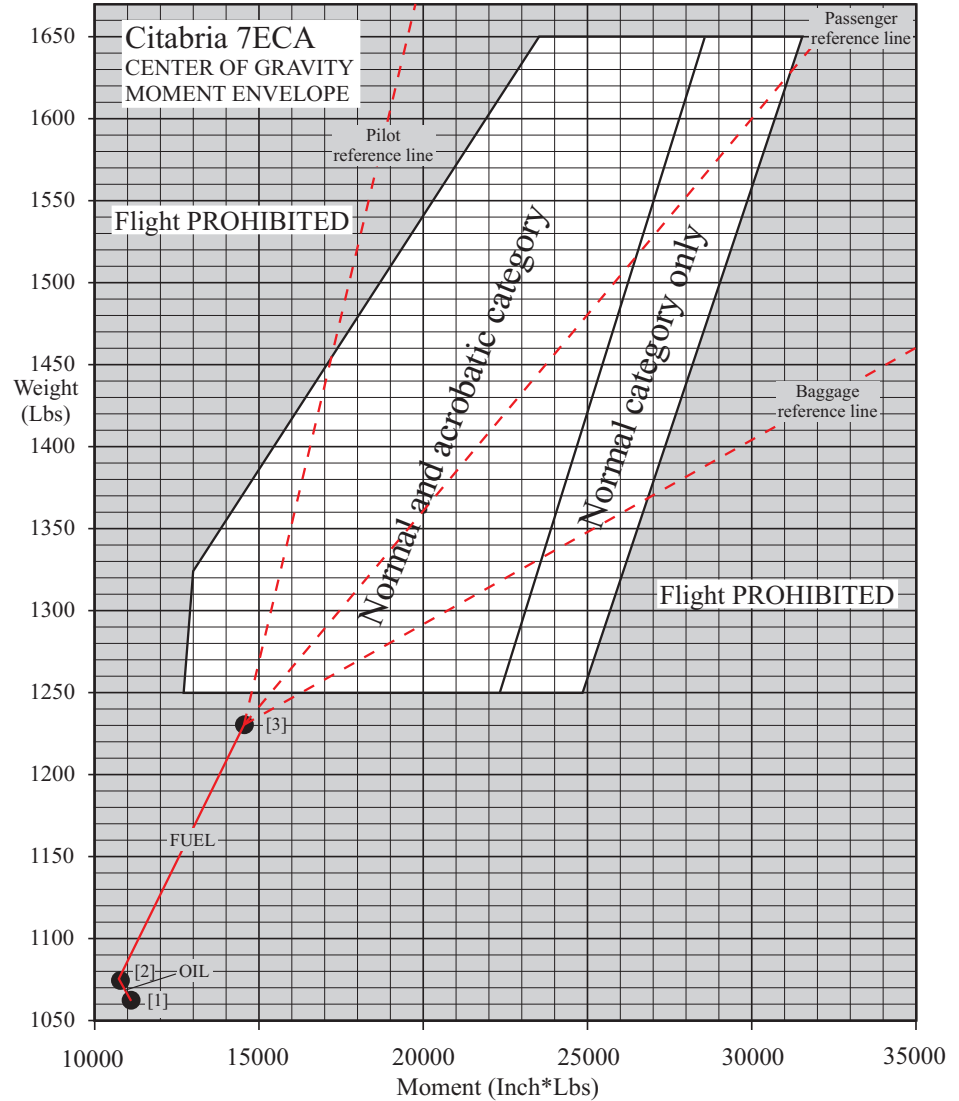
Weight and balance	Weight (lbs)	Moment (lbs.-inches)
Basic Empty Weight (no fuel and no oil) CG Arm: 10.50" Useful Load:586.31lbs	1063.69	11169.63
Oil 6qts (at 7.5 Lbs/Gal)                      station -36"	11.25	-405
Fuel (At 6 Lbs./Gal) standard tanks (26 Gal. Maximum)    station +24.5"	156	3822
<b>Empty weight with full oil and full fuel</b>	<b>1230.94</b>	<b>14586.63</b>

Pilot (front seat)                                      station +11.5"		
Passenger (rear seat)                                      station +42"		
Baggage (normal category only, 100Lbs. Max.)    station +69"		
<b>TAKEOFF WEIGHT AND MOMENT</b>		

C.G. Arm = Takeoff Moment / Takeoff Weight  
=.....inches

Fuel required for the flight (At 6 Lbs./Gal)		
<b>Landing WEIGHT AND MOMENT</b>		

<b>Zero FUEL WEIGHT AND MOMENT</b>		
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Citabria N8503  
 [1] Empty weight&moment (no oil, no fuel): 1063.69 Lbs, 11169 Inch\*Lbs  
 [2] Empty weight&moment (6qts oil, no fuel): 1074.94 Lbs, 10764 Inch\*Lbs  
 [3] Empty weight&moment (6qts oil, 26 gals fuel):1230.94 Lbs, 14586.63 Inch\*Lbs