

Emergency Procedures



Archer III | N354MA

ENGINE FAILURE

During Takeoff Roll?

- ① Throttle...IDLE ④ MAGs.....OFF
- ② Brakes....Apply ⑤ Mixture...LEAN
- ③ Flaps....Retract ⑥ Master.....OFF

After Takeoff (Insufficient Alt.)?

- ① Airspeed.....76 (KIAS)
- ② Mixture.....**CUT OFF** (pull back)
- ③ Fuel Selector.....**OFF**
- ④ MAGNETOS (Switches).....**OFF**
- ⑤ Flaps.....Full (recommended)
- ⑥ MASTER**OFF**
- ⑦ Door.....UNLATCH
- ⑧ LAND.....STRAIGHT AHEAD

Sufficient Altitude for Restart?

YES : Attempt Restart

- ① Airspeed.....76 kts
- ② Best Landing Site.....Selected
- ③ Mixture.....RICH
- ④ Fuel Pump.....**ON**
- ⑤ Fuel Selector.....**BOTH**
- ⑥ Carb Heat.....**ON**
- ⑦ MAGs (Switches).....Left/Right/**ON**

If the propeller is windmilling, engine will restart automatically within a few seconds. If propeller has stopped (possible at low speeds), press **START** switch, advance throttle slowly from idle and lean the mixture from full rich until smooth operation.

Did Engine Restart?

Yes: Land as Soon as Practical

No: Prepare for a Forced Landing

SECURING ENGINE

- Best Landing Site.....Selected
- MayDay.....Transmit (121.5)
- Transponder.....7700
- Mixture.....Idle Cut **OFF**
- Fuel Selector & Pump.....**OFF**
- MAGNETOS (Switches).....**OFF**
- Seatbelts Secure & Passengers Briefed
- Vg.....76 kts...(Until Landing Assured)
- Flaps.....Full (recommended)
- Airspeed.....76 kts
- Master Switch.....**OFF**
- ELT.....Activate
- Door.....AJAR
- Touchdown.....SLIGHTLY TAIL LOW
- Brakes.....APPLY HEAVILY
- Aircraft.....EVACUATE

ENGINE FIRE

ENGINE FIRE DURING FLIGHT

- Mixture...IDLE CUT OFF (pullback)
- Fuel Selector & Pump.....**OFF**
- MASTER.....**OFF**
- Airspeed.....**100 kts+**
(If not extinguished, increase glide speed within limitations until extinguished)
- Airspeed.....76 kts, **Proceed To:**

FIRE DURING ENGINE START

Keep Cranking Until Engine Starts

- Power.....1800 RPM for 2 Minutes
- Mixture.....IDLE CUT OFF (pull back)
- Fuel Selector.....**OFF**
- MAGs.....**OFF**.....EVACUATE Aircraft



ELECTRICAL FIRE



- MASTER.....**OFF**
- Cabin Vents/Heat.....CLOSED/OFF
- Fire Extinguisher.....ACTIVATE
- After flames have been extinguished, ventilate cabin as necessary.
- LAND AS SOON AS PRACTICAL

PREFLIGHT

When departing from CFI RAMP, perform an initial visual check of Fuel & Oil levels, if needed call: **SunAir (805) 389-9301**

COCKPIT

- Hobbs/Tach.....Verify
- Certs/Documents.....Check
- Control Lock.....Remove
- Flaps.....Extend
- Master (BAT).....**ON**
- Lights**ON** & Check
- Stall Indicator.....Check
- Master (BAT) & Lights.....**OFF**

RIGHT WING

- Flap Hinges.....Check
- Aileron.....Check
- Leading Edge.....Check
- Strut.....Check
- Fuel Vent.....Clear
- Tire & Brake.....Check
- Fuel Strainer.....Sample & Check
- Fuel Quantity...(25 Gal /Side)....Check

NOSE

- Oil Quantity.....6-8 qts
- Fuel Strainer.....Sample & Check
- Prop Blades and Spinner.....Check
- Air Intake and Filter.....Clear
- Nose Gear Strut & Tire.....Check
- Static Source.....Clear

LEFT WING

- Strut.....Check
- Tire & Brake.....Check
- Fuel Vent.....Clear
- Fuel Strainer.....Sample & Check
- Fuel Quantity...(25 Gal /Side)....Check
- Pitot Mast.....Clear
- Leading Edge.....Check
- Aileron.....Check

ENGINE START

BEFORE ENGINE START

- Seats & Seat Belts.....Adjusted / **ON**
- Headsets.....Plugged In
(To prevent damage to magnetic compass and scratches to windshield, ABSOLUTY NOTHING is PERMITTED to be placed above panel on glare shield)
- Circuit Breakers.....Check
- Avionics Master.....Verify **OFF**
- Master (ALT & BAT).....**ON**
- AntiCollision Lights.....**ON**
- Nav Lights (night).....(If Required)
- Keys.....In and Ready
- Fuel Selector.....Both

ENGINE START (Cold)

If engine is hot or flooded, see "Special Start Procedures"

- Mag Switches.....LEFT/RIGHT-**ON**
- Mixture.....Rich
- Throttle.....Pump (4) Times
- Fuel Pump...**ON**....(4 Seconds)....**OFF**
- Throttle.....Closed, then 1/4" Open
- Brakes.....Engaged
- Prop Area.....Clear
- Starter (Switch).....**START**
- Throttle **1000RPM & Oil Pres Check**
- Throttle....Pump 1x or 2x as Needed
- Mixture.....Lean 50%
- Avionics Master.....**ON**

(Continue to Pre-Taxi, Next Page)

LEFT WING (continued)

- Flaps.....Check
- ### FUSELAGE & TAIL
- Antennas.....Check
 - Stabilator.....Check
 - Rudder.....Check

FINAL RAMP CHECK

- Ramp/TieDown/Chocks.....All Clear



PreTaxi / Taxi

PRE-TAXI

Brakes.....Check
ATIS/ASOS (if available).....Listen

TAXI (IFR)

Heading Indicator.....Turns
TC & HSI Indicates Turn.....Ball Skids

ENGINE RUN UP

Brakes.....Engaged
Fuel.....Fullest Tank
Mixture.....Rich (or As Required)
Throttle.....2000 RPM
Eng. Instruments.....Check
Magnetos.....Check (Switches)
Right MAG**OFF**.....<175 RPM drop
.....Switch **ON**
Left MAG.....**OFF**.....<175 RPM drop
.....Switch **ON**

RUN UP

Annunciators.....Test/Check
AMP Meter.....Check
Carb Heat.....Cycle & Check
Throttle.....Idle Check
Throttle.....1000 RPM
Mixture.....Lean 50%
Flight Controls.....Free and Correct
Flaps & Trim.....Set
AVONICS & INSTRUMENTS
Flight Instruments.....Set
GPS, COMMs & Fuel Timer.....Set

TAKEOFF

BEFORE TAKEOFF

Doors/Windows.....Secured
Aircraft Lights.....As Required
Mixture.....Rich (As Required)
Fuel Pump.....**ON**

TAKEOFF

Rotate.....Vr = 60 KIAS
Climb.....Vy = 76 KIAS
Flaps.....UP & Fuel Pump.....**OFF**
Mixture.....Lean at 3,000ft

CLIMB / CRUISE

CRUISE-CLIMB

Climb Speed.....87 kts
Mixture.....Lean As Required

CRUISE

Power.....2200 to 2400 RPM
Mixture.....Lean (Rich of Peak)

APPROACH

DESCENT

Power.....Reduce as Required
Mixture.....Enrichen as Needed
ATIS/ASOS.....Listen
Flight Instruments.....Check / Set
Lights / Carb Heat.....As Required

Final Approach

Mixture.....Set for "Go-Around" Power
Fuel Pump.....**ON**
Flaps.....Extend as Needed
Airspeed.....75 KIAS
Short Final.....66 KIAS (Flaps Down)

AFTER LANDING

EXITING RUNWAY

Mixture Lean 50% & Fuel Pump **OFF**
Flaps.....Retract
Lights.....As Required
Carb Heat.....**OFF**
Transponder.....VFR/1200

ENGINE SHUTDOWN

Avionics Master.....**ALL OFF**
Mixture.....**LEAN / CUT OFF**
Throttle.....Idle
Ignition Switches.....**MAG L/R..... OFF**
Master (ALT & BAT).....**OFF**



Special Start Procedures



ENGINE START - (HOT)

Brakes.....Engaged
Throttle.....1/2" Open
Mixture.....**CUT OFF**
Fuel Pump.....**OFF**
Master (ALT & BAT).....**ON**
Prop Area.....Clear
Starter.....START
Mixture.....Advance Smoothly At Engine Start
Oil Pressure.....Check
Mixture.....Lean 50%

ENGINE START - (FLOODED)

Master (ALT & BAT).....**OFF**
Wait.....5 Minutes
Master (ALT & BAT).....**ON**
Mixture.....Idle Cut Off
Throttle.....Full Open
Breaks.....Engaged
Prop Area.....Clear
Ignition.....**START**
Mixture.....Advance Smoothly At Engine Start
Throttle.....Below 1000 RPM
Oil Pressure.....Check
Mixture.....Lean 50%

SECURING AIRCRAFT

INSIDE

Strobe Lights.....**LEAVE SWITCH ON**
To prevent damage to battery, it is requested that the ANTICOLLISION switch be left in the "ON" position, and pilot to confirm MASTER SWITCH is OFF
Control Lock.....Secured (with strap)
Fuel Selector.....L or R (not Both)
Tach & Hobbs.....Record
Window.....Closed & Latched

EXTERNAL

Door.....Locked
Baggage Door.....Locked
Tiedown/Chocks.....Installed



Unusual Procedures



LOSS OF OIL PRESSURE

LAND AS SOON AS PRACTICAL
Prepare for Imminent Engine Failure

Engine Roughness

Carb Heat.....**ON**
Mixture.....Adjust As Needed
Throttle.....Adjust As Needed

IF ROUGHNESS CONTINUES...

Fuel Pump.....**ON**
Fuel Selector.....Opposite Tank
Engine Instruments.....Check
Magnetos.....Switch to Left/Right
If either Mag is Satisfactory,
Continue on that Mag
Throttle.....Reduce Power
LAND AS SOON AS PRACTICAL

EXCESSIVE RATE OF CHARGE

Alternator.....**OFF**
REDUCE ELECTRICAL LOAD
LAND AS SOON AS PRACTICAL

Electrical Overload

Alternator.....**OFF**
REDUCE ELECTRICAL LOAD
LAND AS SOON AS PRACTICAL

SPIN RECOVERY (REAP)

Rudder.....Opposite of Rotation
Elevator.....Forward / Break Stall
Ailerons.....Neutral
Power.....Idle

V-Speeds (KIAS)

Vr - 60	Vg - 76
Vx - 64	Vno - 125
Vy - 76	Vne - 154
Vso - 45	Va - 113 (2550 lbs)
Vs1 - 50	- 89 (1634 lbs)
Vfe - 102 (10°)	Vref - 66 (40°)
- 85 (25° - 40°)	