

**→ BY HEART ITEM !**

## ENGINE POWER LOSS IN FLIGHT

Best glide speed..... fly, trim **73 KT**

Landing site..... determine

● If no time / low altitude: **PREPARE FOR POWER OFF LANDING!**

- if time / altitude permits: Electrical fuel pump..... on
- Fuel selector..... switch tank
- Mixture control..... rich
- Carburetor heat..... change
- Engine instruments..... check for reason
- Primer..... locked
- Fuel quantity..... lh / rh checked
- Magnetos / Ignition..... both / lh / rh
- Throttle / mixture control..... different settings

If power restored:

- Carburetor heat..... off
- Electrical fuel pump..... off

If power not restored:

**PREPARE FOR POWER OFF LANDING!**

## POWER OFF LANDING

EMERGENCY CALL 121.500 „MAYDAY MAYDAY MAYDAY, HB-XXX“

- Seatbelts / cabin + passengers..... fastened / secured
- Fuel selector..... off
- Magnetos / Ignition..... off
- Battery / alternator switches..... off (no stall warning!)
- Mixture control..... lean cutoff

When landing site can easily be reached:

- Flaps..... 40° (3)
- Speed..... final approach (65 KT)
- ELT..... consider on
- Door..... consider open / closed

**ENGINE POWER LOSS SHORT AFTER T/O**

Fly the aircraft..... nose down, safe speed immediately:

Flaps 25° (2): **65KT**      Flaps 0° (up): **70KT**

At low altitude..... no turns

Flaps..... as required, if possible flaps 40° (3)

**FIRE / SMOKE INFLIGHT**

Source of fire/smoke..... identify

● **If electrical fire:**

Battery/alternator switches... off

Vents / stormwindow..... open

Cabinheat / defroster..... off

**Land as soon as possible!**

● **If engine fire:**

Fuel selector..... off

Throttle..... idle

Mixture control..... lean cutoff

electrical fuel pump..... off

Cabinheat / defroster..... off

**PREPARE FOR POWER OFF LANDING!**

**FIRE DURING ENGINE START**

Starter..... continue cranking

Fuel selector..... off

Mixture control..... lean cut off

Throttle..... full open

Electrical fuel pump..... off

*If fire continues or if fire is out:*

Battery / alternator switches..... off

Passengers / pilot..... evacuate

**SPIN (VRILLE) RECOVERY**

Throttle..... idle

Ailerons..... neutral

Rudder..... full opposite direction

Elevator..... full forward

*When rotation stops:*

Rudder..... neutral

Elevator..... recover attitude

**LOSS OF OIL PRESSURE**

Land as soon as possible and investigate cause.  
**BE PREPARED FOR POWER OFF LANDING!**



**LOSS OF FUEL PRESSURE**

Electrical fuel pump.....on  
 Fuel selector.....check on fullest tank  
**BE PREPARED FOR POWER OFF LANDING!**

**OPEN DOOR**

If both (upper and side) latches are open, the door will trail slightly open and airspeed will be reduced slightly.  
 Speed.....reduce to 87 KT  
 Cabin vents (Cadet: 4, Archer: 5).....close  
 Storm window .....open  
 Side, then upper latches.....latch

**ELECTRICAL OVERLOAD**

(ALTERNATOR OUTPUT >20 AMPS ABOVE KNOWN ELECTRIC. LOAD)

● **ARCHER HB-PBH / PBV:**

Alternator switch.....off

● **CADET HB-POE / POF:**

Alternator switch.....on

Battery switch.....off

▶ ***If alternator loads are reduced:***

Electrical load.....reduce to minimum  
 Land as soon as practical

▶ ***If alternator loads are not reduced:***

Alternator switch.....off  
 Battery switch.....as required

Land as soon as possible and **anticipate complete electrical failure**, as **the battery is the only remaining source** for electrical power. Use minimum consumers.

**ELECTRICAL FAILURES**

ALT-annunciator light..... check (and test) ALT  
 If light is out: change bulbs..... check again  
 Ampèremeter output..... check (switch on consumers)

If ampèremeter **shows zero / no** output and/or ALT light is **on**: go to **1**

If ampèremeter **shows some** output: go to **2**

**1** Alternator switch..... off  
 Electrical load..... reduce to minimum  
 „Altnr field“ circuit breaker..... check, reset (only 1 x)  
 Alternator switch..... on

- ▶ If **no** Altn. output: Alternator switch..... off  
 Electrical load..... use min. electrical equipment!

Land as soon as practical. **The battery is the only remaining source for electrical power.**

- ▶ If power restored: Continue flight, check system(s) after flight and use electrical consumers as necessary

**2** Check circuit breakers of affected system(s), reset only 1 x

- ▶ If successful.....continue flight and check system(s) after flight
- ▶ If not successful.....switch off affected system(s) and evaluate, if destination can be reached or precautionary/alternate landing is necessary.

**ON GROUND EMERGENCY / EVACUATION**

Parkbrake..... set  
 Mixture..... lean, cut off  
 Magnetos / Ignition..... off  
 Fuel selector..... closed  
 Emergency call.....transmit  
 Alternator + battery masterswitches..... off  
 When engine has stopped..... evacuate aircraft