

DA-40 In-Flight Emergencies

ENGINE PROBLEMS

ENGINE RUNNING ROUGH

- Airspeed60-73
- Fuel pump.....ON
- Fuel tank.....check
- Eng inst's.....check
- Throttle.....check
- Prop lever.....check
- Mixture.....set for smooth
- Alternate Air.....OPEN
- Ignition.....BOTH
- Throttle/Prop/Mix.....various settings

LOSS OF OIL PRESSURE

- Check annunciator light and oil press.
- Check oil temp
 - a) (with normal temp and low pressure - possibly bad indication)
 - monitor oil temp & CHT
 - b) low pressure and rising temps
 - reduce power and land
 - c) oil pressure near zero, unusual noises, vibrations, smells
 - shut down engine, land

continued....

DA-40 In-Flight Emergencies

ENGINE PROBLEMS *continued....*

HIGH OIL PRESSURE

- Oil Temp.....check
- with normal temp, likely indic. problem

HIGH OIL TEMPERATURE

- EGT and CHT.....check
- if low, proceed with Loss of Oil Press.

HIGH CHT (yellow arc or above)

- Mixture.....consider richer mix
- Oil temp/pressurecheck
- consider reducing power and need to land

HIGH RPM (RPM moves on its own or is in red arc)

- Friction lock.....check
- Oil pressure.....check (with low pressure, prop governor sets a high RPM)
- If unable to control RPM with Prop control, use Throttle for normal RPM

DA-40 In-Flight Emergencies

ENGINE PROBLEMS *continued...*

LOW RPM

- Fuel pump.....ON
- Fuel tank.....check
- Throttle quadrant friction.....check
- Prop lever.....HIGH RPM
- listen for change in RPM and consider using throttle to control thrust - LAND*

HIGH FUEL FLOW (in red arc)

- Fuel Pump.....ON
- Fuel Press.....check in 10-15 sec. (With normal pressure and no annunciator light - likely bad fuel flow indicator)
- Fuel quantity.....check (With abnormal decrease in quantity - consider landing)

LOW FUEL PRESSURE (Pump ON)

- Fuel Flow.....check (With normal fuel flow, likely bad fuel pressure indication. With high Fuel Flow or rough operation - likely leak/starvation)
- LAND

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ENGINE RESTART

WINDMILLING PROP

Airspeed.....80KTS
Fuel.....fullest tank
Ignition.....BOTH
Mixture.....appropriate for alt.
Fuel Pump.....ON
Alternate Air.....OPEN
-if engine does not start:
Mixture.....LEAN
Mixture.....slowly richer until start

STATIONARY PROP

Airspeed.....80 KTS
Avionics and Electrics.....OFF
Master Switch.....ON (BAT)
Mixture.....check
Fuel.....fullest tank
Fuel Pump.....ON
Alternate Air.....OPEN
Ignition switch.....START

DA-40 In-Flight Emergencies

SMOKE & FIRE

ENGINE

Landing Area.....choose
Cabin Heat.....OFF
-with landing assured:
Fuel.....OFF
Throttle.....Max Pwr
Fuel Pump.....OFF
Master switch (ALT/BAT).....ON
Emerg. Windows.....OPEN if req'd

ELECTRICAL

Emergency Switch.....ON
Master Switch (ALT/BAT).....OFF
Cabin Heat.....OFF
Emerg. Windows.....OPEN if req'd

“DOOR” light ON

Canopy may be unlatched if necessary
Airspeed.....below 140 KTS
Canopy & Doorcheck
-do not attempt to lock inflight
If unlocked.....LAND

DA-40 In-flight Emergencies

EMERGENCY LANDING

Airspeed.....70 KTS
Select Landing Area
Fuel tank.....OFF
Flaps.....LDG
Harnesses.....tighten
Ignition.....OFF
Master Switch.....OFF
ATC....."Mayday"

BEST GLIDE SPEEDS

Flaps UP

2535 LBS (max T.O.).....73KTS
2205 LBS.....68 KTS
1874 LBS.....60 KTS