

# PA-44 CHECKLIST

## CABIN INSPECTION

Documents (AROW) -----CHECK  
Hobbs Meter ----- CHECK  
Control Lock ----- REMOVE  
Rudder/Elevator Trim ----- NEUTRAL  
Flaps ----- CHECK OPERATION  
Cowl Flaps ----- OPEN  
Avionics/Electrical Equipment ----- OFF  
Mixture ----- IDLE CUTOFF  
Landing Gear Lever ----- DOWN  
Emergency Gear Extend Knob ----- SECURE  
Alternate Static Source ----- OFF  
Magnetos -----OFF  
Master Switch ----- ON  
Fuel Quantity -----CHECK  
Landing Gear Lights -----CHECK  
Annunciator Panel ----- CHECK  
Heater Overheat Light ----- CHECK  
Exterior Lights ----- CHECK  
Master Switch -----OFF  
Pitot/Static System ----- DRAIN

## EXTERIOR INSPECTION

Baggage Door ----- CLOSED  
Fuel Sumps ----- DRAIN

### Right Wing:

Wheel Well, Tire, Strut ----- CHECK  
Wing Flap/Fuel Vents/Aileron ----- CHECK  
Wing Tip and Leading Edge ----- CHECK  
Wing Tie-Down ----- REMOVE  
Engine Fuel Quantity ----- CHECK  
Engine Oil Level -----CHECK  
Propeller and Spinner -----CHECK  
Tire/Strut/Brake ----- CHECK  
Cowl Flap ----- CHECK

- 1 -

Nose:

Wheel Well/Doors/Strut/Tire ----- CHECK

## EXTERIOR INSPECTION

(CONTINUED)

### Left Wing:

Tire/Strut/Brake ----- CHECK  
Cowl Flap ----- CHECK  
Engine Oil Level -----CHECK  
Propeller and Spinner -----CHECK  
Engine Fuel Quantity ----- CHECK  
Wing Tie-Down ----- REMOVE  
Stall Warning Vanes -----CHECK  
Pitot/Static Mast -----CHECK  
Wing Leading Edge ----- CHECK  
Wing Aileron/Fuel Vents/Flap ----- CHECK  
Wheel Well, Tire, Strut ----- CHECK

### Fuselage and Empennage:

Vertical Stabilizer Air Scoop -----CLEAR  
Rudder ----- CHECK  
Horizontal Stabilator -----CHECK  
Antennas -----CHECK  
Overall Condition ----- REVIEW  
Wheel Chocks ----- REMOVED  
Tire Check ----- MOVE AIRPLANE

## BEFORE ENGINE START

Seat Belts/Shoulder Harnesses ----- FASTEN  
Parking Brake -----SET  
Passenger Briefing ----- COMPLETE  
Fuel Selectors ----- ON  
Carburetor Heat ----- OFF  
Circuit Breakers -----CHECK  
Avionics Master Switch ----- OFF  
Mixtures ----- RICH  
Throttles ----- CLOSED  
Master Switch -----ON

- 2 -

Alternators -----ON  
Electric Fuel Pumps ----- ON

Magnetos -----ON

## LEFT ENGINE START

Throttle ----- 2 FULL STROKES  
Warm Engine, Throttle -----1/2 INCH OPEN  
Cold Engine, Throttle -----1/4 INCH OPEN  
Brakes -----SET  
Prop Area -----CLEAR, MAKE CALLOUT  
Starter -----(8 seconds max) ENGAGE

### When Engine Starts:

Throttle ----- 1,000 RPM  
Oil Pressure -----CHECK  
Fuel Pump ----- OFF, CHECK PRESSURE  
Mixture ----- LEANED  
Throttle ----- 1,000 RPM  
Vacuum Shuttle Valve ----- CHECK

## RIGHT ENGINE START

Ammeter below 20 amps ----- CHECK  
Throttle ----- 2 FULL STROKES  
Warm Engine, Throttle ----- 1/2 INCH OPEN  
Cold Engine, Throttle ----- 1/4 INCH OPEN  
Brakes -----HOLD  
Prop Area ----- CLEAR  
Starter -----(8 seconds max) ENGAGE

### When Engine Starts:

Throttle ----- 1,000 RPM  
Oil Pressure ----- CHECK  
Fuel Pump ----- OFF, CHECK PRESS  
Mixture ----- LEANED  
Throttle ----- 1,000 RPM  
Fuel Selectors ----- CROSSFEED CHECK  
ATIS and ATC Clearance ----- OBTAIN  
Vacuum ----- CHECK

- 3 -

## TAXI

Brakes ----- CHECK

For reference only. The pilot is at all times responsible for operating the aircraft in accordance with the manufacturer's limitations as published in the Pilot's Operating Handbook.

# PA-44 CHECKLIST

Crossfeeds ----- CHECK

## ENGINE FIRE ON GROUND

### Engine Has Not Started:

Mixture ----- IDLE CUTOFF

Throttle ----- FULL OPEN

Starter ----- CRANK ENGINE

### If Engine Has Started:

Pull fire into engine --- CONTINUE

RUNNING

### If Fire Continues:

Fuel Selectors ----- OFF

Mixtures ----- IDLE CUTOFF

ATC ----- CALL FOR FIRE TRUCK

Master Switch ----- OFF

Parking Brake ----- SET

Evacuate Airplane --- DOOR or EMER EXIT

## BEFORE TAKEOFF

Flight Controls ----- CHECK

Radios and ----- CHECK & SET

Magnetic Compass ----- CHECK

Fuel Selectors ----- ON

Aileron and Rudder Trim ----- SET

Mixtures ----- (Below 3,000') RICH

Brakes ----- SET

Throttles ----- 1,500 RPM

Prop Feather-(500 rpm max) CHECK L then R

Throttles ----- 2,000 RPM

Props ----- (300 rpm max) CYCLE

Carburetor Heat ----- CHECK

Annunciator Panel ----- CHECK

Suction ----- (4.8 - 5.2") CHECK

CONTINUE ----- NEXT PAGE =>

- 4 -

Alternator Output ----- CHECK

Engine Gauges ----- CHECK

Magnetos ----- (175/50) CHECK

Throttles ----- IDLE CHECK then 1,000 RPM

Mixtures ----- LEANED

Flaps ----- AS REQUIRED

----- FINAL ITEMS -----



Doors/Windows ----- CLOSED

Mixtures ----- (Below 3,000') RICH

Fuel Pumps ----- ON

Strobes, landing lights ----- ON

Transponder ----- ALT

## CLIMB (1000ft AGL)

Gear and Flaps ----- CONFIRM UP

Cruise Climb ----- ESTABLISH

Fuel Pumps ----- OFF

Lights ----- AS DESIRED

## CRUISE

Mixtures ----- LEANED

Cowl Flaps ----- CLOSED

Power ----- SET

## BEFORE LANDING

Seat Belts/Shoulder Harnesses - FASTENED

Fuel Selectors ----- ON

Heading Indicator ----- SET

Altimeter ----- SET

Radios ----- SET

Fuel Pumps ----- ON

CONTINUE ----- NEXT PAGE =>

- 5 -

----- Final Items (GUMPS) -----

Landing Gear ----- DOWN

Mixture ----- (Below 3,000') RICH

Props ----- FULL FORWARD

Flaps ----- (111k. max) EXTENDED

Final Approach Speed ----- (minimum) 75 kts

## AFTER LANDING CHECKLIST

Lights ----- OFF

Transponder ----- STANDBY

Elevator and Rudder Trim ----- NEUTRAL

Flaps ----- UP

Cowl Flaps ----- OPEN

Mixtures ----- LEANED

Fuel Pumps ----- OFF

## ENGINE SHUTDOWN

Avionics Master Switch ----- OFF

Throttles ----- IDLE

Magnetos ----- GROUND CHECK

Throttles ----- 1,000 RPM

Left Mixture ----- IDLE CUTOFF

Vacuum Shuttle Valve ----- CHECK

Right Mixture ----- IDLE CUTOFF

Magnetos ----- OFF

Alternators ----- OFF

Master Switch ----- OFF

## SECURING

Hobbs and Tach Times ----- RECORD

Maintenance Problems ----- RECORD

Storm Window ----- CLOSED

Control Locks ----- INSTALLED

Tie Downs ----- ATTACH

Chocks ----- INSERT

Props ----- VERTICAL FOR FUEL

- 6 -

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# PA-44 CHECKLIST

## PA44-180 ABNORMALS

### SINGLE-ENGINE CHECKLISTS

#### ENGINE FAILURE TAKEOFF ROLL

Throttles ----- IDLE  
Directional Control ----- MAINTAIN  
Brakes ----- APPLY  
Yoke ----- FULL AFT

#### ENGINE FAILURE BETWEEN LIFTOFF AND GEAR UP

Throttles ----- IDLE  
Directional Control ----- MAINTAIN  
Flaps ----- AS NECESSARY

#### ENGINE FAILURE AFTER V<sub>YSE</sub>

Directional Control ----- MAINTAIN  
Pitch ----- V<sub>YSE</sub> ATTITUDE  
Mixtures, Props, Throttles ----- FULL FWD  
Flaps ----- UP  
Landing Gear ----- UP  
Identify ----- DEAD FOOT  
Verify ----- THROTTLE

CONTINUE ----- NEXT PAGE =>

- 1 -

**If time and altitude permits, TROUBLESHOOT**  
Turn towards airport then follow below:  
Fuel Selector -----ON  
Mixture ----- FULL FORWARD  
Prop -----FULL FORWARD  
Fuel Pump -----ON  
Carb Heat ----- ON  
Alternator -----ON  
Magnetos ----- ON  
Throttle --- TWO FULL STROKES, 1/4"  
OPEN  
Starter -- ENGAGE UNTIL ENGINE  
WINDMILLS  
Throttle ----- 15" UNTIL CHT IS GREEN

**If engine did not restart or you are flying at  
low altitude, continue below:**

Prop Inoperative Engine ----- FEATHER  
Mixture Inoperative Engine --- IDLE CUTOFF  
Cowl Flaps Inoperative Engine -----CLOSE  
Bank ----- TOWARD THE GOOD ENGINE  
In-flight Engine Shutdown -----COMPLETE

Declare an emergency and land!

#### INFLIGHT ENGINE SHUTDOWN

Fuel Selector ----- OFF  
Throttle ----- CLOSED  
Prop ----- FEATHER  
Mixture ----- IDLE CUTOFF  
Magnetos -----OFF  
Fuel Pump ----- OFF

CONTINUE ----- NEXT PAGE =>

- 2 -

Alternator -----OFF  
Cowl Flap ----- CLOSED  
Electrical Load -----REDUCE  
Crossfeed ----- AS NECESSARY

#### AIRSTART

Fuel Selector -----ON  
Carb Heat -----OFF  
Mixture ----- FULL FORWARD  
Prop -----FULL FORWARD  
Fuel Pump -----ON  
Alternator -----ON  
Magnetos ----- ON  
Throttle ----- 2 FULL STROKES, 1/4" OPEN  
Airspeed ----- 100Kts MINIMUM  
Starter ----- ENGAGE

### LANDING GEAR and ELECTRICAL

#### ALTERNATOR LIGHT ON

Ammeters ----- CHECK  
**One Alternator Inoperative**  
Alternator Switch -----OFF  
Electrical Loads -----REDUCE  
Alternator Circuit Breaker --- CHECK/RESET  
Alternator Switch ----- ON  
If Power Not Restored, Alternator Switch --  
OFF  
Maximum Electrical Load ----- MONITOR

CONTINUE ----- NEXT PAGE =>

- 3 -

# PA-44 CHECKLIST

## Both Alternators Inoperative

Battery Switch ----- OFF  
Alternator Switches ---- OFF, ONE AT A TIME  
Electrical Loads -----REDUCE  
Alternator Circuit Breakers ---- CHECK/RESET  
Alternator Switches ---- ON, ONE AT A TIME  
If Power Not Restored, Alternator Switches - OFF  
Land as soon as practical. Compass error may exceed 10 degrees with both alternators off.

## Both Alternators Restored

Determine ALT showing LEAST (not zero) amps  
Alternator Switches - - least load ON, other OFF  
Maximum Electrical Load - - - - - 60 Amps

## ELECTRICAL OVERLOAD

### Alternators 30 Amps Over Known

#### Electrical Load

Alternator Switches -----OFF  
Battery Switch -----OFF  
If load reduces, battery or wiring problem exists. Reduce load, land as soon as practical. If load does not reduce, ALT off, BAT as required. Reduce load and land as soon as practical.

## EXTERNAL-POWER ENGINE START

Master Switch -----OFF  
All Electrical Equipment -----OFF

- 4 -

External Power Plug - - - INSERT IN FUSELAGE  
Start Engine(s) - If both engines are started, shutdown right engine after it has warmed up.  
External Power Plug - - - - - REMOVE  
Master Switch - - - - - ON, CHECK AMMETER  
Oil Pressure - - - - - CHECK  
Right Engine - - - - - RESTART

## FUEL MANAGEMENT DURING SINGLE ENGINE

### FLIGHT Cruising:

Using direct feed:  
Fuel Selector Operating Engine - - - - - ON  
Fuel Selector Inoperative Engine - - - - - OFF  
Fuel Pumps - - - - - OFF  
Using crossfeed:  
Fuel Selector Operating Engine - - CROSSFEED  
Fuel Selector Inoperative Engine - - - - - OFF  
Fuel Pumps - - - - - OFF

### Landing:

Fuel Selector Operating Engine - - - - - ON  
Fuel Selector Inoperative Engine - - - - - OFF  
Fuel Pump Operating Engine - - - - - ON

## ENGINE DRIVEN FUEL PUMP FAILURE

Electric Fuel Pump - - - - - ON

## LANDING GEAR MANUAL EXTENSION

Circuit Breakers - - - - -CHECK  
Alternators - - - - - CHECK

- 5 -

Navigation Lights - - - - - (daytime) OFF

Airspeed - - - - - 100 Kts MAX  
Gear Selector - - - - -DOWN  
Emergency Gear Extend Knob - - - - - PULL  
Indicator Lights - - - - - 3 GREEN  
Emergency Gear Extend Knob - - - - - LEAVE OUT

## OPEN CABIN DOOR IN FLIGHT

Airspeed - - - - - 82 Kts MAX  
Cabin Vents - - - - -CLOSE  
Storm Window - - - - - OPEN  
If upper latch is open - - - - -CLOSE  
If side latch is open - PULL ON ARMREST WHILE MOVING LATCH TO LATCHED POSITION  
If both latches are open - - LATCH SIDE LATCH THEN TOP LATCH

## EMERGENCY DESCENT

Throttle(s) - - - - - IDLE  
Mixture(s) - - - - - AS DESIRED  
Prop(s) - - - - -FULL FWD  
Gear - - - - - DOWN  
Bank - - - - - 45 Degrees  
Carb Heat - - - - - ON  
Cowl Flaps- - - - -CLOSED  
Maintain - - - - - 135 Kts

## PROPELLER OVERSPEED

Throttle - - - - - DECREASE IMMEDIATELY  
Pitch - - - - - INCREASE IMMEDIATELY  
Prop - - DECREASE BUT DO NOT FEATHER  
If necessary - - - - - SHUTDOWN ENGINE

- 6 -