



WARRIOR

PA-28-161

PILOT'S CHECKLIST

2023

**Warrior PA-28-161
Speeds for Operation**

Speeds are for maximum weight. To achieve the performance specified for takeoff distance, the speed appropriate to weight must be used.

TAKEOFF

Normal Rotation45-55 KIAS
Normal Climb-Out79 KIAS

CRUISE CLIMB

Best Rate of Climb (Vy).....79 KIAS
Best Angle of Climb (Vx).....63 KIAS
En Route Climb.....87 KIAS

BALKED LANDING, GO AROUND

Maximum Power, Flaps 25°63 KIAS

MANEUVERING SPEED

(Max. Recommended. Turbulent Air Penetration Speed)

2440 LBS.....111 KIAS
1531 LBS.....88 KIAS

MAXIMUM DEMONSTRATED CROSSWIND

Takeoff or Landing.....17 KTS

RIGHT WING

Wing.....FREE OF ICE, SNOW, FROST
Ailerons and Flaps.....CHECK MOVEMENT, SECURITY
Hinges.....CHECK FOR INTERFERENCE
Static WicksCHECK
Wing Tip and Lights.....CHECK
Fuel Tank...CHECK SUPPLY VISUALLY, SECURE CAP
Fuel Tank sump.....DRAIN
Fuel Vent.....CLEAR
Wing Tie Down and Chocks.....REMOVE
Main Gear Strut.....CHECK (4.5 in)
Tire.....CHECK
Brake Block and Discs.....CHECK
Fresh Air Inlet.....CLEAR

NOSE SECTION

Fuel and Oil.....CHECK FOR LEAKS
Engine Oil.....CHECK LEVEL (MIN 6 QTS)
Dipstick.....PROPERLY SEATED
Cowling.....SECURE
Propeller and Spinner.....CHECK
Air Inlets.....CLEAR, REMOVE COVER
Alternator Belt.....CHECK TENSION
Landing Light.....CHECK
Nose Gear Strut.....CHECK (3.25 in)
Nose Wheel Tire.....CHECK
Fuel Strainer.....DRAIN

PREFLIGHT INSPECTION PREPARATION

Airplane Status...AIRWORTHY, PAPERS ON BOARD
Weather.....SUITABLE
Weight and C.G.....WITHIN LIMITS
Charts and Navigation Equipment.....ON BOARD
Performance and Range.....COMPUTED AND SAFE
Baggage.....WEIGHED, STOWED, TIED

COCKPIT

Control Wheel.....RELEASE BELTS
Parking Brake.....SET
Radio Master Switch.....OFF
Electrical Switches (Fans, Pitot Heat, etc).....OFF
Ignition Switch.....OFF
Mixture.....IDLE CUT-OFF
Master Switch.....ON
Fuel Quantity Gauges.....CHECK
Annunciator Panel.....CHECK
Interior and Exterior Lights.....CHECK
Stall WarningCHECK
Pitot Heat.....CHECK
Master Switch.....OFF
Flight Controls.....FREE AND CORRECT
Flaps.....EXTEND
Trim.....CHECK, SET NEUTRAL
Pitot and Static Drains.....DRAIN, CLOSE
WindowsCHECK, CLEAN
Baggage, Empty Seats.....SECURE
Baggage Door.....CLOSE, SECURE

LEFT WING

Wing.....FREE OF ICE, SNOW, FROST
Fresh Air Inlet.....CLEAR
Main Gear StrutCHECK (4.5 in)
Tire.....CHECK
Brake Block and Discs.....CHECK
Fuel Tank.....CHECK VISUALLY, SECURE CAP
Fuel Tank Sump.....DRAIN
Fuel Vent.....CLEAR
Wing Tie Down and Chocks.....REMOVE
Pitot Head.....REMOVE COVER, HOLES CLEAR
Wingtip and Light.....CHECK
Aileron and Flaps...CHECK MOVEMENT, SECURITY
Hinges.....CHECK FOR INTERFERENCE
Static WicksCHECK

FUSELAGE

Antennas.....CHECK
Empennage.....FREE OF ICE, SNOW, FROST
Stabilator and Trim Tab...CHECK FOR INTERFERENCE
Tail Tie Down.....REMOVE
Final Walk Around.....COMPLETE

BEFORE START

Preflight Inspection.....COMPLETE
Cabin Door.....CLOSE AND SECURE
Seat Belts and Harnesses...FASTEN, CHECK INERTIA
Fuel SelectorON DESIRED TANK
Brakes.....SET
Circuit BreakersIN
Alt Static Source.....OFF
Carburetor Heat.....OFF
Flaps.....UP
Radio Master Switch.....OFF
Passenger Briefing.....COMPLETE
Battery Master.....ON

STARTING ENGINE WITH EXTERNAL POWER

REFER TO POH

ENGINE FIRE DURING START

Starter.....CRANK ENGINE
Mixture.....IDLE CUT-OFF
Throttle.....OPEN
Electric Fuel PumpOFF
Fuel Selector.....OFF

ABANDON IF FIRE CONTINUES

STARTING ENGINE WHEN COLD

Throttle.....1/4" OPEN
Battery MasterON
Alternator Switch.....ON
Electric Fuel Pump.....ON
Strobe LightsON
Mixture.....FULL RICH
PrimeAS REQUIRED
Propeller Area.....CLEAR
Starter.....ENGAGE
ThrottleADJUST TO 1000 RPM
Oil Pressure.....CHECK
Ammeter.....CHECK

AFTER STARTING ENGINE

Strobe LightsOFF
Navigation Lights.....ON (night only)
Radio Master Switch.....ON
Fuel Pump.....OFF
Mixture.....FULL RICH BELOW 5000ft.
Flaps..... \uparrow
Radios.....SET AND TEST
Flight Instruments.....SET
TransponderSTANDBY
Fuel SelectorSWITCH TANKS
Dispatch.....RAMP OUT

STARTING ENGINE WHEN HOT

Throttle.....1/2" OPEN
Battery MasterON
Alternator Switch.....ON
Electric Fuel Pump.....ON
Strobe LightsON
Mixture.....FULL RICH
Propeller Area.....CLEAR
Starter.....ENGAGE
ThrottleADJUST TO 1000 RPM
Oil Pressure.....CHECK
Ammeter.....CHECK

TAXI

TransponderALT
Taxi Area.....CLEAR
Parking Brake.....RELEASE
Throttle.....APPLY SLOWLY
Brakes.....CHECK
Steering.....CHECK
Ailerons.....SET TO WIND CONDITIONS

STARTING ENGINE WHEN FLOODED

Throttle.....OPEN FULL
Master Switch.....ON
Alternator Switch.....ON
Electric Fuel Pump.....OFF
Mixture.....IDLE CUT-OFF
Propeller Area.....CLEAR
Starter.....ENGAGE
Mixture.....ADVANCE
ThrottleREDUCE TO 1000 RPM
Oil Pressure.....CHECK
Ammeter.....CHECK

RUNUP

Brakes..... SET & HOLD
Mixture.....FULL RICH
Throttle.....2000 RPM
Magnetos.....CHECK
(max drop 175 rpm, max difference 50 rpm)
Ammeter.....CHECK
Oil Temperature.....CHECK
Oil Pressure.....CHECK
Fuel Pressure.....CHECK
Annunciator Panel.....PRESS-TO-TEST
Carburetor Heat.....CHECK
(approx. 75 RPM drop)
Throttle.....CHECK IDLE
Throttle.....1000 RPM
Auto-PilotCHECK
a. Heading left, right, center
b. Altitude climb, descent, level, and
overpower
c. Check auto trim can be turned off
d. AP disconnect

BEFORE TAKEOFF

Alternator and Master Switch.....ON
Flight Instruments.....CHECK
Fuel SelectorFULLEST TANK
Electric Fuel Pump.....ON
Engine Gauges.....ALL IN GREEN
Carburetor Heat.....OFF
Mixture.....SET
Belts/Harnesses.....FASTENED/CHECK
SeatADJUST/SECURE
FlapsSET
Trim Tabs.....SET
Controls.....FREE AND CORRECT
Crew Takeoff Briefing.....COMPLETE
Landing Light.....ON
Strobe Light.....ON
TransponderALT
Parking Brake.....RELEASE
Cabin Door and Window.....LATCHED

NORMAL TAKEOFF

Flaps..... 0°
Throttle.....FULL
Rotate45-55 KIAS
Climb Speed.....79 KIAS

SHORT FIELD TAKEOFF 25° FLAPS

Flaps.....25°
Brakes.....HOLD
Throttle.....FULL INCREASE
Engine Gauges.....CHECK
Brakes.....RELEASE
Rotate52 KIAS
Climb Speed over Obstacle.....63 KIAS
Climb Speed.....79 KIAS
Flaps.....SLOWLY RETRACT

SOFT FIELD TAKEOFF 25° FLAPS

Flaps.....25°
Elevator Control.....TAIL LOW
Throttle.....ADVANCE SLOWLY
Engine Gauges.....CHECK
Accelerate.....IN GROUND EFFECT TO
CLIMB SPEED
Climb Speed with Obstacle.....63 KIAS
Climb Speed without Obstacle.....79 KIAS
Flaps.....SLOWLY RETRACT

ENGINE FAILURE DURING TAKEOFF

If sufficient runway remains for a complete stop:

Airspeed.....MAINTAIN SAFE AIRSPEED
Landing.....LAND and STOP STRAIGHT AHEAD
Brakes.....AS REQUIRED

If insufficient runway remains:

Airspeed.....MAINTAIN SAFE AIRSPEED
Flaps.....AS REQUIRED
(Make only shallow turns to avoid obstructions)

If sufficient altitude has been gained to attempt a restart:

Airspeed.....73 KIAS
Fuel Selector.....SWITCH to tank containing fuel
Electric Fuel Pump.....ON
Mixture.....RICH

If power is not regained, proceed with power-off landing.

ENROUTE CLIMB (@ 1000 AGL)

Airspeed.....87 KIAS
Throttle.....FULL OPEN
Landing Light.....OFF
Flaps.....UP

ENGINE FAILURE AFTER TAKEOFF

Airspeed.....73 KIAS
Mixture.....IDLE CUT-OFF
Fuel SelectorOFF
Electric Fuel Pump.....OFF
Ignition Switch.....OFF
Alternator Switch.....OFF
Master Switch.....OFF
FlapsAS REQUIRED

**MAKE ONLY SHALLOW TURNS TO AVOID
OBSTRUCTIONS**

CRUISE

PowerSET
Trim.....SET
Mixture.....FULL RICH BELOW 5000ft.
Electric Fuel Pump.....OFF
Engine Gauges.....CHECK

ENGINE FAILURE DURING FLIGHT

RESTART PROCEDURES

Airspeed.....73 KIAS
Fuel SelectorSWITCH TANKS
Electric Fuel Pump.....ON
Mixture.....RICH
Carburetor Heat.....ON

**IF POWER IS NOT RESTORED, PREPARE
FOR POWER OFF LANDING**

APPROACH

ATIS/AWOS.....CHECK
Altimeter.....SET
Nav Instruments..... SET
Stations.....IDENTIFY
HSI.....SET
Mode.....VLOC or GPS
Comm Radios.....SET
Approach Briefing.....COMPLETE
Before Landing Checklist.....COMPLETE
Backup Nav & Radios.....AS DESIRED

DESCENT NORMAL

Throttle.....AS REQUIRED(2500 RPM MAX)
Airspeed.....AS REQUIRED(126 KIAS MAX)
Mixture.....ENRICHEN
Carburetor Heat.....AS REQUIRED

DESCENT POWER OFF

Carburetor Heat.....AS REQUIRED
Mixture.....AS REQUIRED
Throttle.....CLOSE
Airspeed.....AS REQUIRED
Power.....VERIFY WITH THROTTLE EVERY 30
SECONDS

BEFORE LANDING

Seats.....ADJUST/SECURE
Belts/Harnesses.....FASTEN/CHECK
Electric Fuel Pump.....ON
Fuel SelectorFULLEST TANK
Mixture.....RICH
Landing Light.....ON
Carburetor Heat.....AS REQUIRED

LANDING

PowerAS REQUIRED
Flaps.....BELOW 103 KIAS
Airspeed.....70 ON FINAL, 63 KIAS ON FLARE

GO-AROUND

Throttle.....FULL POWER
Flaps.....RETRACT TO 25°
Airspeed.....63 KIAS
Climb Speed.....79 KIAS AFTER OBSTACLE
CLEARED
Flaps.....SLOWLY RETRACT

AFTER LANDING

Flaps..... 0°
Transponder.....STANDBY
Electric Fuel Pump.....OFF
Landing Lights.....OFF (Except at Night)
Strobe LightsFIN
Mixture.....FULL RICH BELOW 5000ft.
Flaps.....UP
Ailerons.....SET TO WIND CONDITIONS

SECURING AIRCRAFT

Transponder.....STANDBY
Electrical Equipment (Fans, Pitot Heat,
etc).....OFF
Radio Master Switch.....OFF
Throttle.....1000 RPM
Mixture.....IDLE CUT-OFF
Strobe Lights.....OFF
Navigation Lights.....OFF
Alternator Switch.....OFF
Master Switch.....OFF
Ignition Switch.....OFF AND REMOVE KEY
Parking Brake.....OFF
Tiedowns or chocks.....SECURE
Trash.....REMOVE
(If in windy conditions, secure control wheel
with seatbelts)

EMERGENCY PROCEDURES

ENGINE FIRE DURING START

Starter.....CRANK ENGINE
Mixture.....IDLE CUT-OFF
Throttle.....OPEN
Electric Fuel PumpOFF
Fuel Selector.....OFF

ABANDON IF FIRE CONTINUES

ENGINE FAILURE DURING TAKEOFF

If sufficient runway remains for a complete stop:

Airspeed.....MAINTAIN SAFE AIRSPEED
Landing.....LAND and STOP STRAIGHT AHEAD
Brakes.....AS REQUIRED

If insufficient runway remains:

Airspeed.....MAINTAIN SAFE AIRSPEED
Flaps.....AS REQUIRED
(Make only shallow turns to avoid obstructions)

If sufficient altitude has been gained to attempt a restart:

Airspeed.....76 KIAS
Fuel Selector.....SWITCH to tank containing fuel
Electric Fuel Pump.....ON
Mixture.....RICH

If power is not regained, proceed with power-off landing.

ENGINE FAILURE AFTER TAKEOFF

Airspeed.....73 KIAS
Mixture.....IDLE CUT-OFF
Fuel SelectorOFF
Electric Fuel Pump.....OFF
Ignition Switch.....OFF
Alternator Switch.....OFF
Master Switch.....OFF
FlapsAS REQUIRED

MAKE ONLY SHALLOW TURNS TO AVOID OBSTRUCTIONS

ENGINE FAILURE DURING FLIGHT

RESTART PROCEDURES

Airspeed.....73 KIAS
Fuel SelectorSWITCH TANKS
Electric Fuel Pump.....ON
Mixture.....RICH
Carburetor Heat.....ON

IF POWER IS NOT RESTORED, PREPARE FOR POWER OFF LANDING

POWER OFF LANDING (Off Airport)

LOCATE SUITABLE FIELD, ESTABLISH BEST GLIDE

Seatbelts/Harnesses.....SECURE AND TIGHT
Airspeed.....63 KIAS, FLAPS DOWN
Ignition Switch.....OFF
Master Switch.....OFF
Alternator Switch.....OFF
Fuel SelectorOFF
Electric Fuel Pump.....OFF
Mixture.....IDLE CUT-OFF
Door.....UNLATCH PRIOR TO TOUCHDOWN

FIRE IN FLIGHT

Source of Fire.....CHECK

ELECTRICAL FIRE (Smoke in Cabin)

Master Switch.....OFF
Alternator Switch.....OFF
Vents.....OPEN
Cabin Heat.....OFF

LAND AS SOON AS PRACTICAL

ENGINE FIRE

Fuel SelectorOFF
Throttle.....CLOSED
Mixture.....IDLE CUT-OFF
Electric Fuel Pump.....CHECK OFF
Heater.....OFF
Defroster.....OFF

PROCEED WITH POWER OFF LANDING PROCEDURE

LOSS OF OIL PRESSURE

LAND AS SOON AS PRACTICAL, INVESTIGATE CAUSE

PREPARE FOR POWER OFF LANDING

LOSS OF FUEL PRESSURE

Electric Fuel Pump.....ON
Fuel SelectorSWITCH

HIGH OIL TEMPERATURE

LAND AS SOON AS PRACTICAL, INVESTIGATE CAUSE

PREPARE FOR POWER OFF LANDING

EMERGENCY PROCEDURES CONT'D

ELECTRICAL FAILURES

NOTE: *Anytime the bus voltage is below 25 Vdc, the low bus voltage Annunciator will be illuminated.*

ALT ANNUNCIATOR LIGHT ILLUMINATED:
Ammeter.....CHECK TO VERIFY INOP.
ALTERNATOR

IF AMMETER SHOWS ZERO:

Alternator Switch.....OFF
Electrical Load.....REDUCE TO MINIMUM
Alternator Circuit Breaker.....CHECK AND
RESET AS REQUIRED
Alternator Switch.....ON

IF POWER NOT RESTORED:

Alternator Switch.....OFF
Electrical Load.....REDUCE
LAND AS SOON AS PRACTICAL

ELECTRICAL OVERLOAD

(Alternator over 20 amps above known electrical load)

Alternator Switch.....ON
Master Switch.....OFF

IF ALTERNATOR LOADS ARE REDUCED:

Electrical Load.....REDUCE TO MINIMUM
LAND AS SOON AS PRACTICAL

NOTE: *Due to increased system voltage and radio frequency noise, operation with ALT switch ON and BATT switch OFF should be made only when required by an electrical system failure.*

IF ALTERNATOR LOADS ARE NOT REDUCED:

Alternator Switch.....OFF
Master Switch.....AS REQUIRED
LAND AS SOON AS PRACTICAL.
ANTICIPATE COMPLETE ELECTRICAL FAILURE.

SPIN RECOVERY

Throttle.....IDLE
Control Wheel.....FULL FORWARD
WHILE NEUTRALIZING AILERONS
Rudder.....FULL OPPOSITE TO DIRECTION
OF ROTATION
Rudder....NEUTRAL WHEN ROTATION STOPS
Control Wheel.....AS REQUIRED TO
SMOOTHLY REGAIN LEVEL FLIGHT ATTITUDE

OPEN DOOR

If both upper and lower latches are open, the door will trail slightly open and airspeeds will be reduced slightly.

TO CLOSE DOOR IN FLIGHT:

Airspeed.....89 KIAS
Cabin Vents.....CLOSE
Storm Window.....OPEN
If Top Latch is Open.....LATCH
If Side Latch is Open.....PULL ON ARM
REST WHILE MOVING LATCH HANDLE TO
LATCHED POSITION
If Both Latches Are Open.....LATCH SIDE
LATCH THEN TOP

ENGINE ROUGHNESS

Carburetor Heat.....ON

IF ROUGHNESS CONTINUES AFTER ONE MINUTE:

Carburetor Heat.....OFF
Mixture.....ADJUST FOR MAX SMOOTHNESS
Electric Fuel Pump.....ON
Fuel Selector.....SWITCH TANKS
Engine Gauges.....CHECK
Magneto Switch.....L THEN R THEN BOTH
If operation is satisfactory on either magneto, continue on that magneto at reduced power and full RICH mixture to first airport.

PREPARE FOR POWER OFF LANDING

CARBURETOR ICING

Carburetor Heat.....ON
Mixture.....ADJUST FOR MAX SMOOTHNESS

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