

Piper Warrior Preflight

Personal minimums..... Checked

Cockpit

Pitot tube cover Remove
Seat belt around controls..... Remove
Hobbs time Check and record
AROW documents Check present
Ignition switch Off
Radio master Off
All lights (exterior & interior)..... Off
Master switch On
Fuel quantity indicators..... Check
Avionics fan or TC gyro Listen for
Exterior lights & Pitot heat On
..... Walk around and check operation
..... Check stall warning horn
Exterior lights & Pitot heat Off
Master switch Off
Flaps Lower

Right Side

Flap Check security
..... Check actuator arm
Aileron Check freedom of movement
..... Check hinges
..... Check actuator arm
Wing tip Check light(s)
Wing leading edge Check for damage
Wing air vent..... Check for blockage
Wing top Check for damage
Fuel quantity Check visually
Fuel filler cap Secure
Main wheel strut Check inflation (4.5 in)
Main wheel tire, brakes, fairing Check
Fuel vent Check for blockage
Fuel sump Drain and check
Wing bottom Check access ports secure
Wing tiedown..... Remove

Front

Cowl..... Open both sides
..... Check engine condition
Oil Check quantity (≥ 4 quarts)
Brake fluid Check quantity
Cowl..... Close and secure
Propeller Check for nicks/damage

Spinner Check for damage
Cowl openings Check for obstructions
Alternator belt Check tight
Landing light..... Check condition if applicable
Air filter Check for blockage
Nose wheel strut Check inflation (3.25 in)
Nose wheel tire Check inflation and tread
Nose fuel sump Drain and check

Left Side

Wing top Check for damage
Fuel quantity Check visually
Fuel filler cap..... Secure
Wing air vent Check for blockage
Wing leading edge Check for damage
Main wheel strut Check inflation (4.5 in)
Main wheel tire, brakes, fairing Check
Fuel vent Check for blockage
Fuel sump Drain and check
Wing tiedown Remove
Wing bottom Check access ports secure
Pitot tube..... Check for blockage (3 holes)
Wing tip Check light(s)
Aileron Check freedom of movement
..... Check hinges
..... Check actuator arm
Flap Check security
..... Check actuator arm

Rear

Stabilator..... Check freedom of movement
..... Check secure
..... Check anti-servo trim tab
..... Check jack screw
Rudder Check security
Rear tiedown..... Remove
Under fuselage Check for damage
Top of fuselage Check for damage
ELT access port Check secure
ELT antenna Check secure
Baggage door Closed and latched

All tires Roll and check

Flaps Up

Piper Warrior Operations: Engine Start, Taxi, and Runup

Engine Start

Passengers briefed..... Seat, belts and harnesses
.....Door operation
..... Headset
..... Emergency procedures
.....Emergency supplies
.....Sterile cockpit
..... Looking for traffic

Cell phones Off
Seats, belts, harnessesAdjust and lock
Fuel selector valveLeast full tank
Avionics master Off
Brakes Test
Parking brakeSet
Circuit breakersCheck in

Mixture..... Rich
Carburetor heat..... Off
Prime As required (3 strokes)
Primer..... Check locked
Throttle open..... ¼ inch
Master switch On
Electric fuel pump..... On & Check fuel pressure
Tail beacon (anti-collision light)..... On
BrakesHold tight
Propeller area Check and yell CLEAR
Ignition switch Start
 Throttle..... Adjust to 1000 RPM
 Oil pressure Check
 Ammeter and ALT light..... Check
Electric fuel pump..... Off
Fuel pressureCheck
Mixture..... Lean as appropriate

TransponderStandby
Avionics master On
Radios and intercom On
Lights As required
Radios Get ATIS
AltimeterSet
Heading indicator.....Set

(Contact ground)

Taxi

Attitude indicator Level during turns
..... No dip during acceleration
Heading indicator..... Turns appropriately
Turn coordinatorBanks appropriately
Compass.....Moves freely

Engine Runup

Parking brake Set
Cabin doors..... Closed and latched
Flight controls..... Free and correct
 Ailerons, elevator, elevator trim
Elevator trim Set for takeoff
Rudder trim..... Set for takeoff
Fuel selector valve Switch tank to fullest
Mixture Rich (below 3000 feet)
Annunciator panel..... Check
Throttle 2000 RPM
Magnetos Check
 (Max 175 RPM drop or 50 RPM diff)
Oil temperature and pressure Check
Suction Gage..... Check
Ammeter Check
Carburetor heat On
 (RPM drop and no further increase)
Carburetor heat Off
 (RPM increase)
Carburetor heat On
Throttle Full idle, check smooth
Carburetor heat Off
Throttle 1000 RPM
Mixture Lean as appropriate

➔ Go to takeoff checklist ←

Piper Warrior Operations: Takeoff through Shutdown

Takeoff

Flight instruments and radios..... Check/Set
Transponder Appropriate code
Seats, belts, and harnesses Adjust and lock
Doors and windows..... Closed and latched
Fuel selector valve Appropriate tank
Flaps..... Up (25° for short/soft field)
Elevator trim Set
Carburetor heat..... Off
Takeoff technique Choose
Speeds & emergency plans Review
Radios Contact tower/CTAF

When cleared onto the runway:

Takeoff time..... Record
Lights All on
Transponder (Camera) Altitude
Electric fuel pump (Action) On
Mixture (Action) Rich (below 3000 feet)

Rotate at 50 KIAS
Climb at..... 79 KIAS
..... (52 KIAS short field)

Cruise

Electric fuel pump..... Off
Power 2200-2700 RPM
Mixture..... Lean as appropriate
Lights As required
Heading indicator..... Set
Fuel tank Switch every hour

Before Landing

(L) Lights On
(G) Fuel selector Fullest tank
 Fuel pump On
(U) Brakes Test
(M) Mixture Rich (below 3000 feet)
(P) Propeller (No action required)
(S) Seats, belts, and harnesses..... Adjust and lock

Final approach speed..... 63 KIAS

Go-Around

Throttle..... Full
Carburetor heat..... Off
Flaps..... Retract to 25°
Flaps..... Retract slowly

After Landing

Carburetor heat Off
Flaps Up
Electric fuel pump Off
Lights As required
Transponder Standby
Elevator trim Set
Mixture Lean as appropriate
Radios Contact ground if applicable

Shutdown and Securing

Avionics master Off
Throttle Idle
Mags Check briefly in off position, then both
Throttle 1000 RPM
Mixture Idle cut-off
Ignition switch Off and remove key
Master switch..... Off
Lights (exterior and interior) Off

In tie-down spot:

Tiedown ropes Tie
Hobbs time..... Record
Seat belt around controls Set
Pitot tube cover..... Install
Door Lock
Baggage door Lock

Important Airspeeds

V_x 63 KIAS
V_y 79 KIAS
V_{ne} 160 KIAS
V_{no} 126 KIAS
V_a 88-111 KIAS
V_{fe} 103 KIAS

Final approach 63 KIAS

Best glide 73 KIAS

Piper Warrior: In-Flight Emergency Procedures

Engine Failure During Flight

Airspeed73 KIAS (flaps up)
Direction Turn toward preselected field

If time permits, try to restart:

Fuel selector valve Switch tanks
Electric fuel pump..... On
Mixture..... Rich
Carburetor heat..... On
Ignition switch Both
..... Start (if propeller stopped)
Primer..... In and locked

If time permits, call for help:

Transponder 7700
Radio Last frequency or 121.5
..... Announce MAYDAY and position

Seat belts Tight
Passengers Brief
(Door operation, seat belts, seat position,
crash position, exiting airplane)

When committed to landing:

Fuel selector valve Off
Mixture..... Idle cut-off
Ignition switch Off
Master switch Off
Flaps..... As required (40° recommended)
Door Unlatch

Engine Fire in Flight

Fuel selector valve Off
Throttle..... Closed
Mixture..... Idle cut-off
Electric fuel pump..... Off
Heater and defroster Off
Ignition switch Off
Master switch Off
Seat belts Tight
Passengers Brief
(Door operation, seat belts, seat position,
crash position, exiting airplane)
Door Unlatch

Electrical Fire in Flight

Master switch..... Off
Heater and defroster..... Off
Cabin vents Open
Fire extinguisher Activate (if available)

ALT Light Illuminates During Flight

Ammeter Verify zero
Avionics master Off
Alt master switch Off
ALT circuit breaker Check and reset
Alt master switch On
ALT light Check off
Avionics master On

If ALT light illuminates again:

Alt master switch Off
Nonessential electrical equipment Off
Flight..... Terminate as soon as practical