

PIPER ARCHER PA-28-180

N33083

V _{so} -----	61 MPH
V _s -----	68 MPH
V _x —Flaps 25° -----	76 MPH
V _y -----	85 MPH
V _{fe} -----	115 MPH
V _a —2450 lbs. Gross Weight -----	127 MPH
V _{no} -----	140 MPH
V _{ne} -----	171 MPH
V _g ---Best Glide -----	85 MPH
Landing Final Appch Speed (Flaps 40°) -----	80 MPH

PRE-FLIGHT INSPECTION

COCKPIT CHECKLIST

Master Switch ----- On
 Fuel Gauges & Lights ----- Check
 Master Switch ----- Off
 Flaps ----- Extend
 Required Papers (A.R.O.W.) ----- Check on Board

EXTERIOR INSPECTION

Right Wing ----- Check
 (Control Surfaces/hinges, Fuel qty/sump, Gear strut/tire/brakes)
 Nose Section ----- Check
 (Clean, Oil Qty/leaks, Fuel drain, Propeller/Spinner, Alternator belt tension, Gear strut/tire, Engine baffle seals)
 Left Wing ----- Check
 (Control Surfaces/hinges, Fuel qty/sump, Gear strut/tire/brakes, Pitot/static head)
 Left Fuselage Condition ----- Check
 Tail Section ----- Check
 (Stabilator/trim tab/hinges, Fresh air inlet)
 Right Fuselage Condition ----- Check

STARTING ENGINE CHECKLIST

Passenger Briefing ----- Complete
 Seats / Seat Belts ----- Secure
 Electrical Equipment ----- Off
 Circuit Breakers ----- In
 Brakes ----- Set
 Fuel Selector ----- Fullest Tank
 Master Switch ----- On
 Electric Fuel Pump ----- On
 Strobe Lights ----- On
 Carburetor Heat ----- Off
 Mixture ----- Full Rich
Cold Start ----- Pump Throttle 2-3 times
 Throttle ----- CRACKED Open
 Area ----- Clear
 Starter ----- Engage/ release when fires
 Throttle ----- 1000- 1100 RPM
 Oil Pressure ----- Check
 Avionics ----- On
 Mixture ----- Lean for Taxi

BEFORE TAXI ----- Lights as needed / AWOS

BEFORE TAKE-OFF CHECKLIST

Brakes ----- Set
 Door / Window ----- Closed / Locked
 Flight Controls ----- Free and Correct
 Flight Instruments ----- Check and Set
 Fuel Selector ----- Fullest Tank
 Mixture ----- Full Rich
 Primer ----- In and Locked
 Throttle (If oil temp allows) ----- 1800 RPM
 Magnetos --- Max. Drop 175 RPM—Max. Difference 50 RPM
 Carburetor Heat ----- Check
 Vacuum ----- 5.0" Hg. +/- .1
 Annunciator Panel ----- Press-to-Test
 Oil Pressure/Temperature ----- Check
 Ammeter ----- Check
 Electric Fuel Pump (Off) ----- Check Fuel PSI
 Throttle ----- Check Idle, Then 1000 RPM
 Trim ----- Set
 Autopilot ----- Off
 Transponder ----- Squawk Code & Altitude
 Radios / GPS ----- Set
 Seat / Seat Belts ----- Secure / Fastened
 Takeoff checklist ----- Choose & Complete

NORMAL TAKEOFF

Fuel Pump / Landing Light ----- On
 Flaps ----- Retracted
 Rotate ----- 65 MPH
 Climb Speed (V_y) ----- 85 MPH
 Enroute Climb ----- 100 MPH

SHORT FIELD TAKEOFF

Fuel Pump / Landing Light ----- On
 Flaps (Second Notch) ----- 25°
 Rotate ----- 60 MPH
 Climb at V_x ----- 76 MPH
 Accelerate to V_y ----- 85 MPH
 Flaps ----- Retract Slowly

SOFT FIELD TAKEOFF

Fuel Pump / Landing Light ----- On
 Flaps (Second Notch) ----- 25°
 Elevator ----- Full Back Pressure
 Elevator ----- Release as airspeed builds
 Rotate ----- STAY IN GROUND EFFECT
 Accelerate to V_x then initial climb ----- 76 MPH
 Accelerate to V_y Climb Speed) ----- 85 MPH
 Flaps ----- Retract Slowly

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CRUISE

Fuel Pump / Landing Light ----- Off
Power----- 2300-2400 RPM
Mixture----- Adjust (50-75° rich of peak)
Fuel Selector ----- Switch tanks every 30 min.

BEFORE DESCENT

Flight Instruments -----Set
Seats & Seat Belts -----Check
Mixture-----Enrichen as needed

BEFORE LANDING

Fuel Pump / Landing Light -----On
Fuel Selector ----- Fullest Tank
Mixture----- Full Rich
Autopilot----- Off

NORMAL LANDING

Power----- 1500-1600 RPM (as needed)
Flaps----- set – 115 MPH Max.
Trimmed Airspeed (Flaps Up) ----- 85 MPH
Final Approach Speed (Flaps Down)----- 80 MPH

SHORT FIELD LANDING

Approach Speed ----- 76 MPH
Flaps ----- Full
Throttle----- Idle
Touchdown ----- Brakes Firm
Flaps ----- Retract
Controls ----- Full Back Pressure

BALKED LANDING PROCEDURES

Throttle----- Full
Flaps----- 25°
Climb Speed (Vx) ----- 76 MPH
Positive Rate of Climb----- Check
Flaps ----- Retract Slowly

AFTER LANDING

Clear of Runway ----- Radio Call
Flaps ----- Retracted
Fuel Pump / Landing Light ----- Off
Mixture----- Lean for Taxi

SHUT DOWN

Avionics Master ----- Off
Throttle----- Idle
Mixture----- Idle Cut-Off
Elec Switches / Master Switch ----- Off
Magnetos ----- Off
Aircraft ----- Secure

ENGINE FAILURE DURING TAKE-OFF

Airspeed / Trim (Vg) -----85 MPH
Best Place to Land ----- Determine
Carburetor Heat ----- On
--IF TIME & ALTITUDE PERMIT--

Electric Fuel Pump-----On
Mixture ----- Rich
Throttle ----- Cycle
Primer----- In and Locked
Magnetos ----- Cycle, Ensure on 'Both'
Fuel Selector ----- Switch Tanks
Proceed with 'Securing Engine' and 'Emergency Landing Checklist' if no power is regained.

ENGINE FAILURE IN FLIGHT

Airspeed / Trim -----85 MPH
Best Place to Land ----- Determine
Carburetor Heat ----- On
Electric Fuel Pump ----- On
Mixture ----- Rich
Throttle ----- Cycle
Primer----- In and Locked
Magnetos ----- Cycle, Ensure on 'Both'
Fuel Selector ----- Switch Tanks
Communicate --- Squawk 7700/Mayday 121.5

EMERGENCY LANDING

Airspeed when field can be reached ----76 KIAS
Mixture ----- Idle/Cutoff
Throttle ----- Closed
Master Switch----- Off
Magnetos ----- Off
Fuel Selector ----- Off
Seats / Seat Belts ----- Tight
Doors----- Ajar
Passengers----- Brief

ENGINE FIRE DURING START UP

Cranking ----- Continue
If Engine Starts:
Throttle ----- 1800 RPM
Engine ----- Shutdown and Inspect
If Engine Fails to Restart:
Throttle ----- Full Open
Mixture ----- Idle Cut-Off
Cranking ----- Continue
Master, Mags, & Fuel ----- Off