



N9014P

PA24-260 Piper Comanche Operating Checklist

Phoenix Flyers, Inc.

www.phoenixflyers.org

Piper Comanche PA24-260

Starting

Before Starting Engine

1. Preflight Complete.
2. Seat Belts, Shoulder Harness - ON.
3. Passengers Briefed.
4. Radios - OFF.
5. All Electrical Switches - OFF.
6. Fuel Selector - Tank with most fuel.
7. Brakes - Test and Apply.
8. Gear Switch Down.
9. Alternate Air - OFF.

Starting Engine When Cold

1. Throttle – ½ inch Open.
2. Prop - Full Increase.
3. Mixture – Idle Cut Off.
4. Master Switch - ON.
5. Check Gear Lights - ON.
6. Prime Engine:
 - a. Throttle - ½ inch Open.
 - b. Electric Fuel Pump - ON.
 - c. Mixture - Rich 3 to 5 seconds then OFF.
(Look for Fuel Flow Indication then Mixture OFF)
 - d. Fuel Pump – OFF
7. Throttle - ¼ inch Open.
8. Propeller Area Clear.
9. Engage Starter, Advance Mixture when Engine Fires.
10. Throttle - Adjust (800 to 1000 RPM)
11. Oil Pressure - Check.
12. Mixture - Lean for Taxi.

Starting Engine When Hot

1. Same as Cold Except:
 - Do NOT Prime Engine.

Starting Engine When Flooded

1. Same as Cold Except:
 - Do NOT Prime Engine.
 - Throttle Full Open.

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Taxi

Before Taxi

1. Anti-Collision Lights - ON.
2. Flaps – Retract.
3. Avionics Master Switch – ON.
4. Radios - ON and Set.
5. Nav/GPS – ON and Set (GPS Flight Plan, VOR Check)
6. Clearances - ATIS, Clearance Delivery, Ground.
7. Transponder – Standby.
8. Landing Light as Necessary.
9. Navigation and Interior Lights as Desired.
10. Brakes - Test on Initial Roll.

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Run Up

Run Up

1. Brakes - Set.
2. Fuel Selector - Tank with Most Fuel.
3. Flight Controls - Free and Correct.
4. Oil Temperature - In Green (Beginning to come up).
5. Throttle – 1800* or 2000 RPM.
 - Engine Instruments - Check.
 - Mixture - Lean above 4000 ft. density altitude.
 - Magnetos - Check Right - Both - Left - Both.
(Max. Drop 125 RPM, Max. Delta 50 RPM)
 - Alternate Air - Check Operation (RPM drop).
 - Prop - Cycle 1 to 3** Times.
(Keep RPM drop to less than 100 RPM)
 - Vacuum - 4.8" to 5.1"
 - Alternator Output - Check.
 - Throttle Retard (800 TO 1200 RPM).
6. Throttle Friction Lock – Adjust.
7. Flight Instruments - Set.
8. Auto Pilot – Test and verify RDY light on.
9. Circuits Breakers - Check.
10. Trim Tab – Set for Takeoff.
11. Radios Set Up.
12. NAV/GPS – Set.
13. Pitot Heat - As Desired.
14. Anti-Collision Lights - ON.
15. Cabin Door and Window - Closed and Locked.
16. Note Time Off.

Before Takeoff

1. Transponder - On Altitude.
2. Electric Fuel Pump - ON.
3. Anti-Collision Lights – ON.
4. Mixture - Rich (unless high altitude).
5. Prop - Full Forward.

* Arizona Aircraftsman recommends 1800 RPM for a safe check and less wear on the engine, the POH recommends 2000 RPM.

** The POH recommends 3 prop cycles only in cold weather.

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Takeoff, Climb Out, Cruise

Normal Takeoff

1. Brakes – Release.
2. Full Throttle.
3. Rotate at - 80 MPH.
4. Gear Up / Flaps Up.
5. Climb Speed - 111 MPH.

Short Field

1. Flaps - 15°.
2. Brakes - Apply & Hold, Full Throttle.
3. Brakes - Release.
4. Pull Back @ 75 MPH.
5. Lift-Off @ 77 MPH.
6. Gear Up.
7. Climb Speed - 87 MPH.
8. Flaps - Retract, Slowly accelerate to 111 MPH.

Soft Field

1. Flaps - 15°.
2. Full back elevator pressure.
3. Slowly Increase to Full Throttle.
4. Lift Nose as soon as possible.
5. Accelerate in ground effect.
6. Gear Up / Flaps Up.
7. Climb Speed - 111 MPH.

Climb

1. Normal - 25"MP, 2500 RPM, 21 GPH.
2. Best Cooling - Full Throttle, 2500 RPM, Mixture Rich.
3. Electric Fuel Pump - OFF at 1000 feet AGL.
- Check Fuel Pressure.
4. Best Rate - 111 MPH.
5. Best Angle - 87 MPH.
6. Enroute - 130 MPH.

Cruise

1. Power - Set to Power Table and Lean Mixture.
- 23" MP, 2300 RPM, 14 GPH @ 3000 feet.
2. Landing Light - OFF.

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Approach and Landing

Before Landing (Down Wind)

1. 16" MP, 2500 RPM, 110 MPH.
2. Seat Belts, Shoulder Harness - On.
3. Seat Backs - Up.
4. Electric Fuel Pump - On.
5. Fuel Selector - Fullest Tank.
6. Mixture - Set.
7. Landing Light - As Desired.
8. Gear Down Below 150 MPH (125 MPH Rec.)
9. Autopilot – OFF.
10. Abeam Touch Down Point - 12" MP.
11. 15° Flaps.

Normal Landing

1. Base: 100 MPH, GUMP Check, Flaps 25°.
2. Final: 90 MPH, Three Green, Flaps 32°.

Short Field Landing

1. Extend Downwind by 4-5 Seconds.
2. Reduce Approach Speeds to 85 MPH, Add 2" MP.

After Landing

1. Flaps Retract.
2. Transponder - Standby.
3. Landing Light / Anti-Collision Lights As Desired.
4. Fuel Pump - Off.
5. Mixture - Lean for taxi.

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Engine Shutdown

Engine Shutdown

1. Brakes - Apply and Hold.
2. Electrical Equipment – OFF.
3. Avionics Master - OFF.
4. Lights - OFF.
5. Electric Fuel Pump - OFF.
6. Throttle - 1200 RPM.
7. Mixture - Idle Cut Off.
8. Magnetos - OFF.
9. Master Switch - OFF.
10. Secure Control Wheel.
11. Tie Down Plane.
12. Brakes - OFF.

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Airspeeds / Emergencies

Best Glide - 90 MPH (Endurance)

Best Glide - 105 MPH (Range)

V_{S0}	=	67	MPH
V_{S1}	=	75	MPH
V_X	=	87	MPH (Gear Up, Flaps Up)
V_X	=	77	MPH (Gear Down, Flaps Up)
V_Y	=	111	MPH (Gear Up, Flaps Up)
V_Y	=	97	MPH (Gear Down, Flaps Up)
V_A	=	109	MPH @ Empty 1718 lbs
V_A	=	146	MPH @ Gross 3100 lbs
V_{FE}	=	125	MPH (Rec. 100 MPH)
V_{LE}	=	150	MPH (Rec. 125 MPH)
V_{LO}	=	150	MPH (Rec. 125 MPH)
V_{NE}	=	222	MPH
V_{NO}	=	180	MPH

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Emergencies

Gear Failure

1. Gear Switch Down.
2. Check Bulbs.
3. Check Circuit Breaker.
4. Master Switch On.
5. Turn Panel Lights off.
6. Manual Gear Extension:
 - Lift cover off Manual Gear Extension box on floor.
 - Follow the checklist on the back of the plate.
 - Airspeed below 100 MPH.
 - Disengage electric motor.
 - Push release arm forward.
 - Extend emergency handle to full length.
 - Push Handle full forward.
 - Do not operate gear after manual operation.

Engine Failure

1. Pitch / Trim for Best Glide - 90 mph / 105 mph.
2. Fuel Pump - ON.
3. Alternate Air - ON.
4. Mixture - Rich.
5. Prop - Full Forward.
6. Mags - Check Both.
7. Switch Fuel Tanks.
8. **Power Off Landing** - If Engine will not Restart.
 - Select Landing Location.
 - Prop - Full Back to extend glide.
 - Gear Down? - Will take 7 seconds to extend.
 - Normal Radio Procedure (Squawk 7700, Mayday on 121.5).
 - Normal Shutdown (Fuel Pump OFF, Mixture OFF, Fuel Selector OFF, Mags OFF).
 - Before Landing (Seat belts tight, Door Open, Master Switch OFF).

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Emergencies

Engine Fire

1. Firewall Air Vents (Heat, Defroster) – Closed.
2. Mixture - Idle Cutoff.
3. Fuel Selector – OFF.
4. Throttle – Idle.
5. Electric Fuel Pump – OFF.
6. Descend rapidly (do not exceed VNE).
7. Prepare for power off landing.

Electrical Fire

1. Master Switch – OFF.
2. Cabin Vents – Open.
3. Verify source of smoke is out.
4. Leave any tripped breakers off.
5. Restore electrical items one at a time.
6. Land as soon as possible.