

Piper Comanche PA24-260 Starting and Taxi

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. Master Switch - ON.
2. Check Gear Lights - ON.
3. Propeller Area Clear.
4. Electric Fuel Pump - ON.
5. Prop - Full Increase.
6. Throttle - 1/2" Open.
7. Mixture - Rich 3 to 5 seconds then OFF.
8. Throttle - 1/4" Open.
9. Engage Starter, Advance Mixture when Engine Fires.
10. Throttle - Adjust (800 to 1200 RPM)
11. Oil Pressure - Check.
12. Mixture - Lean for Taxi.
13. Fuel Pump - OFF.

Starting Engine When Flooded

1. Same Except: Fuel Pump Off, Throttle - Full Open

Before Taxi

1. Anti - Collision Lights - ON.
2. Radios - On and Set. (VOR Check)
3. Clearances - ATIS, CInc. Deliv., Ground.
4. Transponder - Standby
5. Landing Light as Necessary.
6. Nav. Lights and Interior Lights as Desired.
7. Brakes - Test on Initial Roll.

Piper Comanche PA24-260 Run Up

Run Up

1. Brakes - Set.
2. Fuel Selector - Tank with Most Fuel.
3. Flight Controls - Free and Correct.
4. Flaps - Check all Positions.
5. Oil Temperature - In Green (Beginning to come up).
6. Throttle - 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 3 Times.
 - Vacuum - 4.8" to 5.1"
 - Alternator Output - Check.
 - Throttle Retard.
7. Flight Instruments - Set.
8. Auto Pilot - OFF.
9. Circuits Breakers - Check..
10. Trim Tab - Set.
11. Radios Set Up / Takeoff Clearance.
12. Pitot Heat - As Desired.
13. Anti-Collision Lights - ON.
14. Cabin Door and Window - Closed and Locked.
15. Note Time Off.

Before Takeoff

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

Piper Comanche PA24-260 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
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", 2300 RPM, 14 GPH @ 3000 feet
2. Landing Light - OFF.

Piper Comanche PA24-260 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. Abeam Touch Down Point - 12" MP.
10. 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 Off.
4. Fuel Pump - Off.
5. Mixture - Lean for taxi.

Engine Shutdown

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

Piper Comanche PA24-260 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

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

Piper Comanche PA24-260 Emergencies

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)

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 V_{NE})
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.