



N493JL

C182S Cessna Skylane Operating Checklist

Phoenix Flyers, Inc.

www.phoenixflyers.org

Cessna 182S Skylane

Preflight

Cabin

1. Pitot Tube – Remove Cover, Check for Blockages.
2. Documents – POH, W&B, Registration.
3. Parking Brake - SET.
4. Control Wheel Lock – Remove.
5. Ignition Switch – OFF.
6. Avionics Master Switch – OFF.
7. Master Switch – ON.
8. Fuel Quantity – Check Indicators and Annunciators.
9. Avionics Master Switch – ON.
 - Avionics Cooling Fan – Listen for Operation.
 - Avionics Master Switch – OFF.
10. Alternate Static Source Valve – OFF.
11. Annunciator Panel – Test (All lights should flash).
12. Fuel Selector Valve – BOTH.
13. Flaps – EXTEND.
14. Cowl Flaps – OPEN.
15. Pitot Heat – Check.
16. Master Switch – OFF.
17. Baggage Door – Locked with Key.

Empennage

1. Rudder Gust Lock – Remove if Attached.
2. Tail Tie-Down – Remove.
3. Control Surfaces – Check Freedom of Movement.
4. Trim Tab – Check Security.
5. Antennas – Check attachment and condition.

Right Wing

1. Aileron – Check Freedom of Movement and Security.
2. Flap – Check Security and Condition.
3. Wing Tie-Down – Remove.
4. Fuel Tank Vent – Check for Stoppage.
5. Main Wheel Tire – Check Inflation and Condition.
6. Fuel Tank Drain – *Check for Contamination, Fuel Grade.
 - Sample 5 Fuel Drains on each wing.
7. Fuel Quantity – Visually Check Quantity.
8. Fuel Filler Cap – Secure and Vent NOT Obstructed.

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Preflight

Nose

1. Static Port (Right)– Check for Blockage.
2. Fuel Strainer Drain - *Check for Contamination, Fuel Grade.
3. Fuel Selector Drain - *Check for Contamination, Fuel Grade.
4. Engine Cooling Inlets – Check for obstructions.
5. Propeller and Spinner – Check for nicks and security.
6. Air Filter – Check for Obstructions.
7. Nose Strut – Check Inflation and Condition
8. Nose Wheel - Check Inflation and Condition.
9. Engine Oil – Keep filled to 6 quarts.
10. Static Port (Left) – Check for Blockage.

Left Wing

1. Fuel Quantity – Visually check quantity.
2. Fuel Filler Cap – Secure and Vent not obstructed.
3. Fuel Tank Drain – *Check for Contamination, Fuel Grade.
- Sample 5 Fuel Drains on each wing.
4. Main Wheel Tire – Check Inflation and Condition.
5. Pitot Tube – Remove Cover and Check for Blockages.
6. Fuel Tank Vent – Check for Stoppage.
7. Stall Warning Vane – Check freedom of movement.
8. Wing Tie-Down – Remove.
9. Landing Light – Check Condition and Clean Cover.
10. Aileron – Check Freedom of Movement and Security.
11. Flap – Check Security and Condition.

* If Fuel contamination is found - Take additional samples from all sumps until clear. Rock wings and lower tail and sample again.

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Engine Start

Before Starting Engine

1. Preflight Complete.
2. Passengers Briefed.
3. Seats – Adjust and Lock position.
4. Seat Backs – Set to Most Upright position.
5. Seat Belts, Shoulder Harness – On, Adjust and Lock.
6. Brakes - Test and Set.
7. Circuit Breakers – Check In.
8. Avionics Circuit Breakers – Check In.
9. All Electrical Switches - OFF.
10. Avionics Master Switch - OFF.
11. Cowl Flaps – OPEN.
12. Fuel Selector - BOTH.

Starting Engine When Cold

1. Throttle – ¼ inch Open.
2. Prop - Full Increase.
3. Mixture – IDLE CUT OFF.
4. Master Switch - ON.
5. Prime Engine
 - Electric Fuel Pump - ON
 - Advance Mixture until Fuel Flow rises then OFF.
 - Electric Fuel Pump - OFF.
6. Propeller Area Clear.
7. Engage Starter, Advance Mixture when Engine Fires.
8. Throttle - Adjust to 1200 RPM
9. Oil Pressure - Check.
10. Mixture - Lean to Maximum RPM.
11. Throttle – 600 to 800 RPM (If Cold – 800 to 1000 RPM.)

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 1/2 Open.
 - When engine fires advance mixture and retard throttle.

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Taxi / Run Up

Before Taxi

1. Anti-Collision Lights - ON.
2. Flaps – Retract.
3. Avionics Master Switch – ON.
4. Autopilot – Self-Test Complete.
5. Test and Set Shadin Fuel Flow Meter.
 - Press Enter/Test for Self-Test – Verify “Good”
 - Verify Fuel Remaining – Set if Needed
 - Set Display as Desired – Fuel Remaining or Other.
6. Radios - On and Set.
7. Nav/GPS – On and Set (GPS Flight Plan, VOR Check)
8. Clearances - ATIS, Clearance Delivery, Ground.
9. Transponder – Standby.
10. Landing Light/Taxi Light as Necessary.
11. Navigation Lights and Interior Lights as Desired.
12. Brakes - Test on Initial Roll.

Run Up

1. Brakes - Set.
2. Flight Controls - Free and Correct.
3. Flight Instruments - Set.
4. Fuel Quantity – Check.
5. Fuel Selector - BOTH.
6. Oil Temperature - In Green (Beginning to come up).
7. Mixture – RICH.
8. Throttle - 1800 RPM.
 - Engine Instruments - Check.
 - Magnetos - Check Right - Both - Left - Both.
(Max. Drop 150 RPM, Max. Delta 50 RPM)
 - Prop - Cycle Once.
(Keep RPM drop to less than 100 RPM)
 - Annunciator Panel – Check No Lights Illuminated.
 - Vacuum - 4.5" to 5.5"
 - Alternator Output - Check.
 - Throttle Retard.
9. Throttle Friction Lock – Adjust.

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Run Up / Before Takeoff

Run Up (Continued)

10. Auto Pilot / Manual Electric Trim – Test
 - MET – Press both halves up/down and verify trim wheel and indicator are moving.
 - DISC/TRIM INT – Press and hold while MET is pressed to verify that trim wheel and indicator are not moving. Release and verify trim wheel and indicator are moving.
 - Engage Autopilot – Press AP Button.
 - Flight Controls – Move fore, aft, left, and right to verify that autopilot can be overpowered.
 - DISC/TRIM INT – Press and verify that the autopilot disconnects. (Tone and Voice warning.)
11. Elevator and Rudder Trim - Set for Takeoff.
12. Radios Set Up.
13. NAV/GPS – SET.
14. Pitot Heat - As Desired.
15. Cabin Doors and Windows - Closed and Locked.
16. Note Time Off.

Before Takeoff

1. Transponder - On Altitude.
2. Mixture – Rich.
 - High Altitude – Adjust for Placarded fuel flow.
3. Prop - Full Forward.
4. Flaps – Set as desired for Take-Off (0° to 20°)
5. Cowl Flaps – OPEN.
6. Anti-Collision Lights - ON.
7. Landing Light/Taxi Light as Desired.

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Takeoff

Normal Takeoff

1. Brakes – Release.
2. Full Throttle – 2400 RPM.
3. Mixture – Rich.
 - High Altitude – Adjust for Placarded fuel flow.
4. Rotate at - 55 to 60 kts.
5. Climb Speed - 80 kts No Flaps.

Short Field

1. Flaps - 20°.
2. Brakes - Apply & Hold.
3. Full Throttle – 2400 RPM.
4. Mixture – Adjust for Placarded fuel flow.
5. Brakes - Release.
6. Pull Back @ 47 kts.
7. Lift-Off @ 49 kts.
8. Climb Speed - 58 kts.
9. Flaps – Retract after reaching 70 kts.
10. Climb Speed
 - 70 kts with 20° Flaps.
 - 80 kts No Flaps.

Soft Field

1. Flaps - 20°.
2. Full back elevator pressure.
3. Slowly Increase to Full Throttle -2400 RPM.
4. Lift Nose as Soon as Possible
5. Accelerate in Ground Effect.
6. Flaps – Retract after reaching 70 kts.
7. Climb Speed
 - 70 kts with 20° Flaps.
 - 80 kts No Flaps.

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Climb, Cruise, and Descent

Climb

1. Cowl Flaps – OPEN.
2. Fuel Selector – BOTH.
3. Enroute Climb.
 - 90 kts.
 - Power - 23"MP, 15 GPH, 2400 RPM.
4. Maximum Performance Climb.
 - Best Rate - 80 kts. (72 kts @ 10,00 Feet)
 - Best Angle - 63 kts. (66kts @ 10,000 Feet)
 - Full Throttle.
 - Lean to Placarded Fuel Flow.

Cruise

1. Power - Set to power table and Lean Mixture.
 - 4000 ft & 75% Pwr – 25" MP, 2200 RPM, 12.7 GPH.
 - 4000 ft & 65% Pwr – 22" MP, 2200 RPM, 10.9 GPH
2. Cowl Flaps – CLOSED.
3. Landing Light/Taxi Light - OFF.

Descent

1. Power – As Desired.
2. Mixture – Enrichen as necessary.
3. Cowl Flaps – CLOSED.
4. Fuel Selector – BOTH.

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Approach and Landing

Before Landing (Down Wind)

1. 16" to 17" MP, 2400 RPM, 90 kts.
2. Seat Belts, Shoulder Harness - On.
3. Seat Backs - Up.
4. Fuel Selector – BOTH.
5. Mixture – RICH.
6. Cowl Flaps – CLOSED.
7. Landing Light/Taxi Light - As Desired.
8. Autopilot – OFF.
9. Abeam Touch Down Point - 12" to 14" MP.
10. 10° Flaps.

Normal Landing

1. Base: 80 kts., GUMP Check, Flaps 20°.
2. Final: 70 kts., Full Flaps. (65 kts. Over the Runway.)

Short Field Landing

1. Extend Downwind by 4-5 Seconds. Add 2" MP.
2. Reduce Approach Speeds to 60 kts.

Balked Landing

1. Full Throttle – 2400 RPM
2. Flaps – Retract to 20°.
3. Climb Speed – 55 kts.
4. Flaps – Retract after reaching 70 kts.
5. Cowl Flaps – OPEN.
6. Climb Speed
 - 70 kts with 20° Flaps.
 - 80 kts No Flaps.

After Landing

1. Flaps Retract.
2. Cowl Flaps – OPEN.
3. Transponder - Standby.
4. Landing Light/Taxi Light – As Desired.
5. Anti-Collision Lights – As Desired.
6. Mixture – Lean for Taxi.

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Engine Shutdown

Engine Shutdown

1. Brakes - Apply and Hold.
2. Electrical Equipment – OFF.
3. Avionics Master Switch - OFF.
4. Lights - OFF.
5. Throttle - 1200 RPM.
6. Mixture - Idle Cut Off.
7. Magnetos - OFF.
8. Master Switch - OFF.
9. Cowl Flaps – CLOSED.
10. Fuel Selector Valve – Set to Left or Right.
11. Brakes - OFF.
12. Cabin Air – Closed.
13. Secure Control Wheel.
14. Tie Down Plane.

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Airspeeds / Capacities

Best Glide - 75 kts. Flaps up

Best Glide – 70 kts. Flaps Down

V_{S0}	=	36	kts.
V_{S1}	=	43	kts.
V_X	=	63	kts. (Sea Level, Flaps Up)
V_X	=	66	kts. (10,000 feet, Flaps Up)
V_Y	=	80	kts. (Sea Level, Flaps Up)
V_Y	=	72	kts. (10,000 Feet, Flaps Up)
V_A	=	88	kts. @ Empty 2000 lbs
V_A	=	110	kts. @ Gross 3100 lbs
V_{FE}	=	140	kts. Flaps 0° to 10°
V_{FE}	=	120	kts. Flaps 10° to 20°
V_{FE}	=	100	kts. Flaps 20° to Full
V_{NE}	=	175	kts.
V_{NO}	=	140	kts.

Capacities and Limitations

1. Tire Pressure
 - Main Wheels 42 PSI
 - Nose Wheel 49 PSI
2. Maximum Takeoff Weight 3100 lbs
3. Maximum Landing Weight 2950 lbs
4. Useable Fuel
 - Full 88 gallons
 - Filler 65 gallons
 - Operation on Left or Right tank is limited to level flight
5. Oil – Fill to 8 quarts
 - Maximum Capacity 9 quarts
 - Minimum Capacity 4 quarts

Shadin Miniflo

Digital Fuel Management System

Self-Test

1. Press ENTER/TEST for Self-Test – Verify “Good” is Displayed.

Verify Fuel Remaining / Fuel Used

1. Move REM/USED to REM – Fuel Remaining is Displayed.
2. Move REM/USED to USED – Fuel used since Last Entry is Displayed.

Setting Full Fuel

1. Move FULL/ADD to FULL – the Press ENTER/TEST.
2. Release FULL/ADD.
3. Move REM/USED to REM – Verify Fuel Remaining 88 gal.

Setting Fuel Remaining

1. Move REM/USED to REM - Press ENTER/TEST to increment fuel remaining. You may hold ENTER/TEST to increase speed of incrementing.
2. Verify Fuel Remaining before releasing REM/USED.
3. Release REM/USED.

Adding Fuel

1. Move FULL/ADD to ADD - Move REM/USED to REM to increment fuel added.
2. Press ENTER/TEST to Enter Added Fuel.
3. Release FULL/ADD.
4. Move REM/USED to REM – Verify Fuel Remaining.

Correcting Errors (If too Much Fuel was Added)

1. Decrement Fuel Remaining
 - Move REM/USED to USED - Press and Hold ENTER/TEST, after 4 seconds the fuel remaining will begin to decrement.
 - Release ENTER/TST.
 - Release REM/USED.
2. Move REM/USED to REM – Verify Fuel Remaining.

Emergencies

Engine Failure

1. Pitch / Trim for Best Glide - 75 kts Flaps Up.
- 70 kts Flaps Down.
2. Fuel Selector – BOTH.
3. Electric Fuel Pump - ON.
4. Mixture Rich.
5. Mags - Check Both or Start.
6. **Power Off Landing** - If Engine will not Restart.
 - Select Landing Location.
 - Prop - Full Back to extend glide.
 - Radios - Squawk 7700, Mayday on 121.5.
 - Fuel Pump OFF.
 - Mixture – OFF.
 - Fuel Selector OFF.
 - Mags – OFF.
 - Flaps – Full.
 - Before Landing (Seat belts tight, Door Open, Master switch OFF).

Engine Fire

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

Electrical Fire

1. Master Switch – OFF.
2. Cabin Vents – Closed.
3. Avionics Master – OFF.
4. All Electrical – OFF.
5. Verify source of smoke is out.
6. Cabin Vents – OPEN.
7. Leave any tripped breakers off.
8. Restore Electrical items one at a time
9. Land as soon as possible.