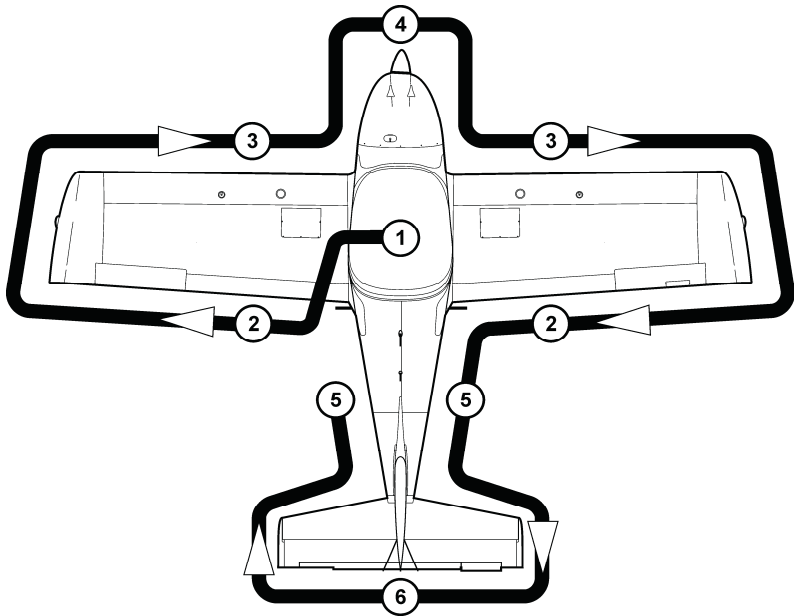


PS-28 Cruiser - Daily Inspection



<p>(1) Canopy Cockpit Switches:</p>	<p>Condition of attachment, cleanness Check for loose objects</p>
<p>IGNITION</p>	<p>OFF</p>
<p>MASTER BAT</p>	<p>ON</p>
<p>ENG INSTR</p>	<p>ON, Check battery voltage Check Engine instruments functioning Check Fuel quantity indication</p>
<p>FLT INSTR</p>	<p>ON, Check Electric attitude indicator Electric directional gyro and Electric turn coordinator functioning</p>
<p>AVIONICS</p>	<p>ON, Check functioning of Transponder, Transceiver, Intercom and GPS</p>
<p>NAV, STROBE, LDG L</p>	<p>ON, check functioning</p>
<p>COCKPIT L, INSTR L</p>	<p>ON, check functioning</p>
<p>FLIGHT CONTROLS</p>	<p>visual inspection, function, clearance, free movement up to stops, check wing flaps and trims operation</p>
<p>ALL SWITCHES</p>	<p>OFF</p>
<p>MASTER BAT</p>	<p>OFF</p>

PS-28 Cruiser - Daily Inspection

- | | |
|----------------------------|---|
| (2) Wing flap | surface condition, attachment, clearance |
| Aileron | surface condition, attachment, clearance |
| | free movement, trim tab surface condition |
| | (Right aileron only), attachment |
| Wing tip | surface condition, |
| | strobe/nav light attachment |
| (3) Wing upper surface | condition, cleanness |
| Leading edge | surface condition, cleanness |
| Wing locker | closed and locked |
| Pitot head | condition, attachment, cleanness |
| (4) Nose gear | wheel, fairing and leg attachment, |
| | condition, pressure of tire |
| Engine cowling | condition |
| Engine mount and | |
| Exhaust manifold | condition, attachment |
| Oil quantity | check |
| | check oil level and replenish as required |
| | close the oil tank |
| Coolant quantity | check |
| Fuel and electrical system | visual inspection |
| Fuel system | draining |
| (5) Main landing gear | wheel, fairing, leg and brake attachment, |
| | condition, pressure of tire |
| Fuselage surface | condition, cleanness |
| Antennas | attachment |
| (6) Vertical tail unit | condition of surface, attachment, |
| | free movement, rudder stops |
| Horizontal tail unit | condition of surface, attachment, |
| | free movement, elevator stop |
| | trim tab surface condition, attachment |
| | anti-balance tab surface condition, |
| | attachment |

PERFORM WEIGHT AND BALANCE CHECK BEFORE FLIGHT

Before Engine Start

Preflight / Daily	COMPLETED
Papers / Map	ON BOARD
Weight & Balance	COMPLETED
Flight controls	free & correct movement
Canopy	clean, close and lock
Loose objects	SECURED
Safety harness	fasten
Brakes	fully applied
PARKING BRAKE	ON

Engine Start

1. **THROTTLE** **IDLE**
2. **CHOKE** - cold engine **ON** (*fully pulled and hold*)
- warm engine **OFF**
3. **FUEL** selector **LEFT** or **RIGHT**
(*in accordance with fuel tanks filling*)
4. **MASTER BAT** ON
5. **ENG INSTR** ON
6. **FUEL P** ON
7. Propeller area Clear
8. Ignition Switch hold **START**
after engine is starting **BOTH**

After Engine is Running

1. **MASTER GEN** ON
2. **FLT INSTR** ON
3. **AVIONICS** ON
4. **FUEL P** OFF
5. Other Switches ON as necessary
6. **CHOKE** gradually release during engine warm-up
7. **THROTTLE** maintain max. 2,500 rpm for warming up (oil temperature < 50 °C)

Initially warm up the engine to 2,000 rpm for approximately 2 min, then continue to 2,500 rpm till oil temperature reaches 50 °C. The warm up period depends on ambient air temperature. Check temperatures and pressures.

Oil pressure 2 - 5 bar (7 bar max. cold engine)

Taxi

1. Radio call Clearance
2. Wind direction CHECK
3. Flaps Retracted (0°)
4. **PARKING BRAKE** RELEASE
5. Brakes Function check at taxiing start

Apply power and brakes as needed. Apply brakes (left or right) to control movement on ground. Taxi carefully when wind velocity exceeds 20 knots. Hold the control stick in neutral position. During the airplane waiting maintain the engine speed within the range from 2,100 to 2,300 rpm.

Engine Run-Up

- | | |
|------------------------|---|
| 1. Brakes | Fully Applied |
| 2. Throttle | MAX |
| 3. Engine speed | Check (5,000 \pm 100 rpm – wind calm) |
| 4. Engine gauges | Within Limits |
| 5. Throttle | IDLE |
| 6. Engine acceleration | Check |

CAUTION: To prevent impact load, wait for around 3 sec. after throttling back to partial load to reach constant speed before re-acceleration.

- | | |
|--------------------------|--|
| 7. Ignition Check | set engine speed to 4,000 rpm
switch ignition gradually to
L – BOTH – R – BOTH
(Max. engine speed drop with only one
ignition circuit must not exceed 300 rpm.
Max. engine speed drop diff. between
circuits L and R should be 115 rpm) |
| 8. CARBURETOR AIR | PULL HOT
check carburetor preheating function
(Engine speed drop approx. 50 rpm.)
PUSH OFF |
| 9. Throttle | IDLE |

NOTE: For checking the two ignition circuits, only one circuit may be switched OFF and ON at a time.

Before Takeoff

- | | |
|--------------------|----------------------|
| 1. Altimeter | Set |
| 2. Trims | Set neutral position |
| 3. Flight controls | Check free movement |
| 4. Cockpit canopy | Closed and locked |

RECOMMENDATION: Before takeoff, manually check the canopy is locked by pushing the canopy upwards.

- | | |
|--------------------|--|
| 5. Safety harness | Fastened |
| 6. FUEL selector | LEFT or RIGHT - check correct position |
| 7. Ignition switch | BOTH |
| 8. Flaps | Takeoff Position (12°) |

Takeoff

- | | |
|---------------------|---|
| 1. THROTTLE | MAX |
| 2. Engine speed | Check (5,000 ±100 rpm – wind calm) |
| 3. Engine gauges | within limits |
| 4. Elevator control | neutral position
at 30-34 KIAS pull slightly to lift nose wheel |
| 5. Airplane unstick | at 40 - 44 KIAS |
| 6. Climb | after reaching airspeed 62 KIAS |
| 7. Brakes | apply |
| 8. Flaps | retract (0°) at safe altitude
(max. airspeed for flaps using is 75 KIAS) |
| 9. Trims | as necessary |

*Takeoff is prohibited if: engine is running unsteadily, roughly or with vibrations, engine instrument values are beyond operational limits, aircraft systems working incorrectly, **Wind velocity exceeds 24 kt headwind, 12 kt crosswind***

Normal Landing**Before landing**

1. THROTTLE as necessary
2. Airspeed 60 KIAS
3. Flaps landing position (30°)
4. Trims as necessary

Landing

1. THROTTLE **IDLE**
2. Touch-down on main wheels
3. Apply brakes as necessary
(after the nose wheel touch-down)

After landing

1. Flaps retract (0°)
2. THROTTLE engine RPM set as required for taxiing
3. Trims set neutral position

Engine shut down

1. THROTTLE **IDLE**
2. Instruments engine instruments within limits
3. Ignition Switch **OFF**
4. Switches OFF
5. **MASTER BAT & GEN** OFF
6. **FUEL** selector **OFF**

If necessary, cool the engine at engine speed within the range 2,100 to 2,300 rpm to stabilize the temperatures prior to engine shut down.

Balked landing procedures

1. THROTTLE **MAX** max. 5,800 rpm for max. 5 min,
max. continuous power 5,500 rpm
2. Airspeed min. 60 KIAS
3. Flaps takeoff position (12°)
(max. airspeed for flaps using is 75 KIAS)
4. Trims as necessary
5. Climb after reaching 62 KIAS
6. Flaps retract (0°) at safe altitude
(max. airspeed for flaps using is 75 KIAS)
7. Trims as necessary

Aircraft parking and tie-down

1. Ignition Switch **OFF**
2. **MASTER BAT & GEN** OFF
3. **FUEL** selector **OFF**
4. Parking brake as necessary
5. Canopy close, lock as necessary
6. Secure the airplane

NOTE: It is recommended to use parking brake for short-time parking only, between flights during a flight day. After ending the flight day or at low temperatures of ambient air, do not use parking brake, but use the wheel chocks instead.

Aircraft limits

V_{S0} to V_{FE} Flap extended speed range	31 - 75 KIAS
V_{S0} Full Flaps	31 KIAS
V_X Best Angle of Climb	55 KIAS
V_Y Best Rate of Climb	62 KIAS
V_A Maneuvering speed at 600 kg	88 KIAS
V_{NO} Maximum structural cruising speed	108 KIAS
V_{NE} Never exceed speed	138 KIAS
V_S Stall Clean	37 KIAS
Best Glide Speed	60 KIAS
Max demonstrated crosswind	12 KNOTS
Max demonstrated headwind	24 KNOTS
Service ceiling	15,090 ft
G-Limits Flaps Up	+4 / -2
G-Limits Flaps Down	+2 / 0
Max. takeoff weight	600 kg
Maximum crew weight on each seat	115 kg
Wing fuel tanks capacity	2 x 57 L
Total usable fuel	113 L
Maximum allowable difference in fuel tanks	30 L

When flying in the rain, no additional steps are required. Aircraft qualities and performance are not substantially changed. However VMC must be maintained!