

PS-POH-1-1-01

*PiperSport*

## Pilot's Operating Handbook



*PiperSport aircraft is designed and manufactured by*



CZECH  
SPORT AIRCRAFT

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Date of issue: 10/03/31

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USSA-00259

- **Minimum instruments and equipment list for Day VFR flights:**

- Airspeed indicator
- Altimeter
- Compass (is not required by ASTM F 2245)
- Fuel quantity indicator
- Tachometer (RPM)
- Engine instruments as required by the engine manufacturer :
  - Oil temperature indicator
  - Oil pressure indicator
  - Cylinder head temperature indicator
- Safety harness for every used seat

**WARNING**

IFR FLIGHTS AND INTENTIONAL FLIGHTS UNDER ICING CONDITIONS ARE PROHIBITED!

**WARNING**

EMERGENCY PARACHUTE APPROVED FOR UP TO MTOW 1,350 LBS AND MAX. VELOCITY 120 KNOTS!

**WARNING**

MINIMUM 1.58 US GAL (6 LITRES) OF FUEL QUANTITY ALLOWS APPROXIMATELY 15 MINUTES OF SAFE OPERATION!

**CAUTION**

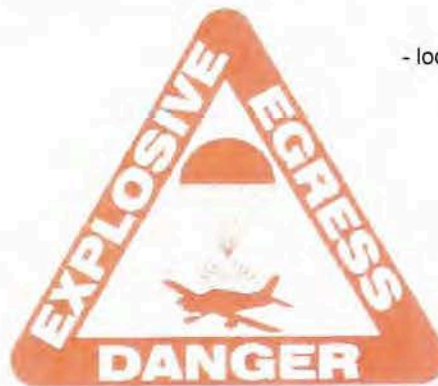
Install air intake shields in front of water and oil cooler, if ambient air temperature is 32°F (0°C) or lower.

If BRS rescue system is installed:



- located on the both sides of fuselage  
between canopy and rear window

This aircraft is equipped with  
a ballistically-deployed  
emergency parachute system



- located in place rocket egress

Rocket Deployed Parachute Egress Area

**STAY CLEAR**

Emergency information at: [www.BRSparachutes.com](http://www.BRSparachutes.com)  
or call (651)457-7491 – after hours & weekends call (763) 226-6110

**CAUTION**

The owner (operator) of this airplane is responsible for the readability of placards  
during the aircraft service life.

**WARNING**

*Physically check the fuel level before each takeoff to make sure you have sufficient fuel for the planned flight.*

**WARNING**

*In case of long-term parking it is recommended to turn the engine several times (Ignition OFF!) by turning the propeller. Always handle by palm the blade area i.e. do not grasp only the blade edge. It will facilitate engine starting.*

## **4.2 Engine starting**

### **4.2.1 Before engine starting**

- |                   |                            |
|-------------------|----------------------------|
| 1. Control system | - free & correct movement  |
| 2. Canopy         | - clean, closed and locked |
| 3. Safety harness | - tighten                  |
| 4. Brakes         | - fully applied            |

### **4.2.2 Engine starting**

*NOTE: Start the engine according to procedure in Rotax Operator's manual.*

- |                          |   |
|--------------------------|---|
| 1. Throttle              | - idle  |
| 2. Choke - cold engine   | - ON (fully pulled and hold)  |
| - warm engine            | - OFF   |
| 3. Fuel selector         | - turn on (left or right fuel tank in accordance with fuel tanks filling) |
| 4. Master switch         | - switch ON   |
| 5. Fuel pump             | - switch ON   |
| 6. Propeller area        | - clear   |
| 7. Ignition switch       | - hold activated to start the engine                                      |
| 8. After engine starting | - Instrument - switch ON  |
|                          | - Fuel pump - switch OFF  |
|                          | - Avionics - switch ON  |
|                          | - other switches - switch ON as necessary                                 |
| 9. Choke                 | - gradually release during engine warming up                              |
| 10. Throttle             | - maintain max. 2,500 [rpm] for warming up                                |

### 4.3 Taxiing

Apply power and brakes as needed. Apply brakes to control movement on ground. Taxi carefully when wind velocity exceeds 20 [knot]. Hold the control stick in neutral position.

### 4.4 Normal Takeoff

#### 4.4.1 Before takeoff

- |                   |                        |
|-------------------|------------------------|
| 1. Altimeter      | - set                  |
| 2. Trim           | - set neutral position |
| 3. Control system | - check free movement  |
| 4. Cockpit canopy | - closed and locked    |

**Recommendation:** - manually check by pushing the canopy upwards.

- |                    |                                     |
|--------------------|-------------------------------------|
| 5. Safety harness  | - tighten                           |
| 6. Fuel selector   | - turn ON (left or right fuel tank) |
| 7. Ignition switch | - switched ON (both magnetos)       |
| 8. Wing flaps      | - extend as necessary               |

#### 4.4.2 Takeoff

- |                       |   |
|-----------------------|---|
| 1. Brakes             | - apply to stop wheel rotation  |
| 2. Takeoff power      | - throttle fully forward<br>(max. 5,800 [rpm] for max. 5 [min])                         |
| 3. Engine speed       | - check rpm   |
| 4. Engine gauges      | - within limits   |
| 5. Brakes             | - release   |
| 6. Elevator           | - control stick pull  |
| 7. Nose wheel unstick | - 32 [knot] (37 [mph])  |
| 8. Airplane lift-off  | - 42 [knot] (48 [mph])  |
| 9. Climb              | - after reaching airspeed<br>65 [knot] (75 [mph])                                       |
| 10. Wing flaps        | - retract at safe altitude<br>(max. airspeed for flaps using is<br>75 [knot], 86 [mph]) |



## 7.7 Landing gear

Aircraft is equipped with tricycle landing gear.

Main landing gear uses two fiberglass spring elements. Each main gear wheel is equipped with an independent, hydraulically operated, disc type brakes.

Nose wheel is free casting. Steering is accomplished by differential application of individual main gear brakes.

## 7.8 Baggage compartment

The rear baggage compartment is located behind seats. It may accommodate up to 40 [lb] (18 [kg]). This space is divided to two sections:

- A baggage compartment – lowered part of the baggage compartment, close to seats and
- B baggage compartment – raised part of the baggage compartment, further from seats.

Baggage compartment is fitted with four tie-down straps for baggage fixation.

Load heavy items in compartment A. and lighter items in compartment B.

Baggage may also be loaded into the baggage compartment inside each wing up to 44 [lb] (20 [kg]), in each wing locker.

Make sure that baggage does not exceed maximum allowable weight, and that the aircraft C.G. is within limits with loaded baggage.

### CAUTION

All baggage must be properly secured.

## 7.9 Seats and safety harnesses

Side-by-side seating. Seat cushions are removable for easy cleaning and drying. Four point safety belts provided to each seat. Additional seat upholstery to raise the small pilot or move him forward is optional.

### NOTE

*Prior to each flight, ensure that the seat belts are firmly secured to the airframe and that the belts are not damaged. Adjust the buckle to a central position on the body.*

### 7.10 Canopy

Access to the cabin is from both sides. Make sure that the canopy is latched and mechanism is securely locked into position on both sides before operating the aircraft.

### 7.11 Fuel system

Each tank is equipped with a vent outlet, finger screen filter and float sensor. Drain valve located in the lowest point of the each tank and on the bottom edge of the bulkhead, on the gascollator.

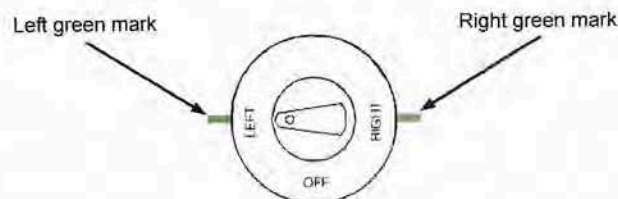
Fuel selector valve is on the central console in the cockpit.

The electric fuel pump is located on bulkhead and it is used for fuel line filling before engine starting.

Fuel return hose goes from the fuel pump into the left tank.

#### CAUTION

*During operation, fuel valve shall be in "LEFT" or "RIGHT" tank position (position on green mark).*



#### NOTE

*If left tank is full, start engine with the fuel selector set to **LEFT**. If you would start the engine with the fuel selector set to **RIGHT** and the left tank is full, than fuel bleed from the left tank vent may occur because a fuel return hose is led only into the left tank and returning fuel will overflow the left tank.*

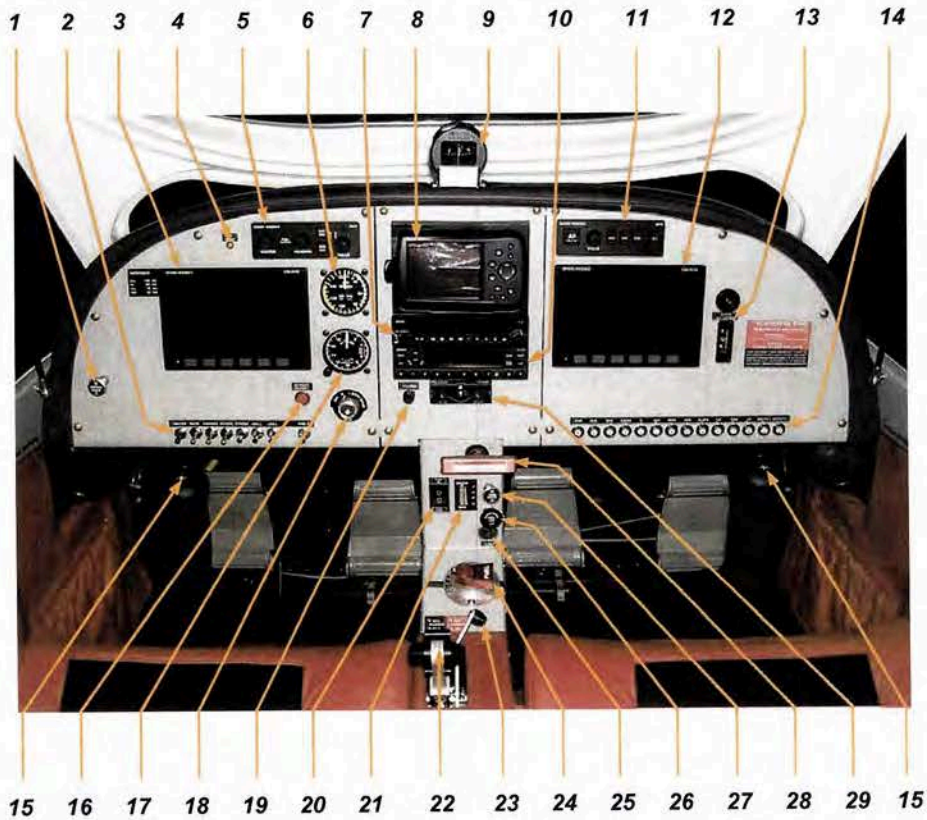
#### CAUTION

*Do not overfill the tanks to avoid fuel overflow through venting tubes.*

## 7. DESCRIPTION OF AIRPLANE AND SYSTEMS

### 7.4 Instrument panel

Instrument panel layout of PiperSport aircraft S/N: P1001001





Description of instrumentation and controls in the cockpit

1	<i>Parking brake</i>	16	<i>Autopilot disconnection button</i>
2	<i>Switches / Circuit breakers*</i>	17	<i>Backup Altimeter</i>
3	<i>Dynon EFIS</i>	18	<i>Ignition switch</i>
4	<i>EMS warning light</i>	19	<i>Dynon Alerts volume control</i>
5	<i>Dynon HS34 HSI expansion module</i>	20	<i>Flaps control switch</i>
6	<i>Backup Airspeed indicator</i>	21	<i>Flaps position indicator</i>
7	<i>Transceiver</i>	22	<i>Throttle</i>
8	<i>Garmin GPS</i>	23	<i>Choke</i>
9	<i>Compass</i>	24	<i>Fuel selector valve</i>
10	<i>Transponder</i>	25	<i>Socket 12V</i>
11	<i>Dynon AP74 autopilot control unit</i>	26	<i>Carburetor preheating</i>
12	<i>Dynon EMS</i>	27	<i>Cabin heating</i>
13	<i>ELT control unit and buzzer</i>	28	<i>BRS release handle</i>
14	<i>Circuit breakers</i>	29	<i>PS Intercom</i>
15	<i>PTT / elevator trim / aileron trim buttons</i>		

\* Switches and circuit breakers detailed description is in this Supplement, page 10 of 14.

### **Instruments and Avionics**

- Dynon D100 EFIS
- Dynon D120 EMS
- Backup Airspeed indicator
- Backup Altimeter
- Magnetic compass
- Garmin SL30 transceiver
- PS Engineering PM3000 intercom
- Garmin GTX328 transponder
- King AK451 ELT
- AirGizmos, Garmin 495 GPS
- Dynon HS34 HSI expansion module
- Dynon AP74 autopilot control unit
- Electric autopilot servos
- Antennas

#### **NOTE**

*For instrument and avionics operating instructions refer to the documentation supplied with the instruments and avionics.*

### **Miscellaneous equipment**

- G -205 trim control and PTT on the control sticks
- Trims and flaps electrically actuated
- Kuntzleman wing tip strobe/nav. lights
- Landing light in cowl
- Adjustable pedals
- Dual hydraulic brakes
- Parking brake
- Wheel fairings tricycle
- Cabin heating
- Carburetor preheating
- Leather upholstery
- Paint
- BRS LSA softpack parachute