

# Checklist PA46-21



JETProp  
N195JG  
S/N 4622173

**AIRSPEEDS**

○ rotation speed flaps 10°		Vr	80	KIAS
○ rotation speed flaps 20°		Vr	69	KIAS
○ best rate of climb speed		Vy	110	KIAS
○ best angle of climb speed		Vx	90	KIAS
○ recommended climb speed			140	KIAS
○ maneuvering speed	4300 lbs	Va	137	KIAS
	2905 lbs	Va	112	KIAS
○ max. operating limit speed		Vmo	172	KIAS
○ max. flaps extended speed Vfe		10°	169	KIAS
		20°	134	KIAS
		36°	117	KIAS
○ max. landing gear extension speed		Vlo	169	KIAS
○ max. landing gear retraction speed		Vlo	130	KIAS
○ max. landing gear extended speed		Vle	172	KIAS
○ max. crosswind landing			17	KTS

**WEIGHTS**

○ max. ramp	4318 lbs
○ max. take off	4300 lbs
○ max. landing	4100 lbs
○ max. zero fuel	4100 lbs
○ basic empty	3219 lbs
○ useful load	1081 lbs

**ENGINE LIMITATIONS PT6-21**

○ Engine Start	1337 lbs trq	850°C ITT (1090°C ITT for 2 sec.)
○ Takeoff	1337 lbs trq	695°C ITT (825 C ITT for 2 sec.)
○ Climb	1315 lbs trq	680°C ITT
○ Cruise	1315 lbs trq	680°C ITT
○ Reverse	550 lbs trq	790°C ITT
○ Idle		660°C ITT

**BEFORE STARTING ENGINE**

Aircraft & Cockpit Inspection ..... completed  
Door Pins ..... checked 4 green  
Seatbelts ..... fastened  
Parking Brake ..... set  
Gear Lever ..... down and locked  
Emergency Gear Knob..... check and secured  
Circuit Breakers..... check  
All electrical Switches..... off  
Avionic Master Switch ..... off  
Alternate Static Source ..... closed  
Cabin Altitude Selector ..... airport elevation +500ft  
Cabin Altitude Rate Control..... set  
Cabin Pressurization Control ..... set in  
Cabin Dump Switch..... normal  
Oxygen Pressure Gage..... check green  
Oxygen Masks ..... check connected  
Ground Clearance Switch ..... on  
ATIS ..... check  
Start Up Clearance ..... request  
Ground Clearance Switch ..... off

**STARTING ENGINE**

Fuel Shut Off Lever ..... up and locked  
Fuel Condition Lever ..... off  
Propeller Control Lever ..... full forward  
Power Control Lever ..... idle  
Battery Master Switch (Nav/Lights+Strobes ON)..... on  
Battery #1 & #2 .....check >23 V  
Battery Select Switch.....**BOTH**  
Ice Deflector..... **OFF**  
Fuel Transfer Pump L & R .....(manual then reset to auto) check  
Emergency Fuel Pump..... check  
Fuel Selector .....fuller tank  
Header Tank ..... full  
Manual Override Switch ..... guarded & light out  
Ignition ...**AUTO then ON** > check (listen for clicking) leave ON  
Fuel Boost Pumps **1odd/2even**(>1 5 p s i) ... . check and ON  
Propeller Area .....clear  
Starter ..... **ON** (check voltage >15V)  
Fuel Condition Lever ..... **Forward @ 15% Ng(stable)**  
Oil Pressure Rising.....**Max100/Min40** check  
ITT.....(**Ready-Ready-Ready TO PULL**).. monitor (max. 850°C)  
Starter ..... **OFF@52% Ng**  
Ignition ..... **OFF**  
Battery Select Switch #1 .....ON  
Alternator ..... on (charge each Battery 30 sec.)  
Battery Select Switch #2 .....ON  
Alternator .....**OFF**  
Generator ..... **ON**  
Battery Select Switch .....**BOTH**  
Avionics-Master-Switch.....ON

**BEFORE TAXI**

Vacuum Pump left ball IN (Primary).....CHECK  
Ice Deflector Door.....ON  
Navigation Lights..... as required  
Defroster & Heating ..... as required  
Autopilot Test Button.....press  
Autopilot ..... engage  
Autopilot Test on PFD ..... disconnect  
Altimeters 2x ..... check  
Directional Gyros 3x ..... check  
Horizons 3x ..... check  
Wings ..... clear  
Taxi Light .....ON  
Parking Brake .....OFF

**TAXI**

Brakes & Steering ..... check  
Gyro Instruments.....check  
Reverse.....check

**GROUND CHECK (first flight of the day only)**

Parking Brake ..... on  
Taxi Light ..... off  
Volt- & Ammeter..... check  
Engine Instruments ..... check  
Fuel Pressure..... check  
Overspeed Governor Test..... check @ 2020 RPM  
Standby Vacuum Pump ..... check and off  
Propeller Control ..... check @ 1500 RPM  
Manual Override ..... check and off  
Annunciator Panel ..... check  
Pitot & Stall Warning Heat ..... check  
Ice Protection..... check

**BEFORE TAKEOFF**

Fuel Shut Off Lever ..... up and locked  
Fuel Condition Lever ..... full forward  
Propeller Control Lever ..... full forward  
Elevator & Rudder Trim.....set  
Flaps ..... set 10°  
Flight Controls ..... check  
Flight Instruments ..... check  
Engine Instruments ..... check  
Fuel Boost Pump ..... on (#1 or #2)  
Header Tank ..... full  
Fuel Selector ..... fuller tank  
Fuel Transfer Pump ..... check on auto  
Air Conditioner ..... off  
Oil Door ..... open  
Door, Belts, Window, PAX secured .....check

**IFR Flight-Preparation**

ATC clearance & SID ..... read  
Avionics.....set  
Audiopanel ..... check  
HDG-Bug .....set  
GPS Mode .....set  
Transition Altitude .....check  
Takeoff Briefing..... completed

**VFR Flight-Preparation**

Outbound Routing & Noise Abatement ..... check  
Transponder..... set VFR  
Takeoff Briefing..... completed



**LINEUP**

Approach Sector & Runway ..... clear  
 Ignition..... **ON**  
 Landing & Taxi Lights..... **ON**  
 Strobe Lights ..... **ON**  
 Stall Warning & Pitot Heat ..... **ON**  
 Ice Protection ..... as required  
 Gyros ..... check  
 HDG-Bug ..... set RWY-HDG

**TAKEOFF / CLIMB**

Power ..... set (max. 1200 ft-lbs Torque)  
 Vr ..... 80 KIAS  
 Positive Climb Rate ..... Brakes / Gear up  
 Yaw Damper ..... ON  
 Flaps ..... up (at 100 KIAS)  
 Landing Light ..... OFF  
 Taxi Light ..... on (until passing 1,000ft) then OFF  
 Ignition auto / Ice Deflector OFF (verify 150 below red line)  
 Altimeter at Transition Altitude ..... set 29.92  
 Cabin Pressurization ..... **CHECK/SET**  
 Engine Instruments ..... **CHECK**

**CRUISE**

Altimeter ..... check  
Power ..... set by power chart  
Fuel Tanks (Guard off position with thumb)..... balanced  
Cabin Pressurization ..... check  
Engine Instruments ..... check  
Ice Protection ..... as required

**DESCENT**

ATIS ..... received  
Briefing..... completed  
Circuit Breakers..... check  
Direction Gyros ..... check  
Electrical Heating ..... as required  
Further planning & Fuel..... check

*starting descent*

Ice Deflector..... **ON**  
Power ..... set 300-500 ft -lbs-Torque  
Cabin Pressurization ..... set field elevation + 500ft  
Taxi Light ..... on (below 1 , 0 0 0 feet)

*cleared down to altitude*

**APPROACH**

Altimeter ..... set to QNH  
Landing Light ..... **ON**  
Fuel Selector ..... fuller tank

**FINAL**

Landing Gear ..... check down, 3 green  
 Flaps .....set  
 Ignition ..... **ON**  
 Cabin Pressure ..... depressurized  
 Air Condition ..... off  
 Yaw Damper ..... off  
 Autopilot ..... off  
 Propeller Control Lever ..... slowly full forward  
 Final Approach Speed ..... 85  
 KIAS

**AFTER LANDING**

Pitot Heat..... **OFF**  
 Ignition ..... **OFF**  
 Landing Lights.....OFF  
 Taxi Light .....ON  
 Strobe Lights .....OFF  
 Stall Warning & Pitot Heat .....OFF  
 Propeller Heat .....OFF  
 Windshield Heat.....OFF  
 Radar ..... stby  
 Flaps .....UP  
 Rudder & Elevator Trim .....  
 neutral

**ENGINE SHUTDOWN**

Parking Brake .....set  
Taxi Light .....OFF  
Power Control Lever ..... idle  
Avionic Master.....OFF  
Ground Clearance Switch .....OFF  
All Electrical Switches .....OFF  
Generator .....OFF  
Propeller Control Lever ..... feather  
Fuel Condition Lever .....OFF (Np<400RPM)  
Fuel Boost Pump .....OFF (Ng<10%)  
Emergency Xfer pump. ON until/Header tank full HTHP light ON  
Ice Deflector.....OFF (next Start)  
Battery Master.....OFF  
Battery Select Switch .....select #1  
Parking Brake.....OFF