

Pietenpol Air Camper Annual Condition Inspection Checklist

I. General Condition

- ☐ Wash Airplane, noting general condition of fabric and paint
- ☐ Check for loose fabric reinforcements
- ☐ Check all exposed cables for fraying, broken strands, chafing
- ☐ Check for loose or missing fairing screws
- ☐ Vacuum cockpit, checking for loose screws, loose instruments, etc.
- ☐ Check all metal fairings, including engine cowling and cooling shrouds for cracks

II. Engine

- ☐ Run up engine to 1500 RPM
 - ☐ Left magneto _____ RPM
 - ☐ Right magneto _____ RPM
 - ☐ Carb Heat _____ RPM
 - ☐ Oil Pressure _____ psi
 - ☐ Oil Temperature _____ ° F
- ☐ Shut down engine, by using fuel shutoff valve
- ☐ Switch off magnetos
- ☐ Remove bottom spark plugs, check for fouling
- ☐ Run Differential Compression check
 - ☐ Cylinder #1 _____
 - ☐ Cylinder #2 _____
 - ☐ Cylinder #3 _____
 - ☐ Cylinder #4 _____
- ☐ Drain oil
- ☐ Remove Cowling
- ☐ Remove Cooling Shrouds
- ☐ Check tightness of Cyl. Base nuts under cooling shroud brackets
- ☐ Inspect engine closely, looking for cracks, oil leaks, broken cooling fins, etc.
- ☐ Remove top spark plugs, check for fouling
- ☐ Inspect oil pressure line for leaks
- ☐ Clean, gap and replace spark plugs, with new gaskets
- ☐ Remove, inspect and replace Oil Screen, with new gasket
- ☐ Add new oil
- ☐ Inspect ignition harness
- ☐ Inspect magneto P-Leads, including shield grounding
- ☐ Check magneto timing
 - ☐ RH Mag _____
 - ☐ LH Mag _____
- ☐ Inspect exhaust system, looking for cracks, loose nuts, etc.
- ☐ Inspect all engine controls (throttle, carb heat) for correct operation and hardware security
- ☐ Lubricate throttle and carb heat shafts
- ☐ Inspect fuel lines for chafing, wear, leaks
- ☐ Remove, inspect and re-install carburetor filter screen
- ☐ Check Oil

III. Propeller

- ☐ Inspect propeller closely, looking for splits, chips or cracks
- ☐ Remove safety wire from prop nuts
- ☐ Loosen prop nuts, then re-torque to _____ in-lbs in proper sequence
- ☐ Re-safety prop nuts

IV. Firewall

- ☐ Remove, clean, inspect and re-install gascolator
- ☐ Verify operation of fuel shutoff valve
- ☐ Verify correct fuel flow with valve open
- ☐ Inspect fuel lines for cracks, chafing, etc.
- ☐ Inspect battery, clean and tighten connections
- ☐ Inspect air/oil separator for leaks
- ☐ Inspect all firewall penetrations for good seals
- ☐ Inspect engine mount for cracks
- ☐ Inspect engine mount bolts, ensure safety wires & cotter pins in place
- ☐ Inspect all bolts and screws on Firewall, verify they are tight
- ☐ Check brake fluid level in reservoir
- ☐ Check cabin heat box for correct operation, hardware security
- ☐ Lubricate cabin heat box shaft
- ☐ Check Primer for correct operation
- ☐ Check Primer lines for cracks, leaks

V. Cockpit

- ☐ Inspect (visual and tactile) rudder cables and tailwheel steering cables
- ☐ Inspect throttle quadrants. Remove escutcheons, verify security of pushrod, cable, and all hardware
- ☐ Remove baggage compartment floor. Inspect:
 - ☐ Rudder pedals
 - ☐ Fuel lines
 - ☐ Electrical wires
 - ☐ Throttle cable
 - ☐ Carb heat cable
 - ☐ Cabin heat cable
 - ☐ Brake lines
- ☐ Remove front seat. Inspect rudder bar and brakes
- ☐ Check all hardware for security, and lubricate joints including:
 - ☐ Left rudder pedal
 - ☐ Left rudder pushrod (front & rear)
 - ☐ Right rudder pedal
 - ☐ Right rudder pushrod (front & rear)
 - ☐ Front stick
 - ☐ Forward torque tube bearing
 - ☐ Rudder bar
 - ☐ Brake pedals and master cylinders
 - ☐ Tailwheel steering
 - ☐ Rear stick
 - ☐ Stick pushrod (front & rear)
 - ☐ Torque tube pulleys
 - ☐ Rear torque tube bearing
- ☐ Check front seatbelt attachment
- ☐ Inspect elevator cables (visual and tactile)
- ☐ Remove rear seat. Inspect trim controls, rear seatbelt attachment
- ☐ Open baggage compartment. Check security of forward instruments:
 - ☐ Pitot-static system for front cockpit
 - ☐ Check and tighten all instrument nuts
 - ☐ Inspect front cabane bracing wire turnbuckles and fittings
 - ☐ Inspect cabane diagonal struts for security
- ☐ Open rear instrument panel access. Check security of:
 - ☐ Rear pitot-static system
 - ☐ Check and tighten all instrument nuts

- ☐ Inspect primer and fittings for leaks
- ☐ Inspect oil pressure gauge for leaks
- ☐ Inspect ignition switch for loose connections
- ☐ Inspect rear cabane bracing wire turnbuckles and fittings
- ☐ Verify all paperwork, A/W certificate, W&B sheet are in place
- ☐ Verify that all placards are in place, including:
 - ☐ Passenger Warnings
 - ☐ Airspeed limits
 - ☐ RPM limits
 - ☐ Control labels
 - ☐ Compass deviation cards
 - ☐ Radio call sign
- ☐ Remove and inspect electrical panel, checking for loose connections
- ☐ Remove, inspect and re-install all fuses
- ☐ Check aileron cables for chafing under and inside the instrument panel

VI. Flight Control System

- ☐ Remove belly access panel
- ☐ Inspect and lubricate:
 - ☐ Rudder cable pulleys (right & left)
 - ☐ Up elevator cable pulley
 - ☐ Trim bellcrank and pushrod
 - ☐ Elevator bellcrank and fittings
 - ☐ Trim springs (no lubrication required)
 - ☐ Tailwheel steering cables (no lubrication required)
- ☐ Inspect and test ELT and battery. Replace battery if necessary
- ☐ Feel and visually inspect all cables for chafing and wear, fraying, broken strands, etc.
- ☐ Inspect all external empennage cables
- ☐ Inspect and lubricate all control horn attachments, including:
 - ☐ Right elevator top
 - ☐ Right elevator bottom
 - ☐ Left elevator top
 - ☐ Left elevator bottom
 - ☐ Right rudder
 - ☐ Left Rudder
 - ☐ Tailwheel steering arm
 - ☐ Right aileron top
 - ☐ Right aileron bottom
 - ☐ Left aileron top
 - ☐ Left aileron bottom
- ☐ Remove all inspection covers on the wings
- ☐ Remove centersection access panels
- ☐ Inspect internal aileron cables, left and right, actuator and return cables
- ☐ Inspect all fairleads for security
- ☐ Inspect and lubricate all six aileron cable pulleys
- ☐ Inspect centersection for cable clearance with all avionics and wiring harnesses

VII. Landing Gear

- ☐ Check tire pressure
- ☐ Inspect tires for wear, damage
- ☐ Inspect brake discs for wear, corrosion, other damage
- ☐ Inspect and lubricate brake calipers
- ☐ Inspect bungee cords for wear, chafing, security
- ☐ Inspect axle guide pins for wear, cracks
- ☐ Inspect all axle welds for cracks

- ☐ Lubricate (grease) axle guide pins
- ☐ Remove, clean, inspect, re-lubricate and re-install wheel bearings
- ☐ Rotate tires if necessary
- ☐ Inspect wooden struts for cracks, splits or damage
- ☐ Check security of all undercarriage hardware, including:
 - ☐ Forward lift strut fittings
 - ☐ Rear lift strut fittings
 - ☐ Forward undercarriage bracing wire
 - ☐ Aft undercarriage bracing wire
 - ☐ Right "V" fitting
 - ☐ Left "V" fitting
 - ☐ Axle nuts
- ☐ Inspect tailwheel mounting springs for damage, security
- ☐ Lubricate all Zerk fittings on tailwheel
- ☐ Check security of tailwheel attachment hardware and fittings
- ☐ Lift aircraft tail and check tightness of tailwheel attachment

VIII. Tail Section

- ☐ Check tension of tail bracing wires
- ☐ Inspect tail bracing wires (visual and tactile) for fraying, chafing, broken strands, etc.
- ☐ Inspect security of all bracing wire hardware, including turnbuckles
- ☐ Check all elevator hinges for security
- ☐ Lubricate all elevator hinges
- ☐ Check all rudder hinges for security
- ☐ Lubricate all rudder hinges
- ☐ Check security of all tail attachment hardware
- ☐ Punch fabric for tensile test

IX. Struts

- ☐ Inspect all lift strut / fuselage attachment fittings for cracks, deformation
- ☐ Inspect all lift strut attachment hardware security
- ☐ Inspect all lift strut / wing attachment fittings for cracks, deformation
- ☐ Inspect all jury struts and hardware
- ☐ Inspect all flying wire for fraying, chafing, broken strands, etc.
- ☐ Inspect all flying wire hardware, including turnbuckles, for security
- ☐ Inspect all cabane struts and hardware
- ☐ Inspect all roll wires for fraying, chafing, broken strands, etc.
- ☐ Inspect all roll wire hardware, including turnbuckles, for security

X. Wings

- ☐ Remove wing / centersection fairings
- ☐ Inspect wing attach bolts for security
- ☐ Inspect aileron hinges for security
- ☐ Lubricate aileron hinges
- ☐ Inspect drag / anti-drag wire attachments for security
- ☐ Punch fabric for tensile test

XI. Fuselage

- ☐ Punch fabric for tensile test
- ☐ Inspect lower longerons near tailpost for evidence of rot, moisture

XII. Close

- ☐ Replace all inspection covers and fairings
- ☐ Replace cowling

- ☐ Start engine, check performance
- ☐ Flight test
- ☐ Make all appropriate logbook entries