

PIPER AIRCRAFT CO.



LOCKHAVEN, PENN. U.S.A.

PIPER CUB J3-65 N68952

PRE-FLIGHT CHECKLIST

COCKPIT

- Check airworthiness certificate, registration, weight & balance documentation
- Battery - CONNECTED
- Plug in headsets or secure as required
- Fuel – ON
- Magnetos – OFF
- Primer – CLOSED & LOCKED
- Mixture – LEAN
- Carb Heat – COLD
- Check rudder pedals and brake linkages
- Check for hydraulic brake reservoirs leaks
- Check control stick cable attachment
- Check overhead aileron cable linkage
- Drain fuel tank sump and inspect for contaminants

RIGHT SIDE

- Check foot step is secure
- Check the lower wing strut bolts are secure
- Check upper and lower door hinges are secure
- Check landing gear attachment bolts are secure
- Check landing gear strut attachment bolts are secure
- Check bungee covers are secure
- Check right tire inflation level & wear
- Check right wheel brake line is secure and brake lining is visible

ENGINE & NOSE

- Check fuel level and gauge
- Check oil is at 5 quarts
- Check cowling pins are secure
- Check muffler is secure
- Check ignition wires are secure
- Check “bug eye” air scoops are secure
- Check propeller and spinner is secure
- Check the air filter is clear
- Check the exhaust manifolds are secure
- Drain fuel from the fuel system

Note: Repeat for both sides of the engine

LEFT SIDE & WING

- Check the lower strut bolts are secure
- Check landing gear attachment bolts are secure
- Check landing gear strut attachment bolts are secure
- Check bungee covers are secure
- Check left tire inflation level & wear
- Check left wheel brake line is secure and brake lining is visible
- Check lift struts and jury struts are secure and not deformed
- Check pitot tube is clear and pitot tube cover is free moving
- Check aileron cable is not frayed and guy bushings are in place
- Check upper lift strut bolts are secure
- Check upper aileron cable pulley is secure
- Check wing leading edge and wing tip is not deformed
- Check aileron hinge and cable attachments are secure
- Check the wing root gap covers are secure

TAIL

- Check the left horizontal stabilizer attachment bolts are secure
- Check the trim mechanism has minimal play and is secure
- Check the left upper and lower flying wires are secure
- Check the left elevator hinge and cable attachments are secure
- Check the rudder hinge and cable attachments are secure
- Check the tail wheel leaf spring and tension spring attachment is secure
- Check the right elevator hinge attachments are secure
- Check the right horizontal stabilizer attachment bolts are secure
- Check the right upper and lower flying wires are secure

RIGHT WING

- Check the wing root gap covers are secure
- Check radio antenna is secure
- Check aileron hinge and cable attachments are secure
- Check wing leading edge and wing tip is not deformed
- Check upper lift strut bolts are secure
- Check upper aileron cable pulley is secure
- Check lift struts and jury struts are secure and not deformed
- Check aileron cable is not frayed and guy bushings are in place



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OPERATIONS CHECKLIST

BEFORE ENGINE START

- Seat Belts - SECURE
- Battery - CONNECTED
- Magnetos – OFF
- Throttle - CLOSED
- Fuel – ON
- Carb Heat – COLD
- Mixture – RICH

ENGINE START

- Primer – 2 PUMPS THEN LOCK
 - 4 PUMPS if below 40 degrees F
- Brakes – SET
- Pull prop through 5 blades
- Magnetos – BOTH
- Throttle – 1/10 OPEN
- Stick – FULL AFT
- Propeller Area Clear
- Pull prop through quickly and clear prop arc
- Oil Pressure – 15 psi MIN IN 30 SECONDS
- Throttle – 600 RPM
- Idle for 3 minutes before taxi

BEFORE TAXI

- Radio – ON
- Intercom – ON

TAXI

- Brakes – CHECK
- Proceed to taxi using “S” turns for visibility

BEFORE TAKE-OFF

- Flight Controls – FREE AND CORRECT TO LIMITS
- Elevator Trim – NEUTRAL
- Altimeter – SET
- Throttle – 1700 RPM,
- Mag Select L & R - NO MORE THAN 75 RPM DROP EACH MAG AND NO MORE THAN 50 RPM DIFFERENCE
- Carb Heat – WARM, NOTE DROP IN RPM
- Oil Pressure – 30 – 60 PSI (Green Arc)
- Throttle – 600 RPM

TAKE-OFF

- Fuel – ON
- Oil Temperature – 225 Degrees Maximum
- Oil Pressure – 15 PSI Minimum
- Primer - LOCKED
- Carb Heat – COLD
- Mixture - RICH
- Throttle – FULL OPEN, 2550 RPM Maximum
- Climb at 55 MPH
- Trim as required

CRUISE

- Throttle – 2150 RPM
- Oil Temperature – 225 Degrees Maximum
- Oil Pressure – 30-60 PSI
- Trim as required

BEFORE LANDING

- Mixture – RICH
- Carb Heat – WARM 15 SECONDS BEFORE REDUCING POWER
- Airspeed – 50 – 60 MPH

AFTER LANDING

- Carb Heat – Cold

ENGINE SHUT DOWN

- Throttle – 600 RPM
- Mixture – LEAN
- Magnetos – OFF, AFTER ENGINE STOPS
- Intercom – OFF
- Radio – OFF
- Battery – DISCONNECTED

SECURING (IF NOT HANGERED)

- Wings/Tail – SECURE TO TIE DOWN
- Elevator – SECURE WITH SEAT BELT FULL AFT
- Door – SECURE REACHING THROUGH WINDOW
- Window – SECURE WITH WEDGE OUTSIDE



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EMERGENCY PROCEDURES

ENGINE FAILURE

- Carb Heat – WARM
- Airspeed – 55 MPH
- Landing Site – IDENTIFY LANDING OPTIONS
- Communicate – TRANSMIT MAYDAY 121.5 MHz
- Fuel – ON
- Primer – CLOSED AND LOCKED
- Mixture – RICH
- Throttle – OPEN
- Magnetos – VERIFY LEFT AND RIGHT MAGS OPERATING NORMALLY

EMERGENCY LANDING

- Mixture – LEAN
- Throttle – CLOSED
- Fuel – OFF
- Magnetos – OFF
- Seat Belts – Secured
- Door – UNLATCHED

LOSS OF OIL PRESSURE

- Oil Temperature – 225 DEGREES MAXIMUM
 - If oil temperature is rapidly rising – LAND IMMEDIATELY
 - If oil temperature is stable – LAND AS SOON AS PRACTICAL

ENGINE FIRE DURING START

- Throttle – CLOSED
- Mixture – LEAN
- Fuel - OFF
- Magnetos – OFF
- Abandon Aircraft

ENGINE FIRE IN FLIGHT

- Throttle – CLOSED
- Mixture – LEAN
- Fuel – OFF
- Cabin Heat – OFF
- Magnetos – OFF
- Dive to extinguish fire: DO NOT EXCEED 122 MPH



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SPECIFICATIONS

GENERAL INFORMATION

- Engine – Continental O-200
- Horsepower – 85
- Oil Quantity – 5 quarts, 50 AD above 50 Degrees F
 - 5 quarts, 30 AD below 50 Degrees F
- Fuel Octane – 80/87 Minimum
 - 110LL is acceptable
- Fuel Quantity – 12 Gallons
- Cruise Airspeed – 75 MPH at 2150 RPM
- Gross Weight – 1220 lbs Maximum
- Empty Weight – 772 lbs (includes oil)
- Useful Load – 448 lbs (fuel, people, baggage)
- Tire Pressure – 15 PSI

SPEEDS AND LIMITS

- Stall Speed (V_s) – 38 MPH
- Best Angle of Climb (V_x) – 50 MPH
- Best Rate of Climb (V_y) – 55 MPH
- Maneuvering Speed (V_a) – 65 MPH (approximately)
- Never Exceed Speed (V_{ne}) – 122 MPH

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HOT ENGINE START PROCEDURE

- If the engine has been cooling for less than 10 minutes it should start normally.

- Follow the procedure below if the engine has been cooling for between 10 to 20 minutes.
 - Magnetos – OFF
 - Throttle – CLOSED
 - Fuel – ON
 - Carb Heat – COLD
 - Mixture – RICH
 - Brakes – SET
 - Primer – 4 PUMPS THEN LOCK
 - Pull prop through 12 blades
 - Throttle – 1/10 OPEN
 - Magnetos – BOTH
 - Pull prop through quickly and clear prop arc



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WEIGHT & BALANCE

	Weight (lbs)	Arm (in)	Moment (in-lbs)
Basic Empty Weight	772	15.24	11758
Fuel		-18	
Rear Seat		+36	
Front Seat		+9	
Baggage (20 lbs Max.)		+49	
Totals:			
Maximum Weight:	1220 lbs		
Basic Empty Weight includes 5 Qts of oil			
Total Arm - Total Moment/Total Weight			



