

CESSNA 120/140 100 HOUR / ANNUAL CHECKLIST

Aircraft registration: _____

Aircraft model: _____

Serial number: _____

Aircraft owner: _____

Date: _____

Aircraft tach: _____

Hobbs: _____

1. PRE-INSPECTION ENGINE RUN

- a. Engine primer – proper operation _____
- b. Starter – proper function..... _____
- c. Oil pressure – Idle: _____ & 1700 RPM: _____..... _____
- d. CHT: _____ EGT: _____ Oil temp: _____..... _____
- e. Note: Oil temp should be approximately 100 degrees above ambient temp with Engine at full operating temperature. Check with owner on this.
- f. Fuel selector – operates in all positions..... _____
- g. Ammeter – proper function..... _____
- h. Generator/alternator for charge..... _____
- i. Carburetor and Cabin heat for operation..... _____
- j. Engine instruments for operations and markings..... _____
- k. Static RPM: _____ Max RPM: _____..... _____
- l. Magnetos for correct drop Left: _____ Right: _____..... _____
- m. Brakes and parking brake for operation..... _____
- n. Electrical system for operation..... _____
- o. Radio equipment for operation..... _____
- p. Idle cut-off rise on Engines with Marvel carb _____

2. Make a pre-inspection walk around, checking for damage and previous repairs..... _____

3. ENGINE AREA

Check for evidence of oil, exhaust or fuel leaks, then clean entire engine compartment, if required.

- a. Drain engine oil..... _____
- b. Oil system: screen, filler cap, dipstick, drain plug and external filter element if installed _____
- c. Oil cooler if installed..... _____
- d. Induction air filter – replace element as required..... _____
- e. Induction airbox, air valves doors and controls..... _____
- f. Cold and hot air hoses..... _____
- g. Engine baffles..... _____
- h. Cylinders, rockers box covers and push rod housings..... _____
- i. Crankcase, oil tank, reduction gear housing, accessory section and front crankshaft seal..... _____

- j. All lines and hoses, check induction tube hoses and clamps..... _____
- k. Intake and exhaust systems – remove HEAT shroud and check for leaks..... _____
- l. Ignition harness..... _____
- m. Spark plug clean, gap and rotate..... _____
 Compression check #1: _____ #2: _____ #3: _____ #4: _____
- n. Crankcase breather line, ensure line has an “ice hole” drilled in it, close to end of line..... _____
- o. Electrical wiring..... _____
- p. Vacuum pump, and oil separator if installed..... _____
- q. Vacuum relief valve filter (usually attached to firewall inside cabin)..... _____
- r. Engine controls and linkage, and lubricate..... _____
- s. Engine shockmounts, mount structure and ground straps..... _____
- t. Cabin heater valves, doors, and controls..... _____
- u. Starter, solenoid, electrical connections and engagement lever..... _____
- v. Starter brushes, brush leads and commutator..... _____
- w. Generator / alternator and electrical connections..... _____
- x. Generator / alternator brushes, brush leads, and commutator or slip ring..... _____
- y. Voltage regulator mounting and electrical leads..... _____
- z. Magnetos : “P” lead connection,..... check engine to magneto timing..... _____
- aa. Magneto breaker compartment and timing..... _____
- bb. A 500 hour disassembly inspection is recommended by Bendix and Slick..... _____
- cc. Carburetor, general condition, drain bowl for sediments..... _____
- dd. Carburetor inlet screen..... _____
- ee. Firewall _____
- ff. Engine cowling..... _____
- gg. General engine condition..... _____
- hh. Fill with proper type & amount of oil..... _____

4. PROPELLER

- a. Check propeller assembly for cracks, nicks, binding, and oil leakage..... _____
- b. Bolts for proper safety..... _____
- c. Propeller track..... _____
- d. Spinner for security and mounting..... _____

5. FUEL SYSTEM

- a. Fuel strainer, drain valve..... _____
- b. Fuel strainer screen and bowl..... _____
- c. Fuel tanks, fuel lines, drains, filler caps, and placards..... _____
- d. Fuel vents _____

- e. Fuel selector for leaks and placard legibility..... _____
- f. Fuel quantity units..... _____

6. LANDING GEAR

- a. Inspect all units for condition and security of attachment..... _____
- b. Visually inspect landing gear spring leaves and tail wheel spring for cracks..... _____
- c. Check gear attachment bolts and wedges for condition and security..... _____
- d. Inspect hydraulic lines for chaffing, security, and leakage..... _____
- e. Inspect wheels and brakes for cracks, defects, adjustment and condition of bearings..... _____
- f. Check tires for wear and cuts; Check brake puck or pad thickness..... _____
- g. Clean tail wheel assembly, check for security and freedom of movement..... _____
- h. Floats or skis when installed:
 - 1. Check for identification and insecure attachments..... _____
 - 2. Check cables and flying wires..... _____
 - 3. Check rigging and symmetry, general operations..... _____
- i. Remove gear leg steps and check mounting holes for corrosion or cracks..... _____
- j. Lubricate wheel bearings..... _____
- k. Check tire pressures..... _____
- l. Check fluid level in Master cylinders..... _____
- m. If Cleveland brakes are installed clean caliper slides(but do not lube, attracts dirt)..... _____

7. AIRFRAME

- a. Aircraft exterior..... _____
- b. Aircraft structure..... _____
- c. Windows, windshield, and doors..... _____
- d. Seats, stops, seat rail, upholstery, structure, and seat mounting..... _____
- e. Safety belts and attaching brackets, check for "TSO" Tag..... _____
- f. Control column bearings, sprockets, pulleys, cables, chains and turnbuckles..... _____
- g. Control wheels, and control column mechanism..... _____
- h. Instruments and markings..... _____
- i. Gyro filter and central air filter..... _____
- j. Magnetic compass compensation card: Fluid in Compass? _____
- k. Instruments wiring and plumbing..... _____
- l. Instrument panel, shockmounts, ground straps, cover and decals & labeling..... _____
- m. Heating and ventilating systems and controls..... _____
- n. Cabin upholstery, trim, sun visors and ashtrays..... _____
- o. Area beneath floor, lines, hoses, wires, and control cables..... _____
- p. Electrical horns, light switches, circuit breakers, fuses, and spare fuses..... _____
- q. Exterior lights..... _____
- r. Pitot and static systems..... _____

- s. Stall warning sensing unit _____
- t. Radios and radio controls..... _____
- u. Radio antennas..... _____
- v. Battery, battery box, and battery cables..... _____
- w. Battery electrolyte level..... _____

8. WINGS

- a. Inspect for condition, corrosion, and attachments..... _____
- b. Lift struts: check security and corrosion..... _____
- c. Jury struts: check security and corrosion..... _____
- d. Drag, anti-drag wires for condition..... _____
- e. Fabric "punch test"..... _____

9. EMPENNAGE

- a. Inspect attach points for cracks, attachment, corrosion, and evidence of failure..... _____
- b. Inspect hinges for looseness..... _____

10. CONTROL SYSTEM

- a. Cables, terminals, pulleys, pulley brackets, cable guards, turnbuckles and fairleads..... _____
- b. Chains, terminals, sprockets and chain guards..... _____
- c. Trim control wheel, indicators, actuators, _____
- d. Travel stops..... _____
- e. All decals and labeling..... _____
- f. Flap control lever latch, cables, and flap hinges..... _____
- g. Aileron Balance weight attachment..... _____
- h. Rudder pedal assemblies and linkage..... _____
- i. Lubricate all flight control hinges, pivot points and pulleys..... _____

11. ADDITIONAL CHECKS

- a. ELT check per FAR 91.207..... _____
- b. Transponder check within 24 months..... _____

12. CLOSE UP

- a. Check that all aircraft documentation is available
 - 1) Airworthiness certificate..... _____
 - 2) Registration _____
 - 3) Operational handbook..... _____
 - 4) Weight and balance..... _____
 - 5) Equipment list..... _____
- b. Check all applicable Ads for compliance..... _____
- c. Replace all panels, fairings, carpet, seats, and engine cowling..... _____
- d. Post inspection engine run-up and leak check..... _____
- e. Clean aircraft..... _____
- f. Logbooks and AD list signed off..... _____

SHOP NOTES

Signature: _____

License #: _____

Date: _____

120/140 inspection notes;

1. Many aircraft have experienced lower door post cracks, to properly inspect for this condition you must remove the lift strut, inspect the numerous metal plates which are now exposed where the lift attaches to the gear box/ door post area. Start at the back of the multiple plates now exposed. The third one from the back, counting forward is the aft skin of the doorpost. This is the one that cracks. There is a service kit available to repair this, dated 1978, SK 150-53. The kit may not be available from Cessna but drawings for the parts are.
2. Gear legs can crack through the step boltholes. Remove each gear leg step and carefully inspect the two holes through the gear legs for corrosion or cracks.
3. Inspect each fuel tank cap. If you have a 120/140 you must have a free venting fuel cap. This is your only fuel tank vent. If you own a 140A then you may have a one way venting cap (pressure in, but not out) since you have another vent above the cabin.
4. Any aircraft with a "both" position on the fuel selector must per the FAR's have a vent tube that runs between the fuel tanks. This will be located running behind the forward carry through spar inside the headliner.
5. Check your main fuel filter to carb flexible fuel line. Many aircraft have had these on for far too long and they become very brittle. Also check the short flexible vent lines on Item #4 above, these can also get brittle.
6. Check the most forward tail wheel spring attaching bolt. (item 63 in the parts book in the tail wheel spring diagram) These units are under stress and in a corrosive environment and seldom get inspected. You will need to remove the tail wheel spring to see this bolts properly.
7. **To properly inspect the area behind the baggage compartment you will need to crawl back in the tunnel. Special note Should be made of the six brackets that hold the large aileron pulleys. These brackets can crack as they make the 90 degree turn and are attached to the airframe.**
8. **Carefully inspect your aircraft for proper compliance of AD47-50-02. Even at this late date some aircraft still have The old style bulkhead and some rather large cracks have been found. Usually, but "not always" if you have 4 bolts attaching your lower rudder hinge to the vertical fin aft spar area you have the new style bulkhead, but further investigation may be necessary.**
9. **Should you find yourself working on one of these fine aircraft and have questions regarding any repair or parts Replacement there is a wealth of information available in the International Cessna 120/140 type club or on the official website, Cessna120-140.org**