

Cessna 182

100 Hour Inspection Form

ENGINE RUN-UP.

Before beginning the step-by-step inspection, start, run up and shut down the engine in accordance with instructions in the Owner's Manual. During the run-up, observe the following, making note of any discrepancies or abnormalities:

1. Engine temperatures and pressures.
2. Static rpm. (Also refer to Section 11 of this Manual).
3. Magneto drop. (Also refer to Section 11 of this Manual).
4. Engine response to changes in power.
5. Any unusual engine noises.
6. Fuel selector and/or shut-off valve; operate engine(s) on each tank (or cell) position and OFF position long enough to ensure shut-off and/or selector valve functions properly.
7. Idling speed and mixture; proper idle cut-off.
8. Alternator and ammeter.
9. Suction gage.
10. Fuel flow indicator.

After the inspection has been completed, an engine run-up should again be performed to determine that any discrepancies or abnormalities have been corrected.

SHOP NOTES:

IMPORTANT

READ ALL INSPECTION REQUIREMENTS PARAGRAPHS PRIOR TO USING THESE CHARTS.

SPECIAL INSPECTION ITEM

EACH 200 HOURS

EACH 100 HOURS

EACH 50 HOURS

PROPELLER

1. Spinner
2. Spinner bulkhead
3. Blades
4. Bolts and nuts
5. Hub
6. Governor and control

ENGINE COMPARTMENT

Check for evidence of oil and fuel leaks, then clean entire engine and compartment, if needed, prior to inspection.

1. Engine oil screen filler cap, dipstick, drain plug and external filter element
2. Oil cooler
3. Induction air filter
4. Induction airbox, air valves, doors and controls
5. Cold and hot air hoses
6. Engine baffles
7. Cylinders, rocker box covers and push rod housings
8. Crankcase, oil sump, accessory section and front crankshaft seal
9. Hoses, metal lines and fittings
10. Intake and exhaust systems
11. Ignition harness
12. Spark plugs
13. Compression check
14. Crankcase and vacuum system breather lines
15. Electrical wiring
16. Vacuum pump, oil separator and relief valve
17. Vacuum relief valve filter
18. Engine controls and linkage
19. Engine shock mounts, mount structure and ground straps

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				SPECIAL INSPECTION ITEM
				EACH 200 HOURS
				EACH 100 HOURS
				EACH 50 HOURS
20.	Cabin heat valves, doors and controls			
21.	Starter, solenoid and electrical connections			
22.	Starter brushes, brush leads and commutator			
23.	Alternator and electrical connections			
24.	Alternator brushes, brush leads, commutator or slip ring			7
25.	Voltage regulator mounting and electrical leads			
26.	Magnetos (externally) and electrical connections			
27.	Magneto timing			8
28.	Carburetor and drain plug (Refer to Service Letter SE73-13.)			
29.	Firewall			
30.	Engine cowl flaps and controls			
31.	Engine cowling			
32.	Cowl flap hinges and hinge pins (Refer to Service Letter SE71-27.)			
33.	Carburetor throttle arm attachment (Refer to Service Letter SE71-17.)			
34.	Alternator support bracket for security (Refer to Service Letter SE71-42.)			
FUEL SYSTEM				
1.	Fuel strainer, drain valve and control, fuel cell vents, caps and placards			
2.	Fuel strainer screen and bowl			
3.	Drain fuel and check cell interior attachment and outlet screens			5
4.	Fuel cells and sump drains			
5.	Fuel selector valve and placards (Refer to Service Letter SE74-1.)			
6.	Engine primer			
7.	Fuel quantity indicators and transmitters			
LANDING GEAR				
1.	Brake fluid, lines and hose, linings, disc, brake assemblies and master cylinders			
2.	Main gear wheels			
3.	Wheel bearings			9
4.	Main gear springs			

SPECIAL INSPECTION ITEM

EACH 200 HOURS

EACH 100 HOURS

EACH 50 HOURS

5. Tires
6. Torque link lubrication
7. Parking brake system
8. Nose gear strut and shimmy dampener (service as required)
9. Nose gear wheel
10. Nose gear fork
11. Nose gear steering system
12. Park brake and toe brakes operational test

AIRFRAME

1. Aircraft exterior
2. Aircraft structure (Refer to Service Letters SE72-3 and SE72-29.)
3. Windows, windshield, doors and seals
4. Seat stops, seat rails, upholstery, structure and mounting
5. Seat belts and shoulder harnesses
6. Control column bearings, pulleys, cables and turnbuckles
7. Control lock, control wheel and control column mechanism
8. Instruments and markings
9. Gyros central air filter
10. Magnetic compass compensation
11. Instrument wiring and plumbing
12. Instrument panel, shock mounts, ground straps, cover, decals and labeling
13. Defrosting, heating and ventilating systems and controls
14. Cabin upholstery, trim, sunvisors and ash trays
15. Area beneath floor, lines, hose, wires and control cables
16. Lights, switches, circuit breakers, fuses and spare fuses
17. Exterior lights
18. Pitot and static systems
19. Stall warning unit and pitot heater
20. Radios, radio controls, avionics and flight instruments

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SPECIAL INSPECTION ITEM			
EACH 200 HOURS			
EACH 100 HOURS			
EACH 50 HOURS			
21. Antennas and cables			•
22. Battery, battery box and battery cables	•		
23. Battery electrolyte			•
24. Emergency locator transmitter		•	
25. Oxygen system			•
26. Oxygen supply, masks and hose	•		

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CONTROL SYSTEMS

In addition to the items listed below, always check for correct direction of movement, correct travel and correct cable tension.

1. Cables, terminals, pulleys, pulley brackets, cable guards, turnbuckles and fairleads
2. Chains, terminals, sprockets and chain guards
3. Trim control wheels, indicators, actuator and bungee
4. Travel stops
5. Decals and labeling
6. Flap control switch, flap rollers and flap position indicator
7. Flap motor, transmission, limit switches, structure, linkage, bellcranks, etc.
8. Flap actuator jackscrew threads
9. Elevators, trim tab, hinges and push-pull tube
10. Elevator trim tab actuator lubrication and tab free-play inspection
11. Rudder pedal assemblies and linkage
12. External skins of control surfaces and tabs
13. Internal structure of control surfaces
14. Balance weight attachment

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SPECIAL INSPECTION ITEMS

- 1 First 25 hours: (refill with straight mineral oil and use until a total of 50 hours have accumulated or oil consumption has stabilized) then change to ashless dispersant oil. Change oil each 50 hours if the engine is NOT equipped with an external oil filter; if equipped with an external oil filter, change filter element each 50 hours and oil at each 100 hours; or every six months.
- 2 Clean filter per paragraph 2-22. Replace as required.
- 3 Replace hoses at engine overhaul or after 5 years, whichever comes first.
- 4 General inspection every 50 hours. Refer to Section 11 for 100 hour inspection.
- 5 Each 1000 hours or to coincide with engine oil.
- 6 Each 50 hours for general condition and freedom of movement. These controls are not repairable. Replace as required at each engine overhaul.
- 7 Each 500 hours
- 8 Internal timing and magneto-to-engine timing limits are described in detail in Section 11.
- 9 First 100 hours and each 500 hours thereafter. More often if operated under prevailing wet or dusty conditions.
- 10 Replace each 500 hours.
- 11 Check electrolyte level and clean battery compartment each 50 hours or 30 days.
- 12 Refer to Section 16 of this Manual.
- 13 Inspect masks, hose and fittings for condition, routing and support. Test operate and check for leaks.
- 14 Refer to paragraph 2-44 for detailed instructions for various serial ranges.
- 15 Lubrication of the actuator is required each 1000 hours and/or 3 years, whichever comes first. Refer to figure 2-4 for grease specification.

NOTE

Refer to Section 9 of this Manual for free-play limits, inspection, replacement and/or repair.

NOTE

A high-time inspection is merely a 100-hour inspection with the addition of an engine overhaul. Continental Motors Corporation Inc. recommends overhaul at 1500 hours for the O-470 Series engines except as stipulated in Continental aircraft engine Service Bulletin #M74-20 and supplements thereto. At the time of overhaul, engine accessories should be overhauled.

Propeller overhaul shall coincide with engine overhaul, but the interval between overhauls shall not exceed 1200 hours except as stipulated in current issues of the McCauley Accessory Division Service Information Summary and currently effective Service Manuals, Bulletins and Letters.