

IMPORTANT
 READ ALL INSPECTION REQUIREMENTS PARAGRAPHS PRIOR TO USING THESE CHARTS.

SPECIAL INSPECTION ITEM
EACH 200 HOURS
EACH 100 HOURS
EACH 50 HOURS

15	1	2	3
4	4	5	6

PROPELLER

- 1. Spinner
- 2. Spinner bulkhead
- 3. Blades.
- 4. Bolts and/or nuts
- 5. Hub

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 housing
- 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 and oil separator
- 17. Vacuum relief valve filter (cabin area)
- 18. Engine controls and linkage
- 19. Engine shockmounts, mount structure and ground straps
- 20. Cabin heat valves, doors and controls
- 21. Starter, solenoid and electrical connections

SPECIAL INSPECTION ITEM
EACH 200 HOURS
EACH 100 HOURS
EACH 50 HOURS

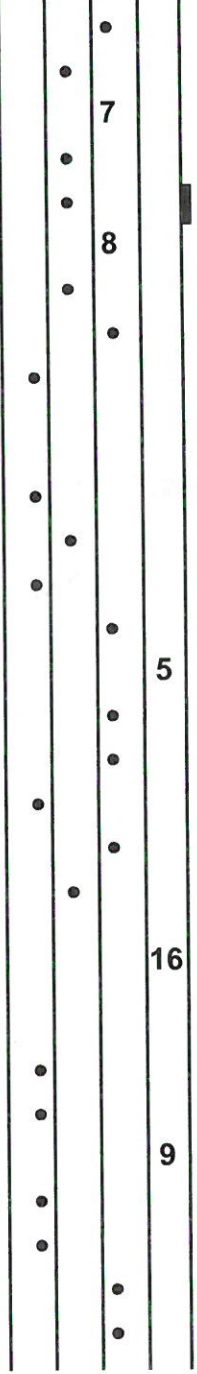
- 22. Starter brushes, brush leads and commutator
- 23. Alternator and electrical connections
- 24. Alternator brushes, brush leads, commutator or slip rings.....
- 25. Voltage regulator mounting and electrical leads
- 26. Magnetos (External) and electrical connections
- 27. Magneto timing
- 28. Carburetor and drain plug
- 29. Firewall
- 30. Engine cowling

FUEL SYSTEM

- 1. Fuel strainer, drain valve and control
- 2. Fuel strainer screen and bowl
- 3. Fuel tank vents, caps and placards
- 4. Fuel tanks, sump drains and fuel line drains
- 5. Drain fuel and check tank interior, attachment and outlet screens
- 6. Fuel vent valves
- 7. Fuel vent line drain
- 8. Fuel selector valve and placards
- 9. Fuel valve drain plug
- 10. Engine primer
- 11. Perform a fuel quantity indicating system operational test. Refer to Section 15 for detailed accomplishment instructions.....

LANDING GEAR

- 1. Main gear wheels and fairings
- 2. Nose gear wheel, torque links, steering rods, boots and fairing
- 3. Wheel bearings
- 4. Nose gear strut and shimmy dampener (service as required)
- 5. Tires
- 6. Brake fluid, lines and hoses, linings, discs, brake assemblies and master cylinders
- 7. Parking brake system



SPECIAL INSPECTION ITEM

EACH 200 HOURS

EACH 100 HOURS

EACH 50 HOURS

8. Main gear springs							
9. Nose steering arm lubrication							
10. Torque link lubrication							
11. Parking brake and toe brakes - operational check							
AIRFRAME							
1. Aircraft exterior							
2. Aircraft structure							
3. Windows, windshield, doors and seals							
4. Seat belt and shoulder harness							17
5. Seat stops, seat rails, upholstery, structure and mounting							
6. Control "Y" bearings, sprockets, pulleys, cables, chains and turnbuckles							
7. Control lock, control wheel and control "Y" mechanism							
8. Instruments and markings							
9. Gyros central air filter							10
10. Magnetic compass compensation							18
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, hoses, 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							
21. Antennas and cables							
22. Battery, battery box and battery cables							
23. Battery electrolyte							11
24. Emergency locator transmitter							12
25. Inspect all fluid-carrying lines and hoses in the cabin and wing areas for leaks, damage, abrasion, and corrosion.							
26. Reel type secondary seat stops, make sure the manual lock operates correctly							

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SPECIAL INSPECTION ITEM	EACH 200 HOURS	EACH 100 HOURS	EACH 50 HOURS
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, rollers, tracks, and position indicator	•		
7. Flap motor, transmission, limit switches, structure, linkage, bell cranks, etc	•		
8. Elevator and trim tab hinges and push-pull tubes	•		
9. Elevator trim tab actuator lubrication and inspection.....			•
10. Elevator trim tab system 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		•	
15. Flap actuator jackscrew threads.....			•

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, rollers, tracks, and position indicator
7. Flap motor, transmission, limit switches, structure, linkage, bell cranks, etc
8. Elevator and trim tab hinges and push-pull tubes
9. Elevator trim tab actuator lubrication and inspection.....
10. Elevator trim tab system 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
15. Flap actuator jackscrew threads.....

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SPECIAL INSPECTION ITEMS

1. For Airplanes Equipped With Textron Lycoming Engines:

Within the first ten hours of operation for any new, remanufactured, overhauled engine or an engine with a newly installed cylinder, accomplish the following: Drain oil sump and oil cooler, remove oil filter or pressure screen and inspect for metal particles and/or foreign material, replace filter with new filter or clean screen, remove suction screen from oil sump and check for metal particles, and refill with recommended grade aviation oil.

For engines equipped with a full-flow oil filter, for every 50 hours of operation or four months, whichever occurs first, accomplish the following: Drain oil sump and oil cooler, remove oil filter and inspect for metal particles and/or foreign material, replace filter with new filter, remove suction screen from oil sump and check for metal particles, and refill with recommended grade aviation oil.

For engines equipped with an oil pressure screen system (Not Equipped With Full-Flow Oil Filter), for every 25 hours of operation or four months, whichever occurs first, accomplish the following: Drain oil sump and oil cooler, remove oil pressure screen and inspect for metal particles and/or foreign material, clean and install screen, remove suction screen from oil sump and check for metal particles, and refill with recommended grade aviation oil.

NOTE: Refer to Lycoming Mandatory Service Bulletin No. 480B, or latest revision, for Oil and Filter Change Interval. Refer to Lycoming Service Instruction No. 1014M, or latest revision, for Lycoming's Lubricating oil recommendations.

For Airplanes equipped with Rolls/Royce Continental or Teledyne Continental Engines:

First 25 hours: Use mineral oil conforming with MIL-C-6529 Type II for the first 25 hours of operation or until oil consumption has stabilized, or six months, whichever occurs first. If oil consumption has not stabilized in this time, drain and replenish the oil and replace the oil filter. After the oil consumption has stabilized, change to an ashless dispersant oil and refer to Teledyne Continental Service Information Letter SIL99-2 or latest revision for a current listing of lubricants authorized by Teledyne Continental Motors. Change oil each 25 hours if engine is NOT equipped with external oil filter; if it is equipped with an external oil filter, change oil filter element and oil at each 50 hours of operation or every six months, whichever occurs first. Refer to the latest edition of the applicable engine operator/maintenance manual for the latest oil change intervals and inspection procedures.

2. Clean filter per paragraph 2-22. Replace as required.

3. Replace engine compartment hoses per the following schedule:

- A. Cessna Installed Flexible Fluid-Carrying Rubber Hoses; replace every 5 years or at engine overhaul, whichever occurs first.
- B. Cessna-Installed Flexible Fluid-Carrying Teflon Hoses (AE3663819bXXXX series hoses), replace every 10 years or at engine overhaul, whichever occurs first.
- C. Lycoming-Installed Engine Compartment Flexible Fluid-Carrying Hoses, Refer to latest Textron Lycoming Engine Service Bulletins.
- D. Rolls/Royce Continental or Teledyne Continental Motors Installed Engine Compartment Flexible Fluid-Carrying Hoses, refer to Teledyne Continental Service Bulletin SB97-6 or latest revision for hose replacement intervals.

4. General inspection every 50 hours. Refer to Section 11 for 100 hour inspection.

5. Each 1000 hours, or at engine overhaul, whichever occurs first.

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6. Each 50 hours for general condition and freedom of movement. If these controls are not repairable, replace throttle and mixture controls at each engine overhaul.
7. Each 500 hours.
8. Internal Timing:

For airplanes equipped with Slick 4100 series magnetos:

These magnetos cannot be overhauled in the field. The coil, capacitor, and breaker assembly are non-replaceable. These magnetos shall be removed from service upon reaching 800 hours total time in service.

For airplanes equipped with Slick magnetos or TCM/Bendix magnetos:

Refer to the applicable service manual and service bulletins for internal timing procedures and service intervals.

Magneto-To-Engine Timing:

For airplanes equipped with Textron Lycoming engines:
First 50 hours, first 100 hours and each 200 hours thereafter.

For airplanes equipped with Rolls/Royce Continental or Teledyne Continental Engines:
Each 100 hours.

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, whichever occurs first.
12. Refer to Section 16 of this manual.
13. Replacement or overhaul of the actuator is required each 1000 hours and/or 3 years, whichever comes first. Refer to figure 2-5 for grease specifications.

NOTE: Refer to Section 9 of this service manual and Cessna Single Engine Service Letter SE73-25, or latest revision, for free-play limits, inspection, replacement and/or repair information.

14. Refer to paragraph 2-43 for detailed instructions for various serial ranges.
15. A "one-time" dye penetrant inspection of the blades of Model 1C72/MTM7653 propellers should be performed in accordance with Service Letter SE 70-31 (Supplement #1). This inspection should be accomplished within the next 25 hours of operation if this Service Letter has not been complied with.
16. Fuel quantity indicating system accuracy test is required every 12 months. Refer to Section 15 for detailed accomplishment instructions.
17. Inspect each 50 hours for general condition and security. Replacement is required every 10 years.
18. Every 2 years, or anytime components are added or removed which have the potential to affect the magnetic accuracy and/or variation of the compass calibration, or anytime the accuracy of the compass is in question. If required, refer to AC 43.13-1B for compass swing procedures.

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2.45. COMPONENT TIME LIMITS

1. General

a. Most components listed throughout Section 2 should be inspected as detailed elsewhere in this section and repaired, overhauled or replaced as required. Some components, however, have a time or life limit, and must be overhauled or replaced on or before the specified time limit.

NOTE: The terms overhaul and replacement as used within this section are defined as follows:

Overhaul – Item may be overhauled as defined in FAR 43.2 or it can be replaced.

Replacement – item must be replaced with a new item or a serviceable item that is within its service life and time limits or has been rebuilt as defined in FAR 43.2.

A. This section provides a list of items, which must be overhauled or replaced at specific time limits. Table 1 lists those items, which Cessna has mandated must be overhauled or replaced at specific time limits. Table 2 lists component time limits, which have been established by a supplier to Cessna for the supplier's product.

B. In addition to these time limits, the components listed herein are also inspected at regular time intervals set forth in the Inspection Charts, and may require overhaul/replacement before the time limit is reached based on service usage and inspection results.

2. Cessna-Established Replacement Time Limits

A. The following component time limits have been established by The Cessna Aircraft Company.

Table 1: Cessna-Established Replacement Time Limits

COMPONENT	REPLACEMENT TIME	OVERHAUL
Restraint Assembly Pilot, Copilot, and Passenger Seats	10 years	NO
Trim Tab Actuator	1,000 hours or 3 years, whichever occurs first	YES
Vacuum System Filter	500 hours	NO
Vacuum System Hoses	10 years	NO
Pitot and Static System Hoses	10 years	NO
Vacuum Relief/Regulator Valve Filter (if Installed)	500 hours	NO
Engine Compartment Flexible Fluid-Carrying Teflon Hoses (Cessna-Installed) Except Drain Hoses (Drain hoses are replaced on condition)	10 years or at engine overhaul, whichever occurs first (Note 1)	NO
Engine Compartment Flexible Fluid-Carrying Rubber Hoses (Cessna-Installed) Except Drain Hoses (Drain hoses are replaced on condition)	5 years or engine overhaul, whichever occurs first (Note 1)	NO
Engine Air Filter	500 hours or 36 months, NO whichever occurs first (Note 8)	

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COMPONENT	TIME	REPLACEMENT	OVERHAUL
Engine-Driven Dry Vacuum Pump Drive Coupling (Not lubricated with engine oil)		6 years or at vacuum pump replacement, whichever occurs first	NO
Engine-Driven Dry Vacuum Pump (Not lubricated with engine oil)		500 hours (Note 9)	NO
Standby Dry Vacuum Pump		500 hours or 10 years, whichever occurs first (Note 9)	NO
Landing and Taxi Light Switch or Switch (Landing Light) Aircraft serials: 17259224 thru 17265684 F17200755 thru F17201384		4 years (Note 10)	NO
Switch (Beacon Light)		4 years (Note 11)	NO

3. Supplier-Established Replacement Time Limits

A. The following component time limits have been established by specific suppliers and are reproduced as follows:

Table 2: Supplier-Established Replacement Time Limits

COMPONENT	TIME	REPLACEMENT	OVERHAUL
ELT Battery		Note 3	NO
Vacuum Manifold		Note 4	NO
Magnetos		Note 5	YES
Engine		Note 6	YES
Engine-Flexible Hoses (Lycoming and TCM installed)		Note 2	NO
Propeller		Note 7	YES

NOTES:

NOTE 1: This life limit is not intended to allow flexible fluid-carrying Teflon or rubber hoses in a deteriorated or damaged condition to remain in service. Replace engine compartment flexible Teflon (AE3663819BXXXX series hoses) fluid-carrying hoses (Cessna-installed only) every ten years or at engine overhaul, whichever occurs first. Replace engine compartment flexible rubber fluid-carrying hoses (Cessna-installed only) every five years or at engine overhaul, whichever occurs first (this does not include drain hoses). Hoses which are beyond these limits and are in a serviceable condition, must be placed on order immediately and then be replaced within 120 days after receiving the new hose from Cessna.

NOTE 2: For Textron Lycoming engines, refer to latest Textron Lycoming Engine Service Bulletins. For TCM engines, refer to Teledyne Continental Service Bulletin SB97-6, or latest revision.

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NOTE 3: Refer to FAR 91.207 for battery replacement time limits

NOTE 4: Refer to Airborne Air & Fuel Product Reference Memo No. 39, or latest revision, for replacement time limits.

NOTE 5: For airplanes equipped with Slick magnets, refer to Slick Service Bulletin SB2-80C, or latest revision, for time limits.

For airplanes equipped with TCM/Bendix magnetos, refer to Teledyne Continental Motors Service Bulletin No. 643, or latest revision, for time limits.

NOTE 6: For Textron Lycoming engines, Refer to Textron/Lycoming Service Instruction S.I. 1009AJ, or latest revision, for time limits.
For TCM engines, refer to Teledyne Continental Service Information Letter SIL98-9, or latest revision, for time limits.

NOTE 7: Refer to the applicable McCauley Service Bulletins and Overhaul Manual for replacement and Overhaul information.

NOTE 8: The air filter may be cleaned, refer to Section 2 of this service manual for servicing instructions. For airplanes equipped with an air filter manufactured by Donaldson, refer to Donaldson Aircraft Filters Service Instructions P46-9075 for detailed servicing instructions. The address for Donaldson Aircraft Filters is:

Customer Service
115 E. Steels Corners RD
Stow OH, 44224

Do not overservice the air filter, overservicing increases the risk of damage to the air filter from excessive handling. A damaged/worn air filter may expose the engine to unfiltered air and result in damage/excessive wear to the engine.

NOTE 9: Replace engine driven dry vacuum pump not equipped with a wear indicator every 500 hours of operation, or replace according to the vacuum pump manufacturer's recommended inspection and replacement interval, whichever occurs first.

Replace standby vacuum pump not equipped with a wear indicator every 500 hours of operation or 10 years, whichever occurs first, or replace according to the vacuum pump manufacturer's recommended inspection and replacement interval, whichever occurs first.

For a vacuum pump equipped with a wear indicator, replace pump according to the vacuum pump manufacturer's recommended inspection and replacement intervals.

NOTE 10: During the next annual inspection and every four years thereafter, replace the Landing and Taxi Light Switch with part number TTGC-TA201TW-B or the Switch (Landing Light) with part number C906-5, as applicable.

NOTE 11: During the next annual inspection and every four years thereafter, replace the Switch (Beacon Light) with part number TA201TW-B.

