INSPECTION

1. GENERAL INSPECTION (MODEL 172 AIRPLANES)

NOTE: Cessna Aircraft Company recommends PROGRESSIVE CARE for airplanes flown 200 hours or more per year, and 100-HOUR INSPECTION for airplanes flown less than 200 hours per year.

A. Inspection Requirements.
   (1) Two basic types of inspections are available as defined below:
      (a) As required by Federal Aviation Regulation Part 91.409(a), all civil airplanes of U.S. registry must undergo an annual inspection each 12 calendar months. In addition airplanes operated commercially (for hire) must also have an annual 100 hour inspection each 100 hours of operation as required by Federal Aviation Regulation Part 91.409(b).
      (b) In lieu of the above requirements, an airplane may be inspected in accordance with a progressive inspection program in accordance with Federal Aviation Regulation Part 91.409(d), which allows the work load to be divided into smaller operations that can be accomplished in a shorter time period. The CESSNA PROGRESSIVE CARE PROGRAM has been developed to satisfy the requirements of Part 91.409 (d).

B. Inspection Program Selection.
   (1) As a guide for selecting the inspection program that best suits the operation of the airplane, the following is provided:
      (a) If the airplane is flown less than 200 hours annually, the following conditions apply:
         1 If flown for hire.
            a An airplane operating in this category must be inspected each 100 hours of operation (100-HOUR) and each 12 calendar months of operation (ANNUAL).
         2 If not flown for hire.
            a An airplane operating in this category must be inspected each 12 calendar months of operation (ANNUAL). It is recommended that between annual inspections, all items be inspected at the intervals specified in the Inspection Time Limits Charts and Component Time Limits Charts.
      (b) If the airplane is flown more than 200 hours annually, the following condition applies:
         1 Whether flown for hire or not, it is recommended that airplanes operating in this category be placed on the CESSNA PROGRESSIVE CARE PROGRAM. However, if not placed on the CESSION PROGRESSIVE CARE PROGRAM, the inspection requirements for airplanes in this category are the same as those defined under Paragraph ab.(1)(a)1a or 1.B.(1)(a)2a. CESSNA PROGRESSIVE CARE PROGRAM may be utilized as a total concept program which ensures that the inspection intervals in the inspection charts are not exceeded. Manuals and forms which are required for conducting the CESSNA PROGRESSIVE CARE PROGRAM inspections are available from the Cessna Supply Division.

C. Inspection Charts.

NOTE: Cessna has prepared these Inspection Charts to assist the owner or operator in meeting the foregoing responsibilities and to meet the intent of Federal Aviation Regulation Part 91.409(d). The Inspection Charts are not intended to be all-inclusive, for no such charts can replace the good judgment of a certified airframe and powerplant mechanic in performance of his duties. As the one primarily responsible for this airworthiness of the airplane, the owner or operator should select only qualified personnel to maintain the airplane.

(1) The following Inspection Charts (Inspection Time Limits, Component Time Limits, Progressive Care Inspection, and Expanded Inspection) show the recommended intervals at which items are to be inspected based on normal usage under average environmental conditions. Airplanes operated in extremely humid tropics, or in exceptionally cold, damp climates, etc., may need more frequent inspections for wear, corrosion, and lubrication. Under these adverse conditions, perform periodic inspections in compliance with this chart at more frequent intervals until the

operator can set his own inspection periods based on field experience. The operator's inspection intervals shall not deviate from the inspection time limits shown in this manual except as provided below:

(a) Each inspection interval can be exceeded by 10 hours or can be performed early at any time prior to the regular interval as provided below:

1 In the event of late compliance of any operation scheduled, the next operation in sequence retains a due point from the time the late operation was originally scheduled.

2 In the event of early compliance of any operation scheduled, that occurs 10 hours or less ahead of schedule, the next phase due point may remain where originally set.

3 In the event of early compliance of any operation scheduled, that occurs more than 10 hours ahead of schedule, the next phase due point must be rescheduled to establish a new due point from the time of early accomplishment.

(2) As shown in the charts, there are items to be checked at 50 hours, 100 hours, 200 hours, or at Special of Yearly inspection. Special or Yearly inspection items require servicing or inspection at intervals other than 50, 100, or 200 hours. If two inspection time requirements are listed for one inspection item, one hourly and the yearly, both apply and whichever requirement occurs first determines the time limit.

(a) When conducting a 50-hour inspection, check all items listed under EACH 50 HOURS. A 100-hour inspection includes all items listed under EACH 50 HOURS and EACH 100 HOURS. The 200-hour inspection includes all items listed under EACH 50 HOURS, EACH 100 HOURS, and EACH 200 HOURS. All of the items listed would be inspected, serviced, or otherwise performed as necessary to ensure compliance with the inspection requirements.

(b) A COMPLETE AIRPLANE INSPECTION includes all 50-, 100-, and 200-hour items plus those Special and Yearly Inspection Items which are due at the specified time.

(c) Component Time Limits Charts should be checked at each inspection interval to ensure proper overhaul and replacement requirements are accomplished at the specified times.

D. Inspection Guidelines.

(1) The Inspection Charts are to be used as a recommended inspection outline. Detailed information of systems and components in the airplane will be found in various chapters of this Maintenance Manual and the pertinent vendor publications. It is recommended that reference be made to the applicable portion of this manual for service instructions, installation instructions, and to the vendor's data or publications specifications for torque values, clearances, settings, tolerances, and other requirements.

(2) For the purpose of this inspection, the term on condition is defined as follows: The necessary inspections and/or checks to determine that a malfunction or failure will not occur prior to the next scheduled inspection.

(3) MOVABLE PARTS: Inspect for lubrication, servicing, security of attachment, binding, excessive wear, safetying, proper operation, proper adjustment, correct travel, cracked fittings, security of hinges, defective bearings, cleanliness, corrosion, deformation, sealing, and tension.

(4) FLUID LINES AND HOSES: Inspect for leaks, cracks, bulging, collapsed, twisted, dents, kinks, chafing, proper radius, security, discoloration, bleaching, deterioration, and proper routing rubber hoses for stiffness and metal lines for corrosion.

(5) METAL PARTS: Inspect for security of attachment, cracks, metal distortion, broken spot welds, condition of paint (especially chips at seams and around fasteners for onset of corrosion) and any other apparent damage.

(6) WIRING: Inspect for security, chafing, burning, arcing, defective insulation, loose or broken terminals, heat deterioration, and corroded terminals.

(7) STRUCTURAL FASTENERS: Inspect for correct torque in accordance with applicable torque values. Refer to Bolt Torque Data during installation or when visual inspection indicates the need for a torque check.

NOTE: Torque values listed are not to be used for checking tightness of installed parts during service.

(8) FILTERS, SCREENS, AND FLUIDS: Inspect for cleanliness and the need for replacement at specified intervals.

(9) System check (operation or function) requiring electrical power must be performed using 28.5 ± 0.25 volts bus voltage. This will ensure all components are operating at their designed requirements.

(a) Airplane file.

1 Miscellaneous data, information, and licenses are a part of the airplane file. Check that the following documents are up-to-date and in accordance with current Federal Aviation Regulations. Most of the items listed are required by the Federal Aviation Regulations. Since the regulations of other nations may require other documents and data, owners of exported airplanes should check with their own aviation officials to determine their individual requirements.

a To be displayed in the airplane at all times:

1. Standard Airworthiness Certificate (FAA Form 8100-2).
2. Aircraft Registration Certificate (FAA Form 8050-3).
3. Aircraft Radio Station License (Federal Communication Commission Form 556 if transmitter is installed).
4. Radio Telephone Station License (Federal Communication Commission Form 409 if Flitefone Radio Telephone is installed).

b To be carried in the airplane at all times:

1. Weight and Balance Data Sheets and associated papers (all copies of the Repair and Alteration Form, FAA Form 337, are applicable).
2. Equipment List.
3. Pilot's Operating Handbook and FAA-Approved Airplane Flight Manual.

c To be made available upon request:

1. Airframe, Engine, Propeller, and Avionics Maintenance Records.

2. PRE-INSPECTION CHECKS (MODEL 172 AIRPLANES)

A. Pre-inspection Operational Checks.

(1) Before beginning the step-by-step inspection, start and run up the engine and upon completion, shut down the engine in accordance with instructions in the Pilot's Operating Handbook and FAA-Approved Airplane Flight Manual. During the run-up, observe the following, making note of any discrepancies or abnormalities:

(a) Engine temperatures and pressures.
(b) Static RPM (Also refer to Engine section of this manual).
(c) Magneto drop (Also refer to Engine section of this manual).
(d) Engine response to changes in power.
(e) Any unusual engine noises.
(f) Fuel selector and/or shutoff valve operate engine on each tank (or cell) position and OFF position long enough to ensure shutoff and/or selector valve functions properly.
(g) Idling speed and mixture proper idle cut-off.
(h) Alternator and ammeter.
(i) Suction gage.
(j) Fuel flow indicator.

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

(3) Some of the items in the Inspection Time Limits paragraph are optional, therefore not applicable to all airplanes.

3. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES)

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES).

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
A	**Placards (Refer to Pilot's Operating Handbook).**						
A	1	Placards and Decals - Inspect presence, legibility, and security. Consult Pilot's Operating Handbook and FAA-Approved Airplane Flight Manual for required placards.			**X**		
B	**Fuselage (Section 3).**						
B	1	Fuselage Surface - Inspect for skin damage, loose rivets, condition of paint, and check pitot-static ports and drain holes for obstruction. Inspect covers and fairings for security.		**X**			
B	2	Internal Fuselage Structure - Inspect bulkheads, door posts, stringers, doublers, and skins for corrosion, cracks, buckles, and loose rivets, bolts and nuts.			**X**		
B	3	Control Wheel Lock - Check general condition and operation.			**X**		
B	4	Fuselage Mounted Equipment - Check for general condition and security of attachment.			**X**		
B	5	Antennas and Cables - Inspect for security of attachment, connection, and condition.			**X**		
B	6	Emergency Locator Transmitter - Inspect for security of attachment and check operation by verifying transmitter output. Check cumulative time and useful life of batteries in accordance with FAR Part 91.207. Refer to Emergency Locator Transmitter - Checkout Interval, in the Electrical Systems section of this manual.		**X**			
B	7	Instrument Panel Shock Mounts, Ground Straps, and Covers - Inspect for deterioration, cracks, and security of attachment.			**X**		
B	8	Pilot's and Copilot's Inertia Reels - Inspect for security of installation, proper operation, and evidence of damage.		**X**			

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
B	9	Seats, Seat Belts, and Shoulder Harnesses - Check general condition and security. Check operation of seat stops and adjustment mechanism. Inspect belts for condition and security of fasteners.		X			
B	10	Windows, Windshield . Doors, and Seals - Inspect general condition. Check latches. hinges, and seals for condition, operation, and security of attachment.		X			
B	11	Upholstery, Headliner, Trim, and Carpeting - Check condition and clean as required.				Each 400	Each 1
B	12	Flight Controls - Check freedom of movement and proper operation through full travel with and without flaps extended. Check electric trim controls for operation (as applicable).		X			
B	13	Aileron, Elevator, and Rudder Stops - Check for damage and security.		X			
B	14	Portable Hand Fire Extinguisher - Inspect for proper operating pressure, condition, security of installation, and servicing date.		X			
B	15	Seat Tracks and Stops - Inspect seat tracks for condition and security of installation. Check seat track stops for damage and correct location. Ensure inspection of seat rails for cracks EACH 50 HOURS. Refer to Fuselage section in this manual.	X				
B	16	Control Column - inspect pulleys, cables, sprockets, bearings, chains, bungees, and turnbuckles for condition.			X		
B	17	Fuel Line and Selector Valve Drain(s) - Remove plug and drain.		X			
B	18	Reel Type Secondary Seat Stops - Make sure manual lock operates correctly.		X			
C	**Wings and Empennage (Section 4).**						
C	1	Wing Surfaces and Tips - Inspect for skin damage, loose rivets, and condition of paint.		X			

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
C	2	Wing Struts and Strut Fairings - Check for dents, cracks, loose screws and rivets, and condition of paint.		X			
C	3	Wing Spar and Wing Strut Fittings - Check for evidence of wear Check attach bolts for indications of looseness and retorque as required.			X		
C	4	Wing Structure - Inspect spars, ribs, skins, and stringers for cracks wrinkles loose rivets corrosion or other damage.			X		
C	5	Metal Lines Hoses Clamps and Fittings - Check for leaks condition and security Check for proper routing.			X		
C	6	Wing Access Plates - Check for damage and security of installation.			X		
C	7	Vertical and Horizontal Stabilizers, Tips and Tailcone - Inspect externally for skin damage and condition of paint.		X			
C	8	Vertical and Horizontal Stabilizers and Tailcone Structure - Inspect bulkheads spars, ribs and skins for cracks, wrinkles, loose rivets, corrosion or other damage. Inspect vertical and horizontal stabilizer attach bolts for looseness, retorque as necessary. Check security of inspection covers, fairings and tips.		X			
D	**Landing Gear and Brakes (Section 5).**						
D	1	Brakes, Master Cylinders, and Parking Brake - Check master cylinders and parking brake mechanism for condition and security. Check fluid level and test operation of toe and parking brake.		X			
D	2	Main Gear Tubular Struts - Inspect for cracks, dents, corrosion, condition of paint or other damage. Check axles for condition and security.		X			
D	3	Brake Lines Wheel Cylinders, Hoses Clamps and Fittings - Check for leaks, condition, and security and hoses for bulges and deterioration. Check brake lines and hoses for proper routing and support.				**Each 400**	**Each 1**
D	4	Wheels, Brake Discs and Linings - Inspect for wear, cracks, warps, dents, or other damage. Check wheel thru-bolts and nuts for looseness.		X			

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
D	5	Tires- Check tread wear and general condition. Check for proper inflation.		X			
D	6	Wheel Fairings, Strut Fairings, and Cuffs - Check for cracks, dents, and condition of paint.		X		A	
D	7	Main Landing Gear Attachment Structure - Check for damage, cracks, loose rivets, bolts and nuts and security of attachment.		X			
D	8	Nose Gear Steering Mechanism - Check for wear, security, and proper rigging.			X		
D	9	Nose Gear - Inspect torque links, steering rods , and boots for condition and security of attachment. Check strut for evidence of leakage and proper extension. Check strut barrel for corrosion, pitting, and cleanliness. Check shimmy damper and/or bungees for operation, leakage, and attach points for wear and security.		X			
D	10	Nose Gear Fork - Inspect for cracks, general condition, and security of attachment.			X		
D	11	Wheel Bearings - Clean, inspect and lube.				B	
D	12	Nose Gear Attachment Structure - Inspect for cracks, corrosion, or other damage and security of attachment.		X			
E	**Aileron Control System (Section 6).**						
E	1	Ailerons and Hinges - Check condition, security and operation.		X			
E	2	Aileron Structure, Control Rods, Hinges, Balance Weights, Bellcranks, Linkage, Bolts, Pulleys, and Pulley Brackets - Check condition, operation, and security of attachment.		X			
E	3	Ailerons and Cables - Check operation and security of stops. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety. Check travel if cable tension requires adjustment or if stops are damaged. Check fairleads and rub strips for condition.			X		

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
E	4	Autopilot Rigging - Check per Avionics Installation Manual.				C	
E	5	Aileron Controls - Check freedom of movement and proper operation through full travel with and without flaps extended.		X			
F	**Wing Flap Control System (Section 7).**						
F	1	Flaps - Check tracks, rollers, and control rods for security of attachment. Check operation.		X			
F	2	Flap Actuator Threads - Clean and lubricate. Refer to WING FLAP ACTUATOR lubrication for detailed instructions.		X			
F	3	Flap Structure, Linkage, Bellcranks, Pulleys, and Pulley Brackets - Check for condition, operation and security.			X		
F	4	Wing Flap Control - Check operation through full travel and observe Flap Position indicator for proper indication.			X		
F	5	Flaps and Cables - Check cables tor proper tension, routing, fraying, corrosion, and turnbuckle safety. Check travel if cable tension requires adjustment.			X		
F	6	Flap Motor, Actuator, and Limit Switches (electric flaps) - Check wiring and terminals for condition and security. Check actuator for condition and security.			X		
G	**Elevator Control System (Section 8).**						
G	1	Elevator Control - Check freedom of movement and proper operation through full travel with and without flaps extended.		X			
G	2	Elevator, Hinges, and Cable Attachment - Check condition, security, and operation.		X			
G	3	Elevator Control System - Inspect pulleys, cables, sprockets, bearings, chains, and turnbuckles for condition, security, and operation.			X		
H	**Elevator Trim Tab Control System (Section 9).**						

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
H	1	Elevator Trim Tab and Hinges - Check condition, security, and operation.		X			
H	2	Elevator Trim System - Check cables, push-pull rods, bellcranks, pulleys , turnbuckles, fairleads, rub strips, etc. for proper routing, condition, and security.		X			
H	3	Trim Controls and Indicators - Check freedom of movement and proper operation through full travel. Check pulleys, cables, sprockets, bearings, chains, bungees, and turnbuckles for condition and security. Check electric trim controls for operation as applicable.			X		
H	4	Elevator Trim Tab Stop Blocks - Inspect for damage and security.			X		
H	5	Elevator Trim Tab Actuator - Clean, lubricate, and check free-play.				D	
H	6	Elevator Trim Tab Actuator - Free-Play limits inspection. Refer to Elevator Trim Control System section in this manual for cleaning, inspection, and repair procedures.			X		
I	**Rudder Control System (Section 10).**						
I	1	Rudder - Inspect the rudder skins for cracks and loose rivets, rudder hinges for condition, cracks and security hinge bolts, hinge bearings, hinge attach fittings, and bonding jumper for evidence of damage and wear, failed fasteners, and security. Inspect the rudder hinge bolts for proper safetying of nuts with cotter pins. Inspect balance weight for looseness and the supporting structure for damage.		X			
I	2	Rudder Pedals and Linkage - Check for general condition, proper rigging, and operation. Check for security of attachment.			X		
I	3	Rudder, Tips, Hinges and Cable Attachment - Check condition, security, and operation.		X			
I	4	Rudder - Check internal surfaces for corrosion, condition of fasteners, and balance weight attachment.			X		
J	**Engines (Sections 11 and 11A).**						

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
J	1	Cowling - Inspect for cracks, dents, and other damage, security of cowl fasteners, and cowl mounted landing lights for attachment.	X				
J	2	Engine - Inspect for evidence of oil and fuel leaks. Wash engine and check for security of accessories.	X				
J	3	Engine Controls and Linkage - Check general condition, freedom of movement through full range. Check for proper travel, security of attachment, and for evidence of wear. Check friction locks for proper operation.	X				E
J	4	Ignition Switch and Electrical Harness - Inspect for damage, condition, and security.		X			
J	5	Firewall Structure - Inspect for wrinkles, damage, cracks, sheared rivets, etc. Check cowl shock mounts for condition and security.			X		
J	6	Engine Shock Mounts, Engine Mount Structure, and Ground Straps - Check condition, security, and alignment.			X		
J	7	Induction System - Check security of clamps, tubes, and ducting. Inspect for evidence of leakage.	X				
J	8	Induction Airbox, Valves, Doors, and Controls - Remove air filter and inspect hinges, doors, seals, and attaching parts for wear and security. Check operation. Clean and inspect.		X			
J	9	Induction Air Filter - Remove and clean. Inspect for damage, and service. Refer to ENGINE INDUCTION AIR FILTER servicing.		X			
J	10	Alternate Induction Air System - Check for obstructions, operation, and security.	X				

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
J	11	Alternator, Mounting Bracket and Electrical Connections - Check condition and security. Check alternator belts for condition and proper adjustment. Check belt tension. Refer to the ALTERNATOR- REMOVAL AND INSTALLATION section in the Electrical Systems section of this manual for the tension check procedure.	X				
J	12	Alternator - Check brushes, leads, commutator or slip ring for wear.					G
J	13	Starter, Starter Solenoid, and Electrical Connections - Check for condition of starter brushes, brush leads, and commutator.		X			H
J	14	Oil Cooler - Check for obstructions, leaks, and security of attachment.	X				
J	15	Exhaust System - Inspect for cracks and security. Special check in area of heat exchanger. Refer to the Engine section in this manual for the inspection procedures.	X				
J	16	Auxiliary (Electric) Fuel Pump (172Q) - Check pump and fittings for condition, operation, security. Remove and clean filter (as applicable).		X			
J	17	Engine-Driven Fuel Pump - Check for evidence of leakage, security of attachment, and general condition.		X			
J	18	Magnetos - Check external condition, security, and electrical leads for condition. Check timing to engine and internal timing if engine timing requires adjustment.		X		I	
J	19	Magnetos - Check impulse coupling and stop pins for condition, replace as required.				J	
J	20	Magnetos - Inspection, lubrication, and overhaul procedures.				K	
J	21	Ignition Harness and Insulators - Check for proper routing, deterioration, and condition of terminals.		X			
J	22	Spark Plugs - Remove, clean, analyze, test, gap, and rotate top plugs-to-bottom and bottom plugs-to-top.		X			

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
J	23	Cylinder Compression - Perform differential compression test.			X		
J	24	Carburetor - Drain and flush carburetor bowl, clean inlet strainer, and drain plug. Check general condition and security.		X			
J	25	Engine Primer - Check for leakage, operation, and security.		X			
J	26	Hoses, Metal Lines, and Fittings - Inspect for signs of oil and fuel leaks. Check for abrasions, chafing, security, proper routing and support and for evidence of deterioration.	X				
J	27	Cold and Hot Air Hoses - Check condition, routing, and security.		X			
J	28	Engine Cylinders, Rocker Box Covers, and Pushrod Housings - Check for fin damage, cracks, oil leakage, security of attachment, and general condition.		X			
J	29	Engine Baffles and Seals - Check condition and security of attachment.	X				
J	30	Crankcase, Oil Sump, and Accessory Section - Inspect for cracks and evidence of oil leakage. Check bolts and nuts for looseness and retorque as necessary. Check crankcase breather lines for obstructions, security, and general condition.		X			
J	31	Engine Oil With Oil Filter - Drain oil sump and oil cooler, replace filter and refill with recommended grade aviation oil.		X		L	
J	32	Engine Oil Without Oil Filter - Drain oil sump and oil cooler, clean and inspect screens, and refill with recommended grade aviation oil.	X			L	
K	**Fuel System (Section 12).**						
K	1	Fuel Tanks or Integral Fuel Bays - Check for evidence of leakage and condition of fuel caps, adapters, and placards.		X			
K	2	Fuel Tanks or Integral Fuel Bays - Drain fuel and check tank interior and outlet screens.				M	

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
K	3	Fuel System - Inspect plumbing and components for mounting and security.		X			
K	4	Fuel Tank or Bay Drains - Drain water and sediment.	X				
K	5	Fuel Tank Vent Lines and Vent Valves - Check vents for obstruction and proper positioning.		X			
K	6	Fuel Selector Valve - Check controls for detent in each position, security of attachment, and for proper placarding.		X			
K	7	Fuel Strainer, Drain Valve, and Controls - Check freedom of movement, security, and proper operation. Disassemble, flush, and clean screen and bowl.		X			
K	8	Fuel Quantity Indicators - Check for damage, security of installation, and perform operational/accuracy test.					Each 1
L	**Propeller and Propeller Governor (Section 13).**						
L	1	Propeller Mounting - Check for security of installation.	X				
L	2	Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.	X				
L	3	Spinner - Check general condition and attachment.	X				
L	4	Spinner and Spinner Bulkhead - Remove spinner, wash, and inspect for cracks and fractures.		X			
L	5	Propeller Mounting Bolts - Inspect mounting bolts and safety-wire for signs of looseness. Retorque mounting bolts as required.			X		
L	6	Propeller Hub - Check general condition.			X		
M	**Utility Systems (Section 14).**						
M	1	Ventilation System - Inspect clamps, hoses, and valves for condition and security.				Each 400	Each 1
M	2	Heater Components, Inlets, and Outlets - Inspect all lines, connections, ducts, clamps, seals, and gaskets for condition, restriction, and security.		X			

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
M	3	Cabin Heat and Ventilation Controls - Check freedom of movement through full travel. Check friction locks for proper operation.			**X**		
M	4	Pitot Tube and Stall Warning Vane - Check for condition and obstructions.	**X**				
N	**Instruments and Instrument Systems (Section 15).**						
N	1	Vacuum System - Inspect for condition and security.		**X**			
N	2	Vacuum System Hoses - Inspect for hardness, deterioration, looseness, or collapsed hoses.		**X**			
N	3	Vacuum Pump - Check for condition and security. Check vacuum system breather line for obstructions, condition, and security.		**X**			
N	4	Vacuum System Air Filter - Inspect for damage, deterioration and contamination. Clean or replace, if required. **NOTE:** Smoking will cause premature filter clogging.		**X**		**N**	
N	5	Vacuum System Relief Valve - Inspect for condition and security.		**X**		**O**	
N	6	Instruments - Check general condition and markings for legibility.		**X**			
N	7	Instrument Lines, Fittings, Ducting, and Instrument Panel Wiring - Check for proper routing, support, and security of attachment.			**X**		
N	8	Static System - Inspect for security of installation, cleanliness, and evidence of damage.			**X**		
N	9	Navigation Indicators, Controls, and Components - Inspect for condition and security.			**X**		
N	10	Airspeed Indicator, Vertical Speed Indicator, and Magnetic Compass - Calibrate.					**Each 2**
N	11	Altimeter and Static System - Inspect in accordance with FAR Part 91.411.					**Each 2**

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
N	12	Instrument Panel Mounted Avionics Units (Including Audio Panel, VHF Nav Com(s), ADF, Transponder, DME, and Compass System) - Inspect for deterioration, cracks, and security of instrument panel mounts. Inspect for security of electrical connections, condition, and security of wire routing.			**X**		
N	13	Avionics Operating Controls - Inspect for security and proper operation of controls and switches and ensure that all digital segments will illuminate properly.			**X**		
N	14	Remote Mounted Avionics - Inspect tor security of units and electrical connectors, condition and security of wire routing. Also, check for evidence of damage and cleanliness.			**X**		
N	15	Microphones, Headsets, and Jacks - Inspect for cleanliness, security, and evidence of damage.			**X**		
N	16	Magnetic Compass - Inspect for security of installation, cleanliness, and evidence of damage.			**X**		
O	**Electrical Systems (Section 16).**						
O	1	General Airplane and System Wiring - Inspect for proper routing, chafing, broken or loose terminals, general condition, broken or inadequate clamps, and sharp bends in wiring.			**X**		
O	2	Instrument, Cabin, Navigation, Beacon, Strobe, and Landing Lights - Check operation, condition of lens, and security of attachment.		**X**			
O	3	Circuit Breakers and Fuses - Check operation and condition. Check for required number of spare fuses.		**X**			
O	4	Battery - Check general condition and security. Check level of electrolyte.		**X**		**P**	
O	5	Battery Box and Cables - Clean and remove any corrosion. Check cables for routing, support, and security of connections.			**X**		

Table 1. INSPECTION TIME LIMITS (MODEL 172 AIRPLANES). (continued)

	S.NO		EACH 50 HOURS	EACH 100 HOURS	EACH 200 HOURS	SPECIAL INSPECTION HOURS	SPECIAL INSPECTION YEARS
O	6	Switch and Circuit Breaker Panel, Terminal Blocks, and Junction Boxes - Inspect wiring and terminals for condition and security.			X		
O	7	Alternator Control Unit - Inspect wiring, mounting, condition, and wire routing.			X		
O	8	Switches - Check operation, terminals, wiring, and mounting for conditions, security, and interference.			X		
O	9	Instrument Panel and Control Pedestal - Inspect wiring, mounting, and terminals for condition and security. Check resistance between stationary panel and instrument panel for proper ground.			X		
O	10	External Power Receptacle and Power Cables - Inspect for condition and security.			X		
P	**Post Inspection.**						
P	1	Replace all fairings, doors, and access hole covers. Ground check engine, alternator charging rate, oil pressure, tachometer, oil temperature and pressure gages, and general operation of components.					
Q	**Perform the Following Operational Checks:**						
Q	1	Brakes - Test toe brakes and parking brake for proper operation.		X			
R	**Service Bulletins/Airworthiness Directives.**						
R	1	Check that all applicable Cessna Service Bulletins and Supplier Service Bulletins are complied with.	X	X	X		
R	2	Check that all applicable Airworthiness Directives and Federal Aviation Regulations are complied with.	X	X	X		
R	3	Ensure all Maintenance Record Entries required by Federal Aviation Regulations are completed before returning the airplane to service.	X	X	X		

Special Inspections Legends

A. If the airplane is flown from surfaces with mud, snow, or ice, the main gear speed fairings should be checked that there is no accumulation which could prevent normal wheel rotation.

B. First 100 hours and each 500 hours thereafter. More often if operated under prevailing wet or dusty conditions.

C. Each 600 hours or 1 year, whichever comes first.

D. Lubrication of the actuator is required each 1000 hours or 3 years, whichever comes first. See Figure 2-5 for grease specification.

E. Lubricate each 50 hours (except in extreme dusty conditions). These controls are not repairable and should be replaced every 1500 hours or whenever maximum linear movement exceeds .050 inch.

F. Model 172Q: Replace polyurethane foam filter every 200 hours or on condition. Model 172 Series: Filter may be washed 20 times maximum, cleaned by compressed air 30 times maximum. Replace filter each 500 hours or 1 year, whichever comes first.

G. Inspect each 500 hours.

H. Check solenoid and electrical connections each 100 hours, inspect the commutator and brushes each 500 hours.

I. If timing to engine is within tolerance - plus zero degrees, minus two degrees, internal timing will not require checking. Model 172 with 0-320-H2AD engine (1977 thru 1980): Check magnetos at first 25 hours, first 50 hours, first 100 hours, and each 100 hours thereafter. Model 172 with 0-320-D2J engine (1981 and ON), Model 172Q with 0-360-A4N engine (1983 and ON): Check magnetos at first 100 hours, and every 100 hours thereafter or each one year, whichever occurs first.

J. Compliance with Lycoming Service Bulletin 425B or latest revision is required. Model 172 with 0-320-H2AD engine (1977 thru 1980): Each 500 hours.

K.

- Inspect contact points for condition and adjust or replace as required.
- Inspect carbon brush, high-tension lead, and distributor block for condition and clean or replace as required.
- Inspect impulse coupling and pawls for condition and replace as required. Use light pressure only, do not force pin (or drill bit) when checking pawls.
- Inspect bearings and lubricate, replace bearings, if required.
- Lubricate contact point cam
- Completely overhaul, or replace existing magneto with a new or rebuilt exchange magneto, at every engine overhaul. Refer to Overhaul and Maintenance Manual, Publication No. 1037C1-13, covering Model 4200/6200 series magnetos. Manual No. 1037C1-13 is available from Cessna Supply Division. Effectivity, Model 172 with 0-320-0-2J engine (1981 and ON) and Model 172Q with 0-360-A4N engine (1983 and ON) Each 500 hours and every engine overhaul.

L. Model 172 with 0-320-H2AD engine (1977 thru 1980): First 25 hours. Drain oil sump, clean pressure screen or replace oil filter, and refill with MIL-L-22851 ashless dispersant oil. If oil must be added during first 25 hours, use MIL-L-6082 aviation grade straight mineral oil. If engine is not equipped with an oil filter, change oil and clean pressure screen at 50 hours, and each 50 hours thereafter. If engine is equipped with an oil filter, change oil and filter at 50 hours, and each 100 hours thereafter. Model 172 with 0-320-D2J engine (1981 and ON) and Model 172Q with 0-360-A4N engine (1983 and ON): First 25 hours. Drain oil sump, clean pressure screen or replace oil filter, and refill with MIL-L-6080 aviation grade straight mineral oil. If engine is not equipped with an oil filter, change oil and clean pressure screen at 50 hours and each 50 hours there after. If engine is equipped with an oil filter, change oil and filter at 50 hours and each 100 hours there after. Beginning with the 50-hour oil change and thereafter, refill oil sump with MIL-L-22851 ashless dispersant oil.

M. Each 1000 hours.

N. Replace every 500 hours.

O. Replace filter each 100 hours.

P. Check electrolyte level and clean battery box each 100 hours or 90 days.