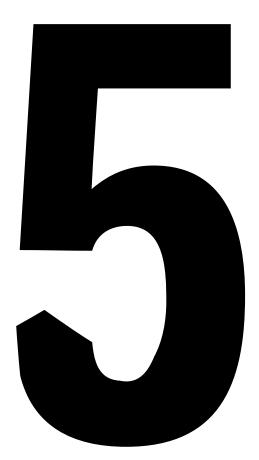
CHAPTER



TIME LIMITS/ MAINTENANCE CHECKS

LIST OF EFFECTIVE PAGES

CHAPTER-SECTION-SUBJECT	PAGE	DATE
05-Title		
05-List of Effective Pages		
05-Record of Temporary Revisions		
05-Table of Contents		
5-00-00	Pages 1-2	Jul 1/2007
5-00-10	Page 1	Dec 2/2002
5-10-00	Pages 1-2	Mar 1/2009
5-10-01	Pages 1-16	Jul 1/2010
5-11-00	Pages 1-3	Mar 1/2009
5-12-00	Pages 1-2	Jul 1/2007
5-12-01	Pages 1-7	Jul 1/2010
5-12-02	Pages 1-6	Jul 1/2010
5-12-03	Pages 1-7	Jul 1/2010
5-12-04	Pages 1-6	Jul 1/2010
5-12-05	Page 1	Jul 3/2006
5-12-06	Page 1	Dec 2/2002
5-12-07	Page 1	Jul 1/2010
5-12-08	Page 1	Dec 2/2002
5-12-09	Page 1	Jul 3/2006
5-12-10	Page 1	Jul 3/2006
5-12-11	Page 1	Jul 3/2006
5-12-12	Page 1	Jul 3/2006
5-12-13	Page 1	Dec 2/2002
5-12-14	Page 1	Jul 3/2006
5-12-15	Page 1	Jul 3/2006
5-12-16	Page 1	Jul 3/2006
5-12-17	Page 1	Jul 3/2006
5-12-18	Page 1	Jul 3/2006
5-12-19	Page 1	Jul 3/2006
5-12-20	Page 1	Jul 3/2006
5-12-21	Page 1	Mar 1/2009
5-12-22	Page 1	Jul 3/2006
5-12-23	Page 1	Jul 3/2006
5-12-24	Page 1	Jul 3/2006
5-12-25	Page 1	Jul 1/2010
5-50-00	Pages 1-5	Jan 2/2006

05 - LIST OF EFFECTIVE PAGES

CONTENTS

TIME LIMITS/MAINTENANCE CHECKS	5-00-00 Page 1 5-00-00 Page 1 5-00-00 Page 1 5-00-00 Page 1 5-00-00 Page 1 5-00-00 Page 2
AIRWORTHINESS LIMITATIONS - FAA APPROVED DATA	5-00-10 Page 1
Scope	5-00-10 Page 1
Airworthiness Limitations	5-00-10 Page 1
INSPECTION TIME INTERVALS	5-10-00 Page 1
General	5-10-00 Page 1
Procedure	5-10-00 Page 1
Inspection Terms and Guidelines	5-10-00 Page 1
Chart Legend	5-10-00 Page 1
INSPECTION TIME LIMITS Inspection Items	5-10-01 Page 1 5-10-01 Page 1
COMPONENT TIME LIMITS	5-11-00 Page 1
General	5-11-00 Page 1
Cessna-Supplied Replacement Time Limits	5-11-00 Page 1
Supplier-Supplied Replacement Time Limits	5-11-00 Page 2
PROGRESSIVE CARE PROGRAM	5-12-00 Page 1 5-12-00 Page 1 5-12-00 Page 2 5-12-00 Page 2
INSPECTION OPERATION 1	5-12-01 Page 1
Description	5-12-01 Page 1
General Inspection Criteria.	5-12-01 Page 1
INSPECTION OPERATION 2	5-12-02 Page 1
Description	5-12-02 Page 1
General Inspection Criteria.	5-12-02 Page 1
INSPECTION OPERATION 3	5-12-03 Page 1
Description	5-12-03 Page 1
General Inspection Criteria.	5-12-03 Page 1
INSPECTION OPERATION 4	5-12-04 Page 1
Description	5-12-04 Page 1
General Inspection Criteria.	5-12-04 Page 1
INSPECTION OPERATION 5	5-12-05 Page 1
Description	5-12-05 Page 1
General Inspection Criteria.	5-12-05 Page 1
PROGRESSIVE CAREOperation 6	5-12-06 Page 1 5-12-06 Page 1
INSPECTION OPERATION 7	5-12-07 Page 1
Description	5-12-07 Page 1
General Inspection Criteria	5-12-07 Page 1
PROGRESSIVE CARE	5-12-08 Page 1 5-12-08 Page 1

INSPECTION OPERATION 9	5-12-09 Page 1
Description	5-12-09 Page 1
General Inspection Criteria	5-12-09 Page 1
INSPECTION OPERATION 10	5-12-10 Page 1
Description	5-12-10 Page 1
General Inspection Criteria	5-12-10 Page 1
INSPECTION OPERATION 11	5-12-11 Page 1
Description	5-12-11 Page 1
General Inspection Criteria	5-12-11 Page 1
INSPECTION OPERATION 12	5-12-12 Page 1
Description	5-12-12 Page 1
General Inspection Criteria.	5-12-12 Page 1
PROGRESSIVE CARE	5-12-13 Page 1 5-12-13 Page 1
INSPECTION OPERATION 14	5-12-14 Page 1
Description	5-12-14 Page 1
General Inspection Criteria	5-12-14 Page 1
INSPECTION OPERATION 15	5-12-15 Page 1
Description	5-12-15 Page 1
General Inspection Criteria.	5-12-15 Page 1
INSPECTION OPERATION 16	5-12-16 Page 1
Description	5-12-16 Page 1
General Inspection Criteria.	5-12-16 Page 1
INSPECTION OPERATION 17 Description	5-12-17 Page 1 5-12-17 Page 1 5-12-17 Page 1
INSPECTION OPERATION 18	5-12-18 Page 1
Description	5-12-18 Page 1
General Inspection Criteria.	5-12-18 Page 1
INSPECTION OPERATION 19	5-12-19 Page 1
Description	5-12-19 Page 1
General Inspection Criteria	5-12-19 Page 1
INSPECTION OPERATION 20 Description	5-12-20 Page 1 5-12-20 Page 1 5-12-20 Page 1
INSPECTION OPERATION 21 Description	5-12-21 Page 1 5-12-21 Page 1 5-12-21 Page 1
INSPECTION OPERATION 22	5-12-22 Page 1
Description	5-12-22 Page 1
General Inspection Criteria	5-12-22 Page 1
INSPECTION OPERATION 23	5-12-23 Page 1
Description	5-12-23 Page 1
General Inspection Criteria	5-12-23 Page 1
INSPECTION OPERATION 24	5-12-24 Page 1
Description	5-12-24 Page 1
General Inspection Criteria.	5-12-24 Page 1

INSPECTION OPERATION 25	5-12-25 Page 1
Description	5-12-25 Page 1
General Inspection Criteria.	5-12-25 Page 1
UNSCHEDULED MAINTENANCE CHECKS	5-50-00 Page 1 5-50-00 Page 1 5-50-00 Page 1

TIME LIMITS/MAINTENANCE CHECKS

1. Scope

A. This chapter provides the time limits and maintenance checks for the Model 206 airplanes. It is divided into several sections, each with a specific purpose toward providing information necessary to establish inspection criteria.

2. Inspection Requirements

- A. As required by U.S. Federal Aviation Regulations, all civil aircraft of U.S. registry must undergo a complete inspection (annual) each twelve calendar months. In addition to the required annual inspection, aircraft operated commercially (for hire) must have a complete inspection every 100 hours of operation.
- B. Compliance with the regulations is accomplished using one of three methods:
 - (1) Traditional (Annual/100 Hour) inspection program which utilizes 14 CFR Part 43, Appendix D (scope and detail) to inspect the airplane. In addition, Cessna recommends certain components or items be inspected at 50 hour intervals. These inspection items are listed in Inspection Time Intervals, Section 5-10-01.
 - (2) Progressive Care inspection program which allows the work load to be divided into smaller operations that can be accomplished in a shorter time period. This method is detailed in Progressive Care Program, Section 5-12-00.
 - (3) PhaseCard inspection program which is geared toward high-utilization flight operations (approximately 600 flight hours per year). This system utilizes 50-hour intervals (Phase 1 and Phase 2) to inspect high-usage systems and components. At 12 months or 600 flight hours, whichever occurs first, the airplane undergoes a complete (Phase 3) inspection. PhaseCard Inspection programs can be ordered through Propeller Aircraft Product Support. P.O. Box 7706, Wichita, KS 67277, Phone (316) 941-7550, Fax (316) 942-9006.

3. Inspection Program Selection

A. The selection of an inspection program (Annual, Progressive Care or PhaseCard) is primarily based on owner/operator preferences, whether an airplane is flown for hire, and numbers of hours flown during the year.

4. Description

- A. Listed below is a brief description and intended purpose of each section of this chapter. For detailed information related to each particular inspection program, refer to the specific section within this chapter.
- B. Section 5-00-00, Time Limits/Maintenance Checks General. This section provides a general overview of inspection requirements.
- C. Section 5-10-01, Inspection Time Intervals. The primary purpose of this section is to provide a central location for inspection <u>time intervals</u>. This section may also be utilized in conjunction with 14 CFR Part 43 to provide greater detail on inspection criteria when performing Annual/100 Hour inspections.
- D. Section 5-11-00, Component Time Limits. This section provides a list of components which are lifeor time-limited. Although these components are not listed in any of Cessna's inspection programs, they must be considered and included in whatever inspection program is used.
- E. Section 5-12-00, Progressive Care Program. This section outlines the progressive inspection program. The program is divided into four primary operations which cover all inspection requirements up through the 200-hour interval inspection items. The remaining operations cover inspections which are at intervals other than what the four primary operations cover. Refer to the Progressive Care Program section for a more detailed description of the Progressive Care Program.

5. General Inspection Terms and Guidelines

- **NOTE:** When inspections criteria is required, this criteria is spelled out in the text. If more detailed instructions are required for an inspection, these instructions will be referenced out to appropriate locations (supplier publications and/or the maintenance manual).
- A. Definitions of terms used through the inspection programs are as follows:
 - (1) ON CONDITION is defined as the necessary inspections and/or checks to determine that a malfunction or failure of the component will not occur prior to the next scheduled inspection.
 - (2) CONDITION is defined as inspection for (but not limited to) cleanliness, cracks, deformation, corrosion, wear, and loose or missing fasteners.
 - (3) SECURITY: Inspect for looseness of fasteners and fastener securing devices such as safety wire, cotter pins and self-locking nuts.
- B. During Inspections, use the following general guidelines:
 - (1) 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.
 - (2) 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 hardness or flexibility and metal lines for corrosion.
 - (3) METAL PARTS: Inspect for security of attachment, cracks, metal distortion, and heat deterioration.
 - (4) WIRING: Inspect for security, chafing, burning, arcing, defective insulation, loose or broken terminals, heat deterioration, and corroded terminals.

CAUTION: Torque values listed in this manual are not to be used for checking tightness of installed parts during service.

- (5) STRUCTURAL FASTENERS: Inspect for correct torque in accordance with applicable torque values. Refer to Chapter 20, Torque Data Maintenance Practices, during installation or when visual inspection indicates the need for a torque check.
- (6) FILTERS, SCREENS, AND FLUIDS: Inspect for cleanliness and the need for replacement at specified intervals.
- (7) A system check (operation or function) that requires electrical power, must be performed using 28.5 Volts, +0.25 or -1.00 Volts, bus voltage. This will make sure that all components are operating at their operational voltage.
- C. 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 airplanes operated outside the United States 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).
 - <u>3</u> Aircraft Radio Station License (Federal Communication Commission Form 556 if transmitter is installed).
 - (b) To be carried in the airplane at all times:
 - <u>1</u> Weight and Balance Data Sheets and associated papers (all copies of the Repair and Alteration Form, FAA Form 337, are applicable).
 - 2 Equipment List.
 - <u>3</u> Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
 - (c) To be made available upon request:
 - <u>1</u> Airplane, Engine and Propeller Logbooks.

AIRWORTHINESS LIMITATIONS - FAA APPROVED DATA

1. Scope

A. The Airworthiness Limitations section is FAA approved and specifies maintenance required under Parts 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

2. Airworthiness Limitations

A. There are no airworthiness limitations associated with this airplane.

INSPECTION TIME INTERVALS

1. General

- A. The primary purpose of this section is to provide inspection time intervals. The section 5-10-01 may be utilized in conjunction with 14 CFR Part 43 inspection scope and detail, but is not intended to be utilized as the primary checklist for inspection of the airplane.
 - **NOTE:** The inspection guidelines contained in this section are not intended to be all-inclusive, for no such charts can replace the good judgment of certified airframe and powerplant mechanics in performance of their duties. As the one primarily responsible for the airworthiness of the airplane, the owner or operator should select only qualified personnel to maintain the airplane.

2. Procedure

- A. A complete airplane inspection includes all inspection items as required by 14 CFR 43, Appendix D, Scope and Detail of annual/100-hour inspections. The chart provided in this section should be used to augment the inspection.
- B. The Component Time Limits section (5-11-00) should be checked in conjunction with this inspection to ensure proper overhaul and replacement requirements are accomplished at the specified times.
- C. The intervals shown are recommended intervals at which items are to be inspected based on normal usage under average environmental conditions. Airplanes operated in extremely humid areas (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.
 - (1) The 14 CFR Part 91 operator's inspection intervals shall not deviate from the inspection time limits shown in this manual except as provided below: (Refer to 14 CFR 91.409)
 - (a) The airplane can only exceed its inspection point up to ten hours if the airplane is enroute to a facility to have the inspection completed.
 - (b) 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 (reschedule if late).
 - (c) 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.
 - (d) In the event of early compliance on 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.

3. Inspection Terms and Guidelines

A. For inspection terms and guidelines, refer to Chapter 5, Time Limits/Maintenance Checks - General.

4. Chart Legend

- A. Each page of the inspection listed in Inspection Time Limits, section 5-10-01 contains the following five columns:
 - (1) REVISION STATUS This column provides the date that a given item was added, deleted or revised. A blank entry in this column indicates no change since the original issue of this manual.
 - (2) INSPECTION ITEM CODE NUMBER This column lists a six-digit number permanently assigned to a scheduled maintenance item. A given inspection item code number will never change and will not be reused in the event the scheduled maintenance item is deleted.
 - (3) TASK This column gives a short description of the inspection and/or servicing procedures. Where a more detailed description of the procedure is necessary, a reference will be made to another selection found in the maintenance manual or a specific reference to a supplier publication. If a task does not refer to a specific model and/or system, then the inspection and/or servicing procedure applies to all equivalent models and/or systems in the airplane.

- (4) INTERVAL This column lists the frequency of inspection in alphabetic coded form. The legend for the alpha code is listed below.
- (5) OPERATION The Progressive Care inspection program allows the work load to be divided into smaller operations that can be accomplished in a shorter time period. This program is detailed in section 5-12-00, which is the Progressive Care Program.
- (6) ZONE This column locates the components within a specific zone. For a breakdown of how the airplane is zoned, refer to Chapter 6, Airplane Zoning Description and Operation.

INTERVAL	OPERATION	INTERVAL DETAILS
Α.	1, 2, 3, 4	Every 50 hours.
В.	1, 2, 3, 4	Every 100 hours.
C.	1, 2, 3, 4	Every 200 hours.
D.	5	Every 400 hours or 1 year, whichever occurs first.
E.		(Not used)
F.	7	Every 600 hours or 1 year, whichever occurs first.
G.		(Not used)
Н.	9	Every 500 hours.
I.	10	Every 1000 hours.
J.	11	Every 2 years.
K.	12	Beginning five years from the date of the manufacture, you must make sure of the serviceability of the components every twelve months. Refer to Airborne Air and Fuel Products Service Letter Number 39A or latest revision.
L.		(Not used)
M.	14	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.
N.	15	Every 2000 hours.
О.	16	Every 1000 hours or 1 year, whichever occurs first.
P.	17	Every 12 calendar months.
Q.	18	Every 6 years.
R.	19	Every 12 years.
S.	20	Every 3 years.
T.	21	Every 1 year.
U.	22	Every 100 hours or every one year, whichever occurs first.
V.	23	Every 100 hours, every annual inspection, every overhaul, and any time fuel lines or clamps are serviced, removed or replaced.
W.	24	First 600 hours and as defined by the manufacturer thereafter.
Χ.	25	Every 1000 hours or 3 years, whichever occurs first.

INSPECTION TIME LIMITS

1. Inspection Items

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Added Apr 1/05	110000	Interior Placards, Exterior Placards, Decals, Markings and Identification Plates - Inspect for security of installation and legibility. Refer to Chapter 11, Placards and Markings - Inspection/Check.	В	1, 2, 3, 4	All
Deleted Apr 5/04	112101				
Deleted Apr 5/04	113101				
	212001	Ventilation System - Inspect clamps, hoses, and valves for condition and security.	D	5	211
Revised Apr 1/05	212002	Primary Flight Display (PFD) Fan and Multi-Function Display (MFD) Fan, Deck Skin Fan, and Remote Avionics Cooling Fan - Operational Check. Refer to Chapter 21, Avionics Cooling - Maintenance Practices.	U	22	220, 225
	214001	Cold and Hot Air Hoses - Check condition, routing, and security.	В	2, 4	120
Revised Aug 3/98	214002	Heater Components, Inlets, and Outlets - Inspect all lines, ducts, clamps, seals, and gaskets for condition, restriction, and security.	В	1, 3	211
Revised Mar 31/00	214003	Cabin Heat and Ventilation Controls - Check freedom of movement through full travel. Check friction locks for proper operation.	В	1, 3	211
	221001	Autopilot Rigging - Refer to Autopilot - Maintenance Practices.	F	7	610
Added Aug 3/98	221002	Autopilot Servo Capstan Assemblies. Check slip-clutch torque settings. Refer to Autopilot - Maintenance Practices.	0	16	610
Added Aug 3/98	221003	Autopilot Servo Actuators. Inspect for evidence of corrosion and or buildup of dirt or other particulate matter which may interfere with servo operation. Refer to Autopilot - Maintenance Practices.	0	16	610
	231001	Communication Antennas and Cables - Inspect for security of attachment, connection, and condition.	С	3	210

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
	235001	Microphones, Headsets, and Jacks - Inspect for cleanliness, security, and evidence of damage.	С	1	211
Added Apr 5/04	235002	Microphone Push-To-Talk Switch - Clean the pilot's and copilot's microphone switches. Refer to Chapter 23, Communication - Maintenance Practices.	В	1, 3	222, 223
Revised Jul 1/10	242001	Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and proper adjustment. Check belt tension.	A	1, 2, 3, 4	120
Added Jul 1/10	242002	Alternator Electrical Connections - Check condition and security. Check for cracks on the shank of terminals connecting to alternator BAT and GND connection posts. Make sure the terminals are not bent or under mechanical stress caused by the routing of the attached wire. Make sure the field wire connector on 95 alternators is secure and firmly latched.	A	1, 2, 3, 4	120
Revised Apr 1/05	243001	Main Battery - Examine the general condition and security. Complete a check of the level of electrolyte. Refer to Chapter 12-17-00.	В	2, 4	120
Revised Apr 1/05	243002	Main Battery Box and Cables - Clean and remove any corrosion. Examine the cables for routing, support, and security of the connections.	В	2, 4	120
	243003	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.	С	1	210
	243004	External Power Receptacle and Power Cables - Inspect for condition and security.	С	2	120
Added Apr 1/05	243005	Standby Battery - Complete the Standby Battery Capacity Test. Refer to Chapter 24, Standby Battery - Maintenance Practices.	Т	21	220
	246001	Switch and Circuit Breaker Panel, Terminal Blocks, and Junction Boxes - Inspect wiring and terminals for condition and security.	С	1	222
Revised Sep 15/00	246002	Power Junction Box - Check operation and condition. Check availability and condition of spare fuse (if applicable).	В	1, 3	222

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Added Jul 3/06	246003	Alternator Control Unit - Complete the Over-voltage Protection Circuit Test. Refer to Chapter 24, Alternator Control Unit.	J	11	222
Revised Apr 1/05	246101	Essential and Crossfeed Bus Diodes - Check for proper operation. Complete the Essential and Crossfeed Bus Diode Inspection. Refer to Chapter 24, Essential and Crossfeed Bus Diodes - Maintenance Practices.	Т	21	224
Revised Jul 3/06	251001	Seats - Examine the seats to make sure they are serviceable and installed correctly. Make sure the seat stops and adjustment mechanism operate correctly. Examine the seat recline control and attaching hardware to make sure the hardware and lock are not damaged and are correctly installed. Lubricate the threads of the Seat Crank Handle Assembly with MIL-PRF-81322 general purpose grease.	В	1, 3	211
	251002	Seat Tracks and Stops - Inspect seat tracks for condition and security of installation. Check seat track stops for damage and correct location. Inspect seat rails for cracks.	В	2, 4	230
	251101	Restraint System, front and rear - Check belts for thinning, fraying, cutting, broken stitches, or ultra-violet deterioration. Check system hardware for security of installation.	В	1, 3	211
Revised Mar 1/09	251102	AMSAFE Aviation Inflatable Restraint (AAIR) - Examine the restraint for dirt, frayed edges, unserviceable stitching, loose connections, and other wear. Refer to Chapter 25, Inflatable Restraint System - Maintenance Practices, and do the Inflatable Restraint System Inspection and the Inflatable Restraint System Adjustment/Test.	Т	21	211
	252201	Upholstery, Headliner, Trim, and Carpeting - Check condition and security.	D	5	211

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Jan 2/06	256001	Emergency Locator Transmitter - Examine for security of attachment and check operation by verifying transmitter output. Check cumulative time and useful life of batteries in accordance with 14 CFR Part 91.207.	В	1, 3	310
	262001	Portable Hand Fire Extinguisher - Inspect for proper operating pressure, condition, security of installation, and servicing date.	В	1, 3	230
Added Aug 3/98	262002	Cockpit Mounted Halon Type Fire Extinguisher - Weigh bottle. Bottle must be reserviced by qualified individual if more than 2 ounces is lost.	Ρ	17	211
Added Aug 3/98	262003	Cockpit Mounted Halon Type Fire Extinguishers - Perform hydrostatic test. The hydrostatic test shall be at twelve-year intervals based on initial servicing or date of last hydrostatic test.	R	19	211
Added Aug 3/98	262004	Cockpit Mounted Halon Type Fire Extinguishers - Empty, inspect for damage, and recharge.	Q	18	211
Revised Mar 31/00	271001	Aileron Controls - Check freedom of movement and proper operation through full travel.	В	1, 3	120, 520, 620
	271002	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.	C	3	120, 520, 620
	271003	Aileron Structure, Control Rods, Hinges, Balance Weights, Bell Cranks, Linkage, Bolts, Pulleys, and Pulley Brackets - Check condition, operation, and security of attachment.	В	1, 3	520, 620
	271004	Ailerons and Hinges - Check condition, security, and operation	В	1, 3	520, 620
	271005	Control Wheel Lock - Check general condition and operation.	С	1	222
Revised Aug 3/98	271006	Control Linkage - Inspect pulleys, cables, bearings, and turnbuckles for condition and security.	С	1	222, 223
	272001	Rudder - Check internal surfaces for corrosion, condition of fasteners, and balance weight attachment.	С	3	340

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Mar 31/00	272002	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 balance weight for looseness and the supporting structure for damage.	В	1, 3	340
Revised Aug 3/98	272003	Rudder, Tips, Hinges, Stops, Clips and Cable Attachment - Check condition, security, and operation.	В	1, 3	340
	272004	Rudder Pedals and Linkage - Check for general condition, proper rigging, and operation. Check for security of attachment.	С	1	230
Added Aug 3/98	272005	Rudder Control - Check freedom of movement and proper operation through full travel. Check rudder stops for damage and security.	В	1, 3	340
Revised Aug 3/98	273001	Elevator Control - Check freedom of movement and proper operation through full travel.	В	1, 3	222, 223
Revised Mar 31/00	273002	Elevator Control System - Inspect pulleys, cables, sprockets, bearings, chains, and turnbuckles for condition, security, and operation. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety.	В	1, 3	222, 223
Revised Aug 3/98	273003	Elevator, Hinges, Stops, and Cable Attachment - Check condition, security, and operation.	В	1, 3	320, 330
Added Aug 3/98	273004	Elevator Downspring - Check structure, bolts, linkage, bellcrank, and push-pull tube for condition, operation, and security. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety. Check travels if cables require tension adjustment or if stops are damaged.	В	1, 3	310
	273101	Elevator Trim System - Check cables, push-pull rods, bell cranks, pulleys, turnbuckles, fairleads, rub strips, etc. for proper routing, condition, and security.	В	1, 3	224, 240, 310

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Mar 31/00	273102	Elevator Trim Control and Indicator - Check freedom of movement and proper operation through full travel. Check pulleys, cables, sprockets, bearings, chains, and turnbuckles for condition and security. Check electric trim controls for operation as applicable. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety.	C	1	224, 240, 310
	273103	Elevator Trim Tab and Hinges - Check condition, security, and operation.	В	1, 3	224
Revised Jul 3/06	273104	Elevator Trim Tab Actuator - Examine the free play limits. Refer to Chapter 27, Elevator Trim Control - Maintenance Practices, Trim Tab Free Play Inspection. If the free play is more than the permitted limits, lubricate the actuator and examine the free play limits again. If the free play is still more than the permitted limits, replace the actuator.	В	1, 3	320
Deleted Aug 3/98	273105				
	273106	Elevator Trim Tab Stop Blocks - Inspect for damage and security.	С	1	240
Added Jul 3/06	273107	Elevator Trim Tab Actuator - Remove, clean, examine, and lubricate the actuator. Refer to Chapter 27, Elevator Trim Control - Maintenance Practices.	х	25	320
Revised Aug 3/98	275001	Flaps - Check tracks, rollers, and control rods for security of attachment. Check rod end bearings for corrosion. Check operation.	В	1, 3	510, 610
	275002	Wing Flap Control - Check operation through full travel and observe Flap Position indicator for proper indication.	С	1	221
	275003	Flap Structure, Linkage, Bellcranks, Pulleys, and Pulley Brackets - Check for condition, operation and security.	С	3	510, 610
	275004	Flaps and Cables - Check cables for proper tension, routing, fraying, corrosion, and turnbuckle safety. Check travel if cable tension requires adjustment.	С	3	510, 610
Revised Aug 3/98	275005	Flap Motor, Actuator, and Limit Switches - Check wiring and terminals for condition and security. Check actuator for condition and security.	C	3	610

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Aug 3/98	275006	Flap Actuator Threads - Clean and lubricate. Refer to Chapter 12-21-03.	В	1, 3	610
	282001	Fuel System - Inspect plumbing and components for mounting and security.	В	1, 3	510, 610
Revised Aug 3/98	282002	Fuel Tank Vent Lines and Vent Valves - Check vents for obstruction and proper positioning. Check valves for operation.	В	1, 3	510, 610
	282003	Fuel Selector Valve - Check controls for dentent in each position, security of attachment, and for proper placarding.	В	1, 3	224
Revised Aug 3/98	282004	Integral Fuel Bays - Check for evidence of leakage and condition of fuel caps, adapters, and placards. Using quick drains, ensure no contamination exists. Check quick drains for proper shut off.	В	1, 3	510, 610
	282005	Fuel Reservoir - Using quick drain, ensure no contamination exists.	В	1, 3	510, 610
	282006	Fuel Selector - Using quick drain, ensure no contamination exists.	В	1, 3	224
	282007	Fuel Strainer, Drain Valve, and Controls - Check freedom of movement, security, and proper operation. Disassemble, flush, and clean screen and bowl.	В	1, 3	510, 610
Deleted Mar 1/09	282008				
Revised Apr 1/05	282009	Integral Fuel Bays - Drain the fuel (Refer to Chapter 12, Fuel - Servicing) and purge the tanks (Refer to the Single Engine Structural Repair Manual, 1996 and On). Complete an inspection of the tank interior and outlet screens and remove any foreign object debris. Complete an inspection of the tank interior surfaces for sealant deterioration and corrosion (especially in the sump areas).	Ι	10	510, 610
Revised Sep 15/00	282010	Auxiliary (Electric) Fuel Pump - Check pump and fittings for condition, operation, security.	В	2, 4	120
Revised Jul 1/10	284001	Fuel Quantity Indication System Check (Airplanes without Garmin G1000) - Examine for damage and correct installation. Complete a Fuel Quantity Calibration and Check. Refer to Chapter 28, Fuel Quantity Indication System - Adjustment/Test.	X	25	220, 510, 610

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Jul 1/10	284002	Fuel Quantity Indication System Check (Airplanes with Garmin G1000) - Examine for damage and correct installation. Complete a Fuel Quantity System Check. Refer to Chapter 28, Fuel Quantity Indication System - Adjustment/Test.	X	25	220, 510, 610
	311001	Instruments - Check general condition and markings for legibility.	В	1, 3	220
Deleted Apr 1/05	311002				
	311003	Instrument Lines, Fittings, Ducting, and Instrument Panel Wiring - Check for proper routing, support, and security of attachment.	С	1	220
Revised Mar 1/09	321001	Main Landing Gear Wheel Fairings and Brake Fairings - Check for cracks, dents, condition of paint, and correct scraper clearance.	В	2, 4	721,722
Revised Apr 1/05	321002	Main Gear Spring Assemblies - Examine for cracks, dents, corrosion, condition of paint or other damage. Examine for chips, scratches, or other damage that lets corrosion get to the steel spring. Examine the axles for condition and security.	В	2, 4	721, 722
	321003	Main Landing Gear Attachment Structure - Check for damage, cracks, loose rivets, bolts and nuts and security of attachment.	В	2, 4	721, 722
	322001	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.	В	2, 4	720
	322002	Nose Landing Gear Wheel Fairings - Check for cracks, dents, and condition of paint.	В	2, 4	720
	322003	Nose Gear Fork - Inspect for cracks, general condition, and security of attachment.	С	4	720
	322004	Nose Gear Attachment Structure - Inspect for cracks, corrosion, or other damage and security of attachment.	В	2, 4	720

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
	324001	Brakes - Test toe brakes and parking brake for proper operation.	В	2, 4	230
Revised Aug 3/98	324002	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. Refer to Chapter 12-13-00 for servicing instructions.	В	2, 4	224, 230
	324003	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.	D	5	721, 722
	324004	Tires - Check tread wear and general condition. Check for proper inflation.	В	2, 4	720, 721, 722
	324005	Wheels, Brake Discs, and Linings - Inspect for wear, cracks, warps, dents, or other damage. Check wheel through-bolts and nuts for looseness.	В	2, 4	721, 722
Revised Aug 3/98	324006	Wheel Bearings - Clean, inspect and lube.	В	4	720, 721, 722
	325001	Nose Gear Steering Mechanism - Check for wear, security, and proper rigging.	С	4	720
	331001	Instrument and Cabin Lights - Check operation, condition of lens, and security of attachment.	В	1, 3	220, 211, 221
	334001	Navigation, Beacon, Strobe, and Landing Lights - Check operation, condition of lens, and security of attachment.	В	1, 3	340, 520, 620
	341101	Static System - Inspect for security of installation, cleanliness, and evidence of damage.	С	3	210
Revised Jan 2/06	341102	Pitot and Static System - Examine in accordance with 14 CFR Part 91.411.	J	11	220
	341103	Pitot Tube and Stall Warning Vane - Check for condition and obstructions and verify operation of anti-ice heat.	A	1, 2, 3, 4	510
	342101	Magnetic Compass - Inspect for security of installation, cleanliness, and evidence of damage.	С	1	225
Revised Aug 3/98	342102	Magnetic Compass - Calibrate.	Μ	14	220

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Aug 3/98	345001	Instrument Panel Mounted Avionics Units (Including Audio Panel, VHF Nav/Com(s), ADF, GPS, Transponder, 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.	C	1	225
	345002	Avionics Operating Controls - Inspect for security and proper operation of controls and switches and ensure that all digital segments will illuminate properly.	С	1	225
	345003	Navigation Indicators, Controls, and Components - Inspect for condition and security.	С	1	220, 225
	345004	Navigation Antennas and Cables - Inspect for security of attachment, connection, and condition.	С	1	310
Revised Mar 31/00	351001	Oxygen System (if applicable) - Inspect masks, hoses, lines, and fittings for condition, routing, and support. Test operation and check for leaks.	С	1	211
Revised Mar 31/00	351002	Oxygen Cylinder (if applicable) - Inspect for condition, check hydrostatic test date and perform hydrostatic test, if due.	S	20	211
	371001	Vacuum System - Inspect for condition and security.	В	2, 4	120
	371002	Vacuum Pumps - Check for condition and security. Check vacuum system breather line for obstructions, condition, and security.	В	2, 4	120
	371003	Vacuum System Hoses - Inspect for hardness, deterioration, looseness, or collapsed hoses.	В	2, 4	120
Revised Aug 3/98	371004	Gyro Filter - Inspect for damage, deterioration and contamination. Clean or replace if required.	В	2, 4	120
Revised Aug 3/98	371005	Regulator Valve and Filter - Inspect valve assembly for security of installation. Visually inspect filter for damage, deterioration and contamination. Clean or replace if required.	В	2, 4	120

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Apr 1/05	371006	Vacuum Manifold Check Valve - Complete a check for the proper operation. (Only airplanes with dual vacuum pumps or Airborne manifolds. Refer to the Airborne Air & Fuel Products Service Letter Number 39A or latest revision, and in accordance with SB02-37-04.) Refer to Chapter 37, Vacuum System - Maintenance Practices for the removal and installation procedures for the check valve.	K	12	120
Revised Jan 2/06	371007	Do an inspection of the wear indicator ports on the vacuum pump described in the Tempest Service Letter 004.	W	24	120
	521001	Doors - Inspect general condition. Check latches, hinges, and seals for condition, operation, and security of attachment.	В	1, 3	210
	531001	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.	В	1, 3	210
Revised Mar 31/00	531002	Firewall Structure - Inspect for wrinkles, damage, cracks, sheared rivets, etc.	С	2	120
_	531003	Internal Fuselage Structure - Inspect bulkheads, doorposts, stringers, doublers, and skins for corrosion, cracks, buckles, and loose rivets, bolts and nuts.	С	1	211
Revised Aug 3/98	551001	Horizontal Stabilizer and Tailcone structure - Inspect bulkheads, spars, ribs, and skins, for cracks, wrinkles, loose rivets, corrosion, or other damage. Inspect horizontal stabilizer attach bolts for looseness. Retorque as necessary. Check security of inspection covers, fairings, and tips.	В	1, 3	320, 330
Revised Aug 3/98	551002	Horizontal Stabilizer and Tips - Inspect externally for skin damage and condition of paint.	В	1, 3	320, 330
Revised Aug 3/98	553001	Vertical Stabilizer Fin - Inspect bulkheads, spars, ribs, and skins for cracks, wrinkles, loose rivets, corrosion, or other damage. Inspect vertical stabilizer attach bolts for looseness. Retorque as necessary. Check security of inspection covers, fairings, and tip.	В	1, 3	340

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Aug 3/98	553002	Vertical Stabilizer Fin and Tailcone - Inspect externally for skin damage and condition of paint.	В	1, 3	340
	561001	Windows and Windshield - Inspect general condition. Check latches, hinges, and seals for condition, operation, and security of attachment.	В	1, 3	210
	571001	Wing Surfaces and Tips - Inspect for skin damage, loose rivets, and condition of paint.	В	1, 3	510, 520, 610, 620
	571002	Wing Struts and Strut Fairings - Check for dents, cracks, loose screws and rivets, and condition of paint.	В	1, 3	510, 610
	571003	Wing Access Plates - Check for damage and security on installation.	С	3	510, 520, 610, 620
	571004	Wing Spar and Wing Strut Fittings - Check for evidence of wear. Check attach bolts for indications of looseness and retorque as required.	С	3	510, 520, 610, 620
	571005	Wing Structure - Inspect spars, ribs, skins, and stringers for cracks, wrinkles, loose rivets, corrosion, or other damage.	С	3	510, 520, 610, 620
Revised Jan 5/04	611001	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.	A	1, 2, 3, 4	110
	611002	Spinner and Spinner Bulkhead - Remove spinner, wash, and inspect for cracks and fractures.	В	2, 4	110
	611003	Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.	A	1, 2, 3, 4	110
	611004	Propeller Hub - Check general condition.	С	2	110
	611005	Propeller Mounting - Check for security of installation.	А	1, 2, 3, 4	110
	611006	Propeller Mounting Bolts - Inspect mounting bolts and safety wire for signs of looseness. Retorque mounting bolts as required.	С	2	110
Added Aug 3/98	611007	Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check.	А	1, 2, 3, 4	110

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Added Aug 3/98	612001	Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.	A	1, 2, 3, 4	110
Revised Apr 1/05	612002	Propeller Governor and Control - Examine the security and operation of the controls. The maximum linear freeplay is 0.050 inch.	С	2	110
Added Aug 3/98	710001	Turbocharger (if applicable) - Inspect turbocharger mounting brackets, ducting, linkage, and attaching parts for general condition, leakage or damage, and security of attachment. Check waste gate, actuator, controller, oil and vent lines, overboost relief valve, and compressor housing for leakage, apparent damage, security of attachment, and evidence of wear. Check waste gate return spring for condition and security.	A	1, 2, 3, 4	120
Revised May 5/03	710002	Turbocharger (if applicable) - Examine the turbocharger for burned areas, bulges, or cracks. Use a flashlight and mirror in the tailpipe to examine the turbine for coking, carbonization, oil deposits, and turbine impellers for damage.	C	2	120
Added May 5/03	710003	Remove the engine compressor inlet duct. Examine the compressor for blade condition on the impeller and oil deposits in the turbocharger. Make sure the compressor turns freely.	С	2	120
Revised Aug 3/98	711001	Cowling and Cowl Flaps - Inspect for cracks, dents, other damage and security of cowl fasteners. Check cowl flaps for condition, security, and operation. Check cowl flap controls for freedom of movement through full travel.	A	1, 2, 3, 4	120
	712001	Engine Shock Mounts, Engine Mount Structure, and Ground Straps - Check condition, security, and alignment.	С	2	120
	716001	Alternate Induction Air System - Check for obstructions, operation, and security.	A	1, 2, 3, 4	120
	716002	Induction System - Check security of clamps, tubes, and ducting. Inspect for evidence of leakage.	A	1, 2, 3, 4	120

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Sep 15/00	716003	Induction Airbox, Valves, Doors, and Controls - Remove air filter and inspect hinges, doors, seals, and attaching parts for wear and security. Check operation.	В	2, 4	120
	716004	Induction Air Filter - Remove and clean. Inspect for damage and service.	А	2, 4	120
Added Jan 2/06	720000	Fuel line (Stainless steel tube assembly) and support clamp inspection and installation. Refer to Lycoming Service Bulletin Number 342E or later version.	V	23	120
	722001	Engine - Inspect for evidence of oil and fuel leaks. Wash engine and check for security of accessories.	A	1, 2, 3, 4	120
	722002	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.	В	2, 4	120
	722003	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.	A	1, 2, 3, 4	120
	723001	Engine Cylinders, Rocker Box Covers, and Pushrod Housings - Check for fin damage, cracks, oil leakage, security of attachment, and general condition.	В	2, 4	120
	723002	Engine Metal Lines, Hoses, Clamps, and Fittings - Check for leaks, condition, and security. Check for proper routing and support.	С	2	120
	723003	Engine Baffles and Seals - Check condition and security of attachment.	А	1, 2, 3, 4	120
Revised Apr 1/05	723004	Cylinder Compression - Complete a differential compression test. If there is weak cylinder compression, refer to Chapter 71, Engine - Troubleshooting, for further procedures.	В	2, 4	120
	730001	Engine-Driven Fuel Pump - Check for evidence of leakage, security of attachment, and general condition.	В	2, 4	120

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
	730002	Fuel Injection System - Check system for security and condition. Clean fuel inlet screen, check and clean injection nozzles and screens (if evidence of contamination is found), and lubricate air throttle shaft.	В	2, 4	120
Added Apr 18/01	730003	Idle and Mixture Adjustment - Check idle speed and idle mixture (lean rise). Adjust if necessary. Refer to Chapter 73-00-01, Idle and Mixture Adjustment.	U	22	120
Revised Mar 1/09	741001	Magnetos - Examine the external condition and for correct installation. Examine the condition of the electrical leads. Complete a check of the engine timing (external timing). Refer to Chapter 74-10-00, Ignition System - Maintenance Practices.	В	2, 4	120
Revised Jul 3/06	741002	Magnetos - Clean, examine, and adjust as necessary. Do the 500-hour inspection in accordance with the Slick 4300/6300 Series Magneto Maintenance and Overhaul Manual.	Н	9	120
	742001	Ignition Harness and Insulators - Check for proper routing, deterioration, and condition of terminals.	В	2, 4	120
	742002	Spark Plugs - Remove, clean, analyze, test, gap, and rotate top plugs to bottom and bottom plugs to top.	В	2, 4	120
	743001	Ignition Switch and Electrical Harness - Inspect for damage, condition, and security.	В	2, 4	120
Revised Sep 15/00	743002	Inspect and lubricate ACS brand ignition switch. Refer to Chapter 74, Ignition System - Maintenance Practices.	N	15	224
Revised Apr 1/05	761001	Engine Controls and Linkage - Examine the general condition and freedom of movement through the full range. Complete a check for the proper travel, security of attachment, and for evidence of wear. Complete a check of the friction lock and vernier adjustment for proper operation. Complete a check that the throttle, fuel mixture, and propeller governor arms operate through their full arc of travel. The maximum linear freeplay is 0.050 inch.	В	1, 2, 3, 4	120, 225

REVISION STATUS	ITEM CODE NUMBER	TASK	INTERVAL	OPERATION	ZONE
Revised Aug 3/98	781001	Exhaust System - Inspect for cracks and security. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust system - Maintenance Practices.	A	1, 2, 3, 4	120
Added Aug 3/98	781002	Exhaust System (turbocharged engine) - Inspect couplings, seals, clamps, and expansion joints for cracks. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust System - Maintenance Practices. Note: This inspection is specifically required for German (LBA) certification.	A	1, 2, 3, 4	120
Added May 5/03	781003	Do an inspection on the multi-segment V-Band coupling clamps. Refer to Chapter 78, Exhaust System (Turbocharged) - Maintenance Practices.	A	1, 2, 3, 4	120
Revised Sep 15/00	791001	Engine Oil - Drain oil sump and oil cooler. Check for metal particles or foreign material in filter, on sump drain plug, and on engine suction screen. Refer to Textron Lycoming Service Bulletin #480C or latest revision. Replace filter, and refill with recommended grade aviation oil.	A	1, 2, 3, 4	120
	792001	Oil Cooler - Check for obstructions, leaks, and security of attachment.	А	1, 2, 3, 4	120
Revised Mar 31/00	801001	Starter and Electrical Connections - Check security and condition of starter, electrical connection, and cable.	В	2, 4	120
Added Apr 1/02	801002	Bendix Drive Starter Assembly - Clean and lubricate starter drive assembly.	A	1, 2, 3, 4	120

COMPONENT TIME LIMITS

1. General

- A. Most components given in Chapter 5 must be examined as shown elsewhere in this chapter and repaired, overhauled, or replaced as necessary. Some components have a time or life limit and must be overhauled or replaced on or before the specified limit.
- B. The terms overhaul and replacement as used within this section are defined as follows:
 - (1) Overhaul Overhaul the item as given in 14 CFR 43.2 or replace it.
 - (2) Replacement Replace the item with a new item or a serviceable item that is within its service life and time limits or has been rebuilt as given in 14 CFR 43.2.
- C. This section (5-11-00) gives a list of items which must be overhauled or replaced at specific time limits. Cessna-Supplied Replacement Time Limits shows those items which Cessna has found necessary to overhaul or replace at specific time limits. Supplier-Supplied Replacement Time Limits shows component time limits which have been given by an outside supplier for their products. In addition to these time limits, the components shown in this section are also examined at regular time intervals given in the Inspection Time Intervals section. If necessary, based on service use and inspection results, these components can be overhauled or replaced before their time limit is reached.

2. Cessna-Supplied Replacement Time Limits

- A. Equipment/Furnishings (Chapter 25).
 - (1) 504516-401-XXXX Restraint System, Pilot's Left Hand or Right Hand Auto Adjust Replace every 10 years.
 - (2) 504851-401-XXXX Restraint System, Pilot's Left Hand or Right Hand Manual Adjust Replace every 10 years.
 - (3) 504516-405-XXXX Restraint System, Passenger Auto Adjust Replace every 10 years.
 - (4) 504851-405-XXXX Restraint System, Passenger Manual Adjust Replace every 10 years.
 - (5) 504516-403-XXXX Restraint System, Aft Bench Left Hand or Right Hand Auto Adjust Replace every 10 years.
 - (6) 504851-403-XXXX Restraint System, Aft Bench Left Hand or Right Hand Manual Adjust -Replace every 10 years.
 - (7) 2000031-09-203 Restraint Assembly, Pilot's Seat Replace every 10 years.
 - (8) 2000031-10-203 Restraint Assembly, Copilot's Seat Replace every 10 years.
 - (9) 2000031-11-203 Restraint Assembly, Right Rear Seat Replace every 10 years.
 - (10) 2000031-13-203 Restraint Assembly, Right Center Seat Replace every 10 years.
 - (11) 2000031-14-203 Restraint Assembly, Left Center Seat Replace every 10 years.
 - (12) 2000031-12-203 Restraint Assembly, Left Rear Seat Replace every 10 years.
- B. Flight Controls (Chapter 27).
 - (1) 1260149-1 Trim Tab Actuator Replace the trim tab actuators when the free play cannot be kept in limits by the adjustment or replacement of the rod ends, rod end bolts, screw assembly, and the lubrication of the trim tab actuator.
 - (2) 1260149-2 Trim Tab Actuator (with dual axis autopilot) Replace the trim tab actuators when the free play cannot be kept in limits by the adjustment or replacement of the rod ends, rod end bolts, screw assembly, and the lubrication of the trim tab actuator.
- C. Oxygen (Chapter 35).
 - (1) 020N0002-1 Passenger Mask Replace after 200 hours of use.
 - (2) 020N0005-1 Pilot Microphone Mask Replace after 500 hours of use.
 - (3) 020N0001-1 Oxymizer Cannula Replace after 200 hours of use.
- D. Vacuum (Chapter 37).
 - (1) C294502-0201 Gyro Filter Replace at 600 hours.
- E. Propeller (Chapter 61).
 - (1) 165-510-504 Propeller Control Cable Replace at engine TBO.

- F. Powerplant (Chapter 71).
 - (1) Engine Compartment Flexible Fluid-Carrying Teflon Hoses (Cessna-Installed), Except Drain Hoses Replace every 10 years or at the engine overhaul, whichever occurs first.
 - **NOTE:** This life limit is intended not to let flexible, fluid-carrying Teflon hoses in a deteriorated or damaged condition stay in service. Replace the flexible, fluid-carrying Teflon hoses in the engine compartment (Cessna-installed only) every 10 years or at the engine overhaul, whichever occurs first. This does not include drain hoses. Serviceable hoses which are beyond these limits must be put on order immediately and replaced within 30 days after the new hose is received from Cessna.
 - (2) Engine Compartment Drain Hoses Replace on condition.
 - (3) Engine Flexible Hoses (Textron Lycoming Installed) Refer to latest Textron Lycoming Engine Service Bulletins.
 - (4) 1250704-4 Air Filter (206) Replace every 500 hours or if the condition of the part shows the need for replacement.
 - (5) P197268 Air Filter (T206) Replace every 500 hours or if the condition of the part shows the need for replacement.
 - (6) Mixture and Throttle Cables Replace at every engine TBO.
 - (7) 31B22101 Engine Starter Replace at every engine TBO.
 - (8) Engine Shock Mounts Replace at every engine TBO or if the condition of the part shows the need for replacement.
- G. Chapter 79 (Oil).
 - (1) 83278 Oil Pressure Switch Replace every 3000 hours.
 - **NOTE:** If the 83278 Oil Pressure Switch has more than 3000 hours and is in serviceable condition, you must submit an order for a new switch immediately and replace the switch within 60 days after you receive it from Cessna.

3. Supplier-Supplied Replacement Time Limits

- A. Chapter 25 (Equipment/Furnishings).
 - (1) 2020-0 Pointer ELT Battery Refer to 14 CFR 91.207 for battery replacement time limits.
 - (2) 508358-409 and 508358-421 AMSAFE Aviation Inflatable Restraint (AAIR) Forward and Aft Electronics Module Assemblies (EMA) - Remove and return the forward and aft EMA's to AMSAFE Aviation after seven years from the manufacture date. The expiration of the service life, that is the total sum of storage life and installation life, must not be more than seven years from the manufacture date. Only the manufacturer can renew the EMA's.
 - (3) 508792-401 and 508794-401 Pilot's, Copilot's, Left Passenger's, and Right Passenger's AMSAFE Aviation Inflatable Restraint (AAIR) Inflator Assemblies Remove and replace the pilot's, copilot's, left passenger's, and right passenger's inflator assemblies after ten years from the date of manufacture. The total service life, that is the sum of the storage life and installation life, must not be more than ten years from the date of manufacture. The date of manufacture is found on the gas cylinder. If the cylinder has an expiration date as an alternative to a date of manufacture on it, calculate the date when the inflator assembly must be replaced. Add three years to the expiration date. This is the date the inflator assembly must be replaced. (For additional information refer to AMSAFE service letter SL 25-031.)
 - (4) 452-201-[X] Remote Mounted CO Detector Replace 7 years.
- B. Chapter 28 (Fuel).
 - (1) Weldon Model A10056-5 and A-10055-B Electric Fuel Pumps Replace at 10 Years if not overhauled.
- C. Chapter 37 (Vacuum).
 - (1) 1H5-25 Vacuum Manifold Refer to Airborne Air & Fuel Product Reference Memo No. 39 or the latest revision for replacement time limits.
 - (2) B3-5-1 or ARB3-5-1 Regulator Valve Filter Replace at 100 hours.

- (3) Dry Vacuum Pump Replace the engine-driven vacuum pump, if it does not have a wear indicator, every 500 hours of operation, or replace the pump at the vacuum pump manufacturer's recommended inspection and replacement interval, whichever occurs first. For vacuum pumps with a wear indicator, replace the pump at the manufacturer's recommended inspection and replacement interval for that vacuum pump.
- (4) Airborne 350 Vacuum Pump Coupling Replace every 6 years.
- D. Chapter 61 (Propeller).
 - (1) Propeller Refer to the latest revision of McCauley Service Bulletin 137 for the overhaul time limits.
 - (2) C161031-0121(206), C161031-120 (T206) Propeller Governor Any governor damaged by a propeller blade strike, propeller or engine lightning strike, engine detonation, oil contamination, or sudden engine stop must not be returned to service. All such parts must be repaired or overhauled. Refer to McCauley Service Bulletin 215C or latest revision.
- E. Chapter 71 (Powerplant).
 - (1) IO-540-AC1A5 (206), IO-540-AJ1A (T206) Engine Refer to Textron/Lycoming Service Instruction S.I. 1009AJ or latest revision for time limits.
 - (2) CH48110 Engine Oil Filter Refer to Textron/Lycoming Service Instructions S.I. 1492B, S.I. 1267C, and Service Bulletin SB.480C, or latest revisions.
- F. Chapter 74 (Ignition).
 - (1) 4371 Slick Magnetos Refer to Slick Service Bulletin SB2-80C, or latest revision, for time limits.

PROGRESSIVE CARE PROGRAM

1. General

- **NOTE:** The inspection charts contained within the Progressive Care Program 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 the airworthiness of the airplane, the owner or operator should select only qualified personnel to maintain the airplane.
- A. The program is divided into four primary operations (operations 1 through 4) which cover all 50hour, 100-hour and 200-hour inspection requirements. The remaining operations include all of the inspection requirements due at other intervals.
- B. The inspection program is divided into operations to enable the progressive inspection to be accomplished.
 - Operation 1 Consists of all 50-hour interval inspections items and those 100- or 200-hour interval inspections items contained in the fuselage area.
 - Operation 2 Consists of all 50-hour interval inspections items and those 100- or 200-hour interval inspections items contained in the engine compartment area.
 - Operation 3 Consists of all 50-hour interval inspections items and those 100- or 200-hour interval inspections items contained in the wing.
 - Operation 4 Consists of all 50-hour interval inspections items and those 100- or 200-hour interval inspections items contained in the landing gear.
 - Operation 5 Every 400 hours or 1 year, whichever occurs first.
 - Operation 6 First 100 hours and each 500 hours thereafter (NOT CURRENTLY USED).
 - Operation 7 Every 600 hours or 1 year, whichever occurs first.
 - Operation 8 Every 1000 hours or 3 years, whichever occurs first (NOT CURRENTLY USED).
 - Operation 9 Every 500 hours.
 - Operation 10 Every 1000 hours.
 - Operation 11 Every 2 years.
 - Operation 12 Beginning 5 years from the date of the manufacture, you must make sure of the serviceability of the components every twelve months. Refer to Airborne Air and Fuel Products Service Letter Number 39A or latest revision.
 - Operation 13 Every 50 hours or 4 months, whichever comes first (NOT CURRENTLY USED).
 - Operation 14 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.
 - Operation 15 Every 2000 hours.
 - Operation 16 Every 1000 hours or 1 year, whichever occurs first.
 - Operation 17 Every 12 calendar months.
 - Operation 18 Every 6 years.
 - Operation 19 Every 12 years.
 - Operation 20 Every 3 years.
 - Operation 21 Every 1 year.

Operation 22 - Every 100 hours or every one year, whichever occurs first.

Operation 23 - Every 100 hours, every annual inspection, every overhaul, and any time fuel lines or clamps are serviced, removed or replaced.

Operation 24 - First 600 hours and as defined by the manufacturer thereafter.

Operation 25 - Every 1000 hours or 3 years, whichever occurs first.

2. Procedure

- A. A COMPLETE AIRPLANE INSPECTION includes all 50-, 100- and 200-hour items <u>plus those</u> <u>Inspection Items contained in other operations which are due at the specified time</u>.
- B. The Component Time Limits Section (5-11-00) should be checked at each inspection interval to ensure proper overhaul and replacement requirements are accomplished at the specified times.
- C. The Inspection Operations have been developed based on normal usage under average environmental conditions. Airplanes operated in extremely humid areas (tropics), or in exceptionally cold, damp climates, etc., may need more frequent inspections for wear, corrosion, and lubrication. Under these adverse conditions, do the periodic inspections in compliance with the Inspection Operations at more frequent intervals until the operator can set his own inspection periods based on field experience. The operator's inspection intervals must not deviate from the inspection time limits shown in this manual except as given below:
 - (1) Each inspection interval can be exceeded by 10 hours (if time-controlled), or by 30 days (if datecontrolled), or can be performed early at any time prior to the regular interval as provided below:
 - (a) 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.
 - (b) 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.
 - (c) In the event of early compliance of any operation scheduled, that occurs more than 10 hours ahead of schedule, the next operation due point must be rescheduled to establish a new due point from the time of early accomplishment.

3. Inspection Terms and Guidelines

A. For inspection terms and guidelines, refer to Time Limits/Maintenance Checks - General.

INSPECTION OPERATION 1

Date:	
Registration Number:	

Serial Number:	
Total Time:	

1. Description

- A. Operation 1 gives a list of item(s), which has all 50-hour interval inspection items and those 100- or 200-hour interval inspection items contained in the fuselage area. Items from other areas are included to meet their required time interval.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

TASK	ZONE	MECH	INSP	REMARKS
Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.	110			
Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.	110			
Propeller Mounting - Check for security of installation.	110			
Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check.	110			
Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.	110			
Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and proper adjustment. Check belt tension.	120			
	 Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades. Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage. Propeller Mounting - Check for security of installation. Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check. Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual. Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and 	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.110Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.110Propeller Mounting - Check for security of installation.110Propeller Heat Slip Rings, Brushes, and Boots operational check.110Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.110Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and120	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.110Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.110Propeller Mounting - Check for security of installation.110Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check.110Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.120	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.110Propeller Blades - Inspect for cracks, dents, nicks,

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
242002	Alternator Electrical Connections - Check condition and security. Check for cracks on the shank of terminals connecting to alternator BAT and GND connection posts. Make sure the terminals are not bent or under mechanical stress caused by the routing of the attached wire. Make sure the field wire connector on 95 alternators is secure and firmly latched.	120			
710001	Turbocharger (if applicable) - Inspect turbocharger mounting brackets, ducting, linkage, and attaching parts for general condition, leakage or damage, and security of attachment. Check waste gate, actuator, controller, oil and vent lines, overboost relief valve, and compressor housing for leakage, apparent damage, security of attachment, and evidence of wear. Check waste gate return spring for condition and security.	120			
711001	Cowling and Cowl Flaps - Inspect for cracks, dents, other damage and security of cowl fasteners. Check cowl flaps for condition, security, and operation. Check cowl flap controls for freedom of movement through full travel.	120			
716001	Alternate Induction Air System - Check for obstructions, operation, and security.	120			
716002	Induction System - Check security of clamps, tubes, and ducting. Inspect for evidence of leakage.	120			
722001	Engine - Inspect for evidence of oil and fuel leaks. Wash engine and check for security of accessories.	120			
722003	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.	120			
723003	Engine Baffles and Seals - Check condition and security of attachment.	120			
781001	Exhaust System - Inspect for cracks and security. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust system - Maintenance Practices.	120			
781002	Exhaust System (turbocharged engine) - Inspect couplings, seals, clamps, and expansion joints for cracks. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust System - Maintenance Practices. Note: This inspection is specifically required for German (LBA) certification.	120			
781003	Do an inspection on the multi-segment V-Band coupling clamps. Refer to Chapter 78, Exhaust System (Turbocharged) - Maintenance Practices.	120			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
791001	Engine Oil - Drain oil sump and oil cooler. Check for metal particles or foreign material in filter, on sump drain plug, and on engine suction screen. Refer to Textron Lycoming Service Bulletin #480C or latest revision. Replace filter, and refill with recommended grade aviation oil.	120			
792001	Oil Cooler - Check for obstructions, leaks, and security of attachment.	120			
801002	Bendix Drive Starter Assembly - Clean and lubricate starter drive assembly.	120			
761001	Engine Controls and Linkage - Examine the general condition and freedom of movement through the full range. Complete a check for the proper travel, security of attachment, and for evidence of wear. Complete a check of the friction lock and vernier adjustment for proper operation. Complete a check that the throttle, fuel mixture, and propeller governor arms operate through their full arc of travel. The maximum linear freeplay is 0.050 inch.	120, 225			
271001	Aileron Controls - Check freedom of movement and proper operation through full travel.	120, 520, 620			
243003	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.	210			
521001	Doors - Inspect general condition. Check latches, hinges, and seals for condition, operation, and security of attachment.	210			
531001	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.	210			
561001	Windows and Windshield - Inspect general condition. Check latches, hinges, and seals for condition, operation, and security of attachment.	210			
214002	Heater Components, Inlets, and Outlets - Inspect all lines, ducts, clamps, seals, and gaskets for condition, restriction, and security.	211			
214003	Cabin Heat and Ventilation Controls - Check freedom of movement through full travel. Check friction locks for proper operation.	211			
235001	Microphones, Headsets, and Jacks - Inspect for cleanliness, security, and evidence of damage.	211			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
251001	Seats - Examine the seats to make sure they are serviceable and installed correctly. Make sure the seat stops and adjustment mechanism operate correctly. Examine the seat recline control and attaching hardware to make sure the hardware and lock are not damaged and are correctly installed. Lubricate the threads of the Seat Crank Handle Assembly with MIL-PRF-81322 general purpose grease.	211			
251101	Restraint System, front and rear - Check belts for thinning, fraying, cutting, broken stitches, or ultra-violet deterioration. Check system hardware for security of installation.	211			
351001	Oxygen System (if applicable) - Inspect masks, hoses, lines, and fittings for condition, routing, and support. Test operation and check for leaks.	211			
531003	Internal Fuselage Structure - Inspect bulkheads, doorposts, stringers, doublers, and skins for corrosion, cracks, buckles, and loose rivets, bolts and nuts.	211			
311001	Instruments - Check general condition and markings for legibility.	220			
311003	Instrument Lines, Fittings, Ducting, and Instrument Panel Wiring - Check for proper routing, support, and security of attachment.	220			
331001	Instrument and Cabin Lights - Check operation, condition of lens, and security of attachment.	220, 211, 221			
345003	Navigation Indicators, Controls, and Components - Inspect for condition and security.	220, 225			
275002	Wing Flap Control - Check operation through full travel and observe Flap Position indicator for proper indication.	221			
246001	Switch and Circuit Breaker Panel, Terminal Blocks, and Junction Boxes - Inspect wiring and terminals for condition and security.	222			
246002	Power Junction Box - Check operation and condition. Check availability and condition of spare fuse (if applicable).	222			
271005	Control Wheel Lock - Check general condition and operation.	222			
235002	Microphone Push-To-Talk Switch - Clean the pilot's and copilot's microphone switches. Refer to Chapter 23, Communication - Maintenance Practices.	222, 223			
271006	Control Linkage - Inspect pulleys, cables, bearings, and turnbuckles for condition and security.	222, 223			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
273001	Elevator Control - Check freedom of movement and proper operation through full travel.	222, 223			
273002	Elevator Control System - Inspect pulleys, cables, sprockets, bearings, chains, and turnbuckles for condition, security, and operation. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety.	222, 223			
273103	Elevator Trim Tab and Hinges - Check condition, security, and operation.	224			
282003	Fuel Selector Valve - Check controls for dentent in each position, security of attachment, and for proper placarding.	224			
282006	Fuel Selector - Using quick drain, ensure no contamination exists.	224			
273101	Elevator Trim System - Check cables, push-pull rods, bell cranks, pulleys, turnbuckles, fairleads, rub strips, etc. for proper routing, condition, and security.	224, 240, 310			
273102	Elevator Trim Control and Indicator - Check freedom of movement and proper operation through full travel. Check pulleys, cables, sprockets, bearings, chains, and turnbuckles for condition and security. Check electric trim controls for operation as applicable. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety.	224, 240, 310			
342101	Magnetic Compass - Inspect for security of installation, cleanliness, and evidence of damage.	225			
345001	Instrument Panel Mounted Avionics Units (Including Audio Panel, VHF Nav/Com(s), ADF, GPS, Transponder, 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.	225			
345002	Avionics Operating Controls - Inspect for security and proper operation of controls and switches and ensure that all digital segments will illuminate properly.	225			
262001	Portable Hand Fire Extinguisher - Inspect for proper operating pressure, condition, security of installation, and servicing date.	230			
272004	Rudder Pedals and Linkage - Check for general condition, proper rigging, and operation. Check for security of attachment.	230			
273106	Elevator Trim Tab Stop Blocks - Inspect for damage and security.	240			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
256001	Emergency Locator Transmitter - Examine for security of attachment and check operation by verifying transmitter output. Check cumulative time and useful life of batteries in accordance with 14 CFR Part 91.207.	310			
273004	Elevator Downspring - Check structure, bolts, linkage, bellcrank, and push-pull tube for condition, operation, and security. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety. Check travels if cables require tension adjustment or if stops are damaged.	310			
345004	Navigation Antennas and Cables - Inspect for security of attachment, connection, and condition.	310			
273104	Elevator Trim Tab Actuator - Examine the free play limits. Refer to Chapter 27, Elevator Trim Control - Maintenance Practices, Trim Tab Free Play Inspection. If the free play is more than the permitted limits, lubricate the actuator and examine the free play limits again. If the free play is still more than the permitted limits, replace the actuator.	320			
273003	Elevator, Hinges, Stops, and Cable Attachment - Check condition, security, and operation.	320, 330			
551001	Horizontal Stabilizer and Tailcone structure - Inspect bulkheads, spars, ribs, and skins, for cracks, wrinkles, loose rivets, corrosion, or other damage. Inspect horizontal stabilizer attach bolts for looseness. Retorque as necessary. Check security of inspection covers, fairings, and tips.	320, 330			
551002	Horizontal Stabilizer and Tips - Inspect externally for skin damage and condition of paint.	320, 330			
272002	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 balance weight for looseness and the supporting structure for damage.	340			
272003	Rudder, Tips, Hinges, Stops, Clips and Cable Attachment - Check condition, security, and operation.	340			
272005	Rudder Control - Check freedom of movement and proper operation through full travel. Check rudder stops for damage and security.	340			
553001	Vertical Stabilizer Fin - Inspect bulkheads, spars, ribs, and skins for cracks, wrinkles, loose rivets, corrosion, or other damage. Inspect vertical stabilizer attach bolts for looseness. Retorque as necessary. Check security of inspection covers, fairings, and tip.	340			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
553002	Vertical Stabilizer Fin and Tailcone - Inspect externally for skin damage and condition of paint.	340			
334001	Navigation, Beacon, Strobe, and Landing Lights - Check operation, condition of lens, and security of attachment.	340, 520, 620			
341103	Pitot Tube and Stall Warning Vane - Check for condition and obstructions and verify operation of anti-ice heat.	510			
571001	Wing Surfaces and Tips - Inspect for skin damage, loose rivets, and condition of paint.	510, 520, 610, 620			
275001	Flaps - Check tracks, rollers, and control rods for security of attachment. Check rod end bearings for corrosion. Check operation.	510, 610			
282001	Fuel System - Inspect plumbing and components for mounting and security.	510, 610			
282002	Fuel Tank Vent Lines and Vent Valves - Check vents for obstruction and proper positioning. Check valves for operation.	510, 610			
282004	Integral Fuel Bays - Check for evidence of leakage and condition of fuel caps, adapters, and placards. Using quick drains, ensure no contamination exists. Check quick drains for proper shut off.	510, 610			
282005	Fuel Reservoir - Using quick drain, ensure no contamination exists.	510, 610			
282007	Fuel Strainer, Drain Valve, and Controls - Check freedom of movement, security, and proper operation. Disassemble, flush, and clean screen and bowl.	510, 610			
571002	Wing Struts and Strut Fairings - Check for dents, cracks, loose screws and rivets, and condition of paint.	510, 610			
271003	Aileron Structure, Control Rods, Hinges, Balance Weights, Bell Cranks, Linkage, Bolts, Pulleys, and Pulley Brackets - Check condition, operation, and security of attachment.	520, 620			
271004	Ailerons and Hinges - Check condition, security, and operation	520, 620			
275006	Flap Actuator Threads - Clean and lubricate. Refer to Chapter 12-21-03.	610			
110000	Interior Placards, Exterior Placards, Decals, Markings and Identification Plates - Inspect for security of installation and legibility. Refer to Chapter 11, Placards and Markings - Inspection/Check.	All			
	*** End of Operation 1 Inspection Items ***				

INSPECTION OPERATION 2

Date:	
Registration Number:	
Serial Number:	

Total Time: _

1. Description

- A. Operation 2 gives a list of item(s), which has all 50-hour interval inspection items and those 100- or 200-hour interval inspection items contained in the engine compartment. Items from other areas are included to meet their required time interval.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

TASK	ZONE	MECH INSP	REMARKS
Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.	110		
Spinner and Spinner Bulkhead - Remove spinner, wash, and inspect for cracks and fractures.	110		
Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.	110		
Propeller Hub - Check general condition.	110		
Propeller Mounting - Check for security of installation.	110		
Propeller Mounting Bolts - Inspect mounting bolts and safety wire for signs of looseness. Retorque mounting bolts as required.	110		
	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades. Spinner and Spinner Bulkhead - Remove spinner, wash, and inspect for cracks and fractures. Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage. Propeller Hub - Check general condition. Propeller Mounting - Check for security of installation. Propeller Mounting Bolts - Inspect mounting bolts and safety wire for signs of looseness. Retorque	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.110Spinner and Spinner Bulkhead - Remove spinner, wash, and inspect for cracks and fractures.110Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.110Propeller Hub - Check general condition.110Propeller Mounting - Check for security of installation.110Propeller Mounting Bolts - Inspect mounting bolts and safety wire for signs of looseness. Retorque110	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.110Spinner and Spinner Bulkhead - Remove spinner, wash, and inspect for cracks and fractures.110Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.110Propeller Hub - Check general condition.110Propeller Mounting - Check for security of installation.110Propeller Mounting Bolts - Inspect mounting bolts and safety wire for signs of looseness. Retorque110

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
611007	Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check.	110			
612001	Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.	110			
612002	Propeller Governor and Control - Examine the security and operation of the controls. The maximum linear freeplay is 0.050 inch.	110			
214001	Cold and Hot Air Hoses - Check condition, routing, and security.	120			
242001	Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and proper adjustment. Check belt tension.	120			
242002	Alternator Electrical Connections - Check condition and security. Check for cracks on the shank of terminals connecting to alternator BAT and GND connection posts. Make sure the terminals are not bent or under mechanical stress caused by the routing of the attached wire. Make sure the field wire connector on 95 alternators is secure and firmly latched.	120			
243001	Main Battery - Examine the general condition and security. Complete a check of the level of electrolyte. Refer to Chapter 12-17-00.	120			
243002	Main Battery Box and Cables - Clean and remove any corrosion. Examine the cables for routing, support, and security of the connections.	120			
243004	External Power Receptacle and Power Cables - Inspect for condition and security.	120			
282010	Auxiliary (Electric) Fuel Pump - Check pump and fittings for condition, operation, security.	120			
371001	Vacuum System - Inspect for condition and security.	120			
371002	Vacuum Pumps - Check for condition and security. Check vacuum system breather line for obstructions, condition, and security.	120			
371003	Vacuum System Hoses - Inspect for hardness, deterioration, looseness, or collapsed hoses.	120			
371004	Gyro Filter - Inspect for damage, deterioration and contamination. Clean or replace if required.	120			
371005	Regulator Valve and Filter - Inspect valve assembly for security of installation. Visually inspect filter for damage, deterioration and contamination. Clean or replace if required.	120			
531002	Firewall Structure - Inspect for wrinkles, damage, cracks, sheared rivets, etc.	120			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
710001	Turbocharger (if applicable) - Inspect turbocharger mounting brackets, ducting, linkage, and attaching parts for general condition, leakage or damage, and security of attachment. Check waste gate, actuator, controller, oil and vent lines, overboost relief valve, and compressor housing for leakage, apparent damage, security of attachment, and evidence of wear. Check waste gate return spring for condition and security.	120			
710002	Turbocharger (if applicable) - Examine the turbocharger for burned areas, bulges, or cracks. Use a flashlight and mirror in the tailpipe to examine the turbine for coking, carbonization, oil deposits, and turbine impellers for damage.	120			
710003	Remove the engine compressor inlet duct. Examine the compressor for blade condition on the impeller and oil deposits in the turbocharger. Make sure the compressor turns freely.	120			
711001	Cowling and Cowl Flaps - Inspect for cracks, dents, other damage and security of cowl fasteners. Check cowl flaps for condition, security, and operation. Check cowl flap controls for freedom of movement through full travel.	120			
712001	Engine Shock Mounts, Engine Mount Structure, and Ground Straps - Check condition, security, and alignment.	120			
716001	Alternate Induction Air System - Check for obstructions, operation, and security.	120			
716002	Induction System - Check security of clamps, tubes, and ducting. Inspect for evidence of leakage.	120			
716003	Induction Airbox, Valves, Doors, and Controls - Remove air filter and inspect hinges, doors, seals, and attaching parts for wear and security. Check operation.	120			
716004	Induction Air Filter - Remove and clean. Inspect for damage and service.	120			
722001	Engine - Inspect for evidence of oil and fuel leaks. Wash engine and check for security of accessories.	120			
722002	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.	120			
722003	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.	120			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
723001	Engine Cylinders, Rocker Box Covers, and Pushrod Housings - Check for fin damage, cracks, oil leakage, security of attachment, and general condition.	120			
723002	Engine Metal Lines, Hoses, Clamps, and Fittings - Check for leaks, condition, and security. Check for proper routing and support.	120			
723003	Engine Baffles and Seals - Check condition and security of attachment.	120			
723004	Cylinder Compression - Complete a differential compression test. If there is weak cylinder compression, refer to Chapter 71, Engine - Troubleshooting, for further procedures.	120			
730001	Engine-Driven Fuel Pump - Check for evidence of leakage, security of attachment, and general condition.	120			
730002	Fuel Injection System - Check system for security and condition. Clean fuel inlet screen, check and clean injection nozzles and screens (if evidence of contamination is found), and lubricate air throttle shaft.	120			
741001	Magnetos - Examine the external condition and for correct installation. Examine the condition of the electrical leads. Complete a check of the engine timing (external timing). Refer to Chapter 74-10-00, Ignition System - Maintenance Practices.	120			
742001	Ignition Harness and Insulators - Check for proper routing, deterioration, and condition of terminals.	120			
742002	Spark Plugs - Remove, clean, analyze, test, gap, and rotate top plugs to bottom and bottom plugs to top.	120			
743001	Ignition Switch and Electrical Harness - Inspect for damage, condition, and security.	120			
781001	Exhaust System - Inspect for cracks and security. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust system - Maintenance Practices.	120			
781002	Exhaust System (turbocharged engine) - Inspect couplings, seals, clamps, and expansion joints for cracks. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust System - Maintenance Practices. Note: This inspection is specifically required for German (LBA) certification.	120			
781003	Do an inspection on the multi-segment V-Band coupling clamps. Refer to Chapter 78, Exhaust System (Turbocharged) - Maintenance Practices.	120			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
791001	Engine Oil - Drain oil sump and oil cooler. Check for metal particles or foreign material in filter, on sump drain plug, and on engine suction screen. Refer to Textron Lycoming Service Bulletin #480C or latest revision. Replace filter, and refill with recommended grade aviation oil.	120			
792001	Oil Cooler - Check for obstructions, leaks, and security of attachment.	120			
801001	Starter and Electrical Connections - Check security and condition of starter, electrical connection, and cable.	120			
801002	Bendix Drive Starter Assembly - Clean and lubricate starter drive assembly.	120			
761001	Engine Controls and Linkage - Examine the general condition and freedom of movement through the full range. Complete a check for the proper travel, security of attachment, and for evidence of wear. Complete a check of the friction lock and vernier adjustment for proper operation. Complete a check that the throttle, fuel mixture, and propeller governor arms operate through their full arc of travel. The maximum linear freeplay is 0.050 inch.	120, 225			
324002	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. Refer to Chapter 12-13-00 for servicing instructions.	224, 230			
251002	Seat Tracks and Stops - Inspect seat tracks for condition and security of installation. Check seat track stops for damage and correct location. Inspect seat rails for cracks.	230			
324001	Brakes - Test toe brakes and parking brake for proper operation.	230			
341103	Pitot Tube and Stall Warning Vane - Check for condition and obstructions and verify operation of anti-ice heat.	510			
322001	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.	720			
322002	Nose Landing Gear Wheel Fairings - Check for cracks, dents, and condition of paint.	720			
322004	Nose Gear Attachment Structure - Inspect for cracks, corrosion, or other damage and security of attachment.	720			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
324004	Tires - Check tread wear and general condition. Check for proper inflation.	720, 721, 722			
321002	Main Gear Spring Assemblies - Examine for cracks, dents, corrosion, condition of paint or other damage. Examine for chips, scratches, or other damage that lets corrosion get to the steel spring. Examine the axles for condition and security.	721, 722			
321003	Main Landing Gear Attachment Structure - Check for damage, cracks, loose rivets, bolts and nuts and security of attachment.	721, 722			
324005	Wheels, Brake Discs, and Linings - Inspect for wear, cracks, warps, dents, or other damage. Check wheel through-bolts and nuts for looseness.	721, 722			
321001	Main Landing Gear Wheel Fairings and Brake Fairings - Check for cracks, dents, condition of paint, and correct scraper clearance.	721,722			
110000	Interior Placards, Exterior Placards, Decals, Markings and Identification Plates - Inspect for security of installation and legibility. Refer to Chapter 11, Placards and Markings - Inspection/Check.	All			
	*** End of Operation 2 Inspection Items ***				

*** End of Operation 2 Inspection Items ***

INSPECTION OPERATION 3

Date: _	
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Registration Number: _____

Serial	Number:	

Total	Time:	
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1. Description

- A. Operation 3 gives a list of item(s), which has all 50-hour interval inspection items and those 100- or 200-hour interval inspection items contained in the wing. Items from other areas are included to meet their required time interval.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

TASK	ZONE	MECH	INSP	REMARKS
Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.	110			
Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.	110			
Propeller Mounting - Check for security of installation.	110			
Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check.	110			
Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.	110			
Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and proper adjustment. Check belt tension.	120			
	 Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades. Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage. Propeller Mounting - Check for security of installation. Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check. Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual. Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and 	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.110Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.110Propeller Mounting - Check for security of installation.110Propeller Heat Slip Rings, Brushes, and Boots operational check.110Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.110Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and120	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.110Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.110Propeller Mounting - Check for security of installation.110Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check.110Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.120	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.110Propeller Blades - Inspect for cracks, dents, nicks,

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
242002	Alternator Electrical Connections - Check condition and security. Check for cracks on the shank of terminals connecting to alternator BAT and GND connection posts. Make sure the terminals are not bent or under mechanical stress caused by the routing of the attached wire. Make sure the field wire connector on 95 alternators is secure and firmly latched.	120			
710001	Turbocharger (if applicable) - Inspect turbocharger mounting brackets, ducting, linkage, and attaching parts for general condition, leakage or damage, and security of attachment. Check waste gate, actuator, controller, oil and vent lines, overboost relief valve, and compressor housing for leakage, apparent damage, security of attachment, and evidence of wear. Check waste gate return spring for condition and security.	120			
711001	Cowling and Cowl Flaps - Inspect for cracks, dents, other damage and security of cowl fasteners. Check cowl flaps for condition, security, and operation. Check cowl flap controls for freedom of movement through full travel.	120			
716001	Alternate Induction Air System - Check for obstructions, operation, and security.	120			
716002	Induction System - Check security of clamps, tubes, and ducting. Inspect for evidence of leakage.	120			
722001	Engine - Inspect for evidence of oil and fuel leaks. Wash engine and check for security of accessories.	120			
722003	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.	120			
723003	Engine Baffles and Seals - Check condition and security of attachment.	120			
781001	Exhaust System - Inspect for cracks and security. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust system - Maintenance Practices.	120			
781002	Exhaust System (turbocharged engine) - Inspect couplings, seals, clamps, and expansion joints for cracks. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust System - Maintenance Practices. Note: This inspection is specifically required for German (LBA) certification.	120			
781003	Do an inspection on the multi-segment V-Band coupling clamps. Refer to Chapter 78, Exhaust System (Turbocharged) - Maintenance Practices.	120			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
791001	Engine Oil - Drain oil sump and oil cooler. Check for metal particles or foreign material in filter, on sump drain plug, and on engine suction screen. Refer to Textron Lycoming Service Bulletin #480C or latest revision. Replace filter, and refill with recommended grade aviation oil.	120			
792001	Oil Cooler - Check for obstructions, leaks, and security of attachment.	120			
801002	Bendix Drive Starter Assembly - Clean and lubricate starter drive assembly.	120			
761001	Engine Controls and Linkage - Examine the general condition and freedom of movement through the full range. Complete a check for the proper travel, security of attachment, and for evidence of wear. Complete a check of the friction lock and vernier adjustment for proper operation. Complete a check that the throttle, fuel mixture, and propeller governor arms operate through their full arc of travel. The maximum linear freeplay is 0.050 inch.	120, 225			
271001	Aileron Controls - Check freedom of movement and proper operation through full travel.	120, 520, 620			
271002	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.	120, 520, 620			
231001	Communication Antennas and Cables - Inspect for security of attachment, connection, and condition.	210			
341101	Static System - Inspect for security of installation, cleanliness, and evidence of damage.	210			
521001	Doors - Inspect general condition. Check latches, hinges, and seals for condition, operation, and security of attachment.	210			
531001	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.	210			
561001	Windows and Windshield - Inspect general condition. Check latches, hinges, and seals for condition, operation, and security of attachment.	210			
214002	Heater Components, Inlets, and Outlets - Inspect all lines, ducts, clamps, seals, and gaskets for condition, restriction, and security.	211			
214003	Cabin Heat and Ventilation Controls - Check freedom of movement through full travel. Check friction locks for proper operation.	211			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
251001	Seats - Examine the seats to make sure they are serviceable and installed correctly. Make sure the seat stops and adjustment mechanism operate correctly. Examine the seat recline control and attaching hardware to make sure the hardware and lock are not damaged and are correctly installed. Lubricate the threads of the Seat Crank Handle Assembly with MIL-PRF-81322 general purpose grease.	211			
251101	Restraint System, front and rear - Check belts for thinning, fraying, cutting, broken stitches, or ultra-violet deterioration. Check system hardware for security of installation.	211			
311001	Instruments - Check general condition and markings for legibility.	220			
331001	Instrument and Cabin Lights - Check operation, condition of lens, and security of attachment.	220, 211, 221			
246002	Power Junction Box - Check operation and condition. Check availability and condition of spare fuse (if applicable).	222			
235002	Microphone Push-To-Talk Switch - Clean the pilot's and copilot's microphone switches. Refer to Chapter 23, Communication - Maintenance Practices.	222, 223			
273001	Elevator Control - Check freedom of movement and proper operation through full travel.	222, 223			
273002	Elevator Control System - Inspect pulleys, cables, sprockets, bearings, chains, and turnbuckles for condition, security, and operation. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety.	222, 223			
273103	Elevator Trim Tab and Hinges - Check condition, security, and operation.	224			
282003	Fuel Selector Valve - Check controls for dentent in each position, security of attachment, and for proper placarding.	224			
282006	Fuel Selector - Using quick drain, ensure no contamination exists.	224			
273101	Elevator Trim System - Check cables, push-pull rods, bell cranks, pulleys, turnbuckles, fairleads, rub strips, etc. for proper routing, condition, and security.	224, 240, 310			
262001	Portable Hand Fire Extinguisher - Inspect for proper operating pressure, condition, security of installation, and servicing date.	230			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
256001	Emergency Locator Transmitter - Examine for security of attachment and check operation by verifying transmitter output. Check cumulative time and useful life of batteries in accordance with 14 CFR Part 91.207.	310			
273004	Elevator Downspring - Check structure, bolts, linkage, bellcrank, and push-pull tube for condition, operation, and security. Check cables for tension, routing, fraying, corrosion, and turnbuckle safety. Check travels if cables require tension adjustment or if stops are damaged.	310			
273104	Elevator Trim Tab Actuator - Examine the free play limits. Refer to Chapter 27, Elevator Trim Control - Maintenance Practices, Trim Tab Free Play Inspection. If the free play is more than the permitted limits, lubricate the actuator and examine the free play limits again. If the free play is still more than the permitted limits, replace the actuator.	320			
273003	Elevator, Hinges, Stops, and Cable Attachment - Check condition, security, and operation.	320, 330			
551001	Horizontal Stabilizer and Tailcone structure - Inspect bulkheads, spars, ribs, and skins, for cracks, wrinkles, loose rivets, corrosion, or other damage. Inspect horizontal stabilizer attach bolts for looseness. Retorque as necessary. Check security of inspection covers, fairings, and tips.	320, 330			
551002	Horizontal Stabilizer and Tips - Inspect externally for skin damage and condition of paint.	320, 330			
272001	Rudder - Check internal surfaces for corrosion, condition of fasteners, and balance weight attachment.	340			
272002	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 balance weight for looseness and the supporting structure for damage.	340			
272003	Rudder, Tips, Hinges, Stops, Clips and Cable Attachment - Check condition, security, and operation.	340			
272005	Rudder Control - Check freedom of movement and proper operation through full travel. Check rudder stops for damage and security.	340			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
553001	Vertical Stabilizer Fin - Inspect bulkheads, spars, ribs, and skins for cracks, wrinkles, loose rivets, corrosion, or other damage. Inspect vertical stabilizer attach bolts for looseness. Retorque as necessary. Check security of inspection covers, fairings, and tip.	340			
553002	Vertical Stabilizer Fin and Tailcone - Inspect externally for skin damage and condition of paint.	340			
334001	Navigation, Beacon, Strobe, and Landing Lights - Check operation, condition of lens, and security of attachment.	340, 520, 620			
341103	Pitot Tube and Stall Warning Vane - Check for condition and obstructions and verify operation of anti-ice heat.	510			
571001	Wing Surfaces and Tips - Inspect for skin damage, loose rivets, and condition of paint.	510, 520, 610, 620			
571003	Wing Access Plates - Check for damage and security on installation.	510, 520, 610, 620			
571004	Wing Spar and Wing Strut Fittings - Check for evidence of wear. Check attach bolts for indications of looseness and retorque as required.	510, 520, 610, 620			
571005	Wing Structure - Inspect spars, ribs, skins, and stringers for cracks, wrinkles, loose rivets, corrosion, or other damage.	510, 520, 610, 620			
275001	Flaps - Check tracks, rollers, and control rods for security of attachment. Check rod end bearings for corrosion. Check operation.	510, 610			
275003	Flap Structure, Linkage, Bellcranks, Pulleys, and Pulley Brackets - Check for condition, operation and security.	510, 610			
275004	Flaps and Cables - Check cables for proper tension, routing, fraying, corrosion, and turnbuckle safety. Check travel if cable tension requires adjustment.	510, 610			
282001	Fuel System - Inspect plumbing and components for mounting and security.	510, 610			
282002	Fuel Tank Vent Lines and Vent Valves - Check vents for obstruction and proper positioning. Check valves for operation.	510, 610			
282004	Integral Fuel Bays - Check for evidence of leakage and condition of fuel caps, adapters, and placards. Using quick drains, ensure no contamination exists. Check quick drains for proper shut off.	510, 610			
282005	Fuel Reservoir - Using quick drain, ensure no contamination exists.	510, 610			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
282007	Fuel Strainer, Drain Valve, and Controls - Check freedom of movement, security, and proper operation. Disassemble, flush, and clean screen and bowl.	510, 610			
571002	Wing Struts and Strut Fairings - Check for dents, cracks, loose screws and rivets, and condition of paint.	510, 610			
271003	Aileron Structure, Control Rods, Hinges, Balance Weights, Bell Cranks, Linkage, Bolts, Pulleys, and Pulley Brackets - Check condition, operation, and security of attachment.	520, 620			
271004	Ailerons and Hinges - Check condition, security, and operation	520, 620			
275005	Flap Motor, Actuator, and Limit Switches - Check wiring and terminals for condition and security. Check actuator for condition and security.	610			
275006	Flap Actuator Threads - Clean and lubricate. Refer to Chapter 12-21-03.	610			
110000	Interior Placards, Exterior Placards, Decals, Markings and Identification Plates - Inspect for security of installation and legibility. Refer to Chapter 11, Placards and Markings - Inspection/Check.	All			
	*** End of Operation 3 Inspection Items ***				

INSPECTION OPERATION 4

Date:	
Registration Number:	

Serial Number:	
Total Time:	

1. Description

- A. Operation 4 gives a list of item(s), which has all 50-hour interval inspection items and those 100- or 200-hour interval inspection items contained in the landing gear. Items from other areas are included to meet their required time interval.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP	REMARKS
611001	Spinner - Complete a check of its general condition and that it is correctly attached. Make sure it has a minimum clearance of 0.14 inch (3.56 mm) to the propeller blades.	110		
611002	Spinner and Spinner Bulkhead - Remove spinner, wash, and inspect for cracks and fractures.	110		
611003	Propeller Blades - Inspect for cracks, dents, nicks, scratches, erosion, corrosion, or other damage.	110		
611005	Propeller Mounting - Check for security of installation.	110		
611007	Propeller Heat Slip Rings, Brushes, and Boots - Inspect for condition, and security. Perform operational check.	110		
612001	Propeller Governor and Control - Inspect for oil and grease leaks. If leakage is evident, refer to McCauley Service Manual.	110		

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
214001	Cold and Hot Air Hoses - Check condition, routing, and security.	120			
242001	Alternator and Mounting Bracket - Check condition and security. Check alternator belts for condition and proper adjustment. Check belt tension.	120			
242002	Alternator Electrical Connections - Check condition and security. Check for cracks on the shank of terminals connecting to alternator BAT and GND connection posts. Make sure the terminals are not bent or under mechanical stress caused by the routing of the attached wire. Make sure the field wire connector on 95 alternators is secure and firmly latched.	120			
243001	Main Battery - Examine the general condition and security. Complete a check of the level of electrolyte. Refer to Chapter 12-17-00.	120			
243002	Main Battery Box and Cables - Clean and remove any corrosion. Examine the cables for routing, support, and security of the connections.	120			
282010	Auxiliary (Electric) Fuel Pump - Check pump and fittings for condition, operation, security.	120			
371001	Vacuum System - Inspect for condition and security.	120			
371002	Vacuum Pumps - Check for condition and security. Check vacuum system breather line for obstructions, condition, and security.	120			
371003	Vacuum System Hoses - Inspect for hardness, deterioration, looseness, or collapsed hoses.	120			
371004	Gyro Filter - Inspect for damage, deterioration and contamination. Clean or replace if required.	120			
371005	Regulator Valve and Filter - Inspect valve assembly for security of installation. Visually inspect filter for damage, deterioration and contamination. Clean or replace if required.	120			
710001	Turbocharger (if applicable) - Inspect turbocharger mounting brackets, ducting, linkage, and attaching parts for general condition, leakage or damage, and security of attachment. Check waste gate, actuator, controller, oil and vent lines, overboost relief valve, and compressor housing for leakage, apparent damage, security of attachment, and evidence of wear. Check waste gate return spring for condition and security.	120			
711001	Cowling and Cowl Flaps - Inspect for cracks, dents, other damage and security of cowl fasteners. Check cowl flaps for condition, security, and operation. Check cowl flap controls for freedom of movement through full travel.	120			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
716001	Alternate Induction Air System - Check for obstructions, operation, and security.	120			
716002	Induction System - Check security of clamps, tubes, and ducting. Inspect for evidence of leakage.	120			
716003	Induction Airbox, Valves, Doors, and Controls - Remove air filter and inspect hinges, doors, seals, and attaching parts for wear and security. Check operation.	120			
716004	Induction Air Filter - Remove and clean. Inspect for damage and service.	120			
722001	Engine - Inspect for evidence of oil and fuel leaks. Wash engine and check for security of accessories.	120			
722002	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.	120			
722003	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.	120			
723001	Engine Cylinders, Rocker Box Covers, and Pushrod Housings - Check for fin damage, cracks, oil leakage, security of attachment, and general condition.	120			
723003	Engine Baffles and Seals - Check condition and security of attachment.	120			
723004	Cylinder Compression - Complete a differential compression test. If there is weak cylinder compression, refer to Chapter 71, Engine - Troubleshooting, for further procedures.	120			
730001	Engine-Driven Fuel Pump - Check for evidence of leakage, security of attachment, and general condition.	120			
730002	Fuel Injection System - Check system for security and condition. Clean fuel inlet screen, check and clean injection nozzles and screens (if evidence of contamination is found), and lubricate air throttle shaft.	120			
741001	Magnetos - Examine the external condition and for correct installation. Examine the condition of the electrical leads. Complete a check of the engine timing (external timing). Refer to Chapter 74-10-00, Ignition System - Maintenance Practices.	120			
742001	Ignition Harness and Insulators - Check for proper routing, deterioration, and condition of terminals.	120			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
742002	Spark Plugs - Remove, clean, analyze, test, gap, and rotate top plugs to bottom and bottom plugs to top.	120			
743001	Ignition Switch and Electrical Harness - Inspect for damage, condition, and security.	120			
781001	Exhaust System - Inspect for cracks and security. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust system - Maintenance Practices.	120			
781002	Exhaust System (turbocharged engine) - Inspect couplings, seals, clamps, and expansion joints for cracks. Special check in area of heat exchanger. Refer to Chapter 78, Exhaust System - Maintenance Practices. Note: This inspection is specifically required for German (LBA) certification.	120			
781003	Do an inspection on the multi-segment V-Band coupling clamps. Refer to Chapter 78, Exhaust System (Turbocharged) - Maintenance Practices.	120			
791001	Engine Oil - Drain oil sump and oil cooler. Check for metal particles or foreign material in filter, on sump drain plug, and on engine suction screen. Refer to Textron Lycoming Service Bulletin #480C or latest revision. Replace filter, and refill with recommended grade aviation oil.	120			
792001	Oil Cooler - Check for obstructions, leaks, and security of attachment.	120			
801001	Starter and Electrical Connections - Check security and condition of starter, electrical connection, and cable.	120			
801002	Bendix Drive Starter Assembly - Clean and lubricate starter drive assembly.	120			
761001	Engine Controls and Linkage - Examine the general condition and freedom of movement through the full range. Complete a check for the proper travel, security of attachment, and for evidence of wear. Complete a check of the friction lock and vernier adjustment for proper operation. Complete a check that the throttle, fuel mixture, and propeller governor arms operate through their full arc of travel. The maximum linear freeplay is 0.050 inch.	120, 225			
324002	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. Refer to Chapter 12-13-00 for servicing instructions.	224, 230			

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
251002	Seat Tracks and Stops - Inspect seat tracks for condition and security of installation. Check seat track stops for damage and correct location. Inspect seat rails for cracks.	230			
324001	Brakes - Test toe brakes and parking brake for proper operation.	230			
341103	Pitot Tube and Stall Warning Vane - Check for condition and obstructions and verify operation of anti-ice heat.	510			
322001	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.	720			
322002	Nose Landing Gear Wheel Fairings - Check for cracks, dents, and condition of paint.	720			
322003	Nose Gear Fork - Inspect for cracks, general condition, and security of attachment.	720			
322004	Nose Gear Attachment Structure - Inspect for cracks, corrosion, or other damage and security of attachment.	720			
325001	Nose Gear Steering Mechanism - Check for wear, security, and proper rigging.	720			
324004	Tires - Check tread wear and general condition. Check for proper inflation.	720, 721, 722			
324006	Wheel Bearings - Clean, inspect and lube.	720, 721, 722			
321002	Main Gear Spring Assemblies - Examine for cracks, dents, corrosion, condition of paint or other damage. Examine for chips, scratches, or other damage that lets corrosion get to the steel spring. Examine the axles for condition and security.	721, 722			
321003	Main Landing Gear Attachment Structure - Check for damage, cracks, loose rivets, bolts and nuts and security of attachment.	721, 722			
324005	Wheels, Brake Discs, and Linings - Inspect for wear, cracks, warps, dents, or other damage. Check wheel through-bolts and nuts for looseness.	721, 722			

ITEM CODE NUMBER	TASK	ZONE	MECH INSP	REMARKS
321001	Main Landing Gear Wheel Fairings and Brake Fairings - Check for cracks, dents, condition of paint, and correct scraper clearance.	721,722		
110000	Interior Placards, Exterior Placards, Decals, Markings and Identification Plates - Inspect for security of installation and legibility. Refer to Chapter 11, Placards and Markings - Inspection/Check.	All		

*** End of Operation 4 Inspection Items ***

INSPECTION OPERATION 5

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 5 gives a list of item(s), which are completed every 400 hours or 1 year, whichever occurs first.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
212001	Ventilation System - Inspect clamps, hoses, and valves for condition and security.	211			
252201	Upholstery, Headliner, Trim, and Carpeting - Check condition and security.	211			
324003	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.	721, 722			

*** End of Operation 5 Inspection Items ***

PROGRESSIVE CARE

1. Operation 6

THERE ARE CURRENTLY NO PROGRESSIVE CARE OPERATIONS CONTAINED IN THIS SECTION.

INSPECTION OPERATION 7

Date:	
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Registration Number: _____

Serial Number:	
T · · T	

Total	Time:	
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1. Description

- A. Operation 7 gives a list of item(s), which are completed every 600 hours or 1 year, whichever occurs first.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.
- D. Item Codes 284001 and 284002 were removed from this Inspection Operation in Revision 16.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP	REMARKS
221001	Autopilot Rigging - Refer to Autopilot - Maintenance Practices.	610		

*** End of Operation 7 Inspection Items ***

PROGRESSIVE CARE

1. Operation 8

THERE ARE CURRENTLY NO PROGRESSIVE CARE OPERATIONS CONTAINED IN THIS SECTION.

INSPECTION OPERATION 9

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 9 gives a list of item(s), which are completed every 500 hours.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
741002	Magnetos - Clean, examine, and adjust as necessary. Do the 500-hour inspection in accordance with the Slick 4300/6300 Series Magneto Maintenance and Overhaul Manual.	120	

*** End of Operation 9 Inspection Items ***

INSPECTION OPERATION 10

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 10 gives a list of item(s), which are completed every 1000 hours.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP	REMARKS
282009	Integral Fuel Bays - Drain the fuel (Refer to Chapter 12, Fuel - Servicing) and purge the tanks (Refer to the Single Engine Structural Repair Manual, 1996 and On). Complete an inspection of the tank interior and outlet screens and remove any foreign object debris. Complete an inspection of the tank interior surfaces for sealant deterioration and corrosion (especially in the sump areas).	510, 610		

*** End of Operation 10 Inspection Items ***

INSPECTION OPERATION 11

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 11 gives a list of item(s), which are completed every 2 years.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
341102	Pitot and Static System - Examine in accordance with 14 CFR Part 91.411.	220	
246003	Alternator Control Unit - Complete the Over-voltage Protection Circuit Test. Refer to Chapter 24, Alternator Control Unit.	222	

*** End of Operation 11 Inspection Items ***

INSPECTION OPERATION 12

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 12 gives a list of item(s), which are completed beginning five years from the date of the manufacture. You must make sure of the serviceability of the components every twelve months. Refer to Airborne Air and Fuel Products Service Letter Number 39A or latest revision.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
371006	Vacuum Manifold Check Valve - Complete a check for the proper operation. (Only airplanes with dual vacuum pumps or Airborne manifolds. Refer to the Airborne Air & Fuel Products Service Letter Number 39A or latest revision, and in accordance with SB02-37-04.) Refer to Chapter 37, Vacuum System - Maintenance Practices for the removal and installation procedures for the check valve.	120	

*** End of Operation 12 Inspection Items ***

PROGRESSIVE CARE

1. Operation 13

THERE ARE CURRENTLY NO PROGRESSIVE CARE OPERATIONS CONTAINED IN THIS SECTION.

INSPECTION OPERATION 14

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 14 gives a list of item(s), which are completed every 2 years, or anytime components are added or removed from the airplane 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.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM COD	E TASK	ZONE	MECH INSP REMARKS
342102	Magnetic Compass - Calibrate.	220	

*** End of Operation 14 Inspection Items ***

INSPECTION OPERATION 15

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 15 gives a list of item(s), which are completed every every 2000 hours.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
743002	Inspect and lubricate ACS brand ignition switch. Refer to Chapter 74, Ignition System - Maintenance Practices.	224	

*** End of Operation 15 Inspection Items ***

INSPECTION OPERATION 16

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 16 gives a list of item(s), which are completed every 1000 hours or 1 year, whichever occurs first.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
221002	Autopilot Servo Capstan Assemblies. Check slip-clutch torque settings. Refer to Autopilot - Maintenance Practices.	610	
221003	Autopilot Servo Actuators. Inspect for evidence of corrosion and or buildup of dirt or other particulate matter which may interfere with servo operation. Refer to Autopilot - Maintenance Practices.	610	

*** End of Operation 16 Inspection Items ***

INSPECTION OPERATION 17

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 17 gives a list of item(s), which are completed every 12 calendar months.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
262002	Cockpit Mounted Halon Type Fire Extinguisher - Weigh bottle. Bottle must be reserviced by qualified individual if more than 2 ounces is lost.	211	

*** End of Operation 17 Inspection Items ***

INSPECTION OPERATION 18

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 18 gives a list of item(s), which are completed every 6 years.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
262004	Cockpit Mounted Halon Type Fire Extinguishers - Empty, inspect for damage, and recharge.	211	

*** End of Operation 18 Inspection Items ***

INSPECTION OPERATION 19

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 19 gives a list of item(s), which are completed every 12 years.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
262003	Cockpit Mounted Halon Type Fire Extinguishers - Perform hydrostatic test. The hydrostatic test shall be at twelve-year intervals based on initial servicing or date of last hydrostatic test.	211	

*** End of Operation 19 Inspection Items ***

INSPECTION OPERATION 20

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 20 gives a list of item(s), which are completed every 3 years.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
351002	Oxygen Cylinder (if applicable) - Inspect for condition, check hydrostatic test date and perform hydrostatic test, if due.	211	

*** End of Operation 20 Inspection Items ***

INSPECTION OPERATION 21

Date:	
Registration Number:	
Serial Number:	

Total Time:

1. Description

- A. Operation 21 gives a list of item(s), which are completed every 1 year.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
251102	AMSAFE Aviation Inflatable Restraint (AAIR) - Examine the restraint for dirt, frayed edges, unserviceable stitching, loose connections, and other wear. Refer to Chapter 25, Inflatable Restraint System - Maintenance Practices, and do the Inflatable Restraint System Inspection and the Inflatable Restraint System Adjustment/Test.	211			
243005	Standby Battery - Complete the Standby Battery Capacity Test. Refer to Chapter 24, Standby Battery - Maintenance Practices.	220			
246101	Essential and Crossfeed Bus Diodes - Check for proper operation. Complete the Essential and Crossfeed Bus Diode Inspection. Refer to Chapter 24, Essential and Crossfeed Bus Diodes - Maintenance Practices.	224			

*** End of Operation 21 Inspection Items ***

INSPECTION OPERATION 22

Date:	
Registration Number:	
Serial Number:	

Total Time:

1. Description

- A. Operation 22 gives a list of item(s), which are completed every 100 hours or every one year, whichever occurs first.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH	INSP	REMARKS
730003	Idle and Mixture Adjustment - Check idle speed and idle mixture (lean rise). Adjust if necessary. Refer to Chapter 73-00-01, Idle and Mixture Adjustment.	120			
212002	Primary Flight Display (PFD) Fan and Multi-Function Display (MFD) Fan, Deck Skin Fan, and Remote Avionics Cooling Fan - Operational Check. Refer to Chapter 21, Avionics Cooling - Maintenance Practices.	220, 225			

*** End of Operation 22 Inspection Items ***

INSPECTION OPERATION 23

Date:	
Registration Number:	
Serial Number:	
Total Time:	

1. Description

- A. Operation 23 gives a list of item(s), which are completed every 100 hours, every annual inspection, every overhaul, and any time fuel lines or clamps are serviced, removed, or replaced.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS	
720000	Fuel line (Stainless steel tube assembly) and support clamp inspection and installation. Refer to Lycoming Service Bulletin Number 342E or later version.	120		-

*** End of Operation 23 Inspection Items ***

INSPECTION OPERATION 24

Date:	
Registration Number:	
Serial Number:	

Total Time:

1. Description

- A. Operation 23 gives a list of item(s), which are completed the first 600 hours and as defined by the manufacturer thereafter
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH INSP REMARKS
371007	Do an inspection of the wear indicator ports on the vacuum pump described in the Tempest Service Letter 004.	120	

*** End of Operation 24 Inspection Items ***

INSPECTION OPERATION 25

Date:	
Registration Number:	
Serial Number:	

Total	Time:	

1. Description

- A. Operation 25 gives a list of item(s), which are completed every 1000 hours or 3 years, whichever occurs first.
- B. Inspection items are given in the order of the zone in which the inspection is to be completed. A general description of the inspection required and the Item Code Number for cross-reference to section 5-10-01 are shown. Frequently, the tasks define more specifically the scope and extent of each required inspection. These tasks are printed in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. A copy of these pages can be used as a checklist when these inspections are completed.

2. General Inspection Criteria

- A. During each of the specified inspection tasks in this section, more general inspections of the adjacent areas must be done while access is available. These general inspections are used to find apparent conditions which can need more maintenance.
- B. If a component or system is changed after a required task has been completed, then that specified task must be done again to make sure it is correct before the system or component is returned to service.
- C. Do a preflight inspection after these inspections are completed to make sure all the required items are correctly serviced. Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

ITEM CODE NUMBER	TASK	ZONE	MECH IN	ISP	REMARKS
284001	Fuel Quantity Indication System Check (Airplanes without Garmin G1000) - Examine for damage and correct installation. Complete a Fuel Quantity Calibration and Check. Refer to Chapter 28, Fuel Quantity Indication System - Adjustment/Test.	220, 510, 610			
284002	Fuel Quantity Indication System Check (Airplanes with Garmin G1000) - Examine for damage and correct installation. Complete a Fuel Quantity System Check. Refer to Chapter 28, Fuel Quantity Indication System - Adjustment/Test.				
273107	Elevator Trim Tab Actuator - Remove, clean, examine, and lubricate the actuator. Refer to Chapter 27, Elevator Trim Control - Maintenance Practices.	320			

*** End of Operation 25 Inspection Items ***

UNSCHEDULED MAINTENANCE CHECKS

1. General

- A. During operation, the airplane can go through:
 - (1) Hard landings.
 - (2) Overspeed.
 - (3) Extreme turbulence or extreme maneuvers.
 - (4) Towing with a large fuel unbalance or high drag/side loads due to ground handling.
 - (5) Lightning strikes.
- B. When the flight crew gives a report of any of these conditions, complete a visual inspection of the airframe and specific inspections of components and areas involved.
- C. Do the inspections to find and examine the damage in local areas of visible damage, and in the structure and components adjacent to the area of damage.
- D. If foreign object damage (FOD) is found, complete a visual inspection of the airplane before the airplane is returned to service.

2. Unscheduled Maintenance Checks Defined and Areas of Inspection

- A. Hard/Overweight Landings.
 - (1) A hard landing is any landing made when the sink rate is more than the permitted sink rate limit. An overweight landing is any landing made when the gross weight is more than the maximum gross landing weight given in the approved Pilot's Operating Handbook.
 - **NOTE:** If the hard/overweight landing also has high drag/side loads, more checks are necessary.
 - (2) Hard or overweight landing check.
 - (a) Landing gear.
 - <u>1</u> Main gear struts Examine for correct attachment and permanent set.
 - 2 Main gear attachments and supporting structure Examine for loose or unserviceable fasteners and signs of structural damage.
 - <u>3</u> Nose gear trunnion supports and attaching structure Examine for loose or unserviceable fasteners and signs of structural damage.
 - <u>4</u> Nose gear attachments and supporting structure Examine for loose or unserviceable fasteners and signs of structural damage.
 - (b) Wings.
 - <u>1</u> Wing surface and lift strut Examine the skin for buckles, loose or unserviceable fasteners, and fuel leaks. Examine the attach fittings for security.
 - 2 Trailing edge Examine for any deformation that stops the normal flap operation.
- B. Overspeed.(1) Oversp
 - Overspeed occurs when one of the conditions that follow are met:
 - (a) The airplane was flown at a speed more than the speed limit of the flaps.
 - (b) The airplane was flown at a speed more than the maximum design speed.
 - (2) Overspeed (airspeed) check.
 - (a) Fuselage.
 - <u>1</u> Windshield and Windows Examine for buckling, dents, loose or unserviceable fasteners, and signs of structural damage.
 - 2 All hinged doors Examine the hinges, hinge attach points, latches and attachments, and skins for deformation and signs of structural damage.
 - (b) Cowling.
 - <u>1</u> Skins Examine for buckling, cracks, loose or unserviceable fasteners, and signs of structural damage.

- (c) Stabilizers.
 - <u>1</u> Stabilizers Examine the skins, hinges and attachments, movable surfaces, mass balance weights, and the structure for cracks, dents, buckling, loose or unserviceable fasteners, and signs of structural damage.
- (d) Wings.
 - <u>1</u> Flaps Examine the skin for buckling, cracks, loose or unserviceable fasteners, attachments, and signs of structural damage.
 - <u>2</u> Fillets and fairings Examine for buckling, dents, cracks, and loose or unserviceable fasteners.
- C. Extreme Turbulence or Extreme Maneuvers.
 - (1) Extreme turbulence is caused by atmospheric conditions that produce dangerous quantities of stress on the airplane. Extreme maneuvers are any maneuvers that do not stay within the limits given in the Pilot's Operating Handbook.
 - (2) Extreme turbulence and/or maneuvers checks.
 - (a) Stabilizers.
 - <u>1</u> Horizontal stabilizer hinge fittings, actuator fittings, and stabilizer center section -Examine for loose or unserviceable fasteners and signs of structural damage.
 - <u>2</u> Vertical stabilizer Examine the vertical stabilizer for signs of structural damage, skin buckles, loose or unserviceable fasteners, and damage to the hinges and actuator fittings.
 - <u>3</u> Elevator and rudder balance weight supporting structure Examine for loose or unserviceable fasteners and signs of structural damage.
 - (b) Wing.
 - <u>1</u> Wing to body strut fittings and supporting structure Examine for loose or unserviceable fasteners and signs of structural damage.
 - <u>2</u> Trailing Edge Examine for any deformation that stops the normal operation of the flap and aileron.
- D. Lightning Strike.
 - (1) If the airplane is flown through an electrically charged region of the atmosphere, it can be struck by an electrical discharge moving from cloud to cloud or from cloud to ground. During a lightning strike, the current goes into the airplane at one point and comes out of another, usually at opposite extremities. The wing tips, nose and tail sections are the areas where damage is most likely to occur. You can find burns and/or erosion of small surface areas of the skin and structure during inspection. In most cases, the damage is easily seen. In some cases, however, a lightning strike can cause damage that is not easily seen. The function of the lightning strike inspection is to find any damage to the airplane before it is returned to service.
 - (2) Lightning strike check. As the checks that follow are performed, complete the Lightning Strike/ Static Discharge Incident Reporting Form and return it to Cessna Propeller Aircraft Product Support Dept. 751, Cessna Aircraft Company, P.O. Box 7706, Wichita, KS. 67277-7706. If there are components listed on the form that are not applicable to your airplane, please write "Not Applicable" in the space provided.
 - (a) Communications.
 - <u>1</u> Antennas Examine all antennas for burns or erosion. If you find damage, complete the functional test of the communication system.
 - (b) Navigation.
 - <u>1</u> Glideslope antenna Examine for burning and pitting. If damage is found, complete a functional check of the glideslope system.
 - <u>2</u> Compass The compass is serviceable if the corrected heading is within plus or minus 10 degrees of the heading shown by the remote compass system. Remove, repair, or replace the compass if the indication is not within the tolerance limits.
 - (c) Fuselage.
 - 1 Skin Examine the surface of the fuselage skin for signs of damage.
 - 2 Tailcone Examine the tailcone and static dischargers for damage.
 - (d) Stabilizers.
 - <u>1</u> Examine the surfaces of the stabilizers for signs of damage.
 - (e) Wings.
 - 1 Skins Examine the skin for burns and erosion.

- 2 Wing tips Examine the wing tips for burns and pits.
- 3 Flight surfaces and hinging mechanisms Examine for burns and pits.
- (f) Propeller.
- 1 Propeller Remove the propeller and have it examined at an authorized repair station. (g) Powerplant.
 - <u>1</u> Engine Refer to the engine manufacturer's overhaul manual for inspection procedures.
- E. Foreign Object Damage.
 - (1) Foreign object damage (FOD) is damage to the airplane caused by a bird strike or by any other foreign object while operating the airplane on the ground or in normal flight. Tools, bolts, nuts, washers, rivets, rags or pieces of safety-wire left in the aircraft during maintenance operations can also cause damage. The function of the foreign object damage inspection is to find any damage before the airplane is repaired or returned to service.
 - (2) Use caution to prevent unwanted objects from hitting the airplane during towing and at all times when the airplane is not in service.
 - (3) The aerodynamic cleanliness level (degree of surface smoothness), has an effect on the performance of the airplane. It is important to keep a high level of cleanliness.
 - (4) Normal operation or careless maintenance operations can cause contour distortion of the aerodynamic surface. Careless maintenance operations can also cause distortion to the doors and access panels. Be careful when you work with these items.
 - (5) Foreign object damage check.
 - (a) Landing gear.
 - 1 Fairings Examine for dents, cracks, misalignment, and signs of structural damage.
 - (b) Fuselage.
 - <u>1</u> Skin Examine the forward and belly areas for dents, punctures, cracks, and signs of structural damage.
 - (c) Cowling.
 - <u>1</u> Skins Examine for dents, punctures, loose or unserviceable fasteners, cracks, and signs of structural damage.
 - (d) Stabilizers.
 - <u>1</u> Leading edge skins Examine for dents, cracks, scratches, and signs of structural damage.
 - (e) Windows.
 - <u>1</u> Windshield Examine for pits, scratches, and cracks.
 - (f) Wings.
 - <u>1</u> Leading edge skins Examine for dents, cracks, punctures, and signs of structural damage.
 - (g) Engine.
 - <u>1</u> Propeller Examine the propeller for nicks, bends, cracks, and worn areas on the blades.
- F. High Drag/Side Loads Due To Ground Handling.
 - (1) A high drag/side load condition occurs when the airplane skids or overruns the prepared surface and goes onto an unprepared surface. It also includes landings that are short of the prepared surface, or landings which involve the damage of tires or skids on a runway to the extent that the safety of the airplane is in question. This includes takeoff and landings or unusual taxi conditions.
 - (2) High drag/side loads due to ground handling check.
 - (a) Landing gear.
 - <u>1</u> Main gear and fairings Examine for loose or unserviceable fasteners, buckling, cracks, and signs of structural damage.
 - <u>2</u> Nose gear and fairing Examine for loose or unserviceable fasteners, cracks, loose steering cable tension, buckling, and signs of structural damage.
 - (b) Wings.
 - <u>1</u> Wing to fuselage attach fittings and attaching structure Examine for loose or unserviceable fasteners and signs of structural damage.

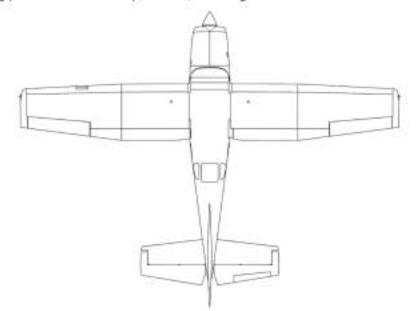
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LIGHTNING STRIKE/STATIC DISCHARGE INCIDENT REPORTING FORM Part 2

1. Ground Crew must complete Part 2.

- NOTE: Attach additional sheet(s) to provide complete description. Photos and sketches of damage are recommended and must be itemized and referenced in their description.
- NOTE: If damage is severe, please report the lightning strike as soon as possible. Inspection by Cessna Engineering Representative(s) may be required.
- A. List any sweeping points, such as burn marks, divots, etc., and skin penetrations on airplane skin believed to be the result of the lightning strike. Itemize and reference location(s) of damage on drawing provided. Indicate top, bottom, left or right.



- B. Describe damage to structure and external components caused by previously mentioned damage points. In the case of skin penetration(s), indicate hole diameter(s). List all damage to radome and any other composite structure, such as fairings, control surfaces, etc. If lightning diverter strips are damaged, include lightning diverter strip location(s) on radome. For damage to composite structure, paint thickness must be included in description.
- C. List any damage to avionics and electrical components believed to be the result of the lightning strike, including damaged wiring, disengaged circuit breakers, etc. Include manufacturer, model number and serial number of damaged units where applicable.
- D. Estimate cost of repair.
- E. Mention severity of damage (light, moderate, heavy).
- F. Additional comments and descriptions:

Part 2 completed by:	Date	Phone	
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