

CESSNA AIRCRAFT COMPANY
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MAINTENANCE MANUAL
SCHEDULED MAINTENANCE CHECKS

1. Inspection Requirements

A. Two basic types of inspections are available as defined below:

- (1) As required by Federal Aviation Regulation Part 91.409 (a), all civil airplane of U.S. registry must undergo a complete inspection (ANNUAL) each twelve calendar months. In addition to the required ANNUAL inspection, airplanes operated commercially (for hire) must also have a complete inspection every 100 hours of operation as required by Federal Aviation Regulation Part 91.409 (f).
- (2) In lieu of the above requirements, an airplane may be inspected in accordance with a progressive inspection program in accordance with Federal Aviation Regulation Part 91.409 (d), which allows the work load to be divided into smaller operations that can be accomplished in shorter time period. CESSNA PROGRESSIVE CARE PROGRAM has been developed to provide a modern progressive inspection schedule that satisfies the COMPLETE AIRPLANE INSPECTION requirements of both the 100 HOUR and ANNUAL inspection as applicable to Cessna Airplanes.

2. Inspection Program Selection

A. As a guide for selecting the inspection program that best suits the operation of the airplane, the following is provided:

- (1) If the airplane is flown less than 200 hours annually, the following conditions apply:
 - (a) If flown for hire.
 - (1) An airplane operating in this category must have COMPLETE AIRPLANE INSPECTION each 100 hours of operation (100-HOUR) and each 12 calendar months of operation (ANNUAL). A COMPLETE AIRPLANE INSPECTION consists of all 100-Hour, 200-Hour, Special and Yearly Inspection Items shown in the Inspection Time Limits Charts and Component Time Limits Charts.
 - (b) If not flown for hire.
 - (1) An airplane in this category must have a COMPLETE AIRPLANE INSPECTION each 12 calendar months of operation (ANNUAL). A COMPLETE AIRPLANE INSPECTION consists of all 100-Hour, 200-Hour, Special and Yearly Inspection Items shown in the Inspection Time Limits Charts and Component Time Limits Charts. In addition, it is recommended that between annual inspections, all items be inspected at the intervals specified in the Inspection Time Limits Charts and Components Time Limits Charts.
- (2) If the airplane is flown more than 200 hours annually, the following condition applies:
 - (a) Whether flown for hire or not, it is recommended that airplane operating in this category be placed on the CESSNA PROGRESSIVE CARE PROGRAM. However, if not placed on the Progressive Care Program, the inspection requirements for airplanes in this category are the same as those defined under Paragraph 2., a., (1), (a) or (b). CESSNA PROGRESSIVE CARE PROGRAM may be utilized as a total concept program which ensures that the inspection intervals in the inspection charts are not exceeded. Manuals and forms which are required for conducting the Progressive Care Program inspections are available from a Cessna Service Station.

3. Inspection Charts

NOTE: Cessna has prepared these Inspection Charts to assist the owner or operator in meeting the forgoing responsibilities and to meet the intent of Federal Aviation Regulation Part 91.409 (a), (b) and (d). The Inspection Charts are not intended to be all-inclusive, for no such charts can replace the good judgement 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.

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- A. The following Inspection Charts (Inspection Time Limits, Components Time Limits, Progressive Care Inspection and Expanded Inspection) show the recommended intervals at which items are to be inspected based on normal usage under average environmental conditions. Airplanes operated in extremely humid tropics, or in exceptionally cold, damp climates, etc., may need more frequent inspections for wear, corrosion and lubrication. Under these adverse conditions, perform periodic inspections in compliance with this chart at more frequent intervals until the operator can set his own inspection periods based on field experience. The operators inspection intervals shall not deviate from inspection time limits shown in this manual except as provided below:
- (1) Each inspection interval can be exceeded by a maximum of 10 hours but the next interval due point must retain the original due point. Inspections can be accomplished early as provided below:
 - (a) In the event of early accomplishment of an inspection interval, that occurs 10 hours or less earlier than due. The next inspection interval due point can remain where originally set.
 - (b) In the event of early accomplishment of an inspection interval, that is more than 10 hours early, the next inspection interval due point must be moved up to establish a new due point from the time of early accomplishment.
- B. As shown in the charts, there are items to be checked at the first 100 hours, each 100 hours, each 200 hours, or at Special or Yearly Inspections. Special or Yearly inspection items require servicing or inspection at intervals other than 100 or 200 hours. If two inspection time requirements are listed for one inspection item, one hourly and the other yearly, both apply and whichever requirement occurs first determines the time limit.

NOTE: The only 50 hour requirement in the inspection program is the changing of engine oil and replacement of the oil and filter each 50 hours on airplanes equipped with a short oil filter (approximately 4.8 inches long). This item is listed as a special inspection item in the Inspection Charts.

- (1) When conducting an inspection on the first 100 hours, all items marked under FIRST 100 HOURS in addition to all items marked under EACH 100 HOURS would be inspected, serviced or otherwise accomplished as necessary to ensure compliance with the inspection requirements.
- (2) When conducting an inspection at each 100 hours, all items marked under EACH 100 HOURS would be inspected, serviced or otherwise accomplished as necessary to ensure compliance with the inspection requirements.
- (3) When conducting an inspection at EACH 200 HOURS, all items marked under EACH 200 HOURS in addition to all items marked under EACH 100 HOURS would be inspected or otherwise accomplished as necessary to ensure compliance with the inspection requirements.
- (4) A COMPLETE AIRPLANE INSPECTION includes all 100 and 200 hour items plus those Special and Yearly Inspection Items which are due at the specified time.
- (5) Component Time Limits Charts should be checked at each inspection interval to ensure proper overhaul and replacement requirements are accomplished at the specified times.

4. Inspection Guidelines.

- A. The Inspection Charts are to be used as a recommended inspection outline. Detailed information of system and components in the airplane will be found in various chapters of this Maintenance Manual and the pertinent supplier publications. It is recommended that reference be made to the applicable portion of this manual for service instructions, installation instructions and to the suppliers data or publications specifications for torque values, clearance, settings, tolerances and other requirements.

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- B. For the purpose of this inspection, the term "on condition" is defined as follows:
 - (1) The necessary inspections and or checks to determine that a malfunction or failure will not occur prior to the next scheduled inspection.
- C. 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.
- D. FLUID LINES AND HOSES: Inspect for leaks, cracks, bulging, collapsed, twisted, dents, kinks, chafing, proper radius, security, discoloration, bleaching, deterioration, proper routing and rubber hoses for stiffness and metal lines for corrosion.
- E. METAL PARTS: Inspect for security of attachment, cracks, metal distortion, broken spotwelds, condition of paint especially chips at seams and around fasteners for onset of corrosion and any other apparent damage.
- F. WIRING: Inspect for security, chafing, burning, arcing, defective insulation, loose or broken terminals, heat deterioration and corroded terminals.
- G. STRUCTURAL FASTENERS: Inspect for correct torque in accordance with applicable torque valves. Refer to Bolt Torque Data, during installation or when visual inspection indicates the need for a torque check.

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

- H. FILTERS, SCREENS AND FLUIDS: Inspect for cleanliness, and the need for replacement at specified intervals.
- I. System check (operation or function) requiring electrical power must be performed using 27.5, +0.25, or -0.25 bus voltage. This will ensure all components are operating at their designed requirements.
- J. Airplane file:
 - (1) Miscellaneous data, information and licenses are apart of the airplane file. Check that the following documents are up-to-date and in accordance with current Federal Aviation Regulations. Most of the items listed are required by the Federal Aviation Regulations. Since the regulations of other nations may require other documents and data, owners of exported airplanes should check with their own aviation officials to determine their individual requirements.
 - (a) To be displayed in the airplane at all times:
 - (1) Standard Airworthiness Certificate (FAA Form 8100-2).
 - (2) Aircraft Registration Certificate (FAA Form 8050-3).
 - (3) Aircraft Radio Station License, (Federal Communication Commission Form 556, if transmitter is installed).
 - (4) Radio Telephone Station License (Federal Communication Commission Form 409, if Fliterfone Radio Telephone is installed).
 - (b) To be carried in the airplane at all times:
 - (1) Weight and Balance Data Sheets and associated papers (all copies of the Repair and Alteration Form, FAA Form 337, is applicable).
 - (2) Equipment list.
 - (3) Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
 - (c) To be made available upon request:
 - (1) Airplane Logbook and Engine Logbooks.

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MODEL 402
 MAINTENANCE MANUAL
INSPECTION TIME LIMITS (MODEL 402C)

FIRST 100 HOURS	EACH 100 HOURS OR EVERY YEAR	EACH 200 HOURS OR EVERY YEAR	SPECIAL INSTRUCTIONS HOURS	YEARS
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Stall Warning System.						
1.	Stall Warning System - Inspect for condition and security of installation. Perform operational check.	•		•	Every 600	Every 1
Flap System.						
1.	Flaps - Inspect flaps for condition and security.	•		•		
2.	Flaps - Inspect linkage, bell cranks, torque tube, pulleys and cables for condition and security. Inspect hinges for condition, security and cracks.	•		•		
3.	Flap Motor, Position Indicator and Flap Actuator Assembly - Check for condition and security.	•		•		
4.	Flap Preselect System - Inspect control and position indicator for security of installation, adequate slack in wiring through full range of travel and evidence of damage. Inspect cable for deterioration and security in installation.	•		•		
5.	Inboard and Outboard Flap Bell Cranks and Push Rods - Inspect bell cranks and push rods for evidence of damage and security of installation. Inspect push rods for bent rods, seized or worn bearings, loose lock nuts and use push rod inspection holes to verify that there is sufficient thread engagement of the rod end to reach at least to the inspection hole. Inspect cable seals for deterioration and lubrication. Inspect chains for excessive wear and rubbing on chain guards.	•		•		
6.	Flaps - Check flap travel, cable tension and travel time.	•			Every 600	Every 1
I. Fuel (Chapter 28).						
1.	Fuel Selector Gear Box - Perform operational check (feel for detents), inspect linkage, gearings for condition and security. Service.	•		•		
2.	Fuel Selector Valve and Crossfeed Control - Inspect linkage and components for condition and security.	•		•		
3.	Fuel Filter - Service.	•		•		
4.	Fuel System Plumbing and All Fuel Components - Inspect for condition, security, fuel leaks and fuel stains.			•		
5.	Fuel System Filters - Service.	•		•		
6.	Fuel Crossover Line Drains - Drain.			•		
7.	Fuel Inlet Float Valve - Perform functional/installation test.				Refer to MEB93- 10 Rev 1	
8.	Fuel Electrical Components - Inspect in accordance with electrical power inspection.			•		
J. Hydraulic System (Chapter 29).						
1.	Hydraulic Pump - Inspect for leaks, condition and security.			•		
2.	Hydraulic Fluid Filter - Change element.	•				

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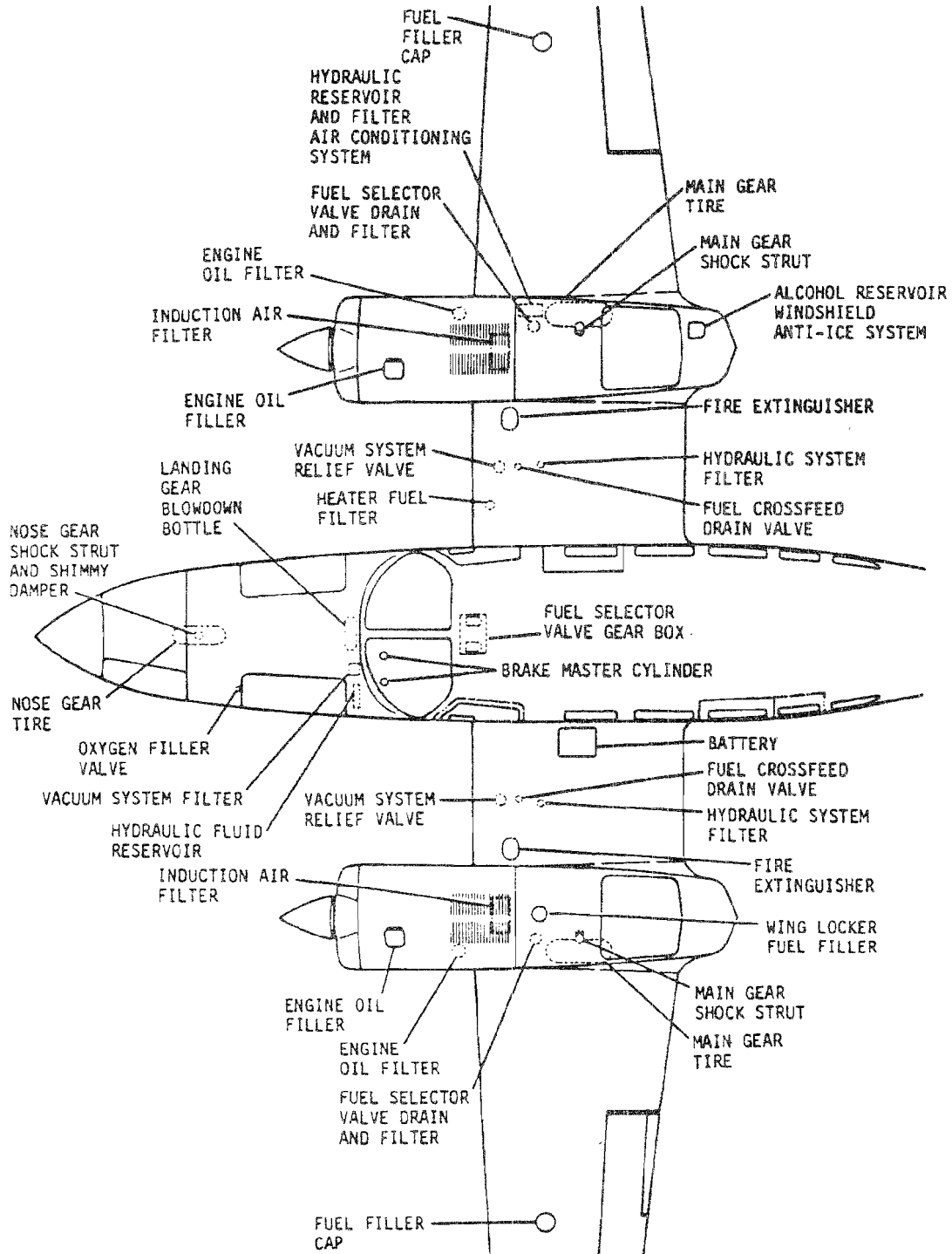
GENERAL - DESCRIPTION AND OPERATION

1. Description

- A. Particular attention has been given to the airplane design with respect to providing the airplane with simplified servicing features. The major service points of the airplane are shown in Figure 1.
- B. This chapter consists of descriptions, illustrations and servicing procedures necessary to locate system or component servicing points, and to replenish or service equipment as required.
- C. Adherence to instructions, cautions and warnings will avoid injury to personnel and damage to the airplane and associated equipment.
- D. The operational integrity of the airplane systems can be seriously impaired if unapproved or contaminated fuels, oils, fluids, lubricants and materials are used. Mixtures of various brands, kinds and qualities of material should be avoided.
- E. Replenishment charts are provided in General Servicing. The replenishment charts include tank and reservoir capacities, fill quantities and approved material specifications.
- F. For additional information concerning unit servicing of the various airplane systems and components, refer to the applicable chapter.

CAUTION: STEPPING OR WALKING ON ANY OF THE AIRPLANE'S OUTER SURFACES IS NOT PERMITTED.

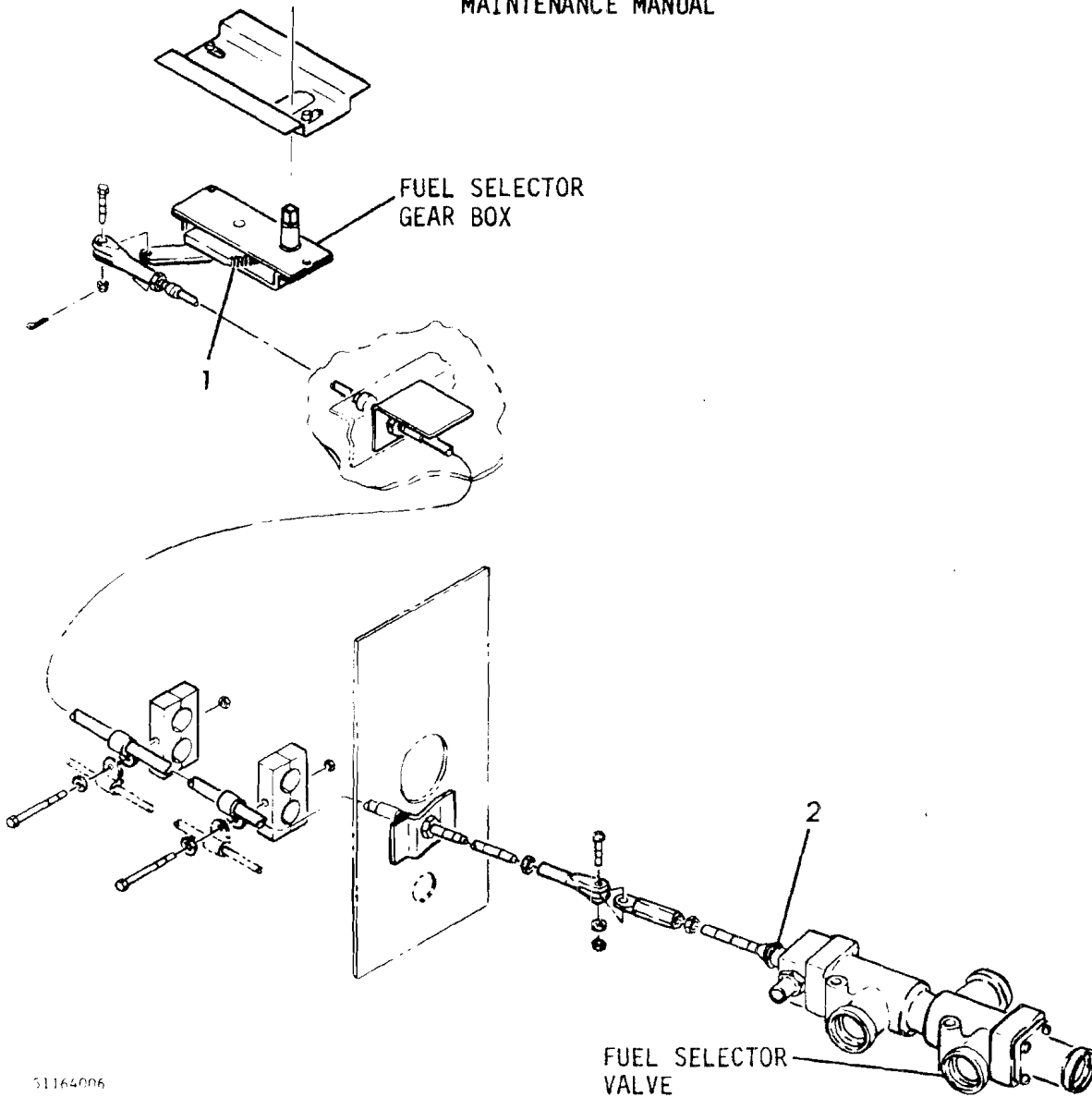
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Airplane Service Points
Figure 1

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ITEM NO.	ITEM DESCRIPTION	LUBE TYPE	APPLICATION	NUMBER OF FITTINGS IN AREA
1	Gear Detents	GL	Hand	-
2	Valve Detents	GL	Hand	-

GL - Grease, Low Temperature (MIL-G-21164)

Fuel Selector Valve and Gear Box
Figure 301