NOTE

This inspection procedure meets the intent of FAR 91.169 and Part 43 Appendix D.

The owner or operator is primarily responsible for maintaining the airplane in an airworthy condition, including compliance with all applicable Airworthiness Directives as specified in Part 39 of the Federal Aviation Regulations. It is further the responsibility of the owner or operator to ensure that the airplane is inspected in conformity with the requirements of Parts 43 and 91 of the Federal Aviation Regulations. Beech Aircraft Corporation has prepared this inspection guide to assist the owner or operator in meeting the foregoing responsibilities. This inspection guide is not intended to be all-inclusive, for no such guide can replace the good judgment of a certified airframe and powerplant mechanic in the 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 ailrplane.

NOTE

Additional inspection forms are available under Part Number 98-32227D or subsequent revision.

The time periods for the inspections noted in this schedule are 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, lubrication, and/or lack of maintenance. Under these adverse conditions, perform periodic inspections in compliance with this guide at more frequent intervals until the operator can set his own inspection periods based on the conti.ngencies of field experience. A tOO-hour inspection MUST be accomplished within each 12-month period for compliance with the Federal Aviation Regulations. To the extent that the airplane is operated in excess of 100 hours per year, Beech Aircraft Corporation strongly recommends that the airplane be inspected at tOO-hour intervals rather than annually. The tOO-hour interval between :)erformance of the procedures specified herein shouH NEVER be exceeded by more than 10 hours, and then only if the additional time is required to reach a p.ace where the inspection can be satisfactorily accomplished.

While this guide may be used as an outline, detailed information of the many systems and components in the airplane will be found in the various sections of this manual (especially Sections t, 2, and 15) and the pertinent vendor publications. It is also recommended that reference be made to the applicable Maintenance Han4Jbooks, Service Instructions, Service Letters, Service Bulletins, Installations Instructions, and Vendor's Specifications for torque values, clearances, settings, tolerances, and other requirements. It should further be verified that all interior and exterior placards are legible and in place during the inspection. In the final analysis, it is the responsibility of the owner or operator to ensure that the airframe and powerplant mechanic inspecting the airplane has access to the previously noted documents as well as to this inspection guide.

NOTE

In addition to the inspections prescribed by this schedule, the altimeter system and all ATC transponders MUST be tested and inspected at 24-month intervals in compliance with the requirements specified in FAR Parts 91.170 and 91.177 under Title t4 of the Code of Federal Regulations.

CAUTION

After the first twenty-five hours of engine operating time, anew, remanufactured or newly overhauled engine should be given the too hour inspection including draining and renewing lubricating oil.

	No. 1 100 Hrs.	No.2 200 Hrs.	No. 3 300 Hrs.	
OPERATIONAL INSPECTION				
Starter	X	X	X	
Fuel Pressure	X	X	X	
Cylinder Head Temperature	X	X	X	
Alternator Output.	X	X	X	
Propeller Operation	X	X	X	
Oil Pressure and Temperature	X	X	X	
Magnetos	X	X	X	
Power Check	X	X	X	
Ammeter	X	X	X	
Standby Generator	X	X	X	
Heating and Ventilating System	X	X	X	
Idle RPM and Mixture	X	X	X	
Idle Cut-Off	X	X	X	
Ignition Switch - Rotate the ignition switch through the OFF position to the extreme limit of its travel, if the engine stops firing the switch is normal. IF THE ENGINE CONTINUES TO RUN WITH THE SWITCH HELD IN THE PAST OFF position refer to Bendix Service Bulletin No. 583 dated February, 1976	X	X	X	
All Engine Controls	X	X	X	
Fuel Quantity Gages	X	X	X	
Auxiliary Fuel Pump	X	X	X	
Fuel Tank Selector	X	X	X	
All Lights	X	X	X	
Radio Operation	X	X	X	
Flaps	X	X	X	
Pitot Heat	X	X	X	
Brakes	X	X	X	
Emergency Exit Hatch - Check the emergency release handle and latch assembly for proper operation. Check that the hatch moves out freely. Check complete hatch assembly for condition and all moving parts for operation. With the hatch installed, check for proper latching and seal.	X	X	X	
Emergency Locator Transmitter - Check for proper operation	X	X	X	
NOTE Tune radio to 121.5 MHz on VHF or 243 MHz on UHF, then turn ELT switch to ON and moniitor for one signal. Turn ELT switch OFF, then place in ARM position.				
Oxygen System	Check all moving parts twice a year.			

	No.1 100 Hrs.	No. 2 200 Hrs.	No.3 300 Hrs.	
POWER PLANT				
Nacelle Skin			X	
Nacelle Structure			X	
Cowling	X	X	X	
Cowl Flaps	X	X	X	
Cowl Latch Rig	X	X	X	
Battery	X	X	X	
Plumbing	X	X	X	
Brake Fluid Reservoir	X	X	X	
Induction System and Air Filter	X	X	X	
Alternate Air Valve	X	X	X	
Spark Plugs	X	X	X	
Engine Oil Sump	X	X	X	
tPropeller	X	X	X	
Propeller Spinner	X	X	X	
Magnetos	X	X	X	
Exhaust System	X	X	X	
Inspect turbocharger compressor wheel for broken blades and freedom of rotation	X	X	X	
Turbocharger Wastegate	X	X	X	
Turbocharger Exhaust and Induction System	X	X	X	
Turbocharger System	X	X	X	
Heater Muff (See Chapter 10)	X	X	X	
Engine Heat Shields and Baffles Check for cracks and location	X	X	X	
Cowling Seals - They should curve toward the air flow	X	X	X	
Cylinders and Baffles	X	X	X	
Ignition Harness	X	X	X	
Alternator See Service Instruction No. 0546-359 Rev 1	X	X	X	
Standby Generator	X	X	X	
Oil Cooler	X	X	X	
Engine Accessories	X	X	X	
Electrical Wiring and Equipment	X	X	X	
All Drains and Plugs	X	X	X	
Pressure Pump Intake Filter	X	X	X	
Engine Mounts	X	X	X	
Control Connections	X	X	X	
Air Conditioning - Check belt for tension and frayed or worn condition	X	X	X	
Exhaust System	X	X	X	
Cabin Heater System	X	X	X	

	No.1 100 Hrs.	No. 2 200 Hrs.	No. 3 300 Hrs.	
CABIN				
Skin			X	
Structure			X	
Cables and Pulleys			X	
Landing Gear Gearbox and ActuatingLinkage	X	X	X	
Flap Motor and Shafts			X	
Auxiliary Fuel Pump	X	X	X	
Brake Master Cylinders and Parking Brake Valve	X	X	X	
Rudder Pedals			X	
Control Column			X	
Engine Controls			X	
Electrical Wiring and Equipment			X	
Plumbing			X	
Windows and Doors			X	
Seats and Seat Belts			X	
Instruments and Instrument Panel.			X	
Oxygen System	X	X	X	
Fuel Selector Valve	X	X	X	
Pressure System In-line Filter	X	X	X	
WINGS				
Skin			X	
Structure			X	
Access Doors			X	
Cables			X	
Ailerons			X	
Fuel Tanks, Caps and Vents (See Service Instruction No. 0488-281 and No, 0632-280)	X	X	X	
			X	
			X	
			X	
Wing Bolts	Check the wing bolts for proper torque at the first 100 hour inspection and at the first 100 hour inspection after each reinstallation of the wing attach bolts.			
NOSE GEAR				
Wheel and Tire	X	X	X	
Landing Gear Strut	X	X	X	
Actuating Linkage	X	X	X	
Gear Doors and Linkage	X	X	X	
Shimmy Dampener	X	X	X	
Strut Fluid Level			X	
Strut and A-Frame Hinge Bolts	X	X	X	
Visual Indicator	X	X	X	
Static Cable (If Installed)	X	X	X	

	No. 1 100 Hrs.	No.2 200 Hrs.	No. 3 300 Hrs.	
MAIN GEAR AND BRAKES				
Brake Lining and Disc	X	X	X	
Wheels and Tires	X	X	X	
Landing Gear Strut	X	X	X	
Actuating Linkage	X	X	X	
Gear Doors and Linkage	X	X	X	
Strut Fluid Level			X	
Hinge Bolts	X	X	X	
***MAIN GEAR OPERATION**				
Doors		X		
Position Lights		X		
Warning Horn		X		
Uplock Cable Tension		X		
Emergency Extension		X		
Downlock Tension		X		
Uplock Rollers	X	X	X	
Actuator Gear Box Rigging Clearance		X		
Safety Switch		X		
General Operation		X		
***NOSE GEAR OPERATION**				
Doors		X		
Visual Indicator (If Installed)		X		
Nose Gear Up Tension		X		
Downlock Tension		X		
REAR FUSELAGE AND EMPENNAGE				
Skin			X	
Structure			X	
Cables and Pulleys			X	
Control Surfaces			X	
Trim Tabs and Actuators			X	
Static Ports	X	X	X	
Plumbing			X	
Electrical Wiring and Equipment			X	
Drain Static Lines	X	X	X	
GENERAL				
Airplane Cleaned and Serviced	X	X	X	
Airplane Lubricated in Accordance with Shop Manual Lubrication Chart	X	X	X	

For a complete or annual inspection of the airplane all items on the airplane that are noted on this guide should be inspected.

tCheck the tip of the blades and shank of the blades for evidence of lightning strikes. If evidence of lightning strike, check the area of entering or leaving the blade for hardness. The inside and outside shank area should be checked for arcing. In all cases of lightning strikes the thrust bearings should be replaced, soft blades rejected, and all steel parts demagnetized.

*First t00 hours and every 200 hours thereafter, place the airplane on jacks and cycle the landing gear while checking to ascertain that the position lights operate in conjunction with the landing gear position. Check condition and operation of complete landing gear system.

ELECTRIC PROPELLER DEICER 50 HOUR INSPECTION

The various components of the propeller deicer system should be inspected every 50 hours for the appearance of defects. The following inspections may provide a means for detecting and correcting such defects before they re:nder the deicer system inoperative:

a. Lock the brakes and operate the engine at near take-off power. Tum the deicer systems switch ON and observe the ammeter for at least 2 minutes. If the ammeter needle does not rest within the shaded band (except for a flicker at 30 second intervals when the step switch of the timer cycles) refer to the troubleshooting chart for the probable sources of trouble.

b. With the engine shut off, tum the deicer switch ON and feel the deicer boots on the propeller for the proper sequence of heater operation. The presence of local hot spots indicates service damage to the deicer heaters, which should be repaired before more serious damage develops.

CAUTION

While following the instructions of step b., move the propeller back and forth to prevent arcing between the brushes and slip ring.

WARNING

Before moving the propeller, make certain that the ignition switch is off and that the engine has cooled completely. There is always some danger of a cylinder firing when a propeller is moved.

c. Remove the spinner dome and open all access doors pertaining to the wiring and components of the deicer system. Turn the deicer switch ON and station an assistant in the cockpit to observe the system ammeter. Flex all accessible wiring, particularly the lead straps, leads from the slip ring assembly, and the firewall electrical connectors and their wiring. Any movement of the ammeter, other than the cycling flicker that occurs at 30 second intervals, indicates a short or open circuit that must be locatedl and corrected.

d. To extend the life of the lead strap between the hub clamp and clip, reposition the bend in the strap at a point at least 1/2 inch from the existing location of the bend.

e. Check for damaged brush rods or springs and for worn or damaged brushes.

100 HOUR INSPECTION

a. Check for radio noise or radio compass interference by operating the engine at near take-off power with the radio gear turned on. If, under these conditions, noise or interference occurs when the deicer switch is ON and disappears when the switch is OFF, refer to the troubleshooting chart for the probable source of trouble.

b. Check all clamps, clips, mountings, electrical connections and connectors for tightness and electrical soundness. Check also for loose, broken or missing safety wire.

c. Closely check the deicer boots for wrinkled, loose or torn areas, particularly around the outboard end and at the point where the strap passes under the hub clamp. Look for abrasion or cuts along the leading edge of the flat or thrust face. If the heater wires are exposed in damaged areas or if the rubber is found to be tacky, swollen or deteriorated (as from contact with oil or solvent fluids), replace the damaged deicer boot.

d. Check that the hub clamps are tight. Inspect for cracks or other damage. Check to see that the cushioning material is not missing or damaged in the area under the hub clamp or on the edge of the spinner dome. Manually operate the propeller from "high pitch" to "low pitch" while checking that the deicer lead straps do not come under tension:

e. Check the slip rings for gouges, roughened surfaces, cracks, burned or discolored areas, and for deposits of oil, grease or dirt. Clean greasy or contaminated slip rings with CRC-2-26 solvent (a product of Corrosion Reaction Consultants, Inc., of Philadelphia, F"ennsylvania). Mter such a cleaning, allow a run-in time of 5 hours of engine operation before turning on the deice'r system.

f. If uneven wear or wobble is detect,ed, check the alignment of the slip rings to the prop shall't with a dial indicator. While turning the prop to check the slip ring alignment, push in on the prop to eliminat',e play in the propeller thrust bearing. If the runout over 360 degrees of rotation is over 0.005 inch or if over any 4-inch arc it exceeds 0.002 inch, refer to the paragraph on Slip Ring Alignment.

g. Examine the brush mounting bracket and housing for cracks, deformation, or other indications of damage. Make sure that connections are tight and that the leads are not chafed or binding.

h. Check to see that each brush rides fully on its slip ring over 360 degrees of rotation. If the brush is not properly aligned, add shims under the brush block or elongate the holes in the mounting bracket to raise or lower the brush block to the proper position. If the brushes ride BOTH high and low with respect to the slip rings in 360 degrees of rotation, the slip ring assembly is eccentrically mounted and the spinner bulkhead must be replaced.

i. Check for proper spacing between the brush block and slip rings as indicated in Deicer Brush Replacement. If this distance is not within the specified limits, loosen the mounting screws and reposition them in the elongated holes until the block is properly positioned. If necessary, add shims between the thrust bearing plate and mounting bracket until the brush block is properliy located.

j. Estimate the contact angle of the brush block in relation to the slip rings. If this angle is not approximately 2 degrees, as indicated in Deicer Brush Replacement, loosen the mounting screws and reposition the brush block until the proper angle exists between the brush block and slip rings. The spacing established in Figure 11-4 must also be maintained, after the proper contact angle is established..

k. With the deicer system operating and a man in the cockpit observing the ammeter, visually inspect and physically flex the wiring from the brush blocks to each component of the deicer system and to the airplane power supply. Jumps of the ammeter needle (other than the momentary flicker that occurs when the timer switches at 30 second intervals) indicate loose or broken wiring in the area under examination at the moment. In such instances, continue to flex the wiring in the area that first indicated trouble while checking the continuity through the individual wires of the affected harness until the source of trouble is located. Use the wiring diagram to trace the circuitry of the deicer system.

WARNING

Before moving the propeller, make certain that the ignition switch is off and that the engine has cooled completely. There is always some danger of a cylinder firing when a propeller is moved.

CAUTION

While following the instruction of step k. move the propeller back and forth to prevent arcing between the brushes and slip ring.

TURBOCHARGER

25 Hours

a. Visually inspect system for oil leaks, exhaust system leaks and general condition.

50 Hours

a. Visually inspect system for oil leaks, exhaust system leaks and general condition.

100 Hours

Inspect turbocharger system per the following method:

Remove compressor inlet duct assembly. Inspect the compressor wheel for nicks, cracks or broken blades. Turn wheel by hand and feel for excess bearing drag or wheel rubbing against housing. Reinstall air inlet duct.

The oil inlet and outlet ports in center housing should be checked for leaks, and the turbine heat blanket for condition and security.

b. Check for any interference with linkage between the by-pass valve (wastegate) and actuator, its general condition and security.

c. Inspect all exhaust system components for worn or damaged areas, loose clamps, cracks and leaks.

d. Inspect lubrication system components for worn or damaged areas, loose clamps and leaks. Special attention should be given to the ducting downstream (pressure side) of the compressor.

e. Inspect the fuel injection nozzle pressure reference manifold, for deteriorated hose, loose connections, leaks or obstructions.

f. All fluid power lines should be checked for leaks and security.

g. The compressor discharge reference line from the throttle air valve to the controller should be opened and inspected for oil leakage from the controller. Any leakage is cause for replacement of the controller.

100-HOUR INSPECTION *(Continued)*

A. OPERATIONAL INSPECTION *(Continued)*	MECH	INSP
17. FUEL QUANTITY GAGES - Check for proper operation and unusual fluctuations.		
18. AUXILIARY FUEL PUMP· Check pump for proper operation, unusual noise and fluctuations.		
19. FUEL TANK SELECTOR - Check for proper placarding, proper operation and feel for positive detent.		
20. ALL LIGHTS - Check for condition, attachment, cracked or broken lenses. Check sWitches, knobs and circuit breakers for looseness and operation.		
21. STALL WARNING SYSTEM - Check for proper operation and heating of the unit.		
22. RADIO OPERATION - Check for proper operation, security of switches and knobs.		
23. FLAPS - Check for noisy operation, full travel and proper indication.		
24. PITOT HEAT - Check for amperage drawn on ammeter and for proper heating of the unit.		
25. FLIGHT INSTRUMENTS - Check for condition and proper operation.		
26. BRAKES - Check for condition and wear, ease of operation and proper release of the parking brake. Check for unusual brake chatter.		
27. EMERGENCY LOCATOR TRANSMITTEFI - Check for proper operation. Tune radio to 121.5 MHz on VHF or 243 MHz on UHF, then turn ELT switch to ON and monitor for one signal. Turn ELT switch OFF, then place in ARM position.		
28. AIR CONDITIONER - Operate the air conditioner and verify that the air scoop moves to the ground extended position When turned on and returns to the retracted position when turned off. Check for proper operation and unusual noise.		
29. OXYGEN SYSTEM - Functionally check thiS oxygen system for proper operation. Check the oxygen bottle shutoff valve for proper operation.		
30. SWITCHES, CIRCUIT BREAKERS - Checlk for proper operation.		
31. FLIGHT CONTROLS, TRIM CONTROLS AND TRIM INDICATOR - Check freedom of movement and proper operation through full travel with and without flaps extended. Check electric trim controls for operation.		
B. POWER PLANT	MECH	INSP
1, NACELLE SKIN - Check for deformation and obvious damage or cracks. Check for loose or missing rivets.		

100-HOUR INSPECTION *(Continued)*

8. POWER PLANT *(Continued)*	MECH	INSP
2. NACELLE STRUCTURE - Check for cracks and deformation. Check for loose or missing rivets and concealed damage.		
3. COWLING - Check for condition, security and adjustment of latches. Open the upper cowling and clean. Inspect for cracks.		
4. COWL FLAPS - Check for travel, deformation and security. Inspect for cracks.		
5. SPARK PLUGS - Clean. inspect, regap, test and replace as necessary. Tighten spark plugs to proper torque and check ignition harness condition and for proper attachment.		
6. COMPRESSION - Perform differential compression test.		
7. BATIERY - Inspect for clean, tight connections and add distilled water to maintain a level of 3/8-inch above top of separiators. Inspect the vents and overflow tube for obstructions. Check for security and proper attachment. Check for corrosion. Make certain the battery is clean. Water or dirt on battery surface can cause the battery to discharge.		
8. PLUMBING - Inspect plumbing and associated accessories for condition (such as cracks and fraying) and attachment. Check plumbing clearance and secure against possible chafing.		
9. BRAKE FLUID RESERVOIR - Check reservoir for security, open vent, proper fluid level and for leaks.		
10. ENGINE OIL TANK OR SUMP - Check for cracks, leaks. proper fluid level, deformation and security.		
11. CRANKCASE - Check security of crankcase half bolts. Inspect the dipstick tabs for security and that the tabs are not bent.		
12. OIL SUMP DRAINS AND SCREENS - Clean screens, check for holes in the screens and for obstructions. Check for metal particles or foreign matter on screens and filters. Check for proper torque aftl3r installation.		
13. OIL COOLER - Check oil cooler, lines and fittings for condition, security, chafing and leaks.		
14. PROPELLER AND MOUNTING BOLTS - Check for condition and security. Check the tip of the blades for evidence of ligihtning strikes. If there is evidence of lightning strikes, consult the propeller manufacturer, the engine manufacturer and Beech Aircraft Corporation. Inspect the blades for cracks, dents, nicks, scratches, erosion, corrosion, security and movement in the hub.		
15. PROPEI.I.ER SPINNER - Check fClr deformation, security and cracks,		

100-HOUR INSPECTION *(Continued)*

B. POWER PLANT *(Continued)*	MECH	INSP
16. PROPELLER HUB - Check for cracks, excessively leaking seals and condition.		
17. ALTERNATOR/GENERATOR - Check for condition and attachment. Check wiring for proper attachment and possible chafing. Check for unusual noise.		
18. ALTERNATOR - (Prestolite or Delco Remy only) Remove and disassemble the alternator as necessary to inspect the rotor shaft bearings for condition and replace if necessary. Refer to BEECHCRAFT Service Instructions No. 0546-359 Rev II or subsequent.		
19. STARTER - Check for condition, attachment and chafed or loose wires.		
20. STANDBY GENERATOR - Check for condition, attaChment,		
21. MAGNETOS - Check contact points for proper clearance. Points with deep pits or excessively burned areas must be discarded. Inspect the cam follower felt pad for proper lubrication and clean the compartment with a clean, dry cloth. Check ignition harness for proper connection, security and fraying. Check timing.		
22. CYLINDERS AND BAFFLES - Check cylinders and exhaust manifold for obvious leaks, security and cracks, check baffles for cracks and security. Check cylinders for broken cooling fins and loose or missing base nuts.		
23. EXHAUST SYSTEM - Check for deformation, security, cracks, leaks, loose or missing nuts and clamps. Check for thin wall condition which may occur due to normal internal erosion on stacks which have long service time.		
24. FIREWALL - Check for wrinkles, damage or cracks. Check all electrical and control access holes for proper sealing.		
25. HOSE AND DUCTS - Check all fuel, oil and air hose or duct for leakage, cracks, deterioration and damage. Check fittings for security.		
26. ENGINE ACCESSORIES - Check for condition, security and leaks. Check wiring, hoses and tubes for chafing, security and leaks.		
27. ENGINE MOUNTS - Check for cracks, corrosion and security. Inspect rubber cushions, mount bolts and nuts, and grounding straps for condition and security. Check engine mount support for cracks and material integrity.		
28. CABIN HEATER SYSTEM - Check for cracks, distortion, corrosion, leaks and obstructions.		
29. PROPELLER GOVERNOR - Check for leaks and control arm for security.		

10o-HCIUR INSPECTION *(Continued)*

B. POWER PLANT *(Continued)*	MECH	INSP
30. ENGINE CONTROLS - Check controls and associated equipment for condition, attachment, alignment and rigging. Remove cable connection bolts and check for wear each 300 hours. Check for security of throttle cable and for proper clearance of electrical wiring.		
31. IGNITION HARNESS - Inspect for fraying and attachment.		
32. ELECTRICAL WIRING AND EQUIIPMENT - Inspect electrical wiring and associated equipment and accessories for fraying and attachment.		
33. ALL DRAINS AND PLUGS - Check for condition, security and obstructions. Check for leaks and correct tightness.		
34. PRESSURE PUMP INTAKE FILTER - Foam rubber type, clean every 100 hours; cartridge type, replace every 500 hours or as needed. Check filter container for cracks. Check for security.		
35. AIR CONDITIONER COMPRESSOR - Check for security and attachment. Check refrigerant level and for oil leaks. (See Section 3 of this shop manual.) Check belt for tension and worn or frayed condition.		
36. INDUCTION AIR FILTER - Check for condition, cleanliness and security.		
37. INDUCTION SYSTEM AND ALTERNATE AIR - Check hot and cold flexible air ducts for delamination of the inner lining. Check the alternate air valve for blockage, security, cracks, operation and wear.		
38. CARBURETOR HEAT SYSTEM - Check for blockage, security, and operation.		
39. CARBURETOR - Clean the screen and check for damage. Drain the inlet chamber and rear section. Install screen and check for leaks. Check the primer solenoid for operation and ensure secure mounting.		
40. FUEL INJECTION CONTROL VAL.VE - Clean the screen and check for damage. Install screen and check for leaks.		
41. FUEL INJECTION SYSTEM - Inspect all fuel injection components, lines and fittings for evidence of fuel leaks, fraying and cracking.		
42. OIL SEPARATOR - (Vacuum system) Clean the screens as directed in this shop manual. Check for condition, mounting and proper operation. Install the screen and check for security. Inspect for cracks.		
43. VACUUM SYSTEM AIR FILTER - (Located forward of the instrument panel) Check for security of attachment, replace as required.		

100-HOUR INSPECTION *(Continued)*

B. POWER PLANT *(Continued)*	MECH	INSP
44. VACUUM RELIEF VALVE - Clean and inspect filter, check for security of attachment.		
45. ELECTRIC PROPELLER DEICER -		
a. Check for service damage to the deicer heaters, brush rods, springs and brushes. Check for attachment and security.		
b. Check the lead strap and all other clamps, connectors and wiring for electrical soundness, security and attachment.		
c. Check the slip rings for roughness, cracks, burned or discolored areas and for deposits of oil, grease or dirt. Check for security and attachment of all components.		
d. Check deicer boots for wrinkles, loose or torn areas.		
46. TURBOCHARGER SYSTEM -		
a. Inspect the system for oil leaks, exhaust system leaks, cracks and attachment.		
b. Inspect the compressor wheel for nicks, cracks or broken blades and freedom of movement.		
c. Inspect the bypass valve (wastegate) for proper operation and inspect all linkage for interference, condition, security and attachment.		
d. Inspect all exhaust system components for worn or damaged areas, loose clamps, cracks and leaks.		
e. Inspect lubrication system components for worn or damaged areas, loose clamps, cracks and leaks.		
f. Inspect the upper deck pressure reference lines and the fuel injection reference manifold for loose connections, leaks and possible chafing.		
g. Check and calibrate the turbine inlet temperature indicator.		
h. Check manifold pressure controller linkage for wear.		
C. CABIN AND BAGGAGE COMPARTMENT	MECH	INSP
1. SKIN - Inspect skins for deformation, cracks and loose or missing rivets. If damage is found, check adjacent structure.		
2. STRUCTURE - Check for cracks and deformation. Check for loose or missing rivets and concealed damage.		

100-HOUR INSPECTION *(Continued)*

C. CABIN AND BAGGAGE COMPARTMENT *(Continued)*	MECH	INSP
3. CABLES AND PULLEYS - Check the flight control components, cables and pulleys. Replace control system components (pushrods, turnbuckles, end fittings, castings, etc.) that have bulges, splits, bends, or cracks. Check control cables, pulleys, and associated equipment for condition, attachment, alignment, clearance and proper operation. Replace cables that have more than 3 broken strands in any 3-foot length of cable or evidence of corrosion. Check cables for proper tension at the first inspection and every 100 hours thereafter.		
4. AILERON QUADRANT (D-1 thru D-1S00) - Inspect for condition, attachment and proper operation such as binding.		
5. LANDING GEAR GEARBOX AND ACTUATING LINKAGE - Check for leakage, wear, condition and attachment. Check for unusual noise. Check oil level by engaging and turning the emergency handcrank 1/2 turn to determine that oil is being picked up on the worm gear. The oil level should be maintained no more than necessary to cover 1/2 of the diameter of the worm gear.		
6. FLAP MOTOR AND SHAFTS - Check for condition, security and wear at all points. Check drive shaft housing for security and check jam nuts for tightness.		
7. AUXILIARY FUEL PUMP AND FUEL LINES - Check for condition, security and leaks. Check lines for signs of chafing or cracks.		
8. BRAKE MASTER CYLINDER AND PARKING BRAKE VALVE - Check for condition, security and leaks. Check lines for signs of chafing or cracks.		
9. RUDDER PEDALS - Check for freedom of movement. Check cables, push/pull rods, bellcranks, pulleys, turnbuckles, fairleads, for proper routing, condition and security. Check rudder pedal fore and aft positions for wear. Check locks and pins to ensure positive lock.		
10. CONTROL COLUMN, TRIM CONTROL AND INDICATOR (Electric and Manual) - Check for freedom of movement. Inspect pulleys, sprockets, bearings, actuators, chains and turnbuckles for condition, security and operation. Check trim indicator for proper indication.		
11. ENGINE CONTROLS - Check for ease of operation through full travel. Check friction locks for proper operation.		
12. ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing.		
13. PLUMBING - Check all plumbing and connections for security, leakage and general condition.		

100-HOUR INSPECTION *(Continued)*

C. CABIN AND BAGGAGE COMPARTMENT *(Continued)*	MECH	INSP
14. WINDOWS AND DOORS - Inspect windows for scratches, crazing and general condition. Inspect doors for security of attachment. Check latching mechanism for proper engagement and ease of operation.		
15. INSTRUMENTS AND INSTRUMENT PANEL - Inspect instrument panel, subpanels, placards and instruments for condition and attachment. Check all knobs for security. Inspect shock mounts and ground straps for cracks and security.		
16. SEATS, SEAT BELTS AND SHOULDER HARNESSES - Inspect cabin seats, seat belts and shoulder harnesses for proper operation, condition and security of attachment. Inspect floorboards for condition and seat attachment. Check for operation of the seat stops.		
17. OXYGEN SYSTEM - Check condition of the oxygen system and check the oxygen masks for cleanliness and stowage.		
18. VENTILATING SYSTEM - Check all fresh air and heat outlet vents for proper movement and operation.		
19. FUEL SELECTOR VALVE - Inspect for leakage, security, freedom of movement, proper detent feel and condition. Clean strainl3r and check for condition. Check for proper placarding.		
20. FILTERS - Inspect pressure system in-line filter for condition, cleanliness and security. Replace pressure system in-line filter and all other individual instrument air filters in accordance with the overhaul and repilacement schedule in Section 8.		
21. EMERGENCY EXIT HATCH - Check emergency release handle and latch assembly for proper operation. Check that the hatch moves out freely. Check the complete latch assembly for condition and all moving parts for proper operation. With the hatch installed, check for proper latching and seal. Resafety the emergency exit with .020-inch-diameter copper wire after opening.		
22. STATIC SYSTEM - Check and drain water from the static lines.		
23. CABIN AIR BLOWER - Check for condition, mounting security, and wear at all points.		

D. WINGS AND CARRY·THROUGH STRUCTUFIE	MECH		INSP
	LH	RH	
1. SKIN - Check for deformation and obvious damage. Check for cracks, loose or missing rivets. If damage is found, check adjac:ent structure. Check for indications of hard landing or excessive flight loading.			

1CO-HOUR INSPECTION *(Continued)*

D. WINGS AND CARRY-THROUGH STRUCTURE *(Continued)*	MECH		INSP
	LH	RH	
2. STRUCTURE - Check for cracks, deformation and concealed damage. Check for loose or missing rivets. Refer to Section 3 of this shop manual for inspections for fuselage web cracks at the fuselage/wing spar carry-through area.			
3. ACCESS DOORS AND PANELS - Inspect for cracks, proper fit and attachment.			
4. CABLES, PULLEYS AND TURNBUCKLES - Check the wing flight control components, cables and pulleys. Replace control system components (pushrods, turnbuckles, end fittings, castings, etc.) that have bulges, splits, bends, or cracks. Check control cables, pulleys, and associated equipment for condition, attachment, alignment, clearance, and proper operation. Replace cables that have more than 3 broken strands in any 3-foot length of cable or 19vidence of corrosion. Check cables for proper tension at the first inspection and every 100 hours thereafter.			
5. AILERONS - Check for condition and security. Check for cracks, loose or missing rivets and freedom of movement. Check hinge bearings and brackets for condition, push-pull rods for security and rod ends for corrosion.			
6. FUEL CELLS, CAPS AND VENTS - Inspect fuel cells, caps and vent lines as indicated in Section 3 of this shop manual.			
7. PLUMBING - Check for leakage, chafing, condition and security.			
8. ELECTRICAL WIRING AND EQUIPMENT - Inspect for chafing, damage, security and attachment.			
9. FLAP LIMIT SWITCHES - Check for condition, security and freedom of operation.			
10. FLAPS AND ACTUATORS - Check for condition, security, binding or chafing of actuator drive shafts. Check flap skin and structure for cracks, loose or missing rivets. Check roller bearings and tracks for condition. Check stop area for condition and damage.			
11. FLAP POSITION TRANSMITIER - Check for security and operation.			
12. DRAIN HOLES - Check the drain holes in the left and right upper wing attach fittings to ensure that they are open and free of obstruction.			
13. WING SPAR CAP - Inspect the wing spar cap for corrosion as outlined in Section 4 ofthis shop manual. (See SeNice Instructions No. 0514-035 Rev 2 or subsequent.)			
14. WING BOLTS - Check wing bolts for proper torque at the first 1DO-hour inspection and at the first 1DO-hour inspection after each reinstallation of the wing attach bolts. Refer to Section 3 of this shop manual for wing bolt, nut and fitting inspection criterion and frequency,			

100-HOUR INSPECTION *(Continued)*

D. WINGS AND CARRY-THROUGH **STRUCTURE** *(Continued)*	MECH		INSP
	LH	RH	
15. RADAR ANTENNA COVER - Check the fiberglass for security, attachment and cracks.			
16. FUEL VENTS AND AIR INLETS, PITOT TUBE AND STALL WARNING - Check for condition and obstruction.			
E. NOSE GEAR	MECH		INSP
1. WHEEL AND TIRE - Check wheel for cracks and tire for wear, damage, proper inflation.			
2. LANDING GEAR STRUT - Inspect the shock strut and components for cracks, attachment, proper inflation and evidence of leakage.			
3. ACTUATING LINKAGE - Check for wear at attach points. Check for cracks and security.			
4. GEAR DOORS AND LINKAGE - Check doors for damage and cracks to the structure and skins. Check linkage for wear and cracks at the attach points. Check for condition and security.			
5. NOSE GEAR STEERING LINKAGE - Inspect linkage for tightness, condition and security. Linkage boots for condition.			
6. SHIMMY DAMPER - Check for condition and attachment. Check attach points for cracks. Check fluid level per Section 2.			
7. STRUT FLUID LEVEL - Check and maintain the proper fluid level in the strut as outlined in Section 2.			
8. STRUT AND A-FRAME HINGE BOLTS - Inspect for cracks and security of attachment.			
9. STATIC CABLE (If installed) - Inspect for condition, proper clearances and attachment.			
10. VISUAL INDICATOR - Check for condition,			
F. MAIN GEAR AND BRAKES	MECH		INSP
	LH	RH	
1. BRAKES, LINES, LINING AND DISCS - Check for condition, wear and security. Check lines for chafing and signs of leakage or cracks. Check discs for wear or warping. Check brake discs for cracks.			

100-HOUR INSPECTION *(Continued)*

F. MAIN GEAR AND BRAKES *(Continued)*	MECH		INSP
	LH	RH	
2. WHEELS AND TIRES - Check wheels for cracks and tires for wear, damage, condition and proper inflation. Check wheel bearings for condition and wear.			
3. ACTUATOR GEARBOX, MOTOR AND SWITCHES - Check for leakage, condition and security.			
4. LANDING GEAR STRUTS - Inspect the shock struts and components for cracks, attachment, corrosion, proper inflation and evidence of leakage.			
5. ACTUATING LINKAGE - Check for wear and cracks at attach points. Check for condition and security.			
6. GEAR DOORS AND LINKAGE - Check doors for damage and cracks to the structure and skins. Check linkage for wear and cracks at the attach points. Check for condition and security. Determine that all clevis retaining pins are in place and secured with cotter pins.			
7. STRUT FLUID LEVEL - Check and maintain the proper hydraulic fluid level in the struts as outlined in Section 2 of this shop manual.			
8. STRUT AND A-FRAME HINGE BOLTS - Inspect for cracks and security of attachment.			

G. MAIN GEAR OPERATION	MECH	INSP
CAUTION Under no circumstances should the landing gear be operated electrically while the handcrank is engaged. In the event of such an operation, a teardown and magnetic inspelction should be performed to determine damage to the engagement slot in the worm shaft. NOTE Since the battery voltage is not sufficient to properly cycle the landing gear for this inspection, use only an external power source capable of delivering and maintaining 28.25 ±.25 VDC to the airplane's electrical system throughout the extension and retraction cycles when performing the landing gear retraction inspection. Refer to Section 5 for more specific information on the following items.		
1. DOORS - Check operation, fit and 1fair. Check for unusual noise.		

100-HOUR INSPECTION *(Continued)*

G. MAIN GEAR OPERATION *(Continued)*	MECH	INSP
2. POSITION LIGHTS - Check for security, adjustment, wiring for breaks, condition of insulation, loose connections and proper indication.		
3. WARNING HORN - Check for proper operation.		
4. UPLOCK CABLE TENSION - Check uplodk cable mechanism for condition and security. Check uplock cable for proper tension and for possible fraying.		
5. EMERGENCY EXTENSION - Check system for freedom of operation and positive engagement of the downlocks. Check for unusual noise.		
6. DOWNLOCK TENSION - Check for proper c1ef/ection force on the main gear knee joints.		
7. UPLOCK ROLLERS - Check condition and clearance of uplock rollers and lubricate as indicated in Sections 2 and 5 of this shop manual. Check for binding.		
8. LIMIT SWITCH RIGGING - Check for security and proper adjustment of the limit switches. Refer to Section 5 of this shop manual for correct landing gear gearbox internal clearance.		
9. SAFETY SWITCH - Check for security, proper rigging and operation.		
10. GENERAL OPERATION - Place the airplane on jacks and cycle the landing gear while checking to ascertain that the position light switches operate in conjunction with the landing gear position. Check the condition and operation of the complete landing gear system.		
11. DYNAMIC BRAKING ACTION - Verify proper operation of dynamic brake relay.		
12. ASSIST STEP - Check step for security. For retractable step (if installed), inspect the cable and safety link condition, proper adjustment and operation. Check fixed link condition, proper adjustment and operation.		

100-HOUR INSPECTION *(Continued)*

H. NOSE GEAR OPERATION	MECH	INSP
CAUTION Under no circumstances should the landing gear be operated electrically while the handcrank is engaged. In the event of such an operation, a teardown and magnetic inspection should be performed to determine damage to the engagement slot in the worm shaft. **NOTE** Since the battery voltage is not sufficient to properly cycle the landing gear for this inspection, use only an external power source capable of delivering and maintaining 28.25 ±.25 VDC to the airplane's electrical system throughout the extension and retraction cycles when performing the landing gear retraction inspection. Refer to Section 5 for more specific information on the following items.		
1. DOORS - Check door operation, fit and fair. Check for unusual noise.		
2. NOSE GEAR-UP TENSION - Check the up tension on the nose gear as indicated in Section 5 of this shop manual.		
3. DOWNLOCK TENSION - Check the downlock tension on the nose gear as indicated in Section 5 of this shop manual.		
4. GENERAL OPERATION - Place the airplane on jacks and cycle the landing gear while checking to ascertain that the position light switches operate in conjunction with the landing gear position. Check the condition and operation of the complete landing gear system.		
5. VISUAL INDICATOR - Inspect for proper adjustment and operation.		
6. NOSE GEAR STEERING - Check for condition and security.		
I. REAR FUSELAGE AND EMPENNAGE:	**MECH**	**INSP**
1. SKIN - Check for deformation, cracks and obvious damage. Check for loose or missing rivets. If damage is found, check adjacent structure.		
2. INTERNAL FUSELAGE STRUCTURE - Check for cracks and deformation. Check for loose or missing *rivets.* Check bulkheads, doorpost, stringers and doublers for corrosion, cracks and buckles.		
3. STRUCTURE - Inspect the two most aft bulkheads for cracks, distortion, loose rivets or other obvious damage.		

100-HOUR INSPECTION *(Continued)*

I. REAR FUSELAGE AND EMPENNAGE *(Continued)*	MECH	INSP
4. CABLES AND PULLEYS - Inspect for condition, attachment, alignment, clearance, proper operation and proper tension. Check for fraying of cables.		
5. CONTROL SURFACES- Check for deformation, cracks and security. Check for loose or missing rivets. Check for freedom of movement. Check for security of hinges and bond cables.		
6. TRIM TABS AND ACTUATORS - Check for security and wear. Check free play. Check hinges and trim tab actuators for security and wear. Check trim tabs for cracks and control rods for attachment. Lubricate trim tab hinges per Section 2.		
7. STATIC PORTS- Check for obstruction and clean as necessary.		
8. PLUMBING- Check for leakage, cracks, chafing, condition and security.		
9. ELECTRICAL WIRING AND EQUIPMENT- Inspect for chafing, damage, security and attachment.		
10. STATIC LINES - Check condition of static lines and drain.		
11. ASSIST STEP BUNGEE - Inspect for condition and attachment.		
12. ANTENNAS - Check for condition and security.		
13. ELEVATOR/RUDDER (Ruddervators) -		
a. Check that the drain holes are open and clean.		
b. Check that the ruddervator trim tab and hinge pin is correctly threaded.		
c. Check for cracks on the trim tab hinge support channel.		
d. Check the stabilizer front and rear spar attach points for cracks and looseness.		
J. GENERAL	MECH	INSP
1. Airplane cleaned and serviced.		
2. Airplane lubricated, after cleaning, in accordance with this shop manual lubrication chart.		
3. Inspect all placards to ensure that they are easily readable and securely attached.		
4. Ensure that all Airworthiness Directives, BEECHCRAFT Service Bulletins and previously issued Service Instructions are reviewed and complied with as required.		