100-HOUR OR ANNUAL LONG FORM INSPECTION GUIDE

WARNING: Any maintenance requiring the disconnection and reconnection of flight control cables, plumbing, electrical connectors or wiring requires identification of each side of the component being disconnected to facilitate correct reassembly. At or prior to disassembly, components should be color coded, tagged or properly identified in a way that it will be obvious how to correctly reconnect the components. After reconnection of any component, remove all identification tags. Check all associated systems for correct function prior to returning the airplane to service.

1. 100-HOUR OR ANNUAL LONG FORM INSPECTION

The time periods for the inspections noted in this schedule are based on normal usage under average environmental conditions. Airplanes operated in humid tropics, or in 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 owner/operator can set his own inspection periods based on the contingencies of field experience. Airplanes operated less than 100 hours per year must have a 100-Hour Inspection performed no later than 12 months following the date of the preceding 100-Hour Inspection. The 100-hour interval between performance of the procedures specified herein should NEVER be exceeded by more than 10 hours, which can be used only if the additional time is required to reach a place where the inspection can be accomplished satisfactorily. However, any extension of a 100-hour interval must be subtracted from the following 100-hour interval, with no time extension permitted. For example, if an inspection is done at 110 hours, the next inspection is due 90 hours later with no extension allowed.

NOTE: Ascertain that all placards are in place and legible whenever the airplane has been repainted or touched up after repairs. Replace any placards that have been inadvertently defaced or removed.

Beechcraft Corporation's Recommended Inspection Program in accordance with Title 14 of the Code of Federal Regulations (14 CFR) Parts 43 and 91 consists of, but is not limited to, inspection items listed in this inspection guide, any applicable Airworthiness Directives issued against the airframe or any equipment installed therein, conformity to Type Certificate Data Sheet and Maintenance Manual Time Limits/Maintenance Checks (Chapter 05) as applicable.

The owner/operator is ultimately responsible for maintaining the airplane in an airworthy condition, including compliance with all applicable Airworthiness Directives as specified in Part 39 of 14 CFR. It is further the responsibility of the owner/operator to ensure that the airplane is inspected in conformity with the requirements of Parts 43 and 91 of the regulations. Beechcraft Corporation has prepared this inspection guide to assist the owner/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 power plant mechanic in the performance of his duties. As the one primarily responsible for the airworthiness of the airplane, the owner/operator should select only qualified personnel to maintain the airplane.

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 chapters of the maintenance manual and the pertinent supplier publications. It is also recommended that reference be made to the applicable Maintenance Handbooks, previously issued Service Instructions, Beech and/or Beechcraft Corporation Service Bulletins, applicable FAA regulations and publications, supplier bulletins and specifications for torque values, clearances, settings,

tolerances and other requirements. It is the responsibility of the owner/operator to ensure that the airframe and power plant mechanic inspecting the airplane has access to the previously noted documents as well as to this inspection guide.

Beechcraft Corporation issues service information for the benefit of owner/operator in the form of two classes of Service Bulletins. MANDATORY (Red Border) are changes, inspections or modifications that could affect safety. Beechcraft Corporation considers compliance with these Service Bulletins mandatory. OPTIONAL (No Border) Service Bulletins cover changes, modifications, improvements or inspections which may benefit the owner/operator. Due to the wide range of information covered by the OPTIONAL Service Bulletin, each owner/operator is responsible for conducting a thorough review of each Optional Service Bulletin to determine if compliance is required based on the applicability of the OPTIONAL Service Bulletin to his particular set of operating conditions.

In the final analysis it is the responsibility of the owner/operator to ensure that all previously issued Class I and II Service Instructions and Beech and/or Beechcraft Corporation Service Bulletins which are pertinent to his particular operation are complied with.

NOTE: In addition to the inspections prescribed by this schedule, the altimeter instrument and static system and all ATC transponders MUST be tested and inspected at 24-month intervals in compliance with the requirements specified in 14 CFR Part 91.

WARNING: During the performance of this inspection the airplane will be placed on three-point jacks. Ensure the landing gear is down and locked before removing the airplane from the jacks.

OWNER'S NAME		ADDRESS	
IDENTIFICATION NUMBER	**SERIAL NUMBER**	**HOURS**	**DATE INSPECTION COMPLETED**
	ENGINE SERIAL NUMBER	**ENGINE HOURS**	
SERVICING AGENCY	**CITY**		**STATE**

A. OPERATIONAL INSPECTION

	MECH	INSP
(1) STARTER - Check for proper operation, unusual noise and dragging. Check starter energized light (if installed) and/or load meter to ensure starter disengagement when starter switch is released.		
(2) Fuel Flow - Check for proper fuel pressure limits and fluctuations. Refer to Chapter 71-00-00 for fuel system setup.		
(3) CYLINDER HEAD TEMPERATURE - Check for proper operation, temperature and fluctuations.		
(4) ALTERNATOR/GENERATOR - Check for proper output and unusual noises.		
(5) STANDBY ALTERNATOR/GENERATOR - Check for proper operation in test mode. Perform a functional test as outlined in Chapter 24-31-00 of P/N 36-590001-9A (or subsequent) Maintenance Manual. Check wiring for security and condition.		
(6) INSTRUMENT AIR SYSTEM - Check for proper operation and output pressure.		
(7) STANDBY INSTRUMENT AIR (If installed) - Check for proper operation. Check plumbing and wiring for security and condition. Refer to the applicable AFM Supplement.		
(8) PROPELLER OPERATION - Cycle propeller and check for proper rpm drop and smoothness of operation.		
(9) PROPELLER DEICER - Check for proper operation and amperage drawn on ammeter.		
(10) OIL PRESSURE AND TEMPERATURE - Check for proper pressure, temperature limits and unusual fluctuations.		
(11) MAGNETOS - Check the performance of the magneto as outlined under the heading NORMAL PROCEDURES in the appropriate Pilot's Operating Handbook.		

	MECH	INSP
(12) POWER CHECK - Refer to NORMAL PROCEDURES in the appropriate Pilot's Operating Handbook.		
(13) AMMETER - Check for proper indication and unusual fluctuations.		
(14) HEATING AND VENTILATING SYSTEM - Check for proper operation, heat and airflow output. Check controls for freedom of movement.		
(15) FIREWALL SHUTOFF VALVE - Check for proper operation and freedom of movement.		
(16) IDLE RPM AND MIXTURE SETTINGS - Check for both proper rpm and mixture settings. Check controls for freedom of operation.		
(17) IDLE CUT-OFF - Check for proper operation and freedom of movement.		
(18) IGNITION SWITCH - Rotate the ignition switch through the OFF position to the extreme limit of switch travel; if the engine stops firing, the switch is normal. If the engine continues to run with the switch held against the OFF stop, it is an indication that one magneto is still “hot” or ungrounded. When the switch is released, it should automatically return to OFF and the engine should stop running. However, any ignition switch exhibiting this abnormal condition should be replaced.		
(19) ALL ENGINE CONTROLS - With the engine running, check for proper operational limits, engine response and rigging. Check friction locks for proper operation.		
(20) FUEL QUANTITY GAGES - Check for proper operation and unusual fluctuations.		
(21) AUXILIARY FUEL PUMP - Check pump for proper operation, unusual noise and fluctuations.		
(22) FUEL TANK SELECTOR - Check for proper placarding, proper operation and feel for positive detent.		
(23) ALL LIGHTS - Check for condition, attachment, cracked or broken lenses. Check switches, knobs and circuit breakers for looseness and operation.		
(24) STALL WARNING SYSTEM - Check for proper operation and heating of the unit.		
(25) RADIO OPERATION - Check for proper operation, security of switches and knobs.		
(26) FLAPS - Check for noisy operation, full travel and proper indication.		
(27) PITOT HEAT - Check for amperage drawn on ammeter and for proper heating of the unit.		
(28) FLIGHT INSTRUMENTS - Check for condition and proper operation.		
(29) BRAKES - Check for condition and wear, ease of operation and proper release of the parking brake. Check for unusual brake chatter.		

	MECH	INSP
(30) EMERGENCY LOCATOR TRANSMITTER (a) (E-1 thru E-3880 except airplanes modified by Kit 36-3049) - 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. (b) (E-3881 and After and airplanes modified by Kit 36-3049) - Check for proper operation. Tune radio to 121.5 MHz on VHF or 406 MHz on UHF, then turn ELT switch to ON for about one second, then back to the ARM position. The receiver should voice about three audio sweeps.		
(31) AIR-CONDITIONER - Operate the air conditioner and verify that the retractable condenser 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.		
(32) OXYGEN SYSTEM - Functionally check the oxygen system for proper operation. Check the oxygen bottle shutoff valve for proper operation.		
(33) SWITCHES, CIRCUIT BREAKERS - Check for proper operation.		
(34) 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.		
(35) TACHOMETER ACCURACY CHECK - EFFECTIVITY - All airplanes with Hartzell Single-Acting Propeller (Ref. Hartzell Propellers Inc. Service Letter HC-SL-61-185, Revision 1 or subsequent).		

B. POWER PLANT

	MECH	INSP
(1) NACELLE SKIN - Check for deformation and obvious damage or cracks. Check for loose or missing rivets.		
(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, adjust gap, 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.		

		MECH	INSP
(7)	BATTERY - Inspect for clean, tight connections and add distilled water to maintain a level of 3/8-inch above top of separators. 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-thru 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 after 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 lightning strikes. If there is evidence of lightning strikes, consult the propeller manufacturer, the engine manufacturer and Beechcraft Corporation. Inspect the blades for cracks, dents, nicks, scratches, erosion, corrosion, security and movement in the hub.		
(15)	PROPELLER SPINNER - Check for deformation, security and cracks.		
(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/ALTERNATOR - Check for condition, attachment, security of wires and for chafing.		
(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. Refer to the applicable magneto manufacturer's manual.		
(22)	MAGNETO PRESSURIZATION FILTER - Check for condition, cleanliness and security.		

		MECH	INSP
(23)	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.		
(24)	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.		
(25)	FIREWALL - Check for wrinkles, damage or cracks. Check all electrical and control access holes for proper sealing.		
(26)	HOSE AND DUCTS - Check all fuel, oil and air hose or duct for leakage, cracks, deterioration and damage. Check fittings for security.		
(27)	ENGINE ACCESSORIES - Check for condition, security and leaks. Check wiring, hoses and tubes for chafing, security and leaks.		
(28)	ENGINE MOUNTS - Check for cracks, corrosion and security. Inspect rubber cushions, mount bolts and nuts, and grounding straps for condition and security.		
(29)	CABIN HEATER SYSTEM - Check for cracks, distortion, corrosion, leaks and obstructions per Section 3 of P/N 35-590096 Shop Manual, Section 10 of P/N 36-590001-3 Shop Manual, Section 3 of P/N 33-590011-1 Shop Manual or Chapter 21-40-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual.		
(30)	PROPELLER GOVERNOR - Check for leaks and corrosion and control arm for security.		
(31)	ENGINE CONTROLS - Check controls and associated equipment for condition, attachment, alignment and rigging. Remove cable connection bolts and check for wear each 300 hours. Refer to TCM Service Bulletin SB95-2 for engine locations and procedures.		
(32)	IGNITION HARNESS - Inspect for fraying and attachment.		
(33)	ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing (Ref. Bonanza Series Maintenance Manual, Chapter 20-10-00, 001, ELECTRICAL WIRING - ROUTINE INSPECTIONS).		
(34)	ALL DRAINS AND PLUGS - Check for condition, security and obstructions. Check for leaks and correct tightness.		
(35)	PRESSURE PUMP INTAKE FILTER - Refer to Parker-Hannifin Airborne Service Letter 59 or subsequent. Refer to Chapter 05-10-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual for additional information.		
(36)	AIR-CONDITIONER COMPRESSOR - Check for security and attachment. Check refrigerant and oil levels. Check belt for tension and worn or frayed condition. See Section 2 and 3 of P/N 35-590096 Shop Manual, Section 2 and 10 of P/N 36-590001-3 Shop Manual, Section 2 and 3 of P/N 33-590011-1 Shop Manual or Chapters 12-10-00 and 21-50-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual.		
(37)	INDUCTION AIR FILTER - Replace induction air filter after three years, five cleanings or 500 flight hours; whichever occurs first (Ref. Bonanza Series Maintenance Manual, Chapter 12-20-00, 201, INDUCTION AIR FILTER). Replace with a new air filter that is FAA approved for the airplane installation (Ref. AD 84-26-02, Amendment 39-4966).		

	MECH	INSP
(38) 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.		
(39) FUEL INJECTION CONTROL VALVE - Clean the screen and check for damage. Install screen and check for leaks.		
(40) FUEL INJECTION SYSTEM - Inspect all fuel injection components, lines and fittings for evidence of fuel leaks, fraying and cracking. Refer to procedure in TCM SB95-7.		
(41) FUEL RETURN LINE (EA-1 thru EA-695) (a) Check for chafing against the wastegate seal drain line, particularly in the area approximately six inches from the fire wall bulkhead fitting of the fuel return line. (b) Check for chafing between the fresh air inlet duct and the fuel drain line.		
(42) 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.		
(43) 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 in accordance with Section 6 of P/N 36-590001-3 Shop Manual or Chapter 77-00-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual. (h) Check manifold pressure controller linkage for wear.		

		MECH	INSP
(44)	ENGINE BAFFLE SEALS - Inspect for security and condition at each 100-hour or annual inspection. Replace as necessary or every 10 years of service.		
(45)	GENERATOR/ALTERNATOR BELT - Check for proper tension and worn or frayed condition. Check tension adjustment bolt for tightness.		
(46)	CARBURETOR HEAT SYSTEM - Check for blockage, security, operation and wear.		
(47)	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 to ensure secure mounting.		
(48)	OIL SEPARATOR (Vacuum System) - Clean the screen as directed in Section 3 of P/N 35-590096B (or subsequent) Shop Manual. Check for condition, mounting and proper operation. Install the screen and check for security. Inspect for cracks.		
(49)	VACUUM SYSTEM AIR FILTER (Located behind instrument panel) - Check for security of attachment, replace as required.		
(50)	VACUUM RELIEF VALVE - Clean and inspect filter, check for security of attachment.		
(51)	FILTERS - Inspect pressure system in-line filter for condition, cleanliness and security. Refer to Parker-Hannifin Airborne Service Letter 59 or subsequent. Refer to Chapter 05-10-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual for additional information. Time change master filter on vacuum system airplanes in accordance with the Service Chart in Section 8 of P/N 35-590096 Shop Manual, the Service Chart in Section 2 of P/N 36-590001-3 Shop Manual, the Service Chart in Section 7 of P/N 33-590011-1 Shop Manual or the Overhaul And Replacement Schedule in Chapter 05-10-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual.		
(52)	PRESSURE PUMP (Airborne) - Inspect as required by Parker - Hannifin Service Letter 43A or subsequent. Refer to Chapter 05-10-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual. for additional information. PRESSURE PUMP (Aero Accessories Pump Part Number AA216CW) - Initially inspect at 600 hours time-in-service in accordance with Aero Accessories Service Letter No. 004 and thereafter as directed by the Service Letter. Refer to Chapter 05-10-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual for additional information.		
(53)	TUBING, HOSES AND FITTINGS - Check the condition, attachment method and security of tubing and hoses. Make sure there is adequate clearance between tubing, hoses and other components and structures (Ref. 20-06-00, 001, TUBING, HOSES AND FITTINGS - INSPECTION/CHECK).		

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.		
(3) CABLES, PULLEYS AND TURNBUCKLES - 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. **NOTE** It is important to operate controls through their full range so that the cables move away from pulleys and all portions of the cables are exposed for inspection.		
(4) LANDING GEAR GEARBOX AND ACTUATING LINKAGE - Check for leakage, wear, condition and attachment. Check for unusual noise. Remove oil filler plug and check oil level by engaging and turning the emergency hand crank 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. Install oil filler plug.		
(5) 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.		
(6) AUXILIARY FUEL PUMP AND FUEL LINES - Check for condition, security and leaks. Check lines for signs of chafing or cracks.		
(7) BRAKE MASTER CYLINDER AND PARKING BRAKE VALVE - Check for condition, security and leaks. Check lines for signs of chafing or cracks.		
(8) RUDDER PEDALS - Check for freedom of movement. Check cables, push/pull rods, bell cranks, pulleys, turnbuckles and fairleads for proper routing, condition and security. Check rudder pedal fore and aft positions for wear. Check locks and pins to ensure positive lock. **NOTE** It is important to operate controls through their full range so that the cables move away from pulleys and all portions of the cables are exposed for inspection.		
(9) 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.		
(10) ENGINE CONTROLS - Check for ease of operation through full travel. Check friction locks for proper operation.		

		MECH	INSP
(11)	ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing (Ref. Bonanza Series Maintenance Manual, Chapter 20-10-00, 001, ELECTRICAL WIRING - ROUTINE INSPECTIONS).		
(12)	PLUMBING - Check all plumbing and connections for security, leakage and general condition.		
(13)	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. Check that rotation of the interior door handle without depressing the handle lock release button does not unlatch the door.		
(14)	INSTRUMENTS AND INSTRUMENT PANEL - Inspect instrument panel, sub panels, placards and instruments for condition and attachment. Check all knobs for security. Inspect shock mounts and ground straps for cracks and security.		
(15)	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.		
(16)	OXYGEN SYSTEM - Check condition of the oxygen system and check the oxygen masks for cleanliness and stowage.		
(17)	VENTILATING SYSTEM - Check all fresh air and heat outlet vents for proper movement and operation.		
(18)	FUEL SELECTOR VALVE - Inspect for leakage, security, freedom of movement, proper detent feel and condition. Clean strainer and check for condition. Check for proper placarding.		
(19)	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. Safety the emergency exit with 0.020-inch diameter copper wire after opening.		
(20)	STATIC SYSTEM - Check and drain water from the static lines.		
(21)	CABIN AIR BLOWER - Check for condition, mounting security and wear at all points.		
(22)	FUEL STRAINER - Drain and clean. On fuel cells with foam inserts, check for brown foam material. Refer to Safety Communique No. 67 and Service Bulletin No. 2109.		
(23)	CONTROL COLUMN (E-1946, E-2104, E-2111 and After; EA-320, EA-389 and After) - Inspect the control column U-joint roll pins and ensure they are not backing out.		
(24)	AILERON QUADRANT (D-1 through D-1500) - Inspect for condition, attachment and proper operation such as binding.		
(25)	TUBING, HOSES AND FITTINGS - Check the condition, attachment method and security of tubing and hoses. Make sure there is adequate clearance between tubing, hoses and other components and structures (Ref. 20-06-00, 001, TUBING, HOSES AND FITTINGS - INSPECTION/CHECK).		

D. WINGS AND CARRY-THROUGH STRUCTURE

	MECH		INSP
	LH	RH	
(1) SKIN - Check for deformation and obvious damage. Check for cracks, loose or missing rivets. If damage is found, check adjacent structure. Check for indications of hard landing or excessive flight loading.			
(2) STRUCTURE - Check for cracks, deformation and concealed damage. Check for loose or missing rivets. Refer to Chapter 53-10-00 of P/N 36-590001-9 (or subsequent) Maintenance 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 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. **NOTE** It is important to operate controls through their full range so that the cables move away from pulleys and all portions of the cables are exposed for inspection.			
(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 TANKS/CELLS, CAPS AND VENTS - Inspect fuel tank/cell vent lines and filler caps as directed in Section 3 of P/N 35-590096 Shop Manual, Section 8 of P/N 36-590001-3 Shop Manual, Section 3 of P/N 33-590011-1 Shop Manual or Chapter 28-20-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual. Refer to Service Instruction Number 0632-280.			
(7) FUEL FILLER CAP AND FUEL FILLER CAP ADAPTER - Inspect the fuel filler cap and fuel filler cap adapters, paying particular attention to the rivets attaching the Full Tab Plate to the filler adapter. Refer to Chapter 28-10-00, 201.			
(8) PLUMBING - Check for leakage, chafing, condition and security.			
(9) ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing (Ref. Bonanza Series Maintenance Manual, Chapter 20-10-00, 001, ELECTRICAL WIRING - ROUTINE INSPECTIONS).			
(10) FLAP LIMIT SWITCHES - Check for condition, security and freedom of operation.			
(11) 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 flap actuator attachment bracket and rib for cracks. Check roller bearings and tracks for condition. Check stop area for condition and damage.			
(12) FLAP POSITION TRANSMITTER - Check for security and operation.			

	MECH		INSP
	LH	RH	
(13) DRAIN HOLES - Check the drain holes in the upper wing attach fittings to ensure that they are open and free of obstruction.			
(14) WING SPAR CAP - Inspect the wing spar cap for corrosion as outlined in Section 4 of P/N 35-590096 Shop Manual, Section 3 of P/N 36-590001-3 Shop Manual, Section 4 of P/N 33-590011-1 Shop Manual or Chapter 57-00-00 of P/N 36-590001-9 Maintenance Manual or subsequent.			
(15) WING BOLTS - Check 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. Refer to Section 4 of P/N 35-590096 Shop Manual, Section 3 of P/N 36-590001-3 Shop Manual, Section 4 of P/N 33-590011-1 Shop Manual or Chapter 57-00-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual for wing bolt, nut and fitting inspection criterion and frequency.			
(16) RADAR ANTENNA COVER - Check the fiberglass for security, attachment and cracks.			
(17) FUEL VENTS AND AIR INLETS, PITOT TUBE AND STALL WARNING VANE - Check for condition and obstruction.			
(18) (DELETED) Fuel Cell Flapper Valve Inspection moved to Chapter 05-10-00.			
(19) TUBING, HOSES AND FITTINGS - Check the condition, attachment method and security of tubing and hoses. Make sure there is adequate clearance between tubing, hoses and other components and structures (Ref. 20-06-00, 001, TUBING, HOSES AND FITTINGS - INSPECTION/CHECK).			

E. NOSE GEAR

	MECH	INSP
(1) WHEEL AND TIRE - Check wheel for cracks and tire for wear, damage and proper inflation. Check wheel bearings for condition and wear.		
(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. Inspect linkage boots for condition.		
(6) SHIMMY DAMPER - Check for condition and attachment. Check attach points for cracks. Check fluid level per Shop/Maintenance Manual.		

	MECH	INSP
(7) STRUT FLUID LEVEL - Check and maintain the proper hydraulic fluid level in the strut as outlined in Section 2 of P/N 35-590096, P/N 36-590001-3 and P/N 33-590011-1 Shop Manuals, or Chapter 12-20-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual.		
(8) STRUT AND A-FRAME HINGE BOLTS - Inspect for corrosion and security of attachment.		
(9) STATIC CABLE (If installed) - Inspect for condition, proper clearances and attachment.		
(10) VISUAL INDICATOR - Check for condition.		
(11) NOSE LANDING GEAR DRAG BRACE (P/N 002-820016-31, P/N 002-820018-3, or with Kit 35-4012-1 Installed) - Check that the two drag brace bracket attachment bolts are secure. Check drag brace assembly for shear stress, wear and corrosion. At 2,000 hours, remove and inspect the two bracket attachment bolts. Replace all hardware with evidence of shear stress, wear and/or corrosion.		
(12) NOSE LANDING GEAR RETRACT ROD, ROD-ENDS - Check the retract rod, rod-ends for signs of cracking, sheer stress, wear and corrosion.		
(13) TUBING, HOSES AND FITTINGS - Check the condition, attachment method and security of tubing and hoses. Make sure there is adequate clearance between tubing, hoses and other components and structures (Ref. 20-06-00, 001, TUBING, HOSES AND FITTINGS - INSPECTION/CHECK).		
(14) ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing (Ref. Bonanza Series Maintenance Manual, Chapter 20-10-00, 001, ELECTRICAL WIRING - ROUTINE INSPECTIONS).		

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.			
(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.			

	MECH		INSP
	LH	RH	
(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 P/N 35-590096, P/N 36-590001-3 and P/N 33-590011-1 Shop Manuals and in Chapter 12-20-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual.			
(8) STRUT AND A-FRAME HINGE BOLTS - Inspect for corrosion and security of attachment.			
(9) TUBING, HOSES AND FITTINGS - Check the condition, attachment method and security of tubing and hoses. Make sure there is adequate clearance between tubing, hoses and other components and structures (Ref. 20-06-00, 001, TUBING, HOSES AND FITTINGS - INSPECTION/CHECK).			
(10) ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing (Ref. Bonanza Series Maintenance Manual, Chapter 20-10-00, 001, ELECTRICAL WIRING - ROUTINE INSPECTIONS).			

G. MAIN GEAR OPERATION

	MECH		INSP
	LH	RH	
WARNING **Under no circumstances should the landing gear be operated electrically while the hand crank is engaged. In the event of such an operation, a tear down and magnetic inspection should be performed to determine damage to the engagement slot in the worm shaft.** ***CAUTION*** *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 ± 0.25 VDC to the airplane's electrical system throughout the extension and retraction cycles when performing the landing gear retraction inspection.*			
For more specific information which may be necessary to accomplish the following items, refer to Section 5 of P/N 35-590096 Shop Manual, Section 5 of P/N 36-590001-3 Shop Manual, Section 5 of P/N 33-590011-1 Shop Manual or Chapter 32 of P/N 36-590001-9 (or subsequent) Maintenance Manual.			
(1) DOORS - Check operation, fit and fair. Check for unusual noise.			
(2) POSITION LIGHTS - Check for security, adjustment and wiring for breaks, condition of insulation, loose connections and proper indication.			

	MECH		INSP
	LH	RH	
(3) WARNING HORN - Check for proper operation.			
(4) UPLOCK CABLE TENSION - Check uplock 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. Check for unusual noise. With the spar cover installed, check for proper engagement of the emergency extension handle and proper system operation.			
(6) DOWNLOCK TENSION - Check for proper deflection force on the main gear knee joints.			
(7) UPLOCK ROLLERS - Check condition and clearance of uplock rollers and lubricate as indicated in Section 2 of P/N 35-590096 Shop Manual, Section 2 and 5 of P/N 36-590001-3 Shop Manual, Section 2 of P/N 33-590011-1 Shop Manual and Chapter 12-20-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual. Check for binding.			
(8) LIMIT SWITCH RIGGING - Check for security and proper adjustment of the limit switches. Rig per Shop/Maintenance Manual.			
(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 braking action (12-volt system) and dynamic brake relay (24-volt system).			
(12) ASSIST STEP (If Installed) - Inspect the retractable step for cable and safety link condition, proper adjustment and operation. Check fixed link condition, proper adjustment and operation. Check fixed steps for security.			

H. NOSE GEAR OPERATION

	MECH	INSP
WARNING **Under no circumstances should the landing gear be operated electrically while the hand crank is engaged. In the event of such an operation, a tear down and magnetic inspection should be performed to determine damage to the engagement slot in the worm shaft.** ***CAUTION*** *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 ± 0.25 VDC to the airplane's electrical system throughout the extension and retraction cycles when performing the landing gear retraction inspection.*		
For more specific information which may be necessary to accomplish the following items, refer to Section 5 of P/N 35-590096 Shop Manual, Section 5 of P/N 36-590001-3 Shop Manual, Section 5 of P/N 33-590011-1 Shop Manual or Chapter 32 of P/N 36-590001-9 (or subsequent) Maintenance Manual.		
(1) DOORS - Check operation, fit and fair. Check for unusual noise.		
(2) NOSE GEAR UP TENSION - Check the up tension on the nose gear as indicated in RIGGING THE LANDING GEAR. Rig per Section 5 of P/N 35-590096 Shop Manual, Section 5 of P/N 36-590001-3 Shop Manual, Section 5 of P/N 33-590011-1 Shop Manual or Chapter 32-30-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual.		
(3) DOWNLOCK TENSION - Check the downlock tension on the nose gear as indicated in RIGGING THE LANDING GEAR. Rig per Section 5 of P/N 35-590096 Shop Manual, Section 5 of P/N 36-590001-3 Shop Manual, Section 5 of P/N 33-590011-1 Shop Manual or Chapter 32-30-00 of P/N 36-590001-9 (or subsequent) Maintenance 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, door posts, 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.		
(4) CABLES, PULLEYS AND TURNBUCKLES - 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. **NOTE** It is important to operate controls through their full range so that the cables move away from pulleys and all portions of the cables are exposed for inspection.		
(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. Check the inboard elevator hinge casting (on the aft bulkhead) for cracks in mounting bolt holes.		
(6) TRIM TABS AND ACTUATORS - Check for security and wear. Check allowable free play per Section 3 of P/N 35-590096, P/N 36-590001-3 and P/N 33-590011-1 Shop Manuals and per Chapter 27-30-00 of P/N 36-590001-9 (or subsequent) Maintenance Manual. Check hinges and trim tab actuator for security and wear. Check trim tabs for cracks and control rods for attachment. Lubricate trim tab hinges per Section 2 of P/N 35-590096 Shop Manual, Section 2 of P/N 36-590001-3 Shop Manual, Section 3 of P/N 33-590011-1 Shop Manual or Chapter 12-20-00 P/N 36-590001-9 (or subsequent) Maintenance Manual.		
(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) ANTENNAS - Check for condition and security.		

	MECH	INSP
(12) ELEVATOR/RUDDER (Ruddervators) (a) Check that the drain holes are open and clean. (b) Check that the ruddervator trim tab and hinge pin are correctly installed. Refer to information provided in the Shop/Maintenance Manual. (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.		
(13) RUDDER FORWARD SPAR (CE-1 thru CE-1425; CJ-1 thru CJ-179; E-1 thru E-2518; EA-1 thru EA-500 and airplanes that have not installed Kit No. 33-6001-1 S - Check every 500 flight hours or annually. Refer to Service Bulletin No. 2333.		
(14) RUDDER FORWARD SPAR (CE-1426 and After; CJ-180 and After; E-2519 and After; EA-501 and After and airplanes that have installed Kit No. 33-6001-1 S - Open inspection covers adjacent to the upper and center hinges. Inspect ribs, spar, hinges and all rudder components in area of the hinges for attachment security, cracks and general condition using a flashlight and mirror. Install covers.		
(15) ASSIST STEP BUNGEE - Inspect for condition and security.		
(16) TUBING, HOSES AND FITTINGS - Check the condition, attachment method and security of tubing and hoses. Make sure there is adequate clearance between tubing, hoses and other components and structures (Ref. 20-06-00, 001, TUBING, HOSES AND FITTINGS - INSPECTION/CHECK).		
(17) ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing (Ref. Bonanza Series Maintenance Manual, Chapter 20-10-00, 001, ELECTRICAL WIRING - ROUTINE INSPECTIONS).		

J. GENERAL

	MECH	INSP
(1) Airplane cleaned and serviced.		
(2) Airplane lubricated, after cleaning, in accordance with the information provided in the Shop/Maintenance Manual and Beech and/or Beechcraft Corporation Safety Communique No. 57, dated June 3, 1981.		
(3) Inspect all placards to ensure that they are easily readable and securely attached.		
(4) Ensure that all Airworthiness Directives, Beech and/or Beechcraft Corporation Service Bulletins and previously issued Service Instructions are reviewed and complied with as required.		
(5) For a complete or annual inspection of the airplane, all items on the airplane that are noted in this guide should be inspected.		