

Raytheon Aircraft

BEECH BARON 55 AND 58 SHOP MANUAL

INSPECTION PROCEDURES

1. As each item is inspected, the responsible person will make entries as required and will initial in the space provided in the right column.
2. When the inspection is complete, the person making the inspection will sign the form in the space provided.

100-HOUR INSPECTION

A. Operational Inspection	MECH		INSP
	LH	RH	
1. AUXILIARY FUEL PUMP - Check pump for proper operation, unusual noise and fluctuations.			
2. STARTERS - Check for proper operation, unusual noises and dragging. Check starter energized light (if installed) and/or load meter to ensure starter disengagement when the starter switch is released.			
3. FUEL PRESSURE - Check for proper fuel pressure limits and fluctuations.			
4. CYLINDER HEAD TEMPERATURE - Check for proper operation, temperature and fluctuations.			
5. ALTERNATOR/GENERATOR - Check for proper output and unusual noises.			
6. PROPELLER OPERATION - Cycle propeller and check for proper rpm drop and smoothness of operation.			
7. PROPELLER DEICER - Check for proper operation and amperage drawn on ammeter.			
8. OIL PRESSURE AND TEMPERATURE - Check for proper pressure, temperature limits and unusual fluctuations.			
9. MAGNETOS - Check the performance of the magneto by performing the MAGNETO DROP-OFF CHECK specified in the applicable Pilot's Operating Handbook.			
10. POWER CHECK - Check per the applicable Pilot's Operating Handbook.			
11. ALL ENGINE CONTROLS - With the engine running, check for proper operational limits, engine response and rigging. Check friction locks for proper operation.			
12. PROPELLER GOVERNORS - Check for proper governor operation and feathering.			
13. AIR CONDITIONER - Operate the air conditioner and verify that the air scoop moves to the ground position when turned on and returns to the retracted position when turned off. Check for proper operation and unusual noise.			
14. FLIGHT INSTRUMENTS - Check for condition and proper operation. Check gages for proper reading.			
15. DEICER (Surface) - Check for proper operation and cycling.			

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100-HOUR INSPECTION (CONTINUED)

A. Operational Inspection (Continued)	MECH		INSP
	LH	RH	
16. IDLE RPM AND MIXTURE SETTINGS - Check for both proper rpm and mixture settings. Check controls for freedom of operation.			
17. 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.			
18. IDLE CUT-OFF - Check for proper operation and freedom of movement.			
19. HEATING AND VENTILATING SYSTEM - Check for proper operation, heat and airflow output. Check controls for freedom of operation.			
20. FUEL QUANTITY GAGES - Check for proper operation and unusual fluctuations.			
21. FUEL TANK SELECTOR - Check for proper placarding, proper operation and feel for positive de-tent.			
22. ALL LIGHTS - Check for condition, attachment, cracked or broken lenses. Check switches, knobs and circuit breakers for looseness and operation.			
23. STALL WARNING SYSTEM - Check for proper operation and heating of the unit.			
24. RADIO OPERATION - Check for proper operation, security of switches and knobs.			
25. FLAPS - Check for noisy operation, full travel and proper indication.			
26. PITOT HEAT - Check for proper heating of the unit.			
27. BRAKES - Check for condition and wear, ease of operation and proper release of the parking brake. Check for unusual brake chatter.			
28. EMERGENCY LOCATOR TRANSMITTER - 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.			
29. OXYGEN SYSTEM - Functionally check the oxygen system for proper operation. Check the oxygen bottle shutoff valve for proper operation.			
30. SWITCHES, CIRCUIT BREAKERS - Check 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.			
32. PROPELLER ANTI-ICER (Alcohol) - Check that the lines are unobstructed. Check for discharge of anti-ice solution from all tubes and/or outlets.			

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100-HOUR INSPECTION (CONTINUED)

B. Power Plant	MECH		INSP
	LH	RH	
NOTE			
After the first 25 hours of engine operating time, a new, remanufactured or newly overhauled engine should be given a 100-hour inspection including draining and renewing of oil.			
1. SPARK PLUGS - Clean, inspect, re-gap, test and replace as necessary. Tighten spark plugs to proper torque and check ignition harness condition and for proper attachment.			
2. COMPRESSION - Perform differential compression test.			
3. PLUMBING - Inspect plumbing and associated accessories for condition (such as cracks and fraying) and attachment. Check plumbing clearance and secure against possible chafing.			
4. ENGINE OIL SUMP - Check for cracks, leaks, proper fluid level, deformation and security.			
5. OIL DIPSTICK - Check the dipstick for rust and general condition. Inspect the dipstick tabs for security and that the tabs are not bent.			
6. 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.			
7. DRAIN PLUGS - Check for leaks and security.			
8. OIL COOLER - Check oil cooler, lines and fittings for condition, security, chafing and leaks.			
9. 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 Raytheon Aircraft Company. Inspect the blades for cracks, dents, nicks, scratches, erosion, corrosion, security and movement in the hub			
10. PROPELLER SPINNER - Check for deformation, security and cracks.			
11. PROPELLER HUB - Check for cracks, excessively leaking seals and condition. Check propeller dome pressure.			
12. PROPELLER ACCUMULATOR - Check pressure (located in nacelle).			
13. ALTERNATOR/GENERATOR - Check for condition and attachment. Check wiring for proper attachment and possible chafing. Check for unusual noise.			
14. ALTERNATOR - Remove and disassemble the alternator as necessary to inspect the rotor shaft bearings for condition and replace if necessary. Refer to Beech Service Instruction No. 0546-359 Rev II or subsequent.			
15. STARTER - Check for condition, attachment and chafed or loose wires.			
16. ALTERNATOR/GENERATOR BELT - Check for proper tension and worn or frayed condition. Check tension adjustment bolt for tightness.			

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100-HOUR INSPECTION (CONTINUED)

B. Power Plant <i>(Continued)</i>	MECH		INSP
	LH	RH	
17. 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 timing.			
18. IGNITION HARNESS - Inspect for fraying and attachment.			
19. 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.			
20. 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.			
21. FIREWALL - Check for wrinkles, damage or cracks. Check all electrical and control access holes for proper sealing.			
22. HOSE AND DUCTS - Check all fuel, oil and air hose or duct for leakage, cracks, deterioration and damage. Check fittings for security.			
23. ENGINE ACCESSORIES - Check for condition, security and leaks. Check wiring, hoses and tubes for chafing, security and leaks.			
24. ENGINE MOUNTS - (TC-350; TE-1 thru TE-1201; TH-1 thru TH-1610 without Beech Kit No. 58-9007-1S or new engine mount P/N 96-910010-67) - Check for cracks (refer to Raytheon Aircraft Service Bulletin No. 2362), corrosion and security. Inspect rubber cushions, mount bolts and nuts, and grounding straps for condition and security.			
25. PROPELLER GOVERNOR - Check for leaks and control arm for security.			
26. ENGINE CONTROLS - Check controls and associated equipment for condition, attachment, alignment and rigging. Remove cable connection bolts and check for wear each 300 hours.			
27. ELECTRICAL WIRING AND EQUIPMENT - Inspect electrical wiring and associated equipment and accessories for fraying and attachment.			
28. PRESSURE PUMP INTAKE FILTER - Foam rubber type, clean every 100 hours; cartridge type, replace every 500 hours or as needed. Check for security.			
29. OIL SEPARATOR (Vacuum System) - Clean the screen by back flushing or submerge in solvent and blow dry with shop air. Check for condition, mounting and proper operation. Install the screen and check for security. Inspect for cracks.			
30. AIR CONDITIONER COMPRESSOR - Check for security and attachment. Check refrigerant level and for oil leaks. (See Section 2 of this shop manual.) Check belt for tension and worn or frayed condition.			
31. INDUCTION AIR FILTER - Check for condition, cleanliness and security.			
32. INDUCTION SYSTEM AND ALTERNATE AIR - Check flexible air ducts for delamination of the inner lining. Check the alternate air valve for blockage, security, cracks, operation and wear.			

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100-HOUR INSPECTION (CONTINUED)

B. Power Plant <i>(Continued)</i>	MECH		INSP
	LH	RH	
33. FUEL INJECTION CONTROL VALVE - Clean the screen and check for damage. Install screen and check for leaks.			
34. FUEL INJECTION SYSTEM - Inspect all fuel injection components, lines and fittings for evidence of fuel leaks, fraying and cracking.			
35. VACUUM RELIEF VALVE - Clean and inspect filter, check for the security of attachment.			
36. ELECTRIC PROPELLER DEICER - Check for service damage to the deicer heaters, brush rods, springs and brushes. Check the lead strap and all other clamps, connectors and wiring for electrical soundness. 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. Check deicer boots for wrinkles, loose or torn areas.			
C. Nacelles			
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. PNEUMATIC PRESSURE REGULATORS - Check for condition, security and attachment.			
6. IN-LINE FILTER - Check as indicated in PRESSURE SYSTEM FILTER INSPECTION in Section 11 of this shop manual.			
7. FUEL STRAINERS - On fuel cells with foam inserts, check for brown foam material. Refer to Raytheon Aircraft Service Bulletin No. 2109.			
D. Wings and Carry-Through Structure			
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 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 secure attachment.			

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D. Wings and Carry-Through Structure <i>(Continued)</i>	MECH		INSP
	LH	RH	
4. CABLES, PULLEYS AND TURNBUCKLES - Check the wing flight control components, cables and pulleys. Replace control system components (push rods, 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.			
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 AND VENTS - Inspect fuel cells and vent lines as indicated in Section 8 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 the condition, security and freedom of flap 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 TRANSMITTER - 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 3 of this shop manual.			
14. WING BOLTS - Check wing bolts for proper torque at the first 100-hour inspection and at the first 100-hour inspection after each installation of the wing attach bolts. Refer to Section 3 of this shop manual for wing bolt, nut and fitting inspection criterion and frequency.			
15. PITOT TUBE AND STALL WARNING VANE - Check for condition and obstructions.			
16. AILERON TRIM TAB - Check for attachment and freedom of movement.			
17. FUEL QUANTITY TRANSMITTER - Check for attachment and electrical connection.			
18. NAVIGATION LIGHTS - Check for cracked or broken lenses and replace bulbs as necessary.			
19. LANDING LIGHTS - Check for security and operation. Replace lens and bulbs as necessary.			
20. AUXILIARY FUEL PUMP AND FUEL LINES - Check for condition, security and leaks. Check lines for signs of chafing or cracks.			

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D. Wings and Carry-Through Structure <i>(Continued)</i>	MECH		INSP
	LH	RH	
21. FUEL SELECTOR VALVE (TC-1970, TC-2003 and After; TE-1081, TE-1084 and After; TH-1 and After) - Check for security, operation and leakage.			
22. FUEL STRAINER (Located in the main gear wheel well) - Inspect, clean and check for leaks. Refer to Section 8 of the shop manual.			
23. FUEL STAINS - Check the under side of the wings for fuel stains. See S.I. 0632.			
E. 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 AND PULLEYS - Check the flight control components, cables and pulleys. Replace control system components (push rods, 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. 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 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.			
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. BRAKE MASTER CYLINDER AND PARKING BRAKE VALVE - Check for condition, security and leaks. Check lines for signs of chafing or cracks.			
7. RUDDER PEDALS - Check for freedom of movement. Check cables, push/pull rods, bell cranks, pulleys, turnbuckles, fair leads, for proper routing, condition and security. Check rudder pedal fore and aft positions for wear. Check locks and pins to ensure positive lock.			
8. 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.			
9. ENGINE CONTROLS - Check for ease of operation through full travel. Check friction locks for proper operation.			
10. ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing.			
11. PLUMBING - Check all plumbing and connections for security, leakage and general condition.			

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E. Cabin and Baggage Compartment <i>(Continued)</i>	MECH	INSP
12. 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.		
13. INSTRUMENTS AND INSTRUMENT PANEL - Inspect instrument panel, sub panels, placards and instruments for condition and attachment. Check all knobs for security. Inspect shock mounts, ground straps for cracks and security.		
14. SEATS, SEAT BELTS AND SHOULDER HARNESSSES - 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.		
15. OXYGEN SYSTEM - Check condition of the oxygen system and check the oxygen masks for cleanliness and stowage.		
16. VENTILATING SYSTEM - Check all fresh air and heat outlet vents for proper movement and operation.		
17. FUEL SELECTOR VALVE (TC-1 thru TC-2002, except TC-197; TE-1 thru TE-1082, except TE-1081) - Inspect for leakage, security, freedom of movement, proper detent feel and condition. Check for proper placarding.		
18. VACUUM SYSTEM - Replace individual instrument air filters and/or time change master filter on vacuum system airplanes in accordance with Sections 11 and 15 of this shop manual.		
19. VACUUM SYSTEM AIR FILTER (Central gyro air filter) (Located behind instrument panel) - Check for security of attachment, replace as required (500 hours or as needed).		
20. 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.		
21. STATIC SYSTEM - Check and drain water from the static lines.		
F. Nose Section		
1. SKIN - Inspect skin for corrosion, condition, and loose or missing rivets. If damage is found, check adjacent structure.		
2. STRUCTURE - Check for corrosion, cracks, loose or missing rivets, and concealed damage.		
3. RADAR ANTENNA COVER - Check the fiberglass for security, attachment and cracks.		
4. BATTERY - Inspect for clean, tight connections and correct fluid level. Add distilled water as required. Inspect vent hose at battery box for obstructions. The battery box should be washed out thoroughly and dried each time the battery is removed and cleaned.		

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100-HOUR INSPECTION (CONTINUED)

F. Nose Section <i>(Continued)</i>	MECH	INSP
5. BRAKE FLUID RESERVOIR - Check reservoir for security, attachment, open vent, proper fluid level and for leaks.		
6. ELECTRICAL WIRING AND EQUIPMENT - Inspect electrical wiring and associated equipment and accessories for condition, fraying, and attachment.		
7. HEATER FUEL SYSTEM - Check lines for connection and chafing.		
8. HEATER DUCTING AND WIRING - Check for security and chafing.		
9. AIR CONDITIONER EVAPORATOR - Check for condition and secure attachment.		
10. HEATER IRIS VALVE - Check for smooth operation.		
11. PROPELLER ANTI-ICE RESERVOIR AND PLUMBING - Check for security and unobstructed lines. Fill reservoir as necessary.		
12. OXYGEN - Check for condition and attachment.		
13. TAXI LIGHT - Check for security and operation. Replace if necessary.		
14. BAGGAGE DOOR - Check for condition and proper latching.		
15. PITOT MAST - Check for condition and obstruction.		
G. Rear Fuselage and Empennage		
1. SKIN - Check for deformation, cracks and obvious damage. Check for loose or missing rivets. If damage is found, check adjacent structure.		
2. STRUCTURE - Inspect the two most aft bulkheads for cracks, distortion, loose rivets or other obvious damage.		
3. CABLES, PULLEYS AND TURNBUCKLES - Check the elevator and rudder flight control components, cables and pulleys. Replace control system components (push/pull rods, 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. CONTROL SURFACES - Check for deformation, cracks and security. Check for loose or missing rivets. Check for freedom of movement and travel limits. Check the inboard elevator hinge casting (on the aft bulkhead) for cracks in the mounting bolt holes.		
5. TRIM TABS AND ACTUATORS - Check for security and wear. Check allowable free play per Section 4 of this shop 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 this shop manual.		
6. STATIC PORTS - Check for obstruction and clean as necessary.		
7. PLUMBING - Check for leakage, cracks, chafing, condition and security.		
8. ELECTRICAL WIRING AND EQUIPMENT - Inspect for chafing, damage, security and attachment.		

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100-HOUR INSPECTION (CONTINUED)

G. Rear Fuselage and Empennage <i>(Continued)</i>	MECH		INSP
9. STATIC LINES - Check condition of static lines and drain.			
10. ASSIST STEP - Inspect for condition and attachment.			
11. ANTENNAS - Check for condition and security.			
12. SCUPPER DRAINS - Check that the drain guards are open facing aft and drain holes are free from obstruction.			
13. AIR CONDITIONER EVAPORATOR - Check for condition and security.			
14. AFT BULKHEADS (F.S. 257.6 and F.S. 271.92) (TC-1 thru TC-2124; TE-1 thru TE-1124; TH-1 thru TH-908) - Inspect for possible cracks in the bulkheads at the horizontal stabilizer stub spars. Refer to Beech Service Instruction No. 0990, Rev. II or subsequent for specific instructions.			
15. H-14 SERVO FILTER - Check attachment and change every 1200 hours.			
H. Main Gear and Brakes	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.			
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 and 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 corrosion and security of attachment.			
I. Nose Gear			
1. WHEEL AND TIRE - Check wheel for cracks and tire for wear, damage, condition 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.			

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100-HOUR INSPECTION (CONTINUED)

I. Nose Gear <i>(Continued)</i>	MECH	INSP
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 linkages for tightness, condition and security. Check linkage boots for condition.		
6. SHIMMY DAMPER - Check for condition and attachment. Check attach points for cracks. Check fluid level as outlined in Section 2 of this shop manual.		
7. STRUT FLUID LEVEL - Check and maintain the proper hydraulic fluid level in the strut as outlined in Section 2 of this shop manual.		
8. STRUT AND A-FRAME HINGE BOLTS - Inspect for corrosion and security of attachment.		
9. STATIC CABLE (If installed) - Inspect for condition and proper clearances and attachment.		
10. TAXI LIGHT - Check security and for cracked light.		
11. NOSE LANDING GEAR DRAG BRACE (TC-1608 thru TC-2091; TE-938; TH-1 thru TH-871 with Beech Kit No. 35-4012-1 installed; TC-2092 and After; TE-1114 and After; TH-872 and After) - Check that the two drag brace bracket attachment bolts are secure. Check drag brace assembly for indications of 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 (TC-1608 thru TC-2091; TE-938; TH-1 thru TH-871 with Beech Kit No. 35-4012-1 installed; TC-2092 and After; TE-1114 and After; TH-872 and After) - Check the retract rod rod-ends for cracking, sheer stress, wear and corrosion. Replace forward rod rod-end at 2,000 hours total aircraft time.		
J. Landing Gear Operation		
<p style="text-align: center;">CAUTION</p> <p><i>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 for damage to the engagement slot in the worm shaft.</i></p> <p style="text-align: center;">NOTE</p> <p>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 this shop manual.</p>		

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J. Landing Gear Operation <i>(Continued)</i>	MECH	INSP
1. LANDING GEAR ACTUATOR ASSEMBLY - With the airplane on jacks and the retraction cycle started enough to break the down lock tension, apply a sharp load by hand in an aft direction against the nose gear strut. If this causes the main gear wheels to move approximately 1/2 to 1 inch, it is a good indication that the gear actuator assembly needs overhaul and/or adjustment.		
2. DOORS - Check door operation, fit and fair. Check for unusual noise.		
3. 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 per this shop manual.		
4. VISUAL INDICATOR - Inspect for proper adjustment and operation.		
5. POSITION LIGHTS - Check for security, adjustment, wiring for breaks, condition of insulation, loose connections and proper indication.		
6. EMERGENCY EXTENSION - Check system for freedom of operation and positive engagement of the down locks. Check for unusual noise.		
7. 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.		
8. DYNAMIC BRAKING ACTION - Verify proper operation of dynamic brake relay.		
9. WARNING HORN - Check for proper operation.		
10. UPLOCK CABLE TENSION - Check up lock cable mechanism for condition and security. Check up lock cable for proper tension and for possible fraying.		
<p>11. DOWNLOCK TENSION (MAIN GEAR) - Check for proper deflection force on the main gear knee joints.</p> <p style="text-align: center;">NOTE</p> <p>Down lock tension should be checked at the first 100-hour inspection and every 200 hours thereafter.</p>		
12. DOWNLOCK TENSION (NOSE GEAR) - Check the down lock tension on the nose gear as indicated in Section 5 of this shop manual.		
13. UPLOCK ROLLERS - Check condition and clearance of up lock rollers and lubricate as indicated in Sections 2 and 5 of this shop manual. Check for binding.		
14. SAFETY SWITCH - Check for security, proper rigging and operation.		
15. NOSE GEAR UP TENSION - Check the up tension on the nose gear as indicated in Section 5 of this shop manual.		
16. NOSE GEAR STEERING - Check for condition and security.		

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BEECH BARON 55 AND 58 SHOP MANUAL

100-HOUR INSPECTION (CONTINUED)

K. General	MECH	INSP
1. Airplane cleaned and serviced.		
2. Airplane lubricated, after cleaning, Refer to the LUBRICATION CHART in Section 2.		
3. Inspect all placards to ensure that they are easily readable and securely attached.		
4. Ensure that all Airworthiness Directives, Raytheon Aircraft Service Bulletins and previously issued Service Instructions are reviewed and complied with as required.		
For a complete 100-hour or annual inspection of the airplane, all items on the airplane that are noted in this guide should be inspected.		
MECHANIC _____ QUALITY CONTROL INSPECTOR _____		