

and other requirements. It is the responsibility of the owner or 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.

Beech Aircraft Corporation issues service information for the benefit of owners and operators in the form of two classes of Service Bulletins. MANDATORY (Red Border) Service Bulletins are changes, inspections or modifications that could affect safety. The factory considers compliance with these Service Bulletins mandatory. OPTIONAL (No Border) Service Bulletins cover changes, notifications, improvements or inspections which may benefit the owner. Due to the wide range of information covered by the OPTIONAL Service Bulletin, each owner or 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 or operator to ensure that all previously issued Class I and II Service Instructions and Beechcraft 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 FAR Part 91.

A. OPERATIONAL INSPECTION

1. STARTER - 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.

Mech	Insp

2. FUEL PRESSURE - Check for proper fuel pressure limits and fluctuations.

Mech	Insp

3. CYLINDER HEAD TEMPERATURE - Check for proper operation, temperature and fluctuations.

Mech	Insp

4. ALTERNATOR / GENERATOR - Check for proper output and unusual noises.

Mech	Insp

5. STANDBY GENERATOR - Check for proper operation in test mode. Perform a functional test as outlined in Chapter 24-31-00 of the Bonanza Series Maintenance Manual. Check wiring for security and condition.

Mech	Insp

6. STANDBY INSTRUMENT AIR (Airplane serials E-2164 and after, and EA-422 and after) - Check for proper operation. Check plumbing and wiring for security and condition.

Mech	Insp

7. PROPELLER OPERATION - Cycle propeller and check for proper rpm drop and smoothness of operation.

Mech	Insp

8. PROPELLER DEICER - Check for proper operation and amperage draw on ammeter.

Mech	Insp

9. OIL PRESSURE AND TEMPERATURE - Check for proper pressure, temperature limits and unusual fluctuations.

Mech	Insp

10. MAGNETOS - Check the performance of the magneto as outlined under the heading NORMAL PROCEDURES in the appropriate Pilot's Operating Handbook.

Mech	Insp

11. POWER CHECK - Refer to NORMAL PROCEDURES in the appropriate Pilot's Operating Handbook.

Mech	Insp

12. AMMETER - Check for proper indication and unusual fluctuations.

Mech	Insp

13. HEATING AND VENTILATING SYSTEM - Check for proper operation, heat and airflow output. Check controls for freedom of operation.

Mech	Insp

14. FIREWALL SHUTOFF VALVE - Check for proper operation and freedom of movement.

Mech	Insp

15. IDLE RPM AND MIXTURE SETTINGS - Check for both proper rpm and mixture settings. Check controls for freedom of operation.

Mech	Insp

16. IDLE CUT-OFF - Check for proper operation and freedom of movement.

Mech	Insp

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 in the past OFF position, it is an indication that one magneto is still "hot" or ungrounded. When the switch is released from the past OFF position, it should automatically return to normal OFF and the engine should stop running. However, any ignition switch exhibiting this abnormal condition should be replaced.

Mech	Insp

18. ALL ENGINE CONTROLS - With the engine running, check for proper operational limits, engine response and rigging. Check friction locks for proper operation.

Mech	Insp

19. FUEL QUANTITY GAGES - Check for proper operation and unusual fluctuations.

Mech	Insp

20. AUXILIARY FUEL PUMP - Check pump for proper operation, unusual noise and fluctuations.

Mech	Insp

21. FUEL TANK SELECTOR - Check for proper operation and feel for positive detent and proper placarding.

Mech	Insp

22. ALL LIGHTS - Check for condition, attachment, cracked or broken lenses. Check switches, knobs and circuit breakers for looseness and operation.

Mech	Insp

23. STALL WARNING SYSTEM - Check for proper operation.

Mech	Insp

24. RADIO OPERATION - Check for proper operation, security of switches and knobs.

Mech	Insp

25. FLAPS - Check for noisy operation, full travel and proper indication.

Mech	Insp

26. PITOT HEAT - Check amperage draw on ammeter and for proper heating of the unit.

Mech	Insp

27. FLIGHT INSTRUMENTS - Check for condition and proper operation.

Mech	Insp

28. BRAKES - Check for condition and wear, ease of operation and proper release of the parking brake. Check for unusual brake chatter.

Mech	Insp

29. EMERGENCY LOCATOR TRANSMITTER - Check for proper operation and assure that the ELT is armed when the airplane is returned to service.

Mech	Insp

30. 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.

Mech	Insp

31. OXYGEN SYSTEM - Functionally check the oxygen system for proper operation. Check the oxygen bottle shutoff valve for proper operation.

Mech	Insp

32. SWITCHES, CIRCUIT BREAKERS - Check for proper operation.

Mech	Insp

33. 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.

Mech	Insp

B. POWER PLANT

1. COWLING SKIN - Check for deformation and obvious damage or cracks. Check for loose or missing rivets.

Mech	Insp

2. COWLING STRUCTURE - Check for cracks and deformation. Check for loose or missing rivets and concealed damage.

Mech	Insp

3. COWLING - Check for condition, security and adjustment of latches. Open the upper cowling and clean. Inspect for cracks.

Mech	Insp

4. COWL FLAPS - Check for travel, deformation and security. Inspect for cracks.

Mech	Insp

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.

Mech	Insp

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 the top of the 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 surfaces can cause the battery to discharge.

Mech	Insp

8. PLUMBING - Inspect plumbing and associated accessories for condition (such as cracks) and attachment. Check plumbing clearance and secure against possible chafing.

Mech	Insp

9. BRAKE FLUID RESERVOIR - Check reservoir for security, attachment, open vent, proper fluid level and for leaks.

Mech	Insp

10. ENGINE OIL TANK OR SUMP - Check for cracks, leaks, proper fluid level, deformation and security.

Mech	Insp

11. CRANKCASE - Check security of crankcase half bolts.

Mech	Insp

12. OIL SUMP DRAINS AND SCREENS - Clean screens, check for holes in the screens and for obstructions. Check for proper torque after installation.

Mech	Insp

13. OIL COOLER - Check oil cooler, lines and fittings for condition, security, chafing and leaks.

Mech	Insp

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 Beech Aircraft Corporation. Inspect the blades for cracks, dents, nicks, scratches, erosion, corrosion, security and movement in the hub.

Mech	Insp

15. PROPELLER SPINNER - Check for deformation, security and cracks.

Mech	Insp

16. PROPELLER HUB - Check for cracks, excessively leaking seals and condition.

Mech	Insp

17. ALTERNATOR/GENERATOR - Check for condition and attachment. Check wiring for proper attachment and possible chafing. Check for unusual noise.

Mech	Insp

18. ALTERNATOR - Remove and disassemble the alternator as necessary to inspect the rotor shaft bearings for condition and replace if necessary. For Prestolite only, refer to BEEHCRAFT Service Bulletin 0546-389 Rev. II or subsequent.

Mech	Insp

19. STARTER - Check for condition, attachment and chafed or loose wires.

Mech	Insp

20. GENERATOR/ ALTERNATOR BELT - Check for proper tension and worn or frayed condition. Check tension adjustment bolt for tightness.

Mech	Insp

21. STANDBY GENERATOR - Check for condition, attachment, security of wires and for chafing.

Mech	Insp

22. 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.

Mech	Insp

23. MAGNETO PRESSURIZATION FILTER - Check for condition, cleanliness and security.

Mech	Insp

24. 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 fans and loose or missing base nuts.

Mech	Insp

25. 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.

Mech	Insp

26. FIREWALL - Check for wrinkles, damage or cracks. Check all electrical and control access holes for proper sealing.

Mech	Insp

27. HOSE AND DUCTS - Check all fuel, oil and air hose or duct for leakage, cracks, deterioration and damage. Check fittings for security.

Mech	Insp

28. ENGINE ACCESSORIES - Check for condition, security and leaks. Check wiring, hoses and tubes for chafing, security and leaks.

Mech	Insp

29. ENGINE MOUNTS - Check for cracks, corrosion and security. Inspect rubber cushions, mount bolts and nuts and grounding straps for condition and security.

Mech	Insp

30. CABIN HEATER SYSTEM - Check for cracks, distortion, corrosion, leaks and obstructions per Section 3 of PEN 35-590096B Shop Manual, Section 10 of PEN 36-590001-3B Shop Manual or Chapter 21-40-00 of PEN 36-590001-9 Maintenance Manual (or subsequent).

Mech	Insp

31. PROPELLER GOVERNOR - Check for leaks and control arm for security.

Mech	Insp

32. ENGINE CONTROLS - Check controls and associated equipment for condition, attachment, alignment and rigging.

Mech	Insp

33. IGNITION HARNESS - Inspect for fraying and attachment.

Mech	Insp

34. ELECTRICAL WIRING AND EQUIPMENT - Inspect electrical wiring and associated equipment and accessories for fraying and attachment.

Mech	Insp

35. ALL DRAINS AND PLUGS - Check for condition, security and obstructions. Check for leaks and correct tightness.

Mech	Insp

36. PRESSURE PUMP INTAKE FILTER - Inspect filter for condition, cleanliness and security. Check filter container for cracks.

Mech	Insp

37. 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 PEN 35-590096B Shop Manual, Section 2 and 10 of PEN 36-590001-3B Shop Manual or Chapters 12-10-00 and 21-50-00 of PEN 36-590001-9, or subsequent, Maintenance Manual).

Mech	Insp

38. INDUCTION AIR FILTER - Check for condition, cleanliness and security.

Mech	Insp

39. INDUCTION SYSTEM AND ALTERNATE AIR - Check the hot and cold flexible air ducts for delamination of the inner lining. Check the alternate aft valve for blockage, security, cracks, operation and wear.

Mech	Insp

40. CARBURETOR HEAT SYSTEM - Check for blockage, security, operation and wear.

Mech	Insp

41. 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.

Mech	Insp

42. FUEL INJECTION CONTROL VALVE - Clean the screen and check for damage. Install screen and check for leaks.

Mech	Insp

43. FUEL INJECTION SYSTEM - Inspect all fuel injection components, lines and fittings for evidence of fuel leaks, fraying and cracking.

Mech	Insp

44. OIL SEPARATOR (Vacuum System) - Clean the screen as directed in Section 3 of PEN 35-5p0096B Shop Manual (or subsequent). Check for condition, mounting and proper operation. Install the screen and check for security. Inspect for cracks.

Mech	Insp

45. VACUUM SYSTEM AIR FILTER (Located behind instrument panel) - Check for security of attachment, replace as required.

Mech	Insp

46. VACUUM RELIEF VALVE - Clean and inspect filter, check for security of attachment.

Mech	Insp

47. ELECTRIC PROPELLER DEICER - Check as follows:

1. Check for service damage to the deicer heaters, brush rods, springs and brushes. Check for attachment and security.
2. Check the lead strap and all other clamps, connectors and wiring for electrical soundness, security and attachment.
3. Check the slip rings for roughness, cracks, burned or discolored areas and for deposits of oil, grease or dirt. Check for security and attachment.
4. Check deicer boots for wrinkles, loose or torn areas.

Mech	Insp

48. TURBOCHARGER SYSTEM - Check as follows:

1. Inspect the system for oil leaks, exhaust system leaks, cracks and attachment.
2. Inspect the compressor wheel for nicks, cracks or broken blades and freedom of movement.
3. Inspect the bypass valve (wastegate) for proper operation and inspect all linkage for interference, condition, security and attachment.
4. Inspect all exhaust system components for worn or damaged areas, loose clamps, cracks and leaks.
5. Inspect lubrication system components for worn or damaged areas, loose clamps, cracks and leaks.
6. Inspect the upper deck pressure reference lines and the fuel injection reference manifold for loose connections, leaks and possible chafing.
7. Check and calibrate the turbine inlet temperature in accordance with Section 6 of PEN 36-590001-3B Shop Manual or Chapter 77-00-00 of PEN 36-590001-9 Maintenance Manual (or subsequent).
8. Check manifold pressure controller linkage for wear.

Mech	Insp

C. CABIN AND BAGGAGE COMPARTMENT

1. SKIN - Inspect skins for deformation, cracks and loose or missing rivets. If damage is found, check adjacent structure.

Mech	Insp

2. STRUCTURE - Check for cracks and deformation. Check for loose or missing rivets and concealed damage.

Mech	Insp

3. CABLES AND PULLEYS - Check the flight control components, cables and pulleys. Replace control system components (push rods, turn buckles, 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 broken strands or evidence of corrosion. Check cables for proper tension at the first inspection and every 100-hours thereafter.

Mech	Insp

4. AILERON QUADRANT (D-1 through D-1500) - Inspect for condition, attachment and proper operation such as binding.

Mech	Insp

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 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.

Mech	Insp

6. FLAP MOTOR AND SHAFTS - Check for condition, security and wear at all points. Check cable housing for security and check jam nuts for tightness.

Mech	Insp

7. AUXILIARY FUEL PUMP AND FUEL LINES - Check for condition, security and leaks. Check lines for signs of chafing or cracks.

Mech	Insp

8. BRAKE MASTER CYLINDER AND PARKING BRAKE VALVE - Check for condition, security and leaks. Check lines for signs of chafing or cracks.

Mech	Insp

9. 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.

Mech	Insp

10. CONTROL COLUMN, TRIM CONTROL AND INDICATOR (Electric and Manual) - Check for freedom of movement. Inspect pulleys, sprockets, bearings, actuators, chains and turn buckles for condition, security and operation. Check trim indicator for proper indication.

Mech	Insp

11. ENGINE CONTROLS - Check for ease of operation through full travel. Check friction locks for proper operation.

Mech	Insp

12. ELECTRICAL WIRING AND EQUIPMENT - Check for condition, security and signs of chafing.

Mech	Insp

13. PLUMBING - Check all plumbing and connections for security, leakage and general condition.

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.

Mech	Insp

15. 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.

Mech	Insp

16. 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.

Mech	Insp

17. OXYGEN SYSTEM - Check condition of the oxygen system and check the oxygen masks for cleanliness and stowage.

Mech	Insp

18. VENTILATING SYSTEM - Check all fresh air and heat outlet vents for proper movement and operation.

Mech	Insp

19. FUEL SELECTOR VALVE - Inspect for leakage, security, freedom of movement, proper detent feel and condition. Clean strainers and inspect for condition. Check for proper placarding.

Mech	Insp

20. FILTERS - Inspect pressure system inline filter for condition, cleanliness and security. Replace pressure system inline filter and all other individual instrument air filters and/or time change master filter on vacuum system airplanes in accordance with the Service Chart in Section B of PEN 35-590096B Shop Manual, the Service Chart in Section 2 of PEN 36-590001-3B Shop Manual or the Overhaul And Replacement Schedule in Chapter 5-10-00 of PEN 36-590001-9 (or subsequent) Maintenance Manual.

Mech	Insp

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.

Mech	Insp

22. STATIC SYSTEM - Check and drain water from the static lines.

Mech	Insp

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.

Mech	Insp

2. STRUCTURE - Check for cracks, deformation and concealed damage. Check for loose or missing rivets.

Mech	Insp

3. ACCESS DOORS AND PANELS - Inspect for cracks, proper fit and attachment.

Mech	Insp

4. CABLES, PULLEYS AND TURNBUCKLES - Check the wing flight control components, cables and pulleys. Replace control system components (push rods, turn buckles, 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 broken strands or evidence of corrosion. Check cables for proper tension at the first inspection and every 100-hours thereafter.

Mech	Insp

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.

Mech	Insp

6. FUEL TANKS, CAPS AND VENTS - Inspect fuel tank vent lines and filler caps as directed in Section 3 of PEN 35-590096B Shop Manual, Section B of PEN 36-590001-3B Shop Manual or Chapter 28-20-00 of PEN 36-590001-9 (or subsequent) Maintenance Manual.

Mech	Insp

7. PLUMBING - Check for leakage, chafing, condition and security.

Mech	Insp

8. ELECTRICAL WIRING AND EQUIPMENT - Inspect for chafing, damage, security and attachment.

Mech	Insp

9. FLAP LIMIT SWITCHES - Check for condition and security, freedom of operation.

Mech	Insp

10. FLAPS AND ACTUATORS - Check for condition, security, binding or chafing of actuator cables. 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.

Mech	Insp

11. FLAP POSITION TRANSMITTER - Check for security and operation.

Mech	Insp

12. WING SPAR CAP - Inspect the wing spar cap for corrosion as outlined in Section 4 of PEN 35-5900968 Shop Manual, Section 3 of PEN 36-590001-38 Shop Manual or Chapter 57-00-00 of PEN 36-590001-9 (or subsequent) Maintenance Manual.

Mech	Insp

13. 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 PEN 35-5900968 Shop Manual, Section 3 of PEN 36-590001-38 Shop Manual or Chapter 57-00-00 of PEN 36-590001-9 (or subsequent) Maintenance Manual for wing bolt, nut and fitting inspection torque and frequency.

Mech	Insp

14. RADAR ANTENNA COVER - Check the fiberglass for security, attachment and cracks.

Mech	Insp

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15. FUEL VENTS, AIR INLETS, PITOT TUBE AND STALL WARNING VANE - Check for condition and obstructions.

Mech	Insp

16. DRAIN PORTS - Check the drain ports in the upper wing attach fittings to assure they are open and free of obstruction.

Mech	Insp

E. 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.

Mech	Insp

2. LANDING GEAR STRUT - Inspect the shock strut and components for cracks, attachment, proper inflation and evidence of leakage.

Mech	Insp

3. ACTUATING LINKAGE - Check for wear at attach points. Check for cracks and security.

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.

Mech	Insp

5. NOSE GEAR STEERING LINKAGE - Inspect linkages for tightness, condition and security and linkage boots for condition.

Mech	Insp

6. SHIMMY DAMPER - Check for condition and attachment. Check attach points for cracks. Check fluid level per the 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 PEN 35-590096B and PEN 36-590001-3B Shop Manuals and in Chapter 12-20-00 of PEN 36-590001-9 (or subsequent) Maintenance Manual.

Mech	Insp

8. STRUT AND A-FRAME HINGE 80LTS - Inspect for cracks and security of attachment.

Mech	Insp

9. STATIC CABLE (If installed) - Inspect for condition and proper clearances and attachment.

Mech	Insp

10. VISUAL INDICATDR - Check for condition.

Mech	Insp

F. MAIN GEAR AND BRAKES

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.

Mech	Insp

2. WHEELS AND TIRES - Check wheels for cracks and tires for wear, damage, condition and proper inflation. Check wheel bearings for condition and wear.

Mech	Insp

3. ACTUATOR GEARBOX, MOTOR AND SWITCHES - Check for leakage, condition and security.

Mech	Insp

4. LANDING GEAR STRUTS - Inspect the shock struts and components for cracks, attachment, proper inflation and evidence of leakage.

Mech	Insp

5. ACTUATING LINKAGE - Check for wear and cracks at attach points. Check for condition and security.

Mech	Insp

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.

Mech	Insp

7. STRUT FLUID LEVEL - Check and maintain the proper hydraulic fluid level in the struts as outlined in Section 2 of PEN 35-590096B and PEN 36-590001-3B Shop Manuals and in Chapter 12-20-00 of PEN 36-590001-9 (or subsequent) Maintenance Manual.

Mech	Insp

8. STRUT AND A-FRAME HINGE BOLTS - Inspect for cracks and security of attachment.

Mech	Insp

G. MAIN GEAR OPERATION

NOTE

Since 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 either 14.25 ± .25 or 28.25 ± .25 VDC (according 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 PEN 35-590096B Shop Manual, Section 5 of PEN 36-590001-3B Shop Manual or Chapter 32 of PEN 36-590001-9 (or subsequent) Maintenance Manual.

1. DOORS - Check door operation, fit and fair. Check for unusual noises.

Mech	Insp

2. POSITION LIGHTS - Check for security, adjustment, wiring for breaks, condition of insulation, loose connections and proper indication.

Mech	Insp

3. WARNING HORN - Check for proper operation.

Mech	Insp

4. UPLOCK CABLE TENSION - Check unlock cable mechanism for condition and security. Check unlock cable for proper tension and for possible fraying.

Mech	Insp

5. EMERGENCY EXTENSION - Check system for freedom of operation and positive engagement of the down locks. Check for unusual noise.

Mech	Insp

6. DOWNLOCK TENSION - Check for proper deflection force on the main gear knee joints.

Mech	Insp

7. UPLOCK ROLLERS - Check condition and clearance of unlock rollers and lubricate as indicated in the appropriate Shop/Maintenance Manual. Check for binding.

Mech	Insp

8. LIMIT SWITCH RIGGING - Check for security and proper adjustment of the limit switches. Refer to the Shop/Maintenance Manual for correct landing gear gearbox internal clearance.

Mech	Insp

9. SAFETY SWITCH - Check for security, proper rig and operation.

Mech	Insp

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 position of the landing gear. Check the condition and operation of complete landing gear system.

Mech	Insp

11. DYNAMIC BRAKING ACTION - Verify proper operation of dynamic braking action (12-volt system) and dynamic brake relay (24-volt system).

Mech	Insp

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.

Mech	Insp

H. NOSE GEAR OPERATION

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 either 14.25 ± .25 or 28.25 ± .25 VDC (according 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 PEN 35-590096B Shop Manual, Section 5 of PEN 36-590001-3B Shop Manual or Chapter 32 of PEN 36-590001-9 (or subsequent) Maintenance Manual.

1. DOORS - Check door operation, fit and fair. Check for unusual noise.

Mech	Insp

2. NOSE GEAR UP TENSION - Check the up tension on the nose gear as indicated in the appropriate Shop/Maintenance Manual.

Mech	Insp

3. DOWNLOCK TENSION - Check the down lock tension on the nose gear as indicated in the appropriate Shop/Maintenance Manual.

Mech	Insp

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.

Mech	Insp

5. VISUAL INDICATOR - Inspect for proper adjustment and operation.

Mech	Insp

6. NOSE GEAR STEERING - Check for condition and security.

Mech	Insp

I. 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.

Mech	Insp

2. INTERNAL FUSELAGE STRUCTURE - Check for cracks and deformation. Check for loose and missing rivets. Check bulkheads, door posts, stringers and doublers for cores, cracks and buckles.

Mech	Insp

3. STRUCTURE - Inspect the two most aft bulkheads for cracks, distortion, loose rivets or other obvious damage.

Mech	Insp

4. CABLES, PULLEYS AND TURNBUCKLES - Check the elevator and rudder flight control components, cables and pulleys. Replace control system components (push rods, turn buckles, 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 broken strands or evidence of corrosion. Check cables for proper tension at the first inspection and every 100-Hours thereafter.

Mech	Insp

5. CONTROL SURFACES - Check for deformation, cracks, security, freedom of movement and travel limits. Check for loose or missing rivets. Check for security of hinges and bond cable. Check the inboard elevator hinge casting (on the aft bulkhead) for cracks in mounting bolt holes.

Mech	Insp

6. TRIM TABS AND ACTUATORS - Check for security and wear. Check allowable free play per Section 3 of PEN 35-590096B and PEN 36-590001-3B Shop Manuals and per Chapter 27-30-00 of PEN 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 PEN 35-590096B Shop Manual, Section 2 of PEN 36-590001-3B Shop Manual or Chapter 12-20-00 of PEN 36-590001-9 (or subsequent) Maintenance Manual.

Mech	Insp

7. STATIC PORTS - Check for obstruction and clean as necessary.

Mech	Insp

8. PLUMBING - Check for leakage, cracks, chafing, condition and security.

Mech	Insp

9. ELECTRICAL WIRING AND EQUIPMENT - Inspect for chafing, damage, security and attachment.

Mech	Insp

10. STATIC LINES - Check condition of static lines and drain.

Mech	Insp

11. ASSIST STEP BUNGEE - Inspect for condition and attachment.

Mech	Insp

12. ANTENNAS - Check for condition and security

Mech	Insp

J. GENERAL

1. Airplane cleaned and serviced.

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2. Airplane lubricated, after cleaning, in accordance with the appropriate Shop/Maintenance Manual lubrication chart and BEECHCRAFT Safety Communique No. 57 dated June 3, 1981.

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3. Inspect all placards to assure that they are easily readable and securely attached.

Mech	Insp

4. Assure that all airworthiness Directives, BEEHCRAFT Service Bulletins and previously issued Service Instructions are reviewed and complied with as required.

Mech	Insp

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

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