

SCHEDULED INSPECTION PROGRAM (Effectivity: LM-79)

PHASE 4 INSPECTION (Effectivity: LM-79)

A. NOSE SECTION	REFERENCE	MECH	INSP
1. NOSE SECTION AREA - Inspect skin, structure and attaching hardware for wear, damage, and corrosion. If damage or corrosion is found in a given area, check the adjacent area.	53-00-00	TN	
2. RADOME - Inspect the exterior surface for cracks in the paint and fiberglass substrate.	53-00-00	TN	
3. COMBUSTION HEATER <i>Not Installed In Aircraft (P113)</i>			
a. Check the gap and condition of the heater spark plug.	21-40-00 Chapter 13	N/A	
b. Check fuel plumbing, pump and regulator for leakage, damage and security of attachment	21-40-00 Chapter 13	N/A	
c. Clean and inspect the system fuel filter at the inlet port of the fuel control valve.	21-40-00 Chapter 13	N/A	
d. Check the fuel heater for operation, condition and attachment.	21-40-00 Chapter 13	N/A	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

A. NOSE SECTION (Continued)	REFERENCE	MECH	INSP
e. Inspect the heater drain lines for obstructions.	21-40-00 Chapter 13	N/A	
f. Functional check the heater-out warning light for proper operation.	21-40-00	N/A	
B. NOSE AVIONICS COMPARTMENT			
1. INSTRUMENT AIR FILTER - Inspect for cleanliness.	12-20-00 Chapter 8	GK	
2. BRAKE RESERVOIR - Check fluid level.		BAM	
3. AVIONICS EQUIPMENT AND RACKS - Inspect for security of attachment		R.	
4. AVIONICS COMPARTMENT AREA - Inspect for corrosion, trapped water and indications of water leakage.		R.	
5. ELECTRICAL WIRING AND EQUIPMENT - Inspect for chafing, damage, proper routing of wire bundles and security of attachment.	AC43.13-1B/-2B	TN	
6. DOORS, FASTENERS, AND SEAL - Inspect seal for deterioration and doors and latches for proper adjustment and fit.	52-30-00 Chapter 2	TN	
C. NOSE LANDING GEAR AREA			
1. ELECTRICAL WIRING AND EQUIPMENT - Inspect all exposed electrical wiring and equipment for chafing, damage and security of attachment.	AC43.13-1B/-2B	TN	
2. NOSE LANDING GEAR AREA - Inspect skin, structure and attaching hardware for wear, damage, and corrosion. If damage or corrosion is found in a given area, check the adjacent area.	32-20-00	TN	
D. NOSE LANDING GEAR			
1. WHEEL			

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

D. NOSE LANDING GEAR (Continued)	REFERENCE	MECH	INSP
a. Inspect wheel for wear, damage and corrosion.	32-40-00 CMM Chapter 3	BJR	
b. Inspect wheel bearings and races for wear, pitting, cracks, discoloration, rust or other indications of damage.	32-40-00 CMM Chapter 3	BJR	
2. TIRE			
a. Inspect for wear and deterioration.	12-20-00 CMM Chapter 3	JK	
b. Check for correct inflation.	12-20-00 CMM Chapter 3	JK	
3. SHIMMY DAMPER - Inspect for leaks, security and attachment.	12-20-00 32-20-00 Chapter 3	JK	
4. NOSE GEAR BRACE STOP LUGS - Inspect for cracks, damage or distortion.	32-10-00	JK	
5. NOSE GEAR STEERING STOP - Inspect steering stop for damage or distortion.	32-10-00 32-50-00	JK	
6. NOSE GEAR STEERING LINK – For condition, security and spring free play. (If more than .030 in see U-21 MM Chapter 3 Paragraph 16)	32-50-00	TN	
7. TAXI LIGHT			
a. Inspect light for broken lenses or bulbs.	33-40-00 Chapter 9	P.	
b. Confirm correct focus of taxi light.	33-40-00 Chapter 9	P.	
8. NOSE GEAR LOWER DRAG LEG - Remove nose gear drag brace bolt and inspect lower drag hole for corrosion and wear.	CMM Chapter 3	TN	
9. NOSE GEAR ACTUATOR - Inspect actuator support brackets for visual damage, wear, cracks and loose or missing fasteners.	32 Chapter 3	TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

D. NOSE LANDING GEAR (Continued)	REFERENCE	MECH	INSP
10. NOSE GEAR COMPONENTS - Inspect all components and attaching hardware for wear, damage and surface corrosion.	32-20-00 Chapter 3	TN	
11. NOSE GEAR RETRACT AND EXTENSION CHAIN (Exterior only)			
a. Inspect chain for broken links, excessive pin and link wear, misalignment, rust, corrosion and dirt.	32-30-00	TN	
b. Check sprocket for excessive wear and hook-shaped teeth.	32-30-00	TN	
c. Check chain for proper tension.	32-30-00	TN	
d. Check nose gear and nose gear linkage clearance from electrical wires and obstructions.	32-30-00	BOS	
E. PILOT'S COMPARTMENT			
1. WINDSHIELDS			
a. Inspect windshield for cracks and visibility impairment.	Chapter 9	GO	
b. Inspect windshield weather seal for debonding, cracks or wear.	56-10-00 Chapter 9	GO	
2. WINDOWS - Inspect exterior surface of cockpit side windows for deep scratches, chips, excess crazing or other damage.	56-15-00 Chapter 9	GO	
3. ALTERNATE AIR VALVE - Drain off all moisture.	34-00-00 Chapter 9	BAM	
4. SEAT TRACKS - Inspect seat tracks for damage and wear.	25-10-00 Chapter 2	BAM	
5. INSTRUMENT AIR REGULATOR - Check for security and condition (Vacuum and Pressure), and inspect filter for blockage (Vacuum only).	12-20-00 Chapter 8	BOS	
6. HEATING SYSTEM - Check all ducts for damage and deterioration.	21-20-00 Chapter 13	GO	
F. CABIN SECTION			
1. WINDOWS - Inspect exterior surface of window for deep scratches, cracks, chips, excessive crazing or other damage.	56-15-00 Chapter 2	GO	
2. ROTATING OR FLASHING BEACON - Inspect for cracked or broken lenses.	33-40-00 Chapter 9	TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

F. CABIN SECTION (Continued)	REFERENCE	MECH	INSP
3. ACCESS DOORS - Inspect for fit and attachment.	6-50-00 Chapter 2	GO	
4. SEAT TRACKS - Inspect seat tracks for damage and wear.	25-20-00 Chapter 2	GO	
5. CABIN SECTION AREA - Inspect skin, structure, seats and attaching hardware for wear, damage and corrosion. If damage or corrosion is found in a given area, check the adjacent area.		GO	
G. REAR FUSELAGE AND EMPENNAGE			
1. AIR CONDITIONING COMPRESSOR (IF INSTALLED)			
a. Inspect for security of attachment and oil leaks.	ACM 1001	GO	
b. Inspect drive belt for deterioration, wear and proper tension.	ACM 1001	GO	
c. Check for proper compressor oil level, if oil leak indications are present.	ACM 1001	GO	
d. Inspect compressor brushes for wear.	ACM 1001	GO	
2. AIR FILTER - Inspect evaporator filter (If Installed)	ACM 1001	GO	
3. REFRIGERANT LINES, SERVICE VALVES AND HIGH PRESSURE RELIEF VALVES - Inspect lines and valves for leakage, damage, attachment and surface corrosion. (If Installed)	ACM 1001	GO	
4. REAR FUSELAGE DRAINS – Clean and inspect rear fuselage drains.	53-10-00	GO	
5. ELT BATTERY			
a. Inspect for leakage, corrosion or loose connections.	25-60-00	R	
b. Determine remaining useful life.	25-60-00	R.	
6. NAVIGATION LIGHTS AND ROTATING (FLASHING) BEACONS - Inspect for broken or cracked lenses.	33-40-00 Chapter 9	TN	
7. ACCESS DOORS, (Inspection Panels) - Inspect for fit and security of attachment.	6-50-00 Chapter 2	TN	
8. VENTRAL FIN DRAIN HOLES - Inspect the drain holes in the bottom of the ventral fin for obstructions.		TN	
9. DEICER BOOTS - Inspect for deterioration, damage and attachment.	30-10-00 Chapter 12	CW	
10. RUDDER AND TRIM TAB DRAIN HOLES - Inspect the drain holes for obstructions.		TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

G. REAR FUSELAGE AND EMPENNAGE (Continued)	REFERENCE	MECH	INSP
11. STATIC WICKS			
a. Inspect for damage and security of attachment.	23-60-00 Chapter 11	GO	
b. Check for proper bonding to the airplane.	23-60-00 Chapter 11	GO	
12. EMPENNAGE AND CONTROL SURFACES			
a. Check elevator trim tabs free play.	27-30-00 Chapter 11	CW	
b. Check elevator trim actuator jack screw anti-rotation roll pin for security. (Set screw or C clip) Give special attention to the attaching ears on the elevator bell crank for cracks.	27-00-00	CW	
c. Check rudder trim tab free play.	27-20-00 Chapter 11	CW	
d. Inspect skin, structure and attaching hardware for wear, damage and corrosion. If damage or corrosion is found in a given area, check the adjacent area.	53-10-00 Chapter 2	BDF	
13. ELECTRICAL WIRING AND EQUIPMENT - Inspect for chafing, damage, proper routing of wire bundles and security of attachment.	AC43.13-1B/-2B	↓	
14. AVIONICS AND AUTOPILOT - Inspect avionics and autopilot equipment and racks for security, corrosion and signs of water leakage.			
15. VERTICAL STABILIZER - Inspect front and rear spars of the vertical stabilizer for loose or missing rivets or fasteners.	55-30-00 Chapter 2	CW	
16. FLIGHT CONTROL COMPONENTS, CABLES AND PULLEYS			
a. Inspect the control system components (pushrods, turnbuckles, castings, pulley brackets, etc.) For bulges, splits or cracks which are conditions for replacement. (Ref. Beechcraft S.B. 2231 as amended and 27-30-00)	27-20-00 Chapter 9	BDF	
b. Inspect control cables, pulleys and associated equipment for cracks, wear, breaks, attachment, alignment, clearance and proper operation. Replace cables that have more than three broken wires in any given three-foot CABLE length or have evidence of corrosion.	27-20-00 Chapter 9 20-04-00	↓	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

G. REAR FUSELAGE AND EMPENNAGE (Continued)	REFERENCE	MECH	INSP
H. LEFT-HAND OUTBOARD WING			
1. FUEL QUANTITY TRANSMITTERS - Inspect for leaks at points of attachment.	28-40-00 28-41-00 Chapter 8	JK	
2. WING ATTACH FITTING DRAIN HOLES - Determine that the drain holes are open in the wing center section and outboard wing upper attachment fittings.	57-00-00 Chapter 2	JK	
3. LIGHTS			
a. Inspect the navigation and recognition lights (if installed) for broken or cracked lenses.	33-40-00 Chapter 9	JK	
b. Inspect the strobe light for broken or cracked lenses, if installed.	33-40-00 Chapter 9	JK	
c. Inspect the landing lights for broken or cracked lenses.	33-40-00 Chapter 9	JK	
4. FUEL TANKS AND VENTS			
a. Inspect the exterior of the wing for leaks.	28-10-00	JK	
b. Inspect fuel cap for damage and attachment.	CMM	JK	
c. Inspect exterior openings of vents for obstructions.	28-00-00 Chapter 10	JK	
5. DEICER BOOTS - Inspect exterior surface for deterioration, damage and attachment.	30-10-00 Chapter 12	JK	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

H. LEFT-HAND OUTBOARD WING (Continued)	REFERENCE	MECH	INSP
6. ACCESS DOORS (INSPECTION PANELS) - Inspect for fit and attachment.	6-50-00 Chapter 2	JR	
7. STATIC WICKS			
a. Inspect for damage and security of attachment.	23-60-00 Chapter 11	GO	
b. Check for proper bonding to the airplane.	23-60-00 Chapter 11	GO	
I. LEFT WING CENTER SECTION			
1. FUEL QUANTITY TRANSMITTERS - Inspect for leaks at points of attachment.	28-40-00 28-41-00 Chapter 8	JR	
2. FUEL TANKS AND VENTS			
a. Inspect the exterior of the center section for leaks.	28-00-00 28-10-00	JR	
b. Inspect fuel cap for damage and attachment.	28-00-00 28-10-00 CMM	JR	
c. Inspect the exterior openings of the vents for obstructions.		JL	
3. ACCESS DOORS (INSPECTION PANELS) - Inspect for fit and attachment.	6-50-00 Chapter 2	JR	
J. LEFT-HAND MAIN LANDING GEAR AREA			
1. WHEELS			
a. Inspect wheels for wear, damage and corrosion.	32-40-00	TN	
b. Inspect wheel bearings and races for wear, pitting, cracks, discoloration, rust or other indications of damage.	32-40-00 CMM	TN	
2. BRAKES - Inspect brake discs, linings and plumbing for wear, damage, leaks, corrosion and security of all components.	32-40-00 CMM Chapter 7	TN	
3. TIRES - Inspect tires for wear, deterioration and correct inflation.	12-20-00 CMM Chapter 3	TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

J. LEFT MAIN LANDING GEAR AREA (Continued)	REFERENCE	MECH	INSP
4. LEFT MAIN LANDING GEAR STRUT - Check strut for leaks and proper extension.	12-20-00 Chapter 3	BOK	
5. ELECTRICAL WIRING AND EQUIPMENT - Inspect exposed wiring and equipment for chaffing, damage, and proper routing and security of attachment.	AC43.13-1B/-2B	N	
6. MAIN LANDING GEAR ACTUATOR			
a. Inspect actuator support brackets for visible damage and wear.	32-30-00 Chapter 3	BOK	
b. Inspect brackets for cracks and loose or missing rivets.	32-30-00 Chapter 3	↓	
c. Inspect actuators for leakage of internal lubricant.	32-30-00 Chapter 3	↓	
K. LEFT-HAND ENGINE			
1. FUEL FILTERS AND SCREENS - Inspect the firewall filter for evidence of foreign matter, corrosion, or microbiological growth in the fuel system. If any microbiological growth is found, use BIOBOR JF or Kathon KP 1.5 additive. NOTE: Measure distance from bottom end of bowl mounting bolt to flat bottom surface housing. If more than 3.1 inches, remove and inspect for bolt looseness or pulling. Repair or replace	12-10-00 Chapter 10	OK	
2. PROPELLER DEICER - Inspect propeller deicer system (spinner removal required)	30-60-00 Chapter 12	OK	
3. PROPELLERS			
a. Inspect for damage and attachment (spinner removal required).	61-10-00 Chapter 5	OK	
b. Inspect the carbon block pin for freedom of movement.	61-11-00 Chapter 5	OK	
c. Check for no metal-to-metal contact between the brass ring and the reversing lever.	61-11-00 Chapter 5	OK	
d. Inspect the reversing linkage for correct adjustment, evidence of binding and security of attachment.	76-00-00 Chapter 4	OK	
e. Inspect mechanical feedback ring, stop rods and springs for damage.	61-11-00 Chapter 5	OK	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

K. LEFT-HAND ENGINE (Continued)	REFERENCE	MECH	INSP
4. HIGH PRESSURE FUEL PUMP FILTERS - Inspect the engine-driven high pressure fuel pump filter. (Before replacing filter, accomplish next item). CAUTION Do not over-tighten filter.	P&W MM	AS	
5. ENGINE DRIVEN HIGH PRESSURE FUEL PUMP COUPLING SHAFT (If pump P/N 025323-10 is installed) - Inspect for fretting and/or corrosion by removing drain fitting and checking for rust colored residue inside drain cavity with a Q-Tip.	P&W MM	AS	
6. ENGINE OIL FILTER - Inspect for metal particles.	P&W MM	AS	
7. LOW PRESSURE ENGINE DRIVEN FUEL PUMP (If Installed) - Inspect for security of attachment and leakage.	28-21-00 Chapter 10	N/A	
8. COWLING - Remove entire cowling and inspect skin, structure and attaching hardware for wear, damage and corrosion.	71-10-00 Chapter 2	TN	
9. OIL COOLER	79-00-00 Chapter 4		
a. Inspect oil cooler and plumbing for leakage, damage, and security of attachment.	79-00-00 Chapter 4	AS	
b. Inspect drain plug for leakage, security and safety wire.	79-00-00 Chapter 4	AS	
10. AFT COWLING ACCESS DOOR LATCHES - Check adjustment of latches.	71-10-00	TN	
11. FIRESEALS - Inspect for condition.	71-00-00 Chapter 2	AS	
12. ENGINE EXHAUST SYSTEM			
a. Inspect attaching hardware for wear, damage and corrosion.	P&W MM	AS	
b. Inspect the exhaust system and visible portions of the power turbine for burning, distortion, damage and cracks.	P&W MM	AS	
13. ENGINE AND PROPELLER CONTROLS			
a. Check controls and associated equipment for binding, stiff operation, full travel and friction.	76-00-00	AS	
b. Inspect controls, bolt, nuts, cotter pins and safety wire for corrosion, damage, and attachment. NOTE Special attention should be paid to the cambox.	12-20-00 Chapter 4	AS	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

K. LEFT-HAND ENGINE (Continued)	REFERENCE	MECH	INSP
c. Inspect control cables for damage such as crimps, cuts, abrasions, or tight bends. If exterior covering is ruptured, perform leak test.	12-20-00 Chapter 4	PS	
14. CONTROL CABLE BOOTS - Inspect the control cable boots for excessive compression, twist, wear or aging which could cause binding.	76-00-00	PS	
15. STARTER-GENERATOR - Inspect one set of brushes for indications of excessive wear or damage (determine wear by observing diagonal groove on brush.	24-30-00 Chapter 9	PS	
16. MAGNETIC CHIP DETECTOR (if installed)			
a. Remove and visually inspect plug for metal particles and damage.	12-10-00 79-30-00	PS	
b. Check light in annunciator panel for proper operation.	12-10-00	PS	
17. ENGINE			
a. Inspect fuel nozzles per engine manufacturer's manual.	P&W MM	PS	
b. Inspect engine in accordance with the instructions in the engine manufacturer's manual.	P&W MM	PS	
18. IGNITION SYSTEM			
a. IGNITION GLOW PLUGS (If Installed)	P&W MM	N/A	
b. IGNITION REGULATOR BOX			
1) Inspect regulator box and electrical harness for damage and security of attachment.	P&W MM	N/A	
2) Inspect that supply cable and ignition cable connectors are installed and safety wired.	P&W MM	N/A	
c. SPARK IGNITER PLUGS (If Installed)	P&W MM	PS	
d. IGNITION EXCITER			
1) Inspect exciter and electrical harness for damage and security of attachment.	P&W MM	PS	
2) Inspect that supply cable and ignition cable connectors are installed and safety wired.	P&W MM	PS	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

K. LEFT-HAND ENGINE (Continued)	REFERENCE	MECH	INSP
19. FUEL DRAIN COLLECTOR SYSTEM			
a. Check tank, pump, pump filter and plumbing for leaks and security of attachment.	71-70-00	AB	
b. Perform a leak check on collector tank.	71-70-00	AB	
c. Check wiring to pump and tank float switch for damage and security of attachment.	71-70-00	AS	
d. Check pump for proper operation.	71-70-00	AB	
20. COMPRESSOR INLET- Remove the air inlet screen and inspect the compressor inlet area, struts, first stage blades and vanes for dirt deposits, corrosion, erosion, cracks, and damage by foreign objects.	P&W MM	AB	
21. INERTIAL ANTI-ICER VANE			
a. Check vane for freedom of movement and correct travel. Lubrication of linkage and vane hinges may be necessary.	12-20-00 30-21-00 Chapter 12	AB	
b. Check the push-pull control for damage, security of attachment, freedom of movement and full travel.	12-20-00 30-22-00 Chapter 4	AS	
L. RIGHT-HAND OUTBOARD WING			
1. FUEL QUANTITY TRANSMITTER - Inspect for leaks at points of attachment.	28-40-00 28-41-00 Chapter 8	JR	
2. WING ATTACH FITTING DRAIN HOLES - Determine that the drain holes are open in the wing center section and outboard wing upper attach fittings.	57-00-00 Chapter 2	JR	
3. LIGHTS			
a. Inspect the navigation and recognition (if installed) lights for broken or cracked lenses.	33-40-00 Chapter 9	JR	
b. Inspect the strobe light for broken or cracked lenses, if installed.	33-40-00 Chapter 9	JR	
c. Inspect the landing light for broken or cracked lenses.	33-40-00 Chapter 9	JR	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

L. RIGHT-HAND OUTBOARD WING (Continued)	REFERENCE	MECH	INSP
4. FUEL TANKS AND VENTS			
a. Inspect exterior openings of vents for obstructions.	28-00-00 Chapter 10	JR	
b. Inspect fuel cap for damage and attachment.	28-00-00 28-10-00 CMM	JR	
c. Inspect the exterior of the wing for leaks.	28-00-00 28-10-00	JR	
5. DEICER BOOTS - Inspect exterior surface for deterioration, damage and attachment.	30-10-00 Chapter 12	JR	
6. ACCESS DOORS (INSPECTION PANELS) - Inspect for fit and attachment.	6-50-00 Chapter 2	JR	
7. STATIC WICKS			
a. Inspect for damage and security of attachment.	23-60-00 Chapter 11	GO	
b. Check for proper bonding to the airplane.	23-60-00 Chapter 11	GO	
M. RIGHT-HAND WING CENTER SECTION			
1. FUEL QUANTITY TRANSMITTER - Inspect for leaks at points of attachment.	28-40-00 28-41-00 Chapter 8	JR	
2. FUEL TANKS AND VENTS			
a. Inspect the exterior of the center section for leaks.	28-10-00 28-00-00	JR	
b. Inspect fuel cap for damage and attachment.	28-00-00 28-10-00	JR	
c. Inspect the exterior openings of the vents for obstructions.		JR	
3. ACCESS DOORS (INSPECTION PANELS) - Inspect for fit and attachment	6-50-00 Chapter 2	JR	
4. BATTERY			
a. Service battery as required.	12-20-00 Chapter 9	TN	
b. Remove battery and inspect battery box, cables and vent tubes for deterioration or obstructions.	24-30-00 Chapter 2	TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

N. RIGHT-HAND MAIN LANDING GEAR AREA	REFERENCE	MECH	INSP
1. WHEELS			
a. Inspect wheels for wear, damage and corrosion.	32-40-00 CMM	JH	
b. Inspect wheel bearings and races for wear, pitting, cracks, discoloration, rust or other indications of damage.	32-40-00 CMM	JH	
2. BRAKES - Inspect brake discs, linings and plumbing for wear, damage, leaks, corrosion and security of all components.	32-40-00 CMM Chapter 7	TN	
3. TIRES - Inspect tires for wear, deterioration and correct inflation.	12-20-00 CMM Chapter 3	TN	
4. RIGHT MAIN LANDING GEAR STRUT - Check strut for leaks and proper extension.	12-20-00 Chapter 3	308	
5. ELECTRICAL WIRING AND EQUIPMENT - Inspect exposed wiring and equipment for chafing, damage, and proper routing and security of attachment.	AC43.13-1B	↓	
6. MAIN LANDING GEAR ACTUATOR			
a. Inspect actuator support brackets for visible damage and wear.	32-30-00 Chapter 3	308	
b. Inspect brackets for cracks and loose or missing rivets.	32-30-00 Chapter 3	↓	
c. Inspect actuators for leakage of internal lubrication.	32-30-00 Chapter 3	↓	
O. RIGHT-HAND ENGINE			
1. FUEL FILTERS AND SCREENS - Inspect the firewall filter for evidence of foreign matter, corrosion, or microbiological growth in the fuel system. If any microbiological growth is found, use BIOBOR JF or Kathon KP 1.5 additive. NOTE: Measure distance from bottom end of bowl mounting bolt to flat bottom surface housing. If more than 3.1 inches, remove and inspect for bolt looseness or pulling. Repair or replace	12-10-00 Chapter 10	JH	
2. PROPELLER DEICER - Inspect propeller deice system (spinner removal required).	30-60-00 CMM Chapter 12	TN	
3. PROPELLERS			
a. Inspect for damage and attachment (spinner removal required).	61-11-00 Chapter 5	TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

O. RIGHT-HAND ENGINE (Continued)	REFERENCE	MECH	INSP
b. Inspect the carbon block pin for freedom of movement.	61-11-00 76-00-00 Chapter 5	TN	
c. Check for no metal-to-metal contact between the brass ring and the reversing lever.	61-11-00 76-00-00 Chapter 5	TN	
d. Inspect the reversing linkage for correct adjustment, evidence of binding and security of attachment.	76-00-00 Chapter 4	TN	
e. Inspect mechanical feedback ring, stop rods and springs for damage.	61-11-00 76-00-00 Chapter 5	TN	
4. HIGH PRESSURE FUEL PUMP FILTERS - Inspect the engine-driven high pressure fuel pump filter. (Before replacing filter, accomplish next item.) CAUTION: Do not over-tighten filter.	P&W MM	TN	
5. ENGINE DRIVEN HIGH PRESSURE FUEL PUMP COUPLING SHAFT (If pump P/N 025323-10 is installed) - Inspect for fretting and/or corrosion by removing drain fitting and checking for rust colored residue inside drain cavity with a Q-Tip.	P&W MM	TN	
6. ENGINE OIL FILTER - Inspect for metal particles.	P&W MM	TN	
7. LOW PRESSURE ENGINE DRIVEN FUEL PUMP (If Installed) - Inspect for security of attachment and leakage.	28-21-00 Chapter 10	N/A	
8. COWLING - Remove entire cowling and inspect skin, structure and attaching hardware for wear, damage and corrosion.	71-10-00 Chapter 2	TN	
9. OIL COOLER			
a. Inspect oil cooler and plumbing for leakage, damage, and attachment.	79-00-00 Chapter 4	TN	
b. Inspect drain plug for leakage, security and safety wire	79-00-00 Chapter 4	TN	
10. AFT COWLING ACCESS DOOR LATCHES - Check adjustment of latches.	71-10-00	TN	
11. FIRESEALS - Inspect for condition.	71-00-00 Chapter 2	TN	
12. ENGINE EXHAUST SYSTEM			
a. Inspect attaching hardware for wear, damage and corrosion.	P&W MM	TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

O. RIGHT-HAND ENGINE (Continued)	REFERENCE	MECH	INSP
b. Inspect the exhaust system and visible portions of the power turbine for burning, distortion, damage and cracks.	P&W MM	TN	
13. ENGINE AND PROPELLER CONTROLS			
a. Check controls and associated equipment for binding, stiff operation, full travel and friction.	76-00-00	TN	
b. Inspect controls, bolt, nuts, cotter pins and safety wire for corrosion, damage, and attachment. NOTE Special attention should be paid to the cambox.	12-20-00 Chapter 4	TN	
c. Inspect control cables for damage such as crimps, cuts, abrasions, or tight bends. If exterior covering is ruptured, perform leak test.	12-20-00 Chapter 4	TN	
14. CONTROL CABLE BOOTS – Inspect the control CABLE boots for excessive compression, twist, wear or aging which could cause binding.	76-00-00	TN	
15. STARTER-GENERATOR – Inspect one set of brushes for indications of excessive wear or damage (determine wear by observing diagonal groove on brush.	24-30-00 Chapter 9	TN	
16. MAGNETIC CHIP DETECTOR (if installed)			
a. Remove and visually inspect plug for metal particles and damage	12-10-00 79-30-00	TN	
b. Check light in annunciator panel for proper operation	12-10-00	TN	
17. ENGINE			
a. Inspect fuel nozzles per engine manufacturer's manual.	P&W MM	TN	
b. Inspect engine in accordance with the instructions in the engine manufacturer's manual.	P&W MM	TN	
18. IGNITION SYSTEM			
a. IGNITION GLOW PLUGS (If Installed)	P&W MM		
b. IGNITION REGULATOR BOX			
1) Inspect regulator box and electrical harness for damage and security of attachment.	P&W MM		
2) Inspect that supply cable and ignition cable connectors are installed and safety wired.	P&W MM		

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

O. RIGHT-HAND ENGINE (Continued)	REFERENCE	MECH	INSP
c. SPARK IGNITER PLUGS (If Installed)	P&W MM	TN	
d. IGNITION EXCITER			
1) Inspect exciter and electrical harness for damage and security of attachment.	P&W MM	TN	
2) Inspect that supply cable and ignition cable connectors are installed and safety wired.	P&W MM	TN	
19. FUEL DRAIN COLLECTOR SYSTEM			
a. Check tank, pump, pump filter and plumbing for leaks and security of attachment.	71-70-00	TN	
b. Perform a leak check on collector tank.	71-70-00	TN	
c. Check wiring to pump and tank float switch for damage and security of attachment.	71-70-00	TN	
d. Check pump for proper operation.	71-70-00	TN	
20. COMPRESSOR INLET - Remove the air inlet screen and inspect the compressor inlet area, struts, first stage blades and vanes for dirt deposits, corrosion, erosion, cracks, and damage by foreign objects.	P&W MM	TN	
21. INERTIAL ANTI-ICER VANE			
a. Check vane for freedom of movement and correct travel. Lubrication of linkage and vane hinges may be necessary.	12-20-00 30-21-00 Chapter 12	TN	
b. Check the push-pull control for damage, security of attachment, freedom of movement and full travel.	12-20-00 30-22-00 Chapter 4	TN	
P. LANDING GEAR RETRACTION AND EXTENSION			
<p style="text-align: center;">NOTE</p> Since battery voltage is not sufficient to properly cycle the landing gear, use only an external power source capable of delivering and maintaining 28.25 (+ or - 0.25) volts throughout the extension and retraction cycles when performing the landing gear retraction inspection.			
1. RETRACTION MECHANISM - Check retraction and extension system for proper operation of all components through at least two complete cycles.	32-10-00 32-20-00 Chapter 3		

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

P. LANDING GEAR RETRACTION AND EXTENSION (Continued)	REFERENCE	MECH	INSP
2. DOORS AND LINKAGE			
a. Check door for damage, operation and fit.	32-10-00 32-20-00 Chapter 3	JR	
b. Check door linkage for wear, damage and rigging.	32-10-00 32-20-00 Chapter 3	JR	
3. DOWNLOCK INDICATOR SWITCHES			
a. Check for security and proper operation of switches.	32-60-00 Chapter 9	JR	
b. Check wiring for damage and security of connection.	32-60-00 Chapter 9	JR	
4. UPLOCK INDICATOR SWITCHES			
a. Check for security and proper operation of switches.	32-60-00 Chapter 9	JR	
b. Check wiring for damage and security of connection.	32-60-00 Chapter 9	JR	
5. WARNING HORN - Check for proper operation	32-60-00 Chapter 9	JR	
6. MAIN GEAR DOWNLOCKS - Check locking mechanism for positive engagement in extended position.	32 Chapter 3	JR	
7. SAFETY SWITCH - Check for security and proper operation.	32-60-00 Chapter 3	JR	
8. ACTUATORS - Check for noise, binding and proper rigging.	32-30-00 Chapter 3	JR	
9. LIMIT SWITCHES			
a. Check for correct adjustment.	32-30-00 Chapter 9	JR	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

P. LANDING GEAR RETRACTION AND EXTENSION (Continued)	REFERENCE	MECH	INSP
b. Check for security of attachment.	32-30-00 <i>Chapter 9</i>		
10. EMERGENCY EXTENSION - Check system for freedom of operation and positive engagement of downlocks. <p style="text-align: center;"><u>CAUTION</u></p> Do not continue operation after receiving a gear-down indication on all gears. Further movement of the handle could damage the drive mechanism and prevent subsequent electrical gear retraction. The landing gear cannot be retracted manually.	32-30-00 <i>Chapter 3</i>		
11. NOSE GEAR RETRACTION CHAIN (Exterior only) - Check nose gear and nose gear linkage clearance from electrical wires and obstructions.	32-30-00		

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

Q. OPERATIONAL INSPECTION	REFERENCE	MECH	INSP
<p style="text-align: center;">NOTE</p> <p>The following Operational Inspection procedures are to be applied during start and run of the engine. Refer to the applicable U-21 Pilot's operating Handbook and FAA Approved Airplane Flight Manual for the engine start and run procedures.</p>			
1. FIREWALL SHUTOFF VALVES - Check for proper operation.		TN	
2. CROSSFEED VALVE - Check for proper operation.		TN	
3. BOOST PUMPS - Check for proper operation.		TN	
4. LOW PRESSURE ENGINE DRIVEN FUEL PUMP (If Installed) - Check for proper operation.		N/A	
5. STARTER-GENERATOR			
a. Check starter for operation.		TN	
b. Check generator for output.		TN	
6. IGNITION			
a. Check for proper operation.		TN	
b. Check for annunciator panel light illumination.		TN	
7. ENGINE OIL - Check for proper pressure and temperature limits.		TN	
8. FUEL QUANTITY GAGES - Check operation.		OK	
9. INTERSTAGE TURBINE TEMPERATURE / TURBINE INLET TEMPERATURE - Check for correct limits on engine start.		TN	
10. VACUUM/PRESSURE (whichever system is installed) INSTRUMENT AIR SYSTEM - Check for correct limits.		TN	
11. PNEUMATIC PRESSURE GAGE - Check for correct pressure.		TN	
12. GYRO INSTRUMENTS - Check for erratic or noisy operation.		TN	
13. AUTOFEATHERING CHECK (if installed) - Refer to AUTOFEATHERING OPERATIONAL CHECK.	61-23-00 Chapter 9	TN	
14. PROPELLERS - Perform flight idle torque check.		TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

Q. OPERATIONAL INSPECTION (Continued)	REFERENCE	MECH	INSP
15. OVERSPEED GOVERNOR – Check for proper operation.		TN	
16. PROPELLER GOVERNOR - Check governor operation (including feathering and reversing).		TN	
17. SECONDARY LOW PITCH STOP (if installed) – Check for proper operation.		N/A	
18. IDLE RPM - Check for correct rpm (both high and low rpm).		TN	
19. AC INVERTERS - Check for proper operation.		P.	
20. AUTO-IGNITION (if installed)			
a. Check for proper operation.		TN	
b. Check for annunciator panel light illumination.		Q.	
21. PROPELLER DEICER - Check for proper operation and cycling.	30 of CMM Chapter 12	TN	
22. SURFACE DEICER SYSTEM - Check for proper operation and cycling.		TN	
23. ELECTRICAL SYSTEM - Perform functional checks.		TN	
24. ENVIRONMENTAL SYSTEM			
a. HEATING SYSTEM – Check for proper operation			
b. AIR CONDITIONING SYSTEM (if installed)			
1) REFRIGERANT LEVEL – Check for proper level in the sight glass.	ACM 1001	TN	
2) Check fan only mode.			
a) Check high position.	ACM 1001	TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

Q. OPERATIONAL INSPECTION (Continued)	REFERENCE	MECH	INSP
b) Check low position.	ACM 1001	TN	
3) Check cool mode.	ACM 1001	TN	
25. AUTOPILOT (if installed)- Check for proper operation as outlined in the applicable U-21 Pilot's Operating Handbook and FAA Approved Flight Manual Supplement.		BOT	
26. ENGINE FIRE DETECTORS (IF INSTALLED) - Perform system test according to instructions found in the applicable U-21 Pilots Operating Handbook and FAA Approved Airplane Flight Manual.		N/A	
27. CONDITION LEVER - Check for clean shutdown at IDLE-CUT-OFF.		TN	
28. PITOT TUBE - Check for proper heating at the unit and for obstructions.		BOT	
29. LANDING AND TAXI LIGHTS - Check operation of all lights.		BOT	
30. OUTBOARD WING LIGHTS - Check operation of all navigation and strobe lights.		BOT	
31. COCKPIT LIGHTS - Check for proper operation of all lights.		Pl.	
32. ELECTRIC ELEVATOR TRIM - Check for proper operation.		BOT	
33. ENGINE AND PROPELLER CONTROLS - Check for freedom of movement, full travel and friction-lock operation.		TN	
34. STATIC SYSTEM - Inspect alternate air valve for operation.		TN	
35. WINDSHIELDS - Perform windshield heat operational check.		Pl.	
36. CABIN AND COMPARTMENT LIGHTS - Check for proper operation.		Pl.	
37. PILOT'S AND COPILOT'S SEAT AND SEAT BELTS - Check seat adjustment mechanism and shoulder harness inertia reel for operation.		TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

Q. OPERATIONAL INSPECTION (Continued)	REFERENCE	MECH	INSP
38. CABIN SEATS AND SEAT BELTS - Check seat adjustment Mechanism and shoulder harness inertia reel for operation.		BAT	
39. CABIN/CARGO ENTRANCE DOOR			
a. Check that folding steps (if installed) do not fold too soon and that they fold properly without interference.		BAT	
b. Check CABIN DOOR / CABIN DOOR OPEN annunciator for proper operation.		↓	
c. Inspect cabin door dampener (if installed) for leakage and proper operation.		↓	
40. EMERGENCY EXIT			
a. Check emergency release handle and latch mechanism for operation.		TN	
b. Check that latches open and close freely.		TN	
41. EMPENNAGE CONTROL SURFACES			
a. Check for freedom of movement.		BAP	
b. Check trim actuators and motors for smoothness of operation.		↓	
42. REAR FUSELAGE AND EMPENNAGE LIGHTS - Check operation of all lights.		↓	
43. AILERON - Check for freedom of movement.		↓	
44. AILERON TRIM TAB - Check trim tab actuator for smoothness of operation, attachment.		↓	
45. FUEL TANK HEATED VENTS – Check the operation of the heated vents. They should be warm to the touch.		BAT	
46. STALL WARNING – Check for proper operation.		P	
47. STALL WARNING HEAT - Check for proper operation		P	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

Q. OPERATIONAL INSPECTION (Continued)	REFERENCE	MECH	INSP
48. FLAPS AND ACTUATORS – Check flaps for noisy or erratic operation and free play.		BA	
49. WING ICE LIGHTS – Check for proper operation of lights.		Q1	
50. EXTERNAL POWER REPLAY OPERATIONAL CHECK – Check for proper operation.		Q1	
51. ENGINE INERTIAL ANIT-ICER VANE – Check for proper operation and rigging.	12-20-00 30-21-00 30-22-00 Chapter 12	TN	

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

R. POST INSPECTION ITEMS	REFERENCE	MECH	INSP	
1. AIRPLANE CLEANED AND SERVICED AS REQUIRED.	12-20-00 Chapter 1	BDR		
2. LUBRICATE AS NECESSARY.	12-20-00	↓		
3. ENGINES INSPECTED AFTER GROUND RUN AND/OR TEST FLIGHT- Check for oil leaks, security and attachment of all components.				
4. AIRWORTHINESS DIRECTIVES AND SERVICE BULLETINS - Must be reviewed and complied with as required.				
5. ADDITIONAL INSPECTION REQUIREMENTS –			BDR	
a. Perform Continuous Corrosion Control Inspection, as required by MMS Part No. MMS1001, as revised.				
b. Ensure Special Inspection requirements are complied with at the appropriate intervals.				
6. All discrepancies noted by the pilot must be checked and corrected as required.		↓		
7. EMERGENCY LOCATOR TRANSMITTER - Check for proper operation and ensure ELT is ARMED before returning airplane for service.	25-60-00	Q		
8. OXYGEN SYSTEM - Check for proper servicing.	12-10-00	BDR		
9. EMERGENCY AND SURVIVAL EQUIPMENT (IF INSTALLED) - Ensure all necessary emergency and survival equipment is installed in the airplane and is serviceable.		↓		
10. PLACARDS - Determine that all required placards are in place and legible.	11-20-00 POH			
11. LOGBOOK ENTRY - Ensure that log books are filled out properly.				

PHASE 4 INSPECTION (Effectivity: LM-79) (Continued)

INSPECTION COMPLETE

DATE OF INSPECTION: 2/8/2022

MECHANIC NAME: Brian Adam Thomas

MECHANIC: A&P #: AIP 343675

MECHANIC SIGNATURE: 

AIRCRAFT S/N: LM-79

HOBBS: 5570.8

VERIFY MODIFICATIONS – ICA (337) 
