

INSPECTIONS**5-1. GENERAL**

This chapter contains the requirements for Scheduled, Special, and Conditional Inspections, and a Component Overhaul Schedule.

WARNING

FAILURE TO CORRECT CONDITIONS SUCH AS, BUT NOT LIMITED TO, CORROSION, EROSION, MECHANICAL DAMAGE, OR OBVIOUS WEAR FOUND DURING A SCHEDULED INSPECTION COULD SERIOUSLY AFFECT THE AIRWORTHINESS OF THE HELICOPTER.

These inspection requirements constitute an approved inspection program designed and recommended by Bell Helicopter Textron for the Model 412 Series. They can be utilized by registered owners or operators who desire to develop a progressive inspection system to be used as part of the complete maintenance program. A written request for approval to use the progressive inspection system shall be submitted to the governing civil aviation authority having jurisdiction over the area in which the owner or operator is located. Relief from the requirements in this chapter can be requested through the local aviation authority. **For the convenience of the operator, two separate scheduled inspections are provided as follows:**

- Part A Scheduled inspections consist of a daily inspection, 100 hour/12 calendar month inspection, 1000 hour inspection, and 5000 hour/5 year inspection.
- **Part B** Scheduled inspections consist of a 25 hour/30 day inspection, 300 hour/12 month, 600 hour/12 month inspection, and 5000 hour/5 year inspection.

Either series of inspections may be utilized. However, once a helicopter has been started on either inspection program, it shall be maintained on that program except as follows:

- If a helicopter is being inspected on the Part A inspection program and it is desired to change

to the Part B inspection program, a complete Part A 1000 hour inspection shall be accomplished. The helicopter may then be changed to the Part B inspection program beginning with a 25 hour/30 day inspection.

- If a helicopter is being inspected on the Part B inspection program and it is desired to change to the Part A inspection program, a complete 600 hour inspection shall be accomplished. The helicopter may then be changed to the Part A inspection program beginning with a daily inspection.

The inspection intervals given in this chapter are the maximum permitted. Do not exceed these intervals. The owner/operator is responsible for increasing the scope and the frequency of the inspections as necessary. Make sure the helicopter is maintained safely during all unusual local changes, such as environmental conditions, helicopter use, etc. You can request changes to the requirements in this chapter through the local aviation authority.

The inspection intervals and the component overhaul schedule provided in this chapter are applicable only to Bell Helicopter Textron approved parts.

NOTE

The time period given for the overhaul of a component (or the failure to give a time period for the overhaul of a component) does not constitute a warranty of any kind. The only warranty applicable to the helicopter or any component is the warranty included in the Purchase Agreement for the helicopter or the component.

The Time Between Overhaul (TBO) and the inspection periods are determined through experience, tests, Lead The Fleet (LTF), or any other special programs and the judgement of Bell Helicopter Textron engineers. They are subject to change only by Bell Helicopter Textron or an approved Airworthiness Authority.

Changes to the TBO will be introduced by either revisions to this chapter or a Technical Bulletin.

inspections, component interim inspections, and component overhaul inspections.

a. Scheduled inspections must occur at specified operating intervals. The intervals may be in operating time (hours), cycles, torque events (RIN), calendar (days, months, years) or other assigned units. This ensures the helicopter is airworthy.

- Scheduled inspections — Part A consists of:
 - Daily inspection — Accomplish daily before flight operation.
 - 100 hours/12 calendar months — Accomplish each 100 hours of flight operation or 12 calendar months, whichever comes first.
 - 1000 hours — Accomplish each 1000 hours of flight operation.
 - 5000 hours/5 years — Accomplish each 5000 hours of flight operation or each 60 calendar months, whichever comes first.
- Scheduled inspections — Part B consists of the following:
 - 25 hours/30 days — Accomplish each 25 hours of flight operation or each 30 days, whichever comes first.
 - 300 hours/12 month inspection — Accomplish each 300 hours of flight operation or each 12 calendar months, whichever comes first.
 - 600 hours/12 months — Accomplish each 600 hours of flight operation or each 12 calendar months, whichever comes first.
 - 5000 hours/5 years — Accomplish each 5000 hours of flight operation or each 60 calendar months, whichever comes first.

b. Special inspections are of a temporary nature or of a special interval that is not consistent with the scheduled inspections.

c. Conditional inspections do not occur at a specified time. A conditional inspection is the result of known or suspected unusual event, known or suspected malfunctions, or defects.

d. An interim inspection occurs between overhauls.

e. The component overhaul schedule gives the elapsed operating time at which a component must be removed, disassembled, examined for condition, and overhauled, in accordance with data approved by Bell Helicopter Textron.

2. Airworthiness limitations — Replace components in accordance with Airworthiness Limitations Schedule (Chapter 4).

3. Lubrication and servicing requirements are in addition to those stated in this chapter (Chapter 12).

4. For corrosion control, refer to the Corrosion Control Guide, CSSD-PSE-87-001 and the BHT-ALL-SPM.

5. For the PT6T-3 Series engines, refer to the Pratt & Whitney Canada Maintenance Manual for the scheduled inspection, special inspection, conditional inspection, and component overhaul schedule.

6. For the common Bell Helicopter Textron approved optional equipment that is integrated into this maintenance manual, refer to this chapter for the scheduled inspection, conditional inspection, component interim inspection, and component overhaul inspection.

7. For all other Bell Helicopter Textron approved equipment, refer to the applicable Service Instruction for the scheduled inspection, special inspection, conditional inspection, component interim inspection, and component overhaul inspection.

8. For the inspection requirements for optional equipment approved under Supplement Type Certificate (STC), refer to the applicable STC documentation. Maintenance and inspection of these items are the responsibility of the owner/operator.

5-3B. DEFINITIONS

- Inspect, check, examine — Determine condition relative to an established standard.
- Condition — The state of being of an item as related to serviceable or unserviceable standard.

SCHEDULED INSPECTIONS A0025

5-9. 25 HOUR/30 DAY INSPECTION — PART B

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Corrosion Control Guide, CSSD-PSE-87-001. Chapter 4 Chapter 5 Chapter 12	DATE: _____ W.O. _____ FACILITY: _____ HELICOPTER S/N: _____ REGISTRY NO.: _____ TOTAL TIME: _____ SIGNATURE: _____ NOTE For helicopters on the Part B inspection program, accomplish the following checks each 25 hours of flight operation or 30 days, whichever occurs first. <u>GENERAL</u> 1. Each listed inspection item or maintenance function is to be performed in accordance with the BHT-412-MM chapter specified or the BHT-412-CR&O. 2. Refer to Pratt & Whitney Canada PT6T-3 Series Maintenance Manual for engine inspection requirements. <u>PRELIMINARY REQUIREMENTS</u> 1. Use medium helicopter corrosion control guide to establish helicopter corrosion control program. 2. Replace all finite life components that have completed published operating limitations. 3. Overhaul all components that have completed published overhaul periods. 4. Lubricate and service helicopter as required.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 5	5. Review Special Inspections and carry out applicable inspections.		
	6. Examine all inspection windows and sight glasses for cracking, crazing, and discoloration. If any of these conditions are present, the part must be removed and replaced prior to returning helicopter for service.		
Service Instruction (SI)	7. Comply with all inspections and test requirements of all installed kits.		
	<u>FUSELAGE — NOSE SECTION</u>		
Chapter 95	1. Pitot tubes and static ports for visible obstruction and damage.		
Chapter 52	2. Nose doors for damage, corrosion, security of attachment, and for missing or damaged twist fasteners, seal for condition.		
Chapter 53	3. Fuselage: a. Forward fuselage area structure and skin for damage, corrosion, cleanliness, and damage to protective finish. b. Avionics and electrical compartment for water entrapment.		
Chapter 96	4. Battery installation: a. Battery and external connections for security, corrosion, and condition. b. Battery vent and drain tubes — unobstructed. c. Every fourth 25 hour/30 Day Inspection (100 hours), check battery mounts for corrosion and service battery in accordance with battery manufacturers recommendation.		
Appx F-4			
Chapter 96	5. Electrical equipment for condition, corrosion, and security.		
Chapter 97	6. Avionics equipment for condition and security.		
Chapter 52	7. All windows for damage and cleanliness.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 30	8. Windshield wiper arms and blades for serviceability and security.		
Chapter 29	9. Remote hydraulic filter bypass indicator-check for bypass indication.		
Chapter 97	10. Antennas for condition and security.		
Chapter 52	11. Crew doors (and surrounding structure) for damage, corrosion, and proper operation, emergency release pins for security.		
	<u>FUSELAGE — CABIN SECTION</u>		
Chapter 53	1. Fuselage structure and compartments for condition, corrosion, water entrapment, and damage to protective finish.		
Chapter 53	2. Fuselage underside for evidence of fuel and hydraulic fluid leakage.		
Chapter 28	3. Visually inspect fuel samples for contamination.		
Chapter 32	4. Landing gear: a. Forward crosstube and cap fittings for condition, corrosion, and security of attachment. b. Aft crosstube, cap fittings, and wear strips for condition, corrosion, and security of attachment. c. Aft crosstube support beam for wear, cracks, damage, corrosion, and security of attachment. d. Skid tubes and skid shoes for condition, corrosion, and security of attachment. Replace skid shoes that are worn into shoe surface. Repair weld beads as required. e. Fuselage supports for wear, damage, and security of attachment. f. Deleted.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 97 Chapter 52 Chapter 25 Chapter 25	g. If installed, landing gear forward crosstube crew step fittings for corrosion, damage, and security in area of attachment. If edge sealant is damaged or missing, remove crew step and inspect crosstube for corrosion or damage. h. Tail skid for deformation and security of attachment. i. Emergency float reservoir pressure indicator for proper charge indication (if installed). j. Floats for proper stowage and condition (if installed). 5. Deleted. 6. Antennas for damage, cleanliness, and security. 7. Passenger/cargo doors (and surrounding structure) for damage, corrosion, and proper operation. Window seals for condition. 8. Crew seats: a. Seats for condition, security, and proper operation. b. Cushions and backs for cleanliness, excessive deterioration, and tears. c. Crew seat restraint assemblies for condition, security, and proper operation. d. Crew seat attenuator for compression; inspect witness line. If line is not visible, repair attenuator assembly. 9. Passenger seats: a. Seats for condition and security. b. Cushions and backs for cleanliness, excessive deterioration, and tears. c. Passenger seat restraint assemblies for condition, security, and proper operation.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 95	10. Instruments: a. Instrument panel for cleanliness. b. All instrument, placards, decals, and markings for appearance and legibility. c. Check magnetic compass for condition and security. d. All compass cards for validity.		
Chapter 96 Chapter 97	11. Avionics and electrical equipment: a. Pedestal mounted avionics/electrical equipment for condition, cleanliness, and security. b. Overhead console for condition, cleanliness, and security. c. All instrument lights, integrally lit panels, secondary lights, and map lights for serviceability. d. All caution and warning lights for proper operation by using master caution, fire test, and baggage compartment smoke detector press to test functions. e. Landing and search lights for condition and security. f. Navigation and anti-collision lights for condition and security. g. Every fourth 25 Hour/30 Day Inspection, operationally check cabin heater system, bleed air shutoff, and line check valve.		A0102
Chapter 26	12. Two portable fire extinguishers for condition, mounting, and valid inspection certificate.		
Chapter 21	13. Cabin heating and ventilating system: a. Ventilating system components for condition and security.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
Chapter 25 Chapter 63	b. Heat/vent air ducts for condition and proper operation. c. Ventilation/defog components for condition and security. 14. Miscellaneous furnishings (map and data case, first aid kit, and emergency equipment) for condition and security. 15. Main rotor transmission: a. Proper oil level. b. External oil filter for bypass indication. c. Cases for damage, corrosion, condition, and evidence of leakage. d. Accessories for condition, corrosion, damage, and security of attachment. e. External oil lines and hoses for condition, damage, chafing, and leaks, paying particular attention to lines running aft of the thermostatic relief valve. f. Transmission mount dust boots for condition. WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT. g. Transmission tail rotor output quill coupling (and surrounding area) for grease leakage, damage, corrosion, and evidence of overheat as indicated by TEMP-PLATES or coupling discoloration. A change in color of one or more of the red bordered TEMP-PLATE dots from white/off-white to black, indicates an overheat condition, and may require replacement of both outer and inner couplings (see step h).		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 29	h. Overheat TEMP-PLATES for condition and security. TEMP-PLATES must not show evidence of overtemperature indication, deterioration, debonding, or excessive discoloration of the epoxy overcoating. 16. Hydraulic systems: a. Hydraulic system 1 and 2 filter bypass indicator buttons — not extended. b. Collective and cyclic servoactuators for leaks, corrosion, damage, and security. c. Deleted. d. Hydraulic system 1 and 2 valve and filter modules for leaks, damage, and security. e. Hydraulic system 1 and 2 lines, hoses, and fittings for leaks, damage, chafing, kinking, and security. 17. Flight control tubes for condition, corrosion, and security. <u>FUSELAGE AFT OF CABIN LEFT AND RIGHT SIDE</u>		
Chapter 52	1. Avionics/electrical and heater compartment doors for condition and security of attachment. Latches for proper operation.		
Chapter 53	2. Fuselage structure: a. Avionics/electrical and heater compartments for evidence of water entrapment. b. Engine decks for condition and evidence of delamination.		
Chapter 96 Chapter 97	3. Avionics and electrical equipment for security and condition.		
Chapter 21	4. Heater compartment for cleanliness, condition, and security of heating system components, wiring, ducts and supports. Structure for damage and corrosion (including connections and fasteners).		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 29	5. Tail rotor hydraulic actuator and hoses for leakage, corrosion, and security.		
Chapter 67	6. Tail rotor control tubes for condition, corrosion, and security.		
Chapter 63	7. Transmission oil cooling system: a. Oil coolers for leakage, damage, and obstruction. b. Oil cooler hoses and tubes for leakage, damage, chafing, and fraying. c. Oil cooler blowers for damage, corrosion, and obstruction.		
Chapter 79	8. Engine oil system: a. Oil coolers for leakage, corrosion, damage, and obstruction. b. Oil cooler hoses and tubes for leakage, damage, chafing, and fraying. c. Reduction gearbox oil filter impending bypass indicator button — not extended. d. Power section 1 for proper oil level. e. Power section 2 for proper oil level. f. Reduction gearbox for proper oil level.		
Chapter 26	9. Engine compartment fire extinguisher containers for proper charge, condition, and mounting.		
Chapter 71	10. Engine and reduction gearbox mounts for loose bearings and security.		
Chapter 71	11. No.1 (left) engine power section: a. Exhaust ejector and duct for damage and security.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 71	b. Gas generator case for cracks, buckled areas, and hot spots. c. Oil and fuel hoses and tubes for chafing, leaking, and security. d. Electrical wiring for fraying, chafing, and security.		
	12. No.2 (right) engine power section: a. Exhaust ejector and duct for damage and security. b. Gas generator case for cracks, buckled areas, and hot spots. c. Oil and fuel hoses and tubes for chafing, leaking, and security. d. Electrical wiring for fraying, chafing, and security.		
	13. Engine firewalls, air intake ducts, and plenum for cracks, distortion, missing rivets, broken spot welds, and deteriorating seals or gaskets.		
	14. Engine cowling for missing fasteners and cracks. Latches for proper operation.		
	<u>FUSELAGE AFT/TAILOOM ATTACHMENT</u> 1. Inspect fuselage tailboom attachment points for security and evidence of fretting. 2. Every fourth 25 Hour/30 Day Inspection: a. Inspect fuselage and tailboom attachment components and hardware for cracks with 10X magnifying glass. Pay particular attention to interface between forward end of tailboom attachment fitting and cap angle, and main beam web area below cap angle (Figure 5-6). <u>TAILOOM</u>		
ASB 412-00-100			CALM
Chapter 53	1. Tailboom structure:		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 52	a. Exterior structure for condition, damage, and corrosion. b. Baggage compartment interior for condition and cleanliness. 2. Baggage compartment door for damage, proper operation, and security.		A0120
Chapter 52	3. Driveshaft and intermediate gearbox covers for damage and security.		
Chapter 67	4. Elevators for damage and security. Elevator control tube for positive spring action and freedom of movement.		
Chapter 97	5. Tailboom mounted avionics equipment for condition and security.		
Chapter 53	6. Every fourth 25 Hour/30 Day Inspection: a. Inspect vertical fin caps for cracks and/or corrosion. b. Inspect interior structure (including joints, splices, longerons, attach fittings, and hardware) for condition, corrosion, damage, and cracks. NOTE Step c and step d pertain to helicopters modified with the BLR FastFin™ system kit 412-705-040-101. For helicopters equipped with the Dual Tailboom Strakes and FastFin™ system Supplemental Type Certificate (STC), refer to the applicable BLR Aerospace documents for inspection criteria. c. Inspect upper and lower tail fairings for visible damage to the exterior skin and cracks at the attachment points. If paint is missing locally or has scratches, inspect the fairing for delamination and voids with a tap hammer. Inspect fairings for loose or missing attaching hardware. d. Inspect upper and lower strakes for visible damage, deformation, cracks at the attachment points, and loose or missing rivets.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 67	e. Check elevator attachment lugs at each end of elevator horn for cracks, corrosion, and security. f. Check elevator horn to elevator spar attaching bolts and surrounding joint for cracks, corrosion, and security. g. Check elevator control tube, support, attaching hardware, and surrounding structure, for corrosion, damage, and security.		
Chapter 65	h. Torque check tail rotor gearbox mounting nuts by applying torque in tightening direction, do not exceed 200 inch-pounds (22.6 Nm). If any nut rotates under torque, inspect attachment hardware and tail rotor gearbox for serviceability. i. Torque check intermediate gearbox mounting bolts by applying torque in tightening direction, do not exceed 50 inch-pounds (5.65 Nm). If any bolt turns under torque, inspect attachment hardware and intermediate gearbox for serviceability. NOTE Step 7 pertains to helicopters S/N 33001 through 33213 and 36001 through 36019 not modified by 412-570-001-103 or Pre BHT-412-SI-74 (412SP to 412HP Upgrade).		
Chapter 65	7. Tail rotor driveshaft: WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT.		N/A by S/N

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
Chapter 65	a. Hanger assemblies — bearings and surrounding areas for evidence of grease leakage, condition, damage, security, corrosion, and overheating. Discoloration of bearing (color change to blue or blue/black) or multi-color appearance of hanger that darkens adjacent to bearing is evidence of overheating. Brown color of bearing shield is normal and is not evidence of overheating. b. Driveshaft sections for cracks, rivet failure, distortion, dents, corrosion, and damage to anodized finish. c. Clamp sets for condition, security, and proper installation. WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT. d. Flexible couplings and surrounding areas for grease leakage, damage, corrosion, and evidence of overheat as indicated by TEMP-PLATES or coupling discoloration. A change in color of one or more of the red bordered TEMP-PLATE dots from white/off-white to black indicates an overheat condition and may require replacement of both outer and inner couplings (step e). e. Overheat TEMP-PLATES for condition and security. TEMP-PLATES must not show evidence of over temperature indication, deterioration, debonding, or excessive discoloration of the epoxy overcoating. NOTE Step 8 pertains to helicopters S/N 36020 and subsequent and helicopters modified by 412-570-001-103 or Post BHT-412-SI-74 (412SP to 412HP Upgrade). 8. Tail rotor driveshaft:		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
	WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT. a. Hanger assemblies — bearings and surrounding areas for evidence of grease leakage, condition, damage, security, corrosion, and overheating. Discoloration of bearing (blue to blue/black in color) or multi-color appearance of hanger that darkens adjacent to bearing is evidence of overheating. Brown color of bearing shield is normal and is not evidence of overheating. b. Driveshaft sections for cracks, rivet failure, distortion, dents, corrosion, and for damage to anodized finish. c. Disc pack couplings for separation, deflection, distortion, cracks, or missing sections, and correct installation of bolts and washers. WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT. d. Coupling assembly at first hanger and adjacent to transmission and surrounding area for grease leakage, damage, corrosion, and evidence of overheat as indicated by TEMP-PLATES or coupling discoloration. A change in color of one or more of the red bordered TEMP-PLATE dots from white/off-white to black indicates an overheat condition and may require replacement of both outer and inner couplings (step e).		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
Chapter 65	e. Overheat TEMP-PLATES for condition and security. TEMP-PLATES must not show evidence of over temperature indication, deterioration, debonding, or excessive discoloration of the epoxy overcoating. NOTE Step 9 pertains to helicopters S/N 33001 through 33213 and 36001 through 36019 not modified by 412-570-001-103 or Pre BHT-412-SI-74 (412SP to 412HP Upgrade). 9. Intermediate gearbox: a. Gearbox assembly for security, condition, corrosion, damage, and oil leaking. WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT. b. Input and output quill flexible couplings (and surrounding area) for grease leakage, damage, corrosion, and evidence of overheat as indicated by TEMP-PLATES or coupling discoloration. A change in color of one or more of the red bordered TEMP-PLATE dots from white/off-white to black indicates an overheat condition and may require replacement of both outer and inner couplings (step c). c. Overheat TEMP-PLATES for condition and security. TEMP-PLATES must not show evidence of over temperature indication, deterioration, debonding, or excessive discoloration of the epoxy overcoating. d. Gearbox for proper oil level and oil for evidence of contamination.		N/A

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	OTHER
Chapter 65	NOTE Step 10 pertains to helicopters S/N 36020 and subsequent and helicopters modified by 412-570-001-103 or Post BHT-412-SI-74 (412SP to 412HP Upgrade). 10. Intermediate gearbox: a. Gearbox assembly for security, condition, corrosion, damage, and oil leaking. WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT. b. Output quill outer couplings (and surrounding area) for grease leakage, damage, corrosion, and evidence of overheat as indicated by TEMP-PLATES or coupling discoloration. A change in color of one or more of the red bordered TEMP-PLATE dots from white/off-white to black indicates an overheat condition and may require replacement of both outer and inner couplings (step c). c. Overheat TEMP-PLATES for condition and security. TEMP-PLATES must not show evidence of over temperature indication, deterioration, debonding, or excessive discoloration of the epoxy overcoating. d. Gearbox for proper oil level and oil for evidence of contamination. NOTE Step 11 pertains to helicopters S/N 33001 through 33213 and 36001 through 36019 not modified by 412-570-001-103 or Pre BHT-412-SI-74 (412SP to 412HP Upgrade).		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
Chapter 65	11. Tail rotor gearbox: a. Gearbox assembly for security, condition, corrosion, damage, and oil leaking. WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT. b. Input quill flexible coupling (and surrounding area) for grease leakage, damage, corrosion, and evidence of overheat as indicated by TEMP-PLATES or coupling discoloration. A change in color of one or more of the red bordered TEMP-PLATE dots from white/off-white to black indicates an overheat condition and may require replacement of both outer and inner couplings (step c). c. Overheat TEMP-PLATES for condition and security. TEMP-PLATES must not show evidence of over temperature indication, deterioration, debonding, or excessive discoloration of the epoxy overcoating. d. Gearbox for proper oil level and oil for evidence of contamination. NOTE Step 12 pertains to helicopters S/N 36020 and subsequent and helicopters modified by 412-570-001-103 or Post BHT-412-SI-74 (412SP to 412HP Upgrade)	N/A	
Chapter 65	12. Tail rotor gearbox: a. Gearbox assembly for security, condition, corrosion, damage, and oil leaking. b. Gearbox for proper oil level and oil for evidence of contamination.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	OTHER
Chapter 64	13. Tail rotor hub and blade assembly: WARNING NO CRACKS ARE PERMITTED ON ANY SURFACE OF THE TAIL ROTOR BLADES. a. Tail rotor blades for condition of bond lines, cracks, corrosion, leading edge erosion, damage, security, and cleanliness. Clean blades are required to maintain enhanced visibility for safety. b. Tail rotor hub for security, corrosion, and condition. c. Flapping bearings and pitch change bearings for excessive looseness and freedom of movement through full range of travel with antitorque pedals positioned full right and then full left. d. Tail rotor pitch change links, crosshead, pitch horns, counterweight arms, and links for security, corrosion, and condition. e. Pitch link bearing and counterweight link bearing looseness shall not exceed 0.015 inch (0.381 mm) axial. Check freedom of movement through full range of travel with antitorque pedals positioned full right and then full left. f. Pitch change links for binding with tail rotor blade moved to both full flapping positions. Binding is not acceptable. 14. Every fourth 25 Hour/30 Day inspection:		A0120

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
Chapter 52 Chapter 53 Chapter 63 Chapter 63 BHT-412-SI-12 Chapter 29	CAUTION COUNTERWEIGHT BELLCRANK RETENTION NUT MS14145L6, OR ITS EQUIVALENT MS17826-6, IS DESIGNATED AS ONE TIME USE ONLY. IF MAINTENANCE ACTION REQUIRES THAT IT BE REMOVED, THE COUNTERWEIGHT BELLCRANK NUT IS TO BE DISCARDED AND REPLACED WITH A NEW NUT. OVERTORQUING OR INCORRECT APPLICATION OF THE NUT COULD CAUSE MECHANICAL FAILURE RESULTING IN EXCESSIVE VIBRATION OR DAMAGE TO THE TAIL ROTOR BLADES. a. Inspect the tail rotor counterweight bellcrank 212-011-705-001 retention nuts for cracks, corrosion, and security. Reapply corrosion preventive compound (C-101) if nuts are not completely covered. <u>CABIN ROOF</u> 1. Cabin structure and cowlings/fairings for condition. 2. Transmission and transmission oil lines for condition, corrosion, and leaks. 3. Rotor brake quill, disc, and brake assembly (if installed): a. Brake quill for condition, damage, and leakage. b. Brake disc for condition, damage, security, warpage, and evidence of overheat. c. Caliper switches and wiring for condition and security of attachment. 4. Hydraulic systems: a. Hydraulic system 1 and 2 pumps for leakage, damage, and security.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 62	b. Hydraulic lines for leaks, chafing, and kinking. c. Hydraulic system 1 and 2 reservoirs for proper fluid levels, damage, corrosion, and security. 5. Main rotor blades: a. Wash main rotor blades. b. Main rotor blades for condition, damage, and security. NOTE Waxing is not required for blades 412-015-300-109 and subsequent or for any blade finished with polyurethane paint. c. Apply a coat of wax to main rotor blades.		
Chapter 62	6. Main rotor hub: a. Inspect hub assembly for condition, corrosion, and security, paying particular attention to the integrity of sealing. b. Inspect pitch horns for condition, security, and corrosion and cracks in areas surrounding torque transfer pin holes. No cracks permitted. c. Inspect pivot bearings, spindle bearings, and damper set for elastomeric bearing delamination, elastomer degradation, shim cracks, crazing, cracking, or sheeting. d. Inspect damper bearing bumper pads for deterioration or deformation due to contact with yoke. e. Functionally check arm and bearing (pendulum) assemblies. Apply a minimum of 5 pounds (22.24 N) of axial force to each arm and bearing assembly. Cycle arm and bearing through full travel. f. Apply force away from center of yoke. Arm and bearing assembly should cycle free and smooth. Roughness and binding are not acceptable.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 62	g. Functionally check droop restraint system. Check for engagement of restraint arms in lower detent of cam window. Relieve load on each blade and verify lower clevis moves freely through cam window envelope. Binding and roughness in inboard clevis is not acceptable. 7. Main rotor controls: a. Visually inspect swashplate and support assembly, and collective lever for condition and security. b. Visually inspect hub and sleeve assembly for condition and security. NOTE Use swashplate link and drive link bearings — workaid (Chapter 62) to assist with determining condition of main rotor control bearings. c. Visually inspect drive hub and rephasing levers for bearing looseness and security of attachment. d. Visually inspect pitch links for condition, security, and bearing looseness. 8. Every fourth 25 Hour/30 Day Inspection: NOTE Disconnect pitch link upper rod ends from the pitch horns to determine main rotor control bearing wear. a. Inspect swashplate and support assembly for condition and security with special attention to gimbal ring attachment lugs. NOTE The presence of black oxide powder will require investigation to determine the cause.		A0120

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 63	b. Inspect gimble ring bearings, liners, and attaching hardware for excessive looseness and wear. Gimble ring bearing and attaching bolt axial or radial looseness shall not exceed 0.005 inch (0.127 mm) with no binding allowed. c. Inspect trunnion bearings and attaching hardware for excessive looseness and wear. Trunnion bearings shall not exceed 0.020 inch (0.508 mm) axial looseness. d. Inspect drive hub and rephasing levers for wear and bearing looseness. e. Drive links' spherical bearings shall not exceed 0.007 inch (0.178 mm) radial or 0.015 inch (0.381 mm) axial looseness. f. Swashplate link non-elastomeric bearing looseness shall not exceed 0.015 inch (0.381 mm) axial. g. Collective lever trunnion bearing shall not exceed 0.020 inch (0.508 mm) axial looseness. h. Pitch link's non-elastomeric bearing looseness shall not exceed 0.007 inch (0.178 mm) radial or 0.015 inch (0.381 mm) axial.		
	9. Main rotor mast: a. Inspect mast assembly for security, corrosion, and mechanical damage. b. Inspect for evidence of oil leaks at mast bearing cap.		
Chapter 63	10. Engine-to-transmission (main) driveshaft: a. Main driveshaft for corrosion, condition, and security.		

SCHEDULED INSPECTIONS

5-9. 25 HOUR/30 DAY INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
	WARNING CAUSE OF ANY DISCOLORATION SHALL BE DETERMINED AND CORRECTED PRIOR TO NEXT FLIGHT. b. Main driveshaft forward and aft couplings, boots, seals (and surrounding area), for grease leakage, damage corrosion and evidence of overheat as indicated by TEMP-PLATES or coupling discoloration. A change in color of any yellow bordered TEMP-PLATE, from white/off-white to black, will indicate a possible overheat condition and /or component degradation (step c). If one or more of the red bordered TEMP-PLATE dots change from white/off-white to black, an overheat condition is present and may require replacement of both outer and inner couplings. c. Overheat TEMP-PLATES for condition and security. TEMP-PLATES must not show evidence of overtemperature indication, deterioration, debonding, or excessive discoloration of the epoxy overcoating.		

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
	DATE: _____ W.O. _____ FACILITY: _____ HELICOPTER S/N: _____ REGISTRY NO.: _____ TOTAL TIME: _____ SIGNATURE: _____ NOTE For helicopters on the Part B inspection program, accomplish the following checks each 300 hours of flight operation or 12 calendar months, whichever occurs first. <u>GENERAL</u> Each listed inspection item or maintenance function is to be performed in accordance with the chapter specified. <u>PRELIMINARY REQUIREMENTS</u> 1. All work accomplished during inspection shall be recorded in helicopter maintenance records. 2. Remove all panels, fairings, and cowlings required to satisfactorily carry out the inspection. 3. Deleted. <u>AFTER COMPLETION OF INSPECTION</u> 1. Reinstall all panels, fairings, and cowlings removed during inspection. 2. Carry out a ground run and leak check prior to releasing the helicopter back to service.		

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
	<u>FUSELAGE — CABIN</u>		
Chapter 53	1. Forward fuselage:		A0301
	a. Cabin exterior structure for corrosion and damage.		
	b. Cabin interior structure for corrosion and damage.		
	c. Ensure all drain holes are open.		
	d. All compartments for evidence of water entrapment and corrosion.		
Chapter 52	2. Doors and windows:		A0301
	a. Crew doors structure for corrosion, damage, distortion, and positive locking mechanisms. Seals for tears and separations.		
	b. Crew door emergency jettison mechanism for condition and security. Perform operational check.		
	c. Passenger door structure for corrosion, damage, distortion, and positive locking mechanisms.		
	d. Nose, electrical, and equipment compartment access doors for corrosion, damage, distortion, and positive locking mechanisms.		
	e. Passenger door window retainers and fillers for damage. Seals for adherence, tears, separations, and deterioration.		
	f. If installed, inspect heated windshield for condition and proper installation.		
Chapter 67	3. Collective flight control actuator:		A0302
	a. Universal bearings for looseness.		
	b. Input lever bearings and bolts for wear and looseness.		

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
BHT-ALL-SPM Chapter 67 Chapter 67	c. Fasteners attaching cylinder lower supports to structure for looseness. d. Cylinder lower bearings for looseness. e. Actuator assembly for damage and leakage. f. Cylinder extension tube for condition and security. g. Actuator linkage, balance spring, and bracket for wear and security. h. Clean exposed area of actuator piston with hydraulic fluid and a clean lint-free cloth. i. Check hydraulic cylinder piston rod for evidence of excessive wear and scoring. Wear of the piston rod indicates cylinder assembly is incorrectly aligned to lower support and requires adjustment. j. Remove bolts attaching actuator to lower supports. Check cylinder alignment to lower support. Rod end bearing side loads are not permitted. Install bolts. k. Torque check nuts attaching actuator cylinder to upper supports. l. Upper cylinder housing mounting bracket cavity for corrosion. Cavity drain hole for obstruction. Reapply corrosion preventive compound (C-104) as required. Dust boot for condition.		A0302
	4. Collective control tubes: a. Control tubes between collective jackshaft and collective control actuator pilot valve input lever for corrosion, wear, and damage. b. Control tube bellcrank, supports, and attaching hardware for corrosion, wear, and damage.		
	5. Cyclic flight control actuators: a. Universal bearings for looseness.		A0302

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
BHT-ALL-SPM Chapter 67 Chapter 63	b. Input lever bearings and bolts for wear and looseness. c. Fasteners attaching cylinder lower supports to structure for looseness. d. Cylinder lower bearings for looseness. e. Actuator assembly for damage and leakage. f. Cylinder extension tube for condition and security. g. Actuator linkage for wear and security. h. Clean exposed area of actuator piston with hydraulic fluid and a clean lint-free cloth. i. Check hydraulic cylinder piston rod for evidence of excessive wear and scoring. Wear of the piston rod indicates cylinder assembly is incorrectly aligned to lower support and requires adjustment. j. Remove bolts attaching actuator to lower supports. Check cylinder alignment to lower support. Rod end bearing side loads are not permitted. Install bolts. k. Torque check nuts attaching actuator cylinder to upper supports. l. Upper cylinder housing mounting bracket cavity for corrosion. Cavity drain hole for obstruction. Re-apply corrosion preventive compound (C-104) as required. Dust boot for condition.		
	6. Cyclic control tubes: a. Control tubes between cyclic jackshaft and cyclic control actuator pilot valve input lever for corrosion, wear, and damage. b. Control tube bellcranks, mixing levers, supports, and attaching hardware for corrosion, wear, and damage.		A0302
	7. Transmission:		A0303

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
BHT-412-CR&O Chapter 32	a. All transmission chip detectors for debris. b. Clean all transmission chip detectors. c. Test all transmission chip detector electrical circuits. d. Transmission internal oil filter or full flow oil debris monitor for debris. e. Clean transmission internal oil filter or full flow oil debris monitor. f. Move pylon fore and aft, using mast as lever. Check friction dampers for freedom of movement and smooth operation. g. Mounts for damage and security. h. Lift link and attachments for corrosion, damage, and security. Bearings for looseness. i. Mast torque sensor (if installed) installation for condition and security. j. Torque check: top case to ring gear case nuts, ring gear case to main case nuts and main case to support case nuts 230 to 250 inch-pounds (25.99 to 28.25 Nm). Re-torque as required.		A0301
	8. Landing gear assembly: a. Landing gear skid shoes for excessive wear, cracks, damage, corrosion, and security of attachment. b. Aft cross tube support beam for cracks, damage, corrosion, and security of attachment. c. Retighten cross tube to skid tube saddle bolts. d. Torque forward and aft cross tube support fittings U-bolts to 80 to 100 inch-pounds (9.04 to 11.29 Nm).		

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
BHT-412-SI-58 Chapter 53	e. Torque check ground handling wheel attachment eyebolts on skid tubes 40 to 58 foot-pounds (54 to 79 Nm). Eyebolts that rotate prior to reaching 40 foot-pounds (54 Nm) shall be removed and inspected for evidence of bending. No bending is permitted. f. If gross weight towing kit provisions are installed, inspect fitting assembly for condition and security. Torque check attachment bolts 160 to 190 inch-pounds (18.1 to 21.4 Nm). If bolts are found loose, inspect for condition. 9. Underside of fuselage: a. Fuselage structure for damage, corrosion, and working rivets. b. Exterior finish for condition and cleanliness. c. Evidence of excessive fluid leakage. d. Structure around landing gear for condition. e. Forward crosstube support structure for working fasteners, cracks, corrosion, and excessive wear. f. Aft crosstube support structure for working fasteners, cracks, corrosion, and excessive wear. <u>FUSELAGE AFT OF CABIN LEFT AND RIGHT SIDE</u> NOTE Refer to Pratt & Whitney Canada PT6T-3 Series Maintenance Manual for engine inspection requirements.		A0301
	1. No. 1 (left) engine power section: a. Chip detectors for debris. b. Clean chip detectors. c. Test chip detector electrical circuits.		
Chapter 71			B0312

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 71	2. No. 2 (right) engine power section: a. Chip detectors for debris. b. Clean chip detectors. c. Test chip detector electrical circuits.		B0312
Chapter 71	3. Reduction (combining) gearbox: a. Chip detector for debris. b. Clean chip detector. c. Test chip detector electrical circuits.		A0303.5.2
Chapter 71	4. Engine electrical connections: a. Power section 1 ignition leads for corrosion, chafing, and security. b. Power section 2 ignition leads for corrosion, chafing, and security.		B0312
Chapter 71	5. Starter generator: a. Power section 1 starter generator brushes for allowable wear. b. Power section 2 starter generator brushes for allowable wear. c. Power section 1 starter generator cooling ducts for obstruction, kinking, and security. d. Power section 2 starter generator cooling ducts for obstruction, kinking, and security. NOTE If applicable, refer to BHT-412-SI-87 for installation of adjustable seals or refer to Chapter 71 for seal adjustment.		CALM

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 71 ASB 412-10-140	6. Inspect the left side and right side engine air inlet cowlings for gaps between the lower surface of the cowling firewall and the mating horizontal engine firewall.		A0301
Chapter 76	7. Engine fuel and power controls: a. Engine control linkages for looseness, lost motion, chafing, damage, and security of attachment. b. Bellcranks, mounts, and jackshafts for looseness, damage, and security of attachment. c. Check controls for smooth movement throughout full range of travel.		A0301
Chapter 26	8. Engine fire detection systems for condition and security.		A0301
	<u>TAILBOOM</u>		A0304
Chapter 53	1. Tailboom structure: a. Tailboom exterior structure for corrosion and damage. b. Tailboom interior structure for corrosion and damage. c. Inspect tailboom joints, splices, longerons, attach fittings, and attaching hardware for corrosion, damage, and cracks.		
ASB 412-90-49	d. Remove plug button at BS 99.00.		
	NOTE Paint fissures are common in the splice area, cracks will be evident by black powder emanating from cracked area, corrosion will leave evidence of white powder. e. Using a borescope or other suitable means, inspect inside of longeron paying particular attention to cracking and/or corrosion in area of splice. f. Report any cracks to Product Support Engineering.		

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
BHT-ALL-SPM	g. Install plug button with sealant (C-308). h. Ensure all drain holes are open. i. Vertical fin spar caps forward side and web from upper tailboom skin to approximately 4.0 inches (101.6 mm) below upper tailboom skin as follows: remove aft tailboom access door. Face aft and use bright light and small mirror to inspect area for cracks, especially near rivet holes.		
	NOTE If necessary, clean area with cloth dampened with MEK (C-309) or equivalent. Ventilate area to prevent breathing fumes.		
Chapter 67	2. Antitorque controls: a. Tail rotor control tubes between tail rotor pedals and tail rotor gearbox for corrosion, wear, and damage. b. Control tube bellcranks, supports, and attaching hardware for corrosion, security, wear, and damage. c. Tail rotor hydraulic actuator for leaks and security of attachment, damage, corrosion, and bearings and linkages for looseness.		A 0304
Chapter 67	3. Aerodynamically actuated elevator: a. Elevator control tube between forward support bracket and elevator horn for corrosion, wear, and damage. b. Control tube support and attaching hardware for security, corrosion, wear, and damage. c. Elevators and support structure for loose or missing rivets and cracks in the skin. d. Trailing edge tabs and tip caps for condition and security.		A 0304

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
	e. Functionally check operation of tube as follows: CAUTION DO NOT RELEASE ELEVATOR AND ALLOW THE SPRING TO DRIVE ELEVATOR BACK TO ORIGINAL POSITION. (1) Move elevator to extreme nose down position and while holding allow elevator to slowly return to original position. Failure to return to original position, binding and/or lock-up are not acceptable. (2) If any of these conditions exist, replace tube. f. Remove elevator control tube and measure spring breakout force for 90 to 100 pounds (400.32 to 444.80 N). Install elevator control tube. g. Functionally check elevator rigging for proper setting and travel. h. Inspect and measure elevator trailing edge tab for 16° ±1/4° angle down from upper surface of elevator.		
Chapter 52	4. Baggage compartment door for corrosion, damage, distortion, and positive locking mechanism.	A0301	
Chapter 26	5. Baggage compartment smoke detector for condition and security.	A0301	
Chapter 96	6. Inspect wire bundles and clamping for chafing, condition, and security.	A0301	
	NOTE Step 7 pertains to helicopters S/N 33001 through 33213 and S/N 36001 through 36019 not modified by 412-570-001-103 or Pre BHT-412-SI-74 (412SP to 412HP Upgrade).		

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 65	7. Tail rotor driveshaft: a. Hanger assemblies for cracks at mounting ears, corrosion, and security of attachment. b. Hanger supports for condition and security of attachment. c. Driveshaft sections and attaching hardware for condition and security. d. Coupling clamps for cracks in or near bolt lugs. Clamps for proper position. NOTE Step 8 pertains to helicopters S/N 36020 and subsequent and helicopters modified by 412-570-001-103 or Post BHT-412-SI-74 (412SP to 412HP Upgrade).		A0305
Chapter 65	8. Tail rotor driveshaft: a. Hanger assemblies for cracks at mounting ears, corrosion, and security of attachment. b. Hanger supports for condition and security of attachment. c. Driveshaft sections and attaching hardware for condition and security. d. Disc pack couplings and attaching hardware for condition and security.		A0305
Chapter 65	9. Intermediate gearbox: a. Chip detector for debris. b. Clean chip detector. c. Functionally test chip detector electrical circuit.		A0305
Chapter 12	d. Service gearbox as required.		

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 65	10. Tail rotor gearbox: a. Chip detector for debris. b. Clean chip detector. c. Functionally test chip detector electrical circuit. d. Service gearbox as required.		A 0305
Chapter 64	11. Tail rotor hub and blade assembly: a. Dynamically balance tail rotor. b. Torque check nuts on tail rotor blade retention bolts. c. Torque check tail rotor retaining nut.		A 0305
Chapter 18			
	<u>CABIN ROOF</u>		A0301
Chapter 52 Chapter 53	1. Cabin roof structure: a. Cabin roof structure, cowlings and fairings for damage, delamination, and general condition. b. Cabin roof and cowling/fairing mounted antennas for condition and security.		
Chapter 62	2. Main rotor hub and blade assembly: a. Main rotor blades upper and lower surfaces for condition of bond lines and doublers. Leading edge for erosion. Blade surfaces for corrosion, cracks, damage, and voids. b. Main rotor hub assembly for corrosion and damage. c. Blade retention bolts for condition and security. d. Torque check eight main rotor yoke assembly through bolt nuts to 70 to 80 foot-pounds (95 to 108 Nm).		A0306

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 62	e. Ensure bolts EWB0420 are installed (16 places) for simple pendulum absorber bracket. Torque check bolts. Apply 29 to 33 foot-pounds (39 to 45 Nm) in increasing torque direction. 3. Main rotor controls: a. Torque check swashplate link elastomeric rod end bearings (as applicable) attachment bolts 165 to 200 inch-pounds (18.65 to 22.59 Nm). b. Torque check swashplate outer ring through bolts to 165 to 175 inch-pounds (18.65 to 19.74 Nm). c. Torque check four hub and sleeve to rephasing lever attachment bolts to 24 to 34 foot-pounds (33 to 46 Nm) for 1/2 inch bolts or to 160 to 200 inch-pounds (18.08 to 22.59 Nm) for 3/8 inch bolts (if installed). d. Torque check four drive link to rephasing lever attachment bolts to 165 to 200 inch-pounds (18.65 to 22.59 Nm). e. Torque check pitch link elastomeric rod end bearings (as applicable) attachment bolts to 165 to 200 inch-pounds (18.65 to 22.59 Nm). f. Torque check swashplate support to mast plate bolts AN5H-6A to 130 to 140 inch-pounds (14.67 to 15.79 Nm).		A0306
Chapter 96	4. Emergency bus interconnect circuit breaker and diodes: NOTE Helicopters S/N 33001 through 33107, except those modified for CAA, remove screw, spacer, and washer installed in the emergency load switch guard. a. Inspect EMERG BUS INTC circuit breaker for wear. Operate circuit breaker manually and check by feel. Worn or loose circuit breaker is not acceptable. Close circuit breaker.		A0306

SCHEDULED INSPECTIONS

5-10. 300 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 96	b. Place all switches in OFF or NORM position and close all circuit breakers. c. Connect battery. d. Place BATTERY BUS 1 switch and BATTERY BUS 2 switch in the ON position. Position INV 1 and INV 2 switches in the ON position. Caution panel INVERTER 1 and INVERTER 2 segments should not be illuminated. e. Check emergency bus power by pressing the FIRE EXT PRESS TO TEST button momentarily. Observe both FIRE PULL handle warning lights illuminate. f. Position emergency bus switch to EMERG LOAD position. Check emergency bus power by pressing the FIRE EXT PRESS TO TEST button momentarily. Observe both FIRE PULL handles illuminate. Verify INVERTER 1 and INVERTER 2 segments are illuminated on the caution panel. NOTE S/N 33108 and subsequent — Check INVERTER 1 light segment on the caution panel is not illuminated and INVERTER 2 segment is illuminated. g. Position BATTERY BUS 1 and BATTERY BUS 2 switches off. Check emergency bus power by pressing FIRE EXT PRESS TO TEST button momentarily. Observe FIRE PULL handles illuminate. h. Position INVERTER 1 and INVERTER 2 switches OFF. Position emergency bus switch to NORMAL. Disconnect battery. i. Install screw, spacer, and washer in the emergency load switch guard if removed.		
	5. Perform functional check of power diodes.		A0306

SCHEDULED INSPECTIONS

5-11. 600 HOUR/12 MONTH INSPECTION — PART B

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
	DATE: _____ W.O. _____ FACILITY: _____ HELICOPTER S/N: _____ REGISTRY NO.: _____ TOTAL TIME: _____ SIGNATURE: _____ NOTE For helicopters on the Part B inspection program, accomplish the following checks each 600 hours of flight operation or 12 calendar months, whichever occurs first. <u>GENERAL</u> Each listed inspection item or maintenance function is to be performed in accordance with the BHT-412-MM chapter specified. <u>PRELIMINARY REQUIREMENTS</u> 1. All work accomplished during inspection shall be recorded in helicopter maintenance records. 2. Remove all fuselage and tailboom access panels, removable floor panels, fairings, and cowlings. 3. Deleted. 4. Ensure all applicable Special Inspections, Alert Service Bulletins, and Airworthiness Directives have been accomplished.		

SCHEDULED INSPECTIONS

5-11. 600 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
	<u>AFTER COMPLETION OF INSPECTION</u> 1. Reinstall all panels, fairings, and cowlings removed during inspection. 2. Carry out a ground run and leak check prior to releasing the helicopter back to service.		
Chapter 25	<u>FUSELAGE</u> 1. Emergency and safety equipment: a. Emergency and safety equipment for inspection due dates. b. Contents of first aid kit for missing or over age items.		A 0601
Chapter 26	2. Perform weight check of cockpit and cabin portable fire extinguishers.		
Chapter 52	3. Perform operational check of crew doors emergency release mechanisms.		
Chapter 21 Chapter 96	4. Bleed air heating and ventilation/defog system components: a. Perform functional check of bleed air heating system and components. b. Perform functional check of defog blower.		A 0601
Chapter 95	5. Instruments: (required at 12 months calendar time only) a. Calibrate pilot, copilot compass systems, and standby magnetic compass. b. Drain pitot-static system of any accumulated moisture. c. Test pitot-static system for leaks.		CALM
Chapter 96	6. Perform functional check of battery temperature sensor caution light system.		A 0606

SCHEDULED INSPECTIONS

5-11. 600 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 67	7. Collective flights controls: a. Inspect flight control systems bellcrank and control tubes for damage, chafing, corrosion, and security of attachment. b. Inspect friction shoes and liners for condition. c. Check collective lever friction adjuster for operation. d. Check for proper collective minimum friction. e. Check collective flight controls for smooth movement throughout full range of travel.		A 0602
	8. Cyclic flight controls: a. Inspect flight control systems bellcrank and control tubes for damage, chafing, corrosion, and security of attachment. b. Check cyclic stick friction adjuster for proper operation. c. Check for proper cyclic minimum friction. d. Check cyclic flight controls for smooth movement throughout full range of travel.		A 0602
	9. Anti-torque flight controls: a. Flight control systems bellcrank and control tubes for damage, chafing, corrosion, and security of attachment. b. Check anti-torque friction adjuster for proper friction. c. Check anti-torque flight controls for smooth movement throughout full range of travel.		A 0602
	10. Engine: Perform maximum N_G topping check.		CALM
Chapter 76 Pratt & Whitney Canada PT6T-3 Series Maintenance Manual			

SCHEDULED INSPECTIONS

5-11. 600 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 76	11. Engine controls: a. Check collective lever throttle friction adjusters for proper operation.		A 0602
Chapter 28 Chapter 71	12. Inspect all exposed fuel lines and attachments for leakage, damage, and security.		A 0301
Chapter 29	13. Hydraulic system: NOTE Hydraulic filter elements 205-076-034-003 are non-cleanable. It is recommended they be replaced every 600 hours or 12 months. Filter elements 205-076-034-007 are cleanable. The -003 and -007 elements are interchangeable; intermixing of different element types is not permitted. a. Remove and inspect hydraulic filter elements. b. Discard or clean filter elements as applicable. c. Install hydraulic filter elements. d. Install 0 to 500 PSI (0 to 3447 kPa) gauge in quick disconnect at rotor brake caliper. Slowly pull rotor brake handle through travel. Cylinder should generate 240 to 260 PSI (1655 to 1793 kPa) at any handle velocity and shall maintain 150 PSI (1034 kPa) minimum in over center position for 3 minutes. Adjust as necessary. e. Inspect brake linings for wear (minimum thickness 0.150 inch (3.81 mm)).		A 0603
Chapter 63	14. Fuselage cabin structure: a. Fuselage structure for corrosion and damage to finish and sealant. Pay particular attention to edges of joints and seams and around fastener heads.		A 0601
Chapter 53	b. Ensure all drain holes are open.		

5-11. 600 HOUR/12 MONTH INSPECTION — PART B (CONT)

Chapter 4
Chapter 26
Chapter 96

SCHEDULED INSPECTIONS

5-11. 600 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
ASB 412-12-152	c. Visually inspect the loop clamp installed on modified discharge tubes 212-060-921-001FM and -002FM for condition and security until Part III of referenced ASB is accomplished.		A 0606
Chapter 28	17. Remove four access doors, located just forward of the aft crosstube, from the underside of the fuselage. Inspect fuel lines for evidence of leakage, damage, and security.		A 0601
Chapter 62	18. Swashplate and support assembly — hub and sleeve assembly: a. Disconnect drive and swashplate links from swashplate outer ring. b. Disconnect pitch links from main rotor hub pitch horns. c. Disconnect the collective pitch drive plate set. d. Check swashplate duplex bearing and collective sleeve hub bearing set for roughness and ease of rotation. e. Reconnect the collective pitch drive plate set. NOTE It is not necessary to check the shim thickness if the original collective pitch drive plate set is being reinstalled. f. Purge lubricate bearings. g. Reconnect drive and swashplate links and tubes. NOTE The following step is to be performed every 12 months.		A 0605
	19. Inspect all fuel system, oil system, and hydraulic system filler caps for proper functioning and sealing. Make sure the sealing O-rings within the filler caps are in good condition. Repair or replace the filler caps or replace sealing O-rings as required.		A 0601 A 0603

SCHEDULED INSPECTIONS

5-11. 600 HOUR/12 MONTH INSPECTION — PART B (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
Chapter 53	<u>TAILBOOM</u> 1. Tailboom structure for corrosion and damage to finish and sealant. Pay particular attention to edges of joints and seams and around fastener heads. NOTE Step 2 and step 3 pertain to helicopters modified with the BLR FastFin™ system kit 412-705-040-101. For helicopters equipped with the Dual Tailboom Strakes and FastFin™ system Supplemental Type Certificate (STC), refer to the applicable BLR Aerospace documents for inspection criteria.		A 0604
	2. Inspect upper and lower tail fairings for visible damage to the exterior skin and cracks at the attachment points. If paint is missing locally or has scratches, inspect the fairing for delamination and voids with a tap hammer. Inspect fairings for loose or missing attaching hardware.		
	3. Inspect upper and lower strakes for visible damage, deformation, cracks at the attachment points, and loose or missing rivets.		
Chapter 26	4. Functionally check baggage compartment smoke detector.		A 0604
Chapter 67	5. Aerodynamically actuated elevator: a. Remove left and right elevators. b. Clean elevator spars and inspect for corrosion. c. Clean internal bore of elevator horn and inspect for corrosion. d. With elevator control removed, attach a spring scale to hole in arm of horn where control tube is normally installed. Pull scale at right angle to arm, verify friction is 26 to 32 pounds (115.65 to 142.34 N). If friction is not within limits, adjust shim thickness. e. Install left and right elevator.		A 0604

Table 12-3. Lubrication Chart

INTERVAL	NOMENCLATURE	LUBRICANT	REMARKS	
25 hours, more frequent if required by environmental conditions	Tail rotor trunnion bearings (two)	Grease MIL-G-81322	Do not intermix grease types. Purge until same grease appears.	A0025
50 hours and on assembly	Tail rotor crosshead bearing	Grease MIL-G-81322	Two shots every 50 hours. Do not intermix grease types.	All 300 series
25 hours, more frequent if required by environmental conditions	Drive link (two places per link)	Grease MIL-G-81322	Do not intermix grease types. Purge until same grease appears.	A0025
25 hours, more frequent if required by environmental conditions	Rephasing lever bearings (four places)	Grease MIL-G-81322	Do not intermix grease types. Purge until same grease appears.	A0025
25 hours, more frequent if required by environmental conditions	Swashplate inner ring trunnion rod ends (two) and collective lever trunnion rod end (one)	Grease MIL-G-81322	Do not intermix grease types. Purge until same grease appears. Comply with Figure 12-3 , note 9. A0306.5.1	A0025
50 hours, more frequent if required by environmental conditions	Anti-torque flight control tube bearings	Grease MIL-G-81322	Fittings not present on all helicopters. Do not intermix grease types. Purge until same grease appears.	All 300 series
25 hours, more frequent if required by environmental conditions	Collective hub and sleeve (two fittings)	Grease MIL-G-81322	Do not intermix grease types. Purge until same grease appears.	A0025
25 hours, more frequent if required by environmental conditions	Swashplate bearings (two)	Grease MIL-G-81322	Do not intermix grease types. Purge until same grease appears.	A0025
100 hours	Cargo hook link assembly, clevis assembly, load bolt assembly		Refer to Service Instruction BHT-212-SI-5 and BHT-412-SI-17 (P/N 212-706-103-XXX).	
300 hours	Tail rotor hanger bearings (four)	Grease – MOBIL 28 no substitution	Slowly pump grease into fitting until it may be seen around bearing seal.	A0305
600 hours/ 6 months $\triangle_1$ or 600 hours/ 12 months $\triangle_2$ (refer to Chapter 5 Special Inspections)	Tail rotor driveshaft flex couplings	Grease 204-040-755-005 Tracked by Special Inspections	Comply with Figure 12-3 , notes 6, 7, and 8 as applicable.	

Table 12-3. Lubrication Chart (Cont)

INTERVAL	NOMENCLATURE	LUBRICANT	REMARKS
600 hours/ 6 months Δ_1 or 600 hours/ 12 months Δ_2 (refer to Chapter 5 Special Inspections)	Intermediate gearbox flex couplings	Grease 204-040-755-005	Comply with Figure 12-3, notes 6, 7, and 8 as applicable.
600 hours/ 6 months Δ_1 (refer to Chapter 5 Special Inspections)	Tail rotor gearbox flex coupling (one)	Grease 204-040-755-005	Comply with Figure 12-3, notes 6 and 7.
600 hours/ 6 months Δ_1 or 600 hours/ 12 months Δ_2 (refer to Chapter 5 Special Inspections)	Transmission tail rotor drive quill flex coupling (one)	Grease 204-040-755-005	Comply with Figure 12-3, notes 6, 7, and 8 as applicable.
600 hours/ 12 months (refer to Chapter 5 Special Inspections)	Main driveshaft couplings (two)	Grease 204-040-755-005	Comply with Figure 12-3, note 6.
On assembly	Main rotor blade bolts	Grease (C-561) or grease (C-172)	After final torque, overcoat non-expanding blade bolt head, nut, washer, and exposed threads with corrosion preventive compound (C-101) MIL-PRF-16173, Grade 1.
On assembly	Main rotor hub to mast	Grease (C-561) or grease (C-172)	Apply thin coat of grease (C-561) or grease (C-172) to mating surfaces of mast splines, upper and lower cones, and cap assembly taking care that grease is not allowed on Teflon of cone or mating surfaces with Teflon.
On assembly	Mast and splined plate splines	Grease (C-561) or grease (C-172)	Apply grease (C-561) or grease (C-172) to mast and splined plate splines.
On assembly	Tail rotor control tube	Lubricating oil MIL-PRF-7808 MIL-PRF-23699	Coat tube in area of bearing.
On assembly	Tail rotor control race	Grease (C-001) MIL-PRF-81322	Hand pack. Do not intermix grease types.
On assembly	Tail rotor gearbox output shaft splines to tail rotor hub trunnion splines	Grease (C-561) or grease (C-172)	Apply a thin coat of grease (C-561) or grease (C-172) to mating surface of tail rotor gearbox output shaft splines and tail rotor hub trunnion splines.

Tracked by
Special
InspectionsTracked by
Special
InspectionsTracked by
Special
InspectionsTracked by
Special
Inspections

Table 12-3. Lubrication Chart (Cont)

INTERVAL	NOMENCLATURE	LUBRICANT	REMARKS	
On assembly	Tail rotor crosshead splines	Grease (C-001) MIL-PRF-81322	Apply a thin film of grease at assembly. Do not intermix grease types.	
50 hours, more frequent if required by environmental conditions	Tail rotor control level (three places)	Grease (C-001) MIL-PRF-81322	Do not intermix grease types. Purge until same grease appears.	All 300 series
On assembly	Ground handling wheel bearings	Grease (C-001) MIL-PRF-81322	Do not intermix grease types. Purge until same grease appears.	
On assembly and each 6 months	Ground handling wheel axle pivot bearing, trunnions, and pins	Grease (C-001) MIL-PRF-81322	Do not intermix grease types. Purge until same grease appears.	
On assembly and after each 25 hours of operation	Droop restraint arm, inboard clevis race two fittings (four places)	Grease (C-001) MIL-PRF-81322	Do not intermix grease types. Purge until same grease appears.	A0025
Every 25 hours of operation	Bearing assembly, Pendulum absorbers main rotor hub (eight places)	Grease (C-001) MIL-PRD-81322	Do not intermix grease types. Purge until same grease appears.	A0025
NOTES: ¹ 600 hour/6 month interval applicable to helicopters S/N 33001 through 33213, and S/N 36001 through 36019 not modified by 412-570-001-103 or Pre BHT-412-SI-74 (412SP to 412HP Upgrade). ² 600 hour/12 month interval applicable to helicopters S/N 36020 and subsequent and helicopters modified by 412-570-001-103 or Post BHT-412-SI-74 (412SP to 412HP Upgrade).				

72-00-00 ENGINE - INSPECTION/CHECK**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL****MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015****7. Periodic Inspections (Ref. Table 601)**

Table 601 details periodic inspection criteria and frequency. Where no inspection limits are given in the table, or in any other relative chapter within this manual, any item with wear or damage as described in this table shall be replaced, or returned to an approved overhaul facility for possible repair, as applicable.

Table 601 Engine Periodic Inspections

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
CAUTION: DO NOT MIX DIFFERENT BRANDS OF OIL WHEN CHANGING, OR ADDING OIL BETWEEN CHANGES. THE CHEMICAL STRUCTURE OF DIFFERENT BRANDS OF OIL MAY DIFFER SUFFICIENTLY TO MAKE THEM INCOMPATIBLE (REF. SB5001) FOR APPROVED LISTING).			
Oil Contents			
	Check oil level and replenish if required (Ref. 72-00-00, ENGINE - SERVICING). If engine has been stationary for more than 12 hours, run affected power section for two minutes, shut down and check oil level	25 hours	B0025
Exhaust Duct	Cracks or distortion	50 hours or 6 months whichever comes first.	B 0156
P3 Filter Housing and Tubing (Post-SB5309 Post-SB5359 and Pre-SB5367)	Inspect for system contamination and flush (Ref. Para 10.N.).	100 hours	B0100
P3 Air Filter Element	Clean (electrosonic) and visually inspect filter element (Ref. 73-10-07).	100 hours	B0100
	NOTE: 1. Individual operators may elect to extend this interval if operating experience shows less frequent cleaning and inspection to be adequate.		
	NOTE: 2. Cleaning and visual		

72-00-00 ENGINE - INSPECTION/CHECK**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL****MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
	inspection applies to both AFCU P3 filter and optional clutch carbon seal P3 filters (Ref. SB5174).		
P3 Air Filter Drain Valve (Post-SB5309, SB5359 and/or SB5367)	Clean and Inspect (Ref. 73-10-07).	100 hours	B0100
	NOTE: 1. It is recommended that drain valves on engines operating in dirty or desert conditions be cleaned and inspected at 50 hour intervals.		
	NOTE: 2. For operators who perform frequent compressor recovery washes. It is recommended to inspect and clean drain valve at intervals not exceeding 50 hours.		
Fuel Surge Accumulator (Pre-SB5398)	Visually inspect the accumulator for signs of metal distortion on the sides and ends. The distortion will show up as bulging of the sides or doming of the end cap.	100 hours	B0100
	If distortion is present, it is possible that cracking has begun in the weld that joins the end cap to the body of the accumulator. Bulging or doming can be verified using a metal straightedge on the sides and ends of the accumulator.		
	Replace the accumulator, if any metal distortion is found.		
	Perform engine deceleration		

Printed on: 22 DEC/15 P&WC Proprietary - subject to restrictions in Technical Data Agreement

72-00-00 ENGINE - INSPECTION/CHECK

**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL
MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
	check (Ref. 71-00-00) .		
Fuel Surge Accumulator (Post-SB5398)	Visually inspect. Replace accumulator if pop-out indicator is extended (Ref. 73-10-03) .	150 hours	B0150
Fireseals	Cracks and security of brackets.	150 hours	B0150
Wiring	Check for security of all accessible connections, clamps and brackets and for evidence of wear, chafing, cracks and corrosion.	150 hours or 6 months whichever comes first.	B 0156
Inlet Screen	Cleanliness and condition of mesh.	150 hours	B0150
	Do a visual inspection of the compressor air inlet screen for broken and or missing wire mesh segments and signs of brittleness. If you suspect an area, check the integrity of the mesh by manipulating and flexing the screen. Any deviation is a cause for replacement. If the inlet screen is removed, do an inspection of first-stage compressor blades per Para. 9.B. Do a general visual inspection (GVI) of wash-ring assembly and safety wire for security and obvious damage. If any deviation is found during GVI, do an inspection of first-stage compressor blades per Para. 9.B.		
Gas Generator Case	Cracks, distortion, corrosion and evidence of overheating.	150 hours or 6 months whichever comes first.	B 0156
	NOTE: No cracks are allowed.		
Output Shaft Seal	Check for oil leaks.	150 hours or 12 months whichever comes first.	B 0156
Tubing	Check resistance of lead and heating element of heated pneumatic tubes (Ref. 73-10-08) .	150 hours or 6 months whichever comes first.	B 0156

Printed on: 22 DEC/15 P&WC Proprietary - subject to restrictions in Technical Data Agreement

72-00-00 ENGINE - INSPECTION/CHECK**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL****MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
	Check for security of all accessible connections, clamps and brackets, evidence of wear, chafing, cracks and corrosion and evidence of fuel or oil leaks. Examine insulation on pneumatic tubes for cuts in outer rubber sheaths.		
	NOTE: Refer to Overhaul Manual, 72-00-00, ENGINE - REPAIR for tubing repair instructions.		
	Surface cuts up to three inches long on Pre-SB5409 P3 heated tubes and Post-SB5409 Pg/P3 heated tubes insulation, can be repaired. If surface damage exceeds specified limits above, but depth is superficial, sheathing may be repaired by replacement of damaged portion. Examine the metal braid and electrical lead on heated tubes for cuts. Up to three broken wires per plait, or six broken wires per linear foot, are acceptable. Replace the tube assemblies where metal braid is chafed or worn through to the lead conductors.		
Oil Filter Element (10 micron)	Clean (Electrosonic or Ultrasonic Bath Method) and inspect filter element (Ref. 79-20-02).	150 hours	B0150
Chip Detectors	Accessory Gearbox - 2 detectors Reduction Gearbox - 3 detectors	150 hours 150 hours	B0150
	Clean with lint-free cloth and measure the minimum weight lift capacity. Use a suitable ohmmeter to check the continuity of the electrical circuit when the two poles are shorted together. Reject the component if there is no continuity. Loose pins and broken potting compound are		

Printed on: 22 DEC/15 P&WC Proprietary - subject to restrictions in Technical Data Agreement

72-00-00 ENGINE - INSPECTION/CHECK

**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL
MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
	also the cause to reject them.		
	Pre-SB5354: Inspect colored stripes painted on connector and housing. If stripes are displaced, reject chip detector. If no stripes are apparent, paint three equispaced colored stripes on connector and housing using suitable paint Connector threads must be free of paint.		
	NOTE: Refer to Chapter 79-30-01 for further inspection details.		
Bleed Air Case Assembly (Post-SB5445)	Check the orientation of the bleed air case assembly (Ref. 72-20-00).	150 hours	B0150
Ignition System Units	Security	300 hours	B 0312
Spark Igniters	Cleanliness and condition. Functional check (Ref. 74-00-00)	300 hours	B 0312
Compressor Inlet Area	At the required frequency and whenever condition of inlet screen warrants its removal, check compressor inlet area for corrosion, dirt deposits and erosion and check first-stage blades as detailed in Paragraph 9 . following.	300 hours or 12 months whichever comes first. (Ref. NOTE)	B 0312
	NOTE: Engines operating in a highly erosive environment and/or conditions where there is a high potential for blade damage require more frequent inspections (Ref. Para. 9 .)		
P3 Air Tube Metering Tees	Inspect for contaminants and clean. (Located on R.G.B. Output Housing)	300 hours	B 0312
MFCU Throttle Shaft	With power sections shut down	300 hours or 12 months	B 0312

Printed on: 22 DEC/15 P&WC Proprietary - subject to restrictions in Technical Data Agreement

72-00-00 ENGINE - INSPECTION/CHECK**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL****MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	B 0312
	and fuelboost pump ON, check both sides of throttle shaft for fuel leakage. If leakage is evident, replace manual fuel control unit (Ref. 73-20-01).	whichever comes first.	
AFCU	Check AFCU for bearing wash-out indicated by blue dye (grease and fuel mixed) at AFCU vent hole (Ref. ENGINE - FAULT ISOLATION).	300 hours and whenever area is accessible.	
	Drivebody inspection/driveshaft bearing replacement; Route to qualified shop for detailed inspection and Driveshaft Bearing replacement.	See NOTE.	
	NOTE: This inspection is recommended for operators that experience premature AFCU removals due to: 1. Operating in a severe environment, with respect to temperature, humidity, sand/dust or other airborne contaminants. And/or 2. Very low or irregular utilization over a period of time. Definition of regular/irregular utilization Regular utilization: A unit which accumulates a minimum of 30hrs/month. Irregular utilization: A unit which remains inactive for extended periods of time. 3. The following interval is recommended to obtain the maximum benefit of this inspection: 3000 hours or 3 years,		

Printed on: 22 DEC/15 P&WC Proprietary - subject to restrictions in Technical Data Agreement

72-00-00 ENGINE - INSPECTION/CHECK**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL****MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
	whichever comes first (mid-TBO). Operators can adjust the calendar interval based on their experience. Operators having units past the recommended calendar interval can comply with this inspection at the first convenient time.		
Fuel Pump	Check for security and fuel leaks.	300 hours	B 0312
	If fuel pump gear-set and coupling operating time since new (TSN) is LESS THAN Engine Basic TBO (Ref. SB5003):		
	(a) Check fuel pump coupling in-situ for fretting and corrosion (Ref. 73-10-02, FUEL PUMP - MAINTENANCE PRACTICES).	Every 600 hours	B 0600
	(b) Remove fuel pump and inspect the drive coupling and cover accessory gearbox side for signs of reddish-brown (iron oxide) stains. If stains are observed, return the fuel pump to an approved overhaul facility (Ref. 73-10-02, FUEL PUMP - MAINTENANCE PRACTICES).	Every 2000 hours	B 2000
	If fuel pump gear-set or coupling operating time since new (TSN) is MORE THAN Engine Basic TBO (Ref. SB5003) OR is UNKNOWN OR fuel pump was overhauled before 2007:		
	(a) Remove fuel pump and inspect the drive coupling and cover accessory gearbox side for signs of reddish-brown (iron oxide) stains. If stains are observed, return the fuel pump to an approved overhaul facility (Ref. 73-10-02, FUEL PUMP - MAINTENANCE PRACTICES).	300 hours	B 0312

Printed on: 22 DEC/15 P&WC Proprietary - subject to restrictions in Technical Data Agreement

72-00-00 ENGINE - INSPECTION/CHECK**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL****MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
	NOTE: As of January 2010, the fuel pump gear-set and drive coupling replacement is required at every pump overhaul.		
Fuel Pump Filter	Install new fuel pump filter (Ref. 73-10-02).	600 hours	B 0600
Fuel Pump Filter	Inspect filter for contamination and damage (Ref. 73-10-02). Replace as necessary. With power sections shut down and fuel boost pump ON, check for leaks.	300 hours	B 0312
	NOTE: Operators with helicopters equipped with fuel filter impending bypass indicating device may elect to waive this inspection and to perform the fuel pump filter replacement at 600 hours.		
Oil to Fuel Heater	Immediately after shutdown: Check temperature of heater at heater fuel outlet or fuel pump filter housing. If greater than 140° F (60°C) replace oil to fuel heater.	300 hours	B 0312
	Alternatively, perform either of the following methods: (1) Perform touch test at heater fuel outlet or fuel pump filter housing. If too hot to touch, replace oil to fuel heater.		
	NOTE: Temperatures less than 140°F (60°C) may be considered to be comfortable to touch.		
	(2) Immediately after shutdown apply a temperature recorder to the fuel pump filter housing and replace oil to fuel heater if the		

Printed on: 22 DEC/15 P&WC Proprietary - subject to restrictions in Technical Data Agreement

72-00-00 ENGINE - INSPECTION/CHECK**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL****MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
	center of the recorder turns to black.		
	NOTE: The temperature limit of 140°F (60°C) may be verified using the Temp-Plate Temperature Recorder (PWC05-329).		
Fuel Nozzle Assemblies	Functional Check (Ref. 73-10-05).	600 hours	B 0600
	NOTE: See removal/installation procedures (Ref. 73-10-05).		
	For improved hot-section durability, inspect and clean fuel nozzle assemblies. At any fuel nozzle assembly removal, inspect gas generator case for cracks at boss welds (Ref. Para. 13. C.).	600 hours	B 0600
	NOTE: As an alternative to the removal for inspection and functional check, a 300 hour in-situ cleaning procedure is offered (Ref. 72-00-00, ENGINE - CLEANING).		
	If in-situ cleaning is used the fuel nozzles shall be removed for inspection and functional check to coincide with airframe maintenance schedule.	1200 hours	B 1200
Oil Filter Element	Clean (Ultrasonic Method) and inspect filter elements at an overhaul facility, using the approved equipment (Ref. Engine Overhaul Manual), prior to further use. Following this cleaning at overhaul level, the filter may be utilized for a further 900-hour or 24-month period maintaining the same inspection and cleaning	900 hours or 24 months whichever comes first.	B 0924

Printed on: 22 DEC/15 P&WC Proprietary - subject to restrictions in Technical Data Agreement

72-00-00 ENGINE - INSPECTION/CHECK

**PRATT & WHITNEY CANADA
MAINTENANCE MANUAL
MODEL(S) PT6T-3/PT6T-3B/PT6T-3BE/PT6T-3BF/PT6T-3BG
Manual Part No. 3017042, Revision No. 47.0, Dated NOV 23/2015**

COMPONENT	NATURE OF INSPECTION	FREQUENCY	
	schedule.		
P3 Air Filter	Clean (ultrasonic) and visually inspect filter element (Ref. 73-10-07). Do pressure drop check of elements (Ref. 73-10-07, ADJUSTMENT/TEST).	900 hours	B 0924
Oil Scavenge and Pressure Tubes	Remove retaining plate at rear fireseal and inspect tubes for fretting wear (Ref. 79-20-06).	900 hours	B 0924
Flanges and Joint Faces	All external joint faces shall be sealed with silicone grease (PWC09-003) or Corrosion-X corrosion inhibitor (PWC15-011) (Ref. 72-00-00, ENGINE - CLEANING) at major inspection. All external bolts, studs and flanges are also treated with a film of silicone grease or corrosion-X corrosion inhibitor. Particular attention should be paid to accessory gearbox mount flanges.	900 hours or 12 months whichever comes first. NOTE: Engines operating in a highly corrosive environment require more frequent sealing. Establish schedule/frequency as required to ensure proper corrosion protection.	
T5 System	Carry out functional check (Ref. Para. 9. C. following) at major inspection or when Troubleshooting indicates necessity.	1200 hours	B 1200
Gas Generator Case	For Pre-SB5239 gas generator cases inspect seam welds as detailed in Para. 9. following.	1200 hours initially: 600 hours thereafter	B 0600 B1200
RGB (PT6T-3BE/-3BG only) See Notes 1 and 2.	Inspect clutch assemblies (Ref. Overhaul Manual).	2500 hours	
NOTE: 1. A gearbox operating as a PT6T-3BE/BG unit for any time during the 2500 hours maintenance interval requires the regular inspection at 2500 hours. NOTE: 2. A gearbox with more than 2500 hours accumulated since new or overhaul being converted to a PT6T-3/-3BE/-3BG must have the 2500 hours inspection carried out during the conversion.			