CHAPTER 5 — INSPECTIONS AND COMPONENT OVERHAUL SCHEDULE

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INSPECTIONS

5-1. GENERAL

This chapter contains the time limit intervals and the requirements for the Scheduled Inspection, Special Inspection, Conditional Inspection, and for the 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.

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 given 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 TBO will be introduced by either revision to the Maintenance Manual Chapter 5 or a Technical Bulletin.

Every calendar and hourly inspection is a thorough visual inspection to determine the airworthiness of the helicopter and the components. Qualified persons must do the inspections in accordance with quality standard aircraft practices and the applicable maintenance manuals. Bell Helicopter Textron considers that it is mandatory to obey all the applicable Alert Service Bulletins (ASB) and the Airworthiness Directives (AD).

Component operating time records are necessary for components that have scheduled maintenance procedures which are different from those of the airframe. It is the owner/operator's responsibility to keep the Historical Service Records for the applicable component and to do the necessary maintenance procedures.

Before each inspection, remove or open the necessary cowlings, fairing, inspection doors, and panels.

5-2. ITEMS NOT COVERED IN THE INSPECTION

This manual does not include the specific inspection intervals for some components such as the compass calibration and the pitot static test. These specific inspection intervals are given by your government regulatory authority. Refer to their requirements for these specific inspections.

The owner/operator of the helicopter is responsible for the maintenance done on the helicopter. It is the owner/operator's responsibility to:

1. Establish, maintain and review the log books for discrepancies.

2. Make sure the Alert Service Bulletins (ASB), the Airworthiness Directives (AD), and the special inspections are done when they are required to be done.

3. Make sure the scheduled inspections, the special inspections, and the required tests for all of the installed kits are complied with.

4. Make sure all parts and components for which Historical Service Records are required have documented traceability to their original installation in the helicopter.

5. Make sure all limited life parts that have completed their published operating limits are replaced.

6. Make sure all of the components that have completed their published overhaul periods are overhauled.

7. Make sure all of the maintenance that is done on the helicopter is done by an approved maintenance organization.

The maintenance organization/person doing the maintenance is responsible for the quality of the maintenance done.

The owner/operator may choose to ask the maintenance organization/person doing the maintenance to perform the tasks listed by prior arrangement through a separate formal agreement.

5-3. CRASH DAMAGE

Because of the many possible combinations that can result from crash damage, it is not possible to include the specific repair tasks in this category. The helicopter mechanic must make an analysis of the crash damage for each situation. Do the repair in accordance with the degree of damage to the specific part and the applicable repair procedures in this manual. Call Bell Helicopter Textron Product Support Engineering with your analysis of the crash damage.

5-4. TYPES OF INSPECTIONS

1. The maintenance procedures may include scheduled inspections, special inspections, conditional 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 makes sure that the helicopter is airworthy.

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

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

4. For the 250-C47B series engine, refer to the Rolls-Royce Operations and Maintenance Manual for the scheduled inspection, special inspection, conditional inspection, and component overhaul schedule.

5. 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.

6. For all other Bell Helicopter Textron approved equipment, refer to the applicable Supplement in Chapter 99 of this manual for the scheduled inspection, special inspection, conditional inspection, component interim inspection, and component overhaul inspection.

7. For the inspection requirements for optional equipment approved under Supplement Type Approval/Certificate (STA/STC), refer to the applicable STA/STC documentation. Maintenance and inspection

of these items are the responsibility of the owner/ operator.

5-5. DEFINITIONS

- Examine — Look carefully to find the condition of the component. Find how that condition relates to a specific standard.

- Condition — The state of an item compared to a known standard.

- Security — The presence of attaching parts that are properly tightened or appear to be, and the presence of properly installed (as required) locking devices such as lockwire, cotter pins, or other.

- Standard — A specified rule or measure that you use to find the condition of a component.

- Damage — Physical deterioration of a component.

- Discard — Reject a component that has damage that cannot be repaired. To permanently remove from service.

- Inspection — A procedure that includes checking, inspecting, and examining a system or a component.

- Non scheduled inspection — An inspection that has not been scheduled.

- Periodic inspection — An inspection which is repeated at equal time intervals.

- Progressive inspection — A scheduled inspection that is divided into smaller segments. This makes the best use of the time and the resources available.

- Maintenance — The servicing and/or the repair of a helicopter, a system, or a component that keeps it serviceable.

- Preventive maintenance — To do small maintenance action(s) on a regular basis to prevent non scheduled maintenance.

- Operating time — Actual flight or calendar time that must be recorded in the Historical Service Records or in the helicopter logs. The operating time is specified as:

  - Time in service (flight time) — The measured time which starts the moment the helicopter leaves the ground and continues until it touches the ground at the next point of landing. The time when the helicopter is on the ground, with the engine and the rotor turning, is not included.

  - Calendar time — The elapsed time starts on the day the inspection is completed, the component is installed, or the rotor is turned for the first time and ends on the last day of the month that the time limit expires. Calendar time is continuous. Calendar time does not stop when you remove a component, put the helicopter in storage, etc.

- Maintenance zone — A specified area of the helicopter, which may contain more than one system or more than one group of related components. Maintenance zones (Figure 5-1) are used when you do a progressive inspection.

- Lead-the-Fleet (LTF) Program — This is a program to validate the performance of an approved product improvement or a change to a maintenance interval. The engineering aspects of this change are approved. The program is closely monitored by Bell Helicopter Textron in an operational environment with selected operators.

- Special Programs — These are approved programs that may be initiated under certain special conditions to meet specific requirements. These programs will be clearly defined through a plan and the engineering and maintenance aspects will be approved by the regulatory authorities.

5-6. INSPECTION AND OVERHAUL TOLERANCE

WARNING

DO NOT APPLY THESE TOLERANCES TO PARTS WITH A LIMITED AIRWORTHINESS LIFE (CHAPTER 4).

The Bell Helicopter Textron approved tolerance for scheduled inspections, special inspections, interim inspections, and overhaul intervals, unless otherwise stated, is 10% or up to a maximum of 300 hours operating time/6 months calendar time, whichever is less. The tolerances are established for maintenance scheduling convenience only.

Scheduled inspections, special inspections, interim inspections, or overhaul intervals required beyond the stated tolerances must be approved by Product Support Engineering.

NOTE

The following is only applicable for those operators whose governing aviation authority requires to specifically approve the inspection and overhaul tolerance.

If approval of the inspection and overhaul tolerance is required by the applicable governing aviation authority, this is the responsibility of the owner/operator.

Refer to the Rolls-Royce 250-C47B Operation and Maintenance Manual (CSP21001) for inspection and overhaul tolerances.

The following provide examples of when hourly, calendar, or hourly/calendar inspection tolerances have been applied:

Hourly Example (10% or up to a maximum of 300 hours, whichever is less):

300-HOUR INSPECTION DUE AT:	MAXIMUM ALLOWED TOLERANCE	INSPECTION CARRIED OUT AT:	NEXT 300-HOUR INSPECTION DUE AT:
3400 Hours	10% of 300 hours = 30 hours	3430 Hours (10% tolerance applied)	3730 Hours
3730 Hours	10% of 300 hours = 30 hours	3750 Hours (within 10% tolerance)	4050 Hours
4050 Hours	10% of 300 hours = 30 hours	4050 Hours (tolerance not applied)	4350 Hours

Calendar Example (10% or up to a maximum of 6 months calendar time, whichever is less):

12-MONTH INSPECTION DUE ON:	MAXIMUM ALLOWED TOLERANCE	INSPECTION CARRIED OUT ON:	NEXT 12-MONTH INSPECTION DUE ON:
June 10, 2010	10% of 12 months = 1.2 months	July 12, 2010 (within 10% tolerance)	July 31, 2011 △1
July 31, 2011	10% of 12 months = 1.2 months	June 15, 2011 (completed early)	June 30, 2012 △1
June 30, 2012	10% of 12 months = 1.2 months	June 30, 2012 (tolerance not applied)	June 30, 2013 △1

NOTE:

△1 The last day of the month applies for the next inspection (paragraph 5-5, calendar time).

Hourly/Calendar Example (10% or up to a maximum of 300 hours operating time/6 months calendar time, whichever is less):

1200-HOUR/ 24-MONTH INSPECTION DUE AT:	MAXIMUM ALLOWED TOLERANCE	INSPECTION CARRIED OUT AT:	NEXT 1200-HOUR/ 24-MONTH INSPECTION DUE AT:
3400 Hours/ August 31, 2010	10% of 1200 hours = 120 hours or 10% of 24 months = 2.4 months	3400 Hours/October 15, 2010 (within 10% calendar tolerance)	4600 Hours/ October 31, 2012 △1
4600 Hours/ October 31, 2012	10% of 1200 hours = 120 hours or 10% of 24 months = 2.4 months	4720 Hours/April 2, 2012 (10% hourly tolerance applied)	5920 Hours/ April 30, 2014 △1
5920 Hours/ April 30, 2014	10% of 1200 hours = 120 hours or 10% of 24 months = 2.4 months	6020 Hours/June 30, 2014 (within 10% hourly and calendar tolerance)	7220 Hours/ June 30, 2016 △1

NOTE:

△1 The last day of the month applies for the next inspection (paragraph 5-5, calendar time).

SCHEDULED INSPECTIONS

5-7. SCHEDULED INSPECTIONS

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.

Scheduled inspections include the airframe and the component inspections. The scheduled airframe inspection intervals are related to the airframe operating time. The scheduled component inspection intervals are related to the component operating time.

5-8. AIRFRAME INSPECTION PROGRAM

Bell Helicopter Textron has developed two airframe inspection programs that give you the flexibility to permit maximum helicopter use. They are the Airframe Periodic Inspection and the Airframe Progressive Inspection. You can choose one of the Bell programs or you can design your own program. You are responsible for the selection of an inspection program and for its approval by the governing civil aviation authority.

5-9. Airframe Progressive Inspection Program

If you choose the Airframe Progressive Inspection program, you must first get approval from your local airworthiness authority. This inspection is divided into six separate events of similar workload. Refer to Table 5-1 and Figure 5-1.

Do an event of the Airframe Progressive Inspection (paragraph 5-12) at intervals of 50 hours. After you complete Event Number 6, the cycle begins again with Event Number 1 (Table 5-1). You must do a minimum of one complete cycle (all six events) within a 12 calendar month period. If you do not complete all six events in a 12 calendar month period, the remaining events must be completed prior to operating the helicopter. The following scheduled inspections shall also be performed at their specified intervals:

- 150 hour inspection (paragraph 5-18A)
- 300 hour inspection for optional equipment (paragraph 5-19)
- 600 hour inspection (paragraph 5-20)
- 600 hour/12 month inspection (paragraph 5-21) every 600 hours or 12 calendar months, whichever comes first
- 12 month inspection (paragraph 5-22) every 12 calendar months
- 24 month inspection (paragraph 5-23) every 24 calendar months
- 1200 hour/24 month inspection (paragraph 5-24) every 1200 hours or 24 calendar months, whichever comes first
- 2500 hour inspection (paragraph 5-24A)

Table 5-1. Progressive Inspection Events

AIRFRAME HOURS	EVENT NUMBER	MAINTENANCE ZONES
50	1	1 and 2
100	2	3
150	3	4
200	4	5 and 6
250	5	7 and 8
300	6	9 and 10

5-10. Airframe Periodic Inspection Program

Do an Airframe Periodic Inspection (paragraph 5-18) every 12 calendar months or every 300 hours, whichever occurs first. You must do a minimum of one complete Airframe Periodic Inspection within a 12 month calendar period. The following scheduled inspections shall also be performed at their specified intervals:

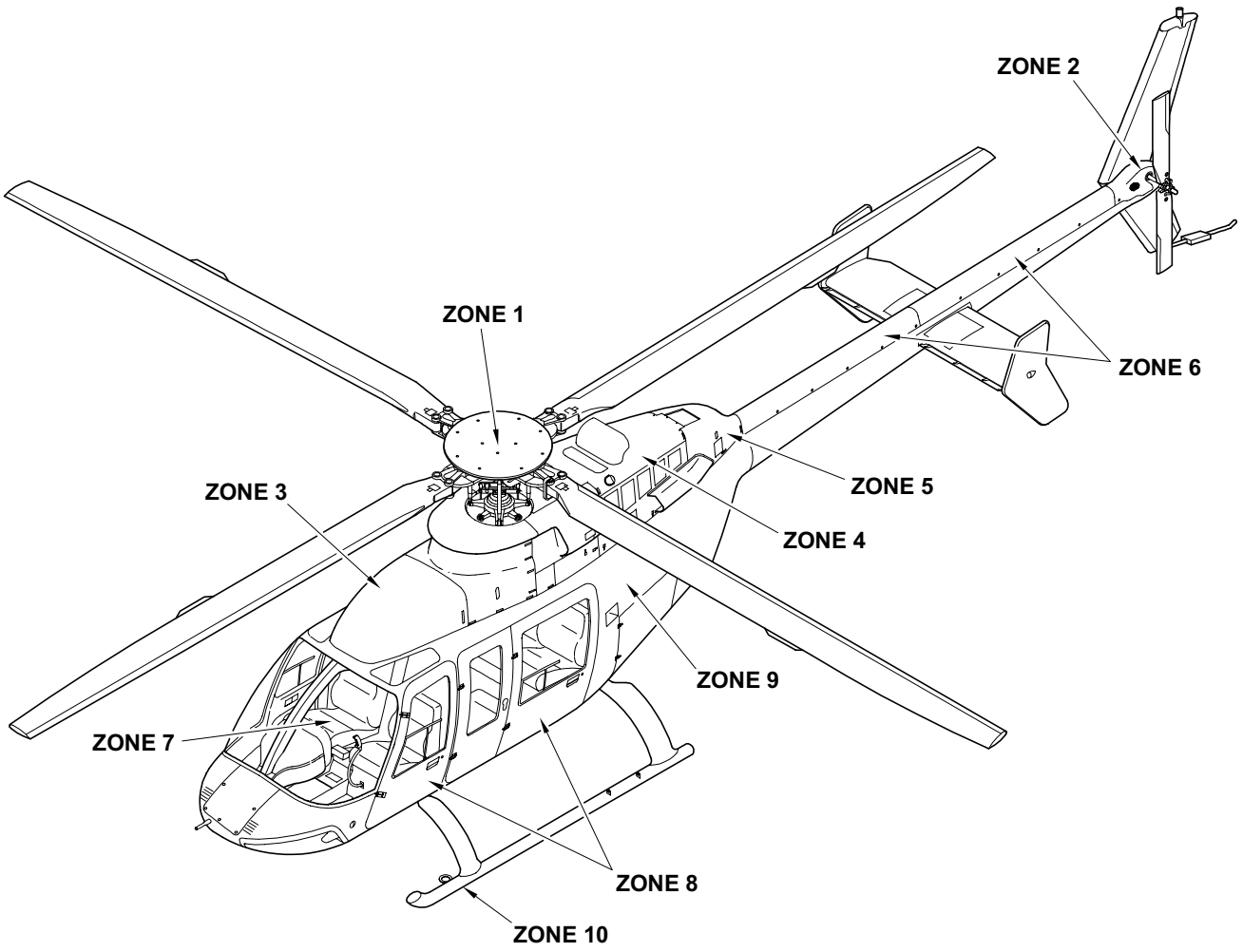
- 150 hour inspection (paragraph 5-18A)

- 300 hour inspection for optional equipment (paragraph 5-19)
- 600 hour inspection (paragraph 5-20)
- 600 hour/12 month inspection (paragraph 5-21) every 600 hours or 12 calendar months, whichever comes first
- 12 month inspection (paragraph 5-22) every 12 calendar months
- 24 month inspection (paragraph 5-23) every 24 calendar months
- 1200 hour/24 month inspection (paragraph 5-24) every 1200 hours or 24 calendar months, whichever comes first
- 2500 hour inspection (paragraph 5-24A)

5-11. CHANGING INSPECTION PROGRAM

You must use either the Airframe Periodic Inspection program or the Airframe Progressive Inspection program from the start. You can change between the two programs at any airframe operating time. To change from an Airframe Progressive Inspection program to an Airframe Periodic Inspection program (or to change your progressive inspection event sequences), do a complete 300 hour Airframe Periodic Inspection. To change from an Airframe Periodic Inspection program to an Airframe Progressive Inspection program, do a complete 300 hour Airframe Periodic Inspection.

The owner/operator is responsible for not exceeding the specific time interval of any scheduled airframe inspection procedure.



Zone 1 - Main rotor hub and blade assembly
Zone 2 - Tail rotor hub and blade assembly
Zone 3 - Forward top deck
Zone 4 - Power plant
Zone 5 - Aft top deck
Zone 6 - Tailboom
Zone 7 - Cabin interior
Zone 8 - Foward fuselage
Zone 9 - Aft fuselage
Zone 10 - Landing gear

407_MM_05_0001

Figure 5-1. Maintenance Zones

PROGRESSIVE INSPECTIONS

5-12. PROGRESSIVE INSPECTION — EVENT #1

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____		
	ZONE 1 — MAIN ROTOR SYSTEM		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they are in agreement with the applicable configuration of your helicopter.		
	MAIN ROTOR SYSTEM		
Chapter 62	**1.** Examine the main rotor system for condition and security. Examine the components as follows: **a.** Main rotor hub and blades for dirt and obvious damage. **NOTE** Frahm does not require removal for inspection. **b.** Remove cover and examine Frahm assembly for condition and security (if installed, TB 407-03-51). Remove Frahm top plate to inspect internal components. **c.** Hub assembly. **d.** Main rotor blades.		

PROGRESSIVE INSPECTIONS

5-12. PROGRESSIVE INSPECTION — EVENT #1 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	ZONE 2 — TAIL ROTOR ASSEMBLY		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they are in agreement with the applicable configuration of your helicopter.		
Chapter 64	**TAIL ROTOR ASSEMBLY**		
	1. Do a torque check of the tail rotor assembly mast nut (560 to 580 inch-pounds (64 to 65 Nm)).		
	2. Examine the tail rotor assembly for general condition and security. Examine the components as follows:		
	a. Retainer nut and the lockwire for damage.		
	b. Support for damage.		
	c. Exposed portion of the yoke for damage.		
	d. Counterweights for damage.		
	e. Weights and their supports for damage.		
	f. Both blades of the tail rotor for damage.		
	g. Inspect tail rotor blade(s) (ASB 407-10-92) for evidence of separation between skin plies and root end at trailing edge using a 10X magnifying glass. If cracks are found, remove the tail rotor blade and do a blade leak check (Chapter 64).		
	3. Examine the stop yield indicator for damage. If the stop yield indicator clearance is decreased, discard the stop yield indicator and proceed as follows:		
	a. Discard tail rotor yoke.		
	b. Inspect tail rotor blades for delamination.		
	c. Inspect pitch links for condition.		

PROGRESSIVE INSPECTIONS

5-12. PROGRESSIVE INSPECTION — EVENT #1 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	d. Inspect pitch horns for condition.		
Chapter 53	**e.** Inspect tailboom for condition in tail rotor blade tip path area.		
Chapter 18	**4.** Dynamically balance the tail rotor hub and blade assembly.		
	DIRECTIONAL CONTROLS		
Chapter 67	**1.** Do a torque check of the bolts (60 to 80 inch-pounds (6.7 to 9 Nm)) that attach the tail rotor pitch link assemblies to the tail rotor pitch horns (TB 407-09-88).		
BHT-407-FM-1 or BHT-407-FM-2	**GROUND RUN**		
	1. Complete a ground run at 100% N_R to check for leaks and confirm system operation.		

PROGRESSIVE INSPECTIONS

5-13. PROGRESSIVE INSPECTION — EVENT #2

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME: _____		
	SIGNATURE: _____		
	ZONE 3 — FORWARD TOP DECK		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they are in agreement with the applicable configuration of your helicopter.		
	AIRFRAME		
Chapter 53	**1.** Examine the forward and the transmission cowlings for condition.		
Chapters 53 and 71	**2.** Examine the engine air inlet cowling for condition. Examine the components as follows: **a.** Screen. **b.** Bellmouth.		
Chapter 53	**3.** Examine the forward top deck for condition and security.		
	CONTROLS		
Chapter 67	**1.** Examine all of the control tubes, bellcranks, and the supports for condition, security, and correct operation. Examine the components as follows: **a.** Signs of control interference.		

PROGRESSIVE INSPECTIONS

5-13. PROGRESSIVE INSPECTION — EVENT #2 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	b. Inspect pitch links.		
	c. Springs.		
	SWASHPLATE ASSEMBLY		
Chapter 67	**1.** Examine the swashplate and support for condition and security. Examine the components as follows:		
Chapter 63	**a.** Mast for cleanliness.		
Chapter 67	**b.** Rotate the outer ring. Examine the duplex bearing for condition (do this check before you lubricate the duplex bearing).		
	c. Seals for signs of too much grease leakage.		
	d. Pivot sleeve for wear and damage.		
	e. Do a swashplate friction adjustment.		
	f. Collective lever.		
	g. Swashplate drive assembly.		
	HYDRAULIC		
Chapter 29	**1.** Examine the hydraulic system for condition, leaks and security. Examine the components as follows:		
	a. Hydraulic actuators.		
	b. Fluid flexible and rigid lines.		
	c. Filter differential pressure indicator button (two places).		
	d. Pivot bolts of the pilot valve on the actuators for freedom of rotation.		
	e. Reservoir.		
	f. Pump.		

PROGRESSIVE INSPECTIONS

5-13. PROGRESSIVE INSPECTION — EVENT #2 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	g. Remove the pump and inspect the input drive shaft/ adapter as applicable.		
Chapter 12	**h.** Lubricate the pump drive (as applicable to configuration)		
	TRANSMISSION AND PYLON ASSEMBLY		
Chapter 63	**1.** Examine the pylon assembly for condition and security. Examine the components as follows:		
	a. Up-stops.		
	b. Pylon beams.		
	c. Corner mounts.		
	d. Restraint spring assembly.		
	e. Pylon stop transmission fitting.		
	f. Pylon stop deck fitting.		
	2. Examine the transmission assembly for damage, leaks, and security. Examine the components as follows:		
	a. Fluid flexible and rigid lines.		
Chapter 96	**b.** Electrical harness.		
Chapter 63	**c.** Impending bypass valve indicator.		
	d. Oil press system manifold.		
	e. Filter manifold.		
Chapters 63 and 96	**3.** Examine the transmission lower and upper (mast bearing) chip detectors for metal particles. Examine the electrical circuit of the chip detectors for continuity.		

PROGRESSIVE INSPECTIONS

5-13. PROGRESSIVE INSPECTION — EVENT #2 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	GROUND RUN		
BHT-407-FM-1 or BHT-407-FM-2	**1.** Complete a ground run at 100% N_R to check for leaks and confirm system operation.		

PROGRESSIVE INSPECTIONS

5-14. PROGRESSIVE INSPECTION — EVENT #3

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME: _____		
	SIGNATURE: _____		
	ZONE 4 — POWER PLANT		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they are in agreement with the applicable configuration of your helicopter.		
Chapter 71	**ENGINE**		
Chapter 53	**1.** Examine the engine cowling and the doors for condition and security.		
	2. Examine the engine for condition, leaks, and security. Examine the components as follows:		
	a. Fluid flexible and rigid lines.		
Chapter 96	**b.** Electrical harness.		
Chapter 71	**c.** Engine mounts, fittings, and legs.		
	d. Exhaust stack.		
Chapter 53	**3.** Examine the firewalls for condition and security.		
	4. Examine the engine pan drains. Make sure that they are not clogged. Restore broken or missing sealant from engine pan.		

PROGRESSIVE INSPECTIONS

5-14. PROGRESSIVE INSPECTION — EVENT #3 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 76	**5.** Examine the engine controls for condition, correct operation, and security. Examine the components as follows: **NOTE** Refer to Chapter 76, "Throttle/Fly Detent Rigging Procedure" for acceptable limits. **a.** HydroMechanical Unit (HMU) "MINIMUM" and "MAXIMUM" stops for contact during full travel of the throttle. **b.** Linkage for any looseness.		
Chapter 96	**6.** Examine the engine chip detectors for metal particles. Examine the electrical circuit of the chip detectors for continuity.		
Rolls-Royce Operation and Maintenance Manual, Publication CSP21001	**7.** Do the applicable engine inspection.		
Chapter 63	**ENGINE TO TRANSMISSION DRIVESHAFT** **1.** Examine the engine to transmission driveshaft for condition and security. Examine the components as follows: **a.** Driveshaft for corrosion, surface damage and cracked spring. **b.** Flexframe and bolts for condition and signs of slippage.		
Chapter 65	**TAIL ROTOR FORWARD SHORT SHAFT ASSEMBLY** **1.** Examine the short shaft for condition and security. **2.** Examine the disc pack couplings. **3.** Do a torque check of the disc pack coupling attachment hardware (150 to 180 inch-pounds (17 to 20 Nm)). **4.** Examine the flywheel for condition and security (if installed).		

PROGRESSIVE INSPECTIONS

5-14. PROGRESSIVE INSPECTION — EVENT #3 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 63	**FREEWHEEL ASSEMBLY** **1.** Examine the freewheel assembly for condition, leaks, and security.		
Chapters 63 and 96	**2.** Examine the freewheel chip detector for metal particles. Examine the electrical circuit of the chip detectors for continuity.		
	ROTOR BRAKE DISC		
Chapter 63	**1.** Examine the rotor brake disc for condition and security.		
Chapter 71	**STARTER-GENERATOR**		
	1. Remove and examine the starter-generator for condition. Examine the components as follows: • Brushes • Commutator • Drive spline		
	2. Examine the duct and the clamp for condition and security.		
	GROUND RUN		
Rolls-Royce Operation and Maintenance Manual, Publication CSP21001	**1.** Do a FADEC manual mode check.		
BHT-407-FM-1 or BHT-407-FM-2	**2.** Complete a ground run at 100% N_R to check for leaks and confirm system operation.		

PROGRESSIVE INSPECTIONS

5-15. PROGRESSIVE INSPECTION — EVENT #4

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME: _____		
	SIGNATURE: _____		
	ZONE 5 — AFT TOP DECK		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they are in agreement with the applicable configuration of your helicopter.		
	AIRFRAME		
Chapter 53	**1.** Examine the aft fairing for condition.		
	2. Examine the aft top deck for condition, leaks and security.		
Chapters 63 and 79	**OIL SYSTEM**		
	1. Examine the engine/transmission oil cooling system for condition, leaks, and security.		
	2. Examine the components as follows:		
	a. Fluid flexible and rigid lines.		
Chapter 96	**b.** Electrical harness.		
	c. Oil tank and cooler.		
Chapter 65	**d.** Oil cooler blower assembly.		

PROGRESSIVE INSPECTIONS

5-15. PROGRESSIVE INSPECTION — EVENT #4 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 65	**AFT SHORT SHAFT ASSEMBLY** **1.** Examine the short shaft for condition and security. **a.** Loose and working rivets. **2.** Examine the disc pack couplings for condition. **3.** Do a torque check of the disc pack coupling attachment hardware (150 to 180 inch-pounds (17 to 20 Nm)). **ZONE 6 — TAILBOOM**		
Chapter 11	**PLACARDS AND MARKINGS** **1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they are in agreement with the applicable configuration of your helicopter.		
Chapter 53	**TAILBOOM STRUCTURE** **1.** Examine the tail rotor driveshaft cover and the gearbox cowling for condition and security. **CAUTION** ANY CRACK, CORROSION, OR LOOSE OR SHEARED RIVET IS CAUSE FOR IMMEDIATE GROUNDING OF THE HELICOPTER UNTIL THE PROBLEM IS CORRECTED. **2.** Examine the tailboom assembly for condition and security. Examine the components as follows: **a.** Tailboom skins for chafing damage or cracks from the tail rotor driveshaft covers and the tail rotor gearbox covers. **b.** Tailboom skins at the horizontal stabilizer for cracks, loose rivets and fasteners. **c.** Hanger bearing supports for cracks and security.		

PROGRESSIVE INSPECTIONS

5-15. PROGRESSIVE INSPECTION — EVENT #4 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	d. Horizontal stabilizer and the attachment supports for cracks and security. **e.** Auxiliary fins for condition and security. **f.** Slat assemblies for condition and security. **g.** Vertical fin for condition and security. **h.** Tail rotor gearbox support where it attaches to tailboom and at the attachment of the tail rotor gearbox.		
Chapter 65	**TAIL ROTOR DRIVESHAFT** **1.** Examine the tail rotor driveshaft for condition and security. Examine the components as follows: **a.** All bearings and hangers. **b.** Disc pack couplings. **c.** Do a torque check of the disc pack coupling attachment hardware (150 to 180 inch-pounds (17 to 20Nm)). **d.** Driveshaft tube assemblies.		
Chapter 65	**TAIL ROTOR GEARBOX** **1.** Do a torque check of the tail rotor gearbox attachment nuts (140 to 160 inch-pounds (16 to 18 Nm)). **2.** Examine the tail rotor gearbox for condition, leaks, and security.		
Chapters 65 and 96	**3.** Examine the chip detector of the tail rotor gearbox for metal particles. **4.** Examine the electrical circuit of the chip detector for continuity.		

5-15. PROGRESSIVE INSPECTION — EVENT #4 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 67	**PITCH CHANGE CONTROL** **1.** Examine the tail rotor pitch control mechanism for condition and security. Examine the components as follows: **a.** Boot. **b.** Pitch links. **c.** Crosshead sliding seal. **GROUND RUN** **1.** Complete a ground run at 100% N_R to check for leaks and confirm system operation.		
BHT-407-FM-1 or BHT-407-FM-2			

PROGRESSIVE INSPECTIONS

5-16. PROGRESSIVE INSPECTION — EVENT #5

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ W.O. _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME: _____		
	SIGNATURE: _____		
	ZONE 7 — CABIN INTERIOR (CREW AND PASSENGER COMPARTMENTS)		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they are in agreement with the applicable configuration of your helicopter.		
BHT-407-FM-1 or BHT-407-FM-2	**INSTRUMENTS**		
	1. Inspect instruments for condition and security. Inspect for correct markings.		
	EQUIPMENT AND FURNISHING		
Chapter 53	**1.** Examine the cabin floor for condition.		
Chapter 25	**2.** Examine the seat cushions, seat backs, and interior trim for condition and security.		
	3. Examine the restraints for condition, security, and correct operation.		
Chapter 21	**4.** Examine the ventilation system for condition and security.		
	5. Make sure the fuel valve switch guard operates correctly.		

PROGRESSIVE INSPECTIONS

5-16. PROGRESSIVE INSPECTION — EVENT #5 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 26	**6.** Examine fire extinguisher and quick-release for condition and security.		
Chapter 96	**7.** Examine the heating system of the pitot and static ports for correct operation.		
Chapter 76	**8.** On 407 helicopters S/N 53000 through 54299, make sure the FADEC Fault Code – Maintenance Mode system operates correctly.		
Chapter 95	**9.** On 407GX helicopters S/N 54300 and subsequent, make sure the Bell Maintenance Pages can be accessed.		
Chapter 67	**CONTROLS** **1.** Examine the cyclic and the collective control sticks and pedals for condition and security. Examine the directional control pedal for correct operation. **2.** Examine components of airspeed-actuated pedal stop for condition, security, and correct operation. Examine components that follow: **a.** Solenoid **b.** Cam **c.** Release cable **3.** Make sure there is a minimum of friction on the components that follow: **a.** Cyclic **b.** Collective **c.** Directional control		
Chapter 96	**ELECTRICAL** **1.** Perform operational check of airspeed-actuated pedal stop system.		

PROGRESSIVE INSPECTIONS

5-16. PROGRESSIVE INSPECTION — EVENT #5 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	ZONE 8 — FORWARD FUSELAGE		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they agree with the applicable configuration of your helicopter.		
	FORWARD FUSELAGE		
	1. Examine the forward fuselage for condition and security. Examine the components as follows:		
Chapter 52	**a.** Doors, door hinges and latches.		
	b. Complete litter door caution light operational check		
	c. Battery door.		
	d. Any fluid leaks.		
	e. Windows.		
Chapter 53	**f.** Side body fairings.		
	g. Upper fairings and cowlings		
	h. Upper roof deck		
	i. Lower forward shell		
Chapter 96	**2.** Examine the battery compartment for condition and security. Examine the vent line. Do an functional test of the battery hot annunciator circuit. Install a serviceable battery.		
	3. Examine the External Power Receptacle for condition and security.		
Chapter 95	**4.** Examine the pitot and the static ports for condition and security. Examine the components as follows:		
	a. Pitot tube for discoloration and visible obstruction.		

PROGRESSIVE INSPECTIONS

5-16. PROGRESSIVE INSPECTION — EVENT #5 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	b. Drain moisture from the pitot and the static piping installation.		
Chapter 97	**5.** Examine the antenna(s) for condition and security. Restore broken or missing sealant at antenna base as required.		
	GROUND RUN		
BHT-407-FM-1 or BHT-407-FM-2	**1.** Complete a ground run at 100% N_R to check for leaks and confirm system operation.		

PROGRESSIVE INSPECTIONS

5-17. PROGRESSIVE INSPECTION — EVENT #6

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____		
	ZONE 9 — AFT FUSELAGE		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they agree with the applicable configuration of your helicopter.		
	AIRFRAME		
	CAUTION ANY CRACK, CORROSION, OR LOOSE OR SHEARED RIVET IS CAUSE FOR IMMEDIATE GROUNDING OF THE HELICOPTER UNTIL THE PROBLEM IS CORRECTED.		
Chapter 53	**1.** Examine the aft fuselage structure for condition and security. Examine the components as follows: **a.** Engine upper cowling and doors. **b.** Upper longeron. **c.** All engine mounts and sway bar to airframe attachment points.		

5-17. PROGRESSIVE INSPECTION — EVENT #6 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	d. Mid fuselage lower longerons.		
	e. Floor of the baggage compartment.		
	f. Walls of the baggage compartment.		
Chapter 52	**g.** Baggage compartment door.		
	h. Aft lower fairing.		
	i. Oil cooler fairing.		
	j. Oil cooler deck.		
	k. Aft fuselage skins.		
	l. Aft lower shell.		
Chapter 53	**2.** Examine the interior of the structure for condition.		
	a. Examine the condition of the rivets that attach the composite skins to the structure.		
Chapter 53	**3.** Do a torque check of the tailboom to the aft fuselage attachment nuts.		
	NOTE If the existing sealant application meets the intent of the Aft Fuselage Attachment Fittings — Sealant Removal and Application procedure specified in Chapter 53, sealant removal is not required.		
Chapter 53	**4.** If required for inspection purposes, it is recommended to remove the sealant around the fasteners of the aft fuselage attachment fittings.		
Chapter 53	**5.** Examine the tailboom attachment fittings on the fuselage and on the tailboom, for condition and security. Pay particular attention to the upper left-hand fitting.		
Chapter 53	**6.** If removed in step 4, apply sealant to the fasteners of the aft fuselage attachment fittings.		

PROGRESSIVE INSPECTIONS

5-17. PROGRESSIVE INSPECTION — EVENT #6 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 96	**7.** Examine the electrical components, the mounts, and the electrical harness for condition and security.		
Chapter 63	**8.** Examine the transmission oil lines and other drain lines for condition and security.		
Chapter 67	**9.** Examine the tail rotor control system for condition, security, and correct operation.		
Chapter 97	**10.** Examine the antenna(s) for condition and security. Restore broken or missing sealant at antenna base as required.		
Chapter 96	**11.** Do an operational check of the baggage door annunciator circuit.		
Chapter 29	**HYDRAULIC** **1.** Examine the tail rotor hydraulic system for condition, leaks, and security. Examine the components as follows: **a.** Pivot bolts of the pilot valve on the actuators for freedom of rotation. **b.** Actuator support.		
	ZONE 10 — LANDING GEAR		
	PLACARDS AND MARKINGS		
Chapter 11	**1.** Examine the placards, decals, and markings. Make sure you can read them, they are applied correctly, and they agree with the applicable configuration of your helicopter.		
	LANDING GEAR		
Chapter 32	**1.** Examine the landing gear assembly for condition and security. Examine the components as follows: **a.** Skid tubes. **b.** Skid saddles. **c.** Skid shoes.		

PROGRESSIVE INSPECTIONS

5-17. PROGRESSIVE INSPECTION — EVENT #6 (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	d. Retaining strap and rubber cushions. **e.** Rocking beam. **f.** Crosstubes. **g.** Attachment fittings.		
Chapter 12	**LUBRICATION** **1.** Service and lubricate the helicopter as necessary.		
Rolls-Royce Operation and Maintenance Manual, Publication CSP21001	**ENGINE** **1.** Do the applicable engine inspection.		
CSSD-PSE-87-001	**CORROSION CONTROL** **1.** Perform corrosion inspection in accordance with the Corrosion Control Guide.		
Rolls-Royce Operation and Maintenance Manual, Publication CSP21001	**GROUND RUN** **1.** Do a FADEC manual mode check.		
BHT-407-FM-1 or BHT-407-FM-2	**2.** Complete ground run at 100% N_R to check for leaks and confirm system operation.		

PERIODIC INSPECTIONS

5-18. AIRFRAME PERIODIC INSPECTION

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____		
Chapter 5, paragraph 5-12 through paragraph 5-17	**1.** Do this inspection every 12 calendar months or every 300 hours of operation. **2.** Do all six events of the airframe progressive inspection.		

SCHEDULED INSPECTIONS

5-18A. 150 HOUR INSPECTION

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____		
Rolls-Royce Operation and Maintenance Manual, Publication CSP21001	**ENGINE CONTROLS** **1.** Do a FADEC manual mode check.		

SCHEDULED INSPECTIONS

5-19. 300 HOUR INSPECTION FOR OPTIONAL EQUIPMENT

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ W.O. _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME: _____		
	SIGNATURE: _____		
	NOTE Complete the following if applicable.		
	PARTICLE SEPARATOR		
Chapter 71	**1.** Examine the particle separator for condition and security.		
	ROTOR BRAKE		
Chapter 63	**1.** Examine the rotor brake assembly for condition and security.		
	DUAL CONTROL		
Chapter 67	**1.** Examine the dual controls for condition and security.		
	SNOW DEFLECTOR		
Chapter 71	**1.** Examine the snow deflector baffles for condition and security.		

SCHEDULED INSPECTIONS

5-19. 300 HOUR INSPECTION FOR OPTIONAL EQUIPMENT (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	CROSSTUBE FAIRING		
Chapter 32	**1.** Examine the crosstube fairings for condition and security.		
	AUXILIARY FUEL TANK		
Chapter 99	**1.** Examine the auxiliary fuel tank installation for condition and security.		

SCHEDULED INSPECTIONS

5-20. 600 HOUR INSPECTION

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____W.O. _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME:_____		
	SIGNATURE:_____		
	ROTOR BRAKE		
BHT-407-CR&O-V	**NOTE** Inspection information for the caliper assemblies and disc is contained in Northwest Dynamics Document No. B0223-OM or B0223-OM4, as identified in Table 5-2.		
	1. Inspect the rotor brake, if installed.		
	MAIN ROTOR FRAHM		
	NOTE The following steps are not required if the Frahm has been removed in accordance with TB 407-03-51.		
Chapter 62	**1.** Remove main rotor Frahm.		
	2. Inspect Frahm assembly for condition.		
	3. Deleted.		

Table 5-2. Rotor Brake Component Versus Inspection Document Table

NOMENCLATURE/ PART NUMBER	RELATED KIT 407-II-8	EFFECTIVITY	INSPECTION INTERVAL	NORTHWEST DYNAMICS INSPECTION DOCUMENT
CALIPER ASSEMBLY				
206-340-301-103	206-706-502-103	S/N 53000 - 53442 Pre 407-II-30	600 Hours	B0223-OM
407-340-302-101	206-706-502-105 206-706-502-107	S/N 53443 - 53631	600 Hours	B0223-OM
407-340-302-101FM	Kit not applicable – Field Mod per 407-II-30 (upgrade of 206-340-301-103	S/N 53000 - 53442 Post 407-II-30	600 Hours	B0223-OM
407-340-302-103	206-706-502-109	S/N 53632 and subsequent	600 Hours	B0223-OM4
407-540-304-101FM	Kit not applicable – Field Mod per TB 407-05-67 (upgrade of 407-340-302-101 and -101FM)	S/N 53000 - 53631 Post TB 407-05-63 and TB 407-05-67	600 Hours	B0223-OM4
DISC				
206-340-301-101 (thin)	206-706-502-103	S/N 53000 - 53442 Pre 407-II-30	600 Hours	B0223-OM
407-340-318-101 (thick)	Kit not applicable – Field Mod per 407-II-30 and basic production 53443 and subsequent	S/N 53000 - 53442 Post 407-II-30 and 53443 and subsequent	600 Hours	B0223-OM4

SCHEDULED INSPECTIONS

5-21. 600 HOUR OR 12 MONTH INSPECTION

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME: _____		
	SIGNATURE: _____		
	CAUTION FOR HELICOPTERS OPERATED IN CORROSIVE ENVIRONMENT OR EXTREME ENVIRONMENTAL CONDITIONS, THE RECOMMENDED INTERVAL FOR INSPECTION AND LUBRICATION MUST BE REDUCED TO 600 HOURS OR 6 MONTHS.		
Chapter 62	**MAIN ROTOR HUB AND BLADE** **1.** Remove main rotor blades from the main rotor hub assembly.		
	2. Remove oil and grease from the main rotor hub, blades, and blade bolts with clean cloths (C-516) dampened with aliphatic naphtha (C-305) or drycleaning solvent (C-304).		
	3. Clean main rotor hub and blades with cleaning compound (C-318). Thoroughly rinse with fresh water and dry with clean cloths.		
	4. Examine main rotor hub and blades for evidence of corrosion. Pay particular attention to the surface around the blade bolt bushings installed in the grip tangs.		
Chapter 62	**5.** If installed, examine the expandable blade bolts for condition and security.		
Chapter 12	**6.** If installed, lubricate the expandable blade bolts.		
	7. Install main rotor blades onto the main rotor hub assembly.		

SCHEDULED INSPECTIONS

5-22. 12 MONTH INSPECTION

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____W.O. _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME:_____		
	SIGNATURE:_____		
	GENERAL		
	1. Ensure that an airframe periodic inspection (paragraph 5-10) or one complete cycle (all six events) of the progressive inspection (paragraph 5-9) have been completed in the last 12 calendar month period.		
	2. 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.		
Chapter 18	**3.** Perform a dynamic balance of the main rotor hub and blade assembly.		
Chapters 25 and 53	**4.** Remove interior trim and access panels necessary to gain access. Examine the following:		
Chapter 29	**SERVO ACTUATORS**		
	1. Do an inspection of the clevis assembly for security.		
	FORWARD FUSELAGE		
Chapter 67	**1.** Examine the controls for condition, security and correct operation. Examine them in the locations that follow:		
	a. Pedestal.		

SCHEDULED INSPECTIONS

5-22. 12 MONTH INSPECTION (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	b. Crew seats. **c.** Tunnel. **d.** Roof beam. **e.** Hat bin.		
Chapter 67	**2.** Examine the components of the airspeed-actuated pedal stop for condition, security and correct operation. Examine the components that follow: **a.** Solenoid. **b.** Cam. **c.** Release cable.		
	3. Operate the airspeed-actuated pedal stop manual cable release mechanism for the cam. Examine for correct operation and free movement of cable. Safety the cable release handle with lockwire (C-554).		
Chapter 96	**4.** Perform a pedal restrictor control system functional test.		
Chapter 67	**5.** Examine all fluid flexible and rigid lines for condition, leaks, and security. Examine them in the locations that follow: **a.** Vertical tunnel. **b.** the roof beam. **c.** Hat bin.		
Chapter 76	**6.** Examine the throttle control cable for condition and security. Examine it in the locations that follow: **a.** Crew seats. **b.** Vertical tunnel. **c.** Roof beam.		

SCHEDULED INSPECTIONS

5-22. 12 MONTH INSPECTION (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 95	**7.** Replace the 1.5 volt dry cell battery located at the back of the instrument panel digital clock (S/N 53000 through 54299). **CAUTION** ANY CRACK, CORROSION, OR LOOSE OR SHEARED RIVET IS CAUSE FOR IMMEDIATE GROUNDING OF THE HELICOPTER UNTIL THE PROBLEM IS CORRECTED.		
Chapter 53	**8.** Examine the structure for condition in the locations that follow: **a.** Pedestal. **b.** Crew seats. **c.** Bulkhead at fuselage station 81.08. **d.** Vertical tunnel. **e.** Roof beam. **f.** Hat bin. **g.** Bulkhead at fuselage station 142.715.		
Chapter 96	**9.** Examine the electrical harness for condition and security in the locations that follow: **a.** Pedestal. **b.** Crew seats. **c.** Vertical tunnel. **d.** Roof beam. **e.** Hat bin.		

SCHEDULED INSPECTIONS

5-22. 12 MONTH INSPECTION (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 53	**10.** Examine the internal structure of forward and side engine mount attachment points for condition and security.		
	11. Examine internal structure of frame at fuselage station 199.039 (WL 72.602) for condition and security.		
	FUEL SYSTEM		
Chapter 96	**1.** Do a fuel low annunciator circuit operational check.		
Chapter 28	**2.** Examine the operation of the check valves for the forward fuel cell transfer pumps. Turn on each transfer/boost pump assembly individually and visually confirm flow of fuel from outlet of fuel transfer line in aft fuel cell. Fuel system may have to be defueled until fuel level is below transfer line outlet.		
	3. Examine the fuel system shutoff valve and components for condition, leaks, and security.		
	TAILBOOM		
	1. Examine the following for condition and security:		
Chapter 8	**a.** Ballast		
Chapter 67	**b.** Controls		
Chapter 53	**c.** Horizontal stabilizer including slats and auxiliary finlets		
	d. Vertical fin including tail stinger and weight		
Chapter 96	**e.** Electrical harness		
	MAIN ROTOR MAST		
Chapter 62	**1.** Remove the main rotor hub.		

SCHEDULED INSPECTIONS

5-22. 12 MONTH INSPECTION (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	NOTE The mast pole may have been re-identified to one of the following, after repair by Bell Helicopter Textron (BHT): • 407-040-038-111R (replacement of the tungsten carbide coating by wear sleeve 406-040-026-103) • 407-040-038-111T (repair of the tungsten carbide coating) • 407-040-038-111T1 (expanded repair of the tungsten carbide coating)		
BHT-407-CR&O Chapter 63	**2.** For the mast pole 407-040-038-101, -105, -109, or -111R, examine the lower cone clamping journal for sleeve debonding, voids, and corrosion (ASB 407-11-94).		
BHT-407-CR&O Chapter 63	**3.** For the mast pole 407-040-038-111, -111T, or -111T1, examine the lower cone clamping journal for corrosion (ASB 407-11-94).		
Chapter 62	**4.** Install the main rotor hub.		
Chapter 95	**ENGINE** **1.** Do a MGT indicator functional check in Normal Mode and Start Mode (S/N 53000 through 54299). **2.** Do a PSI – MGT operational check (407GX, S/N 54300 and subsequent).		
BHT-407-FM-1 or BHT-407-FM-2	**GROUND RUN** **1.** Complete a ground run at 100% N_R to check for leaks and confirm system operation.		

SCHEDULED INSPECTIONS

5-23. 24 MONTH INSPECTION

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____W.O. _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME:_____		
	SIGNATURE:_____		
Chapter 28	**FUEL SYSTEM**		
	1. Remove the fuel transfer/fuel boost pump assemblies. Look into the fuel cells. Examine them for unwanted material, water contamination, and fungus growth.		
	2. Disassemble, examine, and functionally test the fuel transfer/fuel boost pump check/thermal relief valves for condition.		
Chapter 95	**3.** Do a calibration of the fuel quantity system.		
Chapter 67	**CONTROLS**		
	1. Inspect the cyclic spring link for condition.		
	FLIGHT CONTROL BOLTS/NUTS		
Chapter 67	**1.** Examine the bolts and the nuts of the flight controls for condition.		
Chapter 29	**2.** Examine the bypass spool valve of the servo actuators for correct movement.		
	GROUND RUN		
BHT-407-FM-1 or BHT-407-FM-2	**1.** Complete a ground run at 100% N_R to check for leaks and confirm system operation.		

SCHEDULED INSPECTIONS

5-24. 1200 HOUR/24 MONTH INSPECTION

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ W.O. _____		
	FACILITY: _____		
	HELICOPTER S/N: _____		
	REGISTRY NO.: _____		
	TOTAL TIME: _____		
	SIGNATURE: _____		
Chapter 67	**CONTROLS**		
	1. Remove and examine the tail rotor pitch change control tube inside the tailboom for condition.		
	PILOT CYCLIC CONTROL STICK		
Chapter 67	**1.** Perform a 1200 hour/24 month inspection of the pilot cyclic control stick.		

SCHEDULED INSPECTIONS

5-24A. 2500 HOUR INSPECTION

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____W.O. _____ **FACILITY: _____** **HELICOPTER S/N: _____** **REGISTRY NO.: _____** **TOTAL TIME:_____** **SIGNATURE:_____**		
Chapter 67	**CONTROLS** **NOTE** For new and in-service pitch link assemblies, the first 2500-hour inspection occurs at 5000 hours of component operating time, and subsequent inspections occur every 2500 hours. For main rotor pitch link assemblies already removed from service due to reaching the 5000-hour life limit previously required (i.e., Pre Revision 28, dated 29 July 2010), do the 2500-hour inspection before returning them to service and do the inspection again every 2500 hours of component operating time. **1.** Perform a 2500-hour inspection of the main rotor pitch link assemblies.		

SPECIAL INSPECTIONS

5-25. SPECIAL INSPECTIONS

A special inspection (Table 5-3) is temporary or of a special time interval that is not consistent with the scheduled inspection.

Do a special inspection at the intervals that follow:

1. 1 to 5 hours after each installation.

2. Deleted.

3. 10 to 25 hours after each installation.

4. 100 ±10 hours after each installation.

5. After you do maintenance on the fuel system or change a component in the fuel system.

Table 5-3. Special Inspections

DATE: _____ W.O. _____

FACILITY: _____

HELICOPTER S/N: _____

REGISTRY NO.: _____

TOTAL TIME: _____

SIGNATURE: _____

COMPONENT	INSPECTION SCHEDULE						
	HOURS AFTER INITIAL INSTALLATION					SIGNATURE	
	AFTER GROUND RUN	1 TO 5 HOURS	10 TO 25 HOURS	25 ±5 HOURS	100 ±10 HOURS	MECH	OTHER
Main Rotor Hub Mast Nut Torque Check	X	X△1					
Main Rotor Hub Through Bolt Torque Check	X	X△1					
Main Rotor Hub Lower Cone Torque Check	X	X△1					
Tail Rotor Gearbox Torque Check			X△2				
All Tail Rotor Driveshaft Disc Pack Couplings Torque Check			X△2				
Tail Rotor Hub Mast Nut Torque Check		X△3					
Engine Mounts Torque Check					X		
Tailboom Attachment Hardware Torque Check		X△3					
Transmission Top Case Torque Check					X		
Swashplate Tilt Friction			X△4				
Fuel System	Immediately after maintenance or component change△5						
Expandable Blade Bolts Tension Check				X△6			

Table 5-3. Special Inspections (Cont)

NOTES:

1. Torque check must be repeated every 1 to 5 hours until torque is stabilized.
2. Torque check must be repeated every 10 to 25 hours until the torque is stabilized. After the torque has stabilized, repeat the torque check every 300 flight hours (specified in progressive inspection).
3. Torque check must be repeated every 1 to 5 hours until torque is stabilized. After the torque has stabilized, repeat the torque check every 300 flight hours (specified in progressive inspection).
4. Repeat the swashplate tilt friction check every 10 to 25 hours until the friction has stabilized within limits. Also repeat the tilt friction check every 300 flight hours (specified in progressive inspection).
5. Complete fuel system operational check immediately after fuel system maintenance or component change (Chapter 28).
6. Do a tension check of the expandable blade bolts 20 to 30 hours after installation in accordance with the instructions for installation of the main rotor blade (BHT-407-MM-6, Chapter 62). Make sure the value of the tension did not change more than 5 pounds (2 kg) since the last check.

CONDITIONAL INSPECTIONS

5-26. CONDITIONAL INSPECTIONS

A conditional inspection does not occur at a specified time. It is caused by known or suspected unusual events, malfunctions, or defects.

Make an analysis of components removed because of a Conditional Inspection, as a related group. The removal records for each of these components must agree with the part number and the serial number of each of the other components. Put a tag on the removed part(s) sent for analysis that states: “THIS (NAME OF PART) WAS REMOVED FROM SERVICE BECAUSE OF A (REASON FOR REMOVAL).”

Events that require a conditional inspection include (but are not limited to) the following:

- hard landing
- sudden stoppage (main rotor) power ON or OFF
- sudden stoppage (tail rotor) power ON or OFF
- overspeed (main rotor)
- overtorque
- engine compressor stall or surge
- lightning strike

CONDITIONAL INSPECTIONS

5-27. HARD LANDING

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____ A hard landing is any accident or incident in which the impact of the helicopter with the ground causes severe pitching of the main rotor or results in noticeable yielding or cracking of the fuselage pylon structure or the landing gear. After a hard landing: If the cabin fuselage is resting on the ground or shows signs of having touched the ground, think of it as having been exposed to loads in excess of 10 G. If you think that the helicopter had a hard landing, do the steps that follow:		
Chapter 62	**MAIN ROTOR HUB AND BLADES** **1.** Examine the main rotor blades for evidence of contact with the tail-boom. If you find any damaged, complete this inspection and do a SUDDEN STOPPAGE - MAIN ROTOR inspection. **2.** Examine the main rotor blades for damage. If one blade shows signs of delamination, remove all the blades. Put a tag on each blade and write, “THIS BLADE WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” Send all of the blades to an approved facility for an analysis. If you do not find any damage, the blades are serviceable.		

CONDITIONAL INSPECTIONS

5-27. HARD LANDING (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	3. Examine the main rotor hub for damage. If the main rotor hub shows signs of damage, remove it. Put a tag on the hub and write, "THIS HUB WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING." Send it to an approved facility for overhaul. If you do not find any damage, the main rotor hub is serviceable. **4.** Examine the main rotor Frahm (if installed, TB 407-03-51) for internal and external damage. If the main rotor Frahm shows signs of damage, remove it. Put a tag on the Frahm and write, "THIS FRAHM WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING." Send it to an approved facility for overhaul. If you do not find any damage, the main rotor Frahm is serviceable. **TAIL ROTOR BLADE ASSEMBLY**		
Chapter 64	**1.** Examine the tail rotor blade assembly for damage. If you find any damage, complete this inspection and also do a SUDDEN STOPPAGE – TAIL ROTOR inspection. **2.** If you do not find any damage, the tail rotor hub and blade assembly is serviceable. **AIRFRAME**		
Chapter 53	**1.** Examine the airframe for damage. **2.** If you find any one of the signs that follow, the fuselage must be aligned in a Bell Helicopter approved fixture: **TOP DECK** **a.** Deformation or damage to the structure at the pylon beam attachment points. **b.** If the upper roof shell needs to be replaced. **c.** Deformation or damage at the left hand or right hand restraint stop. **CABIN INTERIOR** **d.** Buckling or other distortion of the center post cap angle.		

CONDITIONAL INSPECTIONS

5-27. HARD LANDING (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	e. Cracks and deformation of the pylon supporting structure in the roof beam.		
	f. If the roof beam needs to be replaced.		
	FORWARD FUSELAGE		
	g. Cowling or doors are not aligned.		
	h. Deformation or damage at the landing gear attachment points.		
	i. If the forward lower shell needs to be replaced.		
	j. If the aft lower shell needs to be replaced.		
	k. If the side body fairings needs to be replaced.		
	l. Deformation or damage to of the bulkheads at stations 76 and 155.		
Chapter 53	**INTERMEDIATE FUSELAGE**		
	m. Distortion or damage to the upper longerons.		
	n. Cracks or damage at the side or forward engine mount to fuselage attachment points.		
	o. If the fuselage composite skin needs to be replaced.		
	p. If the engine pan needs to be replaced.		
	q. Deformation or damage to the aft fuselage/tailboom attachment points.		
	(1) If the access cover to the tail rotor flight control and the adjacent structure are damaged, then the fuselage is not aligned.		

CONDITIONAL INSPECTIONS

5-27. HARD LANDING (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	3. If the damage to the fuselage structure is such that you must align the fuselage in a Bell Helicopter approved fixture, remove the components that follow. Put a tag on each component and write. “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” Send them to an approved facility for overhaul: **a.** the transmission assembly. **b.** the mast assembly. **c.** the freewheel assembly. **d.** remove and discard the engine to transmission driveshaft assembly.		
Chapter 65	**4.** Disassemble the tail rotor driveshafts and examine them for condition.		
Chapter 53	**TAILBOOM** **1.** The signs that follow show that the tailboom must be aligned in a Bell Helicopter approved fixture: **a.** tailboom skin deformation, buckling, or cracks. **b.** damaged bolts or bolt holes at the attachment points. **2.** If the damage to the tailboom is such that you must align the tailboom in a Bell Helicopter approved fixture, remove the components that follow. Put a tag on each component and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” Send them to an approved facility for overhaul. **a.** the freewheel assembly. **b.** the tail rotor gearbox assembly. **c.** remove and discard the engine to transmission driveshaft assembly.		
Chapter 65	**3.** Disassemble the tail rotor driveshafts and examine them for condition.		

CONDITIONAL INSPECTIONS

5-27. HARD LANDING (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 53	**4.** Accomplish waviness check of the tailboom skin. If waviness exceeds limits, send tailboom to a Bell Helicopter approved structural repair facility.		
Chapter 32	**5.** Damage or distortion of the tail skid and the mounting points is not cause to send the tailboom for repair on an alignment fixture. Repair or replace the damaged parts.		
Chapter 53	**6.** Examine the tailboom skin for damage in the area of the tail rotor blade tip path. Repair or replace the damaged area.		
Chapter 32	**LANDING GEAR** **1.** Examine the landing gear for condition and security. Examine the components that follow: **a.** Skid tubes. **b.** Skid saddles. **c.** Skid shoes. **d.** Retaining strap and rubber cushion. **e.** Rocking beam. **f.** Crosstubes. **g.** Attachment fittings. **2.** Do a crosstube deflection check.		
Chapters 63 and 65	**DRIVE TRAIN SYSTEM** **1.** If any of the conditions described below are noted, then the affected components must be sent to an approved facility for overhaul. Put a tag on each component and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” **a.** Signs of damage to the mast, transmission, freewheel, tail rotor driveshafts, or to the tail rotor gearbox, if caused by the hard landing.		

CONDITIONAL INSPECTIONS

5-27. HARD LANDING (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	b. Metal is collected on the chip detector of the transmission, freewheel, or the tail rotor gearbox. **c.** Signs of damage to the structure around the transmission mounting points (four elastomeric mounts at the corners of the top case and two elastomeric mounts at the bottom of the main case, one on each side). Use a 10X power magnifying glass and look for cracks, deformation, or movement of the attachment fittings. **d.** Signs of damage to the roof structure where the side beams attach to the roof. **e.** Examine for loose attaching hardware in the locations that follow: **(1)** Transmission. **(2)** Engine to transmission driveshaft. **(3)** Tail rotor gearbox. **(4)** Tail rotor driveshafts. **f.** Examine the corner mounts for condition. **g.** Examine the pylon stop deck fittings for condition. **h.** Examine the engine to transmission driveshaft assembly for signs of damage caused by the hard landing. Remove and discard damaged engine to transmission driveshaft assembly. **2.** If no component shows damage that is caused by a hard landing, then all drivetrain components, except for the mast, are serviceable. **3.** Examine the mast for distortion. If you see any distortion, discard the mast assembly. If you do not see any distortion, remove the mast assembly. Put a tag on the mast assembly and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” Send the mast assembly to an approved overhaul facility.		

CONDITIONAL INSPECTIONS

5-27. HARD LANDING (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	4. Examine the transmission oil system for condition and leaks.		
Chapter 71	**POWER PLANT**		
Rolls-Royce Operations and Maintenance Manual, Publication CSP21001	**1.** Do the engine hard landing inspection.		
	NOTE After a hard landing, if the cabin fuselage is resting on the ground or shows signs of having touched the ground, think of it as having been exposed to loads in excess of 10 G.		
Chapter 53	**2.** Examine the engine mounts and the fuselage attachment points for condition. If you find deformed engine mount legs, replace them. If you find deformed attachment points, the fuselage must be aligned in a fixture. If the fuselage must be aligned in a fixture, remove the components that follow. Put a tag on the component and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” Send the component to an approved facility for overhaul: **a.** Transmission assembly. **b.** Mast assembly. **c.** Complete tail rotor driveshaft. **d.** Remove and discard the engine to transmission driveshaft assembly.		
	3. Examine all of the air, fluid flexible and rigid lines in the engine compartment for leaks, condition, and security.		
Chapter 67	**MAIN AND TAIL ROTOR FLIGHT CONTROLS**		
	1. Examine all of the main and tail rotor flight controls for condition. Discard damaged parts.		

CONDITIONAL INSPECTIONS

5-27. HARD LANDING (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. If you find damage in the rotating controls, do the steps that follow: **a.** Discard all of the main rotor control tubes and attaching hardware**.** **b.** Remove the main rotor hub assembly. Put a tag on the main rotor hub assembly and write, “THIS HUB ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” Send the hub assembly to an approved facility for overhaul.		
Chapter 62	**c.** Remove the swashplate and support assembly. Put a tag on the swashplate and support assembly and write, “THIS SWASHPLATE AND SUPPORT ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” Send the swashplate and support assembly to an approved facility for overhaul.		
Chapter 29	**HYDRAULIC SYSTEM** **1.** Examine the hydraulic system for condition, leaks, and for correct operation. **2.** Examine the servo actuator support and the surrounding roof structure for condition. **3.** Examine all fluid flexible and rigid lines. **4.** Replace any damaged parts.		
Chapter 28	**FUEL SYSTEM** **1.** Examine the fuel system for condition and leaks. Examine the components as follows: **a.** Sump retainers and the surrounding structures. **b.** Area around the fuel sumps for signs of leakage. **c.** Sump drain valves for correct position. **d.** Electrical harness.		

CONDITIONAL INSPECTIONS

5-27. HARD LANDING (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	e. Filler cap retainer. **f.** Alignment of the fuel cell fitting with airframe opening. **g.** Fuel cell attachment points. **h.** Fuel probe attachment points. **i.** Auxiliary fuel tank for leakage. **j.** Boost pump for correct operation. **k.** Fuel quantity indicator for correct operation. **l.** All fluid flexible and rigid lines.		
Chapter 53	**2.** Replace the damaged components. Repair the damaged structure.		
	GROUND-RUN		
BHT-407-FM-1 or BHT-407-FM-2	**1.** If you find any damage during the inspection, make sure that it is repaired. Make sure that all of the systems are operational. Do a ground run for a minimum of thirty minutes, with the helicopter light on its skids. Examine the fuel and the oil system for leaks.		

CONDITIONAL INSPECTIONS

5-28. SUDDEN STOPPAGE — MAIN ROTOR — POWER “ON” OR “OFF”

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____ **SUDDEN STOPPAGE — MAIN ROTOR — POWER “ON” OR “OFF”** Sudden stoppage is any fast deceleration of the main rotor drive system. This may be caused by the seizure of the transmission or by contact of the main rotor blades with the ground, water, snow, dense vegetation, or other objects of sufficient mass to cause a fast deceleration of the main rotor. When a sudden stoppage has occurred, do the steps that follow:		
Chapter 62	**MAIN ROTOR BLADES** **1.** Deleted. **2.** Examine the main rotor blades for damage. Make a close check for wrinkled skin and delamination. **3.** If any blade is sufficiently damaged, discard it. Put a tag on each remaining blade and write, “THIS BLADE WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the remaining blades to an approved facility for repair.		

CONDITIONAL INSPECTIONS

5-28. SUDDEN STOPPAGE — MAIN ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	4. If you do not find any damage on a blade, the blade is serviceable.		
Chapter 62	**MAIN ROTOR HUB ASSEMBLY**		
	1. Examine the main rotor hub and Frahm (if installed, TB 407-03-51) for condition.		
	2. Examine the main rotor Frahm (if installed, TB 407-03-51) for internal and external damage. If the main rotor Frahm shows signs of damage, remove it. Put a tag on the Frahm and write, “THIS FRAHM WAS REMOVED FROM SERVICE BECAUSE OF A HARD LANDING.” Send it to an approved facility for overhaul. If you do not find any damage, the main rotor Frahm is serviceable.		
	3. If the main rotor hub is damaged, remove the main rotor hub assembly. Put a tag on the main rotor hub and write, “THIS MAIN ROTOR HUB WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the main rotor hub to an approved facility for overhaul.		
	4. If a main rotor blade (s) is damaged sufficiently to be sent to an approved facility for repair, remove the main rotor hub assembly. Put a tag on the main rotor hub and write, “THIS MAIN ROTOR HUB WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the main rotor hub to an approved facility for overhaul.		
	5. If the main rotor mast was cut in two during the main rotor sudden stoppage, discard the main rotor hub and Frahm assembly.		
	6. Examine the main rotor pitch horn for condition. If you replace a broken pitch horn:		
	a. Remove the swashplate and support assembly. Put a tag on the swashplate and support assembly and write, “THIS SWASHPLATE AND SUPPORT ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the swashplate and support assembly to an approved facility for overhaul.		

CONDITIONAL INSPECTIONS

5-28. SUDDEN STOPPAGE — MAIN ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	b. Discard all control bolts from hydraulic servo to main rotor pitch horn. **7.** If the main rotor hub assembly is not damaged, it is serviceable. **SWASHPLATE ASSEMBLY** **1.** Examine the swashplate for condition. If you find damage caused by sudden stoppage, do steps 2 and 3. **2.** If you find damage in step 1, remove the swashplate and support assembly. Put a tag on the swashplate and support assembly and write, “THIS SWASHPLATE AND SUPPORT ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the swashplate and support assembly to an approved facility for overhaul. **3.** Examine all of the control bolts for condition. If you find damage in step 1, discard all of the control bolts from the hydraulic servo actuator to the main rotor hub pitch horns.		
Chapter 67	**CONTROL SYSTEM** **1.** Examine the main rotor control tubes for condition. If you replace a bent or broken tube do step 3. **2.** Examine the main rotor pitch horns for condition. If you replace a broken pitch horn, do step 3. **3.** Examine all of the control bolts for condition. If you find damage in steps 1 or 2, discard all of the control bolts from the hydraulic servo actuator to the main rotor hub pitch horns. **4.** If a main rotor control tube assembly is damaged remove the swashplate and support. Put a tag on the swashplate and support assembly and write, “THIS SWASHPLATE AND SUPPORT ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the swashplate and support assembly to an approved facility for overhaul.		

CONDITIONAL INSPECTIONS

5-28. SUDDEN STOPPAGE — MAIN ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 63	**TRANSMISSION AND MAST ASSEMBLY** **1.** If the main rotor mast broke in two during a main rotor sudden stoppage “power on”, the main rotor mast has sustained torsional yielding. **2.** Examine the mast for torsional yielding by doing a TIR check. If the mast is outside the TIR tolerance, you can send the mast to Bell Helicopter for analysis. If the mast shows signs of torsional yielding, discard the mast assembly, the transmission assembly, and the freewheel (outer race, inner race, and clutch). **3.** If the mast has sustained torsional yielding, replace the transmission corner mounts and the restraints. **4.** If the mast shows no sign of torsional yielding and if the transmission shows no sign of damage, remove the mast and the transmission assembly and write, “THIS MAST AND TRANSMISSION ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the mast and transmission assembly to an approved facility for overhaul. **5.** If there is large damage to the mast other than torsional yielding, replace mast assembly and top case of transmission. **6.** Examine the transmission corner mounts and restraint elastomeric for condition. Replace damaged parts.		
Chapter 63	**ENGINE TO TRANSMISSION DRIVESHAFT** **1.** Remove and discard engine to transmission driveshaft assembly.		
Chapter 63	**FREEWHEEL ASSEMBLY** **1.** Remove and examine freewheel assembly. If the freewheel outer shaft assembly is sheared, discard the outer shaft, the inner shaft, and the sprag clutch assembly. Put tags on the parts that remain and write, “THIS PART WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the remaining parts to an approved facility for overhaul.		

CONDITIONAL INSPECTIONS

5-28. SUDDEN STOPPAGE — MAIN ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. Do a visual inspection. If there is no damage, send the freewheel assembly to an approved facility for overhaul. Put a tag on the freewheel assembly and write, “THIS FREEWHEEL ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” During the overhaul, if they find that the sprag clutch assembly is damaged (cracked or deformed sprag or cage), discard the outer shaft, inner shaft, and sprag clutch assembly.		
Chapter 65	**TAIL ROTOR DRIVESHAFTS** **1.** Examine the tail rotor driveshafts for condition. **2.** If the tail rotor driveshafts show signs of torsional yielding, do a Sudden Stoppage – Tail Rotor Inspection.		
Chapter 53	**TOP DECK** **1.** Examine the transmission support beams and the attachment points on the roof for condition. If the roof structure is damaged at the attachment point, location, send the fuselage to an approved repair facility for repair. Repair damaged beam. **2.** Examine the left hand and the right hand restraint stops for damage at the deck fitting to the transmission fitting pin interface. If the roof structure is damaged at the attachment point location, send the fuselage to an approved repair facility for repair. Replace damaged restraint stops and deck fittings.		
Chapter 53	**CABIN INTERIOR** **1.** Remove the upholstery in the passenger compartment. Examine the cabin roof and the roof beam at the transmission beam attachment points for cracks. Do a torque check of the attaching hardware of the beam on the pylon mounts.		
Chapter 71	**POWER PLANT**		
Chapter 53	**1.** Examine the attachment points of the engine mounts at the fuselage for cracks or damage.		

CONDITIONAL INSPECTIONS

5-28. SUDDEN STOPPAGE — MAIN ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Rolls-Royce Operation and Maintenance Manual, Publication CSP21001	**2.** Do an engine sudden stoppage inspection.		
Chapter 64	**TAIL ROTOR HUB AND BLADE ASSEMBLY** **1.** Examine the tail rotor hub and blade assembly for damage. If any damage is found, complete this inspection and also do a SUDDEN STOPPAGE TAIL ROTOR inspection. **2.** If damage is not found, the tail rotor hub and blade assembly is serviceable.		
Chapter 53	**TAILBOOM** **1.** Examine the tailboom skin for damage in the area of the tail rotor blade tip path. Repair or replace the damaged area.		

CONDITIONAL INSPECTIONS

5-29. SUDDEN STOPPAGE — TAIL ROTOR — POWER “ON” OR “OFF”

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____ **SUDDEN STOPPAGE — TAIL ROTOR — POWER “ON” OR “OFF”** Sudden stoppage is any rapid deceleration of the rotor drive system. This may be caused by the seizure of the tail rotor drive system or by contact of the tail rotor blades with the ground, water, snow, dense vegetation, or other objects of sufficient mass. There is a sudden stoppage when a tail rotor blade strikes some object with a force sufficient to require a blade to be discarded. When sudden stoppage has occurred, do the steps that follow:		
Chapter 63	**FREEWHEEL ASSEMBLY** **1.** Remove and examine the freewheel assembly. If the freewheel outer shaft assembly is cut in two, discard the outer shaft, the inner shaft, and the sprag clutch assembly. Put tags on the parts that remain and write, “THIS PART WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the remaining parts to an approved facility for overhaul.		

CONDITIONAL INSPECTIONS

5-29. SUDDEN STOPPAGE — TAIL ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. Do a visual inspection. If you do not find any damage, send the freewheel assembly to an approved facility for overhaul. Follow the special inspection instructions. Put a tag on the freewheel assembly and write, “THIS FREEWHEEL ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” During the overhaul, if the approved facility finds that the sprag clutch assembly is damaged (cracked or deformed sprag or cage), discard the outer shaft, the inner shaft, and the sprag clutch assembly.		
Chapter 65	**TAIL ROTOR DRIVESHAFT ASSEMBLIES** **1.** Examine the tail rotor driveshaft assemblies for condition. **2.** If the tail rotor driveshaft was damaged by a main rotor strike or has damage other than the torsional overload, discard the damaged segment assembly and the segment assemblies forward-and-aft of the damaged driveshaft. Remove the remaining hanger and bearing assemblies. Put tags on the hanger and bearing assemblies and write, “THIS HANGER AND BEARING ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the hanger and bearing assemblies to an approved facility for overhaul. **3.** If a tail rotor driveshaft fails because of a torsional load, discard all of the tail rotor driveshaft assemblies, the forward short shaft, the aft short shafts, and the fan shaft. **4.** If the visual inspection showed no sign of damage, the tail rotor driveshaft assemblies are serviceable.		
Chapter 65	**OIL COOLER BLOWER IMPELLER** **1.** Remove and examine the impeller for condition. If you find any damage such as cracks and deformation, discard the impeller, oil cooler blower driveshaft, forward and aft hangers, forward and aft bearings, and the forward and aft disc packs. **2.** Examine the oil cooler blower housing for condition. **3.** If there is no damage, the oil cooler impeller is serviceable.		

CONDITIONAL INSPECTIONS

5-29. SUDDEN STOPPAGE — TAIL ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 65	**TAIL ROTOR GEARBOX ASSEMBLY** **1.** Remove and examine the tail rotor gearbox for condition. If you see any of the following, discard the tail rotor gearbox. **a.** Cracked or distorted housing. **b.** Fractured studs or fractured dowel pins. **c.** Bent or damaged output shaft. **2.** If there is no damage, put a tag on the tail rotor gearbox and write, “THIS TAIL ROTOR GEARBOX WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the tail rotor gearbox to an approved facility for overhaul.		
Chapter 67	**TAIL ROTOR CONTROL SYSTEM** **1.** Examine the tail rotor flight controls for condition and correct operation. Replace all of the damaged parts. **2.** If you see one or more of the following defects, discard the pitch change mechanism: **a.** Tail rotor hub pitch horn failure. **b.** Control tube bent or broken. **c.** Damaged tail rotor gearbox output shaft. **3.** Discard all of the rotating control bolts. **4.** If you do not see any damage after a close visual inspection of the tail rotor control system, the tail rotor flight control is serviceable.		
Chapter 64	**TAIL ROTOR HUB AND BLADE ASSEMBLY** **NOTE** Depending on the nature of the impact, the tail rotor blade(s) may be serviceable. Please contact Product Support Engineering for information on possible blade evaluation.		

CONDITIONAL INSPECTIONS

5-29. SUDDEN STOPPAGE — TAIL ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	1. If the sudden stoppage started at the tail rotor hub and blade assembly, discard it. **2.** If the sudden stoppage started at the main rotor, the transmission, the tail rotor drive shaft, or at the tail rotor gearbox, look for visible external damage. If you do not see any visible external damage, the tail rotor hub and blade assembly is serviceable. If you see damage on the tail rotor hub and blade assembly, put a tag on the tail rotor hub and blade assembly and write, “THIS TAIL ROTOR HUB AND BLADE ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A SUDDEN STOPPAGE.” Send the tail rotor hub and blade assembly to an approved facility for overhaul.		
Chapter 53	**TAILBOOM** **CAUTION** ANY CRACK, CORROSION OR LOOSE OR SHEARED RIVET IS CAUSE FOR IMMEDIATE GROUNDING OF THE HELICOPTER UNTIL THE PROBLEM IS CORRECTED. **1.** Examine the tail boom for condition: **a.** Internally. **b.** Externally. **2.** Examine the four tailboom attachment fittings, on the fuselage and on the tailboom, for condition and security. Pay particular attention to the upper left-hand fittings. **3.** Examine the tail rotor driveshaft supports and their attachment to the tailboom for condition and security. **4.** Examine the horizontal stabilizer and auxiliary fins for condition and security. **5.** Examine the vertical fin for condition and security.		

CONDITIONAL INSPECTIONS

5-29. SUDDEN STOPPAGE — TAIL ROTOR — POWER “ON” OR “OFF” (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	6. Examine the tailboom area of the tail rotor gearbox mounting studs and dowel pins for cracks. Use a 10X power magnifying glass or do a fluorescent penetrant inspection. **7.** Check the torque on the nuts of the tailboom attachment bolts. **8.** Examine the tailboom skin for damage in the area of the tail rotor blade tip path. Repair or replace the damaged area.		
Chapter 64	**9.** Examine the support yield indicator for damage. If the support yield indicator clearance is decreased, discard the support yield indicator and proceed as follows: **a.** Discard tail rotor yoke. **b.** Inspect tail rotor blades for delamination. **c.** Inspect pitch links for condition. **d.** Inspect pitch horns for condition. **e.** Inspect tailboom for condition in tail rotor blade tip path area.		
Chapter 18	**10.** Dynamically balance the tail rotor hub and blade assembly.		

CONDITIONAL INSPECTIONS

5-30. MAIN ROTOR OVERSPEED

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____		
	MAIN ROTOR OVERSPEED A main rotor overspeed is an incident in which 118% main rotor RPM is exceeded.		
	AFTER OVERSPEED — BELOW 118%		
	1. When a main rotor overspeed below 118% has occurred, no airframe inspection is required.		
Rolls-Royce Operations and Maintenance Manual, Publication CSP21001	**2.** Do the engine overspeed inspection.		
	AFTER OVERSPEED OF 118% AND ABOVE		
	When a main rotor overspeed of 118% and above has occurred, do the steps that follow:		
Chapter 62	**MAIN ROTOR HUB AND BLADES**		
	1. Examine the blades for condition. If you see any of the following, discard the blade: **a.** Balance weights have moved. **b.** Retention bushings are loose.		

CONDITIONAL INSPECTIONS

5-30. MAIN ROTOR OVERSPEED (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. If the blade has any other damage, remove the blade. Put a tag on the blade and write, “THIS BLADE WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERSPEED.” Send the blade to an approved facility for an analysis. **3.** If the blade has no damage, the blade is serviceable. **4.** If you see any yielding of a retention bolt, discard it. **5.** Examine the main rotor hub for condition. If you see any damage, remove the main rotor hub assembly. Put a tag on the main rotor hub assembly and write, “THIS MAIN ROTOR HUB ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERSPEED.” Send the main rotor hub assembly to an approved facility for overhaul. **a.** If a grip is deformed, discard it. **b.** If the yoke is delaminated, discard it. **6.** If the main rotor hub has no damage, it is serviceable. **7.** Examine the main rotor Frahm (if installed, TB 407-03-51) for internal and external damage. If the main rotor Frahm shows signs of damage, remove it. Put a tag on the Frahm and write, “THIS FRAHM WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERSPEED.” Send it to an approved facility for overhaul. If you do not find any damage, the main rotor Frahm is serviceable.		
Chapter 64	**TAIL ROTOR HUB AND BLADE ASSEMBLY** **1.** Examine the tail rotor hub and blade assembly for condition. If you find any of the damage that follows, discard the hub or blade: **a.** Tip block has moved or has a crack **b.** Blade bolt bushing is loose		

CONDITIONAL INSPECTIONS

5-30. MAIN ROTOR OVERSPEED (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. If the blade has any other damage, remove the blade. Put a tag on the blade and write, “THIS BLADE WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERSPEED.” Send the tail rotor blade to an approved facility for analysis. **3.** Discard the bolts of the tail rotor blade. **4.** Examine the tail rotor hub assembly for condition. If you see any damage, remove the tail rotor hub assembly. Put a tag on the tail rotor assembly and write, “THE TAIL ROTOR HUB ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERSPEED.” Send the tail rotor hub assembly to an approved facility for overhaul. **5.** If the tail rotor hub assembly and the tail rotor blades are not damaged, they are serviceable.		
Chapters 63 and 65	**DRIVE SYSTEM** **1.** Examine the chip detectors of transmission, freewheel, and tail rotor gearbox. If there is no unwanted material, the drive system is serviceable. If the chip detector shows signs of unwanted material, remove the applicable component. Put a tag on the applicable component and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERSPEED.” Send the applicable component to an approved facility for overhaul. **2.** Examine the engine to transmission driveshaft, and the complete tail rotor driveshaft for condition and security. **3.** Use a flashlight and an inspection mirror. Examine the oil cooler impeller for condition.		
Rolls-Royce Operations and Maintenance Manual, Publication CSP21001	**4.** Do the engine overspeed inspection. **5.** If you find any damage during the inspection, make sure that you repair it. Make sure that all of the systems are serviceable.		

CONDITIONAL INSPECTIONS

5-30. MAIN ROTOR OVERSPEED (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
BHT-407-FM-1 or BHT-407-FM-2	**6.** Do a ground run for a minimum of one hour with the helicopter light on its skids. Examine the fuel and the oil systems for leaks.		

CONDITIONAL INSPECTIONS

5-31. OVERTORQUE

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____ **W.O.** _____ **FACILITY:** _____ **HELICOPTER S/N:** _____ **REGISTRY NO.:** _____ **TOTAL TIME:** _____ **SIGNATURE:** _____		
	OVERTORQUE An overtorque is an incident in which torsional loads greater than those permitted are applied to the helicopter dynamic system.		
	NOTE The torque values given in this section are those displayed by the torque indicator. The FADEC/ECU will record torque values that are different. Refer to Chapter 76 and Rolls-Royce Operations and Maintenance Manual, Publication CSP21001 for the relationship between these two values.		
	AFTER TORQUE — 100 TO 110%		
Rolls-Royce Operations and Maintenance Manual, Publication CSP21001	**1.** After an overtorque of 100 to 110%, no inspection is required, except for the engine.		
	2. Do an engine overtorque inspection.		

CONDITIONAL INSPECTIONS

5-31. OVERTORQUE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	AFTER OVERTORQUE — 110 TO 120% When a main rotor overtorque has occurred, do the steps that follow:		
Chapter 62	**MAIN ROTOR HUB AND BLADES** **1.** Examine the blades for condition. If the blade bond is separated at any point on the blade, discard the blade. **2.** If the blade has no damage, it is serviceable. **3.** Remove blade bolts and inspect. If you see any yielding of a blade bolt, discard it. **4.** Examine the main rotor hub for condition. If you see any damage, remove the main rotor hub assembly. Put a tag on the main rotor hub assembly and write, “THIS MAIN ROTOR HUB ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF AN OVERTORQUE.” Send the main rotor hub assembly to an approved facility for overhaul. **a.** If any grip is deformed, discard it. **b.** If the yoke is delaminated, discard it. **c.** If the elastomeric bearings or the lead-lag damper is separated or crumbled, discard it. **d.** If the elastomeric damper or the lead-lag damper is separated, discard it. **5.** If the main rotor hub has no damage, it is serviceable.		
Chapter 63	**DRIVE SYSTEM AND PYLON MOUNTS** **1.** Examine the chip detectors of the transmission, the freewheel, and the tail rotor gearbox for unwanted material. Make an analysis of the unwanted material. If you find metal particles, remove the applicable component. Put a tag on the applicable component, and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERTORQUE.” Send the applicable component to an approved facility for overhaul.		

CONDITIONAL INSPECTIONS

5-31. OVERTORQUE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. Remove and examine the engine to transmission driveshaft for deformation and cracks. If deformation or cracks are found, discard the driveshaft. **3.** Examine the transmission top case and the corner mount attachment points for condition. **4.** If the transmission is damaged, remove the transmission. Put a tag on the transmission and write, “THIS TRANSMISSION WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERTORQUE.” Send the transmission to an approved facility for overhaul.		
BHT-407-CR&O Chapter 63	**5.** Make sure that the mast pole is straight (TIR). If the mast pole is bent, remove the mast pole. Put a tag on the mast pole and write, “THIS MAST POLE WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERTORQUE.” Send the mast pole to Bell Helicopter Textron for analysis to determine if the mast has sustained torsional yielding. **6.** If Bell Helicopter Textron finds that the mast has torsional yielding, discard the mast assembly, transmission assembly, engine to transmission driveshaft, and the freewheel (the outer race, the inner race and the clutch). **7.** Examine the pylon mount for condition. Examine the components that follow: **a.** the corner mounts. **b.** the restraints. **c.** the left and right hand restraint stops. **8.** Examine the assemblies of the tail rotor driveshaft for condition. **9.** Examine the torque of the attachment points of the tail rotor gearbox.		
Chapter 67	**FLIGHT CONTROLS** **1.** Examine the swashplate and support for condition.		

CONDITIONAL INSPECTIONS

5-31. OVERTORQUE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. Examine the boosted main rotor control tubes for damage. Carefully examine the pitch links. Replace all of the damaged parts.		
Chapter 53	**STRUCTURE** **1.** Examine the cabin roof and the roof beam at the attachment points of the transmission beam for security and condition. **2.** Examine the torque of the attaching hardware of the beam to the pylon mounts.		
Chapter 64	**TAIL ROTOR HUB AND BLADES** **1.** Examine the tail rotor hub and blade assembly for condition. If you see any damage, remove the tail rotor hub and blade assembly. Remove the tail rotor blades from the hub. Put a tag on the applicable component and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERTORQUE.” Send the tail rotor blade to an approved facility for analysis. Send the tail rotor hub to an approved facility for overhaul.		
Rolls-Royce Operations and Maintenance Manual, Publication CSP21001	**POWER PLANT** **1.** Do an engine overtorque inspection.		
	AFTER THE FIRST 25 FLIGHT HOURS **1.** Do a visual inspection of the following:		
Chapter 62	**a.** The main rotor hub and blades.		
Chapter 63	**b.** The transmission top case and the attaching hardware.		
Chapter 53	**c.** The roof beam at the transmission mount attachment points.		
Chapter 63	**d.** The transmission corner mounts and the restraint elastomeric bearing.		

CONDITIONAL INSPECTIONS

5-31. OVERTORQUE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 64	**e.** The tail rotor hub and blades.		
Chapter 63 Chapter 65	**2.** Examine the chip detectors of the transmission, the freewheel and the tail rotor gearbox for unwanted material.		
	AFTER OVERTORQUE — ABOVE 120%		
	NOTE Follow the overhaul inspection instructions in the specific sections. Use the limit charts and other applicable data. Make sure that the parts in each assembly are within the dimension limits and that they have not yielded or become deformed.		
	When on overtorque has exceeded 120% remove the components that follow. Put a tag on the component and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A MAIN ROTOR OVERTORQUE.” Send the component to an approved facility for overhaul.		
Chapter 62	**1.** Main rotor hub.		
Chapter 63	**2.** Main rotor mast.		
Chapter 63	**3.** Main transmission, replace the top case of the main transmission.		
Chapter 63	**4.** Freewheel assembly.		
Chapter 63	**5.** Remove and discard the engine to transmission driveshaft assembly.		
Chapter 64	**6.** Overhaul tail rotor hub assembly.		
Chapter 64	**7.** Send tail rotor blades to an approved facility for analysis.		
	8. Examine the other components that are listed in the inspection, AFTER OVERTORQUE — 110 TO 120%.		

CONDITIONAL INSPECTIONS

5-31A. ENGINE COMPRESSOR STALL OR SURGE

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____W.O. _____ **FACILITY: _____** **HELICOPTER S/N: _____** **REGISTRY NO.: _____** **TOTAL TIME:_____** **SIGNATURE:_____** **NOTE** An engine compressor stall or surge can be described as a sharp rumble, a series of loud sharp pops, severe engine vibration, or a rapid rise in Measured Gas Temperature (MGT) depending on the severity of stall or surge. When a stall or surge is suspected, follow steps as dictated by reported conditions. **NOTE** The components removed from the helicopter for evaluation following a compressor stall or surge shall be evaluated as a matched group. The records accompanying each component shall cross-reference part and serial numbers of other drive system components removed for evaluation. **1.** Obtain a pilot's report of the circumstances related to the suspected compressor stall or surge to determine if it corresponds to one of the following conditions: • If the stall or surge occurred on the ground or in flight at any N_R speed or torque setting and there was no noticeable yaw of the helicopter, do Part I and Part II of this inspection.		

CONDITIONAL INSPECTIONS

5-31A. ENGINE COMPRESSOR STALL OR SURGE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	• If the stall or surge occurred on the ground or in flight at any N_R speed or torque setting and there was a noticeable yaw of the helicopter, do Part I, Part II, and Part III of this inspection. **PART I: INVESTIGATE CAUSE OF COMPRESSOR STALL OR SURGE** **POWER PLANT**		
Rolls-Royce Operation and Maintenance Manual, CSP21001	**1.** Examine the induction fairing for blockage. If the induction fairing is found obstructed, refer to the Rolls-Royce Operation and Maintenance Manual for further maintenance action. If no blockage is found, do step 2. **2.** Remove the induction fairing and examine the compressor intake area as follows: **a.** Examine the compressor rotor for contamination. If contamination is found, perform a compressor wash. Refer to the Rolls-Royce Operation and Maintenance Manual. **b.** Inspect compressor rotor for foreign object damage in accordance with the Rolls-Royce Operation and Maintenance Manual for proper action. **3.** If step 1 and step 2 do not reveal an obvious cause for stall or surge, refer to the Rolls-Royce Operation and Maintenance Manual for further maintenance action.		

CONDITIONAL INSPECTIONS

5-31A. ENGINE COMPRESSOR STALL OR SURGE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 63 Chapter 65	**NOTE** Removal or dismantling of components is not required while performing the following inspection. **PART II: INSPECTION FOR COMPRESSOR STALL OR SURGE WITHOUT NOTICEABLE YAW** **DRIVE SYSTEM** **1.** Examine the chip detectors of the transmission, freewheel assembly, and the tail rotor gearbox. If the chip detector shows signs of metal particles, perform a serviceability check. Components that fail the serviceability check shall be removed. Make an entry on the applicable components Historical Service Record and attach a tag and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL/SURGE”. Send the component to a Bell Helicopter Textron approved facility for overhaul. **2.** Examine the tail rotor driveshafts for condition and security of attachment. **3.** Examine the tail rotor disc pack couplings for cracks or gapping greater than 0.015 inch (0.38 mm). **4.** Examine the tail rotor steel driveshaft and adapters for structural failure or distortion exceeding specified limits. **5.** Examine the tail rotor driveshaft segments for condition. **6.** Examine the oil cooler shaft and forward short shaft for condition. **7.** Examine the engine-to-transmission main driveshaft for condition. **8.** If no defects were detected that may have been caused by the compressor stall or surge, all drivetrain components are serviceable.		

CONDITIONAL INSPECTIONS

5-31A. ENGINE COMPRESSOR STALL OR SURGE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 62 Chapter 64	**ROTATING CONTROL SYSTEM** **1.** Examine the swashplate and support assembly, swashplate drive components, the tail rotor pitch change mechanism, and all rotating controls (main and tail). Replace any unserviceable parts as necessary.		
Chapter 64 BHT-407-CR&O	**TAIL ROTOR HUB AND BLADES** **1.** Examine the tail rotor hub assembly for condition. If any damage suspected to be related to the stall or surge is found, remove the tail rotor hub assembly. Make an entry on the Historical Service Record and attach a tag on the tail rotor hub assembly and write, "THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL OR SURGE". Send the hub to a Bell Helicopter Textron approved facility for overhaul.		
Chapter 64	**2.** Examine the tail rotor blade(s) for condition. If any damage suspected to be related to the stall or surge is found, remove the tail rotor blade(s). Make an entry on the Historical Service Record and attach a tag on the tail rotor blade(s) and write "THIS BLADE WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL OR SURGE". Send the tail rotor blade(s) assembly to a Bell Helicopter Textron approved rotor blade repair facility for further inspection and repair. **3.** Examine the tail rotor blade bolts for security of attachment. If damage suspected to be related to the stall or surge is found, discard the blade bolts.		
Chapter 62	**MAIN ROTOR HUB AND BLADES** **1.** Examine the main rotor blades for damage. Check for wrinkled skin, delamination, deformation, and cracks.		

CONDITIONAL INSPECTIONS

5-31A. ENGINE COMPRESSOR STALL OR SURGE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. If any blade has visible damage suspected to be related to the stall or surge, make an entry on the Historical Service Record and attach a tag on blades and write, "THIS BLADE WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL/SURGE." Send the blade(s) to a Bell Helicopter Textron approved rotor blade repair facility for further inspection and repair. **3.** If no defects were detected on any blade, the blade(s) are serviceable. **NOTE** This inspection does not require disassembly or removal from the helicopter. **4.** Examine the main rotor hub for condition. If any damage is suspected to be related to the stall or surge, remove the main rotor hub assembly. Make an entry on the Historical Service Record and attach a tag on the main rotor hub and write, "THIS MAIN ROTOR HUB ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL/SURGE." Send the component to a Bell Helicopter Textron approved facility for overhaul. **5.** If no defects were detected on main rotor hub, the main rotor hub is serviceable. **6.** If defects are detected in step 1, step 2, and step 4, perform a main rotor sudden stoppage inspection. **SPECIAL INSPECTION** After 25 hours of operation, examine chip detectors of transmission, freewheel assembly, and tail rotor gearbox. If the chip detector shows signs of metal particles, perform a serviceability check. Components that fail the serviceability check shall be removed. Make an entry on the applicable components Historical Service Record and attach a tag and write “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL/SURGE”. Send the component to a Bell Helicopter Textron approved facility for overhaul.		

CONDITIONAL INSPECTIONS

5-31A. ENGINE COMPRESSOR STALL OR SURGE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	PART III: INSPECTION FOR COMPRESSOR STALL OR SURGE WITH NOTICEABLE YAW		
Chapter 63	**ENGINE-TO-TRANSMISSION MAIN DRIVESHAFT** **1.** Remove and examine the engine-to-transmission main driveshaft for condition. **2.** If any damage suspected to be related to the stall or surge, make an entry on the Historical Service Record and attach a tag on the driveshaft and write, “THIS COMPONENT WAS REMOVED FORM SERVICE BECAUSE OF A COMPRESSOR STALL”. Send the driveshaft to Bell Helicopter Textron CPR for evaluation. Refer to IL GEN-04-98. **3.** If no defects were detected, return the engine-to-transmission main driveshaft to service.		
BHT-407-CR&O	**TRANSMISSION ASSEMBLY** **1.** Remove the transmission input pinion and triplex bearing. **2.** Inspect the following gear teeth for scoring and other mechanical damage. **a.** Input pinion gear. **b.** Main input driven bevel gear. **3.** If any damage suspected to be related to the stall or surge is found, make an entry on the Historical Service Record and attach a tag on the transmission assembly and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL”. Send the component to a Bell Helicopter Textron approved facility for overhaul. **4.** If no defects were detected on the gears, the transmission assembly is serviceable.		
BHT-407-CR&O	**TAIL ROTOR GEARBOX** **1.** Remove the tail rotor gearbox input pinion.		

CONDITIONAL INSPECTIONS

5-31A. ENGINE COMPRESSOR STALL OR SURGE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. Inspect the following gear teeth for scoring and other mechanical damage. **a.** Input pinion gear. **b.** Spiral bevel gear. **3.** If any damage suspected to be related to the stall or surge is found, make an entry on the Historical Service Record and attach a tag on the tail rotor gearbox and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL”. Send the tail rotor gearbox to a Bell Helicopter Textron approved facility for overhaul. **4.** If no defects were detected on the gears, the tail rotor gearbox is serviceable.		
Chapter 53	**FUSELAGE** **1.** Examine the complete tailboom structure for distortion, buckles, cracks in the skin, and sheared or loose rivets. **2.** Inspect tailboom attachment fittings for cracks. **3.** Inspect the vertical fin for condition and security of attachment.		
Chapter 63 Chapter 65 BHT-407-FM-1 or BHT-407-FM-2	**GROUND RUN** **1.** Perform a ground run for a minimum of 30 minutes with the helicopter light on its skids. Remove and examine the chip detectors of the transmission assembly, freewheel assembly, and tail rotor gearbox. **2.** If any of the chip detectors show signs of metal particles, perform a serviceability check. Components that fail the serviceability check shall be removed. Make an entry on the applicable components Historical Service Record and attach a tag and write, “THIS COMPONENT WAS REMOVED FROM SERVICE BECAUSE OF A COMPRESSOR STALL/SURGE”. Send the component to a Bell Helicopter Textron approved facility for overhaul.		

CONDITIONAL INSPECTIONS

5-31A. ENGINE COMPRESSOR STALL OR SURGE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	3. If no metal particles were found, the transmission assembly, freewheel assembly, and/or tail rotor gearbox are serviceable.		

CONDITIONAL INSPECTIONS

5-32. AFTER LIGHTNING STRIKE

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	DATE: _____W.O. _____ **FACILITY: _____** **HELICOPTER S/N: _____** **REGISTRY NO.: _____** **TOTAL TIME:_____** **SIGNATURE:_____** **AFTER LIGHTNING STRIKE** Because lightning behavior is difficult to predict, do a full inspection of the helicopter. Lightning damage can show as burn marks, heat discoloration, arc marks, or as small weld marks (where the metal has melted and become solid again). Honeycomb and other composite materials may show signs of delamination. **NOTE** In all instances below, if you find damage in any area, extend the inspection in those areas until you find no more damage. If any component shows signs of arc burns, discard it. Use a magnetometer with a range no larger than ±5 gauss. Put the arrow or the red dot (depending on the magnetometer model) within 0.5 in (12.7 mm) of the component you are checking. Point the arrow at the component. If parts of any component have a reading that is greater than 1 gauss, degauss these components. **GENERAL** **1.** When you suspect that the helicopter has received a lightning strike, examine these components for condition. Pay particular attention to the areas around the mounting bolts.		

CONDITIONAL INSPECTIONS

5-32. AFTER LIGHTNING STRIKE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	a. the main rotor hub blades. **b.** the transmission and the mast. **c.** the pylon mount (the corner mounts and the restraints). **d.** the controls. **e.** the power plant and mounts. **f.** the engine to transmission driveshaft and the tail rotor driveshaft. **g.** the tail rotor gearbox and the attachment of its mounting studs to the tailboom structures. **h.** the tail rotor hub and blades. **i.** the external surfaces of the helicopter for signs of arcing. Pay particular attention to the areas that follow: **(1)** between the aft fuselage skin panels and the airframe structure at FS 155.0 and at FS 231.0. **(2)** on the vertical fin and on the attaching bolts. **(3)** on the horizontal stabilizer and finlet attachment supports. **(4)** the tailboom and attachment points. **(5)** the landing gear and the attachment points. **j.** the magnetic compass for accuracy (the degree of the inaccuracy may indicate how dangerous the lightning strike damage is). **k.** the electrical systems. **l.** the avionics equipment.		

CONDITIONAL INSPECTIONS

5-32. AFTER LIGHTNING STRIKE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
Chapter 62	**MAIN ROTOR HUB AND BLADE** When a lightning strike causes damage to the main rotor hub or blades, do the steps that follow: **1.** Main rotor blades. **NOTE** If a blade shows signs of arcing, remove the blade. Put a tag on the blade and write, “THIS BLADE WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the blade to an approved facility for analysis. **a.** Inspect the blades for signs of burns and arcing at the tip cap and at the bushings of the blade bolts. Burn marks can be very small. **b.** Examine the main rotor blade for delamination. **2.** Main rotor hub. **a.** If you see signs of arcing, burning, or delamination, remove the main rotor hub. Put a tag on the main rotor hub and write, “THE MAIN ROTOR HUB WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the main rotor hub to an approved facility for overhaul. If a component shows signs of arcing or delamination, discard it. **b.** If you do not see signs of arcing, the main rotor hub is serviceable. **3.** Main rotor Frahm (if installed, TB 407-03-51). **a.** If you see signs of arcing, burning, or delamination, remove the main rotor Frahm. Put a tag on the main rotor Frahm and write, “THE MAIN ROTOR FRAHM WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the main rotor Frahm to an approved facility for overhaul. If a component shows signs of arcing or delamination, discard it. **b.** If you do not see signs of arcing, the main rotor Frahm is serviceable.		

CONDITIONAL INSPECTIONS

5-32. AFTER LIGHTNING STRIKE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	MAIN ROTOR CONTROLS		
Chapter 67	**1.** Replace all bearings (or replace next higher assembly if applicable) in fixed and rotating control system which is located above the servo actuators.		
Chapter 62	**SWASHPLATE**		
	1. Remove the swashplate assembly. Put a tag on the swashplate assembly and write, “THIS SWASHPLATE ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the swashplate assembly to an approved facility for overhaul. If a part shows signs of arcing, discard it.		
Chapter 63	**TRANSMISSION AND MAST ASSEMBLY**		
	1. Remove the mast assembly. Disassemble it and examine for condition as follows: **a.** Examine all of the components for signs of arc burns. Pay particular attention to the bearing ring raceways. **b.** If you do not see arc burns and if you do not find arc burns on any main rotor or on any main rotor control component, then the mast assembly is serviceable. You do not have to inspect the transmission. **c.** If you see arc burns on the mast assembly, on the main rotor, or on a main rotor component, then remove the transmission and mast assembly. Put a tag on the transmission and mast assembly and write, “THIS TRANSMISSION AND MAST ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the transmission and mast assembly to an approved facility for overhaul.		

CONDITIONAL INSPECTIONS

5-32. AFTER LIGHTNING STRIKE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	d. If the transmission and mast assembly are serviceable, then after 5 to 10 hours of operation, remove and inspect the chip detectors and filter. If an abnormal amount of unwanted material is found, remove the transmission and mast assembly. Put a tag on the transmission and mast assembly and write, “THIS TRANSMISSION AND MAST ASSEMBLY WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the transmission and mast assembly to an approved facility for overhaul.		
Chapter 63	**MAIN DRIVESHAFT ASSEMBLY** **1.** If you find arc burns in the transmission, discard the engine to transmission driveshaft assembly.		
Chapter 63	**FREEWHEEL** **1.** If you did not find arc burns on the transmission assembly or on any component of the tail rotor driveshaft, then the freewheel is serviceable. You do not have to inspect the freewheel. **2.** If you find arc burns on the transmission assembly or on any component of the tail rotor driveshaft, then remove the freewheel. Put a tag on the freewheel and write, “THIS FREEWHEEL WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the freewheel to an approved facility for overhaul. **3.** If the freewheel is serviceable, then after 5 to 10 hours of operation, remove and inspect the chip detector and filter, if applicable. If an abnormal amount of unwanted material is found, remove the freewheel. Put a tag on the freewheel and write, “THIS FREEWHEEL WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the freewheel to an approved facility for overhaul.		
Chapter 65	**TAIL ROTOR DRIVESHAFT** **1.** Disassemble all of the driveshafts.		

CONDITIONAL INSPECTIONS

5-32. AFTER LIGHTNING STRIKE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	2. Examine all of the components of the driveshafts for signs of arc burns. If you find signs of arc burns on any one component, discard all the drive shafts (except for the oil cooler impeller and housing assembly). **3.** Examine the oil cooler impeller for condition. If you see signs of arc burns on it, discard the oil cooler impeller.		
Chapter 65	**TAIL ROTOR GEARBOX** **1.** If you do not see any signs or arc burns on any tail rotor, tail rotor pitch change component, or tail rotor driveshaft component, then you do not have to inspect the tail rotor gearbox assembly. **2.** If you see signs of arc burns on any tail rotor, tail rotor pitch change component, or tail rotor driveshaft component, then remove the tail rotor gearbox. Put a tag on the tail rotor gearbox and write, “THIS TAIL ROTOR GEARBOX WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the tail rotor gearbox to an approved facility for overhaul. **3.** If the tail rotor gearbox is serviceable, then after 5 to 10 hours of operation, remove and inspect the chip detector. If you see signs of unwanted material, then remove the tail rotor gearbox. Put a tag on the tail rotor gearbox and write, “THIS TAIL ROTOR GEARBOX WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the tail rotor gearbox to an approved facility for overhaul.		
Chapter 64	**TAIL ROTOR HUB AND BLADE ASSEMBLY** Whenever a lightning strike causes damage to the tail rotor hub and blades, perform steps that follow: **1.** Tail rotor blades. **NOTE** If a blade shows signs of arcing, remove blade. Put a tag on blade and write, "THIS BLADE WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE." Send blade to an approved facility for analysis.		

CONDITIONAL INSPECTIONS

5-32. AFTER LIGHTNING STRIKE (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH	INITIAL OTHER
	a. Inspect blades for signs of burns and arcing at tip cap and bushings of blade bolts. Burn marks can be very small. **b.** Examine tail rotor blade for delamination. **2.** Tail rotor hub assembly. **a.** If tail rotor hub assembly shows signs of arcing, discard it.		
Chapter 67	**TAIL ROTOR FLIGHT CONTROL** **1.** Examine the pitch link for condition. It you see signs of arcing, discard the pitch link. **2.** Examine the cross head and the control rod of the pitch change mechanism. If you see damage because of a lightning strike, discard the cross head. Put a tag on the pitch change mechanism and write, “THIS PITCH CHANGE MECHANISM WAS REMOVED FROM SERVICE BECAUSE OF A LIGHTNING STRIKE.” Send the pitch change mechanism to an approved facility for overhaul. If a part shows signs of arcing discard it.		
Chapters 96 and 97	**ELECTRICAL AND AVIONICS** Make sure that the electrical systems and the avionics equipment operate correctly and that they show no signs of a lightning strike. If a system does not operate correctly or if you see signs of a lightning strike do the steps that follow: **a.** Do an operational check of the system. **b.** Do a Voltage Standing Wave Ratio (VSWR) check on all of the antennas, the antenna cables, and the connectors.		
Rolls-Royce Operations and Maintenance Manual, Publication CSP21001	**POWER PLANT** Do an engine lightning strike inspection.		

COMPONENT INTERIM INSPECTION SCHEDULE

5-33. COMPONENT INTERIM INSPECTION SCHEDULE

The Component Interim Inspection Schedule (Table 5-4) provides the interim inspection time interval for each applicable helicopter component.

WARNING

DO NOT APPLY TOLERANCES TO PARTS WITH A LIMITED AIRWORTHINESS LIFE (CHAPTER 4).

NOTE

Refer to paragraph 5-6 for information on inspection tolerance.

On the Component Interim Inspection Schedule, examine the components at the applicable time intervals that follow:

- Every 12 months of component operation
- Every 60 months of component operation

Table 5-4. Component Interim Inspection Schedule

NOMENCLATURE	PART NUMBER △1	TIME BETWEEN INTERIM INSPECTION
DRIVE TRAIN		
Mast Pole	407-040-038-101	△2 12 months
Mast Assembly	407-040-011-101	△2 60 months
Transmission	407-040-006-103	△2 60 months
Freewheel	406-040-500-123	△2 60 months
Tail Rotor Gearbox	406-040-400-115	△3 60 months

NOTES:

△1 The time specified between interim inspection for any part number applies to all successive dash numbers for that component, unless otherwise specified.

△2 Refer to Chapter 63.

△3 Refer to Chapter 65.

COMPONENT OVERHAUL SCHEDULE

5-34. COMPONENT OVERHAUL SCHEDULE

The Component Overhaul Schedule (Table 5-5) provides the time interval between overhaul for each applicable helicopter component.

WARNING

DO NOT APPLY TOLERANCES TO PARTS WITH A LIMITED AIRWORTHINESS LIFE (CHAPTER 4).

WARNING

DO NOT EXCEED RETIREMENT LIFE FOR CRITICAL COMPONENTS. REFER TO AIRWORTHINESS LIMITATIONS SCHEDULE (CHAPTER 4).

SOME PARTS INSTALLED AS ORIGINAL EQUIPMENT ON MILITARY HELICOPTERS MAY HAVE A LOWER AIRWORTHINESS LIFE AND/OR OVERHAUL SCHEDULE THAN WHEN USED ON A COMMERCIAL HELICOPTER. CONSEQUENTLY, PARTS THAT HAVE BEEN USED ON MILITARY HELICOPTERS SHOULD NOT BE USED ON COMMERCIAL HELICOPTERS.

CAUTION

OVERHAUL SCHEDULE FOR SOME KIT COMPONENTS AND/OR PARTS IS NOT COVERED IN THIS SCHEDULE. REFER TO APPLICABLE MAINTENANCE MANUAL SUPPLEMENT FOR KIT COMPONENTS SCHEDULE.

NOTE

Refer to paragraph 5-6 for information on overhaul tolerance.

NOTE

Neither assignment of a time period for overhaul of a component or failure to assign a time period for overhaul of a component constitutes a warranty of any kind. The only warranty applicable to helicopter and any component is that warranty included in the Purchase Agreement for the helicopter or component.

The overhaul interval specified for any given part number contained in this Component Overhaul Schedule applies to all successive dash numbers for that item unless otherwise specified.

Table 5-5. Component Overhaul Schedule

NOMENCLATURE	PART NUMBER (1)	OVERHAUL INTERVAL (HOURS)
	MAIN ROTOR HUB	
Hub Assembly	407-010-100-103	2500 hours
	MAIN ROTOR CONTROLS	
Swashplate and Support	406-010-401-115	2500 hours
	DRIVE SYSTEM	
Input Driveshaft	206-340-300-107	(3) 1250 hours
Rotor Brake Disc	206-340-301-101	(5) 3000 hours
Rotor Brake Caliper	206-340-301-103	(5) 1800 hours
Freewheel	406-040-500-123/-127/-131	2500 hours
Freewheel	406-040-500-143/-147	3000 hours
Transmission	407-040-006-103/-107	(2) 2500 hours
Transmission	407-040-006-111	(2) 4500 hours
Mast Assembly	407-040-011-101	2500 hours
Rotor Brake Caliper	407-340-302-101	(6) 1800 hours
Rotor Brake Caliper	407-340-302-101FM	(7) 1800 hours
Rotor Brake Caliper	407-340-302-103	(8) 3000 hours
Input Driveshaft	407-340-310-101	(4) 2500 hours
Rotor Brake Disc	407-340-318-101	(11) (12) 3000 hours
Rotor Brake Caliper	407-540-304-101FM	(9) 3000 hours
	TAIL ROTOR SYSTEM	
Tail Rotor Gearbox	406-040-400-115/-117/-117FM	(10) 2500 hours
Tail Rotor Gearbox	406-040-400-119	5000 hours
Tail Rotor Hub	407-012-101-107	2500 hours

Table 5-5. Component Overhaul Schedule (Cont)

NOMENCLATURE	PART NUMBER △1	OVERHAUL INTERVAL (HOURS)
	POWER PLANT	
Engine	250-C47B	Refer to Rolls-Royce Operations and Maintenance Manual, Publication CSP21001
	ELECTRICAL	
Starter Generator	206-062-200-113	1000 hours

NOTES:

△1 The operating time specified for overhaul of any given part number listed applies to all successive dash numbers for that component, unless otherwise specified.

△2 As identified in TB 407-04-60, a 4500-hour overhaul applies to transmission 407-040-006-107 if modified per TB 407-03-41, and transmission 407-040-006-111 and subsequent.

△3 Input driveshaft 206-340-300-107 must be overhauled every 1250 hours of operation. Overhaul is to be accomplished by Kamatics Corporation only. Return driveshaft to Bell Helicopter Textron (BHT) per Information Letter (IL) GEN-04-98. Refer to Chapter 4 for retirement life.

△4 Input driveshaft 407-340-310-101 must be overhauled every 2500 hours of operation. Overhaul is to be accomplished by Kamatics Corporation only. Return driveshaft to Bell Helicopter Textron (BHT) per Information Letter (IL) GEN-04-98.

△5 As used on S/N 53000 through 53442 Pre 407-II-30, refer to Northwest Dynamics Document No. B0223-OM for overhaul instructions (BHT-407-CR&O-V).

△6 As used on S/N 53443 through 53631 Pre TB 407-05-67, refer to Northwest Dynamics Document No. B0223-OM for overhaul instructions (BHT-407-CR&O-V).

△7 As used on S/N 53000 through 53442 Post 407-II-30, refer to Northwest Dynamics Document No. B0223-OM for overhaul instructions (BHT-407-CR&O-V).

△8 As used on S/N 53632 and subsequent, refer to Northwest Dynamics Document No. B0223-OM4 for overhaul instructions (BHT-407-CR&O-V).

△9 As used on S/N 53000 through 53631 Post TB 407-05-63 and TB 407-05-67, refer to Northwest Dynamics Document No. B0223-OM4 for overhaul instructions (BHT-407-CR&O-V).

△10 As identified in TB 407-04-60, a 5000-hour overhaul applies to tail rotor gearboxes 406-040-400-117/-117FM that have been modified per TB 407-00-21 and TB 407-01-31, Part I or Part II, and gearboxes 406-040-400-119 and subsequent.

△11 As used on S/N 53000 through 53442 Post 407-II-30 and S/N 53443 and subsequent, refer to Northwest Dynamics Document No. B0223-OM4 for overhaul instructions (BHT-407-CR&O-V).

△12 When disc is installed as inertia weight (rotor brake kit not installed), it is not subject to an overhaul.

APPENDIX A

M407 INSPECTION — CHECKLIST

GENERAL

1. Make sure that all of the applicable and the required Scheduled Inspections, Special Inspections, Technical Bulletins, Alert Service Bulletins, and Airworthiness Directives (A.D.) are completed:

2. Make sure that the required inspections and the tests for installed optional equipment are completed:

3. Make sure that the required Special Inspections are completed. Refer to the applicable chapter of this manual or to the Maintenance Manual Supplement:

4. Replace all of the life limited components that have completed their specified operating life (Chapter 4):

5. Remove and overhaul all of the components that have completed their specified operating life. Refer to the Component Overhaul Schedule (Table 5-4) in this chapter:

6. If an instrument shows an Exceedance, conduct the required inspection and make sure that there is a log book entry for this instrument:

APPENDIX B

M407 INSPECTION — DEFECT SHEET

Review the logbook for defects and exceedances. Correct the defects on the installed equipment. Correct and make a record of the defect(s) that you identified during this inspection. For any equipment with a defect: if this equipment is not required under the current operating conditions and is not on the Master Minimum Equipment List (MMEL), you can remove it for repair.

DEFECT:

CORRECTION:

DEFECT:

CORRECTION:

DEFECT:

CORRECTION:

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