

Bell MODEL **206L4T**



MAINTENANCE MANUAL

VOLUME 1

GENERAL INFORMATION

NOTICE

The instructions set forth in this manual; as supplemented or modified by Alert Service Bulletins and other directions issued by Bell Helicopter Textron and Airworthiness Directives issued by the Federal Aviation Administration, shall be strictly followed.

This manual applies to all 206L4 model helicopters that have STC #SR00036SE installed.

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19 JULY 1994
REVISION 7 — 27 OCTOBER 2009

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Flying smart means that no matter where you are, or what time it is, you can make a call and get additional information, clarification, or advice on a technical or operational issue concerning your helicopter or information contained in our Technical Publications. Product Support Engineering (PSE) is just a phone call away and may be contacted as follows:

MODEL 47, 206, OR 407

Phone: 450-437-2862 or 800-243-6407 (U.S./Canada)
Fax: 450-433-0272
E-mail: pselight@bellhelicopter.textron.com

MODEL 222, 230, 427, 429, OR 430

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MODEL 204, 205, 212, OR 412

Phone: 450-437-6201 or 800-363-8028 (U.S./Canada)
Fax: 450-433-0272
E-mail: psemedium@bellhelicopter.textron.com

MODEL 210, 214, HUEY II, SURPLUS MILITARY

Phone: 817-280-3548
Fax: 817-280-2635
E-mail: psemil214@bellhelicopter.textron.com

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H ELP

E VALUATE

L OGISTICS

P UBLICATIONS

Have you found something wrong with this manual — an error, an inconsistency, unclear instructions, etc.? Although we strive for accuracy and clarity, we may make errors on occasion. If we do and you discover it, we would appreciate your telling us about it so that we can change whatever is incorrect or unclear. Please be as specific as possible.

Your complaint or suggestion will be acknowledged and we will tell you what we intend to do.

You may use the enclosed Customer Feedback form, as applicable, to inform us where we have erred.

Your assistance is sincerely appreciated.

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Manual Title: _____

Manual Number (if assigned): _____

Date of Issue: _____

Date of Last Revision: _____

Section, Chapter, Paragraph Affected: _____

Your Feedback: _____

Now Reads: _____

Should Read: _____

Your Name: _____

Address: _____

Position: _____ **Telephone No.:** _____

Company: _____ **Fax No.:** _____

Reference No. (your initials and date): _____

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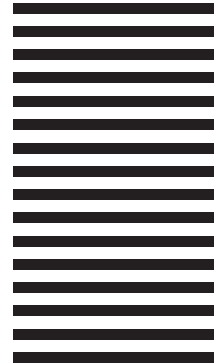
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12,800 rue de l'Avenir
Mirabel Québec, Canada, J7J 1R4



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Please complete this Form and return by Mail or FAX (450-433-0272, Attention: CPDC) to **Bell Helicopter Textron**. This will ensure that the New Owners receive updates to their ***Bell Helicopter Technical Manuals*** and ***Bulletins***.

Model of Helicopter Sold or Purchased _____

Bell Serial Number _____

Registration Number _____

Company or Individual who purchased Helicopter _____

Address _____

City _____

State _____

Zip Code _____

Country _____

FAX No. _____ Telephone No. _____

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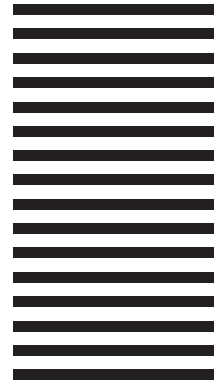
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SPARE PARTS WARRANTY

ONE YEAR/1,000 HOURS PRORATED

WARRANTY AND REMEDY: Seller warrants each new helicopter part or helicopter part reconditioned by seller to be free from defect in material and workmanship under normal use and service and if installed on Bell model helicopters. Seller's sole obligation under this warranty is limited to replacement or repair of parts which are determined to Seller's reasonable satisfaction to have been defective with 1,000 hours of operation or one (1) year after installation, whichever occurs first and reimbursement of reasonable freight charges. After 200 hours of use, there will be a prorated charge to the Purchaser for replacement parts (prorating the hours of total use against the then applicable part life or 2,000 hours, whichever is the lesser). Defective parts must be reported in writing to the Seller's Warranty Administration within 90 days of being found defective. Replacement of parts may be with either new or reconditioned parts, at Seller's election. Warranty adjustment is contingent upon the Purchaser complying with the Warranty Remedies as described in the Commercial Warranty Information brochure and the Seller's Warranty Administration disposition instructions for defective parts. Failure to comply with all of the terms of this paragraph may, at Seller's sole option, void this warranty.

NOTE: Parts, components and assemblies of all new helicopters may have been restored or reworked due to marks, blemishes, dents or other irregularities during the manufacturing process. Such restoration and/or rework is permitted under Seller's approved manufacturing and engineering processes and guidelines. The restoration and/or rework so completed does not render such items defective in material or workmanship.

THIS WARRANTY IS GIVEN AND ACCEPTED IN PLACE OF (i) ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND (ii) ANY OBLIGATION, LIABILITY, RIGHT, CLAIM OR REMEDY IN CONTRACTOR IN TORT (DELICT), INCLUDING PRODUCT LIABILITIES BASED UPON STRICT LIABILITY, NEGLIGENCE, OR IMPLIED WARRANTY IN LAW.

This warranty is the only warranty made by Seller. The Purchaser's sole remedy for a breach of this warranty or any defect in a part is the repair or replacement of helicopter parts and reimbursement of reasonable freight charges as provided herein. Seller excludes liability, whether as a result of a breach of contract or warranty, negligence or strict product liability, for incidental or consequential damages, including without limitation, damage to the helicopter or other property, costs and expenses resulting from required changes or modifications to helicopter components and assemblies, changes in retirement lives and overhaul periods, local customs fees and taxes, and costs or expenses for commercial losses or lost profits due to loss of use or grounding of helicopters or otherwise.

Seller makes no warranty and disclaims all liability in contract or in tort (delict), including, without limitation, negligence and strict tort (delictual) liability, with respect to work performed by third parties at Purchaser's request and with respect to engines, engine accessories, batteries, radios, and avionics, except Seller assigns each manufacturer's warranty to Purchaser to the extent such manufacturer's warranty exists and is assignable.

This warranty shall not apply to any helicopter part which has been repaired or altered outside Seller's factory in any way so as, in Seller's judgment, to affect its stability, safety or reliability, or which has been subject to misuse, negligence or accident, or which has been installed in any aircraft which has been destroyed unless that helicopter has been rebuilt by Bell. A list of destroyed aircraft is obtainable from Bell Product Support. Repairs and alterations which use or incorporate parts and components other than genuine Bell parts or parts approved by Bell for direct acquisition from sources other than Bell itself are not warranted by Bell, and this warranty shall be void to the extent that such repairs and alterations, in Seller's sole judgment, affect the stability, safety or reliability of the helicopter or any part thereof, or damage genuine Bell or Bell-approved parts. No person, corporation or organization, including Bell Customer Service Facilities, is authorized by Seller to assume for it any other liability in connection with the sale of its helicopters and parts.

NO STATEMENT, WHETHER WRITTEN OR ORAL, MADE BY ANY PERSON, CORPORATION OR ORGANIZATION, INCLUDING BELL CUSTOMER SERVICE FACILITIES MAY BE TAKEN AS A WARRANTY NOR WILL IT BIND SELLER.

Seller makes no warranty and disclaims all liability with respect to components or parts damaged by, or worn due to, corrosion. Seller makes no warranty and disclaims all liability for consumables (wear items) which are defined as items required for normal and routine maintenance or replaced at scheduled intervals shorter than the warranty period. "Consumables" include but are not limited to engine and hydraulic oil, oil filters, packings and o-rings, anti-corrosion and/or sealing compounds, brush plating material, nuts, bolts, washers, screws, fluids, compounds, and standard aircraft hardware that is readily available to aircraft operators from sources other than Seller.

All legal actions based upon claims or disputes pertaining to or involving this warranty including, but not limited to, Seller's denial of any claim or portion thereof under this warranty, must be filed in the courts of general jurisdiction of Tarrant County, Texas or in the United States District Court for the Northern District of Texas, Ft. Worth Division located in Ft. Worth, Tarrant County, Texas. In the event that Purchaser files such an action in either of the court systems identified above, and a final judgment in Seller's favor is rendered by such court, then Purchaser shall indemnify Seller for all costs, expenses and attorneys' fees incurred by Seller in defense of such claims. In the event Purchaser files such a legal action in a court other than those specified, and Seller successfully obtains dismissal of that action or transfer thereof to the above described court systems, then Purchaser shall indemnify Seller for all costs, expenses and attorneys' fees incurred by Seller in obtaining such dismissal or transfer.

January 2007

CHAPTER 4 — AIRWORTHINESS LIMITATIONS SCHEDULE**TABLE OF CONTENTS**

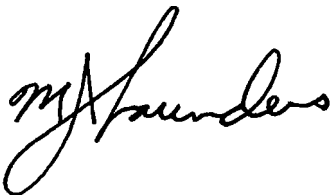
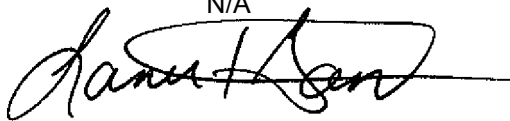
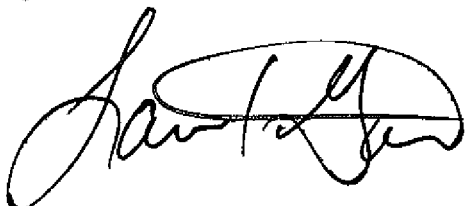
Paragraph Number	Title	Chapter/Section Number	Page Number
AIRWORTHINESS LIMITATIONS SCHEDULE			
4-1	Airworthiness Limitations Schedule.	4-00-00	3

FIGURES

Figure Number	Title	Page Number
4-1	Tailboom Upper Left Attachment Fitting (P/N 206-032-409-001) — Recurring 100-Hour Inspection	9

TABLES

Table Number	Title	Page Number
4-1	Airworthiness Limitations Schedule	4
4-2	Inspection Limitations Schedule	8

REVISION NO.	DATE OF SIGNATURE	APPROVAL SIGNATURE
Original	19 July 1994	
Rev. 1	4 December 1995	N/A
Rev. 2	12 August 1996	N/A
Rev. 3	18 February 1998	N/A
Rev. 4	12 February 1999	
Rev. 5	N/A	N/A
Rev. 6	16 September 2009	
Rev. 7	27 October 2009	

AIRWORTHINESS LIMITATIONS SCHEDULE**4-1. AIRWORTHINESS LIMITATIONS SCHEDULE**

Refer to the engine manufacturer's publications for the airworthiness limitations of the power plant components.

WARNING

ALL REPAIR AND OVERHAUL PROCEDURE LIVES PUBLISHED BY BELL HELICOPTER TEXTRON, INCLUDING COMPONENT RETIREMENT LIFE, ARE BASED SOLELY ON THE USE OF BELL APPROVED PARTS AND PROCESSES. IF PARTS OR PROCESSES DEVELOPED OR APPROVED BY PARTIES OTHER THAN BELL HELICOPTER ARE USED, THEN THE DATA PUBLISHED OR OTHERWISE SUPPLIED BY BELL HELICOPTER ARE NOT APPLICABLE. THE USER IS WARNED TO NOT RELY ON BELL HELICOPTER DATA FOR PARTS AND PROCESSES NOT APPROVED BY BELL HELICOPTER. ALL APPLICABLE INSPECTIONS AND REPAIR METHODS MUST BE OBTAINED FROM THE SUPPLIER OF THE PARTS OR PROCESSES NOT APPROVED BY BELL HELICOPTER. BELL HELICOPTER IS NOT RESPONSIBLE FOR PARTS OR PROCESSES OTHER THAN THOSE WHICH IT HAS ITSELF DEVELOPED OR APPROVED.

The mandatory Airworthiness Limitation Schedule ([Table 4-1](#)) summarizes the mandatory maximum life, in hours, years or by Retirement Index Number (RIN) of components with a limited airworthiness life. Parts that are not on the schedule have an unlimited airworthiness life. The Inspection Limitations Schedule ([Table 4-2](#)) summarizes the mandatory inspection interval in hours.

NOTE

The airworthiness life for any part number contained in this schedule applies to all the successive dash numbers for that component unless otherwise specified.

WARNING

SOME PARTS ARE INSTALLED AS ORIGINAL EQUIPMENT ON BOTH MILITARY AND COMMERCIAL HELICOPTERS AND MAY HAVE A LOWER AIRWORTHINESS LIFE AND/OR OVERHAUL SCHEDULE WHEN USED ON A MILITARY HELICOPTER. IN ADDITION, CIRCUMSTANCES SURROUNDING THEIR USE MAY CALL FOR OPERATION OF THE MILITARY HELICOPTER OUTSIDE OF THE APPROVED COMMERCIAL FLIGHT ENVELOPE. CONSEQUENTLY, PARTS THAT HAVE BEEN USED ON MILITARY HELICOPTERS SHOULD NOT BE USED ON COMMERCIAL HELICOPTERS.

CAUTION

AIRWORTHINESS LIFE OF SOME KIT COMPONENTS IS NOT COVERED IN THIS SCHEDULE. REFER TO APPLICABLE SERVICE INSTRUCTION (SI) OR MAINTENANCE MANUAL SUPPLEMENT (MMS) FOR KIT COMPONENT SCHEDULES.

NOTE

The retirement life given, or the failure to give a retirement life to 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 airworthiness lives given to the components and assemblies are determined by experience, tests, and the judgment of Bell Helicopter engineers. The lives cannot be changed without the approval of the FAA.

Prior to disposing of unsalvageable aircraft parts and materials, caution should be exercised to ensure that the parts and material are disposed of in a manner that does not allow them to be returned for service. Refer

to FAA Advisory Circular 21-38 for guidance on the disposal of unsalvageable aircraft parts and materials.

Table 4-1. Airworthiness Limitations Schedule

COMPONENT	PART NUMBER 	RETIREMENT LIFE (YEARS/HOURS/RIN)
MAIN ROTOR HUB AND BLADES		
Main Rotor Trunnion	206-011-120-103	  24,000 RIN
Pin, Strap Retention	206-011-125-001	1200 hours
Main Rotor Grip	206-011-132-113	4800 hours
Fitting, Strap Retention	206-011-150-105	2400 hours
Tension Torsion Strap	206-011-147-007	 1200 hours/24 months
Tension Torsion Strap	206-011-154-103/-107	 1200 hours/24 months
Latch Bolt	206-011-260-101	 1200 hours
Main Rotor Blade	206-015-001-001/-103/-105	 3600 hours
Main Rotor Blade	206-015-001-107/-109/-111/-113/ 115/-117/-119/-121	 3600 hours
Main Rotor Blade	206-015-001-125/-127/-129/-131	 2300 hours
SWASHPLATE AND SUPPORT		
Tube, Lower Cyclic	206-001-193-001	4800 hours
Support Assembly, Swashplate	206-010-445-113	4800 hours
Link, Collective Idler	206-010-446-105	 1200 hours
Link, Collective Idler	206-010-446-107	4800 hours
Lever, Collective	206-010-447-105	 1200 hours
Lever, Collective	206-010-447-109	4800 hours
Sleeve Assembly, Collective	206-010-454-107	4800 hours
Sleeve Assembly, Collective	206-010-454-109	4800 hours
POWER TRAIN		
Duplex Bearing, Tail Rotor Gearbox	206-040-410-003/-005/-101	3000 hours
Mast, Main Rotor	206-040-535-105	   5000 hours/44,000 RIN
Sun Gear	206-040-662-101	
Driveshaft, Main	206-340-300-101	5000 hours
TAIL ROTOR HUB AND BLADES		
Yoke, Tail Rotor	206-011-819-105/-109	5000 hours
Blade, Tail Rotor	206-016-201-001/-107	 2400 hours

Table 4-1. Airworthiness Limitations Schedule (Cont)

COMPONENT	PART NUMBER 	RETIREMENT LIFE (YEARS/HOURS/RIN)
TAIL ROTOR HUB AND BLADES (CONT)		
Blade, Tail Rotor	206-016-201-113	  2400 hours
Blade, Tail Rotor	206-016-201-127/-131	    2500 hours
Blade, Tail Rotor	400-016-100-109/-113	5000 hours
Yoke, Tail Rotor	406-012-102-107/-113	5000 hours
AIRFRAME		
Horizontal Stabilizer	206-023-119-167	
MISCELLANEOUS KITS		
Crosstube, Landing Gear, High Gear	206-053-109-ALL	
Crosstube, Landing Gear, Standard	206-053-119-ALL	
Reservoir, Pressure Vessel	1271226	 15 years
Reservoir, Emergency Floats	206-073-848-121	 15 years
POWER PLANT		
Turboshaft Engine	250-C20R	Refer to Rolls Royce 250-C20R Series Operation and Maintenance Manual, GTP5232-2
NOTES:  Airworthiness limitation for part number listed applies to all successive dash numbers for that component unless otherwise specified.  RESERVED.  RESERVED.  RESERVED.  RESERVED.  RESERVED.  RESERVED.  RESERVED.  Selected serial numbers of main rotor mast 206-040-535-105 will have been returned to Bell Helicopter for metallurgical evaluation no later than 31 May 1987. Affected masts inspected at BHT and found to be acceptable have the suffix "U" added to the serial number. Refer to BHT ASB 206L-87-44, dated 23 April 1987 for list of serial numbers affected.		

Table 4-1. Airworthiness Limitations Schedule (Cont)

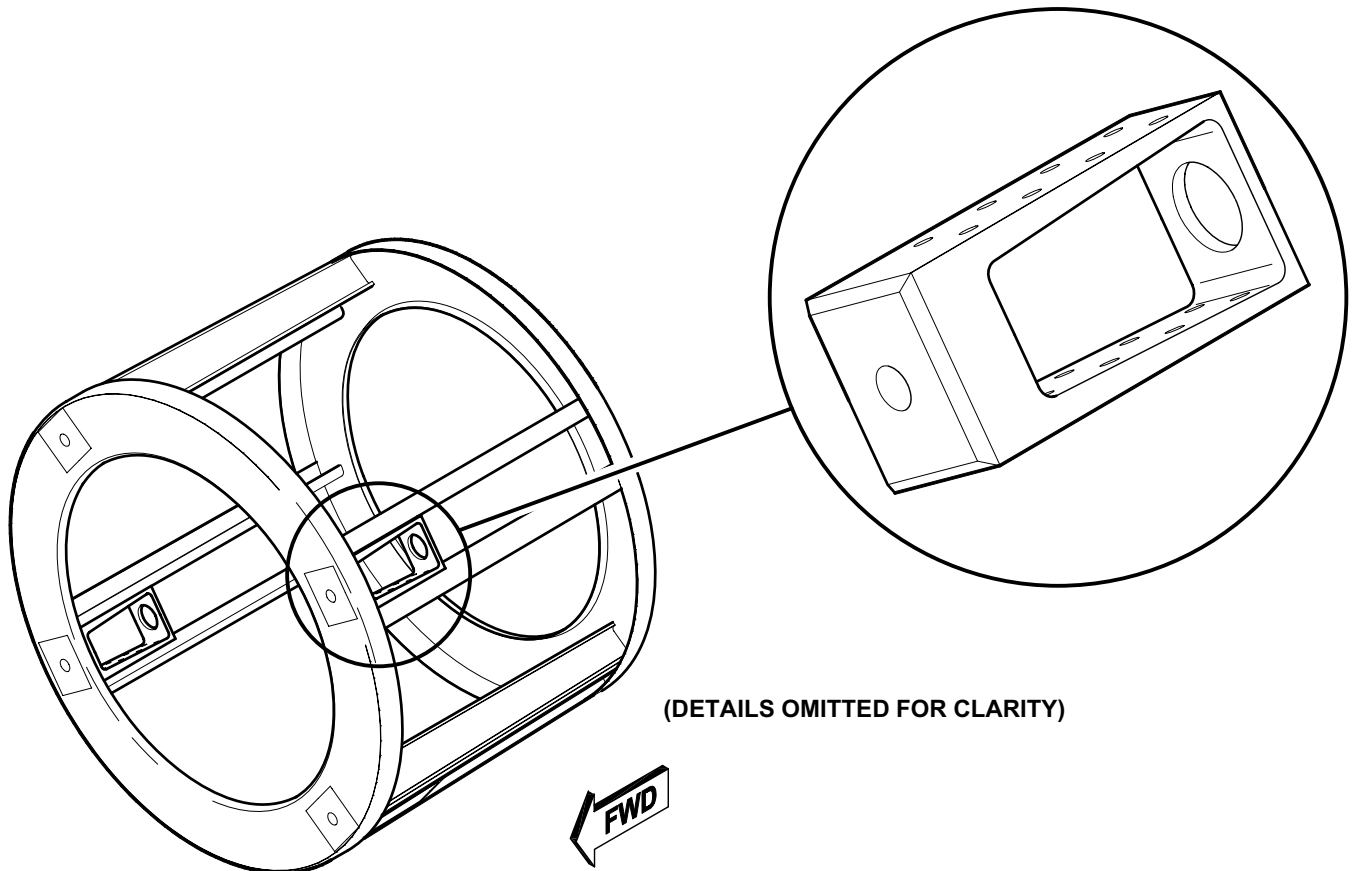
COMPONENT	PART NUMBER 	RETIREMENT LIFE (YEARS/HOURS/RIN)
NOTES: (CONT)		
	RESERVED.	
	Main rotor hub tension torsion straps 206-011-147 and 206-011-154 have airworthiness lives of 1200 hours or 24 months, whichever occurs first. The calendar life of 24 months starts when new straps are installed in a main rotor hub and blade assembly and are subjected to rotation on the aircraft. Refer to BHT ASB 206L-80-12, dated 2 June 1980.	
	RESERVED.	
	RESERVED.	
	Selected serial numbers of sungear 206-040-662-101 must be removed from service. Refer to BHT ASB 206L-90-69 Revision A, dated 15 January 1991 for list of serial numbers affected.	
	Selected serial numbers of tail rotor blades 206-016-201-113/-127 must be removed from service. Refer to BHT ASB 206L-90-70, dated 27 June 1990 for list of serial numbers affected.	
	Selected serial numbers of tail rotor blade 206-016-201-127 will have been returned to Bell Helicopter for evaluation no later than 30 September 1990. Affected blades inspected at BHT and found to be acceptable have the suffix "M" added to the serial number. Refer to BHT ASB 206L-90-71 Revision A, dated 31 October 1990 for list of serial numbers affected.	
	Selected serial numbers of main rotor latch bolt 206-011-260-101 must be removed from service. Refer to BHT ASB 206L-92-86, dated 3 December 1992 for list of serial numbers affected.	
	Landing gear crosstubes 206-053-109-ALL and 206-053-119-ALL (all dash numbers) will have been removed from service no later than 30 September 1994. Refer to BHT ASB 206L-94-93, dated 11 April 1994.	
	RESERVED.	
	RESERVED.	
	Each component with a retirement life sensitive to torque events will be assigned a maximum Retirement Index Number (RIN). This RIN corresponds to maximum allowed fatigue damage resulting from lifts and takeoffs. A TORQUE EVENT is defined as a takeoff (one takeoff plus subsequent landing = one RIN) or a lift (internal or external). For example, if an operator performs six (6) takeoffs and ten (10) slingloads, this would total 16 torque events; (6 takeoffs = 6 events, 10 slingloads = 10 events, 6 + 10 = 16 torque events total). Pilots are to record total number of torque events for each flight. This allows maintenance personnel to convert torque events to RIN by applying the appropriate RIN Adjustment Factor. Refer to BHT ASB 206L-94-99, Revision B, dated 10 August 2001. A new component will begin with an accumulated RIN of zero, that will be increased as lifts and takeoffs are performed. Operator will record number of lifts and takeoffs (torque events), and increase accumulated RIN accordingly. When maximum RIN is reached or retirement flight hours, whichever occurs first, component will be removed from service.	

Table 4-1. Airworthiness Limitations Schedule (Cont)

COMPONENT	PART NUMBER 	RETIREMENT LIFE (YEARS/HOURS/RIN)
NOTES: (CONT)		
	The retirement life of trunnion 206-011-120-103 is based solely on RIN. Retire trunnion when RIN = 24,000. For each takeoff/lift, add one (1) RIN if the trunnion is installed on 206L, 206L-1 or 206L-3 (includes 206L-3 with Increase Power Operation kit installed per Service Instruction 206-2039) and two (2) RIN if the trunnion is installed on a 206L-4. Refer to BHT ASB 206L-94-99 Revision B, dated 10 August 2001.	
	Retire mast 206-040-535-001/-005/-101/-105 when RIN = 44,000. For each takeoff/lift, add one (1) RIN if the mast is installed on 206L, 206L-1 or 206L-3 (includes 206L-3 with Increase Power Operation kit installed per Service Instruction 206-2039) and two (2) RIN if the mast is installed on a 206L-4. Refer to BHT ASB 206L-94-99 Revision B, dated 10 August 2001.	
	Collective idler link 206-010-446-105, serial numbers A-1 through A-27, inclusively, and serial numbers RE-238 through and including RE-270 will be retired from service at 1200 hours service time. Refer to BHT ASB 206-98-110, dated 6 May 1998.	
	Collective lever 206-010-447-105, serial numbers A-1 through A-22, inclusively, will be retired from service at 1200 hours service time. Refer to BHT ASB 206L-98-110, dated 6 May 1998.	
	RESERVED.	
	RESERVED.	
	Reservoir per DOT-3HT specification and Exemption Letter DOT-E-7218. This reservoir is a detail part of reservoir assembly P/N 206-073-848-121. Life starts from date of manufacture.	
	This reservoir assembly includes reservoir P/N 1271226.	
	Tail rotor blade 206-016-201-127 and subsequent, retirement life increased to 2500 hours. Refer to BHT TB 206L-89-147, dated 2 June 1989.	
	Main rotor blade 206-015-001-ALL. It is permissible to use any main rotor blade (mix and match) on helicopter model 206L, 206L-1, 206L-3, 206L-4, provided that all conditions are met. Refer to BHT TB 206L-87-142, dated 1 October 1987, and information letter IL 206L-00-68 Revision A or subsequent.	
	Tail rotor blade 206-016-201-ALL. It is permissible to use any tail rotor blade on helicopter model 206L, 206L-1, 206L-3, 206L-4 provided that all conditions are met. Refer to BHT TB 206L-94-172.	
	RESERVED.	
	RESERVED.	
	RESERVED.	
	Affected horizontal stabilizer 206-023-119-167 must be removed from service no later than 30 September 2008. Refer to ASB 206L-06-141 for list of horizontal stabilizer serial numbers affected. Applicable horizontal stabilizers must be inspected every 600 hours or annually until replaced. Refer to ASB 206L-06-141 for inspection details.	

Table 4-2. Inspection Limitations Schedule

COMPONENT	PART NUMBER ①	INSPECTION INTERVAL (HOURS OPERATING TIME)
Tailboom Upper Left Attachment Fitting	206-032-409-001	② 100 hours
NOTES: ① Inspection limitation for the part number listed applies to all successive dash numbers for that component, unless otherwise specified. ② You must do an inspection of the tailboom upper left attachment fitting P/N 206-032-409-001 every 100 flight hours. Refer to BHT ASB 206L-09-158 for a listing of affected tailbooms. Refer to Figure 4-1 for inspection details.		

**INSPECTION PROCEDURE:**

1. Inspect upper left attachment fitting for cracks, mechanical damage, corrosion damage, loose rivets, and general condition.
2. Refer to ASB 206L-09-158 for wear, damage, and repair limits.
3. Repair fitting in accordance with ASB 206L-09-158.
4. Replace cracked or damaged fitting or loose rivets in accordance with ASB 206L-09-158.
5. If a crack is found, contact Product Support Engineering with details as follows:

Bell Helicopter Textron
Product Support Engineering
Light Helicopters group
Tel: 1-800-243-6407 (Continental USA and Canada)
1-800-363-8023 (Continental USA)
1-800-361-9305 (Within Canada)
1-450-437-2862 (All other areas - Call collect)
Fax: 450-433-0272
Email: pselight@bellhelicopter.textron.com

Figure 4-1. Tailboom Upper Left Attachment Fitting (P/N 206-032-409-001)
— Recurring 100-Hour Inspection

206LS MM 04 0001

CHAPTER 5 – INSPECTIONS AND COMPONENT OVERHAUL SCHEDULE

CONTENTS – MAINTENANCE PROCEDURES

Paragraph Number	Title	Chapter/Section Number	Page Number
5-1	Scope	5-00-00	3
5-2	Definitions	5-00-00	3
5-3	Policy	5-00-00	3
5-4	Time limits	5-00-00	5
5-5	Intervals	5-00-00	5
5-6	Component operating time records	5-00-00	5
5-7	Maintenance requirements	5-00-00	5
5-8	Airworthiness limitations	5-00-00	5
5-9	Servicing/lubrication	5-00-00	5

SCHEDULED INSPECTIONS

5-10	Scheduled inspections	5-00-00	7
5-11	100 hours and annual	5-00-00	9
5-12	300 hour inspection	5-00-00	19
5-13	1200 hour inspection	5-00-00	21

SPECIAL INSPECTIONS

5-14	Special inspections	5-00-00	23
5-15	After fuel system maintenance and/or component change	5-00-00	25
5-16	3-8 hours after each installation	5-00-00	27
5-17	10 hours after each installation	5-00-00	29
5-17A	10 to 25 hours after each installation	5-00-00	30A
5-18	25 hours after each installation	5-00-00	31
5-19	100 hours after each installation	5-00-00	33
5-20	600 hours of component operation	5-00-00	35
5-21	1200 hours of component operation	5-00-00	37
5-22	1500 hours of component operation	5-00-00	39
5-23	3000 hours of component operation	5-00-00	41
5-24	12 months of component operation	5-00-00	43
5-25	24 months of component operation	5-00-00	45
5-26	Operation in a corrosive atmosphere	5-00-00	49
5-27	After storage	5-00-00	51

CONTENTS – MAINTENANCE PROCEDURES (Cont)

Paragraph Number	Title	Chapter/Section Number	Page Number
-----------------------------	--------------	-----------------------------------	------------------------

CONDITIONAL INSPECTIONS

5-28	Conditional inspections	5-00-00	57
5-29	After magnetic compass malfunction	5-00-00	59
5-30	After hard landing	5-00-00	61
5-31	After sudden stoppage – power on or off ..	5-00-00	67
5-32	After main rotor overspeed – 114 percent or greater	5-00-00	73
5-33	After overtorque	5-00-00	75
5-34	After lightning strike	5-00-00	79
5-35	Electrical tests and checks	5-00-00	83
5-36	Component overhaul schedule	5-00-00	95

FIGURES

Figure Number	Title	Page Number
--------------------------	--------------	------------------------

5-1	Flight control system bolts	47
-----	-----------------------------------	----

TABLES

Table Number	Title	Page Number
-------------------------	--------------	------------------------

5-1	Component overhaul schedule	95
-----	-----------------------------------	----

INSPECTIONS AND COMPONENT OVERHAUL SCHEDULE

5-1. SCOPE.

This chapter contains the time limit intervals and requirements for scheduled and unscheduled maintenance checks. Also, this chapter contains the component overhaul schedule. Intervals are the maximum allowable and should not be exceeded. It is an operator responsibility to add to the requirements and/or shorten the intervals of these checks should unusual conditions or extreme operations requirements warrant. Relief from the requirements in this chapter can be requested through the local aviation authority.

Time limits and maintenance check data for kits will be found in the applicable Service Instruction (S.I.), supplied with each kit.

5-2. DEFINITIONS.

NOTE

The words CHECK and INSPECT are used synonymously in this chapter. It is not intended that a different meaning be applied when one or the other is used.

1. **Inspect** – Determine condition relative to an established standard.
2. **Condition** – The state of being of an item as related to serviceable or unserviceable standards.
3. **Standard** – An established rule or measure to determine condition.
4. **Damage** – Physical deterioration whereby the standard renders the condition of an item acceptable or not acceptable for continued use.
5. **Preventive Maintenance** – Simple or minor preservation and the replacement of small standard parts not involving complex assembly operations.
6. **Maintenance** – Inspection, overhaul, repair, preservation, and the replacement of parts, but excludes Preventive Maintenance.

NOTE

Several examples of Maintenance and Preventive Maintenance actions may be found in Federal Air Regulation (FAR), Chapter 1, Part 43, Appendix A.

7. **Operating Time** – Time required to be recorded in official records or logs for helicopter operations which includes, but is not limited to the following:

- a. **Airframe time** – Operating hours and calendar time since new, or overhaul, as applicable for components with a designated time limit for inspection, overhaul, or retirement.
- b. **Component time** – Operating hours and/or calendar time since new, or overhaul, as applicable, for components with a designated time limit for inspection, overhaul, or retirement.

8. **Planned Event** – Occurrence of interval in which a specific action is to be taken as in the case of preventive maintenance, scheduled overhaul or replacement in accordance with maximum airworthiness life guidelines.

5-3. POLICY.

1. **Maintenance.** Only persons authorized by applicable FARs, or other Government regulatory authorities for operators not bound by the United States Federal Aviation Authority (FAA), may perform maintenance on the helicopter and its components. The FARs specifically exclude holders with only pilot certificate operating under the FAA guidelines, from performing maintenance and required inspections as described herein.

2. Preventive Maintenance.

- a. Persons authorized to perform maintenance may also perform preventive maintenance.
- b. A holder of a pilot certificate issued under the FAR Part 61, may perform preventive maintenance on this helicopter if it is owned or operated by that person and is not used under parts 121, 127, 129, or 135 of this federal regulation.

3. Release for Flight.

NOTE

When corrective or preventive maintenance is performed to restore helicopter to serviceable condition, helicopter may only be released for flight by those persons authorized in step 1.

4. Maintenance Requirements. Scheduled inspections, special inspections, conditional inspections, lubrication, and airworthiness limitations/life limits.

a. Scheduled inspections are recurring actions at designated operating hours or calendar intervals designed to ensure continuing airworthiness of the helicopter. Example: 100 hours and annual inspection or progressive inspection.

b. Special inspections are recurring actions of a temporary nature or of a special interval not consistent with scheduled major inspection. Example: 1200 hours of component operation.

c. Conditional inspections are nonrecurring actions following certain events that cause the helicopter to exceed a particular limit or limits. Example: sudden stoppage main rotor.

d. Crash damage: In view of the many possible combinations resulting from crash damage, it is not possible to include specific repair schemes in this category. Crash damage must be evaluated with the degree of damage to the specific part and the appropriate repair instructions in this manual. It is recommended that Bell Helicopter Textron Product Support Engineering be contacted for assistance with each crash damage evaluation.

5. Methods for Inspections. Inspections shall be accomplished visually, by feel, using a magnifying glass, dye penetrant, precision gages, rulers, and a variety of other methods. If a specific method is not stated, inspections shall be accomplished using the thorough visual search method.

6. Operator Maintenance Requirements.

a. Part 91 operator requirements include annual inspection or progressive inspection, airworthiness life limitations, alert service bulletins, and airworthiness directives. The annual inspection for the not for hire Part 91 operator will include all scheduled checks and inspections, special inspections, lubrication requirements, overhaul of applicable time expired components, and replacement of applicable life expired items as scheduled.

b. Part 91 operator requirements (operating a personally owned helicopter to give flight instruction) includes 100 hours and annual (or progressive inspection) and Alert Service Bulletins and airworthiness directives. Scheduled maintenance for the for hire Part 91 operator will include a 100-hour inspection each 100 flying hours, applicable special inspection items at appropriate intervals, lubrication requirements, overhaul of applicable time expired components, and replacement of applicable life expired items.

c. Part 135 commercial operator or air taxi (9 passengers or less): will include 100 hours and annual inspection, airworthiness limitations – life limitations, alert service bulletins, and airworthiness directives. Scheduled maintenance for the Part 135 commercial/air taxi operator should consist of the following:

- 100 hours and annual
- or progressive inspection
- or approved aircraft inspection program
- and special inspections at individually specified intervals
- lubrication requirements at specified intervals
- overhaul of time expired components
- replacement of life expired items
- alert service bulletins
- airworthiness directives

NOTE

Routine servicing and lubrication requirements are not part of the inspection program but are identified in the checklist along with other items as a means of facilitating the total helicopter maintenance program of the operator.

5-4. TIME LIMITS.**5-5. INTERVALS.**

1. Intervals for inspections include the following:
 - a. Before a planned event occurs.
 - b. After a scheduled or unscheduled event occurs.
 - c. Airframe operating hours.
 - d. Airframe calendar time since manufacture or last installation.
 - e. Component operating time since new and/or overhauled.
 - f. Component calendar time since installation (for designated components).

5-6. COMPONENT OPERATING TIME RECORDS.**NOTE**

Component operating time records are required for components that have scheduled maintenance actions that differ from the airframe. It is an operator responsibility to maintain component records and perform the required maintenance.

5-7. MAINTENANCE REQUIREMENTS.

Helicopter maintenance requirements are as follows:

Maintenance Requirements

Scheduled Inspections

Special Inspections

Conditional Inspections

5-8. AIRWORTHINESS LIMITATIONS.

Airworthiness limitations are as follows:

Component Overhaul Schedule

Airworthiness Limitations Schedule (Chapter 4)

5-9. SERVICING/LUBRICATION.

Servicing Requirements

Lubrication Requirements

SCHEDULED INSPECTIONS

5-10. SCHEDULED INSPECTIONS.

Inspect helicopter each 100 hours, 300 hours, 1200 hours, and one calendar year of operation to ensure airworthiness (paragraphs 5-11 through 5-13).

MATERIALS REQUIRED

NUMBER	NOMENCLATURE
C-100	Chemical Film Material
C-101	Corrosion Preventive Compound
C-204	Epoxy Polyamide Primer
C-231	Acrylic Lacquer, Orange-Yellow

MATERIALS REQUIRED (CONT)

NUMBER	NOMENCLATURE
C-308	Sealing Compound
C-407	Abrasive Pad
C-414	Lockwire
C-423	Abrasive Cloth or Paper
C-452	Antiseize Compound
C-460	Teflon Tape

NOTE

For information on consumable materials, refer to BHT-ALL-SPM manual.

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 1, Chapter 4 Paragraph 5-34 Volume 2, Chapter 12	NOTE This inspection must be accomplished each 100 hours of flight time and each 12 calendar months. <u>General.</u> – Logbook. Review for recorded discrepancies. Correct discrepancies on installed equipment. Equipment not required under all operating conditions may be removed for repair. – Special Inspections, Alert Service Bulletins, and Airworthiness Directives. Ensure all applicable and required Special Inspections, Alert Service Bulletins, and Airworthiness Directives (A.D.) are accomplished. – Inspections and Tests for Installed Kits. Comply with inspections and tests required for installed kit(s). Comply with special inspection as required. (Refer to the applicable volume of this manual or to the service instruction.) – Limited Life Components. Replace all limited life components that have completed published operating limits. – Component Overhaul Requirements. Overhaul all components that have completed overhaul published periods. (Refer to Component Overhaul Schedule.) – First Aid Kits. Inspect first aid kits. Replace out-of-date items. – Servicing and Lubrication.	

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
CSSD-PSE-87-001	Service and lubricate helicopter. At transmission oil filter change and combining gearbox oil filter change inspect respective filter for metal particles. – Corrosion.	
GTP5232-2	Perform corrosion inspection in accordance with Corrosion Control Guide. – Engine.	
Applicable Chapter	Perform applicable engine inspection (Allison 250-C20R Series Operation and Maintenance Manual). – Magnetic Compass. Inspect and calibrate magnetic compass. (Annual) <u>Forward fuselage/landing gear area.</u> – Inspect. 1. Inspect seat cushions, seat backs and interior trim for tears, excessive deterioration, and security of attachment. 2. Inspect safety belts and shoulder harnesses for operation, deterioration, and security of attachment. 3. Inspect all cabin doors for corrosion damage, distortion, positive locking mechanisms, seals for tears or separations, and doors for security of attachment. 4. Inspect fire extinguisher for damage, corrosion, proper charge, and security of quick opening clamp. 5. Inspect placards, decals, and instrument markings for appearance, legibility, and conformity to configuration. 6. Inspect forward fuselage exterior, doors, windows, and rain gutters for damage and cracks. Inspect landing gear for damage and security. Inspect lower fuselage for evidence of fuel leaks.	

5-11. 100 HOURS AND ANNUAL. (CONT)

5-00-00
Page 11

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O Volume 8, Chapter 67	2. Inspect hydraulic lines for chafing, leaks, and security. 3. Check hydraulic system filter bypass indicator button. It should not be extended. 4. Inspect cyclic and collective actuator valve linkage pivot bolts for freedom of rotation and security of attachment. Inspect actuators and flexible lines for leakage and condition. 5. Check engine controls for freedom of travel throughout range. Check for excessive looseness or lost motion in linkage. 6. Inspect control linkage to swashplate for wear, damage, and security. 7. Inspect swashplate as follows: a. Disconnect main rotor pitch links and idler (drive) link from outer ring and boot from outer cap. Inspect main rotor pitch links with a 3-power magnifying glass for damage, corrosion, and cracks (pay particular attention to swaged ends at jamnut or insert faying surface), and evidence of wear in pitch horn trunnion bearings. b. Inspect swashplate sleeve pivot bearing slot side walls and bearing assembly for wear. c. Rotate outer ring checking duplex bearing for condition. Bearings must be smooth with no evidence of roughness, binding, dragging, or looseness. d. Inspect boot for evidence of deterioration. e. Clean swashplate and purge lubricate duplex bearing. f. Connect and secure boot, idler (drive) link, and pitch links. g. Inspect swashplate and collar set linkage for axial, radial, and accumulative wear. Inspect bushings for cracks and damage. 8. Inspect main transmission links and bearings for damage and deterioration. Inspect nodal beam stops for evidence of excessive contact with arms, and elastomers for deterioration. 9. Inspect nodal beam flexures for obvious damage and security.	

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 8, Chapter 67	10. Inspect transmission mounts for obvious damage, bushings for wear and for security of attachment. Inspect pylon support assembly to ensure that all bolts are installed in the correct location. Check torque on head of bolts only (bolt must not rotate). If a bolt is loose, remove nut. Install new nut and torque 75 to 90 inch-pounds (8.47 to 10.17 newton-meters). 11. Inspect elastomeric components for evidence of deterioration. Inspect restraint spherical bearings for excessive axial and radial wear, obvious damage, and security. 12. Inspect transmission and combining gearbox for evidence of oil leakage and oil for contamination. Inspect filter bypass indicator for condition. Filter bypass should not be extended. 13. Remove and inspect rotor transmission and combining gearbox chip detectors for metal particles. If particles are found, investigate to determine cause and correct. Clean chip detectors and install with new packing. 14. Inspect transmission, combining gearbox, accessories, and fluid lines for damage, chafing, security of attachment, and fluid leaks. 15. Inspect fuel filters for leaks and security of attachment. 16. Inspect firewalls for cracks, distortion, and missing rivets. 17. Inspect engine mounts, legs and fittings for damage and security of attachment. Inspect around airframe mounting points for damage. 18. Ensure engine pan drains are free from obstruction. 19. Inspect the accessories and wiring of each engine for damage and security of attachment. 20. Inspect each engine's fuel and oil flex and rigid lines for wear, chafing, damage, and security of attachment. 21. Inspect the particle separator inlet swirl vane assemblies for damage, security and cleanliness. 22. Visually inspect main driveshaft for condition and security of attachment. 23. Inspect power plant area for evidence of fuel or oil leaks, tubing for evidence of chafing in clamps and brackets.	

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	24. Inspect engines for loose bolts, hose connections, security of accessories, and damage. 25. Inspect forward short tail rotor driveshaft and disc for obvious damage. Inspect adapter and shaft splines for condition. 26. Inspect engine exhaust stacks for cracks and security. 27. Inspect fairing and cowl for proper condition and attachment. 28. Inspect main rotor hub and blade assembly as follows:. a. Visually inspect fillet radii of both yoke spindles inboard of wear sleeves for evidence of corrosion. If corrosion is evident, remove with fine abrasive pad (C-407). If corrosion cannot be removed with pads, or is extensive, disassemble hub and inspect and repair. NOTE If hub must be disassembled, omit remaining steps and refer to BHT-206L-CR&O manual.	
BHT-206L-CR&O	b. Visually inspect yoke center section (inboard and outboard surfaces) from pillow block bores and tooling holes to lower web section for nicks, scratches, tool marks, and cracks. NOTE All repaired areas must be touched up (BHT-206L-CR&O). c. On acceptable main rotor hubs, inspect to ensure no sealant voids are evident around shields. Recoat with bead of sealing compound (C-308) as required. Coat the remaining exposed fillet radii and repaired surfaces with a film of corrosion preventive compound (C-101). d. Inspect main rotor blades for obvious damage, and overall condition. e. Inspect main rotor pitch horn trunnion bearing for evidence of damage, wear and security of attachment.	

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 5, Chapter 30 Volume 5, Chapter 53	f. Use a 3-power magnifying glass and inspect main rotor pitch link tubes for corrosion and cracks on outer surfaces and swaged ends. g. Check torque of pillow block retention bolts/nuts. Torque should be 85 to 105 inch pounds (9.60 to 11.86 N.m) plus tare. Retouch corrosion preventative compound and anti-slippage mark as required after torque check. 29. Inspect engine oil coolers, combining gearbox/transmission oil cooler and cooling fans for obstruction, cleanliness, damage and oil leaks. 30. Inspect engine oil tanks for evidence of oil leaks, security and oil contamination. 31. Inspect scavenge oil filter bypass indicators for condition. Filter bypass indicators should not be extended. 32. Remove and inspect igniter plugs from both engines. <u>Aft fuselage/tailboom area.</u> – Inspect. 1. Remove aft cowlings and inspect intermediate shaft hanger bearings for grease leakage and signs of overheating. 2. Remove tail rotor driveshaft and tail rotor gearbox fairings and inspect tailboom, for cracks, dents, deformation, working rivets, and other obvious damage. a. Visually inspect entire tailboom. b. Replace any loose or working rivets found. c. Replace removed or damaged antichafing tape as required. d. Inspect doubler and clip edge sealant for integrity. e. In the event cracks are found, contact Bell Helicopter Textron, Product Support Engineering. 3. Inspect horizontal stabilizer skin area for cracks. If cracks are found, stabilizer must be removed and replaced. 4. Inspect horizontal stabilizer finlet for obvious damage. 5. Inspect elevators for security and damage.	

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 7, Chapter 65	6. Inspect tail rotor driveshaft cover for obvious damage and security of attachment. 7. Inspect segmented, aft short tail rotor driveshaft and disc assembly for damage. Inspect adapters, intermediate shaft and tail rotor gearbox input splines for condition. 8. Inspect tail rotor driveshaft hanger bearings for grease leakage and evidence of overheating. 9. Inspect tail rotor gearbox for evidence of oil leaks and oil for contamination. Inspect fairings for damage and security of attachment. 10. Remove and inspect tail rotor gearbox chip detector for metal particles. If metal particles are found, investigate to determine cause and correct. Clean chip detector and install with new packing. 11. Torque check tail rotor gearbox retaining nuts 50 to 70 inch-pounds (5.65 to 7.91 newton-meters). 12. Inspect tail rotor controls for damage and security of attachment. 13. Visually inspect all tailboom attachment fittings as follows: a. Open access door on right side of aft fuselage and inspect tailboom forward bulkhead for cracks. Give special attention to tailboom attach fittings and bolts, and to fasteners between fittings and intercostals. Particular attention must be given to inspection of upper left fitting. b. Any crack, corrosion, loose, or sheared rivet is cause for immediate corrective maintenance. 14. Inspect tailboom vertical fin for obvious damage. Inspect tail skid for condition and security. 15. Remove cover and inspect tail rotor driveshaft bearings for grease leakage and evidence of overheating. 16. Remove fairing and inspect tail rotor pitch control mechanism and gearbox for damage, excessive bearing wear, and security. Inspect boot for deterioration and security.	

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 7, Chapter 64	17. Inspect tail rotor pitch change link spherical bearings for excessive wear. <u>Tail rotor hub and blades assembly.</u> – Perform serviceability check. 1. Inspect tail rotor hub and blade assembly for damage, cracks, and wear. 2. Check each tail rotor blade for serviceability as follows: a. Tip block rivets for corrosion and damage. b. Blade for nicks, dents, and scratches. c. Condition of seal between mating surfaces. d. Suspected voids. 3. Refer to Volume 7, Chapter 64 for detailed inspection and repair of any above conditions. 4. Clean tail rotor blades to maintain improved visibility.	
Volume 10, Chapter 95-10	<u>-Quad Digital Indicator and Dual Analog Modules</u> 1. Review exceedance data on Quad Digital Indicator. Log all exceedance and clear as required.	
Volume 10, Chapter 96	<u>Electrical.</u> – Electrical Inspection. 1. Press each fuel filter assembly and verify each FUEL FILTER caution light by pressing test buttons. 2. Check fuel quantity indicators for proper operation. 3. Check each engine's anti-ice system for electrical operation. 4. Check fuel low caution system for proper operation. 5. Check chip detectors for electrical operation. Short probe of chip detector(s) to helicopter structure. Caution light should illuminate. 6. Perform dc power check.	

SCHEDULED INSPECTIONS

5-11. 100 HOURS AND ANNUAL. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L4T-FM-1 Volume 10, Chapter 96	<u>Power on.</u>	
Paragraph 5-35	– Perform power on check. – Perform following electrical system check. 1. Preparation for checks and tests 2 through 6. 2. Perform emergency bus power check. 3. Perform main bus power check. 4. Perform utility bus power check. 5. Perform power diode check. 6. Perform start interlock circuit test. 7. Preparation for checks and tests 8 and 9. 8. Perform ground fault protection circuit check. 9. Perform generator overcurrent test.	
BHT-206L4T-FM-1	1. Upon completion of inspection, carry out a ground run and determine compliance with manufacturer recommendations for the following: a. Idle and governor trim range(s). b. Fuel and oil pressures. c. Electrical power generation. d. Hydraulic system pressure. 2. Check generator control unit output.	
Volume 10, Chapter 96		
BHT-206L4T-FM	3. Ensure the power plants and transmission operational rpm are in accordance with appropriate flight manual.	

SCHEDULED INSPECTIONS**5-11A. ANNUAL ONLY.**

DATA REFERENCE	INSPECTION TASK PROCEDURE	MECH INITIAL
Chapter 76	Perform accumulator staging valve maintenance check (paragraph 76-23).	

SCHEDULED INSPECTIONS

5-12. 300 HOUR INSPECTION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Applicable Chapters Volume 2, Chapter 12 Volume 7, Chapter 63 Volume 10, Chapter 95 Volume 8, Chapter 67 GTP5232-2 Volume 4, Chapter 28 Volume 4, Chapter 28 BHT-206L4T-FM-1 BHT-206L4T-FM-1 Volume 4, Chapter 29	NOTE This inspection must be accomplished each 300 flight hours. <u>General.</u> – Inspect 1. Perform 100 hour scheduled inspection. 2. Inspect and lubricate three tail rotor driveshaft sliding adapter splines. 3. Perform operational check of turbine outlet temperature system. 4. Check swashplate tilt friction. Value must be between 15 to 32 pounds (67 to 142 newtons), if below 15 pounds (67 newtons), adjust to 15 to 32 pounds (67 to 142 newtons) and check again. 5. Inspect engines (Allison 250-C20R Series Operation and Maintenance Manual). 6. Replace both airframe filter elements, P/N 1743645-01 (including P/N 034921-1 o-ring and P/N 1743629-01 seal). a. Remove outlet port fitting from filter head. Using lockwire (C-414), pass wire through bleed hole in outlet port side of filter head to assure bleed hole is not obstructed. b. Purge airframe and both engine fuel systems of air. With boost pumps ON, motor engine for 15 seconds or until no air is emitting from fuel nozzle supply hose. Repeat for other engine. c. Ground run helicopter at 100 percent N₂ for minimum of two minutes to make sure remaining air is purged from fuel filter head assemblies. 7. Inspect and lubricate hydraulic pump splines, transmission tach generator spline and engine N₁ and N₂ tach generator drive of each engine.	

SCHEDULED INSPECTIONS**5-12. 300 HOUR INSPECTION. (CONT)**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 10, Chapter 96	8. Remove both starter-generators and inspect brushes and commutators for wear. Replace a starter-generator if commutator is not smooth and bright with light filming. Replace brushes if worn beyond limits. Install serviceable starter-generator.	
Volume 7, Chapter 64	9. Inspect latches on crew doors and passenger doors for wear and proper adjustment. 10. Check dynamic balance of tail rotor hub and blade assembly. 11. At each engine scavenge oil filter change, inspect each engine's scavenge oil filter for metal particles.	

SCHEDULED INSPECTIONS**5-13. 1200 HOUR INSPECTION. (CONT)**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-ALL-SPM BHT-ALL-SPM Volume 8, Chapter 67	7. For cyclic stick tubes considered serviceable, polish out any acceptable damage using 400 to 600 grit abrasive paper or cloth (C-423). 8. Thoroughly clean cyclic stick tube with water and mild detergent to completely remove residual penetrant and developer. Dry part completely. 9. Apply chemical film material (C-100) to bare metal area. 10. Touch up area with epoxy polyamide primer (C-204). Where finish paint coat is required, match to original finish using acrylic lacquer (C-203). 11. Install cyclic control stick.	

SPECIAL INSPECTIONS

5-14. SPECIAL INSPECTIONS.

Perform applicable special inspection of helicopter after fuel system maintenance and/or change, three to eight hours after each component installation, ten hours after each component installation, 25 hours after each component installation, 100 hours after each component installation, 600 hours of component operation, 1200 hours of component operation, 1500 hours of component operation, 3000 hours of component operation, 12 months of component operation, 24 months of component operation, operation in a corrosive atmosphere, and after storage (paragraphs 5-15 through 5-26).

MATERIALS REQUIRED

NUMBER	NOMENCLATURE
C-003	Turbine Fuel
C-101	Corrosion Preventive Compound

MATERIALS REQUIRED (CONT)

NUMBER	NOMENCLATURE
C-104	Corrosion Preventive Compound
C-125	Corrosion Preventive Compound
C-304	Drycleaning Solvent
C-309	Solvent
C-318	Cleaning Compound
C-405	Lockwire

NOTE

For information on consumable materials, refer to BHT-ALL-SPM manual.

SPECIAL INSPECTIONS

5-15. AFTER FUEL SYSTEM MAINTENANCE AND/OR COMPONENT CHANGE

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 4, Chapter 28	NOTE This inspection must be accomplished immediately after fuel system maintenance and/or fuel component change. <u>Fuel system.</u> – Inspect.	
BHT-206L4T-FM-1 Volume 2, Chapter 12 Volume 2, Chapter 12 BHT-206L4T-FM-1	NOTE Immediately after fuel system maintenance and/or fuel component change at an adequate maintenance facility, do the following: 1. When maintenance or component change is conducted below top fitting of aft fuel cell (WL 55.00), immediately following fuel system maintenance and/or major component change (boost pump assembly, manifold, check valve, fuel line or hose), ground run helicopter and check for air and fuel leaks and for proper operation as follows: a. Ensure all fuel has drained from aft and forward cells. b. Service aft cell with 30 gallons (114 liters) of fuel. c. Perform normal engine starting and run-up checks. d. Advance throttle to full open and operate engine at 100% N₂ for a minimum of two minutes with boost pumps off. If flameout or power loss occurs, refer to step 3. e. Perform normal engine shutdown. 2. When maintenance or component change is conducted above top fitting of aft fuel cell (WL 55.00), immediately following fuel system maintenance and/or component change (fuel pressure transducer, fuel shutoff valves, fuel crossflow valve, fuel scheduling systems, fuel line or hose), ground run helicopter and check for air leaks and for proper operation as follows:	
Volume 4, Chapter 28		

SPECIAL INSPECTIONS

5-16. 3-8 HOURS AFTER EACH INSTALLATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 6, Chapter 62 Volume 6, Chapter 62	NOTE This inspection must be accomplished three to eight flight hours after each installation. <u>Main rotor.</u> – Inspect. Check main rotor mast nut for torque of 250 to 275 foot-pounds (339 to 373 newton-meters).	

SPECIAL INSPECTIONS

5-17. 10 HOURS AFTER EACH INSTALLATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	NOTE This inspection must be accomplished ten flight hours after each component installation. <u>Main rotor.</u> – Inspect. Torque check pillow block retention hardware. <u>Tail rotor gearbox.</u> – Check torque. Torque tail rotor gearbox retaining nuts 50 to 70 inch-pounds (5.65 to 7.91 newton-meters).	

SPECIAL INSPECTIONS

5-17A. 10 TO 25 HOURS AFTER EACH INSTALLATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Chapter 65	<u>Disc pack coupling 32721-1.</u> Torque check disc pack coupling attaching hardware as follows: 1. Apply the minimum torque required for the fasteners. If the fasteners do not move the check is completed. Check torque seal and apply as required. 2. If the fastener(s) moved, do the steps that follow: a. Remove the affected disc pack coupling and examine the bolts, nuts (minimum tare torque, refer to BHT-ALL-SPM) and washer for condition. Discard damaged parts. b. Examine the disc pack coupling for condition. Discard damaged disc pack coupling. c. Install the removed disc pack coupling and repeat torque check after 10 to 25 hours.	

SPECIAL INSPECTIONS**5-18. 25 HOURS AFTER EACH INSTALLATION.**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 8, Chapter 67 Volume 8, Chapter 67	NOTE This inspection must be accomplished 25 flight hours after each component installation. <u>Swashplate Assembly.</u> – Friction check. Perform swashplate tilt friction check. Swashplate tilt friction shall be between 15 and 32 pounds (67 to 142 newtons).	

SPECIAL INSPECTIONS

5-19. 100 HOURS AFTER EACH INSTALLATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE	
	This inspection must be accomplished 100 flight hours after each component installation.	
GTP5232-2	<u>Power Plant.</u> – Inspect. 1. Inspect engine mounts and supporting structure for condition. Torque check mounts and support bolts.	
GTP5232-2	2. Inspect engine (refer to Allison 250-C20R Series Operation and Maintenance Manual) <u>Tail Rotor Driveshaft Segment.</u> – Check torque. After installation of new or overhauled driveshaft segment, inspect hanger attachment screws for a torque of 30 to 40 inch-pounds (3.39 to 4.52 newton-meters). An attempt to turn screws with a screwdriver will suffice. <u>Tailboom.</u> – Check Torque. Torque tailboom attach bolts 375 to 415 inch-pounds (42.4 to 46.8 newton-meters).	
Volume 7, Chapter 63	<u>Transmission.</u> – Inspect.	
Volume 7, Chapter 63	1. Replace oil filter element and oil. Inspect removed element for metal particles. If particles are found, investigate to determine cause.	
BHT-ALL-SPM	2. Touch up paint finish as required.	

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	– Check Torque. 1. Torque transmission top case stud nuts 130 to 160 inch pounds (14.69 to 18.08 Nm). <u>Combining Gearbox.</u> – Inspect. 1. Replace oil filter elements and oil. Inspect removed elements for metal particles. If particles are found, investigate to determine cause. <u>Engine.</u> – Inspect. 1. Replace oil scavenge filter elements and oil. Inspect removed elements for metal particles. If particles are found, investigate to determine cause.	

SPECIAL INSPECTIONS

5-20. 600 HOURS OF COMPONENT OPERATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 10, Chapter 96 Battery Manufacturers Manual Volume 4 Chapter 28	NOTE This inspection must be accomplished each 600 hours of component operation. <u>Electrical.</u> – Test. 1. Perform electrical test of battery overtemperature sensor module (ni-cad battery installation only). <u>Fuel Vent.</u> WARNING WORK ON FUEL VENT MUST BE DONE IN AN AREA WHERE FIRE HAZARDS ARE REDUCED TO A MINIMUM. HELICOPTER MUST BE GROUNDED. 1. Disconnect battery and external power supply. Ground helicopter. 2. Remove anti-siphon valve and plugs ends of tubes. 3. Push down on ball to make sure spring and ball are performing correctly. 4. If ball and spring perform correctly, install anti-siphon valve. If ball does not push back easily or seat correctly, remove adapter end of anti-siphon valve and replace ball and spring. Assemble, check, and install.	

SPECIAL INSPECTIONS

5-21. 1200 HOURS OF COMPONENT OPERATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 6, Chapter 62	<u>Main rotor hub assembly.</u> NOTE Accomplish interim inspection each 1200 hours of component operation. This inspection may be extended to a maximum of 1300 hours to facilitate maintenance scheduling. – Inspect. 1. Inspect yoke and trunnion bearing surfaces for brinelling. 2. Perform corrosion inspection of yoke, latch bolts, strap pins, strap fittings, trunnion, pillow blocks, grips, and pitch horns. 3. Visually inspect all hub details for excessive wear or damage. 4. Refer to the applicable main rotor hub assembly overhaul instructions for disassembly/assembly, inspection criteria and limitations.	
BHT-206L-CR&O		
Volume 8, Chapter 67	<u>Tail rotor control tube (206-001-058-001).</u> – Inspect. 1. Remove tail rotor control tube. 2. Inspect tail rotor control tube and nylatron sleeves at five areas where tube contacts fairleads and proceed as follows: a. If nylatron sleeves show wear on one side only, but surface of control tube is unworn, tube may be rolled 180 and reinstalled. b. If nylatron sleeves were worn through, exposing bare surface of control tube, and control tube is worn not in excess of 0.004 inch (0.102 mm) on one side only, replace worn nylatron sleeves.	
Volume 8, Chapter 67		
BHT-206L-CR&O		

SPECIAL INSPECTIONS**5-21. 1200 HOURS OF COMPONENT OPERATION. (CONT)**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 8, Chapter 67	c. If control tube is worn greater than 0.004 inch (0.102 mm) at any point, or if wear extends more than half way around tube regardless of depth, replace control tube. d. Inspect tube for corrosion. Pay particular attention to nylatron sleeves bond line. 3. Install control tube in tailboom. Install tail rotor gearbox fairing and access panel on right side of aft fuselage.	

SPECIAL INSPECTIONS

5-22. 1500 HOURS OF COMPONENT OPERATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE	
	This inspection must be accomplished each 1500 hours of component operation.	
BHT-206L-CR&O	<u>Main rotor mast.</u>	
	NOTE	
	This inspection may be extended to a maximum of 1600 hours of component operation to facilitate maintenance scheduling.	
	– Inspect.	
BHT-206L-CR&O	1. Remove, disassemble, and clean main rotor mast. 2. Inspect main rotor mast as follows: a. Visually inspect mast splines for burrs, nicks, cracks, and wear. Indication of wear requires an over pins dimensional check. b. Visually inspect mast inner and outer surfaces for corrosion. Inspect surface protective coatings for condition. c. Visually inspect bearing balls and races for pits, erosion, spalling, and brinelling. 3. Assemble and install main rotor mast.	
Volume 6, Chapter 63	<u>Engine.</u>	
GTP5232-2	– Inspect.	
GTP5232-2	Perform engine inspection (Allison 250-C20R Series Operation and Maintenance Manual).	
Volume 6, Chapter 63	<u>Transmission.</u>	
	NOTE	
	This inspection may be extended to a maximum of 1600 hours of component operation to facilitate maintenance scheduling.	

SPECIAL INSPECTIONS**5-22. 1200 HOURS OF COMPONENT OPERATION. (CONT)**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 6, Chapter 63 Volume 6, Chapter 63 BHT-206L-CR&O BHT-206L-CR&O BHT-206L-CR&O BHT-206L-CR&O	– Inspect. 1. Remove transmission. 2. Remove mast assembly, oil filter, and housing assembly. 3. Remove top case and planetary. 4. Perform a sun gear special inspection. 5. Install planetary and top case. 6. Install mast, oil filter, and transmission.	

SPECIAL INSPECTIONS**5-23. 3000 HOURS OF COMPONENT OPERATION.**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	<u>Tail rotor gearbox assembly.</u> <u>TBD</u>	

SPECIAL INSPECTIONS

5-24. 12 MONTHS OF COMPONENT OPERATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 6, Chapter 62 BHT-206L-CR&O BHT-206L-CR&O Volume 6, Chapter 62	NOTE This inspection must be accomplished each 12 months of component operation. <u>Main rotor mast.</u> – Inspect. Inspect mast assembly as follows: 1. Remove mast nut and cap plug. Using a bright light, inspect internal surface (internal diameter) of mast for corrosion and condition of protective coating. 2. Install cap plug and mast nut. 3. Check mast nut for torque after 3 to 8 hours of flight operation.	

SPECIAL INSPECTIONS

5-25. 24 MONTHS OF COMPONENT OPERATION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE	
Volume 8, Chapter 67	This inspection must be accomplished each 24 months of component operation <u>Flight controls.</u>	
Volume 8, Chapter 67	– Inspect flight control system bolts. 1. Remove flight control system bolts (1 through 14, figure 5-1). 2. Clean bolts using cloth dampened with solvent (C-309). Wipe bolts dry using clean cloth. 3. Visually inspect bolts for thread damage, shank wear, and corrosion. Replace any bolt that has damaged threads, detectable shank wear, and/or corrosion pitting.	
Volume 8, Chapter 67	4. Apply corrosion preventive compound (C-104) to bolt shanks only. Install bolts (1 through 14). 5. After bolts have been installed, nuts torqued, and lockwire (C-405) has been installed, coat bolt heads with corrosion preventive compound (C-101).	
	NOTE	
	Operation in extreme environmental conditions which erode corrosion preventive compound (C-101) may warrant periodic touchup of external surfaces of bolts. Before touchup, visually check exposed surfaces for evidence of corrosion and fretting. If conditions warrant, repeat steps 1. through 5.	
Volume 8, Chapter 67	– Inspect tail rotor control tube (206-001-058-001). 1. Remove tail rotor control tube. 2. Inspect tail rotor control tube and nylatron sleeves at five areas where tube contacts fairleads and proceed as follows:	

SPECIAL INSPECTIONS

5-25. 24 MONTHS OF COMPONENT OPERATION. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O Volume 8, Chapter 67	a. If nylatron sleeves show wear on one side only, but surface of control tube is unworn, tube may be rolled 180 degrees and reinstalled. b. If nylatron sleeves were worn through, exposing bare surface of control tube, and control tube is worn not in excess of 0.004 inch (0.102 mm) on one side only, replace worn nylatron sleeves. c. If control tube is worn greater than 0.004 inch (0.102 mm) at any point, or if wear extends more than half way around tube regardless of depth, replace control tube. d. Inspect tube for corrosion. Pay particular attention to bond line for nylatron sleeves. 3. Install control tube in tailboom. Install tail rotor gearbox fairing and access panel on right side of aft fuselage.	

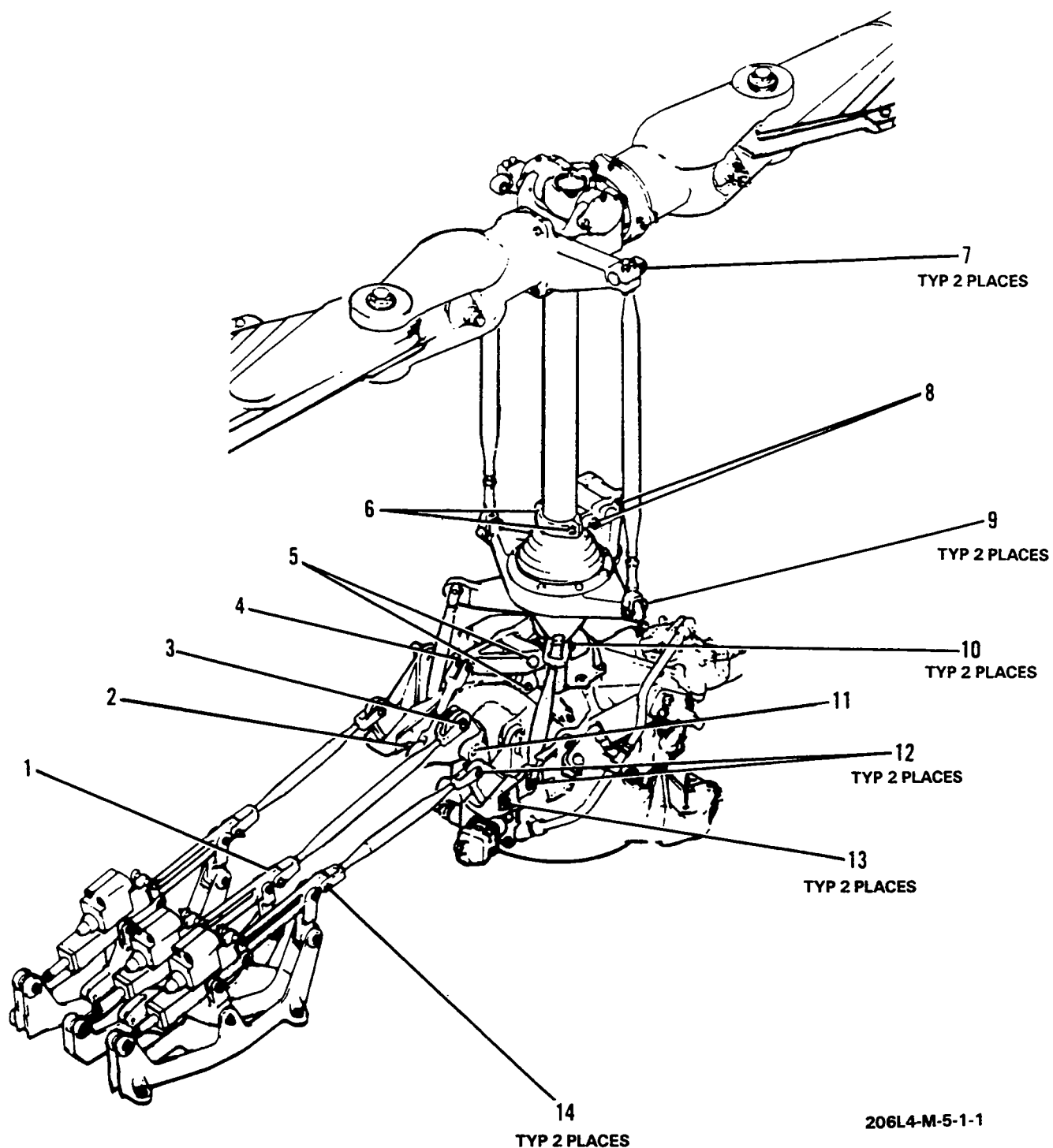


Figure 5-1. Flight control system bolts (Sheet 1 of 2)

	QTY
1. Collective servo to control tube bolt	1
2. Collective bellcrank to control link assembly bolt	1
3. Control tube to collective bellcrank bolt	1
4. Control link to collective lever assembly bolt	1
5. Link assembly (collective lever to swashplate support) bolt	1
6. Swashplate drive collar set bolts	2
7. M/R pitch links to M/R hub pitch horn bolts	2
8. Swashplate drive link/lever assembly bolts	2
9. Swashplate to M/R pitch link bolts	2
10. Cyclic control tubes to swashplate bolts	2
11. Collective bellcrank pivot bolt	1
12. Control tube to cyclic bellcrank bolts	4
13. Cyclic bellcrank pivot bolts	2
14. Cyclic servo to control tube bolts	2
	206L4T-M-5-1-2

Figure 5-1. Flight control system bolts (Sheet 2)

SPECIAL INSPECTIONS

5-26. OPERATION IN A CORROSIVE ATMOSPHERE.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 6, Chapter 62 Volume 7, Chapter 64	NOTE This inspection must be accomplished after operation in a corrosive atmosphere. <u>Main rotor hub and blades, and tail rotor hub and blades.</u> – Preventive maintenance.	
	NOTE The following procedures shall be accomplished as frequently as deemed necessary when operating in rain, corrosive salt laden air, or other adverse environmental conditions. Each week, or more frequently if deemed necessary, the following preventive maintenance procedures for the main rotor hub and blades and tail rotor hub and blades are recommended to prevent corrosion and extend their life. 1. Wipe hub and blades with dry cleaning solvent (C-304). 2. Wash hub and blades with cleaning compound (C-318). Rinse with water and dry with clean cloths. 3. Inspect main rotor hub and blades for evidence of corrosion. NOTE Do not allow corrosion preventive compound (C-125) to contact tail rotor blade bearings. 4. Apply a light coat of corrosion preventive compound (C-125) to all blade surfaces, and flood areas between hub grip tangs and blades, latch bolts to grips, and yoke fillet areas just inboard of pitch horn to ensure complete coverage.	

SPECIAL INSPECTIONS**5-26. OPERATION IN A CORROSIVE ATMOSPHERE. (CONT)**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE For repair of defects such as corrosion, nicks, scratches, and in some instances, blistering, refer to Volume 6, Chapter 62.	

SPECIAL INSPECTIONS

5-27. AFTER STORAGE.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE	
	This inspection must be accomplished after helicopter storage.	
	<u>General.</u>	
	– Inspect.	
BHT-ALL-SPM	1. Comply with storage depreservation and activation procedures. 2. Ensure all applicable and required special inspections, alert service bulletins, and airworthiness directives (A.D.) are accomplished before flight. 3. Comply with inspections and tests required for installed kit(s). (Refer to applicable service instruction.)	
Chapter 4	4. Replace all limited life components that have completed published airworthiness limits before flight.	
Paragraph 5-35	5. Overhaul all components that have completed overhaul published periods.	
Volume 2, Chapter 12	6. Service and lubricate helicopter.	
CSSD-PSE-87-001	7. Perform corrosion inspection in accordance with Corrosion Control Guide.	
GTP5232-2	8. Perform applicable engine inspection (Allison 250-C20R Series Operation and Maintenance Manual).	
	<u>Forward Fuselage Landing Gear Area.</u>	
	– Inspect.	
	1. Inspect seat cushions, seat backs and interior trim for tears, excessive deterioration, and security of attachment. 2. Inspect safety belts and shoulder harnesses for operation, deterioration, and security of attachment.	

SPECIAL INSPECTIONS

5-27. AFTER STORAGE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 8, Chapter 67	3. Inspect all cabin doors for corrosion damage, distortion, positive locking mechanisms, seals for tears or separations, and doors for security of attachment. 4. Inspect fire extinguisher for damage, corrosion, proper charge, and security of quick opening clamp. 5. Inspect forward fuselage exterior, doors, windows, rain gutters for damage and cracks. Inspect landing gear for damage and security. Inspect lower fuselage for evidence of fuel leaks. 6. Inspect electrical and avionics components and mounts for condition and security. Inspect all electrical wiring for worn or frayed cables, loose or broken clamps and fasteners. 7. Inspect ventilation system for debris and inspect drain for obstructions. 8. Drain fuel cell sumps and check for debris and/or water contamination. <u>Pylon and Power Plant Area.</u> – Inspect. 1. Inspect all control tubes, links, rod end bearings, bellcranks, supports, and attaching bolts for corrosion and mechanical damage, and for security of attachment. 2. Inspect hydraulic lines for chafing, leaks, and security. 3. Inspect cyclic and collective actuator valve linkage pivot bolts for freedom of rotation and security of attachment. Inspect actuators and flexible lines for leakage and condition. 4. Check engine controls for freedom of travel throughout range. Check for excessive looseness or lost motion in linkage. 5. Inspect control linkage to swashplate for wear, damage, and security. 6. Inspect swashplate and collar set linkage for corrosion, axial, radial, and accumulative wear. Inspect bushings for cracks and damage.	

SPECIAL INSPECTIONS

5-27. AFTER STORAGE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
GTP5232-2	7. Inspect main transmission links and bearings for damage and deterioration. Inspect nodal beam stops for evidence of excessive contact with arms, and elastomers for deterioration. 8. Inspect nodal beam flexures for obvious damage and security. 9. Inspect transmission mounts for obvious damage, bushings for wear and security of attachment. 10. Inspect elastomeric components for evidence of deterioration. Inspect restraint and mount spherical bearings for excessive axial and radial wear, obvious damage, and security. 11. Inspect transmission and combining gearbox for evidence of oil leakage. Inspect oil for contamination. Inspect lines for evidence of chafing. Inspect filter bypass indicator for condition. 12. Inspect transmission, combining gearbox, accessories, and fluid lines for damage, chafing, security of attachment, and fluid leaks. 13. Inspect engine mounts for damage and security of attachment. 14. Inspect the accessories of each engine for damage and security of attachment. 15. Inspect each engine's fuel and oil flex and rigid lines for wear, chafing, damage, and security of attachment. 16. Inspect the particle separator inlet swirl vane assemblies for damage, security and cleanliness. 17. Inspect power plant area for evidence of fuel or oil leaks, tubing for evidence of chafing in clamps and brackets. 18. Perform engine preflight and postflight inspection requirements before flight (Allison 250-C20R Series Operation and Maintenance Manual). 19. Inspect engines for loose bolts, hose connections, security of accessories, and damage. 20. Inspect forward short tail rotor driveshaft for freedom of movement and condition of splined adapters.	

SPECIAL INSPECTIONS

5-27. AFTER STORAGE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	21. Inspect exhaust stacks for cracks and security. 22. Inspect engine oil coolers, combining gearbox/transmission oil cooler and oil cooling fans for obstruction, cleanliness, damage, and oil leaks. 23. Inspect engine oil tanks for evidence of oil leaks, security, and oil for contamination. 24. Inspect cowling for proper condition and attachment. 25. Inspect main rotor pitch links for obvious damage, corrosion, cracks, and security of attachment bolts and locking hardware. Pay particular attention to swaged ends at jamnut or insert faying surface. 26. Inspect pitch horn trunnion bearing for evidence of damage, wear, security of attachment, and tubes for corrosion and cracks. 27. Inspect main rotor blades for obvious damage and overall condition. 28. Inspect main rotor hub assembly. Visually inspect fillet radii of both yoke spindles inboard of wear sleeves for evidence of corrosion. If corrosion is evident, repair. <u>Aft Fuselage/Tailboom Area.</u> – Inspect. 1. Inspect intermediate shaft hanger bearings for grease leakage and evidence of overheating. 2. Inspect tailboom skin for cracks, dents, deformation, working rivets, and other obvious damage. 3. Inspect horizontal stabilizer skin area for cracks. If cracks are found, stabilizer must be removed and replaced. 4. Inspect elevators for security and damage. 5. Inspect tail rotor driveshaft cover for obvious damage and security of attachment.	

SPECIAL INSPECTIONS

5-27. AFTER STORAGE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 6, Chapter 62	6. Inspect tail rotor driveshaft hanger bearings for grease leakage and evidence of corrosion. 7. Inspect tail rotor hub and blade assembly for damage, cracks, and wear. 8. Inspect tail rotor gearbox for evidence of oil leaks, oil for contamination, fairings for damage and security of attachment. 9. Inspect tailboom vertical fin for obvious damage. Inspect tail skid for condition, and security. <u>Tail Rotor Blades.</u> – Inspect. 1. Check tail rotor blade for serviceability as follows: a. Tip block rivets for corrosion and damage. b. Blade for nicks, dents, and scratches. c. Condition of seal between mating surfaces. d. Inspect for delamination and voids. 2. Clean tail rotor blades to maintain improved visibility.	

CONDITIONAL INSPECTIONS

5-28. CONDITIONAL INSPECTIONS.

Perform applicable conditional inspection of helicopter after a magnetic compass malfunction, after a hard landing, after a main rotor or tail rotor sudden stoppage, after a main rotor overspeed, after an engine overtorque, and after a lightning strike (paragraphs 5-28 through 5-33).

MATERIALS REQUIRED

NUMBER	NOMENCLATURE
Kit E W/Case	Gear Spline Teeth Pin Set

MATERIALS REQUIRED (CONT)

NUMBER	NOMENCLATURE
C-125	Corrosion Preventive Compound
C-304	Drycleaning Solvent
C-318	Cleaning Compound

NOTE

For information on consumable materials, refer to BHT-ALL-SPM manual.

CONDITIONAL INSPECTIONS

5-29. AFTER MAGNETIC COMPASS MALFUNCTION.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE Magnetic compass must be checked for accuracy when warranted. <u>Inspect.</u> Perform applicable inspection after a magnetic compass malfunction, after a hard landing, after a main rotor or tail rotor sudden stoppage, or lightning strike. – Check. 1. Check magnetic compass for accuracy. If excessive error is indicated (± 10 degrees), compass must be calibrated using standard compensation methods. 2. After completion, and while still on compass rose, swing for residual deviations on 12 symmetrical headings (each 30 degrees). Record compass readings on a compass correction card and install in compass card holder.	

CONDITIONAL INSPECTIONS

5-30. AFTER HARD LANDING.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE This inspection must be accomplished after a hard landing. <u>Hard Landing.</u> A hard landing is defined as any incident in which the impact of the helicopter with the ground causes severe pitching of the main rotor. Blades involved in this type of hard landing must be thoroughly inspected visually. If no obvious damage is discovered, the blades may be retained in service for continued usage. If, on a hard landing, either main rotor blade comes into contact with the ground, tailboom, or other foreign object, both main rotor blades are to be regarded as having been involved in a Sudden Stoppage and must be returned to a blade repair station for inspection. The airframe landing skids and crosstubes will deform and yield under load forces in excess of 2.5 G's. If the cabin fuselage contacts the ground, the G forces in the fuselage increase abruptly. If, following a hard landing, the cabin fuselage is resting on the ground or shows evidence of having touched the ground, it is considered to have sustained a 10 G load. If on a hard landing shear pin in elevator control tube, P/N 206-001-098, is sheared, eyebolt, P/N 206-001-902, that retains elevator control tube, P/N 206-001-098, to torque tube, P/N 206-001-306, must be replaced as well as elevator control tube, P/N 206-001-098. – Inspect. Components removed from helicopter for inspection following a hard landing, shall be evaluated as an interrelated group. Removal records accompanying each component shall cross-reference part and serial numbers of other drive system components removed for evaluation.	

CONDITIONAL INSPECTIONS

5-30. AFTER HARD LANDING. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
GTP5232-2	1. Inspect landing gear skid tubes and crosstubes for damage and deflection. Inspect crosstube attachment points for damage or distortion. 2. Check all cowlings, fairings, and doors for proper fit and alignment. Misaligned cowlings, fairings, or doors may indicate a distorted fuselage, resulting in major stresses and damage to components. 3. Remove all cowlings and fairings necessary to perform a complete visual inspection. 4. Inspect engine (Allison 250-C20R Operation and Maintenance Manual). 5. Using a 10-power magnifying glass, inspect structure around the transmission mounting points. Particular attention should be given to the transmission restraint system and transmission mount stops for sheared bolts, damaged drag pins and supports. 6. Inspect transmission pylon link assemblies for contact with nodal beam up stop and bolt head. 7. Inspect surrounding structure for contact with main driveshaft. 8. Inspect tail skid tube and mounting for damage. Inspect tailboom internally and externally for cracks, distortion, and sheared or loose rivets. Inspect the tailboom attachment points for elongated bolt holes and damaged structure. 9. Perform complete visual inspection of the flight control system from pilot controls to main rotor head for bent or damaged tubes, bellcranks, and supports, and for damaged bearings. Particular attention should be given to the pitch link assemblies and swashplate pivot assembly. In addition to inspecting pitch link assemblies for damage, inspect for corrosion and cracks (pay particular attention to swaged ends of jamnut or insert faying surface), and inspect for wear in pitch horn trunnion bearings. NOTE Control tubes and pitch link assemblies may be inspected for bends by rolling on a surface plate or with the use of a metal straight edge. On fixed control tubes the swaged end must be concentric to tube within 0.06 inch (1.5 mm) total indicator reading. Inspect bearings for smoothness and maximum allowable wear.	

CONDITIONAL INSPECTIONS

5-30. AFTER HARD LANDING. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L4T-FM-1	10. Check for leaks in hydraulic system, interference or binding of hydraulic actuators, and controls and for satisfactory operation. 11. Inspect main rotor mast as follows: a. Inspect mast for indentations caused by hard contact by main rotor hub static stops. b. Using a suitable micrometer, measure the mast outside diameter (O.D.) at a minimum of six places for out-of-round condition; two opposing measurements under the collar set and above the swashplate, two opposing measurements midway between the collar set and the static stop contact area, two opposing measurements approximately 2 inches (51 mm) below the static stop contact area on the mast. If any set of opposing measurements vary in excess of 0.002 inch (0.051 mm), the mast is suspected of bending and a run-out check must be performed. NOTE Cadmium plating on O.D. of mast is 0.0003 to 0.0004 inch (0.0076 to 0.0102 mm). When measuring mast O.D. at six places for out-of-round, ensure that 0.0003 to 0.0004 inch (0.0076 to 0.0102 mm) differential is considered when measuring plated surfaces or where plating may have been removed. 12. Inspect cabin roof shell and beam supporting the transmission mount support assemblies for cracks or deformation. 13. Inspect transmission up and down stops for deformation and for loss of attachment nut torque. 14. Inspect the transmission restraint and drag pins for damage. Inspect cabin roof shell and beam supporting transmission restraint for cracks or deformation. 15. Carry out a ground run and check main rotor, while in a flat pitch condition, for a 1/rev vibration. If one or more of the above inspections requirements reveals an unsatisfactory condition, a mast run-out inspection must be performed.	

CONDITIONAL INSPECTIONS**5-30. AFTER HARD LANDING. (CONT)**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	16. If damage in any of the above requirements of steps 11. through 15. is noted, the main rotor hub assembly must be inspected in accordance with the Special Inspection criteria. 17. Inspect main rotor blades for contact with tailboom. If damage is found, accomplish paragraph 5-30, Sudden Stoppage Main Rotor. 18. Inspect tail rotor blades for damage. If damage is found, accomplish paragraph 5-31, Sudden Stoppage Tail Rotor. 19. Inspect fuel and oil systems for damage. Before flight, check fuel and oil systems for leaks. 20. Inspect engine mounts (including engine mount leg attachment points) and fuselage structure, both external and internal for cracks.	
BHT-206L-CR&O	21. If damage described in step 22. and/or step 23. is found, remove main rotor blades. Send main rotor blades to a Bell Helicopter Textron authorized blade repair facility for evaluation.	
BHT-206L-CR&O	22. If damage to fuselage structure, skid gear, or tailboom is such that a major repair, replacement, or alignment is necessary, remove the following components and conduct a major overhaul. a. Main rotor hub assembly. b. Swashplate and support assembly. c. All control tubes, bolts, bellcrank, levers, and support assemblies. d. Pitch link assemblies, main rotor, and tail rotor. e. Transmission and mast assembly. f. Main driveshaft. g. Tail rotor shafts and bearings.	

CONDITIONAL INSPECTIONS

5-30. AFTER HARD LANDING. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	h. Tail rotor gearbox. i. Tail rotor hub and blades. j. Transmission restraint and mount systems. k. Inspect engine mounts at fuselage attachment points for cracks. 23. If damage to mast is indicated as a result of excessively hard contact of main rotor hub static stop, replace mast, remove the following components, and conduct a major overhaul on them. a. Main rotor hub assembly. b. Transmission assembly. c. Main driveshaft. d. Transmission restraint. 24. If damage is found in rotating controls, inspect and/or replace the following: a. Main rotor hub assembly pitch horns. b. Swashplate assembly. c. All connecting control tubes and control bolts.	

CONDITIONAL INSPECTIONS

5-31. AFTER SUDDEN STOPPAGE – POWER ON OR OFF.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	NOTE This inspection must be accomplished after a sudden stoppage with power on or off. <u>Sudden stoppage – main rotor.</u> Definition Sudden stoppage is defined as any rapid deceleration of the torsional drive system whether caused by seizure within the helicopter drive system itself or by contact of the main rotor blade(s) with the ground or with a foreign object of sufficient inertia to cause rapid deceleration. Any main rotor blade that has had a sudden stoppage must be returned to a Bell Helicopter Textron authorized blade repair facility. NOTE Components removed from helicopter for inspection following sudden stoppage of the main rotor, shall be evaluated as an interrelated group. Removal records accompanying each component shall cross-reference part and serial numbers of other drive system components removed for evaluation. Inspect. 1. After sudden stoppage of main rotor, remove main rotor blades. Send blades to a Bell Helicopter Textron authorized blade repair facility for evaluation.	
	2. Remove the following components if main rotor blade damage has occurred as a result of sudden stoppage. If a visual inspection of the components removed shows no evidence of yielding, deformation, cracks, or other obvious damage that would render them nonreparable, ensure airworthiness by conducting a major overhaul. a. Main rotor hub assembly. b. Main rotor mast.	

CONDITIONAL INSPECTIONS

5-31. AFTER SUDDEN STOPPAGE – POWER ON OR OFF. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE If mast has evidence of torsional yielding, the mast, transmission and main driveshaft shall be considered unserviceable and scrapped. The combining gearbox must be removed and inspected for sudden stoppage requirements (refer to BHT-206L-CR&O manual). Major damage to the mast other than torsional yielding requires replacement of transmission top case. If transmission top case has to be replaced, pylon mount spindles and upper and lower mast bearings must be replaced. (1) Torsional yielding may be evidenced by any one of the following: (a) Offset between the mast splines above and below the main rotor trunnion split cone groove can be detected by either of the methods as follows: 1 Slide a 0.0960 inch (2.44 mm) diameter measuring pin across the upper and lower spline grooves. (Gear spline teeth pin set Kit E W/ Case or Machinists Tool and Supplies Inc., Dallas, TX 75207) 2 Slide a straight edge across the upper and lower unworn face of the spline grooves (coast side of the spline). (b) Using a suitable micrometer, measure mast outside diameter (O.D.) at a minimum of six places for out-of-round condition; two opposing measurements under collar set and above swashplate, two opposing measurements midway between collar set and static stop contact area, two opposing measurements approximately 2 inches (51 mm) below static stop contact area on mast. If any set of opposing measurements vary in excess of 0.002 inch (0.051 mm), mast is suspected of having sustained torsional yielding, and a run-out check must be performed. NOTE Cadmium plating on O.D. of the mast is 0.0003 to 0.0004 inch (0.0076 to 0.0102 mm). When measuring the mast O.D. at six places for out-of-round, ensure that 0.0003 to 0.0004 inch (0.0076 to 0.0102 mm) differential is considered when measuring plated surfaces or when plating may have been removed. (c) If main rotor mast was severed during a main rotor sudden stoppage with engine operating, main rotor mast has sustained torsional yielding.	

CONDITIONAL INSPECTIONS

5-31. AFTER SUDDEN STOPPAGE – POWER ON OR OFF. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	c. Transmission assembly. d. Swashplate assembly. e. Control tubes. f. Pitch link assemblies. g. Combining gearbox. h. Main driveshaft assembly.	
GTP5232-2	3. Inspect transmission restraint and mount system and fuselage attachment points for cracks. 4. Inspect engine mounts (including engine mount leg attachment points) and fuselage attachment points for cracks. 5. Inspect engines. Refer to Allison 250-C20R Series Operation and Maintenance Manual, for sudden stoppage inspection requirements. 6. After main rotor sudden stoppage, inspect tail rotor drive train as follows:	
BHT-206L-CR&O	a. Inspect tail rotor driveshafts for concentricity and distortion.	
BHT-ALL-SPM	b. Inspect tail rotor driveshafts, adapters, and disc couplings for cracks using magnetic particle or fluorescent penetrant methods as applicable.	
	NOTE Use fluorescent penetrant method for disc couplings.	
BHT-206L-CR&O	c. If a tail rotor driveshaft failed as a result of torsional overload, all hangers, driveshafts, adapters, and disc couplings shall be considered unserviceable and nonreparable. Inspect hanger attachment points for cracks and distortion. Ensure airworthiness of tail rotor gearbox by conducting a major overhaul. d. If a tail rotor driveshaft has been damaged by main rotor strike or damage other than torsional overload, the damaged shaft plus the hanger assemblies, adapters, and disc couplings fore-and-aft of the damaged area shall be considered unserviceable and nonreparable. Inspect remaining shafts, hanger assemblies, adapters, and disc couplings according to preceding steps a. and b. Inspect hanger attachment points for cracks and distortion.	

CONDITIONAL INSPECTIONS

5-31. AFTER SUDDEN STOPPAGE – POWER ON OR OFF. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
Volume 7, Chapter 64 BHT-ALL-SPM BHT-206L-CR&O BHT-206L-CR&O	<u>Sudden stoppage – tail rotor.</u> Definition. Sudden stoppage of the tail rotor is defined as any rapid deceleration of the torsional drive system whether caused by seizure within the helicopter drive system itself or by contact of the tail rotor blade(s) with the ground, water, or with a foreign object of sufficient inertia to cause rapid deceleration. Damage to the tail rotor hub and blade could be present although it may not be readily detected by standard visual, dimensional, and magnetic particle or fluorescent penetrant methods of inspection. – Evaluation. Components removed from helicopter for inspection following sudden stoppage of tail rotor shall be evaluated as an interrelated group. Removal records accompanying each component shall cross-reference part and serial numbers of other drive system components removed for evaluation. – Inspect. 1. Remove and replace tail rotor hub and blade assembly. Scrap removed parts. 2. Inspect the tail rotor driveshaft system for damage as follows: Inspect the flexible couplings, driveshafts and adapters for cracks, using the magnetic particle or fluorescent penetrant methods. Visually inspect shafts for evidence of twisting. Also check the above parts dimensionally. Inspect the bonds between the tail rotor driveshafts and adapters for integrity. Visually inspect the tail rotor driveshaft support hangers for cracks and distortion. If these inspections of the tail rotor driveshaft disclose defects, proceed to step 5. Replace tail rotor pitch change shaft bearings and inspect shaft for damage. 3. If a tail rotor driveshaft failed as a result of torsional overload, all hangers, driveshafts, adapters, and disc couplings shall be considered unserviceable and nonreparable. Inspect hanger attachment points for cracks and distortion. Ensure airworthiness of tail rotor gearbox by conducting a major overhaul.	

CONDITIONAL INSPECTIONS

5-31. AFTER SUDDEN STOPPAGE – POWER ON OR OFF. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O BHT-ALL-SPM Volume 5, Chapter 53 GTP5232-2	4. If a tail rotor driveshaft has been damaged by main rotor strike or damage other than torsional overload, the damaged shaft plus the hanger assemblies, adapter, and disc couplings fore-and-aft of the damaged area shall be considered unserviceable and nonreparable. Inspect hanger attachment points for cracks and distortion. NOTE If no defects are found, step 5. may be omitted by proceeding directly to step 6. 5. If damage to tail rotor driveshaft system is found, tail rotor gearbox and combining gearbox must be inspected by conducting a major overhaul. 6. Inspect tailboom in area of tail rotor gearbox mounting studs and dowel pins and gearbox mounting lugs for cracks using a 10-power magnifying glass or fluorescent penetrant method of inspection. 7. Inspect four tailboom attachment points for cracks, distortion, damage, and security. Check torque on nuts of tailboom attachment bolts. 8. Inspect tailboom internally for cracks, distortion, and loose or missing rivets. Check external skin of tailboom for cracks, paying particular attention to area of horizontal stabilizer and tail rotor gearbox attachment. 9. Inspect horizontal stabilizer for cracks and looseness on tailboom. 10. Inspect vertical fin for security and overall condition. Check tail skid for condition and security. Check mounting of anticollision light for security and condition. 11. Inspect engine for sudden stoppage inspection requirements (Allison 250-C20R Series Operation and Maintenance Manual).	

CONDITIONAL INSPECTIONS

5-32. AFTER MAIN ROTOR OVERSPEED – 114 PERCENT OR GREATER.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE This inspection must be accomplished after main rotor overspeed of 114 percent or greater. <u>Main rotor overspeed – 114 percent or greater.</u> – Inspect. NOTE Components removed from a helicopter for inspection following main rotor overspeed, shall be evaluated as an interrelated group. Removal records accompanying each component shall cross-reference part and serial numbers of other drive system components removed for evaluation. For main rotor overspeeds of 108 to 113 percent, accomplish steps 1.c., and 2.a. through 2.e. 1. Main rotor blades. a. Dimensionally check main rotor blade retention bolt hole for indications of permanent deformation or damage. If inside diameter of bushing in the hole is elongated in excess of 0.0015 inch (0.0381 mm), remove blade from service and return it to a Bell Helicopter Textron authorized blade repair facility for further inspection. Any evident looseness of bushing is cause for blade scrapping. b. Remove tip cap assembly from main rotor blade and inspect tip cap attaching screws for deformation. Any deformation of screws or elongation of mating holes in the spar is cause for blade scrapping. c. Visually inspect main rotor blade for skin wrinkles or deformation. If any indication of wrinkles or deformation exists, return blade to a Bell Helicopter Textron authorized blade repair facility for evaluation. d. If main rotor blades pass inspection, they are acceptable for continued service. 2. Tail rotor blades.	

CONDITIONAL INSPECTIONS

5-33. AFTER OVERTORQUE.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
GTP5232-2	NOTE If only one engine was operational at the time of the overtorque, review torque limits in Allison 250-C20R Series Operation and Maintenance Manual. NOTE This inspection must be accomplished after engine overtorque of 120 to 131 percent. <u>Overtorque.</u> – Inspect for engine overtorque – 120 to 131 percent. NOTE If overtorque from 109 to 120% should occur, no inspection is required. Components removed from helicopter for inspection following a main rotor overtorque, shall be evaluated as an interrelated group. Removal records accompanying each component shall cross-reference part and serial numbers of other drive system components removed for evaluation. 1. If engine overtorque from 120 to 131 percent should occur, perform the following:	
BHT-206L4T-FM	a. Pilot preflight check. b. Conduct a visual inspection of the assemblies listed below (installed on the helicopter) for any evidence of damage, deformation, yielding, etc. (1) Main rotor blades and attachments. Blade for skin wrinkles and bond separation. (2) Main rotor hub assembly. (3) Main rotor mast. Using a suitable micrometer, measure the mast outside diameter (O.D.) at a minimum of six places for out-of-round condition: two opposing measurements under the collar set and above the swashplate, two opposing measurements midway between the collar set and the static stop contact area, and two opposing measurements approximately 2 inches (51 mm) below the static stop contact area on the mast. If any set of opposing measurements varies in excess of 0.002 inch (0.051 mm), the mast is suspected of bending, and a run-out check must be performed. NOTE Cadmium plating on O.D. of the mast is 0.0003 to 0.0004 inch (0.0076 to 0.0102 mm). When measuring the mast O.D. at six places for out-of-round, ensure that 0.0003 to 0.0004 inch (0.0076 to 0.0102 mm) differential is considered when measuring plated surfaces or where plating may have been removed.	

CONDITIONAL INSPECTIONS

5-33. AFTER OVERTORQUE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
GTP5232-2 BHT-206L4T-FM-1 BHT-206L-CR&O	(4) Engines. No inspection required. NOTE If only one engine was operational at the time of the overtorque, review engine torque limits in Allison 250-C20R Series Operation and Maintenance Manual. (5) Start engines and check main rotor, while in a flat pitch condition, for any evidence of a 1/rev. vibration. If one or more of the above inspection requirements steps b.(1) through b.(3) reveals an unsatisfactory condition, a mast run-out inspection must be performed. If unsatisfactory conditions are not found, the mast run-out inspection is not required. (6) Transmission top case. (7) Transmission mount fittings at upper attachment points and lower stop mounts. (8) Cobox case attachment points. (9) Cabin roof and beam at transmission mount support assemblies. (10) Cabin roof and beam at transmission restraint support. (11) Transmission electric chip detectors. (12) Remove, disassemble, and inspect main driveshaft couplings for indications of wear and overheating. (13) Tail rotor hub, blades and attachments. c. After the first 25 hours, following an overtorque, conduct a thorough inspection of the following: (1) Main rotor blades and attachments. Main rotor blades for skin wrinkles and bond separation. (2) Main rotor hub assembly. (3) Main rotor mast. (4) Transmission top case. (5) Cobox case and attachments. (6) Transmission mount link assemblies, link attachments, and arm and support assemblies. (7) Cabin roof shell and beam at transmission mount attachment points.	

CONDITIONAL INSPECTIONS

5-33. AFTER OVERTORQUE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	(8) Transmission restraint attachment at stop mounts, support, and cabin roof shell and beam. (9) Transmission electric chip detectors. (10) Tail rotor hub, blades, and attachments.	
BHT-206L-CR&O	2. If engine overtorque above 131 percent occurs, conduct a major overhaul as follows: 131 percent torque is about 142 psi (510 kPa) engine torque oil pressure. The overhaul inspection criteria in the specific sections, including limit charts and other pertinent information, should be used to establish that the detail parts in each assembly are dimensionally within limits and have not yielded or become deformed. The tail rotor drive system does not require a major overhaul. Components removed from helicopter for inspection following an engine overtorque, shall be evaluated as an interrelated group. Removal records accompanying each component shall cross-reference part and serial numbers of other drive system components removed for evaluation.	
BHT-206L-CR&O	a. Main Rotor Hub. Remove and overhaul. b. Main Rotor Blades. Visually inspect the blades for skin wrinkles or deformation. If any indications of wrinkles or deformation exist, return the blades to an approved overhaul facility for evaluation.	
BHT-206L-CR&O	c. Main Rotor Mast. Remove, overhaul, and, using a suitable micrometer, measure the outer diameter (O.D.) at a minimum of six places for out-of-round condition: two opposing measurements under the collar set and above the swashplate, two opposing measurements midway between the collar set and the static stop contact area, two opposing measurements approximately 2 inches (51 mm) below the static stop contact area on the mast. If any set of opposing measurements vary in excess of 0.002 inch (0.051 mm), the mast is suspected of bending and a run-out check must be performed. NOTE Cadmium plating on O.D. of the mast is 0.0003 to 0.0004 inch (0.0076 to 0.0102 mm). When measuring the mast O.D. at six places of out-of-round, ensure that 0.0003 to 0.0004 inch (0.0076 to 0.0102 mm) differential is considered when measuring plated surfaces or where plating may have been removed.	
BHT-206L-CR&O	d. Transmission. Remove and overhaul. Replace top case of transmission and transmission mount fittings. During overhaul inspect gear patterns for shifting and scuffing.	

CONDITIONAL INSPECTIONS

5-33. AFTER OVERTORQUE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O BHT-206L-CR&O GTP5232-2	e. Driveshaft. Remove and overhaul. f. Combining gearbox. Remove and overhaul. g. For engine torque limits, refer to Allison 250-C20R Series Operation and Maintenance Manual. h. Conduct a thorough visual inspection of the following: (Repeat 25 hours after overtorque inspection.) (1) Transmission mount fittings, upper and lower attachment points. (2) Cabin roof at transmission mount fittings. (3) Transmission restraint attachment. (4) Tail rotor hub, blades, and attachments. 3. When a one engine inoperative (OEI) operation occurs in which the engine torque has exceeded 100% but did not exceed 105% perform the following: a. Record the duration, maximum engine torque and which side of the gearbox was subjected to the overtorque in the combining gearbox maintenance record. b. Inspect combining gearbox chip detector and external filters for metal particles. (1) If chip detector and external filters appear normal, the combining gearbox is serviceable. No other component inspection is required. (2) If metal particles are found, remove the combining gearbox for overhaul evaluation. Make entry in the component record that the reason for removal was OEI overtorque and note which side was affected. c. Three OEI operations are allowed per side within this range within the rated life of the 260-1140 output gear. After a third OEI occurrence on one side, the affected output gear must be removed from service and scrapped. 4. When a one engine inoperative (OEI) operation occurs in which the engine torque has exceeded 105% perform the following: a. Record the duration, maximum engine torque and which side of the gearbox was subjected to the overtorque in the combining gearbox maintenance record. b. Remove the combining gearbox for overhaul. Make entry in the component record that the reason for removal was OEI overtorque. The affected output gear must be removed from service and scrapped.	

CONDITIONAL INSPECTIONS

5-34. AFTER LIGHTNING STRIKE.

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	NOTE This inspection must be accomplished after helicopter is suspected of receiving a lightning strike. <u>Lightning strike.</u> – Inspect. NOTE In all instances below, if significant damage has been found in any area, inspection shall be expanded in that area until it extends beyond the zone of damage. Scrap any component that shows evidence of arc burns. Because lightning behavior is difficult to predict, conduct a thorough inspection of the entire helicopter. Lightning damage may appear as burn marks, heat discoloration, arc marks, or small weld marks (where metal has melted and resolidified). Honeycomb and other composite materials may exhibit delamination. 1. Visually inspect all external surfaces of the helicopter. Thoroughly inspect main rotor blades and hub, main rotor mast and controls, transmission and nodal beam, engines and mounts, main and tail rotor driveshafts, tail rotor gearbox, tail rotor blades and hub, vertical and auxiliary fins, and horizontal stabilizer. Inspect landing gear skid tubes, crosstubes and their fuselage attachment points. Check electrical instruments and systems. Replace defective and/or damaged parts. 2. If visual indications of damage are present, proceed as follows: NOTE Components removed from helicopter for inspection, following a lightning strike, shall be evaluated as an interrelated group. Make entries in component records to cross-reference part and serial numbers of other drive system components removed for evaluation.	

CONDITIONAL INSPECTIONS

5-34. AFTER LIGHTNING STRIKE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	a. Inspect main rotor blades. Blades which exhibit severe arcing shall be scrapped. Blades which exhibit light to moderate arcing shall be returned to a Bell Helicopter Textron authorized repair station for evaluation and possible repair. (1) Inspect blades for signs of burns and arcing at tip cap, root end closure, buffer pads, and blade bolt bushings. Burn marks can be very minute. (2) Inspect main rotor blade bonded areas for debonding. b. Remove main rotor hub for overhaul. State lightning strike as reason for removal. c. Remove transmission and mast assembly for overhaul, making note of lightning strike as reason for removal. d. Inspect tail rotor blades and hub. Scrap blades if indications of burns or debonding are found. Remove tail rotor hub for overhaul. State lightning strike as reason for removal. e. Remove tail rotor driveshaft bearing hangers and tail rotor gearbox and return for overhaul. State lightning strike as reason for removal. f. Check auxiliary fins for evidence of burning or debonding. g. Inspect tailboom fitting for indication of arcing burns around mounting points of tail rotor gearbox and vertical fin. 3. If no indications of damage are found: NOTE If no visual indications of damage are shown, check all ferrous dynamic components by magnetometer. If magnetism is present, perform procedure under "If Visual Indications of Damage Are Present", step 2. Demagnetize all parts. a. Remove main rotor grips. (1) Visually inspect needle bearings for signs of electrical arcing, burning, or delamination.	

CONDITIONAL INSPECTIONS

5-34. AFTER LIGHTNING STRIKE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L-CR&O	(2) Visually check pitch horns and trunnion bearing connections for arcing burns. (3) If indications of arcing or burning are present, overhaul main rotor hub and drive assembly. Replace the affected pitch change link including all attaching hardware.	
BHT-206L-CR&O	(4) If no indications are found, assemble main rotor hub. b. Remove main rotor mast assembly. Without removing bearing from mast, inspect visible portions of bearing for signs of electrical arcing or burning. Rotate bearing during inspection. Check bearing for smooth rotation. Visually inspect the lower mast bearing race and driving spline on the mast for signs of arcing or burning. If indications of arcing, burning, or roughness of the bearing are present, remove transmission and mast assembly and return for overhaul. State lightning strike as reason for removal.	
BHT-206L-CR&O	c. Remove transmission top case and inspect for entry and exit of lightning strike. Special attention should be given to the planetary pinion and sun gear, ring gear, spiral bevel gear, and quill pinion. Check all bearings for smooth rotation and damage. Replace all parts that exhibit signs of arcing. If no indications of arcing are found, assemble transmission and mast assembly and return to limited service. After five hours, remove the chip detectors and filter and inspect for chips. If no indications are found, return transmission to full service. If indications are found, remove transmission and mast assembly and return it for overhaul. State lightning strike as reason for removal.	
BHT-206L-CR&O	d. Inspect nodal/beam transmission mount fittings and engine mounts. (1) Visually inspect exterior surfaces for evidence of arcing or burning. Special attention should be given to contact surfaces of transmission and engines to their mounting systems, and of mounting systems to the airframe. (2) If indications of arcing or burning are present, overhaul parts.	

CONDITIONAL INSPECTIONS

5-34. AFTER LIGHTNING STRIKE. (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	e. Remove output quill assembly from tail rotor gearbox. Visually inspect gear teeth for signs of electrical arcing or burning. Rotate tail rotor mast to check for smooth rotation of bearings. (1) If evidence of arcing or burning is found or if bearings do not rotate smoothly, remove gearbox and return it for overhaul. State lightning strike as reason for removal. (2) If no indications of damage are found, and if bearings rotate smoothly, assemble gearbox and return it to limited service. After five hours, remove chip detector and inspect for chips. If no indications are found, return gearbox to full service. If indications are found, return gearbox for overhaul. State lightning strike as reason for removal.	
BHT-206L-CR&O		
BHT-206L-CR&O	f. Inspect main driveshaft for evidence of arcing or burning. A driveshaft which exhibits arcing or burning must be scrapped.	
BHT-206L-CR&O	g. Disassemble swashplate and support assembly. Visually inspect for evidence of burning or arcing. Inspect bearings for smooth rotation, and all hardware for evidence of arcing.	
BHT-206L-CR&O	(1) If indications of arcing or burning are present or if bearings do not rotate smoothly, overhaul swashplate assembly. Replace the affected hardware.	
BHT-206L-CR&O	(2) If no indications are found, assemble swashplate assembly and return to service.	
	h. Inspect tailboom, horizontal stabilizer, and auxiliary fins and vertical fin for evidence of arcing, burning, or debonding, paying particular attention to area around the mounting points for the tail rotor driveshaft hangers and tail rotor gearbox.	
GTP5232-2	i. Inspect power plant assembly (Allison 250-C20R Series Operation and Maintenance Manual).	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	<u>Preparation for checks and tests.</u> 1. The battery must be in a good state of charge. 2. Open all circuit breakers on the main circuit breaker panel in the cockpit overhead console. 3. Remove the forward cowling. 4. Remove the left and right particle separators. NOTE 1. Following the completion of this test procedure, return the aircraft to normal configuration. 2. Inspector or mechanic to sign in area shown. <u>Emergency bus power check.</u> – Step A. 1. Close the No. 1 and No. 2 caution circuit breakers. 2. Close the emergency RCCB circuit breaker. 3. Close the volt/amp meter circuit breaker. – Step B. 1. Set the emergency RCCB switch to ON. 2. Push in the left No. 1 emergency bus feed circuit breaker. Observe the following: a. Caution lights come on. b. Annunciator malfunction light comes on. NOTE No. 1 engine out horn remains ON when mute is pressed. 3. Open the left No. 1 emergency bus feed circuit breaker. 4. Set the emergency RCCB switch to OFF.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	– Step C. 1. Set the emergency RCCB switch to ON. 2. Push in the right No. 2 emergency bus feed circuit breaker. Observe the following: a. Caution lights come on. b. Annunciator malfunction light comes on. c. Volt/amp meter indicates 24 VDC. 3. Open right No. 2 emergency bus feed circuit breaker. – Step D. 1. Set the emergency RCCB switch to ON. 2. Close the left No. 1 emergency bus feed circuit breaker. 3. Close the right No. 2 emergency bus feed circuit breaker. Observe the following: a. Caution lights come on. b. Annunciator malfunction light is off. c. Volt/amp meter indicates 24 VDC. 4. Set the emergency RCCB switch to OFF. 5. Set the NO. 1 battery switch to ON. 6. Set the No 2 battery switch to ON. Observe the following: a. Caution lights do not come on. 7. Set the No. 1 battery switch to OFF. 8. Set the No. 2 battery switch to OFF. 9. Open the left No. 1 emergency bus feed circuit breaker. 10. Open the right No. 2 emergency bus feed circuit breaker.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	– Step E. 1. Set the No. 1 battery switch to ON. 2. Close the left No. 2 emergency bus feed circuit breaker. Observe the following: a. Caution lights come on. b. Annunciator malfunction light is on. c. Volt/amp meter does not indicate. NOTE No. 1 engine out horn remains ON when the mute button is pressed. 3. Set the No. 1 battery switch to OFF. 4. Set the No. 2 battery switch to ON. Observe the following: a. Caution lights do not come on. 5. Set the No. 2 battery switch to OFF. 6. Open the left No. 2 emergency bus feed circuit breaker. – Step F. 1. Set the No. 2 battery switch to ON. 2. Close the right No. 1 emergency bus feed circuit breaker. Observe the following: a. Caution lights come on. b. Annunciator malfunction light is on. c. Volt/amp meter indicates 24 VDC. 3. Set the No. 2 battery switch to OFF. 4. Set the No. 1 battery switch to ON. Observe the following: a. Caution lights do not come on. 5. Set the No. 1 battery switch to OFF. 6. Open the right No. 1 emergency bus feed circuit breaker.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	– Step G. 1. Close the left No. 2 emergency bus feed circuit breaker. 2. Close the right No. 1 emergency bus feed circuit breaker. 3. Place the emergency RCCB switch to ON. Observe the following: a. Caution lights do not come on. 4. Set the emergency RCCB switch to OFF. 5. Set the No. 1 battery switch to ON. 6. Set the No. 2 battery switch to ON. Observe the following: a. Caution lights come on. b. The annunciator malfunction light remains off. 7. Set the No. 1 battery switch to OFF. 8. Set the No. 2 battery switch to OFF. 9. Open the left No. 2 emergency bus feed circuit breaker. 10. Open the right No. 1 emergency bus feed circuit breaker. – Step H. 1. Open the No. 1 and No. 2 caution circuit breakers. 2. Open the emergency RCCB circuit breaker. 3. Open the volt/amp meter circuit breaker.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	<u>Main bus power check.</u> – Step A. 1. Close the No. 1 and No. 2 idle stop release circuit breakers. – Step B. 1. Close the left main bus No. 1 feed circuit breaker. 2. Set the No. 1 battery switch to ON. Observe the following: a. The No. 1 idle stop release relay actuates when selected. b. The No. 2 idle stop release does not actuate when selected. 3. Set the No. 1 battery switch to OFF. 4. Set the No. 2 battery switch to ON. Observe the following: a. The No. 1 and No. 2 idle stop release relays do not actuate when selected. 5. Set the No. 2 battery switch to OFF. 6. Open the left main bus No. 1 feed circuit breaker. – Step C. 1. Close the left main bus No. 2 feed circuit breaker. 2. Set the No. 2 battery switch to ON. Observe the following: a. The No. 1 idle stop release relay actuates when selected. b. The No. 2 idle stop release relay does not actuate when selected. 3. Set the No. 2 battery switch to OFF. 4. Set the No. 1 battery switch to ON. Observe the following: a. The No. 1 and No. 2 idle stop release relays do not actuate when selected. 5. Set the No. 1 battery switch to OFF. 6. Open the left main bus No. 2 circuit breaker.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	– Step D. 1. Close the right main bus No. 1 bus feed circuit breaker. 2. Set the No. 1 battery switch to ON. Observe the following: a. The No. 2 idle stop release relay actuates when selected. b. The No. 1 idle stop release relay does not actuate when selected. 3. Set the No. 1 battery switch to OFF. 4. Set the No. 2 battery switch to ON. Observe the following: a. The No. 1 and No. 2 idle stop release relays do not actuate when selected. 5. Set the No. 2 battery switch to OFF. 6. Open the right main bus No. 1 bus feed circuit breaker. – Step E. 1. Close the right main bus No. 2 bus feed circuit breaker. 2. Set the No. 2 battery switch to ON. Observe the following: a. The No. 2 idle stop release relay actuates when selected. b. The No. 1 idle stop release relay does not actuate when selected. 3. Set the No. 2 battery switch to OFF. 4. Set the No. 1 battery switch to ON. Observe the following: a. The No. 1 and No. 2 idle stop release relays do not actuate when selected. 5. Set the No. 1 battery switch to OFF. 6. Open the right main bus No. 2 bus feed circuit breaker.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	<u>Utility bus power check.</u> – Step A. 1. Close the No. 1 and No. 2 cooling fan control circuit breakers (5A). 2. Close the No. 1 and No. 2 cooling fan circuit breakers (35A). 3. Connect a jumper wire across Pin A and Pin B of the No. 1 oil cooling fan thermal switch connector. The No. 1 thermal switch is located in the oil system manifold on the forward side of the F.S. 150 firewall, lower left corner. 4. Connect a jumper wire across Pin A and Pin B of the No. 2 oil cooling fan thermal switch connector. The No. 2 thermal switch is located in the oil system manifold on the forward side of the F.S. 150 firewall, lower right corner. – Step B. 1. Close the utility bus No. 1 bus feed circuit breaker. 2. Set the No. 1 battery switch to ON. Observe the following: a. The cooling fans operate. 3. Set the No. 1 battery switch to OFF. 4. Set the No. 2 battery switch to ON. Observe the following: a. The cooling fans do not operate. 5. Set the No. 2 battery switch to OFF. 6. Open the utility bus No. 1 bus feed circuit breaker.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	– Step C. 1. Close the utility bus No. 2 bus feed circuit breaker. 2. Set the No. 2 battery switch to ON. Observe the following: a. The cooling fans operate. 3. Set the No. 2 battery switch to OFF. 4. Set the No. 1 battery switch to ON. Observe the following: a. The cooling fans do not operate. 5. Set the No. 1 battery switch to OFF. 6. Open the utility bus No. 2 bus feed circuit breaker. – Step D. 1. Open the No. 1 and No. 2 oil cooling fan control circuit breakers (5A). 2. Open the No. 1 and No. 2 oil cooling fan circuit breakers (35A). 3. Remove jumper wires from the oil cooling fan thermal switch connectors. 4. Install and safety wire the oil cooling fan thermal switch connectors. <u>Power diode check.</u> – Step A. 1. A multimeter with a diode test function is required for this test. The electrical system power diodes are located under the forward cowling on the bottom side of the oil cooling fan mounting shelf. 2. Close the No. 1 and No. 2 cooling fan circuit breakers (35A). – Step B. 1. Locate the bus bar on the left end of the left diode block assembly. Attach the positive lead of the multimeter to the terminal where the bus bar is bolted to the diode block. Observe the following: a. At the cathode end of each diode, a voltage indication of 0.4 V to 0.7 V on the multimeter. 2. Reverse the multimeter leads, observe the following: a. At the cathode end of each diode, no voltage indication on the multimeter.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	– Step C. 1. Locate the bus bar on the right end of the right diode block assembly. Attach the positive lead of the multimeter to the terminal where the bus bar is bolted to the diode block. Observe the following: a. At the cathode end of each diode, a voltage indication of 0.4 V to 0.7 V on the multimeter. 2. Reverse the multimeter leads, observe the following: a. At the cathode end of each diode, no voltage indication on the multimeter. – Step D. 1. Locate wire No. P14E8 on the right top deck terminal junction. Attach the positive lead of the multimeter to the terminal of P14E8 where it attaches to the terminals. 2. Locate wire No. P14B8 on the left top deck terminal junction. Attach the negative lead of the multimeter to the terminal where P14B8 attaches to the terminal. Observe the following: a. A voltage indication of 0.4 V to 0.7 V on the multimeter. 3. Reverse the multimeter leads. Observe the following: a. No voltage indication of the multimeter. <u>Inspection.</u> – Step A. 1. Inspect the diode installations for: a. Security. b. Wires for chafing and security. c. Corrosion. d. Cracks or evidence of physical damage. <u>Post inspection.</u> 1. Return the main circuit breaker panel to its normal configuration.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	<u>Start circuit test.</u> – Step A. 1. Pull both ignition circuit breakers. 2. Close the EMERGENCY RCCB switch. 3. Close the No. 1 battery switch. 4. Select No. 1 engine start. Observe the following: a. The No. 1 engine will not motor. 5. Select No. 2 engine start. Observe the following: a. The No. 2 engine will not motor. 6. Open the No. 1 battery switch. 7. Close the No. 2 battery switch. 8. Select No. 1 engine start. Observe the following: a. The No. 1 engine will not motor. 9. Select No. 2 engine start. Observe the following: a. The No. 2 engine will not motor. 10. Open the EMERGENCY RCCB switch. 11. Open the No. 2 battery switch. <u>Generator fail indicator test.</u> 1. Close the EMERGENCY RCCB switch. 2. Open the No. 1 and No. 2 battery switches. 3. Close the No. 1 and No. 2 generator switches. 4. Verify that both GENERATOR FAIL caution lights are illuminated. 5. Return switches to their original positions.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
	<u>Post inspection.</u> – Step A. 1. Install the forward cowling. 2. Install the left and right particle separators. 3. Return the main circuit breaker panel to its normal configuration.	

CONDITIONAL INSPECTIONS

5-35. ELECTRICAL CHECKS AND TESTS (CONT)

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L4T-FM-1	<u>Preparation for checks and tests.</u> – Step A. 1. Remove the “hat rack” from the aft part of the cabin. 2. Remove the insulation blanket behind the hat rack. 3. Remove the access cover above the baggage compartment. 4. Locate the generator overcurrent test switch. <u>Ground fault protection circuit check.</u> – Step A. 1. Visually inspect the forward and aft current transformer installation for: a. Security. b. Wire connections. c. Corrosion. d. Wire chafing. – Step B. 1. Disconnect the generator control unit connectors. Measure resistance between pins N and P of the connector. The resistance through the current transformer wiring must not exceed 4.0 ohms. 2. Reconnect the generator control unit connectors. <u>Generator overcurrent test.</u> – Step A. 1. Start the No. 1 and No. 2 engines following the procedures in the pilot's flight manual. 2. Put both generators on line 3. Press the No. 1 generator overcurrent test switch. The No. 1 generator must go off line within 5 seconds. 4. Reset the No. 1 generator. 5. Press the No. 2 generator overcurrent test switch. The No. 2 generator must go off line within 5 seconds. 6. Reset the No. 2 generator.	

CONDITIONAL INSPECTIONS**5-35. ELECTRICAL CHECKS AND TESTS (CONT)**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	MECH INITIAL
BHT-206L4T-FM-1	<u>Post test.</u> – Step A. 1. Shut down No. 1 and No. 2 engine in accordance with procedures in the pilot's flight manual. 2. Install the "hat rack" and the insulation blanket in the aft part of the cabin. 3. Replace the access cover of the baggage compartment.	

5-36. COMPONENT OVERHAUL SCHEDULE.**CAUTION**

OVERHAUL SCHEDULE FOR SOME KIT COMPONENTS AND/OR PARTS IS NOT COVERED IN THIS SCHEDULE. REFER TO APPLICABLE SERVICE INSTRUCTIONS FOR KIT COMPONENTS SCHEDULE.

Time between overhauls and inspection periods is based upon experience, testing and engineering judgement, and is subject to change at the sole discretion of Bell Helicopter Textron or an appropriate government agency.

This Component Overhaul Schedule summarizes the overhaul interval of the helicopter components (table 5-1).

The operating time specified for overhaul of any given part number contained in this component overhaul schedule applies to all successive dash numbers for that item unless otherwise specified.

Neither the assignment of a time period for overhaul of a component nor failure to assign a time period for overhaul of a component constitutes a warranty of any kind. The only warranty applicable to the helicopter and any component is that warranty included in the Purchase Agreement for the helicopter or the component.

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.

Table 5-1. Component overhaul schedule

 PART NUMBER	NOMENCLATURE	OVERHAUL INTERVAL HOURS
ROTORS		
206-010-450	Swashplate and Support Assembly	4800
206-011-100-159	Main Rotor Hub Assembly	2400
206-011-810-139	Tail Rotor Hub Assembly	2500
POWER TRAIN		
206-040-014-107	Main Rotor Mast Assembly	3000
206-040-004-115	Transmission Assembly	4500
260-1100	Combining gearbox	1000
206-040-402-101	Tail Rotor Gearbox	6000
HYDRAULIC		
206-076-062-101	Hydraulic Servo Actuators	3600

Table 5-1. Component overhaul schedule (CONT)

1 PART NUMBER	NOMENCLATURE	OVERHAUL INTERVAL HOURS
POWER PLANT		
250-C20R	Turboshaft Engine	Refer to Engine Manufacturer Publication
NOTES:		
1	The operating time specified for overhaul of any given part number contained in this component overhaul schedule applies to all successive dash numbers for that item unless otherwise specified.	