



**Helicopter  
Technology  
Company**

# Maintenance Manual

## HTCM-006

**Part Number 204P2100-101 and -103**

**Models UH-1H, UH-1B\*, TH-1F, UH-1F, UH-1P, 204B, 205A, and 205A-1  
MAIN ROTOR BLADE  
(Installation and Maintenance)**

**\* with STC # SR00026DE Installed**

**Initial Release Date: 12/17/2013**

### Revision

**Change Letter: D**

**Change Date: 01/03/2020**

D	Added -103 Configuration	01/ 03/ 2020	GHB
C	Added Applic. – TH-1F, UH-1F, UH-1P, 204B, 205A, 205A-1	05/ 12/ 2015	GHB
B	Added Applicability - UH-1B with STC #SR00026DE Installed	04/ 10/ 2015	GHB
A	Added Applicability - All FAA Certificated UH-1H	03/ 31/ 2014	GHB
N/ C	Released	12/ 17/ 2013	GHB

### Note

See Section “REFERENCE DOCUMENTS” below for indicated references.

The most current revision of this document (HTCM-006) will be available on the Helicopter Technology Company (HTC) website at [www.helicoptertech.com](http://www.helicoptertech.com) under Technical Publications.

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(TM 55-1520-210-23-1) AND UH-1B MODELS WITH STC #SR00026DE INSTALLED  
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## PURPOSE

The purpose of this document is to both provide instructions for Maintenance and Use of HTC produced Main Rotor Blade Assemblies and to provide an index to the relevant Chapters or Sections of the applicable Maintenance Manual for the particular model of helicopter.

It is extremely important that these relevant sections of the be followed precisely.

The most current revision of this document (HTCM-006) will be available on the Helicopter Technology Company (HTC) website at [www.helicoptertech.com](http://www.helicoptertech.com) under Technical Publications.

**Note:** As applicable and unless otherwise noted, all references below are to be found in:

- Technical Manual –  
Aviation and Intermediate Maintenance Instructions Army Model UH-1H/V/EH-1H/X (TM 55-1520-210-23-1).
- Helicopter Maintenance Manual –  
Supplement No. 1 to Army Model UH-1B Helicopter  
(Restricted Category).
- Technical Manual –  
Organizational Maintenance USAF Models TH-1F, UH-1F, and UH-1P Helicopters - T.O. 1H-1(U)F-2-1.

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- Maintenance and Overhaul Instructions –  
Bell Model 204B – BHT-204B-M&O-1.

- Maintenance Manual –  
Bell Model 205A-1 – BHT-205A1-MM-1.

**Note:** HTC has used the best possible materials for the construction of its Main Rotor Blade Assemblies.

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## REFERENCE DOCUMENTS

1. Technical Manual – Aviation and Intermediate Maintenance Instructions Army Model UH-1H/V/EH-1H/X (TM 55-1520-210-23-1), Headquarters, Department of the Army, Washington, D.C., Change 47, dated 20 September 2005, or later approved revision.
2. Technical Manual – Preventative Maintenance Daily Inspection Checklist (TM 55-1520-210-PMD), Headquarters, Department of the Army, Washington, D.C.
3. Technical Manual – Phased Maintenance Checklist (TM 55-1520-210-PM), Headquarters, Department of the Army, Washington, D.C.
4. Federal Aviation Administration (FAA) Supplemental Type Certificate (STC) Number SR00026DE, Rotorcraft Development Corp., Corvalis, Montana, dated 06 September 2012, or later approved revision.
5. Helicopter Maintenance Manual Supplement No. 1 to Army Model UH-1B Helicopter (Restricted Category), San Joaquin Helicopters, Delano, California.
6. Technical Manual – Organizational Maintenance USAF Models TH-1F, UH-1F, and UH-1P Helicopters - T.O. 1H-1(U)F-2-1, Secretary of the Air Force, Washington, D.C., Change 14, dated 28 April 1988, or later approved revision.
7. Technical Manual – Scheduled Inspection and Maintenance Requirements USAF Series TH-1F, UH-1F, and UH-1P Helicopters - T.O. 1H-1(U)F-2-6, Secretary of the Air Force, Washington, D.C., Change 16, dated 16 February 1988, or later approved revision.

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8. Maintenance and Overhaul Instructions – Bell Model 204B – BHT-204B-M&O-1, Bell Helicopter, a Textron Company, Fort Worth, Texas, Revision 10, dated 24 June 2011, or later approved revision.
9. Maintenance Manual – Bell Model 205A-1 – BHT-205A1-MM-1, Bell Helicopter, a Textron Company, Fort Worth, Texas, Revision 7, dated 08 July 2013, or later approved revision.
10. FAA Airworthiness Directive (AD) 2018-02-07 – Applicability: TH-1F, UH-1B with STC SR0026DE Installed, UH-1F, UH-1H, and UH-1P, dated 01 February 2018
11. FAA Airworthiness Directive (AD) 2018-02-08 – Applicability: 204B, 205A, and 205A-1, dated 01 February 2018
12. Mandatory Service Bulletin (SB) 204-2100-1R3, Main Rotor Blade Root End Periodic Inspection and Protection, Revision 3 – Applicability: UH-1H, UH-1B with STC SR0026DE Installed, TH-1F, UH-1F, UH-1P, 204B, 205A, 205A-1, Helicopter Technology Company (HTC), dated 12 December 2017.



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## DEFINITIONS AND ABBREVIATIONS

As applicable and unless otherwise noted, all Definitions and Abbreviations are to be found in:

- Technical Manual –  
Aviation and Intermediate Maintenance Instructions Army Model  
UH-1H/V/EH-1H/X (TM 55-1520-210-23-1).
- Helicopter Maintenance Manual –  
Supplement No. 1 to Army Model UH-1B Helicopter  
(Restricted Category).
- Technical Manual –  
Organizational Maintenance USAF Models TH-1F, UH-1F, and UH-1P  
Helicopters - T.O. 1H-1(U)F-2-1.
- Maintenance and Overhaul Instructions –  
Bell Model 204B – BHT-204B-M&O-1.
- Maintenance Manual –  
Bell Model 205A-1 – BHT-205A1-MM-1.

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## WEIGHT AND BALANCE

Installation of the Helicopter Technology Company (HTC) Part Number **204P2100-101 and/or -103** Main Rotor Blade is a direct replacement the Bell Helicopter - Textron Part Number **204-011-250-113** Main Rotor Blade and does not constitute a change to the Weight and Balance of the aircraft.

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## **WARNINGS**

As applicable and unless otherwise noted, all Warnings are to be found in:

- Technical Manual –  
Aviation and Intermediate Maintenance Instructions Army Model  
UH-1H/V/EH-1H/X (TM 55-1520-210-23-1).
- Helicopter Maintenance Manual –  
Supplement No. 1 to Army Model UH-1B Helicopter  
(Restricted Category).
- Technical Manual –  
Organizational Maintenance USAF Models TH-1F, UH-1F, and UH-1P  
Helicopters - T.O. 1H-1(U)F-2-1.
- Maintenance and Overhaul Instructions –  
Bell Model 204B – BHT-204B-M&O-1.
- Maintenance Manual –  
Bell Model 205A-1 – BHT-205A1-MM-1.

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## INDEX

Index is to be found in the Technical Manual – Aviation and Intermediate Maintenance Instructions Army Model UH-1H/V/EH-1H/X (TM 55-1520-210-23-1), Headquarters, Department of the Army, Washington D.C. unless otherwise noted.

As applicable and unless otherwise noted, the Index is to be found in:

- Technical Manual –  
Aviation and Intermediate Maintenance Instructions Army Model UH-1H/V/EH-1H/X (TM 55-1520-210-23-1).
- Helicopter Maintenance Manual –  
Supplement No. 1 to Army Model UH-1B Helicopter (Restricted Category).
- Technical Manual –  
Organizational Maintenance USAF Models TH-1F, UH-1F, and UH-1P Helicopters - T.O. 1H-1(U)F-2-1.
- Maintenance and Overhaul Instructions –  
Bell Model 204B – BHT-204B-M&O-1.
- Maintenance Manual –  
Bell Model 205A-1 – BHT-205A1-MM-1.

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## AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is FAA Approved and specifies maintenance required under §§43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA Approved.

Revision	Date	FAA Signature and Date
<b>D</b>	<b>4/13/2020</b>	
<b>C</b>	<b>10/08/2015</b>	<b>Maureen Moreland (on File)</b>
<b>B</b>	<b>06/08/2015</b>	<b>Greg DiLibero (on File)</b>
<b>A</b>	<b>06/17/2014</b>	<b>Ronald Atmur (on File)</b>
<b>N/C</b>	<b>01/13/2014</b>	<b>Greg DiLibero (on File)</b>

## Interchangeability and Life Limit

### 204P2100-101:

The Helicopter Technology Company (HTC) Part Number **204P2100-101** Main Rotor Blade is a direct replacement the Bell Helicopter - Textron Part Number **204-011-250-113** Main Rotor Blade. The HTC Main Rotor Blade is **fully interchangeable** and carries a **life-limit of 2,600 hours**.

Installation of this Blade is covered by FAA Supplemental Type Certificate (STC) Number **SR02492LA**.

**Note:** Review FAA Airworthiness Directive (AD) 2018-18-07 and FAA Airworthiness Directive (AD) 2018-18-08 to determine applicability. Perform Inspections at the required Intervals.

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## 204P2100-103:

The Helicopter Technology Company (HTC) Part Number **204P2100-103** Main Rotor Blade is a direct replacement the Bell Helicopter - Textron Part Number **204-011-250-113** Main Rotor Blade. The HTC Main Rotor Blade is **fully interchangeable** and carries a **life-limit of 2,600 hours**.

The -103 blade features a solid Titanium Lower Grip Plate.

Installation of this Blade is covered by FAA Supplemental Type Certificate (STC) Number **SR02492LA**.

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Part Number **204P2100-101** and **-103** Main Rotor Blade is **applicable on the following UH-1H Models:**

**JJASPP Engineering Services (R00004RC)**  
**Tamarack Helicopters (R00010SE)**  
**OAS Parts LLC (H7SO)**  
**Rotorcraft Dev. Corp. (H13WE)**  
**Southwest Florida Aviation (H6SO)**  
**Global Helicopter Technology (R00002RC)**  
**Hagglund Helicopters (H15NM)**  
**Arrow Falcon Exporters (R00007DE)**  
**Richard's Heavylift Helo Inc. (H3SO)**  
**Northwest Rotorcraft (R00005SE)**

Part Number **204P2100-101** and **-103** Main Rotor Blade is **applicable on the following UH-1B Models with STC SR00026DE Installed:**

**Rotorcraft Dev. Corp. (H3NM)**  
**Rotorcraft Dev. Corp. (H13WE)**  
**San Joaquin Helicopters (H1RM)**  
**International Helicopters (H5SO)**  
**Richards Heavylift Helo, Inc. (H3SO)**  
**OAS Parts LLC (H7SO)**

**Note:** On **UH-1B Models with STC SR00026DE Installed**, reference FAA STC Number SR00026DE and San Joaquin Helicopters Helicopter Maintenance Manual Supplement No. 1 to Army Model UH-1B Helicopter (Restricted Category).

Part Number **204P2100-101** and **-103** Main Rotor Blade is **applicable on the following TH-1F Models:**

**Rotorcraft Dev. Corp. (H12NM)**  
**Tamarack Helicopters (H7NE)**  
**Robinson Air Crane, Inc. (R00008AT)**

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Part Number **204P2100-101** and **-103** Main Rotor Blade is **applicable on the following UH-1F Models:**

**Rotorcraft Dev. Corp. (H12NM)**  
**Tamarack Helicopters (H7NE)**  
**Robinson Air Crane, Inc. (R00008AT)**  
**AST, Inc (H11SW)**  
**California Department of Forestry (H2NM)**

Part Number **204P2100-101** and **-103** Main Rotor Blade is **applicable on the following UH-1P Models:**

**Rotorcraft Dev. Corp. (H12NM)**  
**Robinson Air Crane, Inc. (R00008AT)**

Part Number **204P2100-101** and **-103** Main Rotor Blade is **applicable on the following 204B Model:**

**Bell Helicopter Textron, Inc. (H1SW)**

Part Number **204P2100-101** and **-103** Main Rotor Blade is **applicable on the following 205A Model:**

**Bell Helicopter Textron, Inc. (H1SW)**

Part Number **204P2100-101101** and **-103** Main Rotor Blade is **applicable on the following 205A-1 Model:**

**Bell Helicopter Textron, Inc. (H1SW)**



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# **204P2100-101 AND -103 MAIN ROTOR BLADE ASSEMBLY:**

**FOR UH-1H MODELS (TM 55-1520-210-23-1)**

**AND**

**FOR UH-1B MODELS WITH STC NUMBER SR00026DE INSTALLED (TM 55-1520-210-23-1)**

## **CHAPTER 1. INTRODUCTION**

### **Section I. Servicing**

1-7. Main and Tail Rotor System

Refer to Paragraph 1-7.

1-14. Cleaning

1-15. Description - Cleaning

Refer to Paragraph 1-15.

1-19. Rotor Blades - Cleaning

Refer to Paragraph 1-19.

1-20. Treatment of Aluminum and Magnesium Corrosion

Refer to Paragraph 1-20.

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## 1-21. Snow and Ice Removal

Refer to Paragraph 1-21.

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1-22. Consumable Maintenance Supplies and Materials

1-23. Description - Consumable Maintenance Supplies and Materials

Refer to Paragraph 1-23.

Table 1-1. Consumable Maintenance Supplies and Materials

Refer to Table 1-1.

1-24. Special Tools and Test Equipment

1-25. Description - Special Tools and Test Equipment

Refer to Paragraph 1-25.

Table 1-2. Special Tools and Test Equipment

Refer to Table 1-2.

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1-26. Support Equipment

1-27. Description - Support Equipment

Refer to Paragraph 1-27.

Table 1-3. Support Equipment

Refer to Table 1-3.

1-28. Standard Torque Procedures and Requirements

Refer to Paragraph 1-28.

Table 1-4. Standard Torque Chart

Refer to Table 1-4.

1-29. Reuse of Self-Locking Nuts

Refer to Paragraph 1-29.

Table 1-7. Minimum Breakaway Torque

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## **SECTION IV. INSPECTION REQUIREMENTS**

### 1-56. General Information

Refer to Paragraph 1-56.

### 1-57. Standards of Serviceability

Refer to Paragraph 1-57.

### 1-58. Special Inspection

### 1-59. Description - Special Inspection

Refer to Paragraph 1-59.

### 1-60. Definition and General Information - Special Inspection

Refer to Paragraph 1-60.

### 1-61. Requirements - Special Inspection

Refer to Paragraph 1-61.

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## **Section V. Overhaul and Retirement Schedule**

### 1-62. Introduction

Refer to Paragraph 1-62.

### 1-63. Overhaul Interval

### 1-64. Description - Overhaul Interval

Refer to Paragraph 1-64.

### 1-65. Retirement Schedule

### 1-66. Description - Retirement Schedule

Refer to Paragraph 1-66.

## **Table 1-8. Overhaul and Retirement Schedule**

Refer to Table 1-8.

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## **Section VI. Flight Safety Critical Aircraft Parts**

### **1-67. Flight Safety Critical Aircraft Parts**

Refer to Paragraph 1-67.

### **Table 1-9. Flight Safety Critical Aircraft Parts**

Refer to Table 1-9.

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## **CHAPTER 5. ROTORS**

### **Section I. Main Rotor System**

5-1. Main Rotor System

5-2. Description – Main Rotor System

Refer to Paragraph 5-2.

5-3. Main Rotor Hub and Blade Assembly

5-4. Description - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-4.

5-5. Cleaning - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-5.

5-6. Lubrication - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-6.

5-7. Alignment - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-7.

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5-8. Adjustment, Collective Pitch Forces - Main Rotor Hub with Metal Blade  
Installed

Refer to Paragraph 5-8.

5-9. Operational Check - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-9.

5-10. Autorotation RPM Adjusting - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-10.

5-11. Troubleshooting - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-11.

Table 5-1. Troubleshooting Main Rotor System

Refer to Table 5-1.

5-12. Removal - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-12.

5-13. Installation - Main Rotor Hub and Blade Assembly

Refer to Paragraph 5-13.

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### **Section III. Main Rotor Blades**

5-27. Main Rotor Blade

5-28. Description - Main Rotor Blade

Refer to Paragraph 5-28.

5-29. Inspection - Main Rotor Blade (Installed)

Refer to Paragraph 5-29.

Table 5-3. Inspection Requirements Main Rotor Blade

Refer to Table 5-3.

5-30. Removal - Main Rotor Blade

Refer to Paragraph 5-30.

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#### 5-31. Inspection - Main Rotor Blade

Refer to Paragraph 5-31.

#### Table 5-4. Main Rotor Blade - Repairable Nicks, Scratches, and Corrosion Limits

Refer to Table 5-4.

#### Table 5-5. Main Rotor Blade - Dent Limits

Refer to Table 5-5.

#### 5-32. Repair or Replacement - Main Rotor Blade

Refer to Paragraph 5-32.

#### 5-33. Installation - Main Rotor Blade

Refer to Paragraph 5-33.

#### 5-34. Touchup Refinish Procedure - Main Rotor Blade

Refer to Paragraph 5-34.

##### 5-34.1. Preparation for Storage or Shipment - Main Rotor Blade

Refer to Paragraph 5-34.1

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## **Section IX. Tracking Procedures**

### 5-120. Tracking and Operational Check - Main Rotor Blades

Refer to Paragraph 5-120.

### 5-121. Vibration Analysis - Main Rotor Blades

Refer to Paragraph 5-121.

### 5-122. Deleted

Paragraph 5-122 has been Deleted.

### 5-125. Tracking and Balancing with the Vibrex 4591 System

### 5-126. General

Refer to Paragraph 5-126.

### 5-127. Equipment Description

Refer to Paragraph 5-127.

### 5-128. Main Rotor Track and Balance

Refer to Paragraph 5-128.

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5-129. Attach Test Equipment to Aircraft

Refer to Paragraph 5-129.

5-130. Hover Track of Main Rotor with Metal Blades

Refer to Paragraph 5-130.

5-131. Check Main Rotor Balance

Refer to Paragraph 5-131.

5-132. Correct Main Rotor Balance

Refer to Paragraph 5-132.

5-133. Check Main Rotor In-Flight Track

Refer to Paragraph 5-133.

5-134. Correct In-Flight Track

Refer to Paragraph 5-134.

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#### 5-140. Vibration Source Location

Refer to Paragraph 5-140.

#### Table 5-7. Operating Speeds

Refer to Table 5-7.

#### 5-141. Troubleshooting

Refer to Paragraph 5-141.

#### Table 5-8. Troubleshooting

Refer to Table 5-8.

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**FOR TH-1F MODELS (T.O. 1H-1(U)F-2-1),  
FOR UH-1F MODELS (T.O. 1H-1(U)F-2-1),  
AND  
FOR UH-1P MODELS (T.O. 1H-1(U)F-2-1)**

## I. GENERAL INFORMATION

### 1-1. General Information

Refer to Paragraph 1-1.

### 1-13. Leading Particulars

Refer to Paragraph 1-13.

Table 1-1. Leading Particulars

Refer to Table 1-1.

### 1-14. Station Locations

Refer to Paragraph 1-14.

Figure 1-2. Station Locations

Refer to Figure 1-2.

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## **1-22. Preservation**

Refer to Paragraph 1-22.

### **1-28. Long Term Preservation**

Refer to Paragraph 1-28.

### **1-31. Drive System – Preservation (Inoperable Engine)**

Refer to Paragraph 1-31.

## **1-40. Depreservation**

Refer to Paragraph 1-40.

### **1-42. Long Term Depreservation**

Refer to Paragraph 1-42.

### **1-52. Main Rotor Assembly**

Refer to Paragraph 1-52.

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## **1-53. Extreme Climactic Environmental Maintenance**

Refer to Paragraph 1-53.

### **1-54. Extremes in Temperature**

Refer to Paragraph 1-54.

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## **II. GROUND HANDLING, SERVICING, AND LUBRICATION INSTRUCTIONS**

### **2-1. Ground Handling**

Refer to Paragraph 2-1.

#### **2-2. General**

Refer to Paragraph 2-2.

#### **2-3. Towing**

Refer to Paragraph 2-3.

#### **2-5. Towing**

Refer to Paragraph 2-5.

#### **Figure 2-1. Towing and Parking**

Refer to Figure 2-1.

#### **2-34. Parking**

Refer to Paragraph 2-34.

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## 2-35. Parking Procedures

Refer to Paragraph 2-35.

## 2-36. Anchoring and Mooring

Refer to Paragraph 2-36.

## 2-37. Mooring Procedures

Refer to Paragraph 2-37.

## Figure 2-14. Typical Mooring

Refer to Figure 2-14.

## 2-38. Blade Tie Down

Refer to Paragraph 2-38.

## 2-39. Jacking

Refer to Paragraph 2-39.

## 2-41. Jacking Procedure

Refer to Paragraph 2-41.

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2-43. Jacking for Weighing

Refer to Paragraph 2-43.

2-47. Hoisting

Refer to Paragraph 2-47.

2-48. Maintenance Hoist

Refer to Paragraph 2-48.

Figure 2-15. Jacking-Hoisting-Leveling

Refer to Figure 2-15.

2-56. Cold Weather Ground Check

Refer to Paragraph 2-56.

## **2-57. Servicing**

Refer to Paragraph 2-57.

2-58. General

Refer to Paragraph 2-58.

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## **2-70. Air Transportability**

Refer to Paragraph 2-70.

### **2-71. General**

Refer to Paragraph 2-71.

## **2-74. Torque Requirements**

Refer to Paragraph 2-74.

### **2-75. Torqueing Instructions**

Refer to Paragraph 2-75.

### **2-76. Torqueing Limits**

Refer to Paragraph 2-76.

#### **Table 2-1. Standard Torque Values**

Refer to Table 2-1.

#### **Figure 2-24. Torque Values**

Refer to Figure 2-24.

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2-77. Correct Recommended Torque

Refer to Paragraph 2-77.

2-78. Torque – Tightening Procedures

Refer to Paragraph 2-78.

2-79. Use of Extension Wrench (Crowfoot)

Refer to Paragraph 2-79.

2-80. Measuring Effective Length of Crowfoot Wrench

Refer to Paragraph 2-80.

Figure 2-26. Torque Values for Studs

Refer to Figure 2-26.

2-81. Determination of Gage Reading when using a Crowfoot Wrench

Refer to Paragraph 2-81.

Figure 2-27. Decimal Equivalent Conversion Table

Refer to Figure 2-27.

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Figure 2-28. Temperature Conversion Chart (Fahrenheit to Centigrade)

Refer to Figure 2-28.

Figure 2-29. Measuring Effective Length of Extension Wrench

Refer to Figure 2-29.

Figure 2-30. Torque Application using Extension Wrench

Refer to Figure 2-30.

## **2-86. Materials Required**

Refer to Paragraph 2-86.

Table 2-3. Materials Required

Refer to Table 2-3.

Figure 2-34. Special Tools and Equipment

Refer to Figure 2-34.

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## **2-87. Special Tools and Equipment**

Refer to Paragraph 2-87.

Table 2-4. Special Tools and Equipment

Refer to Table 2-4.



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## **VII. MAIN AND TAIL ROTOR AND FLIGHT CONTROLS**

### **7-1. Main Rotor Hub and Blade Assembly**

Refer to Paragraph 7-1.

#### **7-2. Description**

Refer to Paragraph 7-2.

Figure 7-1. Main Rotor Group

Refer to Figure 7-1.

Figure 7-2. Rotor System Torque Values

Refer to Figure 7-2.

Figure 7-3. Main Rotor Hub and Blade Assembly

Refer to Figure 7-3.

#### **7-3. Removal – Main Rotor Hub and Blade Assembly**

Refer to Paragraph 7-3.

Figure 7-4. Grip Positioning Links

Refer to Figure 7-4.

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#### 7-4. Alternate Removal – Main Rotor Hub and Blade Assembly

Refer to Paragraph 7-4.

#### 7-4A. Removal of Pitch Change Link Assembly

Refer to Paragraph 7-4A.

#### 7-5. Removal – Main Rotor Blades

Refer to Paragraph 7-5.

#### 7-6. Inspection and Repair Main Rotor Blades

Refer to Paragraph 7-6.

#### 7-7. Inspection and Repair Drag Brace Assembly

Refer to Paragraph 7-7.

#### Figure 7-5. Blade Removal

Refer to Figure 7-5.

#### 7-8. Covering Leading Edge of Main Rotor Blades

Refer to Paragraph 7-8.

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Figure 7-8. Rotor Blade Retention Bolt Extracting Fixture

Refer to Figure 7-8.

#### 7-17. Reassembly after Replacement of Main Rotor Blade Retention Straps

Refer to Paragraph 7-17.

#### 7-19. Installation - Main Rotor Blades

Refer to Paragraph 7-19.

#### 7-20. Aligning - Main Rotor Blades

Refer to Paragraph 7-20.

Figure 7-16. Main Rotor Blade Alignment

Refer to Figure 7-16.

Figure 7-17. Blade Alignment Jig Assembly

Refer to Figure 7-17.

#### 7-21. Installation - Main Rotor Hub and Blade Assembly

Refer to Paragraph 7-21.

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Figure 7-18. Pitch Change Link Assembly

Refer to Figure 7-18.

#### 7-22. Alternate Installation - Main Rotor Hub and Blade Assembly

Refer to Paragraph 7-22.

#### 7-23. Setting Minimum Blade Angle - Main Rotor

Refer to Paragraph 7-23.

#### 7-24. Clean Main Rotor Blades

Refer to Paragraph 7-24.

#### 7-25. Operational Check of Main Rotor

Refer to Paragraph 7-25.

#### 7-26. Vibrations

Refer to Paragraph 7-26.

#### 7-27. Extreme Low Frequency Vibration

Refer to Paragraph 7-27.

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7-28. Low Frequency Vibration

Refer to Paragraph 7-28.

7-29. Medium Frequency Vibration

Refer to Paragraph 7-29.

7-30. High Frequency Vibration

Refer to Paragraph 7-30.

7-30A. Vibration Analysis and Troubleshooting

Refer to Paragraph 7-30A.

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## **7-31. Tracking and Balancing Main and Tail Rotor Assembly**

Refer to Paragraph 7-31.

### **7-32. Vibrex System Tracking and Balancing Main and Tail Rotor Blades and Hubs**

Refer to Paragraph 7-32.

### **7-33. Description of Equipment**

Refer to Paragraph 7-33.

#### **Table 7-1. Tools and Equipment Required**

Refer to Table 7-1.

#### **Figure 7-20. Description and Specifications of the Vibrex System**

Refer to Figure 7-20.

#### **Figure 7-20A. Spectrum Analyzer, Model 192**

Refer to Figure 7-20A.

#### **Figure 7-21. Vibrex B Equipment**

Refer to Figure 7-21.

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Figure 7-22. Vibrex / Airframe Interface

Refer to Figure 7-22.

Figure 7-23. Phase Relationships for Improperly and Properly Tuned Filters

Refer to Figure 7-23.

Figure 7-24. Typical Charts

Refer to Figure 7-24.

Figure 7-25. Accurate Charts

Refer to Figure 7-25.

Figure 7-26. Balance Chart Clock Angle Corrector Instruction Sheet

Refer to Figure 7-26.

Figure 7-27. Balance Chart Clock Angle Corrector

Refer to Figure 7-27.

Figure 7-28. Reclocked Chart

Refer to Figure 7-28.

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#### 7-34. Operating Equipment

Refer to Paragraph 7-34.

#### Figure 7-29. Installation of Interrupter on Swashplate

Refer to Figure 7-29.

#### Figure 7-30. Installation Magnetic Pickup

Refer to Figure 7-30.

#### 7-35. Installation of Equipment

Refer to Paragraph 7-35.

#### Figure 7-31. Installation of Interrupter

Refer to Figure 7-31.

#### Figure 7-32. Adjustment of Magnetic Pickup Clearance

Refer to Figure 7-32.

#### Figure 7-33. Installation of Magnetic Pickup and Accelerometer Cable

Refer to Figure 7-33.



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Figure 7-34. Installation of Retro-Reflective Tape to Main Rotor Tip Targets

Refer to Figure 7-34.

Figure 7-35. Installation of Tip Targets

Refer to Figure 7-35.

Figure 7-36. Installation of Accelerometer and Bracket, PN 3382

Refer to Figure 7-36.

Figure 7-37. Installation of Reflective Target Tape to Blade Grip

Refer to Figure 7-37.

Figure 7-38. Installation of Retro-Reflective Target Tape to Blade Tip

Refer to Figure 7-38.

7-36. Hover Tracking Rotor

Refer to Paragraph 7-36.

Figure 7-39. Stopped Target Image Tail Rotor

Refer to Figure 7-39.

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Figure 7-40. Hover and Ground Track Blade Pattern

Refer to Figure 7-40.

#### 7-37. Dynamic Balancing of Main Rotor

Refer to Paragraph 7-37.

#### 7-38. Inflight Tracking Main Rotor Blades

Refer to Paragraph 7-38.

Figure 7-42. Balance Chart, Main Rotor (Typical)

Refer to Figure 7-42.

Figure 7-43. Inflight Track Blade Pattern

Refer to Figure 7-43.

#### 7-41. Troubleshooting Vibration using Vibrex B

Refer to Paragraph 7-41.

#### 7-42. Removal of Equipment

Refer to Paragraph 7-42.

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7-43. Tracking Flag Method

Refer to Paragraph 7-43.

Figure 7-44. Tracking Main Rotor

Refer to Figure 7-44.

7-44. Vibration Check and Adjustment of Main Rotor

Refer to Paragraph 7-44.

Figure 7-45. Main Rotor Tracking Procedure

Refer to Figure 7-45.

Figure 7-46. Rotor Smoothing Procedure

Refer to Figure 7-46.

7-45. Sweeping Blade of Main Rotor

Refer to Paragraph 7-45.

7-46. Autorotation RPM Adjustment of Main Rotor

Refer to Paragraph 7-46.

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Figure 7-47. Troubleshooting Lateral Vibration

Refer to Figure 7-47.

Figure 7-48. Trim Tab Bender and Gage Application

Refer to Figure 7-48.

Figure 7-49. Tracking Flag

Refer to Figure 7-49.

7-47. Adjusting for Collective Forces

Refer to Paragraph 7-47.

7-48. Adjustment - Collective Pitch Force – Main Rotor Hub and Blade Assembly

Refer to Paragraph 7-48.

Figure 7-50. Collective Pitch Retention Strap Adjustment

Refer to Figure 7-50.

7-49. Resetting Tension Torsion Straps to Initial Setting

Refer to Paragraph 7-49.

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7-50. Resetting Main Rotor Grip Strap

Refer to Paragraph 7-50.

7-51. Troubleshooting Rotors and Controls

Refer to Paragraph 7-51.

Table 7-2. Troubleshooting Rotors and Controls

Refer to Table 7-2.

## **7-101. Packaging and Preservation of Components**

Refer to Paragraph 7-101.

7-102. Installing Main Rotor Blades in Shipping Containers

Refer to Paragraph 7-102.

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# **204P2100-101 AND -103 MAIN ROTOR BLADE ASSEMBLY: FOR 204B MODELS (BHT-204B-M&O-1)**

## **INTRODUCTION**

### **1. Use of the Manual**

Refer to Paragraph 1.

### **2. Bulletins**

Refer to Paragraph 2.

### **3. Consumable Materials**

Refer to Paragraph 3.

### **4. Special Tools**

Refer to Paragraph 4.

### **5. Torques**

Refer to Paragraph 5.

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## **6. Terminology**

Refer to Paragraph 6.

## **7. Warnings, Cautions, and Notes**

Refer to Paragraph 7.

## **8. Use of Procedural Words**

Refer to Paragraph 8.

## **9. Wear Limits**

Refer to Paragraph 9.

## **10. Standard Practices**

Refer to Paragraph 10.

## **11. Replacement Parts and Assemblies**

Refer to Paragraph 11.

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## **SECTION I. GENERAL INFORMATION**

Figure 1-1. 204B Helicopter

Refer to Figure 1-1.

### **1-1. General Information**

Refer to Paragraph 1-1.

### **1-2. Description**

Refer to Paragraph 1-2.

#### **1-3. General**

Refer to Paragraph 1-3.

#### **1-7. Main Rotor**

Refer to Paragraph 1-7.

### **1-20. Helicopter Dimensions**

Refer to Paragraph 1-20.

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## **1-21. Ground Handling**

Refer to Paragraph 1-21.

Figure 1-2. Three-View Dimensional Diagram

Refer to Figure 1-2.

Figure 1-3. Station Line Diagram

Refer to Figure 1-3.

Figure 1-4. Ground Handling (Hoisting, Jacking, Leveling, and Towing)

Refer to Figure 1-4.

1-29. Parking – Normal Conditions

Refer to Paragraph 1-29.

1-30. Parking – Turbulent Conditions

Refer to Paragraph 1-30.

1-31. Mooring

Refer to Paragraph 1-31.

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Figure 1-5. Parking and Mooring

Refer to Figure 1-5.

## **1-32. Helicopter Storage**

Refer to Paragraph 1-32.

### **1-33. Environmental Conditions**

Refer to Paragraph 1-33.

### **1-34. Flyable Storage**

Refer to Paragraph 1-34.

### **1-35. Short Term Storage**

Refer to Paragraph 1-35.

### **1-36. Intermediate Storage**

Refer to Paragraph 1-36.

## **1-67. Maintenance Hoist**

Refer to Paragraph 1-67.

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## **1-78. Inspection**

Refer to Paragraph 1-78.

### **1-79. Daily Inspection**

Refer to Paragraph 1-79.

### **1-79. Daily Inspection**

Refer to Paragraph 1-79.

### **1-80. 100 Hour Inspection**

Refer to Paragraph 1-80.

### **1-81. 1000 Hour Inspection**

Refer to Paragraph 1-81.

### **1-82. 3000 Hour Inspection**

Refer to Paragraph 1-82.

### **1-83. 1000 Hour Component Overhaul**

Refer to Paragraph 1-83.

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1-84. 1500 Hour Component Overhaul

Refer to Paragraph 1-84.

1-85. 2000 Hour Component Overhaul

Refer to Paragraph 1-85.

1-86. 2400 Hour Component Overhaul

Refer to Paragraph 1-86.

1-86A. 2500 Hour Component Overhaul

Refer to Paragraph 1-86A.

1-87. Between 5 and 10 Hours of Flight After Installation

Refer to Paragraph 1-87.

1-88. Each 10 Hours of Component Operation

Refer to Paragraph 1-88.

1-89. Each 25 Hours of Component Operation

Refer to Paragraph 1-89.

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1-90. Between 25 and 30 Hours of Flight After Installation

Refer to Paragraph 1-90.

1-91. Each 50 Hours or 15/30 Days

Refer to Paragraph 1-91.

1-92. 100 Hours After Initial Installation of Tailboom

Refer to Paragraph 1-92.

1-93. Each 100 Hours

Refer to Paragraph 1-93.

1-94. Each 100 Hours or 3 Months, Whichever Occurs First

Refer to Paragraph 1-94.

1-95. Each 300 Hours or 3 Months, Whichever Occurs First

Refer to Paragraph 1-95.

1-96. Each 500 Hours or 12 Months, Whichever Occurs First

Refer to Paragraph 1-96.

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1-96A. Each 24 Months

Refer to Paragraph 1-96A.

1-96B. Deleted

Paragraph 1-96B has been Deleted.

1-97. Each 1200 Hours or 24 Months, Whichever Occurs First

Refer to Paragraph 1-97.

1-98. Hard Landing

Refer to Paragraph 1-98.

1-99. Sudden Stoppage – Power On or Off

Refer to Paragraph 1-99.

1-100. Overspeed

Refer to Paragraph 1-100.

1-101. Overtorque

Refer to Paragraph 1-101.

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1-102. Compressor Surge or Stall

Refer to Paragraph 1-102.

1-103. Lightning Strikes

Refer to Paragraph 1-103.

1-104. Magnetic Compass Malfunction

Refer to Paragraph 1-104.

1-105. Overhaul Evaluation Criteria

Refer to Paragraph 1-105.

## **1-106. Airworthiness Limitations Schedule**

Refer to Paragraph 1-106.

Table 1-2. Airworthiness Limitations Schedule

Refer to Table 1-2.

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## **SECTION II. MAIN ROTOR HUB AND BLADE ASSEMBLY**

### **2-1. Main Rotor Hub and Blade Assembly**

Refer to Paragraph 2-1.

#### **2-2. Description**

Refer to Paragraph 2-2.

#### **2-3. Removal – Main Rotor Hub and Blade Assembly**

Refer to Paragraph 2-3.

### **2-4. Main Rotor Blades**

Refer to Paragraph 2-4.

#### **2-5. Description**

Refer to Paragraph 2-5.

#### **2-6. Removal – Main Rotor Blades**

Refer to Paragraph 2-6.

Figure 2-1. Main Rotor Assembly

Refer to Figure 2-1.

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Figure 2-2. Grip Positioning Links

Refer to Figure 2-2.

## 2-7. Installation – Main Rotor Blades

Refer to Paragraph 2-7.

Figure 2-3. Removing Main Rotor Blades

Refer to Figure 2-3.

Figure 2-4. Main Rotor Blade Retention Bolt Extracting Fixture

Refer to Figure 2-4.

## 2-8. Preventative Maintenance – Main Rotor Blades

Refer to Paragraph 2-8.

## 2-9. Leading Edge Protection – Main Rotor Blades (Polyurethane Tape)

Refer to Paragraph 2-9.

## 2-10. Daily Inspection – Main Rotor Blades

Refer to Paragraph 2-10.

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## 2-11. 1000 Hour Inspection and Repair – Main Rotor Blades

Refer to Paragraph 2-11.

### Figure 2-5. Main Rotor Blade Repair

Refer to Figure 2-5.

## 2-12. Conditional Inspection – Main Rotor Blades

Refer to Paragraph 2-12.

## 2-13. Inspection – Main Rotor Blades

Refer to Paragraph 2-13.

## 2-14. Field Repairs – Main Rotor Blades

Refer to Paragraph 2-14.

## 2-15. Trim Tab Replacement – Main Rotor Blade

Refer to Paragraph 2-15.

### Figure 2-6. Trim Tab Replacement

Refer to Figure 2-6.

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## 2-16. Main Rotor Blade Splice Cover

Refer to Paragraph 2-16.

## 2-17. Installation – Main Rotor Blade Splice Cover

Refer to Paragraph 2-17.

## 2-18. Preservation, Storage, and Blade Packaging

Refer to Paragraph 2-18.

## 2-19. Main Rotor Hub

Refer to Paragraph 2-19.

## 2-43. Balancing - Main Rotor Hub Assembly

Refer to Paragraph 2-43.

### Figure 2-34. Balancing Main Rotor Hub

Refer to Figure 2-34.

## 2-44. Installation – Main Rotor Blades

Refer to Paragraph 2-44.

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2-45. Alignment – Main Rotor Blades

Refer to Paragraph 2-45.

2-46. Installation – Main Rotor Hub and Blade Assembly

Refer to Paragraph 2-46.

Figure 2-35. Main Rotor Blade Alignment

Refer to Figure 2-35.

2-47. Torque Limits – Main Rotor

Refer to Paragraph 2-47.

## **2-48. Maintenance Operational Check - Main Rotor**

Refer to Paragraph 2-48.

2-49. Tracking – Main Rotor Blades

Refer to Paragraph 2-49.

Figure 2-36. Rotor System Torque Limits

Refer to Figure 2-36.

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Figure 2-37. Tracking Main Rotor Blades

Refer to Figure 2-37.

Figure 2-38. Trim Tab Bender and Gage Application

Refer to Figure 2-38.

2-50. Spanwise Balance Check

Refer to Paragraph 2-50.

2-51. Chordwise Balance Check

Refer to Paragraph 2-51.

2-52. Autorotation RPM Check

Refer to Paragraph 2-52.

2-53. Collective Pitch Force Check and Adjustment

Refer to Paragraph 2-53.

Figure 2-39. Collective Pitch Force Adjustment

Refer to Figure 2-39.

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## **2-54. Main Rotor Hub Sealing**

Refer to Paragraph 2-54.

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# **204P2100-101 AND -103 MAIN ROTOR BLADE ASSEMBLY: FOR 205A MODELS (BHT-205A1-MM-1) AND FOR 205A-1 MODELS (BHT-205A1-MM-1)**

## **CHAPTER 1. INTRODUCTION**

### **1-1. General**

Refer to Paragraph 1-1.

### **1-2. Helicopter Description**

Refer to Paragraph 1-2.

Figure 1-1. Model 204A-1 Helicopter (Typical)

Refer to Figure 1-1.

### **1-3. Use of the Manual**

Refer to Paragraph 1-3.

### **1-4. Bulletins**

Refer to Paragraph 1-4.

### **1-5. Consumable Materials**

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Refer to Paragraph 1-5.

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## **1-6. Special Tools**

Refer to Paragraph 1-6.

## **1-7. Torques**

Refer to Paragraph 1-7.

## **1-8. Terminology**

Refer to Paragraph 1-8.

## **1-9. Warnings, Cautions, and Notes**

Refer to Paragraph 1-9.

## **1-10. Use of Procedural Words**

Refer to Paragraph 1-10.

## **1-11. Wear Limits**

Refer to Paragraph 1-11.

## **1-12. Standard Practices**

Refer to Paragraph 1-12.

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## **1-13. Replacement Parts and Assemblies**

Refer to Paragraph 1-13.

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## **CHAPTER 4. AIRWORTHINESS LIMITATIONS**

### **4-1. Airworthiness Limitations Schedule**

Refer to Paragraph 4-1.

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## **CHAPTER 5. INSPECTIONS**

### **Inspections**

#### **5-1. General**

Refer to Paragraph 5-1.

#### **5-2. Inspection Requirements**

Refer to Paragraph 5-2.

#### **5-3. Crash Damage**

Refer to Paragraph 5-3.

#### **5-4. Types of Inspections**

Refer to Paragraph 5-4.

#### **5-5. Definitions**

Refer to Paragraph 5-5.

#### **5-6. Inspection and Overhaul Tolerance**

Refer to Paragraph 5-6.

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## **Scheduled Inspections**

### 5-7. Scheduled Inspections

Refer to Paragraph 5-7.

### 5-8. Daily Inspection

Refer to Paragraph 5-8.

### 5-9. 100 Hour Inspection

Refer to Paragraph 5-9.

### 5-10. 1000 Hour Inspection

Refer to Paragraph 5-10.

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## **Special Inspections**

### 5-11. Special Inspections

Refer to Paragraph 5-11.

### 5-12. Daily or Each 10 Hours of Flight Operation, Whichever Occurs First until 250 Hours

Refer to Paragraph 5-12.

### 5-13. Between 5 and 10 Hours of Flight After Installation

Refer to Paragraph 5-13.

### 5-14. Each 8 Hours of Component Operation

Refer to Paragraph 5-14.

### 5-15. Each 25 Hours of Component Operation

Refer to Paragraph 5-15.

### 5-16. Each 25 Hours for the Next Four Inspections

Refer to Paragraph 5-16.

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5-17. Each 25 Hours of Component Operation or 15 Days, or Each 5 Days for Blades Operating in Salt Laden Atmosphere, Whichever Occurs First

Refer to Paragraph 5-17.

5-18. 100 Hours After Each Installation

Refer to Paragraph 5-18.

5-19. Main Rotor Grip Ultrasonic Inspection

Refer to Paragraph 5-19.

5-20. Each 300 Hours of Component Operation

Refer to Paragraph 5-20.

5-21. Each 300 Hours or 3 Months of Component Operation

Refer to Paragraph 5-21.

5-22. Each 500 Hours of Component Operation

Refer to Paragraph 5-22.

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5-23. Each 600 Hours/6 Months of Tail Rotor Driveshaft Coupling Operation

Refer to Paragraph 5-23.

5-24. Each 600 Hours or 12 Months of Component Operation

Refer to Paragraph 5-24.

5-25. Each 6 Months

Refer to Paragraph 5-25.

5-26. Each 12 Months

Refer to Paragraph 5-26.

5-27. Each 1000 Hours or 12 Months of Component Operation

Refer to Paragraph 5-27.

5-28. First 1000 Hours of Component Time and Each 3000 Hours Thereafter of Component Time

Refer to Paragraph 5-28.

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5-29. Each 1200 Hours of Component Operation - Deleted

Paragraph 5-29 has been Deleted.

5-30. Each 1200 Hours or 24 Months, Whichever Comes First

Refer to Paragraph 5-30.

5-31. Each 24 Months of Flight Control System Bolt Operation

Refer to Paragraph 5-31.

5-32. Each 3000 Hours of Component Operation

Refer to Paragraph 5-32.

5-33. Each 3100 Hours of Component Operation

Refer to Paragraph 5-33.

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## Conditional Inspections

### 5-34. Conditional Inspections

Refer to Paragraph 5-34.

### 5-35. Hard Landing

Refer to Paragraph 5-35.

### 5-36. After Blade Strike or Other Rotating System Torque Spike

Refer to Paragraph 5-36.

### 5-37. Sudden Stoppage/Acceleration – Main Rotor

Refer to Paragraph 5-37.

### 5-38. Sudden Stoppage/Acceleration – Tail Rotor

Refer to Paragraph 5-38.

### 5-39. Overspeed

Refer to Paragraph 5-39.

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5-40. Overtorque

Refer to Paragraph 5-40.

5-41. Compressor Stall or Surge

Refer to Paragraph 5-41.

5-42. Lightning Strikes

Refer to Paragraph 5-42.

5-43. Magnetic Compass Malfunction

Refer to Paragraph 5-43.

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## **Component Overhaul Schedule**

5-44. Component Overhaul Schedule

Refer to Paragraph 5-44.

Table 5-1. Component Overhaul Schedule

Refer to Table 5-1.

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## **CHAPTER 6. DIMENSIONS AND CHARTS**

### **6-1. Principal Dimensions**

Refer to Paragraph 6-1.

### **6-2. Stations, Waterlines, and Buttocklines**

Refer to Paragraph 6-2.

Figure 6-1. Principal Dimensions

Refer to Figure 6-1.

Figure 6-2. Station Diagram

Refer to Figure 6-2.

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## **CHAPTER 7. LIFTING AND JACKING**

### **7-1. Lifting and Jacking**

Refer to Paragraph 7-1.

### **7-2. Lifting the Complete Helicopter**

Refer to Paragraph 7-2.

### **7-3. Lifting the Tailboom Only**

Refer to Paragraph 7-3.

### **7-4. Jacking**

Refer to Paragraph 7-4.

Figure 7-1. Jacking

Refer to Figure 7-1.

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## CHAPTER 9. TOWING

### 9-1. Towing

Refer to Paragraph 9-1.

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## **CHAPTER 10. PARKING AND MOORING**

### **10-1. Parking – Normal Conditions**

Refer to Paragraph 10-1.

### **10-2. Parking – Turbulent Conditions**

Refer to Paragraph 10-2.

### **10-3. Mooring**

Refer to Paragraph 10-3.

Figure 10-1. Parking and Mooring

Refer to Figure 10-1.

### **10-4. Helicopter Storage**

Refer to Paragraph 10-4.

10-5. Environmental Conditions

Refer to Paragraph 10-5.

10-6. Flyable Storage

Refer to Paragraph 10-6.

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#### 10-7. Short Term Storage

Refer to Paragraph 10-7.

#### 10-8. Intermediate Storage

Refer to Paragraph 10-8.

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## **CHAPTER 65. ROTOR SYSTEM**

### **65-1. Rotor System**

Refer to Paragraph 65-1.

### **65-2. Vibration Analysis**

Refer to Paragraph 65-2.

#### **65-3. Extreme Low Frequency Vibration**

Refer to Paragraph 65-3.

#### **65-4. Low Frequency Vibration**

Refer to Paragraph 65-4.

#### **65-5. Medium Frequency Vibration**

Refer to Paragraph 65-5.

#### **65-6. High Frequency Vibration**

Refer to Paragraph 65-6.

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## **65-7. Main Rotor Troubleshooting**

Refer to Paragraph 65-7.

Table 65-1. Main Rotor Troubleshooting

Refer to Table 65-1.

## **65-9. Operational Check - Main Rotor System**

Refer to Paragraph 65-9.

### **65-10. Main Rotor Tracking**

Refer to Paragraph 65-10.

Figure 65-1. Main Rotor Tracking Procedure

Refer to Figure 65-1.

### **65-11. Main Rotor Blade Vibration Check and Adjustment**

Refer to Paragraph 65-11.

### **65-12. Main Rotor Blade Sweeping**

Refer to Paragraph 65-12.

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#### 65-13. Main Rotor Autorotation RPM Adjustment

Refer to Paragraph 65-13.

#### Figure 65-2. Lateral Vibration Check

Refer to Figure 65-2.

#### Figure 65-3. Rotor Smoothing Procedure

Refer to Figure 65-3.

#### Figure 65-4. Trim Tab Bender and Gage

Refer to Figure 65-4.

### **65-14. Main Rotor Hub and Blade**

Refer to Paragraph 65-14.

#### 65-15. Removal – Main Rotor Hub and Blade

Refer to Paragraph 65-15.

#### 65-15A. Inspection and Repair – Main Rotor Hub and Blade

Refer to Paragraph 65-15A.

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## 65-16. Installation – Main Rotor Hub and Blade

Refer to Paragraph 65-16.

### Figure 65-5. Main Rotor System

Refer to Figure 65-5.

### Figure 65-6. Main Rotor Retaining Nut Damage and Repair Limits

Refer to Figure 65-6.

### Figure 65-7. Main Rotor Cone Set Damage and Repair Limits

Refer to Figure 65-7.

## 65-17. Minimum Blade Angle – Main Rotor Hub and Blade

Refer to Paragraph 65-17.

## 65-18. Collective Pitch Forces – Adjustment

Refer to Paragraph 65-18.

### Figure 65-8. Main Rotor System Torque Values

Refer to Figure 65-8.

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Figure 65-9. Collective Pitch Retention Strap Adjustment

Refer to Figure 65-9.

#### 65-19. Resetting Main Rotor Grip Tension-Torsion Strap

Refer to Paragraph 65-19.

#### 65-20. Resetting Main Rotor Grip Tension-Torsion Strap – Initial Setting

Refer to Paragraph 65-20.

### 65-21. Main Rotor Blades

Refer to Paragraph 65-21.

#### 65-22. Preventative Maintenance for Main Rotor Blades

Refer to Paragraph 65-22.

#### 65-23. Main Rotor Blade Daily Inspection

Refer to Paragraph 65-23.

#### 65-24. Nonrepairable Damage - Main Rotor Blades

Refer to Paragraph 65-24.

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## 65-25. Inspection and Minor Repair - Main Rotor Blades

Refer to Paragraph 65-25.

### Figure 65-10. Main Rotor Blade

Refer to Figure 65-10.

## 65-26. Field Repairs - Main Rotor Blades

Refer to Paragraph 65-26.

### Figure 65-11. Main Rotor Blade Repair

Refer to Figure 65-11.

## 65-27. Polyurethane Tape - Installation

Refer to Paragraph 65-27.

## 65-28. Deleted

Paragraph 65-28 has been Deleted.

## 65-29. Main Rotor Blade Paint Touch-Up

Refer to Paragraph 65-29.

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65-30. Main Rotor Blade Trim Tab

Refer to Paragraph 65-30.

65-31. Replacement - Main Rotor Blade - Trim Tab

Refer to Paragraph 65-31.

Figure 65-12. Trim Tab Replacement

Refer to Figure 65-12.

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## HTC SPECIFIC INSPECTIONS

### For 204P2100-101 Only: Main Rotor Blade Root End Periodic Inspection Requirements

#### REQUIRED MATERIALS

1. Naphtha or Rubbing Alcohol
2. Kim Wipes or equivalent clean lint-free wipes.
3. Bright Flashlight
4. 10x Magnifying Glass

#### INSPECTION INSTRUCTIONS

Within 25 Hours time-in-service (TIS) or 2 weeks, whichever occurs first, and thereafter at intervals not to exceed 25 hours TIS or 2 weeks, whichever occurs first, perform the following:

1. Clean the upper and lower exposed surfaces of each M/R Blade from an area starting at the Butt (Inboard-most) End of the Blade to three (3.0) inches outboard of the Doublers.
2. Use a 10X Magnifying Glass and Flashlight, visually inspect the M/R blade parts for a crack or corrosion.
3. If there is a crack, corrosion, an edge void, loose or damaged adhesive squeeze-out, or an edge delamination, the Blade is Not Airworthy and must be replaced with an Airworthy Blade before further flight.

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4. Record compliance with these inspections in the Rotorcraft Log Book and/or in the Technical Directives and Bulletins section of the rotor blade Serviceable Component Record, as applicable.
5. For further information and rotor blade disposition, contact Helicopter Technology Company, LLC (HTC) at (310) 523-2750, or FAX (310) 523-2745.