



**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 under Technical Publications.

12902 South Broadway • Los Angeles, California 90061

Sheet 1 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

Table of Contents

LIST OF EFFECTIVE PAGES	20
PURPOSE	21
REFERENCE DOCUMENTS	23
DEFINITIONS AND ABBREVIATIONS	25
WEIGHT AND BALANCE	26
WARNINGS	27
INDEX	28
AIRWORTHINESS LIMITATIONS	29
Interchangeability and Life Limits	29

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

**204P2100-101 AND -103 MAIN ROTOR BLADE ASSEMBLY: FOR UH-1H MODELS
(TM 55-1520-210-23-1) AND UH-1B MODELS WITH STC #SR00026DE INSTALLED
(TM 55-1520-210-23-1) 33**

Chapter 1. Introduction	33
Section I. Servicing	33
1-7. Main and Tail Rotor System	33
1-14. Cleaning	33
1-15. Description - Cleaning	33
1-15. Rotor Blades - Cleaning	33
1-20. Treatment of Aluminum and Magnesium Corrosion	33
1-21. Snow and Ice Removal	34
1-22. Consumable Maintenance Supplies and Materials	35
1-23. Description - Consumable Maintenance Supplies and Materials	35
Table 1-1. Consumable Maintenance Supplies and Materials	35
1-24. Special Tools and Test Equipment	35
1-25. Description - Special Tools and Test Equipment	35
Table 1-2. Special Tools and Test Equipment	35
1-26. Support Equipment	36
1-27. Description - Support Equipment	36
Table 1-3. Support Equipment	36
1-28. Standard Torque Procedures and Requirements	36
Table 1-4. Standard Torque Chart	36
1-29. Reuse of Self-Locking Nuts	36
Table 1-7. Minimum Breakaway Torque	36
Section IV. Inspection Requirements	37
1-56. General Information	37
1-57. Standards of Serviceability	37
1-58. Special Inspection	37
1-59. Description - Special Inspection	37
1-60. Definition and General Information - Special Inspection	37
1-61. Requirements - Special Inspection	37

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

Section V. Overhaul and Retirement Schedule	38
1-62. Introduction	38
1-63. Overhaul Interval	38
1-64. Description - Overhaul Interval	38
1-65. Retirement Schedule	38
1-66. Description - Retirement Schedule	38
Table 1-8. Overhaul and Retirement Schedule	38
Section VI. Flight Safety Critical Aircraft Parts	39
1-67. Flight Safety Critical Aircraft Parts	39
Table 1-9. Flight Safety Critical Aircraft Parts	39
Chapter 5. Rotors	40
Section I. Main Rotor System	40
5-1. Main Rotor System	40
5-2. Description - Main Rotor System	40
5-3. Main Rotor Hub and Blade Assembly	40
5-4. Description - Main Rotor Hub and Blade Assembly	40
5-5. Cleaning - Main Rotor Hub and Blade Assembly	40
5-6. Lubrication - Main Rotor Hub and Blade Assembly	40
5-7. Alignment - Main Rotor Hub and Blade Assembly	40
5-8. Adjustment, Collective Pitch Forces - Main Rotor Hub with Metal Blade Installed	41
5-9. Operational Check - Main Rotor Hub and Blade Assembly	41
5-10. Autorotation RPM Adjusting - Main Rotor Hub and Blade Assembly	41
5-11. Troubleshooting - Main Rotor Hub and Blade Assembly	41
Table 5-1. Troubleshooting Main Rotor System	41
5-12. Removal - Main Rotor Hub and Blade Assembly	41
5-13. Installation - Main Rotor Hub and Blade Assembly	41

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

Section III. Main Rotor Blades	42
5-27. Main Rotor Blade	42
5-28. Description - Main Rotor Blade	42
5-29. Inspection - Main Rotor Blade (Installed)	42
Table 5-3. Inspection Requirements Main Rotor Blade	42
5-30. Removal - Main Rotor Blade	42
5-31. Inspection - Main Rotor Blade	43
Table 5-4. Main Rotor Blade - Repairable Nicks, Scratches, and Corrosion Limits	43
Table 5-5. Main Rotor Blade - Dent Limits	43
5-32. Repair or Replacement - Main Rotor Blade	43
5-33. Installation - Main Rotor Blade	43
5-34. Touchup Refinish Procedure - Main Rotor Blade	43
5-34.1. Preparation for Storage or Shipment - Main Rotor Blade	43
Section IX. Tracking Procedures	44
5-120. Tracking and Operational Check - Main Rotor Blades	44
5-121. Vibration Analysis - Main Rotor Blades	44
5-122. Deleted	44
5-125. Tracking and Balancing with the Vibrex 4591 System	44
5-126. General	44
5-127. Description	44
5-128. Main Rotor Track and Balance	44
5-129. Attach Test Equipment to Aircraft	45
5-130. Hover Track of Main Rotor with Metal Blades	45
5-131. Check Main Rotor Balance	45
5-132. Correct Main Rotor Balance	45
5-133. Check Main Rotor In-Flight Track	45
5-134. Correct In-Flight Track	45
5-140. Vibration Source Location	46
Table 5-7. Operating Speeds	46
5-141. Troubleshooting	46
Table 5-8. Troubleshooting	46

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

204P2100-101 AND -103 MAIN ROTOR BLADE ASSEMBLY: 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) 47

I. General Information 47

1-1. General Information	47
1-13. Leading Particulars	47
Table 1-1. Leading Particulars	47
1-14. Station Locations	47
Figure 1-2. Station Locations	47
1-22. Preservation	48
1-28. Long Term Preservation	48
1-31. Drive System – Preservation (Inoperable Engine)	48
1-40. Depreservation	48
1-42. Long Term Depreservation	48
1-52. Main Rotor Assembly	48
1-53. Extreme Climactic Environmental Maintenance	49
1-54. Extremes in Temperature	49

II. Ground Handling, Servicing, and Lubrication Instructions 50

2-1. Ground Handling	50
2-2. General	50
2-3. Towing	50
2-5. Towing	50
Figure 2-1. Towing and Parking	50
2-34. Parking	50
2-35. Parking Procedures	51
2-36. Anchoring and Mooring	51
2-37. Mooring Procedures	51
Figure 2-14. Typical Mooring	51

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

2-38. Blade Tie Down	51
2-39. Jacking	51
2-41. Jacking Procedure	51
2-43. Jacking for Weighing	52
2-47. Hoisting	52
2-48. Maintenance Hoist	52
Figure 2-15. Jacking-Hoisting-Leveling	52
2-56. Cold Weather Ground Check	52
2-57. Servicing	52
2-58. General	52
2-70. Air Transportability	53
2-71. General	53
2-74. Torque Requirements	53
2-75. Torqueing Instructions	53
2-76. Torqueing Limits	53
Table 2-1. Standard Torque Values	53
Figure 2-24. Torque Values	53
2-77. Correct Recommended Torque	54
2-78. Torque – Tightening Procedures	54
2-79. Use of Extension Wrench (Crowfoot)	54
2-80. Measuring Effective Length of Crowfoot Wrench	54
Figure 2-26. Torque Values for Studs	54
2-81. Determination of Gage Reading when using a Crowfoot Wrench	54
Figure 2-27. Decimal Equivalent Conversion Table	54
Figure 2-28. Temperature Conversion Chart (Fahrenheit to Centigrade)	55
Figure 2-29. Measuring Effective Length of Extension Wrench	55
Figure 2-30. Torque Application using Extension Wrench	55
2-86. Materials Required	55
Table 2-3. Materials Required	55
Figure 2-34. Special Tools and Equipment	55
2-87. Special Tools and Equipment	56
Table 2-4. Special Tools and Equipment	56

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

VII. Main and Tail Rotor and Flight Controls	57
7-1. Main Rotor Hub and Blade Assembly	57
7-2. Description	57
Figure 7-1. Main Rotor Group	57
Figure 7-2. Rotor System Torque Values	57
Figure 7-3. Main Rotor Hub and Blade Assembly	57
7-3. Removal – Main Rotor Hub and Blade Assembly	57
Figure 7-4. Grip Positioning Links	57
7-4. Alternate Removal – Main Rotor Hub and Blade Assembly	58
7-4A. Removal – of Pitch Change Link Assembly	58
7-5. Removal – Main Rotor Blades	58
7-6. Inspection and Repair Main Rotor Blades	58
7-7. Inspection and Repair Drag Brace Assembly	58
Figure 7-5. Blade Removal	58
7-8. Covering Leading Edge of Main Rotor Blades	58
Figure 7-8. Rotor Blade Retention Bolt Extracting Fixture	59
7-17. Reassembly after Replacement of Main Rotor Blade Retention Straps	59
7-19. Installation - Main Rotors	59
7-20. Aligning - Main Rotors	59
Figure 7-16. Main Rotor Blade Alignment	59
Figure 7-17. Blade Alignment Jig Assembly	59
7-21. Installation - Main Rotor Hub and Blade Assembly	59
Figure 7-18. Pitch Change Link Assembly	60
7-22. Alternate Installation - Main Rotor Hub and Blade Assembly	60
7-23. Setting Minimum Blade Angle - Main Rotor	60
7-24. Clean Main Rotor Blades	60
7-25. Operational Check of Main Rotor	60
7-26. Vibrations	60
7-27. Extreme Low Frequency Vibration	60
7-28. Low Frequency Vibration	61
7-29. Medium Frequency Vibration	61
7-30. High Frequency Vibration	61
7-30A. Vibration Analysis and Troubleshooting	61

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

7-31. Tracking and Balancing Main and Tail Rotor Assembly	62
7-32. Vibrex System Tracking and Balancing Main and Tail Rotor Blades and Hubs	62
7-33. Description of Equipment	62
Table 7-1. Tools and Equipment Required	62
Figure 7-20. Description and Specification of the Vibrex System	62
Figure 7-20A. Spectrum Analyzer, Model 192	62
Figure 7-21. Vibrex B Equipment	62
Figure 7-22. Vibrex / Airframe Interface	63
Figure 7-23. Phase Relationships for Improperly and Properly Tuned Filters	63
Figure 7-24. Typical Charts	63
Figure 7-25. Accurate Charts	63
Figure 7-26. Balance Chart Clock Angle Corrector Instruction Sheet	63
Figure 7-27. Balance Chart Clock Angle Corrector	63
Figure 7-28. Reclocked Chart	63
7-34. Operating Equipment	64
Figure 7-29. Installation of Interrupter on Swashplate	64
Figure 7-30. Installation Magnetic Pickup	64
7-35. Installation of Equipment	64
Figure 7-31. Installation of Interrupter	64
Figure 7-32. Adjustment of Magnetic Pickup Clearance	64
Figure 7-33. Installation of Magnetic Pickup and Accelerometer Cable	64
Figure 7-34. Installation of Retro-Reflective Tape to Main Rotor Tip Targets	65
Figure 7-35. Installation of Tip Targets	65
Figure 7-36. Installation of Accelerometer and Bracket, PN 3382	65
Figure 7-37. Installation of Reflective Target Tape to Blade Grip	65
Figure 7-38. Installation of Retro-Reflective Target Tape to Blade Tip	65
7-36. Hover Tracking Main Rotor	65
Figure 7-39. Stopped Target Image Tail Rotor	65
Figure 7-40. Hover and Ground Track Blade Pattern	66
7-37. Dynamic Balancing of Main Rotor	66
7-38. Inflight Tracking Main Rotor Blades	66
Figure 7-42. Balance Chart Main Rotor (Typical)	66
Figure 7-43. Inflight Track Blade Pattern	66

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

7-41.	Troubleshooting Vibration using Vibrex B	66
7-42.	Removal of Equipment	66
7-43.	Tracking Flag Method	67
Figure 7-44.	Tracking Main Rotor	67
7-44.	Vibration Check and Adjustment of Main Rotor	67
Figure 7-45.	Main Rotor Tracking Procedure	67
Figure 7-46.	Rotor Smoothing Procedure	67
7-45.	Sweeping Blade of Main Rotor	67
7-46.	Autorotation RPM Adjustment of Main Rotor	67
Figure 7-47.	Troubleshooting Lateral Vibration	68
Figure 7-48.	Trim Tab Bender and Gage Application	68
Figure 7-49.	Tracking Flag	68
7-47.	Adjusting for Collective Forces	68
7-48.	Adjustment - Collective Pitch Force – Main Rotor Hub and Blade Assembly	68
Figure 7-50.	Collective Pitch Retention Strap Adjustment	68
7-49.	Resetting Tension Torsion Straps to Initial Settings	68
7-50.	Resetting Main Rotor Grip Strap	69
7-51.	Troubleshooting Rotors and Controls	69
Table 7-2.	Troubleshooting Rotors and Controls	69
7-101.	Packaging and Preservation of Components	69
7-102.	Installing Main Rotor Blades in Shipping Containers	69

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

204P2100-101 AND -103 MAIN ROTOR BLADE ASSEMBLY: FOR 204B MODELS (BHT-204B-M&O-1) 70

Introduction	70
1. Use of the Manual	70
2. Bulletins	70
3. Consumable Materials	70
4. Special Tools	70
5. Torques	70
6. Terminology	71
7. Warnings, Cautions, and Notes	71
8. Use of Procedural Words	71
9. Wear Limits	71
10. Standard Practices	71
11. Replacement Parts and Assemblies	71
 Section I. General Information	 72
Figure 1-1. 204B Helicopter	72
1-1. General Information	72
1-2. Description	72
1-3. General	72
1-7. Main Rotor	72
1-20. Helicopter Dimensions	72
1-21. Ground Handling	73
Figure 1-2. Three-View Dimensional Diagram	73
Figure 1-3. Station Line Diagram	73
Figure 1-4. Ground Handling (Hoisting, Jacking, Leveling, and Towing)	73
1-29. Parking – Normal Conditions	73
1-30. Parking – Turbulent Conditions	73
1-31. Mooring	73
Figure 1-5. Parking and Mooring	74

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

1-32. Helicopter Storage	74
1-33. Environmental Conditions	74
1-34. Flyable Storage	74
1-35. Short Term Storage	74
1-36. Intermediate Storage	74
1-67. Maintenance Hoist	74
1-78. Inspection	75
1-79. Daily Inspection	75
1-79. Daily Inspection	75
1-80. 100 Hour Inspection	75
1-81. 1000 Hour Inspection	75
1-82. 3000 Hour Inspection	75
1-83. 1000 Hour Component Overhaul	75
1-84. 1500 Hour Component Overhaul	76
1-85. 2000 Hour Component Overhaul	76
1-86. 2400 Hour Component Overhaul	76
1-86A. 2500 Hour Component Overhaul	76
1-87. Between 5 and 10 Hours of Flight After Installation	76
1-88. Each 10 Hours of Component Operation	76
1-89. Each 25 Hours of Component Operation	76
1-90. Between 25 and 30 Hours of Flight After Installation	77
1-91. Each 50 Hours or 15/30 Days	77
1-92. 100 Hours After Initial Installation of Tailboom	77
1-93. Each 100 Hours	77
1-94. Each 100 Hours or 3 Months, Whichever Occurs First	77
1-95. Each 300 Hours or 3 Months, Whichever Occurs First	77
1-96. Each 500 Hours or 12 Months, Whichever Occurs First	77
1-96A. Each 24 Months	78
1-96B. Deleted	78
1-97. Each 1200 Hours or 24 Months, Whichever Occurs First	78
1-98. Hard Landing	78
1-99. Sudden Stoppage - Power On or Off	78
1-100. Overspeed	78
1-101. Overtorque	78

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

1-102.	Compressor Surge or Stall	79
1-103.	Lightning Strikes	79
1-104.	Magnetic Compass Malfunction	79
1-105.	Overhaul Evaluation Criteria	79
1-106.	Airworthiness Limitations Schedule	79
	Table 1-2. Airworthiness Limitations Schedule	79

Section II. Main Rotor Hub and Blade Assembly 80

2-1.	Main Rotor Hub and Blade Assembly	80
2-2.	Description	80
2-3.	Removal – Main Rotor Hub and Blade Assembly	80
2-4.	Main Rotor Blades	80
2-5.	Description	80
2-6.	Removal – Main Rotor Blades	80
	Figure 2-1. Main Rotor Assembly	80
	Figure 2-2. Grip Positioning Links	81
2-7.	Installation – Main Rotor Blades	81
	Figure 2-3. Removing Rotor Blades	81
	Figure 2-4. Main Rotor Blade Retention Bolt Extracting Fixture	81
2-8.	Preventative Maintenance – Main Rotor Blades	81
2-9.	Leading Edge Protection – Main Rotor Blades (Polyurethane Tape)	81
2-10.	Daily Inspection – Main Rotor Blades	81
2-11.	1000 Hour Inspection and Repair – Main Rotor Blades	82
	Figure 2-5. Main Rotor Blade Repair	82
2-12.	Conditional Inspection – Main Rotor Blades	82
2-13.	Inspection – Main Rotor Blades	82
2-14.	Field Repairs – Main Rotor Blades	82
2-15.	Trim Tab Replacement – Main Rotor Blade	82
	Figure 2-6. Trim Tab Replacement	82
2-16.	Main Rotor Blade Splice Cover	83
2-17.	Installation – Main Rotor Blade Splice Cover	83
2-18.	Preservation, Storage, and Blade Packaging	83

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

2-19. Main Rotor Hub	83
2-43. Balancing – Main Rotor Hub Assembly	83
Figure 2-34. Balancing Main Rotor Hub	83
2-44. Installation – Main Rotor Blades	83
2-45. Alignment – Main Rotor Blades	84
2-46. Installation – Main Rotor Hub and Blade Assembly	84
Figure 2-35. Main Rotor Blade Alignment	84
2-47. Torque Limits – Main Rotor	84
2-48. Maintenance Operational Check - Main Rotor	84
2-49. Tracking – Main Rotor Blades	84
Figure 2-36. Rotor System Torque Limits	84
Figure 2-37. Tracking Main Rotor Blades	85
Figure 2-38. Trim Tab Bender and Gage Application	85
2-50. Spanwise Balance Check	85
2-51. Chordwise Balance Check	85
2-52. Autorotation RPM Check	85
2-53. Collective Pitch Force Check and Adjustment	85
Figure 2-39. Collective Force Pitch Adjustment	85
2-54. Main Rotor Hub Sealing	86

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

204P2100-101 AND -103 MAIN ROTOR BLADE ASSEMBLY: FOR 205A MODELS (BHT-205A1-MM-1) AND FOR 205A-1 MODELS (BHT-205A1-MM-1) 87

Chapter 1. Introduction	87
1-1. General	87
1-2. Helicopter Description	87
Figure 1-1. Model 204A-1 Helicopter (Typical)	87
1-3. Use of the Manual	87
1-4. Bulletins	87
1-5. Consumable Materials	87
1-6. Special Tools	89
1-7. Torques	89
1-8. Terminology	89
1-9. Warnings, Cautions, and Notes	89
1-10. Use of Procedural Words	89
1-11. Wear Limits	89
1-12. Standard Practices	89
1-13. Replacement Parts and Assemblies	90
 Chapter 4. Airworthiness Limitations	 91
4-1. Airworthiness Limitations Schedule	91
 Chapter 5. Inspections	 92
Inspections	92
5-1. General	92
5-2. Inspection Requirements	92
5-3. Crash Damage	92
5-4. Types of Inspections	92
5-5. Definitions	92
5-6. Inspection and Overhaul Tolerance	92

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

Scheduled Inspections	93
5-7. Scheduled Inspections	93
5-8. Daily Inspection	93
5-9. 100 Hour Inspection	93
5-10. 1000 Hour Inspection	93
Special Inspections	94
5-11. Special Inspections	94
5-12. Daily or Each 10 Hours of Flight Operation, Whichever Occurs First until 250 Hours	94
5-13. Between 5 and 10 Hours of Flight After Installation	94
5-14. Each 8 Hours of Component Operation	94
5-15. Each 25 Hours of Component Operation	94
5-16. Each 25 Hours for the Next Four Inspections	94
5-17. Each 25 Hours of Component Operation or 15 Days, or Each 5 Days for Blades Operating in a Salt Laden Atmosphere, Whichever Occurs First	95
5-18. 100 Hours After Each Installation	95
5-19. Main Rotor Grip Ultrasonic Inspection	95
5-20. Each 300 Hours of Component Operation	95
5-21. Each 300 Hours or 3 Months of Component Operation	95
5-22. Each 500 Hours of Component Operation	95
5-23. Each 600 Hours/6 Months of Tail Rotor Drive Shaft Coupling Operation	96
5-24. Each 600 Hours or 12 Months of Component Operation	96
5-25. Each 6 Months	96
5-26. Each 12 Months	96
5-27. Each 1000 Hours or 12 Months of Component Operation	96
5-28. First 1000 Hours of Component Time and Each 3000 Hours Thereafter of Component Time	96
5-29. Each 1200 Hours of Component Operation - Deleted	97
5-30. Each 1200 Hours or 24 Months, Whichever Comes First	97
5-31. Each 24 Months of Flight Control System Bolt Operation	97
5-32. Each 3000 Hours of Component Operation	97
5-33. Each 3100 Hours of Component Operation	97

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

Conditional Inspections	98
5-34. Conditional Inspections	98
5-35. Hard Landing	98
5-36. After Blade Strike or Other Rotating System Torque Spike Spike	98
5-37. Sudden Stoppage/Acceleration – Main Rotor	98
5-38. Sudden Stoppage/Acceleration – Tail Rotor	98
5-39. Overspeed	98
5-40. Overtorque	99
5-41. Compressor Stall or Surge	99
5-42. Lightning Strikes	99
5-43. Magnetic Compass Malfunction	99
Component Overhaul Schedule	100
5-44. Component Overhaul Schedule	100
Figure 5-1. Component Overhaul Schedule	100
 Chapter 6. Dimensions and Charts	 101
6-1. Principal Dimensions	101
6-2. Stations, Waterlines, and Buttocklines	101
Figure 6-1. Principal Dimensions	101
Figure 6-2. Station Diagram	101
 Chapter 7. Lifting and Jacking	 102
7-1. Lifting and Jacking	102
7-2. Lifting the Complete Helicopter	102
7-3. Lifting the Tailboom Only	102
7-4. Jacking	102
Figure 7-1. Jacking	102
 Chapter 9. Towing	 103
9-1. Towing	103

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

Chapter 10. Parking and Mooring	104
10-1. Parking - Normal Conditions	104
10-2. Parking - Turbulent Conditions	104
10-3. Mooring	104
Figure 10-1. Parking and Mooring	104
10-4. Helicopter Storage	104
10-5. Environmental Conditions	104
10-6. Flyable Storage	104
10-7. Short Term Storage	105
10-8. Intermediate Storage	105
 Chapter 65. Rotor System	 106
65-1. Rotor System	106
65-2. Vibration Analysis	106
65-3. Extreme Low Frequency Vibration	106
65-4. Low Frequency Vibration	106
65-5. Medium Frequency Vibration	106
65-6. High Frequency Vibration	106
65-7. Main Rotor Troubleshooting	107
Table 65-1. Main Rotor Troubleshooting	107
65-9. Operational Check - Main Rotor System	107
65-10. Main Rotor Tracking	107
Figure 65-1. Main Rotor Tracking Procedure	107
65-11. Main Rotor Blade Vibration Check and Adjustment	107
65-12. Main Rotor Blade Sweeping	107
65-13. Main Rotor Autorotation RPM Adjustment	108
Figure 65-2. Lateral Vibration Check	108
Figure 65-3. Rotor Smoothing Procedure	108
Figure 65-4. Trim Tab Bender and Gage	108

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

65-14. Main Rotor Hub and Blade	108
65-15. Removal – Main Rotor Hub and Blade	108
65-15A. Inspection and Repair – Main Rotor Hub and Blade	108
65-16. Installation – Main Rotor Hub and Blade	109
Figure 65-5. Main Rotor System	109
Figure 65-6. Main Rotor Retaining Nut Damage and Repair Limits	109
Figure 65-7. Main Rotor Cone Set Damage and Repair Limits	109
65-17. Minimum Blade Angle – Main Rotor Hub and Blade	109
65-18. Collective Pitch Forces – Adjustment	109
Figure 65-8. Main Rotor System Torque Values	109
Figure 65-9. Collective Pitch Retention Strap Adjustment	110
65-19. Resetting Main Rotor Grip Tension-Torsion Strap	110
65-20. Resetting Main Rotor Grip Tension-Torsion Strap – Initial Setting	110
65-21. Main Rotor Blades	110
65-22. Preventative Maintenance for Main Rotor Blades	110
65-23. Main Rotor Blade Daily Inspection	110
65-24. Nonrepairable Damage - Main Rotor Blades	110
65-25. Inspection and Minor Repair - Main Rotor Blades	111
Figure 65-10. Main Rotor Blade	111
65-26. Field Repairs - Main Rotor Blades	111
Figure 65-11. Main Rotor Blade Repair	111
65-27. Polyurethane Tape - Installation	111
65-28. Deleted	111
65-29. Main Rotor Blade Paint Touch-Up	111
65-30. Main Rotor Blade Trim Tab	112
65-31. Replacement - Main Rotor Blade - Trim Tab	112
Figure 65-12. Trim Tab Replacement	112

HTC SPECIFIC INSPECTIONS 113

For 500P2100-101 Only: Main Rotor Blade Root End Periodic Inspection Requirements	113
Required Materials	113
Inspection Instructions	113

12902 South Broadway • Los Angeles, California 90061
Sheet 19 of 114 – HTC Proprietary Data Not to be Distributed

HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

LIST OF EFFECTIVE PAGES

Sheets	Revision Date	Sheets	Revision Date	Sheets	Revision Date	Sheets	Revision Date
1	01/03/2020 D	30	01/03/2020 D	59	01/03/2020 D	88	01/03/2020 D
2	01/03/2020 D	31	01/03/2020 D	60	01/03/2020 D	89	01/03/2020 D
3	01/03/2020 D	32	01/03/2020 D	61	01/03/2020 D	90	01/03/2020 D
4	01/03/2020 D	33	01/03/2020 D	62	01/03/2020 D	91	01/03/2020 D
5	01/03/2020 D	34	01/03/2020 D	63	01/03/2020 D	92	01/03/2020 D
6	01/03/2020 D	35	01/03/2020 D	64	01/03/2020 D	93	01/03/2020 D
7	01/03/2020 D	36	01/03/2020 D	65	01/03/2020 D	94	01/03/2020 D
8	01/03/2020 D	37	01/03/2020 D	66	01/03/2020 D	95	01/03/2020 D
9	01/03/2020 D	38	01/03/2020 D	67	01/03/2020 D	96	01/03/2020 D
10	01/03/2020 D	39	01/03/2020 D	68	01/03/2020 D	97	01/03/2020 D
11	01/03/2020 D	40	01/03/2020 D	69	01/03/2020 D	98	01/03/2020 D
12	01/03/2020 D	41	01/03/2020 D	70	01/03/2020 D	99	01/03/2020 D
13	01/03/2020 D	42	01/03/2020 D	71	01/03/2020 D	100	01/03/2020 D
14	01/03/2020 D	43	01/03/2020 D	72	01/03/2020 D	101	01/03/2020 D
15	01/03/2020 D	44	01/03/2020 D	73	01/03/2020 D	102	01/03/2020 D
16	01/03/2020 D	45	01/03/2020 D	74	01/03/2020 D	103	01/03/2020 D
17	01/03/2020 D	46	01/03/2020 D	75	01/03/2020 D	104	01/03/2020 D
18	01/03/2020 D	47	01/03/2020 D	76	01/03/2020 D	105	01/03/2020 D
19	01/03/2020 D	48	01/03/2020 D	77	01/03/2020 D	106	01/03/2020 D
20	01/03/2020 D	49	01/03/2020 D	78	01/03/2020 D	107	01/03/2020 D
21	01/03/2020 D	50	01/03/2020 D	79	01/03/2020 D	108	01/03/2020 D
22	01/03/2020 D	51	01/03/2020 D	80	01/03/2020 D	109	01/03/2020 D
23	01/03/2020 D	52	01/03/2020 D	81	01/03/2020 D	110	01/03/2020 D
24	01/03/2020 D	53	01/03/2020 D	82	01/03/2020 D	111	01/03/2020 D
25	01/03/2020 D	54	01/03/2020 D	83	01/03/2020 D	112	01/03/2020 D
26	01/03/2020 D	55	01/03/2020 D	84	01/03/2020 D	113	01/03/2020 D
27	01/03/2020 D	56	01/03/2020 D	85	01/03/2020 D	114	01/03/2020 D
28	01/03/2020 D	57	01/03/2020 D	86	01/03/2020 D	--	--
29	01/03/2020 D	58	01/03/2020 D	87	01/03/2020 D	--	--

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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 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.

12902 South Broadway • Los Angeles, California 90061
Sheet 21 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

- 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.

12902 South Broadway • Los Angeles, California 90061
Sheet 22 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 23 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 26 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 28 of 114 – HTC Proprietary Data Not to be Distributed

HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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
D	4/13/2020	
C	10/08/2015	Maureen Moreland (on File)
B	06/08/2015	Greg DiLibero (on File)
A	06/17/2014	Ronald Atmur (on File)
N/C	01/13/2014	Greg DiLibero (on File)

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.

HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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**.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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)

12902 South Broadway • Los Angeles, California 90061
Sheet 31 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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)

HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 33 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

1-21. Snow and Ice Removal

Refer to Paragraph 1-21.

12902 South Broadway • Los Angeles, California 90061
Sheet 34 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 35 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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

12902 South Broadway • Los Angeles, California 90061
Sheet 36 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 40 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 41 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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

12902 South Broadway • Los Angeles, California 90061
Sheet 43 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 44 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 45 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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

**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.

12902 South Broadway • Los Angeles, California 90061
Sheet 47 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 48 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

1-53. Extreme Climactic Environmental Maintenance

Refer to Paragraph 1-53.

1-54. Extremes in Temperature

Refer to Paragraph 1-54.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 50 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 51 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 52 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 53 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 54 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

2-87. Special Tools and Equipment

Refer to Paragraph 2-87.

Table 2-4. Special Tools and Equipment

Refer to Table 2-4.

HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 57 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 58 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 59 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 60 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 62 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 63 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 64 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 65 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 66 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 67 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 68 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 70 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 71 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 72 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 73 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 74 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 75 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 76 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 77 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 78 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 79 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 80 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 81 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 82 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 83 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 84 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 85 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

2-54. Main Rotor Hub Sealing

Refer to Paragraph 2-54.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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

12902 South Broadway • Los Angeles, California 90061
Sheet 87 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

Refer to Paragraph 1-5.

12902 South Broadway • Los Angeles, California 90061
Sheet 88 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 89 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

1-13. Replacement Parts and Assemblies

Refer to Paragraph 1-13.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

CHAPTER 4. AIRWORTHINESS LIMITATIONS

4-1. Airworthiness Limitations Schedule

Refer to Paragraph 4-1.

12902 South Broadway • Los Angeles, California 90061
Sheet 91 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 92 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 94 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 95 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 96 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 97 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 98 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 99 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

Component Overhaul Schedule

5-44. Component Overhaul Schedule

Refer to Paragraph 5-44.

Table 5-1. Component Overhaul Schedule

Refer to Table 5-1.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

CHAPTER 9. TOWING

9-1. Towing

Refer to Paragraph 9-1.

12902 South Broadway • Los Angeles, California 90061
Sheet 103 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 104 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

10-7. Short Term Storage

Refer to Paragraph 10-7.

10-8. Intermediate Storage

Refer to Paragraph 10-8.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 106 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 109 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 110 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 111 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 112 of 114 – HTC Proprietary Data Not to be Distributed

HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.

12902 South Broadway • Los Angeles, California 90061
Sheet 113 of 114 – HTC Proprietary Data Not to be Distributed

<i>HELICOPTER TECHNOLOGY COMPANY MAINTENANCE MANUAL</i>	
HTCM-006 UH-1H MAIN ROTOR BLADE	
Change Letter: D	Change Date: 01/03/2020

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.