CHAPTER 4 - AIRWORTHINESS LIMITATIONS SCHEDULE

CONTENTS — MAINTENANCE PROCEDURES

TABLES

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Reissue	7 June	NOT EFFECTED
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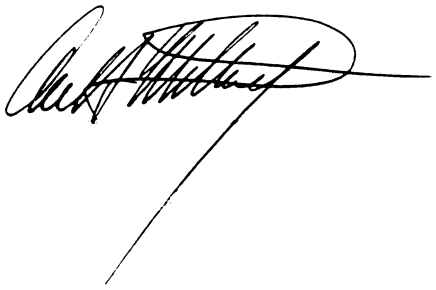
Revision 5	25 September 1997	

(TABLE I.D. 922277-t)

AIRWORTHINESS LIMITATIONS SCHEDULE

4-1. AIRWORTHINESS LIMITATIONS SCHEDULE.

The Mandatory Airworthiness Limitations Schedule summarizes, in tabular form, the maximum hours life of various components before mandatory retirement from service. Parts not listed on the schedule have unlimited airworthiness life.

Refer to United Aircraft of Canada Ltd. Service Bulletins, 5000 series, for power plant components Airworthiness Limitations.

CAUTION

AIRWORTHINESS LIFE FOR KIT COMPONENT AND/OR PARTS ARE NOT COVERED IN THIS AIRWORTHINESS SCHEDULE. REFER TO APPLICABLE SERVICE INSTRUCTIONS FOR MANDATORY AIRWORTHINESS SCHEDULE.

NOTE

The operating time specified for retirement for any given part number contained in this Airworthiness Limitations Schedule applies to all successive dash numbers for that item unless otherwise specified.

Airworthiness lives assigned to helicopter components and assemblies are based upon experience, testing, and engineering judgment and are subject to change at the sole discretion of Bell Helicopter Textron or an appropriate government agency.

WARNING

ALL PARTS REMOVED DUE TO REACHING THEIR LIFE LIMITS ARE DEEMED UNAIRWORTHY AND SHALL BE PERMANENTLY MARKED AS SCRAP OR PHYSICALLY DESTROYED TO THE EXTENT THAT THERE IS NO CHANCE OF REPAIR OR REINSTALLATION ON ANY HELICOPTER OR COMPONENT.

NOTE

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

Mandatory airworthiness limitations schedule

COMPONENT	PART NUMBER (1)	AIRWORTHINESS LIFE
MAIN ROTOR BLADE AND HUB ASSEMBLY		
Blade	204-012-001-023	1500 Hours
Blade	204-012-001-031	4000 Hours
Blade	204-012-001-033	1500/4000 Hours (2)
Blade	212-015-501-005 and -115	4000 Hours
Retention Strap	204-012-122-001, -005 and 204-310-101-101	1200 Hours or 2 years, whichever occurs first. (8)
Outboard Strap Fitting	204-012-103-005	3600 Hours
Inboard Strap Fitting	212-010-103-005	1200 Hours (12)
Inboard Strap Fitting	212-010-103-007	2400 Hours
Strap Pin	204-012-104-003	2400 Hours
Main Rotor Yoke	204-011-102-(All)	3600 Hours (3)
Main Rotor Yoke	212-011-102-105	10,000 Hours (9)
Main Rotor Yoke	212-011-102-109	6000 Hours (13)
Pillow Block	204-011-108-113	Conditional (10)
Pillow Block Bushing	204-011-135-003	2400 Hours
Pillow Block Bushing	204-011-135-105	3600 Hours
Main Rotor Mast	204-011-450-007 and -105	15,000 Hours or RIN = 300000; whichever occurs first. (9) (16) (17)
Main Rotor Mast	204-011-450-113	13,000 Hours or RIN=275000; whichever occurs first. (16) (17)
Main Rotor Mast	204-011-450-119	13,000 Hours or RIN=275000; whichever occurs first. (16) (17)
Main Rotor Trunnion	204-011-105-103	13,000 Hours or RIN=275000; whichever occurs first. (16) (17)

Mandatory airworthiness limitations schedule (Cont)

COMPONENT	PART NUMBER △1	AIRWORTHINESS LIFE
Main Rotor Trunnion	204-011-105-001	15,000 Hours or RIN = 300000; whichever occurs first. △9 △16 △17
	MAIN ROTORS CONTROLS	
Pitch Horn	204-011-120-005	3000 Hours
Swashplate Drive Link	204-011-407-001	9000 Hours
Swashplate Outer Ring	204-011-403-001	9000 Hours
Swashplate Support	204-011-404-009	1000 Hours
Swashplate Support	204-011-404-121 and -125	1000 Hours
Stabilizer Bar Centerframe	204-011-307-001 and -105	10,000 Hours
Stabilizer Bar Tube	204-011-328-001	2400 Hours or 3 years; whichever occurs first.
Stabilizer Bar Tube	204-011-328-011	5000 Hours or 5 years; whichever occurs first.
Mixing Lever	204-011-301-001	9000 Hours
Mixing Lever	212-010-302-001 and -105	9000 Hours
Mixing Lever Pivot Bearing	MS27641-6 △4	100 Hours
Gimbal Ring	204-010-404-001	9000 Hours
Scissors Hub	204-011-405-013	9000 Hours
Scissors Single Pivot Bearing	MS20201KP8A △5	100 Hours
Scissors Tube	212-010-404-005	9000 Hours
Pitch Link	204-011-127-001 and -003	9000 Hours
Collective Sleeve	204-011-408-003, -105 and -107	9000 Hours
	TAIL ROTOR AND CONTROLS	
Yoke (Hog-out)	212-010-704-001, -005 and -107	5000 Hours
Yoke (Forging)	212-010-744-001, -005 and -107	5000 Hours

Mandatory airworthiness limitations schedule (Cont)

COMPONENT	PART NUMBER (1)	AIRWORTHINESS LIFE
Yoke	212-011-702-001	5000 Hours
Blade	212-010-750-009 and -105	5000 Hours
POWER TRAIN DRIVE SYSTEM COMPONENTS		
Spider	204-040-785-003	Conditional (11)
Spider	412-040-785-101	2500 (15)
Spider	412-040-785-103	Unlimited
Mast Bearing	204-040-136-009	1000 Hours
Bearing (When used in rotor brake quill)	204-040-424	600 Hours (14)
Tail Rotor Hanger Bearing	204-040-623-001	100 Hours
Tail Rotor Hanger Bearing	204-040-623-005	1000 Hours
Pinion — Offset Accessory Drive	212-040-202-001	1000 Hours
POWER PLANT RELATED SYSTEMS		
Blower, Oil Cooler	212AA3192 (Benson)	300 Hours
LANDING GEAR		
Crosstubes	205-050-400-007,-029, -035 and -705	1000 Hours (19)
FLOAT LANDING GEAR (KIT P/N 205-706-050-001, -007, -011, -101)		
Crosstube Assembly	205-050-114-001	500 Hours (18)
Crosstube Assembly	205-050-114-011	1000 Hours (18)
Crosstube Assembly	205-050-114-023, -025	Unlimited
Crosstube Assembly	205-706-050-005	500 Hours (18)
Crosstube Assembly	205-706-050-013	1000 Hours (18)
Crosstube Assembly	205-706-050-015	Unlimited

Mandatory airworthiness limitations schedule (Cont)

COMPONENT	PART NUMBER ⚠1	AIRWORTHINESS LIFE
CONTROL SYSTEM BOLTS (KIT P/N 212-704-092-001) ⚠6		
Swashplate Support to Collective Lever Pivot Bolts (2)	AN178-22A	1000 Hours
Pitch Horn to Pitch Link (2)	20-057-6-31D	1000 Hours
Pitch Link to Universal (2)	20-057-6-27D	1000 Hours
Universal to Mixing Lever (2)	20-057-6-34D	1000 Hours
Mixing Lever to Scissors Tube (2)	20-057-5-27D	1000 Hours
Scissors Tube to Scissors (2)	20-057-5-27D	1000 Hours
Scissors (204-011-406) Pivot Bolt (2)	20-057-8S90D or 20-057-8-86D	1000 Hours
Scissors (212-010-407) Pivot Bolt (2)	212-010-411-5 or -3	1000 Hours
Scissors to Drive Link (2)	20-057-8S69D	1000 Hours
Drive Link to Rotating Swashplate (2)	20-057-5-30D	1000 Hours
Fixed Swashplate to Right Cyclic Boost Tube (1)	20-057-5-24D	1000 Hours
Fixed Swashplate to Left Cyclic Boost Tube (1)	20-057-5-24D	1000 Hours
Collective Lever to Collective Boost Tube (1)	20-057-5-24D	1000 Hours
Hydraulic Cylinder Tube to Swashplate Universal (3)	20-057-5-24D	1000 Hours
Universal to Hydraulic Cylinder (3)	20-057-5-24D	1000 Hours
Hydraulic Cylinder to Lower Support (3)	212-001-304-003	1000 Hours
Hydraulic Cylinder to Lower Support (3)	212-001-323-001	2500 Hours
Gimbal to Inner Ring (2)	204-011-463-001	1000 Hours

Mandatory airworthiness limitations schedule (Cont)

COMPONENT	PART NUMBER (1)	AIRWORTHINESS LIFE
Gimbal to Swashplate Support (2)	204-011-463-003	1000 Hours
Stabilizer Bar Pivot Bolts (2)	20-057-10S27D or 20-057-10S29D	1000 Hours
Mixing Lever (204-011-301) Pivot Bolts (4)	20-057-6S20D or 20-057-6S23D	1000 Hours
Mixing Lever (212-010-302) Pivot Bolts (4)	20-057-6S23D or 20-057-6S24D	1000 Hours
MISCELLANEOUS		
Battery (Blade Inspection System)	MN1604 or 522	500 Hours or 6 Months; whichever occurs first.
Cartridge, Fire Extinguisher	209-062-908-13	6 Years (7)
Cartridge, Fire Extinguisher	209-062-908-17	6 Years (7)
Cartridge, Fire Extinguisher	209-062-908-15	4 Years In-Service Life (6 Years Total) (7)
Cartridge, Fire Extinguisher	209-062-908-19	4 Years In-Service Life (6 Years Total) (7)
Cartridge, Fire Extinguisher	209-062-908-109	6 Years (7)

NOTES:

(1) All subsequent dash number changes have the same airworthiness life presented unless otherwise noted.

(2) Rotor blades with serial numbers not listed as follows have a 1500 hour airworthiness limitation schedule. Rotor blades listed as follows have a 4000 hour airworthiness limitation schedule: AMR-04017 through AMR-04047, AMR-04053 through AMR-04074, AMR-54001, AMR-54002, AMR-54005, AMR-54006, AMR-54008 through AMR-54073, AMR-54097, and AMR-54099 through AMR-54256.

(3) Repeat heavy lift operators must factor their flight time according to the following table for 212 main rotor yoke:

Number of events/hr*	Factor
1.0 — 5.0	1.0
5.1 — 8.0	1.5

Mandatory airworthiness limitations schedule (Cont)

COMPONENT	PART NUMBER ⚠1	AIRWORTHINESS LIFE
	8.1 — 12.0	2.0
	12.1 — 18.0	3.0
	18.1 — 32.0	5.0
	32.1 — 48.0	7.0
	48.1 — 62.0	9.0

*An event is a lift operation or takeoff.
*A logging lift counts as two events.

⚠4 The airworthiness life for this bearing and any authorized replacement bearing is applicable if installed in 204-011-301 mixing lever.

⚠5 The airworthiness life for this bearing and any authorized replacement bearing is applicable if installed in 204-011-406 scissors.

⚠6 Inspect control system bolts each 24 months (Chapter 5).

⚠7 Cartridge service/shelf life starts from date of manufacture.

⚠8 All tension-torsion straps must be retired after 24 months calendar time in service. In this application, calendar time in service begins when new straps installed in main rotor hub and blade assembly are subjected to powered rotation.

⚠9 Not authorized for use with Kit, 212-704-153-101.

⚠10 Perform a dye penetrant inspection of pillow block every 2400 hours.

⚠11 Perform magnetic particle inspection of spider every 3100 hours per ASB 212-91-66A.

⚠12 Upon retirement of the 212-010-103-005 strap fitting, the -005 fitting shall be replaced with the 212-010-103-007 strap fitting.

⚠13 Helicopters with T.B.212-91-138 incorporated shall not use stainless steel main rotor yoke assembly P/N 212-011-102-105.

⚠14 Overhaul schedule for rotor brake quill is 2400 hours; however, the 204-040-424 bearing used in the 205-040-300 quill shall be replaced each 600 hours. The 222-342-420 bearing used in the 412-040-125 quill does not have a finite life.

⚠15 Successive dash nos. (-103 and sub.) do not have a finite life.

⚠16 Retirement Index Number (RIN) is the retirement life based on fatigue damage from normal helicopter lifts and takeoffs. New components will begin with an accumulated RIN of zero that will be increased as lifts and takeoffs are performed. Operators must record the number of lifts and takeoffs and increase the accumulated RIN accordingly.

Mandatory airworthiness limitations schedule (Cont)

COMPONENT	PART NUMBER △1	AIRWORTHINESS LIFE

When the maximum RIN or retirement flight hours is reached, whichever occurs first, the component will be removed from service.

△17 Increase RIN count by 5 for each takeoff/lift performed. If logging, increase RIN count by 10 for each takeoff/lift performed.

△18 Per ASB 212-80-18 and ASB 212-76-3 .

△19 Per ASB 212-77-17 .

4-2. CALCULATING FLIGHT HOURS ON 204-011-102 YOKE.

Calculate flight hours on the yoke using the table given in note △3 to determine the correct factor based on the number of events per flight hour:

1. If flight hours cannot be determined, use the following:

Enter on yoke Historical Service Record 900 hours per year from date of helicopter delivery or date yoke was installed.

2. If number of lift events per hour cannot be determined, use the following:

Enter on yoke Historical Service Record five hours for each flight hour of external operation, or two hours for each flight hour of internal operation for which the number of events cannot be determined. Use five hours for each flight hour if time actually spent in external or internal operation cannot be determined.

3. Perform the following operations following calculation or approximation of flight hours/lift events:

If main rotor yoke flight hours exceed 3300, remove yoke from service within the next 300 hours.

Retire main rotor yoke at 3600 hours.