

DATE
REV

MODEL AFFECTED: 206L Series

SUBJECT: TAIL ROTOR HUB AND TAIL ROTOR HUB AND
BLADES ASSEMBLY, P/N 206-011-810
CONFIGURATION OF.

HELICOPTERS AFFECTED: 206L Helicopters serial number 45004 through
45153 and 46601 through 46617.

206L-1 Helicopters serial number 45154 through
45790.

206L-1 Helicopters converted to 206L-1+ per
BHT-206-SI-2052.

206L-3 Helicopters serial number 51001 through
51612.

206L-3 Helicopters converted to 206L-3+ per
BHT-206-SI-2052.

206L-4 Helicopters serial number 52001 and
subsequent.

COMPLIANCE: Recommended at the next overhaul.

-NOTE-

This Technical Bulletin cancels and supersedes
TB 206L-94-167 rev A.

DESCRIPTION:

This bulletin provides information to upgrade tail rotor hub or tail rotor hub and blade assembly to the latest configuration and identify the components required for each modification.

All applicable bulletins must be accomplished in order to upgrade to the latest tail rotor hub or tail rotor hub and blade assembly.

HUB AND BLADES ASSEMBLY AFFECTED: (1), (2)

<u>Model</u>	<u>Serial Number</u>	<u>Hub and Blades Assembly</u>
206L	45001 thru 45153	206-011-810-007
206L	46601 thru 46617	206-011-810-007
206L-1	45154 thru 45790	206-011-810-013
206L-3	51001 thru 51138	206-011-810-123
206L-3	51139 thru 51159	206-011-810-131
206L-3	51160 thru 51441	206-011-810-135
206L-3	51442 thru 51612	206-011-810-141
206L-3	SPARE	206-011-810-149
206L-4	52001 thru 52104	206-011-810-145
206L-4	52105 thru 52317	206-011-810-151
206L-4	52318 and subsequent	206-011-810-157

HUB ASSEMBLY AFFECTED: (3)

<u>Model</u>	<u>Serial Number</u>	<u>Hub Assembly</u>
206L	45001 thru 45153	206-011-810-009
206L	46601 thru 46617	206-011-810-009
206L-1	45154 thru 45790	206-011-810-015
206L-3	51001 thru 51441	206-011-810-125
206L-3	51442 thru 51612	206-011-810-139
206L-4	52001 thru 52104	206-011-810-139
206L-4	52105 and Subsequent	206-011-810-153

NOTES:

- (1) When upgrading an assembly, an identification change on the hub assembly data plate is required. Historical records must also be annotated with the new part numbers and if required, new time between overhaul or retirement lives.

- (2) The Tail Rotor Hub and Blade assembly may be upgraded to the next dash number, or to the current production configuration (-157) as shown in Table II and can be installed on all 206L's. The (-157) hub and blade assembly may be installed on all Model 206L's.
- (3) The Tail Rotor Hub assembly may be upgraded to the next higher dash number, or to the current production configuration (-153) as shown in Table I. The (-153) hub assembly may be installed on all Model 206L's.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

MANPOWER:

Accomplishment of this bulletin during normal overhaul will not require any additional man-hours.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this Bulletin.

MATERIALS:

Refer to accomplishment instruction

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

Consumable Material:

Refer to BHT 206L Series Component Repair and Overhaul Manual

SPECIAL TOOLS:

Refer to BHT 206L Series Component Repair and Overhaul Manual

WEIGHT AND BALANCE:

Not Required

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-206L-Series-IPB Illustrated Parts Breakdown
Applicable BHT-206L-MM Maintenance Manual
BHT-206L-CR&O Component Repair and Overhaul

PUBLICATIONS AFFECTED:

BHT-206L-Series-IPB Illustrated Parts Breakdown

ACCOMPLISHMENT INSTRUCTIONS:

-NOTE-

Partial Update does not qualify for data plate or historical record identification change.

1. For disassembly and assembly instructions refer to BHT-206L-CR&O and Applicable 206L Maintenance Manual.
2. To determine Tail Rotor Hub and Tail Rotor Hub and Blade Assembly refer to configuration table I and table II and proceed as follow:
 - a. Identify hub assembly per table I.
 - b. Use part number from table I to correspond to table II.
 - c. Identify the tail rotor hub and blade part number per table II.
3. The hub and blade assembly shall be identified with the use of vibrating tool. The depth of the vibroetch must not exceed 0.005in (0.13mm).

Example: 206-010-810-~~439~~ 153

Table I TAIL ROTOR HUB ASSEMBLY

		206-011-810	-009	-015	-125	-139	-153
		Note	(8)	(9)	(10)	(7)(11)	
Yoke Assembly	206-011-811-005	(1)(2)	X				
	206-011-811-009	(1)(3)		X			
	206-011-819-101	(4)(6)			X		
	206-011-819-105	(5)(6)				X	
	206-011-819-109	(6)					X
Bushing	206-011-813-001		X				
	206-011-816-001	(6)		X			
	206-011-816-103	(6)			X	X	
	206-011-816-105	(6)					X
Thrust Plug	047-641-173-001	(12)	X	X	X		
	206-011-862-101	(12)				X	X
Shim	120-006C15-0	(12)	X	X	X		
	206-011-861-101	(12)				X	X
Trunnion Assembly	206-011-812-001	(19)	X				
	206-011-812-005			X	X	X	X
Inner Race	047-641-175-001		X				
	206-011-858-001	(13)(14)		X	X	X	X
Housing	206-011-814-001	(15)(20)	X	X			
	206-011-814-009	(16)(21)			X		
	206-011-814-113	(16)				X	X
Bearing	J1212	(17)(22)	X	X			
	B1212				X	X	X
Seal	71X7027	(18)	X	X	X	X	X

NOTES APPLICABLE TO TABLE I:

- (1) Refer to ASB206L-80-8 and TB206-79-80
- (2) Replaced by 206-011-819-009 (3)
- (3) Replaced by 206-011-819-101 (4)
- (4) Replaced by 206-011-819-105 (5)

- (5) Replaced by 206-011-819-109
- (6) Refer to TB206L-94-172 for bushing replacement and configuration instruction.
Note: Yoke 206-011-811-009 cannot be modified with bushing 206-011-816-105 but may be used with modified blade.
- (7) Tail Rotor Hub Assembly P/N 206-011-810-139 may be reidentified to Tail Rotor Assembly P/N 206-011-810-153 after modification of tail rotor yoke assembly P/N 206-011-819-105 in accordance with TB 206L-94-172.
- (8) Replaced by 206-011-810-015 (9)
- (9) Replaced by 206-011-810-125 (10)
- (10) Replaced by 206-011-810-139 (11)
- (11) Replaced by 206-011-810-153
- (12) Refer to TB206L-91-158 for alternate shimming procedures
- (13) Inner race P/N 047-641-175-001 is the replacement inner race for P/N 206-011-858-001 on trunnion assembly 206-011-812-005 provided inner race O.D. does not exceed 0.7505 inch after installation.
- (14) P/N 206-011-858-001 is not procurable
- (15) Housing I.D. 0.9995 to 1.0005 inch
- (16) Housing I.D. 0.9990 to 1.0000 inch
- (17) Refer to TB206L-84-121
- (18) Replaced by 26001-7027
- (19) Replaced by 206-011-812-005
- (20) Replaced by 206-011-814-009
- (21) Replaced by 206-011-814-113
- (22) Replaced by B1212

Table II TAIL ROTORHUB AND BLADE ASSEMBLY

		206-011-810 (30)	-007	-013	-123	-131	-135	-141	-145	-151	-157
		Note	(1)(31)	(1)(32)	(33)	(34)	(35)	(36)(37)	(38)	(39)	
Hub Assembly	206-011-810-009	(1)(2)	X								
	206-011-810-015	(3)		X							
	206-011-810-125	(4)			X	X	X				
	206-011-810-139	(5)						X	X		
	206-011-810-153									X	X
Blade Assembly	206-010-750-007 (Al)	(1)(6)	X								
	206-016-201-001	(7)(8)(13)		X	X						
	206-016-201-113	(9)(13)(14)				X					
	206-016-201-127	(10)(12)(13)(14)(15)(18)					X	X	X		
	206-016-201-131	(11)(16)(17)(18)								X	
	206-016-201-135	(18)									X
Pitch Horn Assembly	206-011-809-005	(19)(20)	X	X							
	206-011-809-107	(19)(20)			X	X					
	206-011-809-109	(20)					X	X	X	X	X
Blade bolt	NAS1306-31/-36	(21)	X								
	20-057- 6-34 /- 40	(22)		X	X	X	X	X	X	X	X
Washer (Blade bolt)	AN960-616L	(23)	X								
	MS9482-12	(1)(24)		X	X	X	X	X	X	X	X
Washer (Pitch horn)	AN970-3	(25)(26)(27)	X	X	X	X	X	X			
	206-011-859-101	(26)((28)(29)							X	X	X

NOTES APPLICABLE TO TABLE II:

- (1) Refer to ASB 206L-80-8 and TB206-79-38
- (2) Replaced by 206-011-810-015 (3)
- (3) Replaced by 206-011-810-125 (4)
- (4) Replaced by 206-011-810-139 (5)
- (5) Replaced by 206-011-810-153
- (6) Replaced by 206-016-201-001 (7)(12)(13)
- (7) Spare Replacement 206-016-201-107(8)(12)(13)
- (8) Replaced by 206-016-201-113(9)(12)(13)
- (9) Replaced by 206-016-201-127(10)(13)
- (10) Replaced by 206-016-201-131(11)
- (11) Replaced by 206-016-201-135
- (12) Refer to TB206L-89-147 Retirement life increase to 2500 hours except blade 206-016-201-001, /-107 and /-113.
- (13) Refer to TB206L-94-172 Blades & Tail Rotor Yokes modification
- (14) Refer to ASB 206 L-90-70 Selected serial number blade removals from service
- (15) Refer to ASB 206L-90-71 rev A Selected serial number blade removal from service
- (16) Refer to ASB 206L-04-127 rev C Selected serial number blade to be inspected
- (17) Refer to ASB 206 L-04-131 Selected serial number blade removals from service
- (18) Refer to ASB 206L-07-148 Letter "L" on the tail rotor blade part number
- (19) Replaced by 206-011-809-109 (Refer to TB 206L-94-155)

(20) Pitch horn

- 206-011-809-005 stud length is 0.915 to 0.935 in. with one cotter pin hole
- 206-011-809-107 and /-109 stud length is 0.943 to 0.963 in. with two cotter pin holes.
- 206-011-809-109 has two machined cutout in each lug.

(21) Inactive for future procurement replaced by 20-057-6-34 through -40

(22) Bolt 20-057-6-38 and /-40 can be installed only in the outboard blade bolt hole of the yoke.

(23) Do not use a single washer (1) an 960-616L next to the MS9482-12 or the yoke because the an 960-616L washer may deform causing a reduction in bolt torque.

(24) Install this washer next to the yoke at all locations.

(25) To eliminate potential interference between blade bolt nuts and tail rotor counter balance washers, replace washer an 970-3 as follow:

Normal situation:

Maximum forty (40) washers AN970-3, ten (10) per lug, five (5) each side (20 per horn) to achieve balance of tail rotor pedal forces, AN970 -3 washers may be replaced with AN960JD10 washers. Quantity and type of washers must be the same on all positions.

Potential interference situation:

Replace AN970-3 washers with heavier washers 206-011-859-101 or combination as shown below, to obtain balance of tail rotor pedal forces.

Maximum quantity per pitch horn lug. (26) (two lugs per pitch horn)	Combination per lug	
	206-011-859-101 (28)(29)	AN970-3 (27)
	0	10
	2	6
	4	0

(26) Washer combination must be identical on both pitch horn

(27) AN970-3 maximum quantity = forty (40), ten (10) per lug

(28) Install 206-011-859-101 washer next to pitch horns

(29) 206-011-859-101 maximum quantity = twenty four (24), six (6) per lug

(30) Balance hub and blade assembly as follow:

- Spanwise: Use combination of AN960-616, AN960-616L and AN970-6 washers as required.
- Chordwise: Use combination of 47-641-191-1 weight, AN960-416, AN960-416L washers as required. Bolt must have a minimum thread engagement 0.25 in.

(31) Replaced by 206-011-810-013(32)

(32) Replaced by 206-011-810-123 (33)

(33) Replaced by 206-011-810-131 (34)

(34) Replaced by 206-011-810-135 (35)

(35) Replaced by 206-011-810-141 (36)

(36) Replaced by 206-011-810-145 (37)(38)

(37) Spare Replacement 206-011-810-149 (38)(40)

(38) Replaced by 206-011-810-151(39)

(39) Replaced by 206-011-810-157

(40) Tail rotor hub and blades assembly 206-011-810-149 (Spare) may be reidentified to tail rotor hub and blades P/N 206-011-810-151 providing AN970-3 (27) are replaced by 206-011-859-101(29).