

# TECHNICAL BULLETIN

## **Bell** Helicopter

A Textron Company

No. 206L-08-229

Date JAN 14, 2008

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DATE
REV

**MODEL AFFECTED:** 206L series

**SUBJECT:** TRANSMISSION 206-040-004-107 and -111  
CONVERSION TO 206-040-004-115

**TRANSMISSIONS AFFECTED:** Transmissions that follow are affected by this bulletin.

<u>TRANSMISSION P/N</u>	<u>NOTE</u>		<u>PROD. EFFECTIVITY</u>
206-040-004-107	(1)(2)	206L3	51308 through 51612
206-040-004-111	(1)(2)		SPARE
206-040-004-115		206L4	52001 and subsequent

**NOTES:**

1. Transmissions 206-040-004-003/-005/-101 may have been converted to transmission 206-040-004-107 or /-111. For more details refer to TB 206L-91-153.
2. Transmissions converted in accordance with this bulletin are identified as -206-040-004-115FM. Transmission 206-040-004-115FM is equivalent to the 206-040-004-115

**COMPLIANCE:**

At customer option

This bulletin does not apply to transmission that has been subjected to repair, rework, or modifications that are not approved by Bell Helicopter.

**DESCRIPTION:**

This Technical Bulletin provides instructions required to upgrade transmissions 206-040-004-107 and /-111 to a 206-040-004-115FM.

**APPROVAL:**

The engineering design aspects of this bulletin are TCCA approved.

**MANPOWER:**

No additional man-hour is required to accomplish this bulletin during normal overhaul.

**WARRANTY:**

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

**MATERIALS:**

Refer to Table I of ACCOMPLISHMENT INSTRUCTIONS of this bulletin. The Table I contains only the major items necessary for the upgrade. Standard replacement parts necessary at overhaul are not included. Parts for the upgrade can be obtained through your Bell Helicopter Supply Center.

**SPECIAL TOOLS:**

Refer to Model 206L CR&O-1, Chapter 65

**WEIGHT AND BALANCE:**

Not affected

**ELECTRICAL LOAD DATA:**

Not affected

**REFERENCES:**

BHT -206L-CR&O, Reissue 18 June 1993.

Chapter 63

Technical Bulletins 206L-91-153

**PUBLICATIONS AFFECTED:**

None affected

**ACCOMPLISHMENT INSTRUCTIONS:**

1. Refer to Component Repair and Overhaul Manual (BHT-206L-CR&O) for transmission disassembly and assembly instructions.

-NOTE-

The Table 1 contains only the major items for the upgrade. Refer to the applicable Illustrated Parts Breakdown Manual for the other parts you may need.

2. Convert the transmissions 206-040-004-107/-111 to a 206-040-004-115FM using the information in Table 1. The components listed in the transmission assembly dash number column are included in that specific configuration.

-NOTE-

You must do all changes defined in Table 1 to be able to change the part number on the data plate and the historical record sheet from a 206-040-004-107 and /-111 to a 206-040-004-115FM.

**CAUTION**

THE DEPTH OF THE VIBROETCH MUST NOT EXCEED  
0.005 INCH.

3. Using a vibrating tool, mark the new transmission dash number on the data plate as follow:

206-040-004-~~107~~ 115FM

or

206-040-004-~~111~~ 115FM

4. Make an entry in the transmission Historical Record (HR) to show:

- The new part number.
- That this Technical Bulletin is completed.

TABLE 1

PART NAME	P/N	NOTES	TRANSMISSION 206-040-004		
			-107	-111	-115
Bracket	20-032-2		X		X
Planetary assy	206-040-010-103		X	X	
	206-040-010-105				X
Pinion gear	206-040-020-103	(2)(3)	X	X	
	406-040-020-105	(4)			X
Gear	206-040-021-005	(5)	X	X	
	406-040-021-101				X
Gear	206-040-025-001	(6)	X	X	
	406-040-023-101				X
Bearing	206-040-030-003		X	X	
	406-040-030-101				X
Bearing	206-040-031-003	(7)(8)	X	X	
	206-040-031-105	(7)(8)			X
Bearing	206-040-032-011	(9)	X	X	
	206-040-032-105	(10)			X
Bearing	206-040-033-001	(11)	X	X	
	206-040-033-107	(12)			X
Bearing	206-040-034-003	(13)	X	X	
	206-040-034-105	(14)			X
Bearing	206-040-037-001	(15)	X	X	
	206-040-037-101				X
Nut	206-040-046-003		X	X	X
Nut	206-047-047-001		X	X	X
Adapter	206-040-048-003		X	X	
	406-040-070-101	(16)			X
Housing	206-040-052-009	(17)	X	X	
	400-040-055-105	(18)			X
Tube	206-040-064-001		X	X	X
Spring lock	206-040-065-001		X	X	X
Spacer	206-040-068-001			X	
Screen	206-040-076-009		X	X	X
Valve	206-040-082-001		X	X	X
Retainer	206-040-083-001	(19)	X	X	X
Spring	206-040-084-001	(19)	X	X	X
Shim	206-040-086-001		X	X	
	400-040-083-101				X
Valve assy	206-040-088-005		X	X	X

PART NAME	P/N		TRANSMISSION 206-040-004		
			-107	-111	-115
Cover	206-040-089-003		X	X	X
Sun gear	206-040-561-103	(20)	X	X	
	406-040-028-101				X
Gear	206-040-124-003			X	
Filter	206-040-128-001		X	X	X
Housing	206-040-129-001	(21)	X	X	X
Seal	206-040-156-001			X	X
	206-040-156-101		X		
Pump	206-040-190-005		X	X	
	406-340-100-101	(22)			X
Plate	206-040-517-001		X	X	X
Pan	206-040-522-001			X	
	206-040-522-101		X		X
Jet # 1	206-040-523-001	(23)	X	X	
	206-040-523-105				X
Jet # 2	206-040-524-001		X	X	X
Housing	206-040-525-007	(24)	X	X	
	206-040-525-101	(25)			X
Tube assy	206-040-526-001		X	X	X
Main case	206-040-530-001		X	X	
	206-040-530-101				X
Case assy	206-040-531-001			X	
	206-040-531-105	(26)	X		
	406-040-056-101				X
Case assy, top	206-040-532-005			X	
	206-040-550-101		X		X
Support	206-040-533-001		X	X	X
Gear	206-040-534-105		X		X
Spring	206-040-538-001	(27)	X	X	
	206-040-538-101				X
Nut	400-040-082-101		X	X	X
Shaft	400-040-041-103		X	X	X
Thermostat	206-040-555-001		X	X	X
Washer	206-040-285-101		X	X	X
Tube assy	206-040-566-101		X		X
Ring spacer	206-040-570-101	(26)	X		
Filter	50-075-1		X	X	X
Bolt	NAS1305-1H		X	X	
	406-040-076-101				X

PART NAME	P/N	TRANSMISSION 206-040-004		
		-107	-111	-115
Filler plug	F506A		X	
	F507ST	X		X
Chip detector	B4093		X	
Chip detector	B3188B	X	X	X
Chip detector	B4678	X		X
Breather	A-845	X		X

**NOTES:**

1. The final configuration of transmission assemblies 206-040-004-003, /-005 and /-101 upgraded to 206-040-004-111 or /-107 per TB 206L-91-153 may differ from the -111 or -107 configuration represented in this bulletin. This is acceptable to Bell Helicopter.
2. Replaced by pinion gear 206-040-020-105 (3).
3. Replaced by pinion gear 206-040-020-109.
4. As an alternate, use pinion gear 406-040-020-109.
5. Replaced by gear 206-040-021-101
6. Replaced by gear 206-040-025-101.
7. As an alternate, use bearing 206-040-031-101 (8).
8. As an alternate, use bearing 206-040-031-107.
9. As an alternate, use bearing 206-040-032-105 on transmissions 206-040-004-107 and /-111.
10. As an alternate, use bearing 406-040-032-101 on transmission 206-040-004-115.
11. As an alternate, use bearing 206-040-033-107.
12. As an alternate, use bearing 206-040-033-103.
13. As an alternate, use bearing 206-040-034-105.
14. As an alternate, use bearing 206-040-034-103.
15. As an alternate, use bearing 206-040-037-101.

16. Replaced by adapter 406-040-070-103.
17. Replaced by housing 206-040-052-105.
18. Replaced by housing 400-040-055-109 and three (3) nylon set screws 120-151-4-4 as a unit.
19. Replaces indicator RC855UL06C, retainer 206-040-083-001, spring 206-040-084-001, packing MS29561-015 and MS28774-015 by indicator 214-040-810-103, retainer 206-040-381-101, spring 206-040-382-101, packing M83248/1-013, and M83248/1-015 as a unit.
20. Replaced by sun gear 406-040-028-101.
21. As an alternate, use housing assembly 214-040-515-001.
22. As an alternate, use pump 406-340-100-103.
23. Replaced by jet # one 206-040-523-105.
24. Replaced by housing assembly 206-040-525-105.
25. Replaced by housing assembly 206-040-525-109.
26. Replaces case assembly 206-040-531-105, ring 206-040-570-101 and packing NAS1593-278 by case assembly 406-040-056-101.
27. Replaced by spring 206-040-538-101.