

Bell Helicopter **TEXTRON**

A Subsidiary of Textron, Inc.

Dec 18, 2002

TO: All Owners/Operators of Bell 212 Helicopters

**SUBJECT: REVISION "B" TO TECHNICAL BULLETIN 212-90-128:
MAIN ROTOR HUB ASSEMBLY P/N 204-012-101,
CONFIGURATION CHANGE AND UPGRADE**

Revision "B" to this bulletin changes application of the 204-011-121-009 grip to all the configurations of Main Rotor Hubs.

TECHNICAL BULLETIN

Bell Helicopter **TEXTRON**

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No. 212-90-128

Date 10-31-90

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DATE Dec 18-2002

REV B

MODEL AFFECTED: 212

SUBJECT: MAIN ROTOR HUB ASSEMBLY P/N 204-012-101,
CONFIGURATION CHANGE AND UPGRADE

HELICOPTERS AFFECTED: Model 212 helicopters serial number 30501 through 30999, 31101 through 31311, 32101 through 32142 and 35001 through 35090.

[Model 212 helicopters serial number 35091 and subsequent will be delivered with hub assembly P/N 204-012-101-153]

COMPLIANCE: At Customer's Option

DESCRIPTION:

This bulletin provides information to operators that have a requirement to upgrade the main rotor hub assembly to the latest configuration. Table 1 lists the components that comprise the hub dash number configuration, except for common hardware, packings and seals. The helicopter certified design configurations at time of delivery were as follows:

Helicopter S/N	Main Rotor Hub Assembly P/N
30501 through 30680	204-012-101-009
30681 through 30704	204-012-101-023
30705 through 30999	204-012-101-029
31101 through 31285	204-012-101-029
32101 through 32142	204-012-101-029
31286 through 31311	204-012-101-143
35001 through 35056	204-012-101-143
35060 through 35062	204-012-101-143
35057 through 35059	204-012-101-151
35063 through 35090	204-012-101-151
35091 and subsequent	204-012-101-153

The use of a later dash number hub assembly on an earlier helicopter serial number is approved. The use of an earlier dash number hub assembly on a later helicopter serial number is not authorized. To do so places the helicopter out of the certified design configuration.

A dash number identification change on the hub assembly data plate is required. Historical records must be annotated with the new part numbers and retirement lives, as applicable.

APPROVAL:

The engineering design aspects of this bulletin are FAA/DER approved.

MANPOWER:

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

MATERIALS:

Refer to the accomplishment instructions. Components are available through your Bell Helicopter Supply Center.

SPECIAL TOOLS:

Refer to the Model 212 Maintenance Manual and Component Repair and Overhaul Manual.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-212-IPC Illustrated Parts Breakdown, Chapter 62

BHT-212-MM Maintenance Manual, Volume 1, Chapter 62

BHT-212-CR&O Component Repair and Overhaul, Chapter 62

T.B. 212-99-170 Improved pitch horn to main rotor grip attachment hardware.

T.B. 212-86-94 Main rotor grip seal, P/N S12561-341, replacement of.

A.S.B. 212-90-62 Main rotor (M/R) pillow block attachment bolt P/N 204-011-171-003.

A.S.B. 212-92-80 Main rotor (M/R) yoke P/N 204-011-102 all dash numbers, removal from service.

PUBLICATIONS AFFECTED:

None affected

ACCOMPLISHMENT INSTRUCTIONS:

1. Disassemble, inspect and assemble the main rotor hub assembly in accordance with Chapter 62 of the Model 212 Component Repair and Overhaul Manual.
2. Upgrading the hub assembly to a later configuration will require incorporating parts as shown in Table 1. All parts that are to be retained in service shall be submitted to normal overhaul inspections to determine serviceability.
3. The upgraded hub assembly must have the data plate and Historical Service Record re-identified to a new part number that the assembly was upgraded to. The suffix "FM" will be added after the part dash number to indicate "field modified". Data plate P/N MS27253-1 may be added to the assembly, if required. The serial number of a field-modified part will not be altered or changed.

Example: Upgrade the 204-012-101-009 to a -143 configuration. Re-identify assembly data plate and Historical Service Record to a new part number: 204-012-101-143 FM. Retain existing serial number.

<u>Part Number</u>	<u>Item</u>	<u>Qty</u>	<u>Configurations</u>						<u>Note(s)</u>
204-012-101	Hub Assy	1	-009	-023	-029	-143	-151	-153	1
204-010-191-001	Reservoir	2	X	X	X	X	X	X	
204-010-506-005	Sight Glass	2	X	X	X	X	X	X	
204-010-507-001	Cover	2	X	X	X	X	X	X	
204-010-526-001	Lock	2	X	X	X	X	X	X	
204-010-529-001	Cover	2	X	X	X	X	X	X	
204-011-102-017	Yoke	1	X	X	X				2
204-011-102-021	Yoke	1			X				3
204-011-102-125	Yoke	1			X	X			4
212-011-102-105	Yoke	1					X	X	
204-011-105-001	Trunnion	1	X	X	X	X	X	X	
204-011-108-003	Pillow Block	2	X	X	X				5
204-011-108-005	Pillow Block	2			X	X			6
204-011-108-113	Pillow Block	2					X	X	7
204-011-108-119	Pillow Block	2					X	X	
204-011-110-005	Bearing	2	X	X	X	X	X	X	
204-011-111-003	Bearing	2	X	X	X	X			8
212-011-111-103	Bearing	2					X		9
212-311-007-101	Inboard Bearing	2						X	
212-311-009-101	Inboard Race	2						X	
204-011-112-003	Bearing	2	X	X	X	X			10
212-011-112-103	Bearing	2					X		11
212-311-008-101	Outboard Bearing	2						X	
212-311-010-101	Outboard Race	2						X	
204-011-116-001	Nut	2	X	X	X	X	X	X	
204-011-120-005	Pitch Horn	2	X	X	X	X	X	X	
204-011-121-009	Grip	2	X	X	X	X			12
204-011-121-121	Grip	2					X	X	12
204-011-122-001	Liner	2	X	X	X	X	X	X	
204-011-123-001	Back-up Ring	2	X	X	X	X	X	X	

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Table 1 (Sheet 1)
Model 212 Main Rotor Hub Configurations

<u>Part Number</u>	<u>Item</u>	<u>Qty</u>	<u>Configurations</u>						<u>Note(s)</u>
204-012-101	Hub Assy	1	-009	-023	-029	-143	-151	-153	1
204-011-125-001	Plate	2	X	X	X				13
204-011-125-005	Plate	2				X	X	X	14
204-011-131-005	Seal	2	X	X	X				15
204-011-131-107	Seal	2				X	X	X	
204-011-132-001	Seal	2	X	X	X	X	X	X	
204-011-133-001	Thrust Washer	2	X	X	X	X	X	X	
204-011-134-001	Lock	2	X	X	X	X	X	X	
204-011-135-003	Bushing	4	X	X	X	X			16
204-011-135-105	Bushing	4					X	X	
204-011-140-003	Drag Brace	2	X	X	X				17
204-011-140-005	Drag Brace	2	X	X	X	X	X	X	
204-011-147-001	Shim	8	X	X	X	X	X	X	
204-011-148-001	Radius Ring	2	X	X	X	X	X	X	
204-011-149-001	Clamp	2	X	X	X	X	X	X	
204-011-150-001	Weight	16	X	X	X	X	X	X	
204-011-151-001	Blade Bolt	2	X	X	X	X	X	X	
204-011-152-001	Washer	2	X	X	X	X	X	X	
204-011-153-001	Nut	2	X	X	X	X	X	X	
204-011-158-003	Key	2	X	X	X	X	X	X	
204-011-159-001	Outer Spacer	2	X	X	X	X	X	X	
204-011-160-001	Inner Spacer	2	X	X	X	X	X	X	
204-011-162-001	Shim	8	X	X	X	X	X	X	
204-011-166-003	Bolt	2	X	X					18
204-011-166-009	Bolt	2			X	X	X	X	
204-011-171-003	Bolt	4	X	X	X	X			19
20-057-10-48	Bolt	4					X	X	
204-012-103-005	Outboard Fitting	2	X	X	X	X	X	X	
204-012-104-005	Pin	4	X	X	X	X	X	X	
204-012-106-001	Nut	2	X	X	X	X	X	X	

Table 1 (Sheet 2)
Model 212 Main Rotor Hub Configurations

<u>Part Number</u>	<u>Item</u>	<u>Qty</u>	<u>Configurations</u>						<u>Note(s)</u>
204-012-101	Hub Assy	1	-009	-023	-029	-143	-151	-153	1
204-012-107-001	Seal Sleeve	2	X	X	X	X	X	X	
204-012-112-005	TT Strap	2	X	X	X				20, 22
204-012-122-001	TT Strap	2		X	X				21, 22
204-012-122-005	TT Strap	2				X	X	X	23
204-310-101-101	TT Strap	2				X	X	X	24
204-012-113-003	Lockplate	2	X	X	X	X	X	X	
204-012-116-001	Radius Ring	2	X						25
204-012-116-003	Radius Ring	2		X	X				26
204-012-116-005	Radius Ring	2				X			27
204-012-116-107	Radius Ring	2					X	X	
212-010-102-001	Static Stop	2	X	X	X	X	X	X	
212-010-103-005	Inboard Fitting	2	X	X	X				28
212-010-103-007	Inboard Fitting	2				X	X	X	
AN960-816	Washer	2	X	X	X	X			29
140-007-33S28-3	Washer	4				X			30
140-007-41-S34-2	Washer	4					X	X	31
140-007-41-S34-4	Washer	4					X	X	31
EB080	Nut	4	X	X	X	X			32
EB108	Nut	4					X	X	
S12561-341	Channel Seal	2	X	X	X				33
S32979-341G99	Channel Seal	2				X	X	X	
AN6H22A	Bolt	4	X	X	X				34
NAS6606H27	Bolt	4				X	X	X	

Table 1 (Sheet 3)
 Model 212 Main Rotor Hub Configurations

NOTES

1. Hub assemblies 204-012-101-009 / -023 / -029 / -143 / -151 are non-procurable.
2. Replaced by 204-011-102-021 Yoke.
3. Replaced by 204-011-102-125 Yoke.
4. Replaced by 212-011-102-105 Yoke.
5. Replaced by 204-011-108-005 Pillow Block.
6. Replaced by 204-011-108-113 Pillow Block.
7. Replaced by 204-011-108-119 Pillow Block.
8. Replaced by 212-011-111-103 Bearing.
9. Replaced by one 212-311-007-101 Inboard Bearing and one 212-311-009-101 Inboard Race.
10. Replaced by 212-011-112-103 Bearing.
11. Replaced by one 212-311-008-101 Outboard Bearing and one 212-311-010-101 Outboard Race.
12. Grips 204-011-121-009 or -121 may be used in any main rotor hub configurations.
13. Replaced by 204-011-125-005 Plate.
14. Plate 204-011-125-005 must be used in pairs.
15. Replaced by 204-011-131-107 Seal.
16. Replaced by 204-011-135-105 Bushing.
17. Replaced by 204-011-140-005 Drag Brace.
18. Replaced by 204-011-166-009 Bolt.
19. Replaced by 20-057-10-48 Bolt.
20. TT Strap Assembly 204-012-122-001 may be used as an alternate.
21. TT Strap Assembly 204-012-112-005 may be used as an alternate.

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22. Replaced by 204-012-122-005 TT Strap Assembly.
23. TT Strap Assembly 204-310-101-101 may be use as an alternate.
24. TT Strap Assembly 204-012-122-005 may be use as an alternate.
25. Replaced by 204-012-116-003 Radius Ring.
26. Replaced by 204-012-116-005 Radius Ring.
27. Replaced by 204-012-116-107 Radius Ring.
28. Replaced by 212-010-103-007 Inboard Fitting.
29. Replaced by 140-007-33S28-3.
30. Replaced by 140-007-41S34-2 and 140-007-41S34-4 Washers.
31. Use as required to achieve proper fastener grip. At least one of each must remain per bolt.
32. Replaced by EB108 Nut.
33. Replaced by S32979-341G99 Channel Seal.
34. Replaced by NAS6606H27 Bolt.