

ALERT SERVICE BULLETIN
REVISION NOTICE
Bell Helicopter**TEXTRON**
A Subsidiary of Textron Inc.

DATE June 15, 2006

TO: **All Owners/Operators of Bell 206A/B series Helicopters**

SUBJECT: **REVISION "A" TO ALERT SERVICE BULLETIN 206-06-107:
(VERTICAL FIN SUPPORTS 206-031-417-003/-007 AND 206-031-418-
001/-005, INSPECTION OF)**

Revision "A" to this bulletin introduces a minimum torque value of 50 in-lbs (5.65 Nm) to be used for the torque check. In addition, the steps from tables 2 and 3 have been re-numbered. As a minimum requirement on the vertical fin, primer only in the area of the mating surface of fin/support, reference revised Figure 1.

AN APPROPRIATE ENTRY SHOULD BE MADE IN THE AIRCRAFT LOGBOOK UPON ACCOMPLISHMENT
IF OWNERSHIP OF AIRCRAFT HAS CHANGED PLEASE FORWARD TO NEW OWNER

ALERT SERVICE BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

NO. 206-06-107

DATE April 26, 2006

PAGE 1 of 8

DATE June 15, 2006

REV A

MODEL AFFECTED: 206A/B SERIES

SUBJECT: VERTICAL FIN SUPPORTS 206-031-417-003/-007
AND 206-031-418-001/-005, INSPECTION OF

HELICOPTERS AFFECTED: Model 206A/B helicopters serial number 004 through 3906 having the two-piece fin supports 206-031-417-003/-007 and 206-031-418-001/-005

[Model 206B helicopters serial numbers 3907 and subsequent will have the one-piece casting support 206-033-426 installed.]

COMPLIANCE: At the next scheduled 100 Hrs/Annual inspection but no later than 3 months after receipt of this bulletin.

DESCRIPTION:

Bell Helicopter has received a report of an accident in which the vertical fin attachment supports were found cracked. Preliminary evaluation reveals that the cracks originated at the supports attachment bolt holes for the vertical fin.

This Alert Service Bulletin has you perform a series of inspections to the two-piece supports. In addition, it introduces a revision to Chapter 53 of the BHT-206A/B-SERIES-MM that updates the removal/installation and inspection of the vertical fin, as well as, a revision to Chapter 5 that introduces a recurring fin attaching hardware torque check to be done at the scheduled 100 Hrs/Annual inspection.

Note that tailbooms that have the two piece fin support and vertical fin in spares must comply with the intent of this bulletin prior to installation on a helicopter.

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APPROVAL:

The engineering design aspects of this bulletin are TCCA approved.

MANPOWER:

No additional man-hours are required to complete this bulletin when accomplished during scheduled maintenance if the helicopter meets the original configuration at delivery and complies with all applicable Alert Service Bulletins. If the helicopter does not meet the original configuration at delivery or is not in compliance with all ASB's, man-hours required to perform this bulletin may vary between 1 and 8 hours depending on the actions required, personnel and facilities available.

WARRANTY:

Warranty credit for parts or labor is not applicable to this A.S.B.

MATERIAL:

Required Material:

None Required.

Consumable Material:

None required.

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected

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REFERENCES:

BHT-206A/B-Maintenance and Overhaul Manual
BHT-ALL-SPM

PUBLICATIONS AFFECTED:

BHT-206A/B-SERIES-MM Maintenance Manual chapter 5 and 53
BHT-206A/B-IPB Illustrated Parts Breakdown

ACCOMPLISHMENT INSTRUCTIONS:

1. Insert revision 4 of the BHT-206A/B-SERIES-MM provided with this bulletin in your Maintenance Manual.

-NOTE-

The vertical fin part number can be found on the inboard skin in the area above the four inserts for the fin attachment.

2. Determine Type of fin installed. Reference Table 1.

Table 1

TYPE	P/N	PRODUCTION EFFECTIVITY	NOTE
Type 1	206-020-113-005	4 - 413	1
Type 1	206-020-113-007	414 - 583	1
Type 1	206-020-113-009	584 - 873	1
Type 2	206-020-113-005-107	4 - 413	2
Type 2	206-020-113-007-107	414 - 583	2
Type 2	206-020-113-009-107	584 - 873	2
Type 2	206-020-113-107	874 - 1163	2,3
Type 3	206-020-113-103	1164 - 1251	4
Type 3	206-020-113-011	1252 - 3216	4
Type 3	206-020-113-131	3217 - 4004	4
Type 3	206-020-113-163	4005 - 4523	4
Type 3	206-020-113-231	4524 - Sub	4

NOTES:

1. The fins Type 1 have a 0.040-inch thick inboard skin. No doubler installed (pre SL 206-203).
2. The fins Type 2 have a 0.040-inch thick inboard skin and a 0.020-inch thick external doubler installed on the inboard side per S.L. 206-203. The SL 206-203 has you re-identify the fins -005 / -007 and -009 to -107.
3. External doubler installed on the fin inboard side in production.
4. The fins Type 3 have no external doubler installed. These fins have a 0.063-inch thick inboard skin.

3. If fin Type 1 or 3 is installed, do the steps 5 and 6 and the steps given in the “Action Required” column of the Table 2.

Table 2

	Torque Check (step 5)	Paint Check (step 6)	Action Required
Fin Type 1 or 3	Within Tolerance	No Paint	Do step 8
		Paint	Do step 9
	Out of Tolerance	No Paint	
		Paint	

4. If fin Type 2 is installed, do the steps 5, 6 and 7 and the steps given in the “Action Required” column of the Table 3.

Table 3

	Torque Check (step 5)	Paint Check (step 6)	Gap Check (step 7)	Action Required
Fin Type 2	Within Tolerance	No Paint	Gap Good	Do step 8
			Gap Bad	Do step 9
		Paint	Gap Good	
			Gap Bad	
	Out of Tolerance	No Paint	Gap Good	
			Gap Bad	
		Paint	Gap Good	
			Gap Bad	

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-NOTE-

For the purpose of this bulletin, the minimum torque value to be used for the torque check is 50 in-lbs (5.65 Nm). The proper fin attaching hardware torque for installation is 75 to 95 in-lbs (8.47 to 10.75 Nm).

5. Perform torque check of the fin attachment hardware. Ensure the torque is not below 50 in-lbs (5.65 Nm). To be within tolerance the torque must be at 50 in-lbs (5.65 Nm) and above. Record your findings and proceed with step 6.

CAUTION

THE VERTICAL FIN SUPPORTS SHALL HAVE THE PRIMER COATING ONLY. APPLICATION OF PAINT COATING MAY MAKE THE VISUAL INSPECTION DIFFICULT. APPLICATION OF PAINT COATING ON THE FIN/SUPPORTS MATING SURFACES MAY CAUSE LOSS OF TORQUE OF THE FIN ATTACHING HARDWARE.

6. Inspect the supports and fin for the presence of paint coating at the indicated areas on Figure 1. Do not remove paint now, record your findings and proceed with the step 7 (with Type 2 fin only) and 8 or 9 depending on what you have recorded on Table 2 or 3 as applicable.
7. Perform gap check. Reference Figure 2. Record your findings and proceed with step 8 or 9 depending on what you have recorded on Table 3.
8. If the torque was within limits (not below 50 in-lbs (5.65 Nm)), no presence of paint and the gap check (Type 2 fin) was good; perform a 10 X visual inspection of the supports in the area of the fin attaching hardware.
 - a. If the visual shows no cracks, re-torque at 75 to 95 in-lbs (8.47 to 10.75 Nm) and make an entry in the helicopter records to indicate that this bulletin has been accomplished.
 - b. If you suspect cracks remove the vertical fin (refer to the BHT-206A/B-SERIES-MM chapter 53) and accomplish NDT FPI Method (ASTM E1417) immediately as per the BHT-ALL-SPM. Portable kits (Method C) may be employed for inspection of localized areas of components and parts installed on aircraft. If the result is negative (no crack), apply two coats of Polyamide Epoxy Primer (C-204) or (C-245) on bare metal surfaces. Make an entry in the helicopter records to indicate that this bulletin has been accomplished.

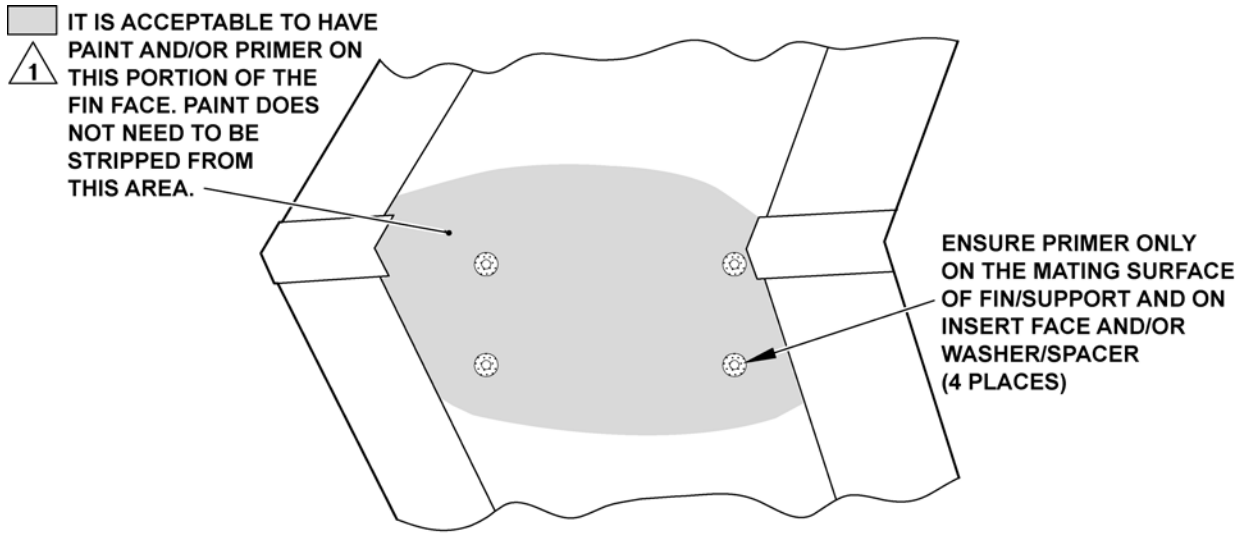
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- c. If the result is positive (evidence of crack), replace the two-piece support with the one piece casting support 206-033-426-003 as per the BHT-206-SRM-1.
9. If the torque was not within the limits and/or paint is present and/or gap check (Type 2 fin) is not good, do the following:
- a. Remove the vertical fin. Refer to the BHT-206A/B-SERIES-MM chapter 53.
 - b. Remove all organic finish (primer and paint coating) at the areas indicated on the Figure 1. Reference the BHT-ALL-SPM for paint removal and primer application.
 - c. For Type 2 fin only, if incorrect washers (spacers) or no washers were installed, do the following. Perform a visual inspection with a 10 X power magnifying glass of the potted inserts of the vertical fin as per Figure 1, Detail A.
 - 1) If no damage is found, proceed to step d.
 - 2) If any damage of the potted insert is detected, contact Product Support Engineering.
 - d. If the fin installed is of Type 2, ensure the correct washers (spacers) are installed between the supports and the fin inner skin. Refer to the Figure 2 Section A-A. For washers (spacers) inspection and installation procedure, refer to the BHT-206A/B-SERIES-MM, chapter 53.
 - e. Perform a visual inspection with a 10 X power magnifying glass of the supports in the areas shown on the Figure 1, View B:
 - 1) If no crack is visible, NDT FPI Method (ASTM E1417) may be performed immediately or within the next 100 hours or 3 months following the visual inspection as per the BHT-ALL-SPM. Portable kits (Method C) may be employed for inspection of localized areas of components and parts installed on aircraft. If you choose to accomplish the NDT inspection within the next 100 hours or 3 months, apply two coat of Polyamide Epoxy Primer (C-204) or (C-245) now until the time of NDT. If no crack is present following the NDT, apply two coats of Polyamide Epoxy Primer (C-204) or (C-245) on bare metal surfaces and proceed to step f.
 - 2) If a crack is suspected remove the vertical fin (refer to the BHT-206A/B-SERIES-MM chapter 53) and accomplish a NDT FPI Method (ASTM E1417) immediately as per the BHT-ALL-SPM. Portable kits (Method C) may be employed for inspection of localized areas of components and parts installed on aircraft. If a crack is confirmed replace the two-piece support bracket with the one-piece casting support 206-033-426-003 as per the BHT-206-SRM-1.

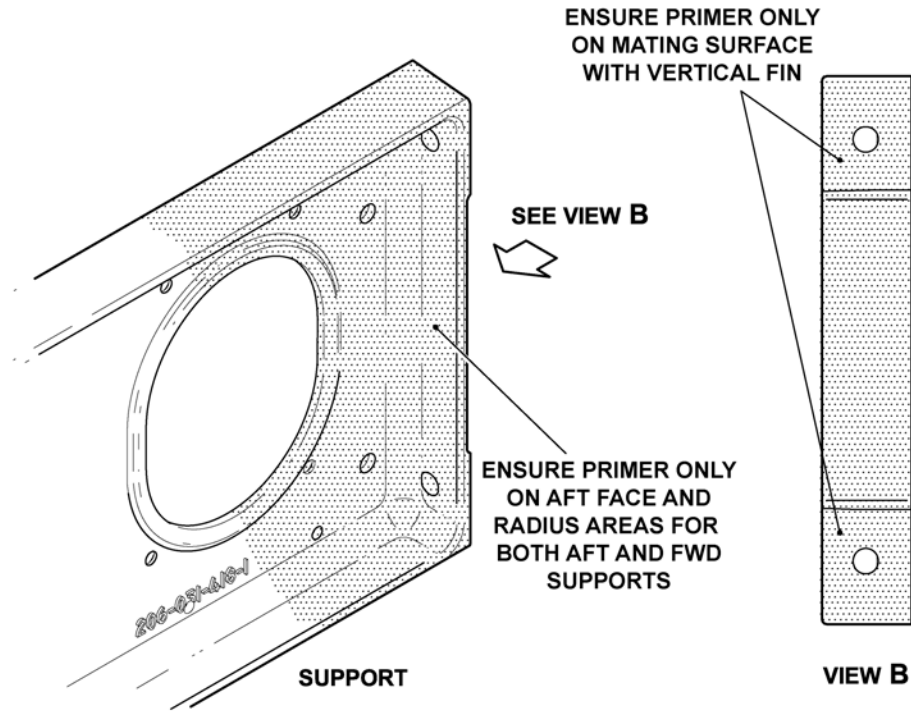
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If no crack is present following NDT apply two coat of Polyamide Epoxy Primer (C-204) or (C-245).

- f. Re-install the vertical fin. Refer to the BHT-206A/B-SERIES-MM chapter 53.
- g. Make an entry in the helicopter records to indicate that the bulletin has been accomplished.



1 If paint is present in this area, it is suspected that the washer (spacer) and mating surface has paint coating. In this case, the fin shall be removed for verification.

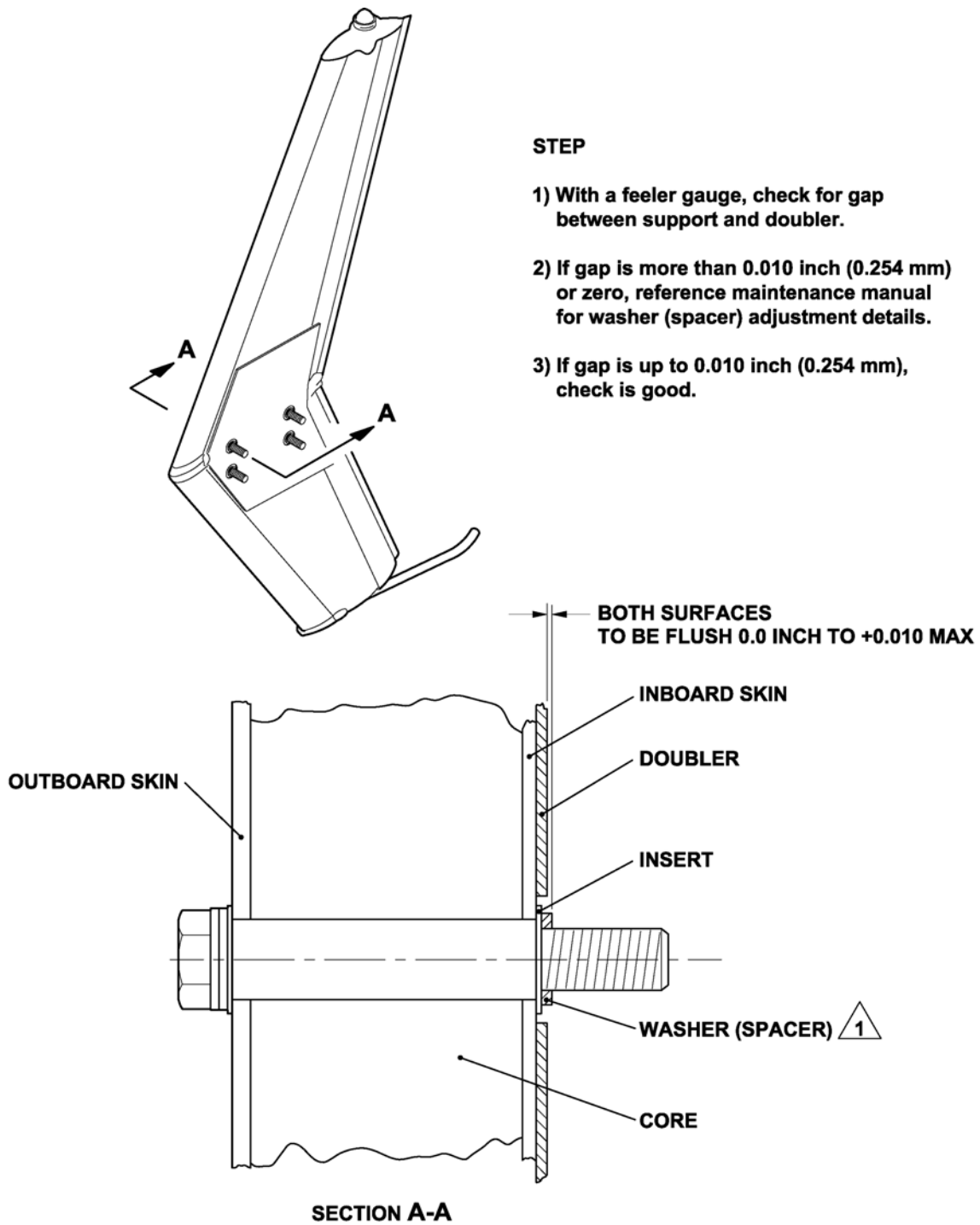


This surface shall have primer coating only. Remove all paint coating, if present. Refer to BHT-ALL-SPM.

RAM06520_001

Figure I: Primer Application for Vertical Fin and Support

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1 FOR WASHER (SPACER) INSTALLATION, REFER TO MAINTENANCE MANUAL.

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Figure II: Vertical Fin Type 2 Doubler and Washer (Spacer) Stack-Up Gap Check