



A Textron Company

ALERT SERVICE BULLETIN

206L-20-185
16 November 2020

MODEL AFFECTED: 206L Series

SUBJECT: MAIN ROTOR BLADES P/N 206-015-001-115 /-117 /-119 GRIP PLATES AND ROOT END DOUBLERS, INSPECTION OF.

HELICOPTERS AFFECTED: Serial numbers 45001 through 45153, 46601 through 46617, 45154 through 45790, 51001 through 51612, 52001 through 52496 with main rotor blades serial number A-XXXX as listed in Table 1 of this bulletin.

COMPLIANCE: Within the next 100 flight hours or 90 days, whichever comes first, following the release date of this bulletin and every 100 flight hours or 12 months thereafter.

DESCRIPTION:

Bell has received reports of main rotor blades with excessive disbond of root end grip plates and doublers. Disbond may occur on both upper and lower surfaces. Investigation revealed a bonding failure due to a reformulation of the adhesive primer. Suspected main rotor blades are listed in the Table 1 of the Accomplishment Instructions. **PART I** of this bulletin mandates a serial number verification of the main rotor blades installed on the helicopter or in spares stock. **PART II** provides instructions to perform initial and recurring inspection of the affected main rotor blades.

Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

APPROVAL:

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

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

MANPOWER:

Approximately 0.5 man-hour is required to complete **PART I** of this bulletin. Approximately 1 man-hour is required to complete **PART II** of this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

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

MATERIAL:

Required Material:

None required.

Consumable Material:

The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>	<u>Reference *</u>
2100-00006-00	Cleaning Compound	1 liter	C-318
5300-61653-01	Preservative Oil	12 OZ	C-125
2100-06673-00	Isopropyl Alcohol	1 GAL	C-385
5060-60154-00	180-Grit Cloth	AR	C-406

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

NOTE 1: Quantity indicated is the format that the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less than what has been delivered.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

- BHT-206L-MM Maintenance Manual
- BHT-206L1-MM Maintenance Manual
- BHT-206L3-MM Maintenance Manual
- BHT-206L4-MM Maintenance Manual
- BHT-ALL-SPM Standard Practices Manual

PUBLICATIONS AFFECTED:

- BHT-206L-MM Maintenance Manual
- BHT-206L1-MM Maintenance Manual
- BHT-206L3-MM Maintenance Manual
- BHT-206L4-MM Maintenance Manual

ACCOMPLISHMENT INSTRUCTIONS:

PART I. Main rotor blades serial number verification.

Table 1. List of affected blades (Note 1)

5913 thru 6164	6166 thru 6170	6172	6174 thru 6180
6182 thru 6188	6195	6199	6208
6210	6213 thru 6214	6217 thru 6221	6231 thru 6232
6263	6425	-----	-----

NOTE 1: All blades listed above have the prefix A.

1. Prepare the helicopter for maintenance.
2. Determine if main rotor blades installed on the helicopter or in spares stock are affected by this bulletin (Table 1).
3. If main rotor blades are not affected, make an entry in the helicopter logbook and historical service records of the helicopter and main rotor blade indicating compliance with this Alert Service Bulletin.

-NOTE-

Optionally, in order to provide a quick visual reference and identify the “blades affected” by this ASB, apply a decal with the ASB number on to the top grip plate, near the data tag of

the blade. The decals are locally manufactured using letter of white color no 17875 on black background color no 17038. All characters to be 12-point Spartan black font, color per FED 595. To prolong the life of the decal, apply Edge sealer (C-349) on the decal.

4. If the main rotor blade is affected, accomplish **PART II**.

PART II. Main rotor blade inspection.

-NOTE-

Accomplishment of this inspection does not require removal of blades from the main rotor hub.

1. Wash the upper and lower main rotor blade surfaces with cleaning compound (C-318) and water solution (BHT-206L-MM-1, Chapter 65; BHT-206L1-MM-1, Chapter 65; BHT-206L3-MM-1, Chapter 62 or BHT-206L4-MM-1, Chapter 62).

-NOTE-

Hair line cracks in the paint finish should be suspect for possible cracks/voids.

-NOTE-

Any potential cracks in the bond lines between the doublers or grip plates will be indicated by the presence of excess alcohol bleeding out of an edge void. This excess alcohol in the void will appear as a dark line between the bond lines of the doublers. Proceed with the inspection of an area immediately after the alcohol wipe.

2. Wipe the area to be inspected (Figure 1) with an alcohol-soaked cloth (C-385) and wipe dry with a clean cloth.
3. Visually inspect the main rotor blade upper and lower grip plates and doublers for signs of cracks, corrosion, and edge voids as follows. Pay particular attention to the bond lines between the doublers, grip plates, and skin:
 - a. Using a 3X power magnifying glass and strong light source carry out a detailed visual inspection of the top and bottom inspection areas (Figure 1).
 - b. Check for evidence of a dark line between the doublers, grip plates, and skin with excess alcohol bleeding out for possible edge voids (Figure 2).

CAUTION

Pay particular attention not to remove any parent material from the skin/doublers during the sanding operation.

- c. If cracks in the finish are found between doublers, grip plates and skin edges, sand the affected area in a spanwise direction with an abrasive cloth or paper (C-406) 180 to 220 grit to determine if the grip plate/doublers are cracked or voided.
 - d. If any edge voids are found between doublers, grip plates and skin, determine the depth and length with a 0.0015 inch (0.038 mm) feeler gauge. If edge voids are suspected near the outboard tip of the doublers and grip plate, carry out a tap test of the affected area. Refer to the Maintenance Manual for limits and repair instructions (BHT-206L-MM-1, Chapter 65; BHT-206L1-MM-1, Chapter 65; BHT-206L3-MM-1, Chapter 62 or BHT-206L4-MM-1, Chapter 62). If any void is found outside of limits, contact Product Support Engineering.
 - e. Refinish any sanded areas (BHT-206L-MM-1, Chapter 65; BHT-206L1-MM-1, Chapter 65; BHT-206L3-MM-1, Chapter 62 or BHT-206L4-MM-1, Chapter 62).
4. Following the inspection, apply a light coat of preservative oil (C-125) to all surfaces of the blade (BHT-206L-MM-1, Chapter 65; BHT-206L1-MM-1, Chapter 65; BHT-206L3-MM-1, Chapter 62 or BHT-206L4-MM-1, Chapter 62).
 5. Make an entry in the helicopter logbook and historical service records of the helicopter and the main rotor blade indicating findings and compliance with **PART II** of this Alert Service Bulletin.



Figure 1. Area to be inspected with 3X- power magnifying glass, from STA 15.0 to STA 58.0 (upper and lower surfaces).



(Leading edge)



(Trailing edge)

Figure 2. Inspect the leading edge from STA 15.0 to STA 58.0 and trailing edge from STA 15.0 to STA 56.0 of the blade for crack between each doublers and the grip plates.