



A Textron Company

## **ALERT SERVICE BULLETIN**

**407-23-132**

**PSL # 1701**

14 August 2023

**MODEL AFFECTED:** 407

**SUBJECT:** TAIL ROTOR BLADE 406-016-100-119,  
INSPECTION OF

**HELICOPTERS AFFECTED:** Serial numbers 53000 through 53900, 53911 through 53999, 54000 through 54166, 54300 through 54800, 54805 through 54999.

Serial number 56300 and subsequent will have the intent of this bulletin accomplished prior to delivery.

**COMPLIANCE:** **PART I:** Within 10 flight hours or 14 days, whichever occurs first, following the release date of this bulletin.

**PART II:** Prior to next flight as required by **PART I**.

### **DESCRIPTION:**

Bell has received a report of a subject tail rotor blade with signs of voids between the skin and the honeycomb. The anomaly was detected during blade handling as part of a maintenance activity. Affected tail rotor blades could potentially have skin voids caused during the manufacturing process.

This two part bulletin requires a one-time inspection on both sides of the affected tail rotor blades for skin to core voids. The serial numbers affected are listed in Table 1 of this bulletin.

**PART I** requires verification of blade serial number listed in the table and a tap test inspection on both sides of the affected tail rotor blades to determine serviceability.

**PART II** mandates the replacement of the affected tail rotor blade(s) if found unserviceable following the inspection.

Applicability of this bulletin to any spare part shall be determined prior to its installation.

**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](mailto:productsupport@bellflight.com)

**MANPOWER:**

Approximately 1.0 man-hour per blade is required to complete the tap test. An additional 5.0 hours are required to complete this bulletin if an affected tail rotor blade needs to be replaced. This estimate is based on hands-on time and may vary with personnel and facilities available.

**WARRANTY:**

Owners / Operators of Bell helicopters who comply with the instructions in this bulletin will be eligible to receive replacement part as applicable, listed in the bulletin. The [www.mybell.com](http://www.mybell.com) portal allocates specific warranty entitlement for an aircraft by serial number. The Product Service Letter (PSL) number is listed below the bulletin number on the introduction page. This is going to be a required field when submitting a claim on the Bulletins Tab for replacement parts, labor, and/or freight. If you receive an ASB or TB that does not have a PSL number, then there is no warranty entitlement for that bulletin.

Labor entitlement: PART II only \$660.00 USD

To receive parts, labor, under warranty:

- Comply with the instructions contained in the Bulletin no later than the applicable date or hours in the “compliance section”.

- If there is a PSL number identified in the bulletin you will be required to enter this PSL number which will validate warranty entitlement for the selected aircraft. Please ensure that you use the Bulletin tab on the warranty section on [www.mybell.com](http://www.mybell.com) portal to file your claim.

**MATERIAL:**

**Required Material:**

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

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>
406-016-100-119	Tail Rotor Blade Assembly	A/R (1)

**NOTE 1:** As required per the Accomplishment Instructions of this bulletin.

**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>
2100-00044-00	MIL-PRF-16173 GR1	1 (1)	C-101
2100-09016-02	MIL-PRF-16173 GR2	1(1)	C-104
1650-03296-00	Wire, Safety, CRES 0.032	1(1)	C-405
2400-00259-00	Grease, High Pressure	1(1)	C-561

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

**NOTE 1:** The quantity indicated is the format the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less.

**SPECIAL TOOLS:**

None required.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

407-IPB Illustrated Parts Breakdown, Chapter 64  
407-MM Maintenance Manual, Chapter 64

**PUBLICATIONS AFFECTED:**

None affected.

**ACCOMPLISHMENT INSTRUCTIONS:**

**PART I: 406-016-100-119 Tail Rotor Blade Inspection**

1. Prepare the helicopter for maintenance.
2. Determine if the installed tail rotor blades or any spares stock are affected by this bulletin using the list of serial numbers in Table 1.

**Table 1 – List of Affected Tail Rotor Blades (406-016-100-119) Serial Numbers**

(Sequential serial numbers in table are listed from left to right)

BH754090	BH758243	BH760740	BH761949	BH769532
BH769533	BH769534	BH769535	BH769539	BH769540
BH769612	BH774230	BH775695	BH779001	BH779002
BH779003	BH779006	BH779012	BH793885	BH793886
VL00028037	VL00030369	VL00030370	VL00046941	VL00051245
VL00056213	VL00056214	VL00080036	VL00081639	VL00081640
VL00081641	VL00115627	VL00115628	VL00115629	VL00115630
VL00115632	VL00117432	VL00126512	VL00131300	VL00214826
VL00234481	VL00234484	VL00237544		

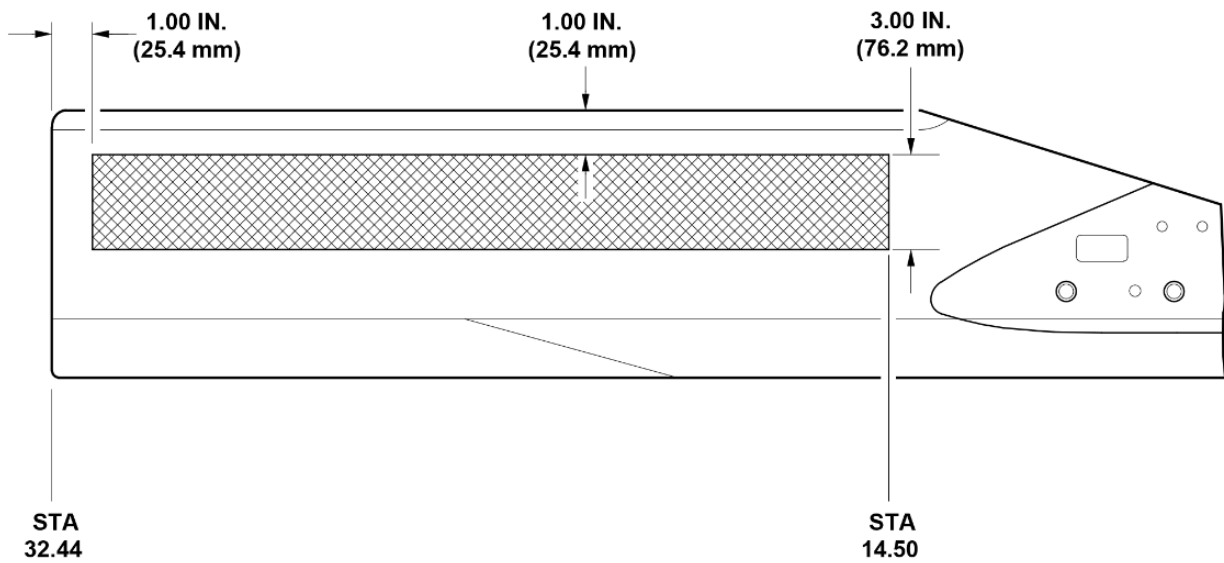
-NOTE-

A blade not listed in Table 1 can be used as reference for the tap response that can be expected from an unaffected blade.

3. Inspect affected tail rotor blade for skin to core voids ([DMC-407-A-64-12-00-01A-280A-A](#) Paragraphs 3.2 and 3.3). The zone to be inspected is on both sides of the tail rotor blade as shown in the cross hatched area (Figure 1).
4. If the tail rotor blade is determined to be serviceable following the tap test, continue to step 7.
5. Tail rotor blades with skin to core voids exceeding the limits specified in Step 3 of this bulletin shall be replaced as per **PART II** of this Alert Service Bulletin.
6. Contact Bell Product Support Engineering ([productsupport@bellflight.com](mailto:productsupport@bellflight.com)) immediately if voids are found on the affected tail rotor blade. Provide the size and location of the void(s), the helicopter model and serial number, as well as the tail rotor blade serial number and time since new. Unserviceable tail rotor blades must be returned to Bell for investigation. Obtain a Return Material Authorization (RMA) prior to shipping the tail rotor blade to Bell.
7. Make an entry in the helicopter logbook and Historical Service Records (HSR) indicating compliance with **PART I** of this bulletin.

#### **PART II: Tail Rotor Blade Replacement.**

1. Proceed as follows if the affected tail rotor blade is installed on the helicopter:
  - a. Prepare the helicopter for maintenance.
  - b. Remove the tail rotor hub and blade assembly ([DMC-407-A-64-00-00-00A-520A-A](#)).
  - c. Remove the affected tail rotor blade from the hub and blade assembly ([DMC-407-A-64-12-00-00A-520A-A](#)).
  - d. Install a serviceable tail rotor blade ([DMC-407-A-64-12-00-00A-720A-A](#)).
  - e. Re-install the tail rotor hub and blade assembly ([DMC-407-A-64-00-00-00A-720A-A](#)).
2. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART II** of this bulletin.



**Figure 1 – Tail Rotor Blade 406-016-100-119  
(Cross hatched inspection area – both sides of blade)**