



A Textron Company

## **ALERT SERVICE BULLETIN**

**429-21-57**

**PSL 832**

23 October 2021

**MODEL AFFECTED:** 429

**SUBJECT:** MAIN ROTOR TRANSMISSION GEARSHAFTS 427-040-113-103 AND -111, INSPECTION OF

**HELICOPTERS AFFECTED:** Serial numbers 57048, 57402, 57407, 57408, 57414 through 57417, 57419, 57424, 57426 and 57427 or helicopters equipped with transmission assemblies listed in Table 1.

[Serial numbers 57001 through 57047, 57049 through 57401, 57403 through 57406, 57409 through 57413, 57418, 57420 through 57423, 57425, 57428 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

**COMPLIANCE:** Before next flight. Ferry flights to maintenance facilities will be reviewed on a case by case basis by Bell Product Support Engineering.

### **DESCRIPTION:**

Bell has been advised of a quality escape affecting a total quantity of 37 429-040-006-121 transmission assemblies which have specific 427-040-113-103 and -111 gearshafts installed. Following a teardown of a transmission returned to the supplier due to an abnormal noise experienced during production ground run, excessive wear was found on the helical teeth of the 427-040-113-111 gear shaft. The excessive wear was caused by improper helical gear tooth spacing. The quality escape is limited to only one supplier. This bulletin mandates that the transmission assemblies listed in Table 1 be removed and sent to Bell for the inspection of the gearshafts.

Depending on the severity of the out of tolerance condition of the gearshaft, further assessment will be required to determine the serviceability of the bull gear 427-040-

103-101. Once the transmissions have been inspected and repaired (if required), they will be sent back to their respective owners.

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 40 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

**WARRANTY:**

Owner Operators, and or Fleet Operators of Bell Aircraft who comply with the instructions in this Bulletin will be eligible to receive removal installation labor costs for the transmission, parts as listed in the bulletin, and freight costs. Bell has recently introduced enhancements to the MyBell.com Portal which allocates specific warranty entitlement for an aircraft by serial number. The Product Service Letter (PSL) number which will be listed below the bulletin number on the introduction page is going to be a required field when submitting a claim 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: Yes     \$3,800.00 USD

To receive labor, Parts, and Freight under warranty:

- File a warranty claim no later than 14 days after the release date of this bulletin.
- 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 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>
AS3209-008	Packing	2
AS3209-265	Packing	2
AS3209-266	Packing	1
AS3209-109	Packing	1

**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>
2400-00020-00	Lubricating oil	1 QT (2)(4)(3)	C-030
2010-00134-00	Sealant	1 PT (2)(3)	C-308
2010-00118-00	Sealant	3.5 OZ (2)(3)	C-328
NAS 820	Caps or plugs	A/R (1)(3)	C-156
NAS 847	Caps or plugs	A/R (1)(3)	C-428
2100-00044-00	CPC	1 PT (2)(3)	C-101
2100-09016-02	CPC	1 PT (2)(3)	C-104
2230-00425-00	Epoxy polyamide primer	1 PT (2)(3)	C-204

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

**NOTES:**

1. As required.
2. 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.
3. The consumables are only required for the re-installation of the mast and transmission assemblies.
4. Equivalent lubricating oil listed in BHT-429-MD-1, Section 2 Manufacturer's Data can also be used.

**SPECIAL TOOLS:**

429-240-005-101 Lifting tool.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

BHT-429-IPB Illustrated Parts Breakdown  
BHT-429-MM Maintenance Manual

**PUBLICATIONS AFFECTED:**

None affected.

**ACCOMPLISHMENT INSTRUCTIONS:**

1. Prepare the helicopter for maintenance.
2. Remove the main rotor transmission assembly (DMC-429-A-63-20-00-00A-520A-A)
3. File a warranty claim on the mybell.com portal using the PSL number found at the top of the cover page of this bulletin. In order to get further instructions to ship the transmission assembly, contact your warranty administrator at the following number:

1.800.FLY.BELL (359.2355) Option 3.

Or

214.490.2565 option 3

4. Install a serviceable transmission assembly (DMC-429-A-63-20-00-00A-720A-A)
5. Make an entry in the helicopter logbook and historical service records indicating compliance with this Alert Service Bulletin.

**Table 1 – List of Affected Main Rotor Transmission Assemblies**

<b>Helicopter S/N</b>	<b>Transmission Assembly S/N</b>	<b>L/H Gearshaft</b>	<b>R/H Gearshaft</b>
57414	TN343	Good	Suspect
57048	TN344	Good	Suspect
57415	TN345	Good	Suspect
N/A	TN346	Suspect	Suspect
57407	TN347	Suspect	Suspect
57408	TN349	Suspect	Suspect
57417	TN350	Suspect	Good
57416	TN354	Good	Suspect
57419	TN355	Suspect	Suspect
57426	TN359	Suspect	Good
57424	TN360	Suspect	Suspect
57427	TN362	Suspect	Suspect
57402	TN366	Suspect	Suspect