



A Textron Company

## **ALERT SERVICE BULLETIN**

**429-22-58**

**PSL # 951**

1 September 2022

**MODEL AFFECTED:** 429

**SUBJECT:** TRANSMISSION MOUNTED BELLCRANKS AND SUPPORT, INSPECTION OF

**HELICOPTERS AFFECTED:** Serial numbers 57001 through 57335, 57338, 57343 and 57346.

[Serial number 57336, 57337, 57339 through 57342, 57344, 57345, 57347 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

**COMPLIANCE:** Within 3 months or 100 flight hours, whichever comes first after the release date of this bulletin.

### **DESCRIPTION:**

Bell has discovered that low torque values were applied to the transmission mounted cyclic and collective bellcranks and support hardware on the affected helicopters. If not corrected, the lack of preload may cause fretting which may cause a fatigue crack of the bolts or the bellcrank support. This ASB requires operators to inspect the transmission mounted bellcranks and support, replace the affected hardware and install with the correct torque values. This ASB also includes a design change to replace one aluminum washer with a CRES washer.

Additionally, the Maintenance Manual flight controls 2-Year Inspection (DMC-429-A-67-00-00-03A-310A-A) has been revised to include the transmission mounted bellcranks and support inspection in the latest revision. The transmission mounted bellcranks hardware torque values information will be updated in a future manual revision.

**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 6 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 non prorated 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 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: No.

To receive parts and labor under warranty:

- Comply with the instructions contained in this bulletin no later than the applicable date in the COMPLIANCE section.
- If there is a PSL number identified in the bulletin it will be required to enter this PSL number which will validate warranty entitlement for the selected helicopter. Please ensure to use the BULLETINS tab on the warranty section in VISTA when filing the claim.

-NOTE-

Customers who fail to comply with the instructions in this bulletin before the compliance date will not be eligible for the special warranty listed above.

**MATERIAL:****Required Material:**

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Supply Center as a kit under part number **CA-429-22-58**.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>
NAS6608D50	Bolt	1
NAS6608D47	Bolt	1
NAS6608D42	Bolt	1
NAS6606D23	Bolt	3
140-007-33R28C4	Washer	3
NAS1149E0863P	Washer	3
NAS1149E0663P	Washer	3
MS14144L8	Nut	3
MS14144L6	Nut	3
MS24665-151	Cotter pin	2
MS24665-302	Cotter pin	7

**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	Corrosion preventive compound	1 PT (1)	C-101
2100-09016-02	Corrosion preventive compound	1 PT (1)	C-104

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

**NOTE 1:** Quantity indicated is the format 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-429-IPB Illustrated Parts Breakdown

BHT-429-MM Maintenance Manual

## **PUBLICATIONS AFFECTED:**

BHT-429-IPB Illustrated Parts Breakdown

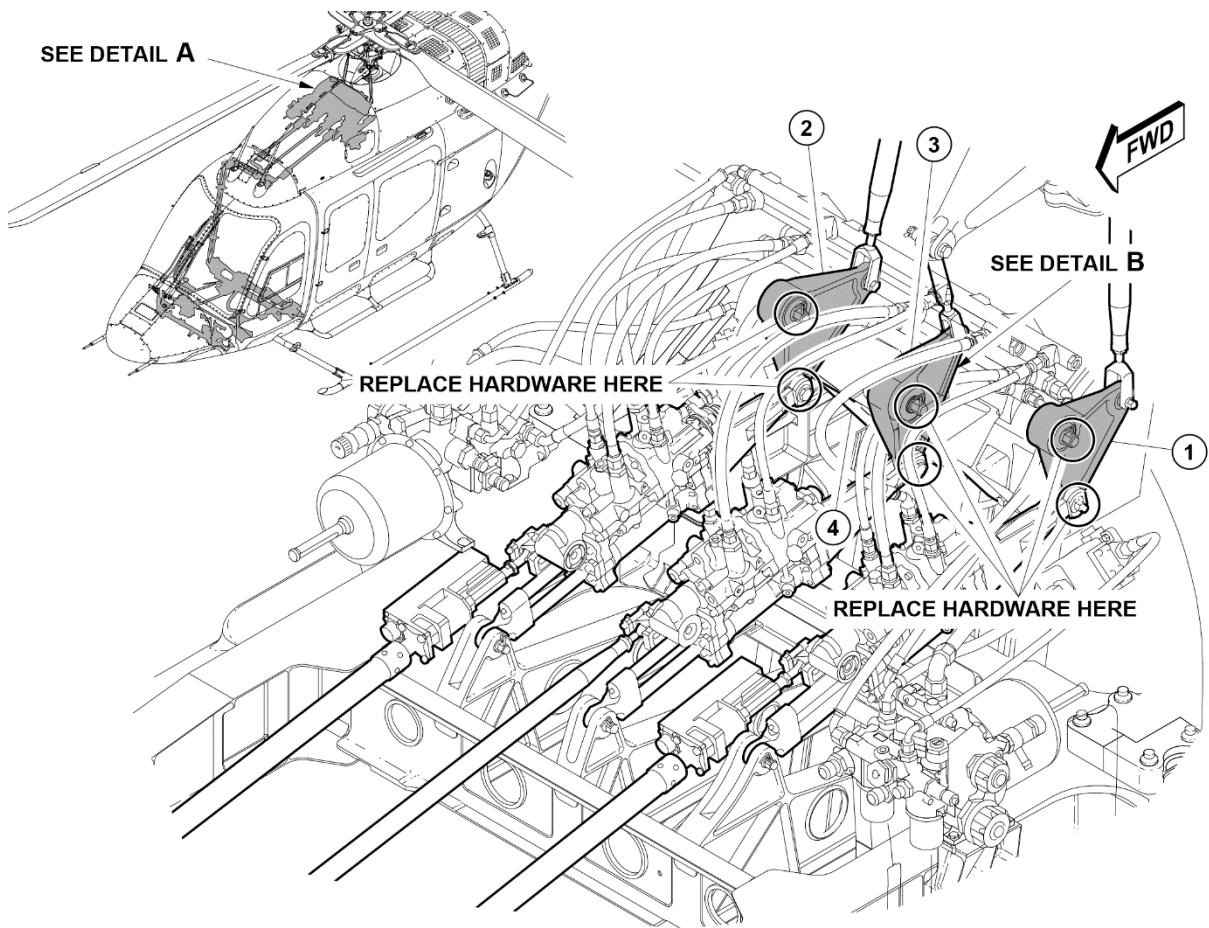
## **ACCOMPLISHMENT INSTRUCTIONS:**

1. Prepare the helicopter for maintenance.
2. Remove the transmission cowl door assembly (600FL, 600FR), the transmission cowl assembly (600EL, 600ER) and the forward cowl assembly (600CL, 600CR) (BHT-429-MM-1, Chapter 53).
3. Remove the transmission mounted cyclic lateral bellcrank assembly (1, Figure 1), the cyclic longitudinal bellcrank assembly (2) (refer to Cyclic Control Linkage - Removal, DMC-429-A-67-10-00-11A-520A-A) and the collective bellcrank assembly (3) (refer to Collective Control Linkage - Removal, DMC-429-A-67-10-00-04A-520A-A). Discard the hardware (bolts, nuts, washers and cotter pins) at the three bellcrank assembly pivot joints and the three servo joints indicated in Figure 1.
4. Visually inspect the transmission mounted cyclic lateral and longitudinal bellcrank assemblies (1 and 2) (refer to Cyclic Control Linkage - Inspection, DMC-429-A-67-10-00-11A-310A-A), the collective bellcrank assembly (3) (refer to Collective Control Linkage - Inspection, DMC-429-A-67-10-00-04A-310A-A) and the transmission mounted bellcrank support (4) (DMC-429-A-67-10-00-18A-310A-A), paying particular attention for fretting damage in the pivoting area of the bellcrank assemblies and adjacent areas of the support.

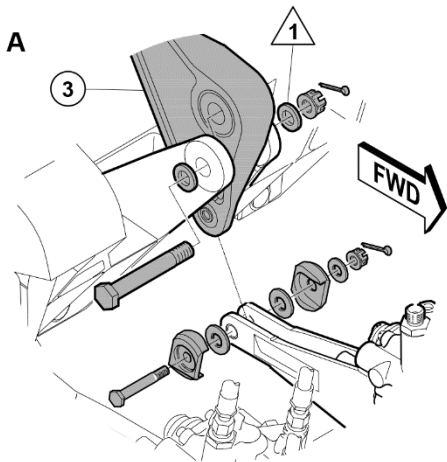
-NOTE-

New hardware is only required at the three bellcrank assembly pivot joints and servo joints. The attaching hardware at the three bellcrank assembly swashplate control tube joints can be re-used if in a serviceable condition.

5. Install the transmission mounted collective bellcrank assembly (3) (refer to Collective Control Linkage - Installation, DMC-429-A-67-10-00-04A-720A-A). Replace the aluminum washer NAS1149D0863J with a CRES washer NAS1149E0863P as per the Figure 1, Detail B. Torque pivot joint nut 40 to 58 FT-LBS. Torque servo joint nut 160 to 190 IN-LBS. Torque control tube nut 160 to 190 IN-LBS.
6. Install the transmission mounted cyclic lateral bellcrank assembly (1) and cyclic longitudinal bellcrank assembly (2) (refer to Cyclic Control Linkage - Installation, DMC-429-A-67-10-00-11A-720A-A). Torque pivot joint nuts 40 to 58 FT-LBS. Torque servo joint nuts 160 to 190 IN-LBS. Torque control tube nuts 100 to 140 IN-LBS.
7. Carry out rigging check of the cyclic control system (DMC-429-A-67-10-00-02A-280A-A) and the collective control system (DMC-429-A-67-10-00-00A-280A-A).
8. Install the transmission cowl door assembly (600FL, 600FR), the transmission cowl assembly (600EL, 600ER) and the forward cowl assembly (600CL, 600CR) (BHT-429-MM-1, Chapter 53).
9. Make an entry in the helicopter logbook and historical service records indicating compliance with this Alert Service Bulletin.



DETAIL A



DETAIL B

1. Transmission mounted cyclic lateral bellcrank assembly  
429-001-520-105
2. Transmission mounted cyclic longitudinal bellcrank assembly  
429-001-522-105
3. Transmission mounted collective bellcrank assembly  
429-001-521-105
4. Transmission mounted bellcrank support assembly  
429-001-501-101

**NOTE**

1. Install CRES washer NAS1149E0683P.

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**Figure 1 - Transmission Mounted Bellcranks and Support, Inspection Of**