



A Textron Company

TECHNICAL BULLETIN

429-18-58

3 December 2018

MODEL AFFECTED: 429

SUBJECT: BELLCRANK ASSEMBLIES 429-001-523-101, 429-001-523-103, 429-001-532-101, AND 429-001-532-103, UPGRADE OF.

HELICOPTERS AFFECTED: Serial numbers 57001 through 57296.

[Serial number 57297 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

COMPLIANCE: At customer's option.

DESCRIPTION:

This Technical Bulletin introduces the procedures to upgrade the 429-001-523-101/-103 and 429-001-532-101/-103 bellcrank assemblies to the latest configuration 429-001-523-107 and 429-001-532-107 which utilizes corrosion resistant steel bearings. Bellcranks upgraded in accordance with this Technical Bulletin will not be affected by PART II of the Alert Service Bulletin (ASB) 429-15-21 Revision B. Customers should contact their spares administrator to obtain a one-time policy pricing on parts listed in the **Required Material** section of this bulletin. Operators who wish to purchase replacement bellcranks will be charged the retail price for the part and will subsequently be credited the difference with the policy price once the core return is received by Bell. The policy pricing will only be available for 18 months following the publication date of this bulletin.

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 Bell Helicopter Engineering approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
INTERMEDIATE Tel: 450-437-2077 / 1-800-463-3036 / productsupport@bellflight.com

MANPOWER:

Approximately 18 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:

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

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>
429-301-010-101	Bearing	6
429-301-012-101	Bearing	6
120-013-4A	Sleeve	6
140-055A7	Washer	3
NAS6604-8	Bolt	8 (1)

NOTE 1: Bellcrank assemblies 429-001-523-107FM, 429-001-532-107FM, 429-001-523-107 and 429-001-532-107 must be installed using a quantity of 4 each NAS6604-8 bolts.

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>
2000-09910-01	Adhesive, Urethane Base	4OZ (1)	C-301
2010-05988-00	Sealant, Corrosion Inhibitor	2.5OZ (1)	C-251

* 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:

T101873-13 Ring Stake Tool.

WEIGHT AND BALANCE:

Not Affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-429-IPB, Illustrated Parts Breakdown
BHT-429-MM, Maintenance Manual
BHT-ALL-SPM, Standard Practice Manual

PUBLICATIONS AFFECTED:

BHT-429-IPB, Illustrated Parts Breakdown, Chapter 67

ACCOMPLISHMENT INSTRUCTIONS:

-NOTE-

Bellcrank assemblies 429-001-523-101/-103 and 429-001-532-101/-103 may be sent to Customer Property Return (CPR) for upgrade. Customers may receive a 429-001-523-101FM and/or 429-001-532-101FM, 429-001-523-107FM and/or 429-001-532-107FM, which are equivalent to, and optional alternates to, the 429-001-523-107 and 429-001-532-107 assemblies respectively.

1. Prepare helicopter for maintenance.
1. Remove the 429-001-523-101/-103 and 429-001-532-101/-103 roof mounted bellcrank assemblies (BHT-429-MM-1 Chapter 67).
2. Identify and record the assembly part number by reading the ink stamp on the lower surface of the bellcrank assembly's support.

3. Disassemble the 429-001-523-101/-103 and 429-001-532-101/-103 roof mounted bellcrank assemblies.
4. Discard six MS27646-41 pivot bearings (1, Figure 2).
5. Remove and discard six MS27643-4 arm assembly bearings (2) and sleeves 120-13-4A (BHT-ALL-SPM).

-NOTE-

Sleeve 120-13-4A requires machining prior to the installation of the 429-301-012-101 bearing.

6. Install 120-13-4A sleeves and 429-301-012-101 bearings in the upper arm assemblies (3, 4, and 5) (BHT-ALL-SPM).
7. Lightly abrade the upper surface of the upper arms (3, 4, and 5) and bond 140-055A7 (9) washer to the upper surface of upper arms using adhesive (C-301). After adhesive cure, edge seal the washer using sealant (C-251)(Figure 3, View A).
8. Using a black permanent ink pen, re-identify the three upper arms (3, 4, and 5) by striking through the "-101" and writing "-107FM". The upper arm assemblies should now be identified as 429-001-525-107FM, 429-001-527-107FM, and 429-001-530-107FM.
9. Install 120-13-4A sleeves and 429-301-012-101 bearings in the lower arms (6, 7, and 8) (BHT-ALL-SPM).
10. Using a black permanent ink pen, re-identify the three lower arms (6, 7, and 8) by striking through the "-101" and writing "-105FM". The lower arm assemblies should now be identified as 429-001-526-105FM, 429-001-528-105FM and 429-001-531-105FM.
11. Assemble the roof mounted bellcrank assemblies using the 429-301-010-101 pivot bearings (1) (BHT-429-MM-1 Chapter 67).
12. If the bellcrank assemblies are identified as 429-001-523-101 and 429-001-532-101, using a black permanent ink pen re-identify them by adding "FM" after the part number. If the bellcrank assemblies are identified as 429-001-523-103 and 429-001-532-103, using a black permanent ink pen strike through the "-103" and add "-107FM". The bellcrank assemblies should now be identified as 429-001-523-101FM and 429-001-532-101FM or 429-001-523-107FM and 429-001-532-107FM.

-NOTE-

429-001-523-101FM and 429-001-532-101FM bellcranks assemblies must be installed using a quantity of four each

NAS6604-10 bolts. 429-001-523-107FM, 429-001-532-107FM, 429-001-523-107, and 429-001-532-107 must be installed using a quantity of four each NAS6604-8 bolts.

13. Install the roof mounted bellcrank assemblies (BHT-429-MM-1 Chapter 67).
14. Make an entry in the helicopter logbook and historical service records indicating compliance with this Technical Bulletin.

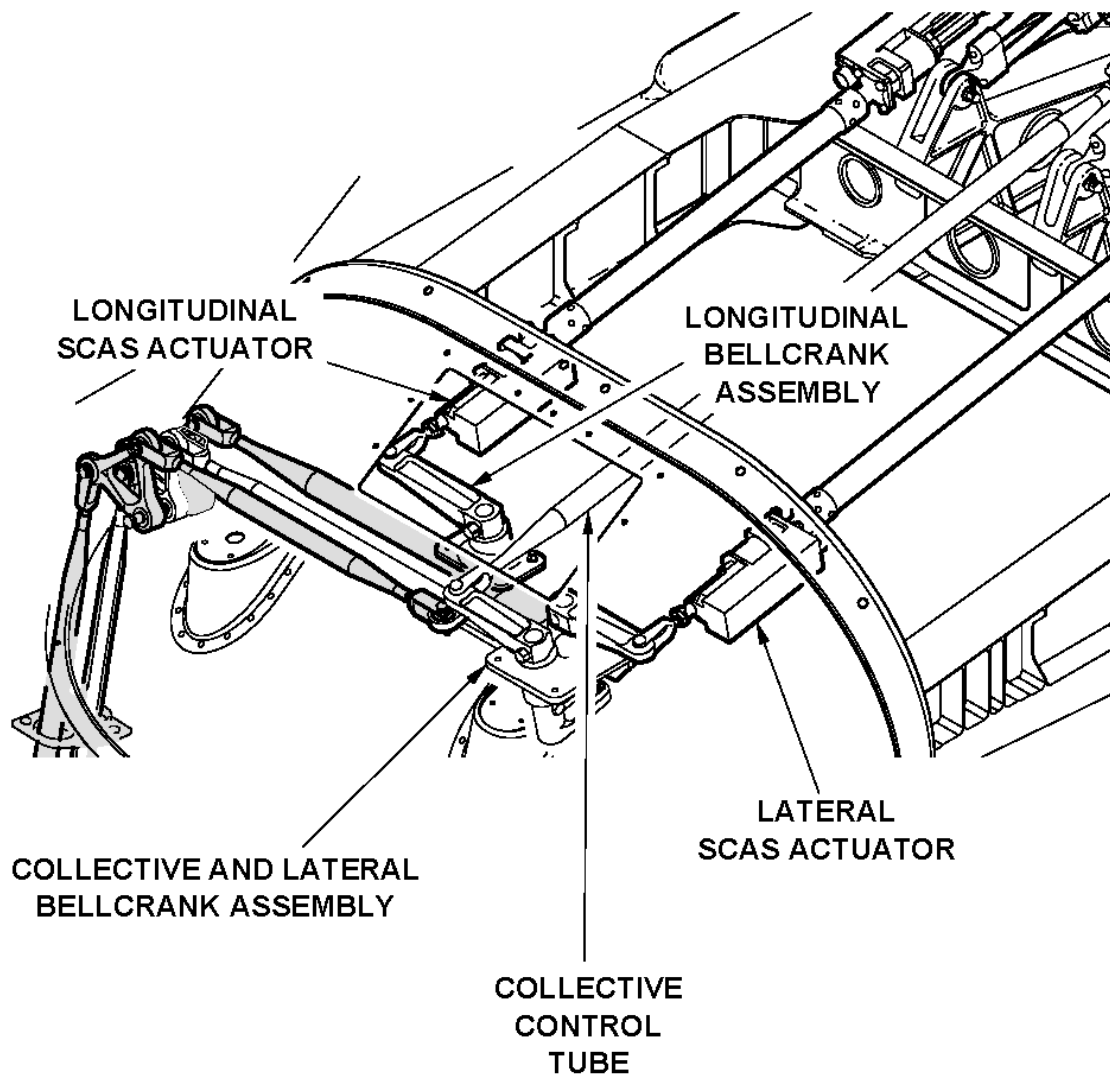
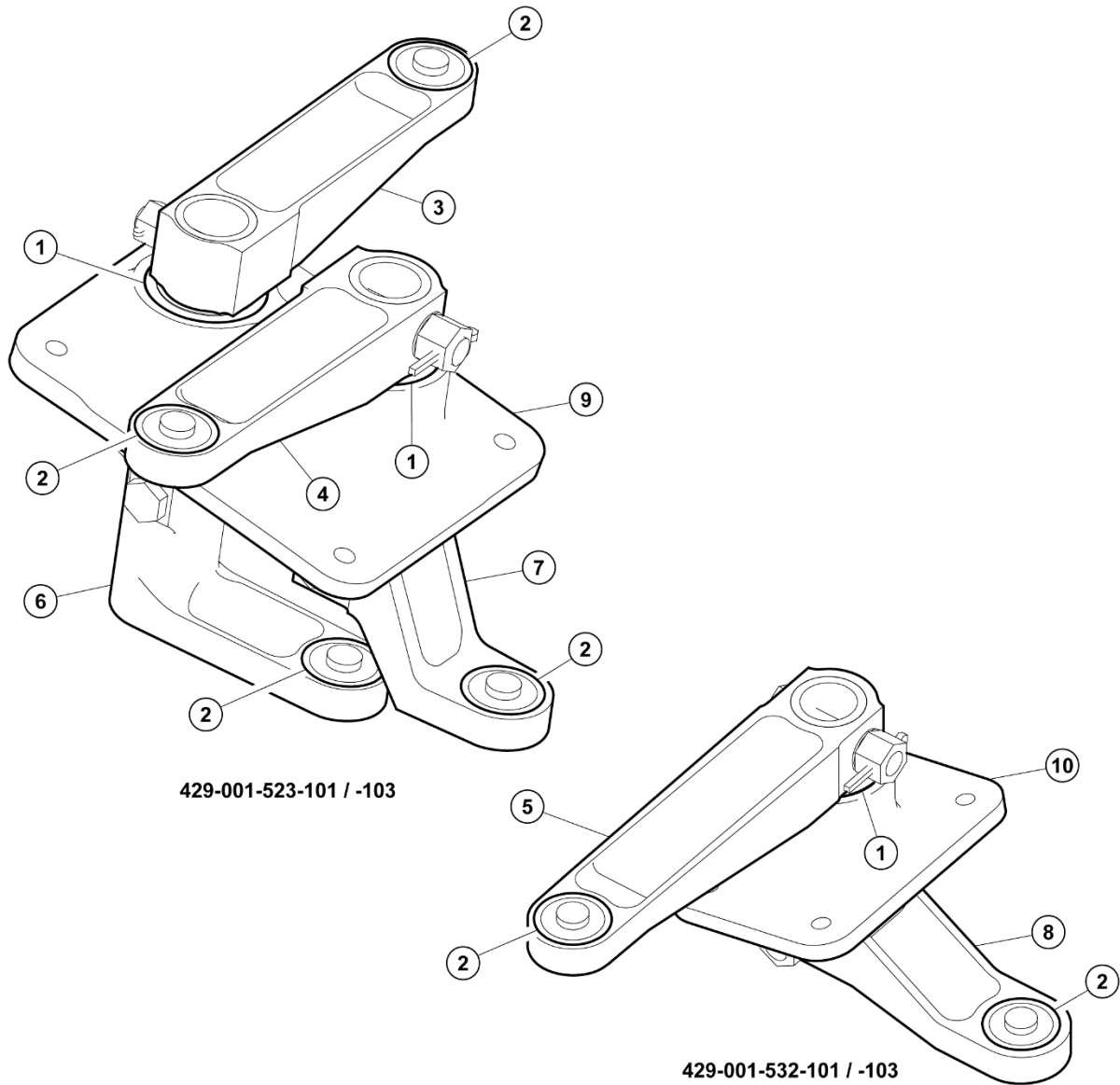


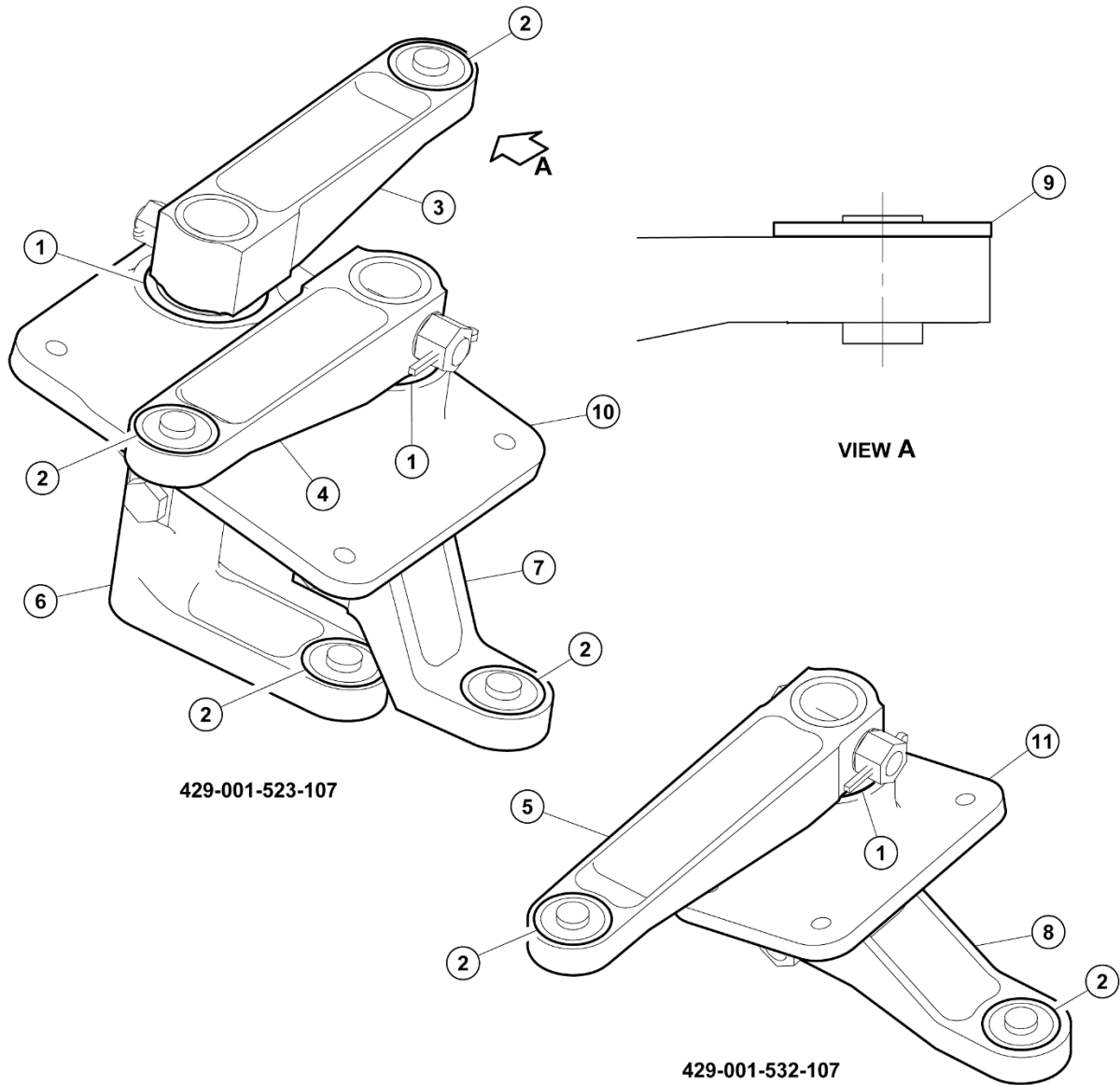
Figure 1 - Bellcrank Assemblies



1. Pivot bearing (MS27646-41) 6 Reqd
2. Bearing (MS27643-4) 6 Reqd
3. Upper collective arm assembly (429-001-525-101)
4. Upper lateral arm assembly (429-001-527-101)
5. Upper longitudinal arm assembly (429-001-530-101)
6. Lower collective arm assembly (429-001-526-101)
7. Lower lateral arm assembly (429-001-528-101)
8. Lower longitudinal arm assembly (429-001-531-101)
9. Support (429-001-505-101 or 429-001-507-101)
10. Support (429-001-504-101 or 429-001-506-101)

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Figure 2 – Bellcrank Assembly Details



1. Pivot bearing (429-301-010-101) 6 Reqd
2. Bearing (429-301-012-101) 6 Reqd
3. Upper collective arm assembly (429-001-525-107)
4. Upper lateral arm assembly (429-001-527-107)
5. Upper longitudinal arm assembly (429-001-530-107)
6. Lower collective arm assembly (429-001-526-105)
7. Lower lateral arm assembly (429-001-528-105)
8. Lower longitudinal arm assembly (429-001-531-105)
9. Washer 140-055A7
10. Support (429-001-507-101) or (429-001-505-101 for 429-001-523-101FM)
11. Support (429-001-506-101) or (429-001-504-101 for 429-001-532-101FM)

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Figure 3 - Bellcrank Assembly Details