

**ALERT SERVICE BULLETIN**



NO. 427-08-20  
DATE Feb 27, 2008  
PAGE 1 of 5

DATE
REV

**MODEL AFFECTED:** 427

**SUBJECT:** COLLECTIVE CONTROL IDLER LINK ASSEMBLY P/N 427-001-532-101 INSPECTION AND MODIFICATION OF

**HELICOPTERS AFFECTED:** Model 427 helicopters serial number 56001 through 56069 and 58001 and 58002.

[Model 427 helicopters serial numbers 56070 and subsequent and 58003 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

**COMPLIANCE:** Within 150 hours of operation after receipt of this bulletin but no later than Jun 30, 2008.

**DESCRIPTION:**

Bell Helicopter has received reports of worn bushings P/N 21-007P10-4 installed in the collective control idler link P/N 427-001-532-101. The bushings are used as the attachment pivot point for the two collective boost-off springs.

This bulletin provides instructions for the replacement of the two bushings P/N 21-007P10-4 and installation of new bushings P/N 21-007K10-4 made from Chromium Steel.

**APPROVAL:**

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

**MANPOWER:**

Approximately 6 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

**WARRANTY:**

Owners / Operators of Bell 427 Helicopters who comply with the instructions in this Bulletin will be eligible to receive a credit for the replacement parts outlined under the required material section.

To receive this credit:

- Purchase the required parts from a BHT supply source no later than the June 30, 2008.
- Submit an MMIR to the Bell Warranty Department for the replacement parts.
- Note: There is no labor cost provided with this Bulletin.

**MATERIAL:**

**Required Material:**

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

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
21-007K10-4	Bushing	2
MS24665-86	Cotter Pin	4

**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 Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>	<u>Reference</u>
MIL-PRF-23377	Epoxy Primmer	As required	C-204

**SPECIAL TOOLS:**

None required

**WEIGHT AND BALANCE:**

Not affected

**ELECTRICAL LOAD DATA:**

Not affected

**REFERENCES:**

BHT-427-IPB Illustrated Parts Breakdown  
BHT-427-MM Maintenance Manual  
BHT-ALL-SPM

**PUBLICATIONS AFFECTED:**

BHT-427-IPB Illustrated Parts Breakdown  
BHT-427-MM Maintenance Manual

**ACCOMPLISHMENT INSTRUCTIONS:**

**PART I**

1. Prepare the helicopter for maintenance.
2. Gain access to the roof mounted flight controls systems by removed the transmission cowl assembly and forward cowl assembly. Refer to the BHT-427-MM, chapter 53.
3. Locate the collective control idler link P/N 427-001-532-101. Refer to the BHT-427-MM, chapter 67 and figure 1 for details.
4. Remove the collective control tube P/N 407-001-022-149. Retain the hardware for later re-installation. Refer to the BHT-427-MM, chapter 67.

5. Remove the attaching hardware connecting the collective servo actuator to the collective control idler link P/N 427-001-532-101. Retain the hardware for later re-installation. Refer to the BHT-427-MM, chapter 67.
6. Disconnect the two collective boost-off springs P/N 427-001-531-105 and shock cord assembly P/N 407-001-116-109 from the collective control idler link P/N 427-001-532-101. Refer to the BHT-427-MM, chapter 67.
7. Remove the collective control idler link P/N 427-001-532-101. Refer to the BHT-427-MM, chapter 67.

**-NOTE-**

Wear or damage in the aluminum forging parent material of the collective control idler link P/N 427-001-532-101 is cause for rejection and replacement of the link

8. Inspect idler link for condition. Replace the two existing bushing P/N 21-007P10-4 in the collective control idler link P/N 427-001-532-101 with new bushing P/N 21-007K10-4. Apply MIL-PRF-23377 epoxy primer to outside diameter of the new bushing. Refer to the BHT-ALL-SPM, chapter 9 for bushing installation.
9. Re-identify the modified collective control idler link with P/N 427-001-532-105.
10. Install the collective control idler link with P/N 427-001-532-105. Refer to the BHT-427-MM, chapter 67.
11. Install the two collective boost-off springs P/N 427-001-531-105 and shock cord assembly P/N 407-001-116-109 to the collective control idler link P/N 427-001-532-105. Refer to the BHT-427-MM, chapter 67.
12. Install the attaching hardware connecting the collective servo actuator to the collective control idler link P/N 427-001-532-105. Using the retained hardware. Refer to the BHT-427-MM, chapter 67.
13. Install the collective control tube P/N 407-001-022-149. Using the retained hardware. Refer to the BHT-427-MM, chapter 67.
14. Operate the controls to check for freedom of operation.
15. Re-install the transmission cowl assembly and forward cowl assembly. Refer to the BHT-427-MM, chapter 53.
16. Annotate the helicopter records to reflect compliance with this bulletin

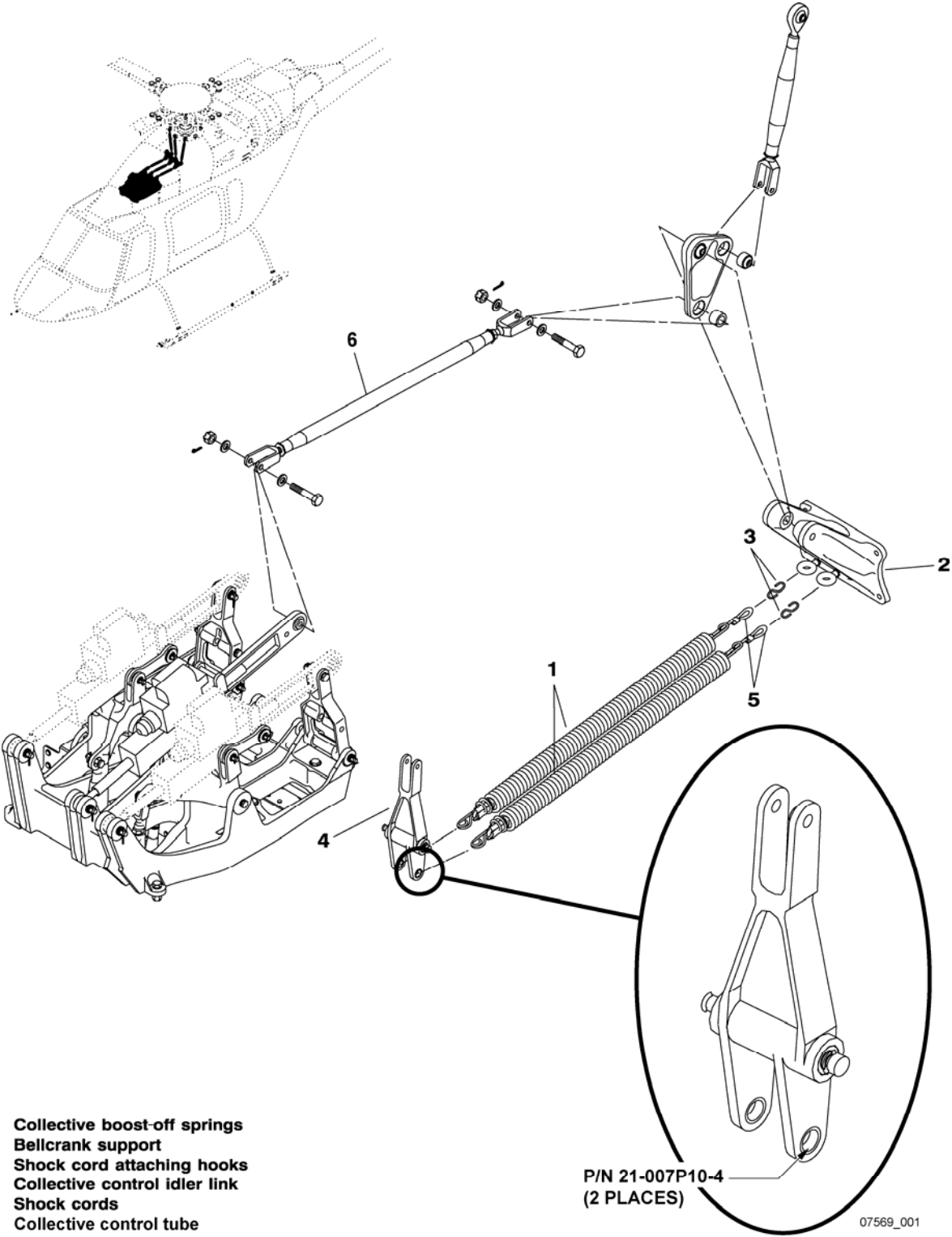


Figure 1