

TECHNICAL BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

No. 407-02-38

Date 03-08-02

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DATE
REV

MODEL AFFECTED: 407

SUBJECT: TAIL ROTOR CONTROLS ANTI-CHAFFING
PACKING, ADDITION OF.

HELICOPTERS AFFECTED: Model 407 helicopters serial number 53000
through 53421.

[Helicopters 53422 and subsequent will have the
intent of this bulletin completed before delivery.]

COMPLIANCE: At Customer's Option

DESCRIPTION:

It has been reported that certain parts of the directional control system (lever, bellcrank, crosshead and pitch link) can be affected by chafing. This bulletin is issued to allow the installation of packing on some of the directional control parts to eliminate possible chafing damage of affected parts.

PART I of this bulletin gives the installation instructions of packing to prevent chafing damage of 407-012-109 crosshead.

PART II of this bulletin gives the installation instructions of packing to prevent chafing damage of 407-001-732 or 406-001-704 bellcrank.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada approved.

MANPOWER:

Approximately 1.5 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

MATERIALS:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center. **Material can be purchased as kit P/N CT-407-02-38 and consists of the following:**

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
M25988/3-013 (Note 1)	Packing	3
M25988/3-014 (Note 2)	Packing	4

Note 1: Packing M83248/1-013 can be used as an alternate.

Note 2: Packing M83248/1-014 can be used as an alternate.

Consumable Material:

The following material is required to accomplish this bulletin, however this material is considered consumable (bench stock) material and may not require ordering depending on the operators 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-C-16173,GR1	Corrosion prev. compound	1	C-101
MIL-C-16173,GR2	Corrosion prev. compound	1	C-104
MS24665-155	Cotter pin	4	

-NOTE-

The C REF. NO. above is a cross-reference to the consumables list found in the Standard Practices Manual.

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-407-MM Maintenance Manual, Chapter 53


PUBLICATIONS AFFECTED:

BHT-407-IPB, Rev. 4 – 01 May 1998


BHT-407-MM, Rev. 6 – 14 April 1998


ACCOMPLISHMENT INSTRUCTIONS:

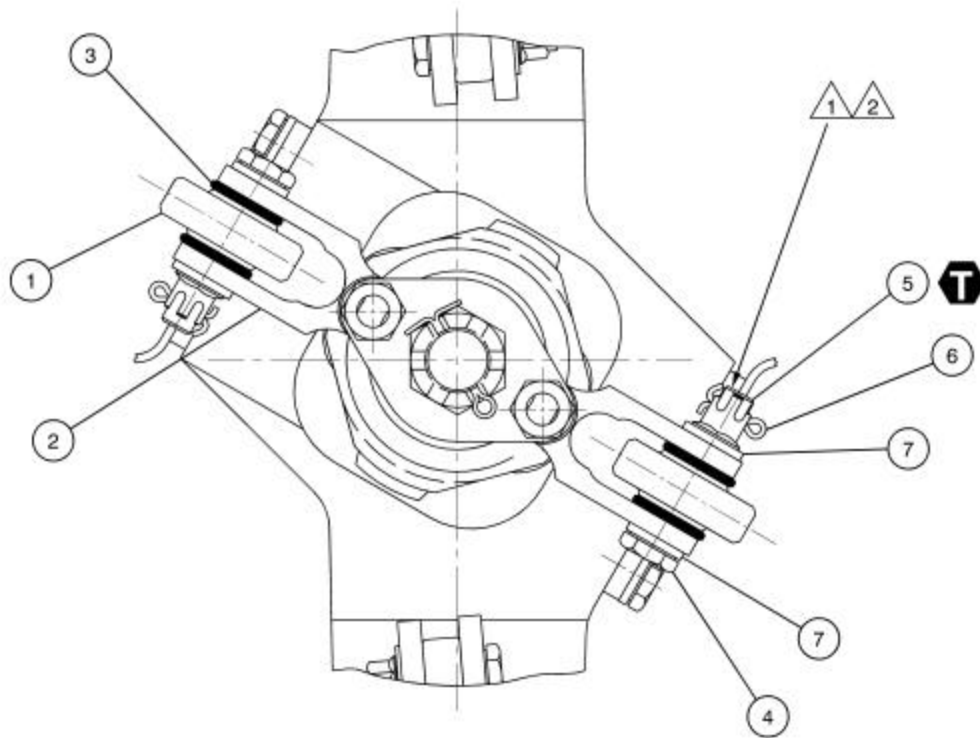
PART 1: Installation of packing to prevent chafing damage of 407-012-109-crosshead

1. Disconnect tail rotor pitch links (1, figure 1) from tail rotor crosshead (2).
2. Install one packing -014 (3), on each side of the pitch links spherical bearings
3. Reinstall pitch links (1) washers (7), and bolts (4) on crosshead (2) using C-104 on bolt (4) shank. Do not apply C-104 to threads.
4. Install washers (7), nut (5), and cotter pin (6) 
5. Make an entry in the helicopter record log book to show that Part 1 of this bulletin is completed.

PART II: Installation of packing to prevent chafing damage of 407-001-732 or 406-001-704 bellcrank.

1. Remove tail rotor gearbox fairing (refer to chapter 53 of the Maintenance Manual).
2. Disconnect link (1, figure 2) from lever assembly (2).
3. Install one packing -013 (3), on each side of link (1) spherical bearing.
4. Reinstall link (1) washer (7), and bolt (4) to lever using C-104 on bolt (4) shank. Do not apply C-104 to threads.
5. Install washer (7), nut (5), and cotter pin (6) 
6. Disconnect control tube (2, figure 3) from bellcrank (1).

7. Install one packing -013 (3) between bellcrank (1) and control tube rod end bearing (2).
8. Reinstall control tube (2) to bellcrank (1) using C-104 on bolt (4) shank.
9. Install washer (7) nut (5) and cotter pin (6). 
10. Install the tail rotor gearbox fairing (refer to chapter 53 of the Maintenance Manual).
11. Make an entry in the helicopter record logbook to show that Part II of this Technical Bulletin is completed.



LEGEND

- 1. Pitch link
- 2. Crosshead
- 3. Packing
- 4. Bolt
- 5. Nut
- 6. Cotter pin
- 7. Washer

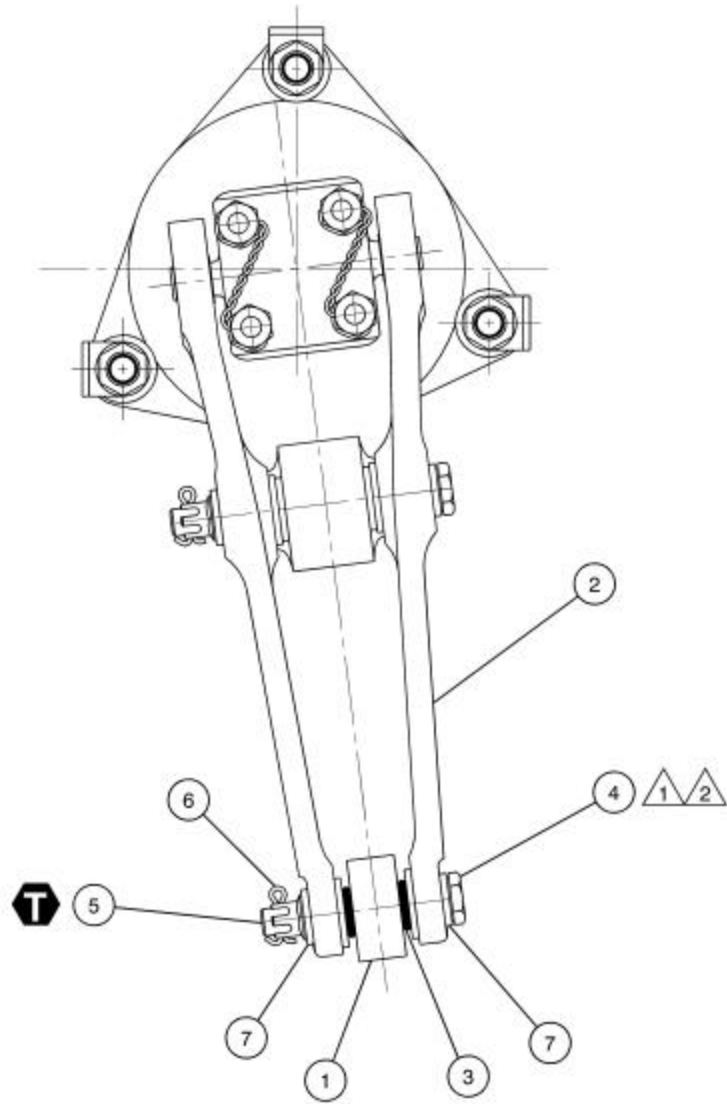
T 60 TO 80 IN-LBS
(6.78 TO 9.04 Nm)

NOTES

- 1** (C-104) to bolt shank. Do not apply to threads.
- 2** (C-101) to bolt head, exposed washers, nuts, cutter pins and exposed threads.

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Figure 1. Chafing protection of Crosshead



LEGEND

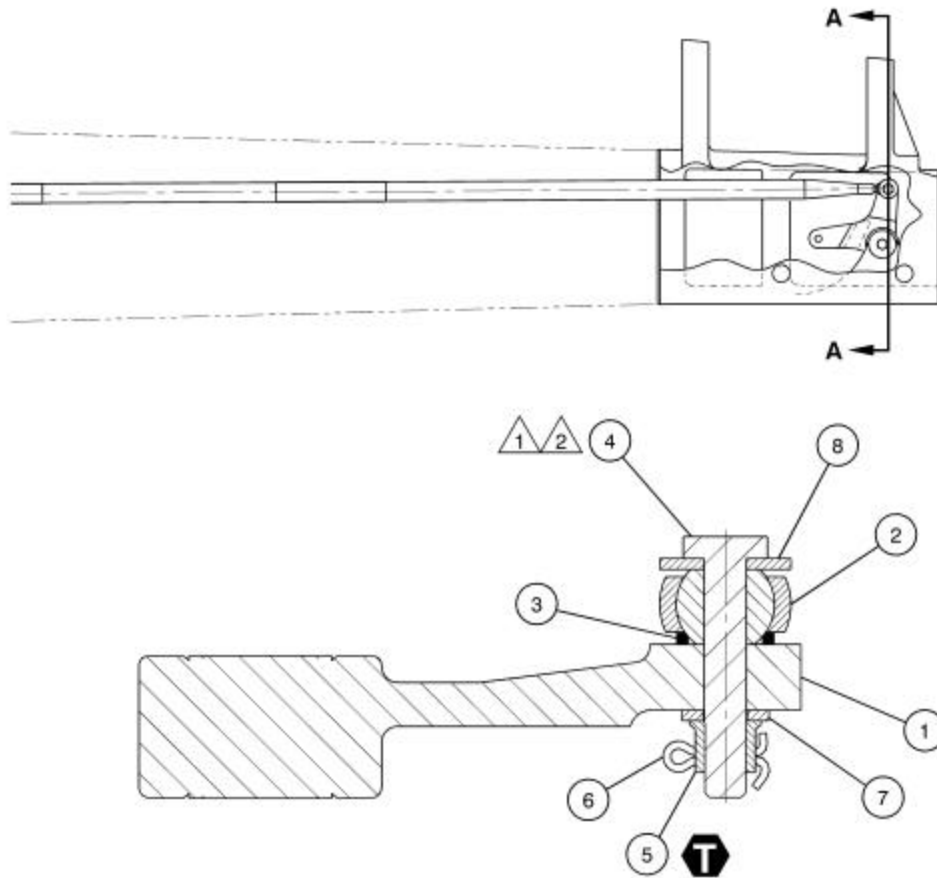
- 1. Link
- 2. Lever
- 3. Packing
- 4. Bolt
- 5. Nut
- 6. Cotter pin
- 7. Washer

T 60 TO 80 IN-LBS
(6.78 TO 9.04 Nm)

NOTES

- 1** (C-104) to bolt shank. Do not apply to threads.
- 2** (C-101) to bolt head, exposed washers, nuts, cutter pins and exposed threads.

Figure 2. Chafing protection of 407-001-732 Bellcrank



LEGEND

- 1. Bellcrank
- 2. Control tube
- 3. Packing
- 4. Bolt
- 5. Nut
- 6. Cotter pin
- 7. Washer
- 8. Special washer

SECTION A-A
Rotate 90° CW



60 TO 80 IN-LBS
(6.78 TO 9.04 Nm)

NOTES



(C-104) to bolt shank. Do not apply to threads.



(C-101) to bolt head, exposed washers, nuts, cutter pins and exposed threads.

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Figure 3. Chafing protection of 406-001-704 Bellcrank