



A Textron Company

ALERT SERVICE BULLETIN

505-24-42

PSL # 2211

1 October 2024

MODEL AFFECTED: 505

SUBJECT: TAIL ROTOR PITCH LINK ASSEMBLY
INSTALLATION, ONE-TIME INSPECTION OF.

HELICOPTERS AFFECTED: Serial numbers 65464, 65465, 65467 through
65471, 65473, 65477, 65481, 65483, 65485, 65487
through 65489, 65517, 65553, 65571, 65572, 65575,
and 65578.

[Only the helicopter serial numbers listed above are affected by this bulletin.]

COMPLIANCE: **PART I:** Within 100 flight hours following the release date of this bulletin.

PART II: Prior to next flight if required following accomplishment of **PART I**.

DESCRIPTION:

Bell has been made aware of a quality escape in the production installation of the tail rotor pitch link assemblies. A washer was installed in the wrong location and must be correctly installed if found in that condition. If the condition is not corrected, the tail rotor blade assembly pitch horn stud could fracture during operation and loss of tail rotor control will occur.

PART I of this Alert Service Bulletin (ASB) provides instructions for a one-time inspection for the proper installation of the pitch change link assemblies to the pitch horns of the tail rotor blade assemblies. If the installation is found incorrect and there are signs of contact of the pitch link assembly with the conical washer, the parts are to be replaced using the instructions in **PART II**.

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 0.5 man-hour is required to complete **PART I** of this bulletin.
Approximately 4.0 man-hours are required to complete **PART II** of this bulletin.
This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

Owners / Operators of Bell Helicopters who comply with the instructions in this bulletin will be eligible to receive replacement part and labor as applicable, listed in the bulletin. The 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. This is going to be a required field when submitting a claim on the Bulletins Tab 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, for **PART II** only.

PART II \$440.00

To receive parts, labor, under warranty:

- Comply with the instructions contained in this Bulletin no later than the applicable time identified in the **COMPLIANCE** section, but no later than **1 October 2026**.
- 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 www.mybell.com portal to file your claim.

NOTE: A user guide on how to submit a claim can be found here:
[How to Submit PSL Bulletin Claims](#).

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>
AS3209-014	PACKING	4 (1,2,3)
MS24665-151	COTTER PIN	4 (1,2,3)
206-010-324-001	WASHER	2 (1,2,3)
206-010-795-105	PITCH LINK ASSEMBLY	2 (1,2,3)
206-011-809-109	PITCH HORN	2 (1,2,3)

NOTES:

1. Only needed if replacement is required following the accomplishment of **PART I**.
2. Quantities indicated are for two assemblies if pitch link assemblies (1, Figure 1) have evidence of contact with the conical washer (6).
3. If only one assembly is affected by **PART I** and requiring parts replacement, only the required parts for one assembly will be provided.

Consumable Material:

None required.

SPECIAL TOOLS:

Tail rotor assembly dynamic balancing hardware.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

505-MM, Maintenance Manual, Chapter 64.

PUBLICATIONS AFFECTED:

None affected.

ACCOMPLISHMENT INSTRUCTIONS:

PART I: One-time inspection of tail rotor pitch link assembly installation.

1. Prepare the helicopter for maintenance.

-NOTE-

The inspection is to be accomplished on both tail rotor pitch link assemblies (1, Figure 1).

2. Inspect the tail rotor pitch link assembly (1) installation for proper installation of washer (2). The washer (2) is to be between the pitch link assembly (1) and the conical washer (3).
 - a. If washer (2) is installed in the proper location, go to step 6.
 - b. If washer (2) is installed in the wrong location, between the tail rotor pitch link assembly (1) and the pitch horn assembly (6), go to step 3.
3. For tail rotor pitch link assemblies (1) with improperly installed washer (2), visually inspect the affected tail rotor pitch link assembly (1) for **any** signs of contact between the pitch link assembly (1) and conical washer (3) or pitch horn assembly (6).
 - a. If **no contact** has occurred, go to step 4.
 - b. If **contact has occurred** perform **PART II** of this bulletin prior to next flight as reflected in the **COMPLIANCE** section of this bulletin. Go to step 6.
4. Remove pitch link assembly(s) (1) ([DMC-505-A-64-30-02-00A-520A-A](#)).
5. Install pitch link assembly(s) (1) with the correct location of washer (2) and conical washer (3) (Figure 1 and [DMC-505-A-64-30-02-00A-720A-A](#)).
6. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART I** of this Alert Service Bulletin.

PART II: Replacement instructions for tail rotor pitch link assembly and tail rotor blade pitch horn.

1. Prepare the helicopter for maintenance.

-NOTE-

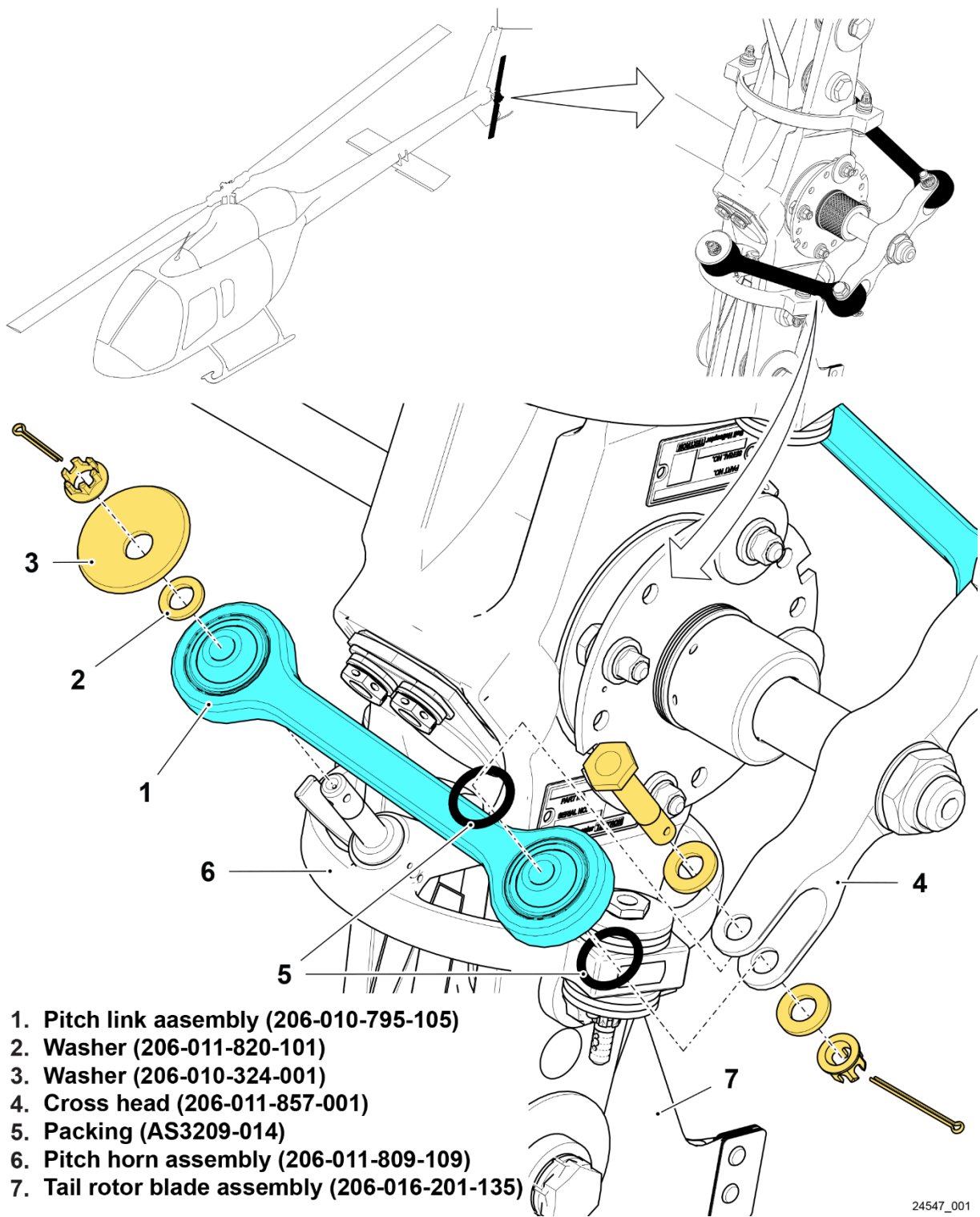
For steps 2 through 4 use the procedures in [DMC-505-A-64-30-02-00A-520A-A](#).

2. Remove and discard tail rotor pitch link(s) (1, Figure 1) that had signs of contact found in step 3.b. of **PART I**.
3. Remove and discard packings (5).
4. Remove and discard conical washer(s) (3).
5. Remove tail rotor blade assembly(s) (7) of associated pitch link assembly (1) that has been removed in step 2 ([DMC-505-A-64-10-01-00A-520A-A](#)).
6. Remove pitch horn(s) (6) from tail rotor blade assembly(s) (7) and discard ([DMC-505-A-64-10-01-00A-530A-A](#)).
7. Install new or serviceable pitch horn(s) (6) to tail rotor blade assembly(s) (7) ([DMC-505-A-64-10-01-00A-710A-A](#)).

-NOTE-

While following the procedures in [DMC-505-A-64-10-01-00A-720A-A](#) for the tail rotor blade assembly installation, omit the static balancing requirement for the requirements after job completion.

8. Install tail rotor blade assembly(s) (7) ([DMC-505-A-64-10-01-00A-720A-A](#)).
9. Install new or serviceable tail rotor pitch link(s) (1) and packings (5) ([DMC-505-A-64-30-02-00A-720A-A](#)).
10. Install hardware to perform tail rotor dynamic balancing ([DMC-505-A-18-12-00-00A-330A-A](#)).
11. Dynamically balance the tail rotor assembly ([DMC-505-A-18-12-00-00A-370A-A](#)).
12. Remove tail rotor assembly dynamic balancing hardware ([DMC-505-A-18-12-00-00A-332A-A](#)).
13. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART II** of this Alert Service Bulletin.



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Figure 1 – Tail Rotor Pitch Link Assembly Installation