# TECHNICAL BULLETIN

Bell Helicopter TEXTRON
A Subsidiary of Textron Inc.

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**MODEL AFFECTED:** **212**

**SUBJECT:** **IMPROVED TAIL ROTOR PITCH LINKS**

**HELICOPTERS AFFECTED:** Model 212 Helicopters serial numbers 30501 through 31311 and 35001 through 35106.

Model 212 Helicopters serial numbers 31312 and subsequent and 35107 and subsequent will have the intent of this bulletin complied with prior to delivery.

**COMPLIANCE:** At Customers Option

**DESCRIPTION:**

Bell Helicopter has introduced new fixed length T/R pitch change links 212-310-701-101 and 212-310-701-105 depending on T/R yoke design. The new links will eliminate T/R tracking requirements as well as reduce the possibility of corrosion cracks in the threaded portion of the old 212-011-710-001link assembly. Replacement of the old link with the new link will require the replacement of the old T/R pitch horn with pitch horn 212-011-708-105 or 212-010-216-115, again dependent on T/R yoke design. Pitch horns and pitch links must be changed in pairs. Replacement of the bearing cartridges 212-310-701-103 is authorized in the new links 212-310-701-101/-105.

**APPROVAL:**

The engineering design aspects of this bulletin are FAA/DER approved.

**MANPOWER:**

Approximately 1 man-hour is required to accomplish this bulletin. Man-hours are based on hands-on time and may vary with personnel and facilities available.

## 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.

| Part Number | Nomenclature | Quantity | Reference |
|---|---|---|---|
| 212-310-701-101 | Pitch Link | 2 | Note 1 |
| 212-011-708-105 | Pitch Horn | 2 | Note 1 |
| 212-310-701-103 | Bearing | 2 per link | * |
| 212-310-701-105 | Pitch Link | 2 | Note 2 |
| 212-010-716-115 | Pitch Horn | 2 | Note 2 |

Note 1. Pitch horn and pitch link used in new T/R hub configuration 212-011-701 with needle bearing trunnion design.

Note 2. Pitch horn and pitch link used in old T/R hub configuration 212-010-701 with monoball trunnion design.

* Bearings only required when present bearings in link assembly require replacement.

### Consumable Material:

The following material is required to accomplish the bulletin, however, this material is considered consumable (bench stock) material and 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.

| Part Number | Nomenclature | Quantity | Reference |
|---|---|---|---|
| MIL-P-23377 | Epoxy Primer | A/R | |

## SPECIAL TOOLS:

| | | |
|---|---|---|
| RST 2854 | Roller Staking Tool | Obtain From<br>J.R Potter & Associates<br>28602 Knickerbocker Rd.<br>Cleveland, OH 44140<br>Ph. 440-835-9723<br>Fax 440-835-4622 |

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

Model 212 Illustrated Part Manual BHT-212-IPB-1-1 Chapter 64
Model 212 Maintenance Manual BHT-212-mm Chapter 18 and 64
Model 212 Component Repair and Overhaul Manual BHT-212-CR&O-1 Chapter 64
Bell Helicopters Standard Practices Manual BHT-ALL-SPM

**PUBLICATIONS AFFECTED:**

Model 212 Illustrated Part Manual BHT-212-IPB-1-1 Chapter 64
Model 212 Maintenance Manual BHT-212-mm Chapter 18 and 64
Model 212 Component Repair and Overhaul Manual BHT-212-CR&O-1 Chapter 64
Bell Helicopters Standard Practices Manual BHT-ALL-SPM

**ACCOMPLISHMENT INSTRUCTIONS:**

**For the new style T/R Hub assembly 212-011-701 with the needle bearing trunnion accomplish the following.**

1. Remove the old 212-011-710-001 pitch link (QTY 2) and pitch horn 212-011-708-001 (QTY 2) in accordance with 212 Maintenance Manual Chapter 64 and 212 CR&O Chapter 64.

2. Install new 212-310-701-101 pitch link (QTY 2) and pitch horn 212-011-708-105 (QTY 2) in accordance with 212 Maintenance Manual Chapter 64 and 212 CR&O chapter 64. All attachment hardware, torques and procedures remain the same.

3. Dynamically balance T/R in accordance with the instructions outlined in the 212 Maintenance Manual Chapter 18. The tracking requirements for the tail rotor are no longer required.

4. Annotate historical records to show compliance with this bulletin.

5. Bearing wear limits are .015 inch axial. When worn, the bearing cartridges 212-310-701-103 may be replaced in accordance with the Standard Practices Manual BHT-ALL-SPM Chapter 9. After removal of bearing inspect bore of pitch link for damage. Light scoring that can be removed with a scotchbrite pad is acceptable. Coat bore of pitch link with wet epoxy primer Mil-P-23377. Install bearing 212-310-701-103. Stake bearing with tool RST-2854 in accordance with the staking procedures outlined in the Standard Practices Manual.

**For the old style T/R hub assembly 212-010-701 with the monoball trunnion accomplish the following.**

1. Remove the old 212-011-710-001 pitch link (QTY 2) and pitch horn 212-010-716-011 (QTY 2) in accordance with 212 Maintenance Manual Chapter 64 and 212 CR&O Chapter 64.

2. Install new 212-310-701-105 pitch link (QTY 2) and pitch horn 212-010-716-115 (QTY 2) in accordance with 212 Maintenance Manual Chapter 64 and 212 CR&O chapter 64. All attachment hardware, torques and procedures remain the same.

3. Dynamically balance T/R in accordance with the instructions outlined in the 212 Maintenance Manual Chapter 18. The tracking requirements for the tail rotor are no longer required.

4. Annotate historical records to show compliance with this bulletin.

5. Bearing wear limits are .015 inch axial. When worn, the bearing cartridges 212-310-701-103 may be replaced in accordance with the Standard Practices Manual BHT-ALL-SPM Chapter 9. After removal of bearing inspect bore of pitch link for damage. Light scoring that can be removed with a scotchbrite pad is acceptable. Coat bore of pitch link with wet epoxy primer Mil-P-23377. Install bearing 212-310-701-103. Stake bearing with tool RST-2854 in accordance with the staking procedures outlined in the Standard Practices Manual.