

ALERT SERVICE BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

NO. 412-04-114

DATE Dec 3, 04

PAGE 1 of 5

DATE

REV

MODEL AFFECTED: 412 / 412EP

SUBJECT: TAIL ROTOR PITCH HORN ASSEMBLY
P/N 212-011-708-105, REPLACEMENT OF.

HELICOPTERS AFFECTED: Model 412 and 412EP helicopters with Pitch Horns 212-011-708-105 serial numbers TI-1 through TI-113 installed.

COMPLIANCE: Within the next 100 hours after receipt of this bulletin but no later than June 30, 2005.

DESCRIPTION:

Bell Helicopter has found that subject Pitch Horns S/N TI-1 through S/N TI-113 may have incorrectly installed Bushings, which could cause the Pitch Links to contact the Bushings during Tail Rotor flapping. The resulting loads may cause excessive stress to the Pitch Horn, Pitch Link and attachment hardware between Pitch Links, Crosshead and Pitch Horn. Discrepant Pitch Horns shall be returned to Bell Helicopter, along with the mating Pitch Links and the attachment hardware. Any Pitch Horns bearing a letter "R" at the end of the affected serial number has been either reworked or found to conform, and therefore is not affected by this ASB.

APPROVAL:

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

MANPOWER:

Approximately 4.0 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:

Owner /Operators of the affected helicopter's who comply with the instructions outlined in this bulletin and purchase replacement parts found in the "Required Material" section of this ASB will receive 100% warranty credit towards the purchase of the replacement parts.

To receive this credit:

Purchase the required material from an approved BHTI supply source.
Comply with the instructions outlined in this bulletin no later than June 30, 2005.
Submit completed malfunction reports to BHTI Warranty no later than 30 days after completion of this bulletin. Check the Vista RMA System within three days of submitting the malfunction reports for return instructions for the defective pitch horn and the mating pitch links to BHTI.
Once the defective parts are received at BHTI the appropriate warranty credit will be issued.

-NOTE-

Customers who fail to comply with the instructions in this bulletin by June 30, 2005 are not eligible for the special warranty credit provisions listed above.

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>
212-011-708-105	Pitch Horn	2
212-310-701-101	Pitch Link	2
20-057-5-14D	Bolt	2
NAS6605H20	Bolt	2

Consumable Material:

None required

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-412-IPB Illustrated Parts Breakdown
BHT-412-MM Maintenance Manual
BHT-412-CR&O Component Repair and Overhaul Manual

PUBLICATIONS AFFECTED:

None affected

ACCOMPLISHMENT INSTRUCTIONS:

1. Review historical service records and physically identify T/R pitch horn serial numbers installed on aircraft and held in spares inventory.
2. For each horn found to be within the serial number block, verify position of bushing using Figure 1. If bushing is found properly positioned, add a letter "R" at the end of the serial number, using a vibrating stylus (For example: TI-113R).

-NOTE-

Refer to the Maintenance Manual and Component Repair & Overhaul Manual to accomplish the following steps.

3. If bushing is found incorrectly positioned in accordance with Figure 1, remove discrepant pitch horns, mating pitch links and attaching bolts (20-057-5-14D & NAS6605H20) and return to Bell Helicopter for credit. Remove any chordwise

balance weights from the discrepant pitch horns, mark appropriately (red or white) and retain for balance purposes upon installation of the new pitch horns.

4. Re-assemble Tail Rotor Hub & Blade Assembly as required by replacing discrepant parts with new and/or serviceable pitch horns, pitch links and attachment hardware between pitch horn and pitch link and crosshead to pitch link. Dynamic balance as required after installation.
5. All discrepant pitch horns serial number TI-1 through TI-113 that have never seen service on an aircraft may be reworked at Bell Helicopter. Reworked pitch horns will have a letter "R" at the end of the serial number.
6. Annotate historical records to show compliance with this bulletin.

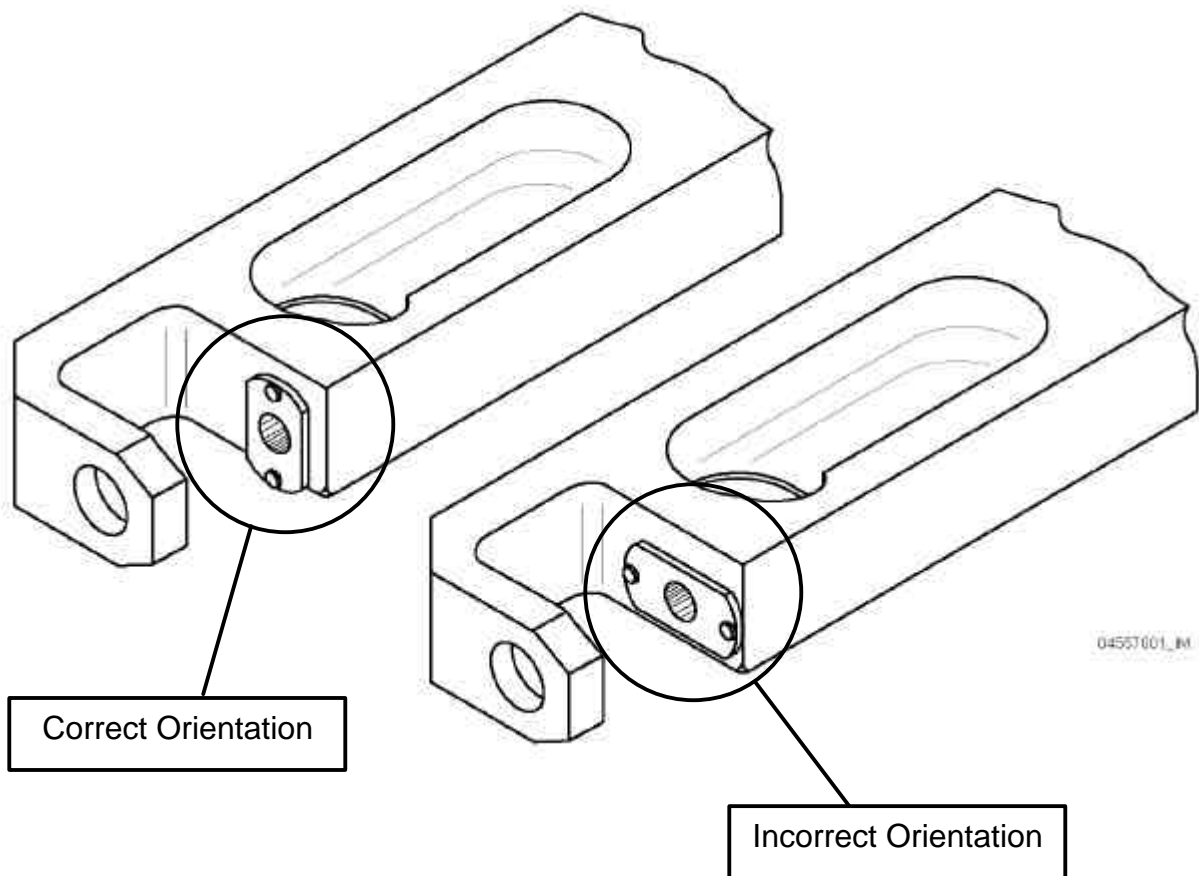


Figure 1
Correct Orientation of Pitch Horn Bushing