

**ALERT SERVICE BULLETIN**

**Bell Helicopter** **TEXTRON**  
A Subsidiary of Textron Inc

NO. 412-00-101

DATE 03-28-00

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REV

**MODEL AFFECTED:** 412, 412EP

**SUBJECT:** COLLECTIVE LEVER PIN 412-010-422-101 / -103,  
RETENTION BOLT NAS6604H5 or 20-057-4-3H,  
INSPECTION OF.

**HELICOPTERS AFFECTED:** Model 412 helicopters serial number 33001  
through 33213, 36001 through 36207 and 34001  
through 34036.

[Model 412 helicopters serial numbers 33214 and  
subsequent, 36208 and subsequent and 34037 and  
subsequent will have the intent of this bulletin  
accomplished prior to delivery.]

**COMPLIANCE:** Within the next 25 hours after receipt of this bulletin  
but no later than June 30, 2000.

**DESCRIPTION:**

Bell Helicopter has recently received two reports of disengagement of the collective lever pin to the collective sleeve. In both cases the collective lever pin was found completely disengaged from the collective sleeve and collective lever. Investigation revealed both the wrong type of bolt and the wrong length of bolt was used to retain the pin to the collective lever. The bolt in these instances did not have sufficient thread engagement in the lever and eventually fretted to a point where it no longer retained the pin.

This ASB is issued to impose a one-time inspection to verify the part number of the collective lever pin retaining bolt, and further instructions for inspection if the incorrect bolt is installed.

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Two configurations of collective lever pins and retention bolts are presently in service. The old configuration utilized on 412 S/N 33001 through 33167 and 34001 through 34025 utilized pin 412-010-422-101 and bolt 20-057-4-3H. T.B. 412-88-68 was released to upgrade these aircraft to the new configuration utilized on all newer production 412 that utilize pin 412-010-422-103 and bolt NAS6604H4 or H5.

**APPROVAL:**

Not required.

**MANPOWER:**

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

**MATERIAL:**

**Required Material:**

The following material may be 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>
20-057-4-3H	Bolt	2
NAS6604H4	Bolt	2
NAS1149F0432P	Washer	2 if 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

**PUBLICATIONS AFFECTED:**

BHT-412-IPB Illustrated Parts Breakdown  
BHT-412-MM Maintenance Manual

**ACCOMPLISHMENT INSTRUCTIONS:**

1. Gain access to the collective lever and verify part number of bolt, retaining collective lever pin 412-010-422-101 or -103. The part number is raised on the head of the bolt. Inspect on both sides of collective lever.
2. For helicopters not modified by T.B 412-88-68 with collective lever pin 412-010-422-101, bolt must be 20-057-4-3H.
3. For helicopters modified by T.B 412-88-68 with collective lever pin 412-010-422-103, bolt must be NAS6604H4 or NAS6604H5 depending on shim requirements.

- NOTE -

Both the NAS6604H4 and NAS6604H5 bolts are approved for retaining the 412-010-422-103 pin. Engineering analysis has determined that the NAS6604H4 is optimum for use regardless of shim requirements under the collective lever pin. If the NAS6604H5 bolt is installed insure that the bolt has not bottomed out in the collective lever or the grip has become thread bound. Either condition would result in lower than specified torque on the pin even though torque has been verified. If the NAS6604H5 bolt is noted to be longer than required, then one washer NAS1149F0432P may be installed under the bolt head.

4. For all aircraft without the correct bolt configuration installed, remove bolts and inspect threads for evidence of fretting damage on the threads. If no fretting damage is evident install correct bolt depending on collective lever pin configuration listed above in accordance with 412 M.M. chapter 62. If fretting damage is noted remove collective lever pin and inspect insert M45932/1-13L in collective lever for damage.

5. Reassemble collective lever pin with correct bolt configuration in accordance with the 412 M.M. Chapter 62. Annotate historical service records to reflect compliance with this bulletin.