

TECHNICAL BULLETIN
Bell Helicopter
A Textron Company

No. 407-09-86
Date MAY 26, 2009
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DATE
REV

MODEL AFFECTED: 407

SUBJECT: HYDRO MECHANICAL UNIT BRACKET
ASSEMBLY 206-063-719, BEARING
REPLACEMENT OF.

HELICOPTERS AFFECTED: 407 Helicopters serial number 53000 through 53900 and 53911 and subsequent.

COMPLIANCE: At Customer's Option or when bearing in bracket needs replacement.

DESCRIPTION:

Bell Helicopter Textron has developed a procedure for the replacement of Bearing in Bracket Assembly 206-063-719.

This Technical Bulletin provides details to replace the parent metal staked Bearing MS27640-4 installed in the flange of the Hydro Mechanical Unit Bracket Assemblies 206-063-719-011 and -012.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

MANPOWER:

Approximately 2 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:

There is no warranty credit applicable for parts or labor associated with this bulletin.

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.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
MS27640-4	Bearing	1

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>Reference (NOTE 1)</u>
MILC81706 CL1AFOORM11	Brush Alodine	C-100
PC451	Aluminum Oxide Cloth	C-406
PC458 OR P-P-101	Abrasive Cloth or Paper (400 grit)	C-423
MIL-P-23377, TY2, CLC	Unreduced Polyamide Epoxy Primer	C-204
	Alternate	
EWDE072	Unreduced Polyamide Epoxy Primer Waterborne	C-246
METHYL ETHYL KETONE	Solvent MEK	C-309 (NOTE 2)

NOTES:

1. THE C-XXX reference numbers above are cross-references found in the BHT-ALL-SPM.
2. Where the use of MEK is prohibited, use Acetone ASTM D329 (C-316) or Aliphatic Naphtha (C-305).

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-407-IPC, Chapter 76
BHT-407-MM, Chapter 76

PUBLICATIONS AFFECTED:

BHT-ALL-SPM

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove bracket assemblies (1 and 2, Figure 1) (BHT-407-MM, chapter 76).
2. Press bearing (3) out of bracket flange and discard bearing.

CAUTION

IF THE FLANGE BORE CANNOT BE REWORK PER
FIGURE 1 OF THIS BULLETIN, DISCARD THE BRACKET
ASSEMBLY.

-NOTE-

Perform Fluorescent Penetrant Inspection as per the
Standard Practices Manual, on bracket flange after
machining or rework.

3. Rework the bracket flange and install new bearing (3) as follow:

-NOTE-

As an alternate method, it is also acceptable to rework the flange bore edge with abrasive cloth (C-406) to a maximum of 0.015 +/- 0.010 inch (0.381 +/- 0.254 mm) X 45 degrees and fine polish with abrasive cloth (C-423) (DETAIL A, Figure 1).

- a. Machine a chamfer of 0.015 +/- 0.010 inch X 45 degrees in flange bore edge to eliminate any scratches and marks created by removal of parent metal staking material (DETAIL A, Figure1).
- b. Scratches and marks in flange bore may be polished with abrasive cloth (C-406) to a maximum I.D. of 0.902 inch (22.910 mm).

-NOTE-

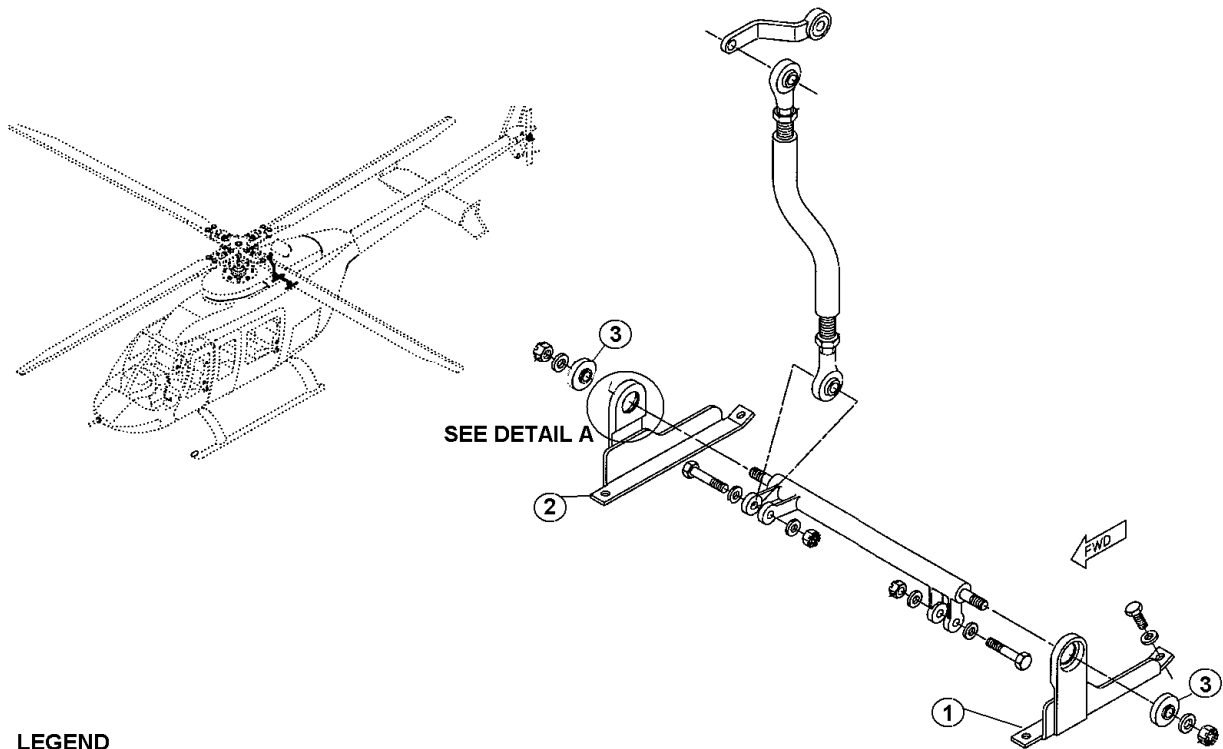
Avoid contacting bearing seal with cleaning solvent.

- c. Clean flange bore and new bearing O.D. with solvent (C-309).
- d. Apply Brush Alodine chemical film treatment (C-100) to reworked areas of bracket. Thoroughly rinse bracket with water and dry with shop air.

-NOTE-

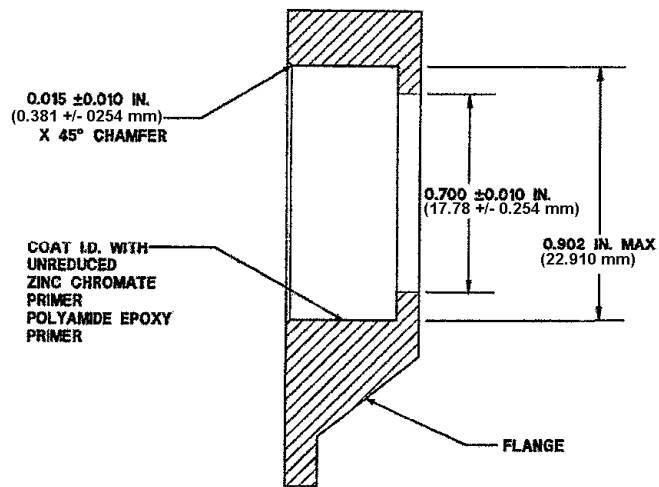
Avoid contacting bearing seal with MEK (C-309).

- e. Apply unreduced polyamide epoxy primer (C-204) to flange bore. While coating is wet, press bearing (3) into flange. Clean excessive coating squeeze-out from part surfaces using a cloth dampened with MEK (C-309).
 - f. Check bearing (3) by feel for smooth operation.
 - g. Mask bearing (3) and coat bracket assembly with polyamide epoxy primer (C-204).
4. Re-install repaired bracket assemblies (1 and 2) (BHT-407-MM, chapter 76).
 5. Make entry in the helicopter historical records indication compliance with this Technical Bulletin.



LEGEND

1. Bracket assembly (206-063-719-011)
2. Bracket assembly (206-063-719-012)
3. Bearing



DETAIL A

Figure 1. Repair limitations