



SERVICE BULLETIN

DATE: 23 DECEMBER 1983

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MAIN ROTOR SWASHPLATE BEARING, PN 369A7003-3, INSPECTION AND POSSIBLE REPLACEMENT

1. PLANNING INFORMATION

A. MODELS AFFECTED:

All 500E Model 369E Series helicopters containing any of the following listed assemblies, plus any spare assemblies uninstalled on helicopters. Assemblies affected are: 369A7003-3 Swashplate Bearing Assembly, 369D21000 Main Rotor Installation, and 369D27609-501 Main Rotor Swashplate Installations received between June 1, 1983 and December 20, 1983.

Swashplate Bearing Assemblies PN 369A7003-3 with 9XXX series serial numbers, or with the blue dot identifier per step g of the following procedure, do not require reinspection per this Notice.

B. TIME OF COMPLIANCE:

Must be accomplished prior to further flight, following receipt of this Notice, for affected parts in service.

Shall be accomplished prior to installing affected parts from spares.

Shall be accomplished on all spares inventory.

C. PREFACE:

A recent field report indicated that a 369A7003-3 Main Rotor Swashplate Bearing Assembly was found without the ball bearing cages installed. Information given in this Notice provides procedures for a one-time inspection of all affected 369A7003-3 bearings for missing cages. Subject bearings found with cages missing shall be removed from service or spares immediately and returned to Hughes Helicopters. Replacement 369A7003-3 bearings will be provided by Hughes through authorized Service Centers and Distributors.

D. FAA APPROVAL:

The resultant alteration to affected models from the inspection procedure in this Notice has been shown to comply with Federal Aviation Regulations and is FAA Approved.

E. WEIGHT AND BALANCE:

Not affected.

F. REFERENCE PUBLICATIONS:

500E Model 369E HMI Vol. 1 (CPS-E-2), Issued 30 November 1983.
500D Model 369D COM (CSP-D-5), Reissued 15 September 1981.

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2. ACCOMPLISHMENT INSTRUCTIONS

MATERIAL	
Nomenclature	Source
Lacquer, Blue Acrylic, Fed-Std-15102	Commercial
Isopropyl Alcohol, TT-I-735	Commercial

- (1). Remove main rotor swashplate from helicopter (Section 7, HMI Vol. 1).

NOTE: It is not necessary to remove bearing assembly from swashplate or separate stationary and rotating swashplates to perform the required inspection.

- (2). Remove four nuts and washers attaching retainer to rotating swashplate. It may be necessary to move arms of rotating swashplate for access to bolts (See Figure 1).



Do not allow dirt, grit, or any foreign material to enter bearing assembly.

- (3). While holding swashplate assembly with bearing inverted, carefully clean exposed bearing assembly surface, snap ring and seal with a clean lint-free cloth dampened with isopropyl alcohol. Do not allow alcohol to enter bearing.
- (4). Carefully remove upper snap ring and seal from swashplate bearing assembly as shown in Figure 2. Note seal orientation so seal can be reinstalled in same position.
- (5). Visually check areas under seal to ensure that bearing cage is in place as shown in Figure 2. If cage is not in place, bearing balls will be visible.



If bearing cage is not present, replace bearing assembly with inspected bearing assembly from spares, or with a bearing assembly not affected by this Notice. (Refer to Part V, 369D-COM for removal and installation of bearing assembly).

- (6). If bearing cage is in place as shown in Figure 2, carefully clean seal, snap ring and snap ring groove, and reinstall seal and snap ring on bearing assembly.



Ensure that seal is flat and smooth after installation, with seal lip inner diameter contacting inner race of bearing.

- (7). Using blue acrylic lacquer, place a blue dot, approximately 1/8 inch diameter, on outer surface of snap ring as shown in Figure 2.
- (8). Reinstall retainer on rotating swashplate with bolts, washers, and nuts. Torque nuts to 50-70 inch-pounds (See Figure 1).
- (9). Reinstall swashplate assembly on helicopter (Section 7, HMI, Vol. 1).
- (10). Record compliance with this Notice in Compliance Record of helicopter Log Book.

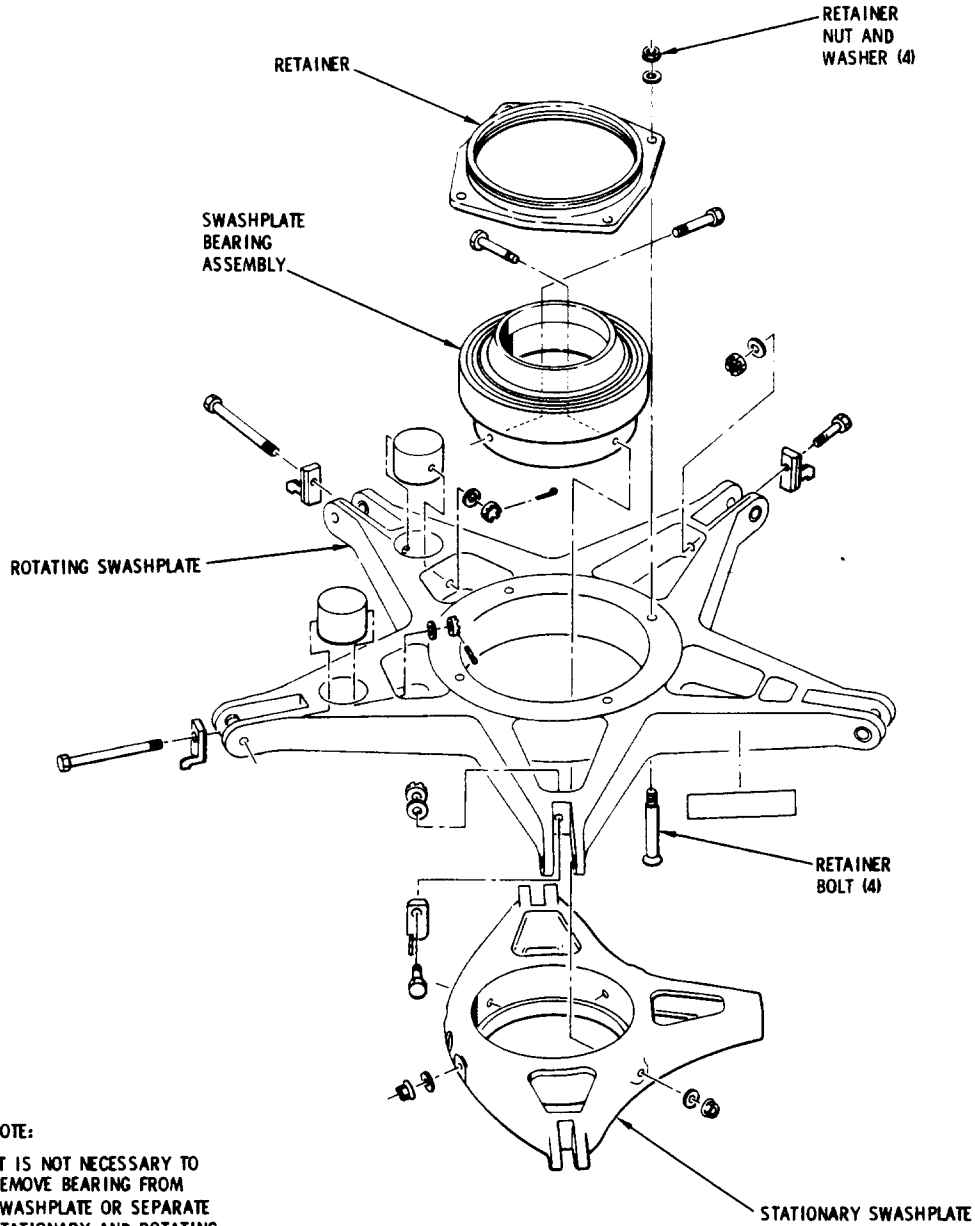
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NOTE:
IT IS NOT NECESSARY TO REMOVE BEARING FROM SWASHPLATE OR SEPARATE STATIONARY AND ROTATING SWASHPLATE TO PERFORM BEARING INSPECTION.

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Figure 1. Main Rotor Swashplate Assembly (Exploded View)

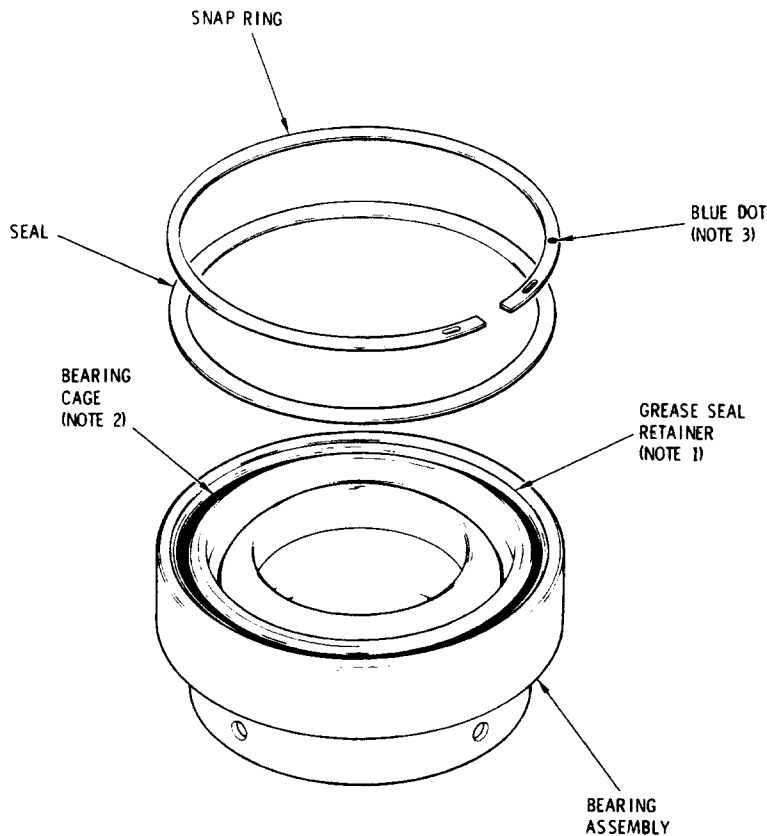
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**NOTES:**

1. PART NO. AND SERIAL NO. ARE INK STAMPED ON GREASE SEAL RETAINER.
2. IF BEARING CAGE IS MISSING BALLS WILL BE VISIBLE.
3. AFTER INSPECTION, PLACE BLUE ACRYLIC LACQUER DOT, 1/8 INCH DIAMETER, ON SNAP RING AS SHOWN.

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Figure 2. Main Rotor Swashplate Bearing Inspection

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