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EN-58
FN-46

SERVICE BULLETIN

DATE: 14 MARCH 1990
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MANDATORY

SUBJECT: ONE-TIME CHECK/PERIODIC INSPECTION/REPLACEMENT OF TAIL ROTOR SWASHPLATE BEARING SET

SUMMARY: MRC Corporation has determined that all tail rotor swashplate bearing sets (P/N 369D21832) with black seals (except those bearings shipped from MDHC after March 1, 1990) shall be inspected periodically for indications of roughness (similar to a ratchet feeling when the tail rotor assembly is rotated).

PURPOSE: The purpose of this Notice is to perform a one-time check to verify what bearings are installed by the color of the tail rotor swashplate bearing seals and further inspect those bearing sets with black seals for roughness.

TIME OF COMPLIANCE:

PART I – ONE-TIME CHECK– The requirements of PART I shall be accomplished prior to the next flight. (May be performed by a pilot.)

PART II - PERIODIC INSPECTION - AIRCRAFT WITH BLACK SEALS - The requirements of PART II of this Notice shall be accomplished within the next ten (10) hours of helicopter operation and each subsequent ten (10) hours of operation until the tail rotor swashplate bearing sets have been replaced with acceptable bearing sets provided by MDHC. In no case, shall bearings with black seals (within the unacceptable serial number range) remain in service more than 300 hours since installation or after July 1, 1990, whichever occurs first.

SPARES INVENTORIES - All 369D21832 tail rotor swashplate bearings that have black seals with a serial number in the identified range of unacceptable serial numbers and pitch control assemblies (P/N 369D21800 and 369D21820) that have bearings with black seals installed shall be returned to MDHC Warranty and Repair Department for replacement bearings.

The following 369D21832 tail rotor swashplate bearing serial numbers shall be removed from Spares inventories and returned to MDHC Warranty and Repair Dept.:

059150-0001 thru 059150-0692 and 059150-0734 thru 059150-0742

MDHC will be issuing a limited number of tail rotor swashplate bearings that have black seals. These bearings are acceptable and will be marked and tagged verifying they are acceptable. Operators who receive these bearings and who receive bearings from MDHC after March 1, 1990 should make an entry in the Component Historical Record section and the Compliance Record section of the helicopter Log Book to record the serial number of the tail rotor swashplate bearing. Helicopters with these bearings installed do not have to further comply with the requirements of this Notice. Later bearings will have yellow and green seals and are acceptable. Bearings with yellow or green seals do not have to be inspected per PART II of this Notice.

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MODELS AFFECTED: All MDHC 369D, 369E and 369F/FF Series helicopters.

ASSEMBLY/COMPONENTS TO BE INSPECTED AND CORRECTED: All 369D21600 and 369D21610 Series tail rotor assemblies and all 369D21800 and 369D21820 Series pitch control assemblies. (Tail rotor swashplate bearing serial number is not visible when installed in swashplate housing.) Tail rotor assemblies, pitch control assemblies and tail rotor swashplate bearings shipped after September 14, 1989 and prior to February 28, 1990, are suspect and subject to the inspection requirements of this Notice.

REFERENCE PUBLICATIONS: (Use the manuals listed below or any later revisions.)
369D/E/F COM (CSP-DEF-5) Revised 29 September 1989
369D/E HMI Vol. I (CSP-D-2) Revised 01 August 1989
369F/FF HMI Vol. I (CSP-F-2) Revised 01 June 1989

SUPPLY/PARTS AND WARRANTY DISPOSITION:

PARTS LIST

Nomenclature	Part No.	Qty.	Source
Bearing set, tail rotor swashplate	369D21832	1 (A/R)	MDHC (no charge)
Swage ring	369D21805	1 (A/R)	MDHC (no charge)
Lockwasher	MS172209	1 (A/R)	MDHC (no charge)
Lockwasher	HS1551S238	1 (A/R)	MDHC (no charge)

LABOR ALLOWANCE: MDHC will reimburse operators a labor allowance of two (2) hours for replacement of the bearing if the work is performed at a MDHC Approved Service Center or Distributor.

SPECIAL TOOLS/JIGS AND FIXTURES REQUIRED. Refer to the Component Overhaul Manual for required tooling to remove and install the tail rotor pitch control bearing set.

PART I - ONE-TIME CHECK

a. Check tail rotor swash plate bearing assembly to determine which color bearing seal is installed. (Refer to Figure 1)

NOTE

- Bearing seal can be observed by looking into the outboard end of the T/R swashplate bearing assembly.
- If necessary, clean the face of the bearing seal with a dry cotton swab (Q-Tip) so that bearing seal color can be determined.

b. If the bearings installed have green or yellow seals, no further inspection is required. Proceed to the Recording and Compliance section of this Notice.

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c. If the bearings installed have black seals, immediately contact MDHC Field Service Dept. and provide A/C serial number and time since tail rotor swashplate bearing was installed. Bearings with black seals shall be inspected per the requirements of PART II.

PART II - PERIODIC INSPECTION/REPLACEMENT OF TAIL ROTOR SWASHPLATE BEARING ASSEMBLIES

- a. Disconnect outboard end of bellcrank (refer to Figure 2).
- b. Disconnect dust boot from inboard end of pitch control assembly. (This will allow rotation of tail rotor swash plate housing.)
- c. While applying a down load on top of the housing by hand, slowly rotate pitch control housing to verify smoothness of operation. Bearing must rotate smoothly and without roughness to be acceptable.

NOTE

A slight feeling of grit in the grease, with smooth areas in between, is considered acceptable for continuing an additional ten hours of operation. If the gritty feeling is continuous, replace the bearings.

- d. If roughness occurs, replace tail rotor swashplate bearing before further flight with an acceptable bearing set provided by MDHC per the Component Overhaul Manual. If an acceptable black seal bearing has been installed apply a white dot (approximately 1/8 inch dia.) on the outside face of the housing as shown in Figure 1 per the applicable Handbook of Maintenance Instructions.
- e. Install and lockwire dust boot on inboard end of pitch control housing.
- f. Service the tail rotor swashplate pivot bearing assembly with acceptable grease per the Handbook of Maintenance Instructions.
- g. Reconnect bellcrank to outboard end of pitch control assembly per the Handbook of Maintenance Instructions.

WEIGHT AND BALANCE: N/A.

RECORDING AND COMPLIANCE: Record compliance to this Service Information Notice in the Compliance Record section of the helicopter Log Book.

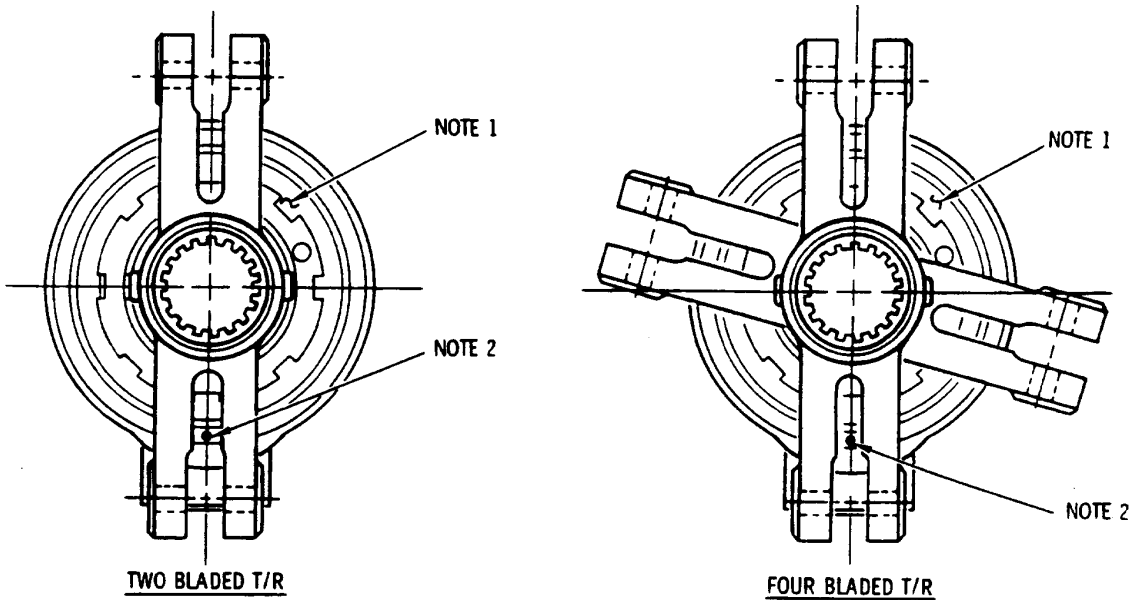
POINTS OF CONTACT: For further information contact your local MDHC Field Service Representative (refer to the latest revision of the Marketing and Product Support handbook for address and telephone numbers) or contact the Field Service Department at MDHC, Mesa, Arizona. Telephone: 1-800-445-1516 or (602) 891-6342.

This Service Information Notice has been shown to comply with Federal Aviation Regulations and is FAA Approved.

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NOTES:

1. VERIFY BEARING SEAL IS GREEN OR YELLOW. BEARINGS WITH BLACK SEALS SHALL BE REMOVED AND REPLACED OR SUBJECTED TO THE 10-HOUR RECURRING INSPECTION.
2. APPLY A WHITE DOT TO PITCH CONTROL HOUSINGS WITH ACCEPTABLE BEARING WITH BLACK SEALS AS SHOWN.

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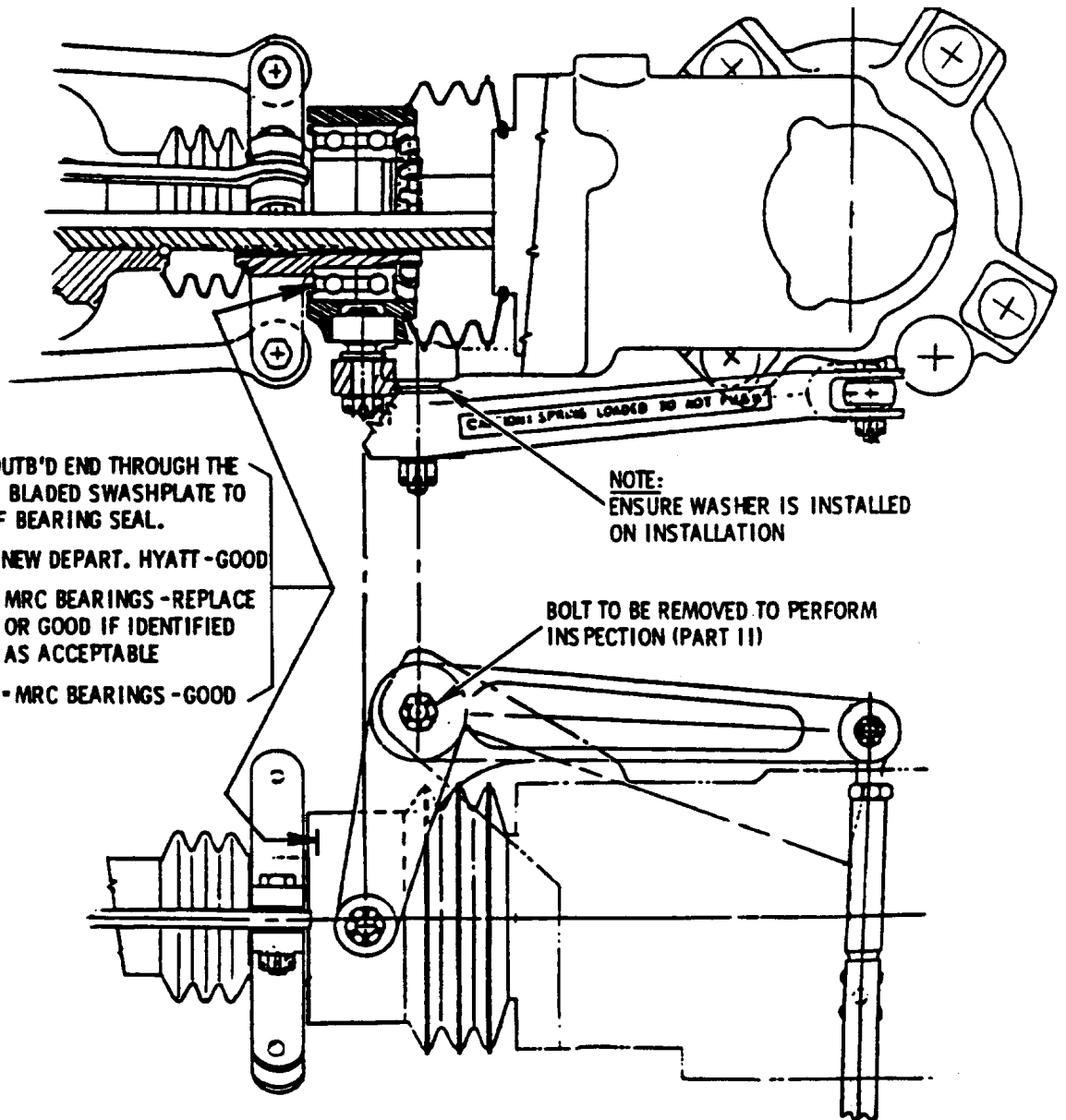
Figure 1. Inspection of Tail Rotor Assembly.

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Figure 2. Inspection of Tail Rotor Assembly.

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