HUGHES SERVICE INFORMATION NOTICE

*Supersedes Service Information Notice No. HN-79, dated 28 October 1974

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SUBJECT: REGREASING DOUBLE ROW BEARING - MAIN ROTOR SWASHPLATE BEARING ASSEMBLY, PN 369A7003-3

MODELS AFFECTED: All 500 Model 369H Series Helicopters

TIME OF COMPLIANCE:

Shall be accomplished at 2650-Hour Overhaul Interval** specified (HMI Appx B) for Main Rotor Swashplate Assembly, or every two (2) years, whichever occurs first.

**See below referenced Service Letter No. HL-82

PREFACE:

The information given in this Service Information Notice lists a procedure for periodic regreasing of the double row bearing incorporated in the 369A7003-3 main rotor swashplate bearing assembly. Lubrication of the double row bearing may be accomplished by using a special regreasing tool or by careful hand packing, using MIL-G-81322 grease (Mobil 28 preferred or Aeroshell 22 alternate).

It is noted that regreasing, and replacement of grease seals and retainers as required, is designed to extend the useful life of the swashplate bearing assembly and provide a cost savings to owners and operators.

Reference

500 Series - Basic HMI, Reissued 15 September 1981
500 Series - HMI Appendix B, Reissued 15 April 1981; Revision No. 1, 15 January 1982
500 Series - HMI Appendix C, Reissued 1 April 1976; Revision No. 3, 15 March 1982
Hughes Service Information Letter No. HL-82 dated 24 September 1982

(|) Denotes portion of text added or revised

Customer Service Department

PARTS LIST

Nomenclature	Part No.	Qty	Mfr
*Retainer, seal	BMC12417-1	2	Brg Mfg Co, Chicago
*Seal, grease	BMC12417-2	2	Brg Mfg Co, Chicago
**Tool, regreasing		1	Field fabricate

*Replace as required, 2 places
**Use optional

MATERIALS

Lubricant (Mobil Grease 28 preferred; AeroShell 22 alternate)	MIL-G-81322
Solvent, dry cleaning	P-D-680
Alcohol, isopropyl	TT-I-735

PROCEDURE

NOTE

Special greasing tool for lubricating the double row bearing may be field fabricated per Figure 1.

Lubrication of the double row bearing is to be accomplished with swashplate bearing removed from rotating swashplate. Refer to Section 6 of HMI Appendix C for disassembly, cleaning and inspection procedures.

a. Using dry cleaning solvent, clean area of upper and lower bearing seals of all grease, dirt and foreign materials. Wipe the area dry with a clean cloth.

b. Carefully remove seal retainers (snap rings) and bearing seals. Use a thin blade screwdriver or equivalent to remove seals. (See Figure 2.)

NOTE

Perform step c if special greasing tool is used for lubricating the double row bearing.

Perform step d if lubrication is accomplished by hand packing.

Use Mobil 28 (preferred) or AeroShell 22 (alternate) lubricant. Using proper solvent, remove all existing grease from swashplate bearing; dry bearing before relubricating with Mobil 28 or alternate AeroShell 22 (Type MIL-G-81322) grease.

Do not intermix one brand or type of grease with any other brand or type of grease.

c. Using special tool, regrease double row bearing as follows:

1. Lubricate O-ring on inside of greasing tool with specified grease.

2. Install tool over long inner race skirt so that the end O-ring engages outer race of swashplate bearing.

3. Mount assembly to permit hand rotation of inner race during regreasing. (See Figure 3.)

4. Pump grease through zerk fitting on tool while rotating bearing inner race. Continue pumping and rotating until clean grease exudes all the way around bearing.

5. Disengage tool and remove excess grease from bearing by rapid spinning of one bearing race while the other is held static.

6. Continue alternate spinning and grease removal until no more grease comes to surface.

7. Carefully remove grease from between cage and outer race of bearing; use thin piece of wood or similar material.

d. Regrease the double row bearing by hand packing as follows:

1. Position and hold bearing to permit hand rotation of inner race only during lubrication.

2. Hand pack bearing with specified grease while rotating the bearing inner race. Continue packing and rotating the bearing until clean grease exudes all the way around bearing.

3. Remove excess grease from bearing by rapid spinning of one race while the other is held static; continue spinning and grease removal until no more grease comes to the surface.

4. Carefully remove grease from between cage and outer race of bearing; use thin piece of wood or similar material.

e. Clean and inspect grease seals and seal retainers; install new seals if existing seals are oversized or nicked; install new seal retainers if existing retainers are bent, pitted or nicked.

CAUTION

Use care when removing and installing bearing seals to ensure that they are not damaged, and that they are fully seated in the seal grooves. Seals must be properly installed under the seal retainers (snap rings) to prevent the seals from extruding and being damaged by the bearing. Seals must be properly installed to keep grease in and moisture out.

f. Install seals and secure with retainers, after wiping seals and retainers surfaces with new grease.

NOTE

Do not allow solvents of any type to enter bearing double row ball or spherical race areas. Dirt may be washed in and remain to cause damage.

g. Thoroughly clean spherical bearing and ball bore liner with cloth moistened in alcohol, to remove all grease, dirt, etc from bearing surface.

h. Reinstall bearing assembly in rotating swashplate, per HMI Appendix C.

i. Record compliance with this Service Information Notice in Compliance Record of Helicopter Log Book.

WEIGHT AND BALANCE DATA

Weight and balance not affected.

The resultant alteration to the affected helicopters described by the lubrication procedure in this Notice has been shown to comply with Federal Aviation Regulations and is FAA Approved.

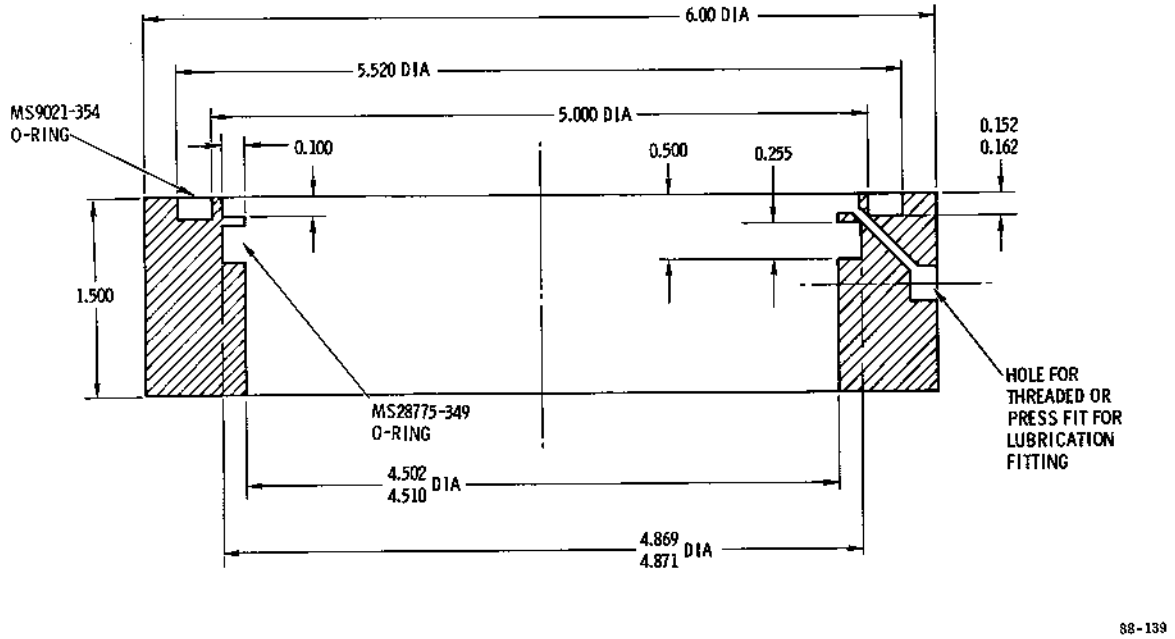

Figure 1. Regreasing tool - field fabrication

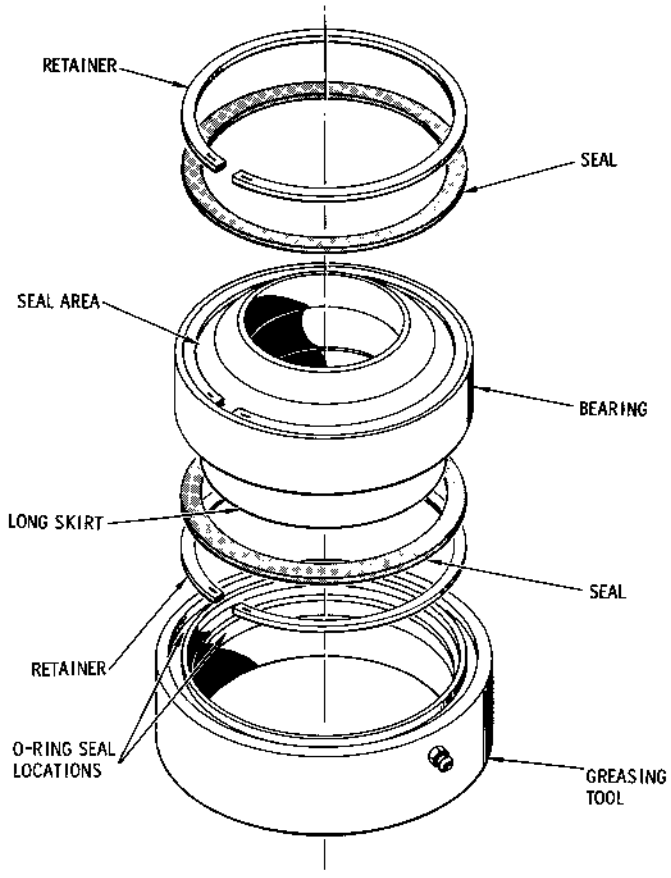

Figure 2. Regreasing tool and swashplate bearing assembly

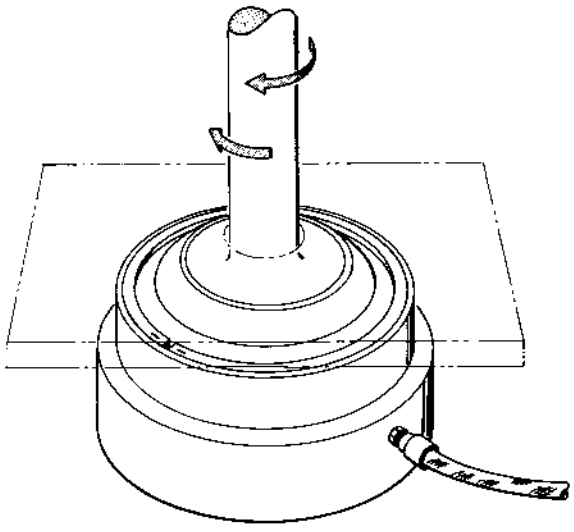

Figure 3. Main rotor swashplate bearing assembly mounted on regreasing tool