



**HUGHES
SERVICE INFORMATION
NOTICE**

NOTICE NO. N-128

TE March 25, 1975

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*Cancels and supersedes

FAA APPROVED

Service Information Notice N-116,
dated 25 March 1974.

MANDATORY

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SUBJECT: REPLACEMENT OF PLUG PN 23425-166 IN PINION ASSEMBLY PN 269A5103 AND 269A5103-9 IN MAIN ROTOR GEAR DRIVE ASSEMBLIES 269A5175, 269A5175-3 AND 269A5175-5 WITH MODIFICATION KIT M10104; SECURING OF PN 269A5050-1 OR -20 ROLLER BEARING.

MODELS AFFECTED: All 269A, 269A-1, 269B and 269C Helicopters having subject pinion shaft and/or main rotor gear drive assembly. All subject pinion shaft assemblies separated from or installed in gear drive assemblies in spares inventory.

TIME OF COMPLIANCE: Shall be accomplished at next overhaul of installed gear drive assemblies on subject helicopters. Shall be accomplished on all pinion shaft assemblies separated from or installed in gear drive assemblies in spares inventory.

PREFACE: This Service Information Notice provides a procedure for field replacement of the main gear drive assembly pinion shaft plug. The existing cork plug is replaced with a metal plug bonded into the shaft or in combination with a snap ring; further, the forward bearing on the pinion shaft is reinstalled with loctite.

This modification will provide both positive retention of the plug and improved support for the roller bearing on the forward end of the pinion shaft.

Reference

- 269 Series Basic-HMI, Issued 1 April 1973; Revision No. 2, 1 January 1974
- 269 Series - HMI, Appendix C, Issued 1 March 1973; Revision No. 3, 15 July 1974
- 269 Series - HMI, Appendix B, Issued 1 July 1973; Revision No. 2, 15 July 1974

Customer Service Department

PARTS LIST

<u>Nomenclature</u>	<u>Part No.</u>	<u>Qty</u>	<u>Manufacturer</u>
Plug	269A5159	1	HH
Adhesive	EA9309	AR	Hysol/Dexter Corp.
Adhesive (Alternate)	EC1838	AR	3 M Company
*Plug	269A5159 or 269A5157	1	HH
*Permatex	No. 1	AR	Permatex Corp.
*Snap Ring	MS16625-4075	1	Commercial

*Parts required for Procedure II

MATERIALS

Solvent Dry Cleaning	PD 680	AR	Commercial
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TOOLS AND EQUIPMENT

Refer to Basic HMI and HMI Appendix C

General: Dependent on whether the main rotor gear drive assembly is installed in the aircraft or uninstalled; follow the procedure in the Basic HMI (Section 10) for removal and the procedures in HMI Appendix C (Part 1) for disassembly. Disassemble the gear drive assembly only to the extent necessary to remove the pinion shaft and bearing retainer assembly.

Procedure I.

- a. Using wood dowel or similar non-metallic rod, push existing metal plug or cork out gear end of pinion shaft assembly.
- b. Clean end bore of pinion with solvent, remove all foreign material from bore. Continue cleaning until no evidence of contamination shows.
- c. Inspect pinion shaft bore for evidence of damage and corrosion.

NOTE

Repair pinion shaft bore in accordance with criteria defined in HMI Appendix C.

- d. Mix epoxy in accordance with manufacturers instruction.

- e. Lightly abrade unknurled diameter of 269A5159 plug with aluminum oxide cloth, coat exterior of clean 269A5159 plug with a thin, uniform coat of adhesive.
- f. Seat plug in gear end of bore 0.09 inch below end of shaft.
- g. Using epoxy form fillet between bore and face of plug.
- h. Allow epoxy 24 hours to cure.
- i. Remove 269A5050-1 or -20 roller bearing, clean bearing seat.

NOTE

Insure that bearing seat and shoulder are free of foreign matter.

- j. Apply thin layer of loctite to shaft, install bearing, allow loctite to cure per manufacturers instructions.

CAUTION

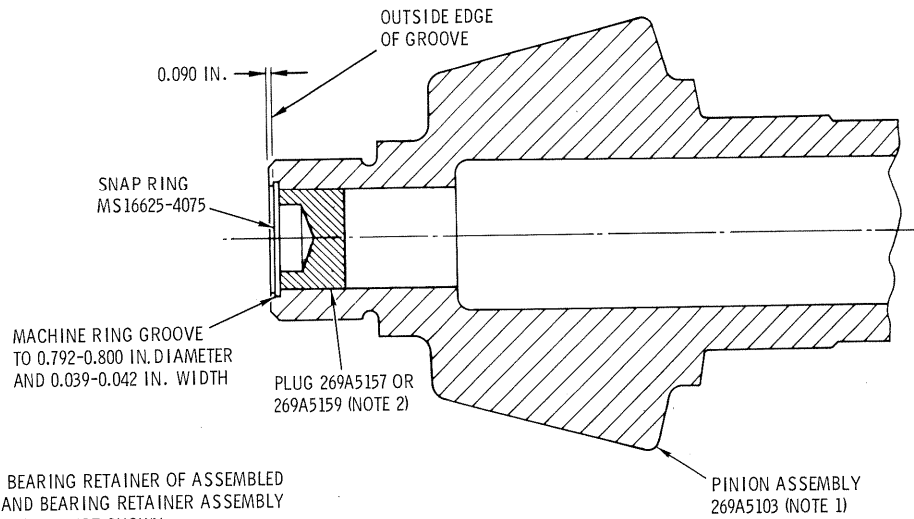
Prevent loctite from entering bearing.

Procedure II.

- a. Accomplish Steps a. through c. and NOTE in Procedure I.
- b. Machine a snap ring groove in forward bore end of pinion shaft.
(See Figure 1.)
- c. Coat exterior of 269A5159 or 269A5157 plug with permatex No. 1.
- d. Seat plug in pinion shaft bore flush with bottom edge of snap ring groove.
- e. Install snap ring in pinion shaft.
- f. Remove 269A5050-1 or -20 roller bearing; clean bearing seat.
- g. Apply thin layer of loctite to shaft, install bearing, allow loctite to cure per manufacturers instructions.
- h. Reassemble and install gear drive assembly as required.
- i. Record compliance with this Service Information Notice in compliance section of Helicopter log book.

WEIGHT AND BALANCE DATA

Weight and balance not affected.



NOTES:

1. BEARINGS AND BEARING RETAINER OF ASSEMBLED PINION SHAFT AND BEARING RETAINER ASSEMBLY (HMI APPENDIX C) ARE NOT SHOWN.
2. APPLY PERMATEX NO. 1 TO OUTSIDE DIAMETER OF PLUG AT INSTALLATION.

Figure 1. Pinion Shaft Plug and Snap Ring Installation