



**HUGHES
SERVICE INFORMATION
LETTER**

LETTER NO. L-70
DATE 24 July 1972
PAGE 1 OF 1

TO—All owners and operators of Hughes Helicopters

SUBJECT: LYCOMING SERVICE BULLETIN NO. 336B, DATED JUNE 19, 1972

RE: PERIODIC INSPECTION AND LUBRICATION OF MAGNETO
DISTRIBUTOR BUSHING; PERIODIC PARTS REPLACEMENT
OF LEFT MAGNETO

MODELS AFFECTED: All Hughes Model 269C Helicopters

Reference

269 Series - Basic HMI, Issued 1 Feb 72; Revision No. 1, 10 May 72
269 Series - HMI Configuration Supplement C, Issued 1 Feb 72; Revision No. 1,
10 May 72

Your attention is directed to the subject Lycoming Service Bulletin reprinted as part of this Service Information Letter.

The Lycoming Bulletin specifies mandatory inspection, lubrication and parts replacement procedures for magnetos installed on Hughes Model 269C Helicopters.

The manufacturer recommends to owners and operators that compliance with the Lycoming Bulletin No. 336B be accomplished as specified.

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AVCO LYCOMING DIVISION

WILLIAMSPORT, PENNSYLVANIA 17701

Service Bulletin



DATE: June 19, 1972

Service Bulletin No. 336B
(Supersedes Service Bulletin No. 336A)
Engineering Aspects are
FAA (DEER) Approved

SUBJECT: I. Periodic Inspection and Lubrication of Magneto Distributor Bushing
II. Magneto Parts Replacement - Left Magneto

MODELS AFFECTED: HIO-360-D1A engines installed on Hughes Model C Helicopters.

TIME OF COMPLIANCE: I. Periodic inspection and lubrication at each 50 hour inspection period.
II. Parts replacement of left magneto at each 100 hour inspection of the aircraft.

I. PERIODIC INSPECTION AND LUBRICATION

NOTE

It has been determined that loss of adequate lubrication can cause severe wear and possible damage in the area of the distributor block bushing in the magneto. This condition has been found on Bendix S4LN-1208 magnetos, P/N 10-349285-5 installed on HIO-360-D1A engines. Consequently, all operators of affected helicopters are advised to perform the following item of maintenance on both magnetos at each 50 hours of engine operation.

Distributor blocks may or may not have the identification mark shown in figure 1. The following lubrication instructions apply in either case.

1. Remove harness outlet plate from each magneto.

6. Separate the distributor block and gear by removing lock ring. See figure 2.

2. Remove magneto rear cover. Carefully separate capacitor and retard lead terminals from breaker assemblies.

7. Carefully inspect distributor gear for cracks, chipping or excessive tooth wear. Look for a concentration of yellow discoloration on the molding compound near its point of attachment to the shaft. (This could mean overheating has occurred in this area.) Observe shaft for discoloration or galling. (Shaft surface should be silver bright.) Gear exhibiting any of the above should be replaced.

3. Turn engine until red mark on distributor gear is exactly in alignment with rib on the distributor block. This is to allow removal and re-installation of the distributor block and gear assembly without disturbing magneto to engine timing. If magneto is on the bench, use Bendix 11-8465 HOLDING TOOL to "lock" magneto drive shaft.

4. Remove the four double ended studs. The distributor block and gear can now be withdrawn from the magneto housing.

5. Examine the interior of the magneto for evidence of engine oil. Its presence indicates separation of the LOC-TITE seal between the front bearing outer race and the magneto flange bore. If engine oil is observed, it is recommended that the magneto be overhauled noting in particular for signs of wear caused by bearing movement within the flange. Wear has occurred if the surface treatment, normally a dull greenish/brown, is no longer present and bright, metallic areas are seen. A worn flange must be replaced to insure a satisfactory LOC-TITE seal and bearing fit.

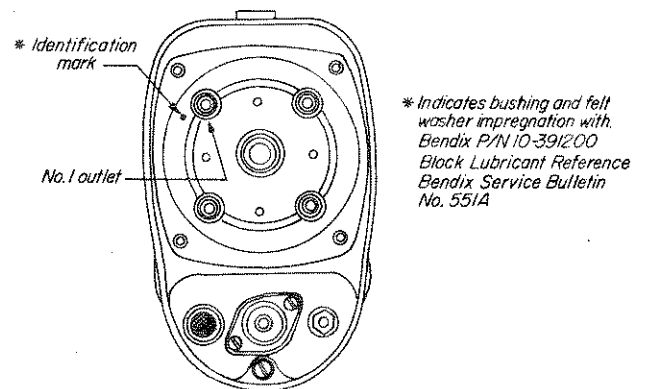


Figure 1. Location of Identification Mark

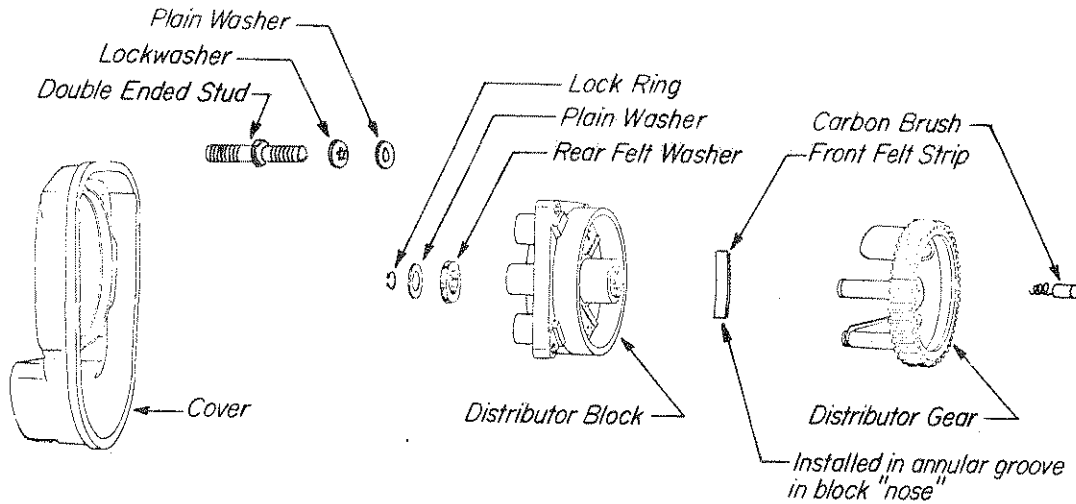


Figure 2. Partial Exploded View Showing Relative Location of Parts

8. Inspect distributor block for evidence of carbon tracking, bushing wear, cracks in high tension towers and excessive fixed electrode erosion. Blocks exhibiting any of the above should be replaced.

9. Remove rear felt washer from the distributor block. If it is not mutilated, it can be cleaned, re-oiled and reused.

a. Clean, by washing in methyl ethyl ketone, unleaded gasoline or similar solvent and allow time to dry.

b. Saturate rear felt washer with Bendix Distributor Block Lubricant P/N 10-391200. Using a clean cloth or paper towel, blot excess oil until flat surfaces take on a "frosted" appearance. Install rear felt washer in distributor block.

c. Apply a thin film of lubricant P/N 10-391200 to gear shaft.

10. Assemble distributor gear to block (reverse of part 6).

11. Reinstall distributor block and gear assembly in magneto housing. Be sure that the distributor gear teeth to pinion gear engagement is the same as when removed, i.e., the red mark on the distributor gear block.

12. Install double ended studs, cover and harness outlet plate.

13. Make appropriate notations in Engine Log Book.

II. MAGNETO PARTS REPLACEMENT

At each 100 hour inspection the magneto parts, contained in Bendix Kit no. 10-391320, must be replaced in the left magneto (S4LN-1208). Instructions (Form L-1006) for accomplishing the replacement are included in the kit. Additional copies of instructions (Form L-1006) can be obtained from Bendix Electric Components Division, Sidney, N. Y. 13838 or from Avco Lycoming Division, Williamsport, Pa. 17701.

Kits, for domestic use, may be obtained from the following Bendix distributors. It is suggested that kits be ordered in advance to the 100 hour inspection so that a minimum of down time is required.

SOUTH AIRMOTIVE CO. : Dallas, Texas
 VAN DUSEN AIRCRAFT SUPPLIES: Atlanta, Ga. ; Elk Grove Village, Ill. ; Kansas City, Kan. ; Miami, Fla. ; Seattle, Wash. ; So. San Francisco, Calif. ; Teterboro, N. J. ; Vandalia, Ohio; Van Nuys, Calif.

Kits required for export can be procured through your Avco Lycoming distributor from Avco Lycoming.

Make appropriate notation in Engine Log Book. Parts removed from left magneto to be destroyed. Do not reuse in any application.

PARTS DATA:

Part Number	Name	Price
10-391320	Kit, Magneto Parts	\$21.50
Consists of: - (1) 10-35937-24 Screw; (8) 10-92879-43 Washer; (1) 10-349234 Gear assembly (large); (4) 10-35936-7 Screw; (1) 10-382585 Contact assembly; (1) 10-35936-10 Screw; (1) 10-90751-19 Cotter pin; (1) 10-90788-5 Woodruff key; (3) 10-349652 Screw; (3) 10-53397 Washer; (1) 10-353056 Bearing (front); (1) 10-349351 & 10-349241 Rotating magnet & Gear assembly (small); (1) 10-353060 Bearing (rear).		

NOTE: Revision "B" adds part II and removes form.