



**HUGHES
SERVICE INFORMATION
NOTICE**

NOTICE NO. N- 171

DATE 31 December 1980

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MANDATORY

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SUBJECT: PERIODIC CHECK OF MAIN ROTOR BLADE ELASTOMERIC DAMPER ASSEMBLIES, PN 269A1290-1

MODELS AFFECTED: All Model 269 Series Helicopters equipped with PN 269A1290-1 Elastomeric Main Rotor Damper Assemblies

TIME OF COMPLIANCE: Shall be accomplished at each 600-hour interval of damper operation up to a total time of 4200 hours; and at each subsequent 300-hour interval of operation up to a total damper service time of 6000 hours.

PREFACE: The information given in this Service Information Notice lists a procedure for a periodic check of the PN 269A1290-1 main rotor blade elastomeric damper assemblies, to check for proper condition of the elastomer component, and for proper damper extension and stiffness if elastomer deterioration is noted. The 6000 hour finite life established for the PN 269A1290-1 damper assemblies is based on condition of the dampers at each periodic check.

The elastomeric damper is considered failsafe in that significant deterioration of one damper in a ship set can be readily detected, by visual examination or by main rotor vibration, prior to damping falling to a critical low level.

It is to be noted that 269A1290-1 elastomeric dampers must not be inter-mixed with other type or part number damper assemblies in a ship set.

The information given in this Service Information Notice is to be considered as a part of the HMI and will be incorporated at the next scheduled revision to the below referenced handbooks.

Reference

- 269 Series - Basic HMI, Issued 1 April 1973; Revision No. 5, 1 February 1978
- 269 Series - HMI Appendix B, Issued 1 July 1973; Revision No. 5, 1 August 1976

Customer Service Department

TOOLS AND EQUIPMENT

Dial indicator or equivalent
Hydraulic jack or equivalent
Holding bar or fixture
Depth gage - shim stock with 0.20 inch indication
Weight - 100 pounds total (exact)

PROCEDURE - PERIODIC CHECK OF MAIN ROTOR DAMPERS

NOTE

When performing lead-lag of main rotor blades, have rotor brake (installed) or have assistant hold main rotor hub to keep hub from moving. A second assistant is recommended to measure approximate damper extension and compression.

- a. Lead-lag each main rotor blade in turn to provide approximately 0.10 inch extension and compression of the damper elastomer.
- b. Visually check each damper in turn for cracks in elastomer or in elastomer-to-metal bond at end face of damper (See Figure 1).

NOTE

1. If bonding or elastomer cracks are noted, measure depths of cracks, using depth gage fabricated of shim stock or equivalent having a 0.20-inch indication.
2. If depth of crack exceeds 0.20-inch, perform the following:
 - (a) Remove damper assembly, per Section 8 of Basic HMI.
 - (b) Attach dial indicator or equivalent to outer case of damper; position indicator arm on center aluminum disc as shown.

NOTE

Fabricate holding bar or fixture capable of sustaining 100-pound static load (See Figure 1).

- (c) Attach damper end cap to holding bar or fixture.

NOTE

Perform weight loading and extension check at ambient temperature of $70^{\circ} \pm 5^{\circ}$ F. Apply total 100-pound weight load to damper at one time, not in weight increments.

- (d) Using hydraulic jack or equivalent, raise and attach 100-pound weight load at damper clevis end. Slowly lower jack to avoid shock loading. After period of two minutes under load, measure damper extension on dial indicator.
- (e) If extension exceeds .048 inch, replace the damper assembly.
- (f) Reinstall existing damper; or as required, install replacement damper of same type and part number as other dampers in a ship set.

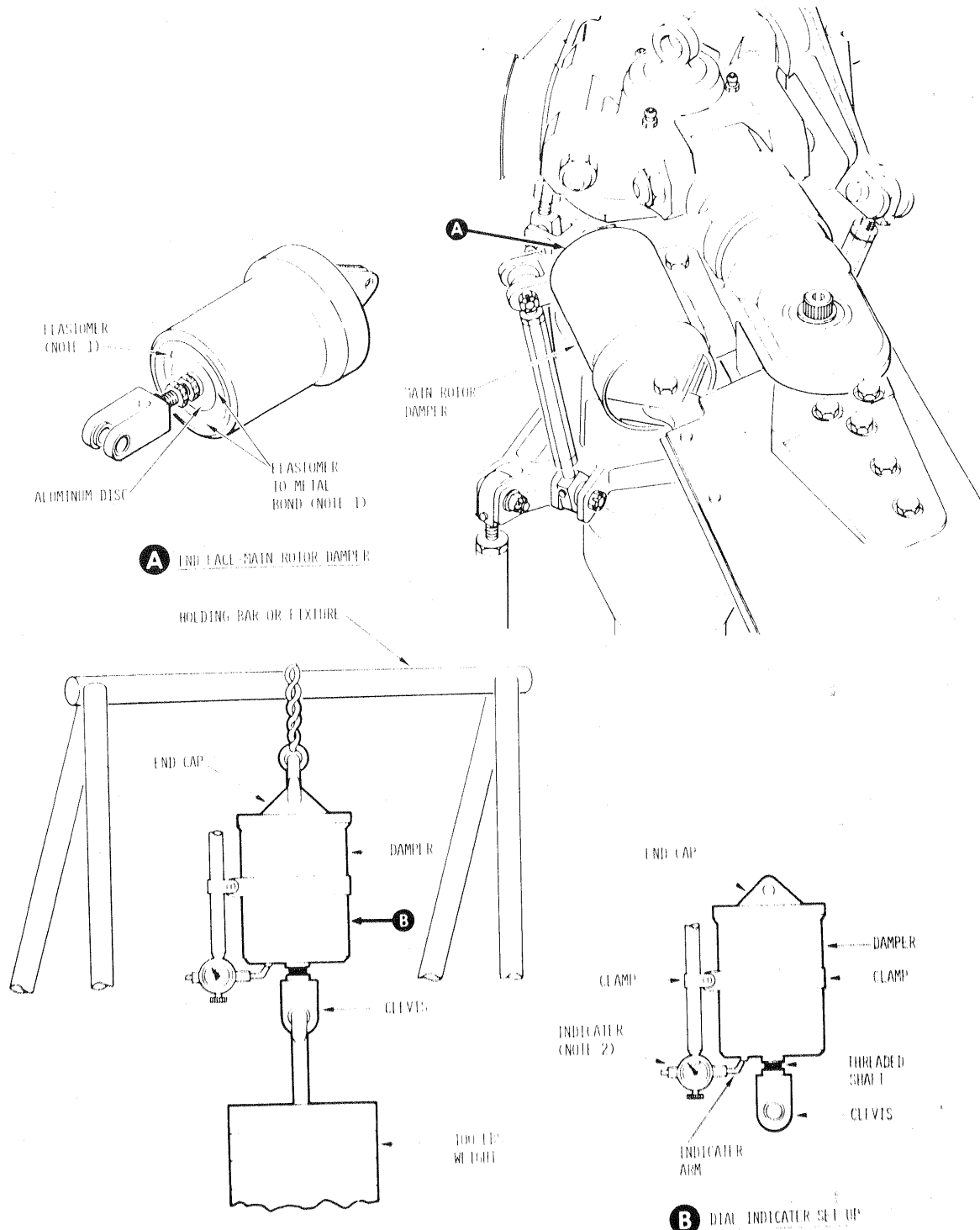
NOTE

If replacement damper is installed, record part number, serial number, and other pertinent information in Components Record of helicopters Log Book.

- c. Record compliance with this Notice in Compliance Record of helicopter Log Book.

WEIGHT AND BALANCE DATA

Weight and balance not affected.



NOTE:

1. CHECK ELASTOMER AND ELASTOMER TO METAL BOND FOR CRACKS.
2. POSITION INDICATOR ARM ON CENTER ALUMINUM DISC.

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Main Rotor Damper Assembly



REFERENCE SHEET

SERVICE INFORMATION NOTICES AND LETTERS

Action Reference: When performing 600-Hour Periodic Inspection, refer to Service Information Notice No. N-171 for check of PN 269A1290-1 main rotor blade elastomeric damper assemblies.

HMI Reference: Insert this sheet in HMI-Appendix B, Section 2, Table B-2, Periodic Inspections, EVERY 600 HOURS, page 2-8A.

This reference sheet shall be kept as a part of the manual until the data is incorporated at the next revision of HMI-Appendix B. Refer to Service Information Summary, HMI-Appendix B, page i.

REFERENCE SHEET

SERVICE INFORMATION NOTICES AND LETTERS

Action Reference: When performing 300-Hour Periodic Inspection, refer to Service Information Notice No. N-171 for check of PN 269A1290-1 elastomeric damper assemblies.

HMI Reference: Insert this sheet in HMI-Appendix B, Section 2, Table B-2, Periodic Inspections, EVERY 300 HOURS, page 2-8.

This reference sheet shall be kept as a part of the manual until the data is incorporated at the next revision of HMI-Appendix B. Refer to Service Information Summary, HMI-Appendix B, page i.

