



SERVICE BULLETIN

DATE: 22 OCTOBER 1979

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* Supersedes Service Information Notice No. DN-45.1 Dated 20 July 1979

SUBJECT: PN 369D21400-501 MAIN ROTOR LEAD-LAG ELASTOMERIC DAMPER ASSEMBLY- INTERNAL MODIFICATION AND REIDENTIFICATION

MODELS AFFECTED: 500 D Model 369D Series Helicopter Serial No. 0003D thru 0555D equipped with PN 369D21400-501 Elastomeric Dampers

*All PN 369D21400-501 Elastomeric Dampers in Spares Inventory

*PN 369D21400-501 Dampers installed on helicopters equipped with PN 429-4537 external (military) stores kit are not affected by this Notice.

Dampers identified with PN M50452 and/or With suffix letter "M" following vendor Part Number are not affected by this Notice.

TIME OF COMPLIANCE: Shall be accomplished within next 100 hours of helicopter operation after receipt of required parts.

Shall be accomplished in conjunction with installation of PN 369D23601-503 Horizontal Stabilizer Assembly, per Hughes Service Notice No. DN-44 or DN-44.1.

Shall be accomplished prior to installation of subject damper assemblies in Spares Inventory.

PREFACE: The information given in this Service Information Notice provides instructions for reworking the PN 369D21400-501 Elastomeric Main Rotor Damper Assemblies in order to reduce operating stresses in the main rotor blade retention straps. The damper stiffness is reduced by removing one of the elastomeric components inside the damper and replacing it with an aluminum spacer.

Modification of the damper assemblies is to be accomplished in ship sets of five (5). Intermixing of M50452 (modified) and 369D21400-501 (standard) dampers is not permissible.

The life of the M50452 Damper is the same as the 369D21400-501 Damper which is 6060 hours. The time in service prior to modification of the damper per this Notice must be included as part of the total life on the M50452 Damper.

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TOOLS AND EQUIPMENT

Torque wrench - 0 to 2000 inch-pounds Commercial

Ink stamp Commercial

Hot Air Blower or Heat Gun Commercial

Adapter, torque wrench Field Fabricate

Tool, holding Field Fabricate

PROCEDURE



Support main rotor blade parallel to ground when removing damper assembly from helicopter.

a. Remove, as applicable, and inspect main rotor damper attachments, per Basic HMI-Vol. I.

NOTE

1. Field fabricate special holding tool (see Figure 2); use holding tool when securing damper in vise, to preclude damage to damper housing.
2. Field fabricate torque wrench adapter (see Figure 2); use adapter when removing and torquing damper cap, to preclude damage to damper cap ears. Insert bolt to secure tool between damper ears; secure bolt with nut.

b. Secure damper in vise with special holding tool and remove damper -clevis. Use close-fitting open-end wrench to avoid rounding hex nut corners. Use special torque wrench adapter to remove damper cap.

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NOTE

1. If damper cap does not break loose in torque range of 840 to 1700 inch-pounds, use hot air blower or heat gun with hot air directed against periphery of damper case, to provide differential expansion between case and cap. Do not exceed case temperature of 165° F.

2. If force is required to remove damper buns, do not exceed axial deflection of 0.20 inch on the elastomer. If buns do not slip out within this limit, direct hot air against periphery of case concurrent with application of axial force. Do not exceed case temperature of 165° F.

c. Remove two damper buns from case.

d. Reinstall threaded damper bun, then install new M50452-3 spacer as shown in Figure 1. Install damper bun, -3 spacer and damper end cap with wet zinc chromate primer.

e. Using special torque wrench adapter, install and torque damper cap to 800 to 840 inch-pounds and safetywire as shown. Safetywire to clear slot in cap.

NOTE

Add a white paint slip-mark. Upon accumulation of 25 hours flight time, inspect for movement of cap.

f. Ink stamp Part No. M50452 on damper as shown, and add suffix letter "M" to vendor part number on name plate. Also paint damper housing with 0.75-inch band of white paint to identify modified damper assembly.

g. Install AN960PD616L washer and damper clevis as shown. Preset main rotor damper length (center-to-center dimension between mounting holes in damper ears and clevis) to 8.25 ±0.03 inches and locate turnbuckle approximately half-way between the washer and clevis. Leave jam nuts fingertight.

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h. With damper ear containing bushing up, attach damper ears to pitch bearing lug with bolt (head up), washer and nut. Torque nut to 30 to 60 inch-pounds, and install cotter pin.

i. Adjust main rotor blade for blade phasing, per referenced HMI-Vol I, Revision No. 3, dated 15 March 1979. Remaining installation and turnbuckle adjustment steps are provided in blade phasing procedure.

j. Remove main rotor blade support.

k. Record new PN M50452 with respective Serial Number in Components Record of helicopter Log Book. Total time in service for installed PN369D21400-501 Damper applies when damper is modified to M50452 configuration and re-installed on helicopter. The total life of the M50452 Damper is the same as the 369D21400-501 Damper, which is 6060 hours.

l. Record compliance with this Service Information Notice in Compliance Record of helicopter Log Book.

WEIGHT AND BALANCE:

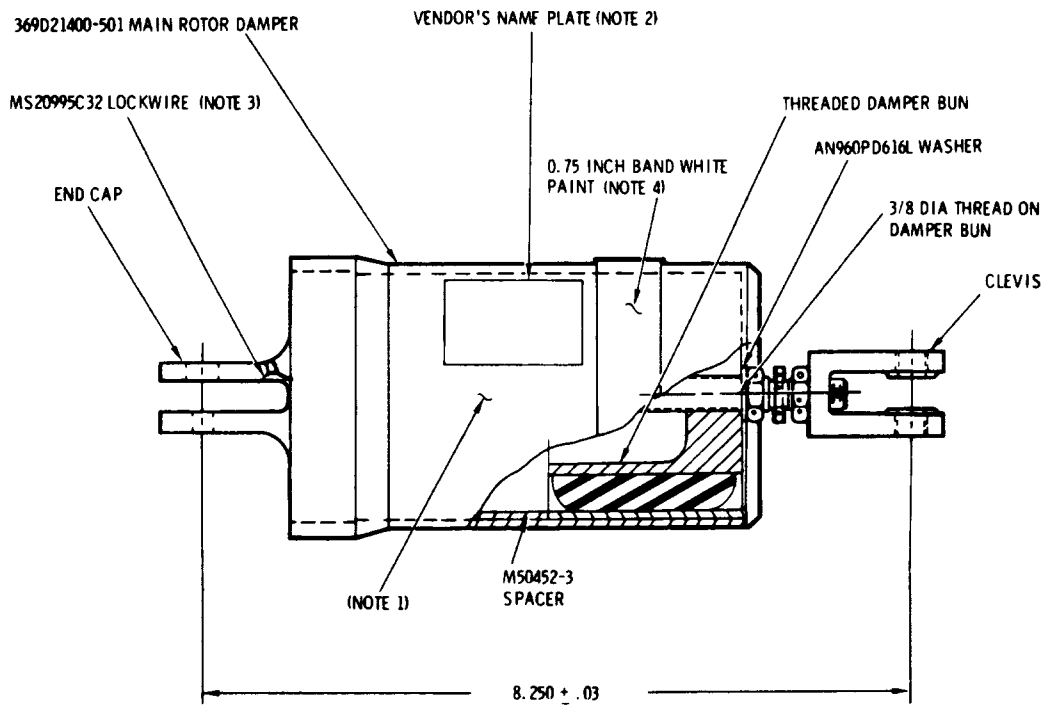
	Weight	Longitudinal Arm (Inches)	Longitudinal Moment (Inch-Pounds)
Added:	+2.1	100.0	+210
Removed:	-2.6	100.0	-260
Changed:	-0.5	100.0	-50

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NOTES:

1. INK STAMP PART NO. M50452 ON DAMPER HOUSING.
2. ADD LETTER "M" TO VENDOR NUMBER ON NAME PLATE.
3. SAFETY WIRE TO CLEAR SLOT IN CAP.
4. PAINT 0.75 INCH DIAMETER WHITE BAND AROUND CIRCUMFERENCE OF DAMPER HOUSING.
5. ALL DIMENSIONS IN INCHES.

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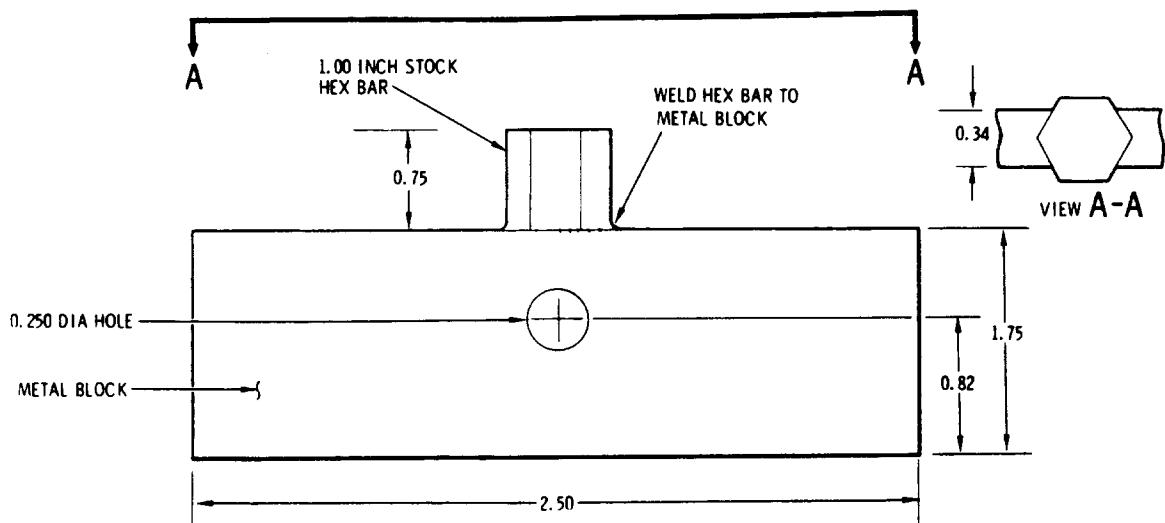
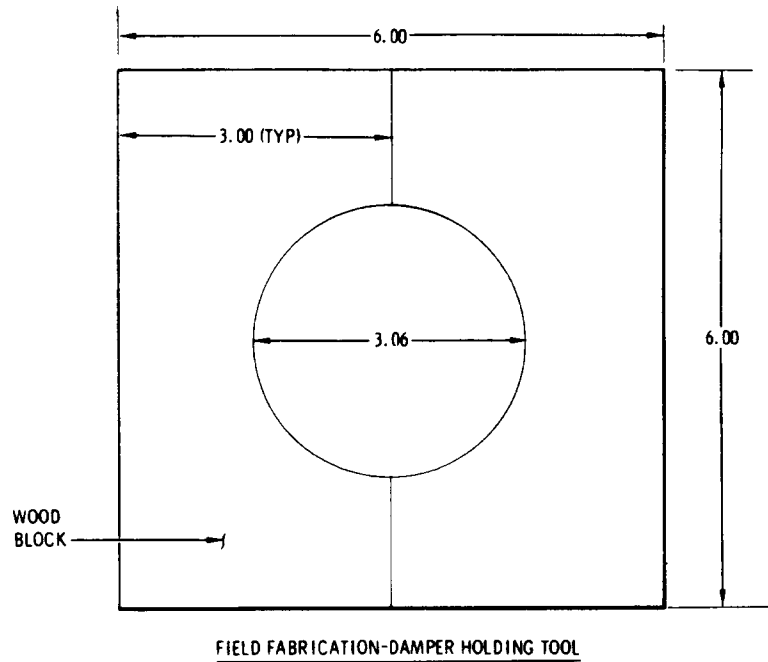
Figure 1. Main Rotor Damper - Internal Modification and Reidentification, M50452

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NOTE:
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Figure 2. Field Fabrication - Torque Wrench Adapter and Damper Holding Tool

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