



TECHNICAL BULLETIN

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CYCLIC TRIM ACTUATOR HOUSING REPLACEMENT OR MODIFICATION

1. PLANNING INFORMATION

A. Aircraft Affected:

All Model 369H/HE/HM/HS/D/E/FF series helicopters equipped with a lateral cyclic trim actuator assembly and/or longitudinal cyclic trim actuator assembly listed in Paragraph 1.B.

B. Assembly/Components Affected By This Notice:

Lateral Cyclic Trim Actuator Assembly (P/N 369A7170-5, -7, -9)
Longitudinal Cyclic Trim Actuator Assembly (P/N 369A7171-5, -7,-9, -11)

C. Reason:

Removal and installation of the hardware at the lower end of the lateral and longitudinal cyclic trim actuators is difficult because of the location of the nut and cotter pin.

Complying with this Bulletin will facilitate ease of removal and installation of the lateral and longitudinal cyclic trim actuators.

D. Description:

Procedures in this Bulletin provide owners and operators with information pertaining to replacement or modification of the lateral and longitudinal cyclic trim actuator housings. Modification consists of installing a nutplate on the housing, eliminating the need to use the washer, nut and cotter pin on the lower end. Replacement housings have the nutplate installed.

E. Time of Compliance

Customer option, at owner/operator's discretion.

F. FAA Approval:

The technical design aspects of this Bulletin are FAA Approved.

G. Manpower:

Six (6) man-hours.

H. Interchangeability:

None

I. Material/Part Availability:

Contact MDHI Parts Sales Dept.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Housing, Support (Longitudinal)	80-369A7110-5	1	MDHI
Housing, Support (Lateral)	80-369A7110-6	1	MDHI

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REPLACEMENT PARTS/SUPPLIES (Cont.)			
Nomenclature	Part No.	Qty.	Source
Nutplate	NAS1474A4	2	MDHI or Commercial
Rivet	MS20426AD3-7	4	MDHI or Commercial
Bushing (Longitudinal)	MHS626-4-250	1	MDHI
Bushing (Lateral)	MHS626-4-293	1	MDHI
Bushing (Longitudinal and Lateral)	MHS626-4-440	2	MDHI
Dye Penetrant Kit	MIL-I-25135	A/R	Commercial
Fluorescent dye	ASTM E1417	A/R	Commercial
Epoxy primer	MIL-P-8558, T1, CL C2	A/R	Deft Inc. 17451 Von Karman Ave Irvine, CA 92614 (800) 544-3338

J. Warranty Policy:

N/A

K. Tooling:

N/A

L. Weight and Balance:

N/A

M. Electrical Load Data:

N/A

N. Other Publications Affected:

Basic Handbook of Maintenance Instructions (CSP-HMI-2), Basic Handbook of Maintenance Instructions (CSP-H-2)

2. ACCOMPLISHMENT INSTRUCTIONS

A. Preparation Instructions

- (1). Remove cyclic trim actuators from helicopter (CSP-HMI-2, Section 67-10-00, Cyclic Trim Actuator Removal or CSP-H-2, Section 7, Cyclic Trim Actuator Removal) and discard cotter pin, nut and washer (under nut) when disconnecting lower end of actuator.
- (2). Remove actuator from housing (CSP-HMI-2, Section 67-10-00, Cyclic Trim Actuator (Motor/Gear Drive Mechanism) Replacement or CSP-H-2, Section 7, Cyclic Trim Actuator (Motor/Gear Drive Mechanism) Replacement).

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- (3). Replace housing with new housing (which includes nutplate holes) as follows or modify housing per step 2.B., Modification Instructions.
 - (a). Install nutplate on new housing with two rivets.
 - (b). Replace housing (CSP-HMI-2, Section 67-10-00, Cyclic Trim Actuator Housing or Trim Tube Replacement or CSP-H-2, Section 7, Cyclic Trim Actuator Housing or Trim Tube Replacement).
 - (c). Proceed to step 2.C., Completion Instructions.

B. Modification Instructions

(Ref. Figure 1)

- (1). Remove both bushings from housing.
- (2). Machine housing as shown for longitudinal actuator. Machine opposite side of housing for lateral actuator.

(Ref. Figure 2)

- (3). Locate and drill two 0.0980 inch (2.489 mm) nutplate installation holes in housing using #40 drill. Back countersink holes at inside surface of lug using #40 piloted back counter sink.
- (4). Finish machined surfaces to 125 RMS.
- (5). Perform a dye penetrant inspection in accordance with MIL-I-25135 or fluorescent inspection in accordance with ASTM E1417 for cracks in reworked surfaces.
- (6). Chemically treat exposed magnesium (CSP-A-3, Section 5, Magnesium).
- (7). Apply epoxy primer to reworked surface per manufacturer's instructions.

NOTE: If original bushing is serviceable, it may be cut down to a length of 0.250 inch (6.35 mm) for longitudinal actuator and 0.293 inch (7.44 mm) for lateral actuator and reinstalled.

- (8). Install reworked or new MHS626-4-250 (longitudinal) or MHS626-4-293 (lateral) bushing in housing on nutplate side.
- (9). Install new MHS626-4-440 bushing in housing on bolt head side.
- (10). Install nutplate on housing with two rivets.

C. Completion Instructions

- (1). Install actuator on housing (CSP-HMI-2, Section 67-10-00, Cyclic Trim Actuator (Motor/Gear Drive Mechanism) Replacement or CSP-H-2, Section 7, Cyclic Trim Actuator (Motor/Gear Drive Mechanism) Replacement).
- (2). Install cyclic trim actuators in helicopter (CSP-HMI-2, Section 67-10-00, Cyclic Trim Actuator Installation or CSP-H-2, Section 7, Cyclic Trim Actuator Installation).

3. DISPOSITION OF PARTS REMOVED

Scrap

4. COMPLIANCE RECORD

Record compliance to this Technical Bulletin in the Compliance Record section of the helicopter Log Book.



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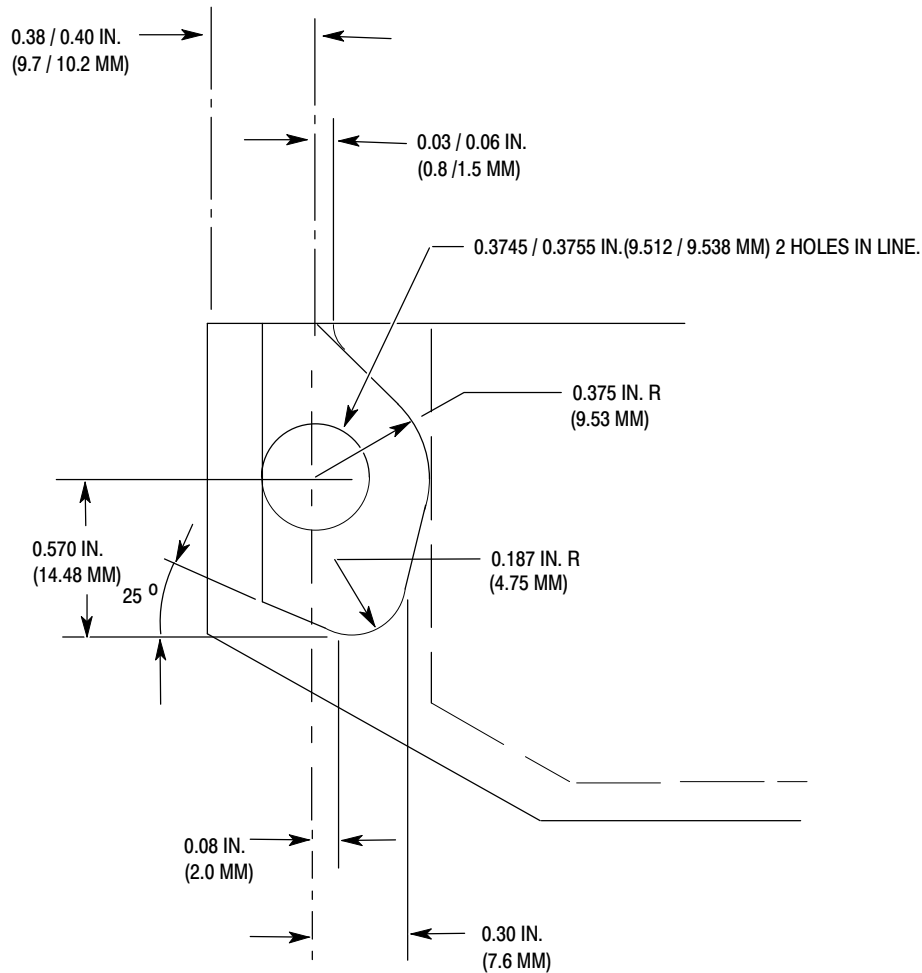
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5. POINTS OF CONTACT

For further assistance, contact your local MDHI Field Service Representative (refer to the latest revision of the "At Your Service" handbook for address and telephone numbers) or contact the Field Service Department at MDHI, Mesa, Arizona. Telephone 1-800-388-3378 or (480) 346-6387. DATAFAX: (480) 346-6813.

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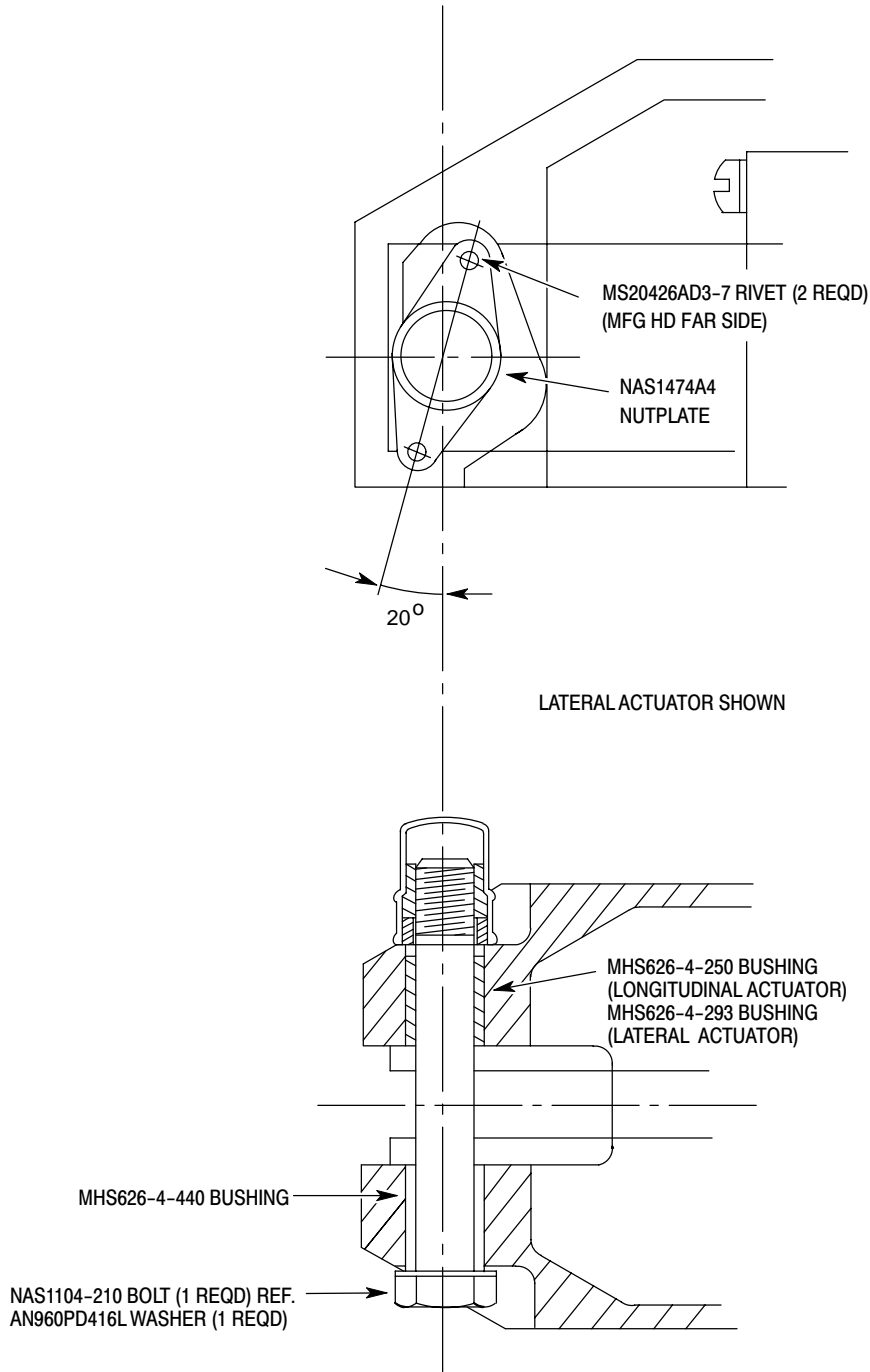


NOTE: LONGITUDINAL ACTUATOR
SHOWN, LATERAL ACTUATOR
IS OPPOSITE.

Figure 1. Machining of Actuator Housing

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Figure 2. Rework of Actuator Housing