

### SERVICE BULLETIN

**DATE: 01 MAY 1972** 

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# MODIFICATION AND ALIGNMENT CHECK –ROTOR BRAKE INSTALLATION

#### 1. PLANNING INFORMATION

#### A. MODELS AFFECTED:

All 369H Series Helicopters With P/N 3691190123 Series Rotor Brake Kit Installed

#### **B. PREFACE:**

Part I of this Service Information Notice lists a procedure for modifying the master cylinder mounting bracket to provide positive clearance between the actuator lever and the master cylinder. Elongation of mounting bracket attachment holes allows for adjusting position of master cylinder assembly to obtain 0.010/0.040-inch gap between actuator lever and master cylinder piston. The gap prevents lever from depressing piston and ensures proper bleed-off of hydraulic pressure, when actuator handle is secured in the stowed position.

Part II of this Service Information Notice lists a one-time alignment check to ensure that the brake disc is centered in the caliper assembly. It is noted that this alignment check shall also be accomplished following removal or displacement of the brake disc or caliper assembly for maintenance.

#### C. TIME OF COMPLIANCE:

Part I - Shall be accomplished as soon as possible following receipt of parts.

Part II - Shall be accomplished on a one time basis within next 50 hours of helicopter operation, or following removal or replacement of brake disc or caliper assembly for maintenance.

#### D. FAA APPROVAL:

FAA Approved

#### E. WEIGHT AND BALANCE:

Weight and balance not affected

#### F. REFERENCE:

500 Series - Basic Handbook of Maintenance Instructions, Revised 1 December 1971



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#### G. PARTS LIST:

**NOTE:** The new vent tube assembly will be furnished at no charge, if ordered within 90 days from date of this Notice. Contact: Hughes Tool Company– Aircraft Division. Centinela and Teale Sts., Culver City, California 90230: ATTENTION: Mr. Wm. Tucker, Supervisor, Commercial Parts Sales.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Vent tube assembly, master cylinder	369A8010-673	1	HTC –AD

#### H. MATERIALS:

MATERIALS			
Nomenclature	Source		
Primer, zinc chromate	Commercial		

#### I. TOOLS AND EQUIPMENT:

**NOTE:** The drill guide is available for loan and may be procured by contacting Mr. Wm. Tucker, Supervisor, Commercial Parts Sales.

TOOLS AND EQUIPMENT Nut			
Nomenclature	Source		
Drill guide	HTC -AD		
Drill motor, portable	Commercial		
Drill bit – No. 0	Commercial		
Feeler gage	Commercial		



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#### PART I MODIFICATION OF MASTER CYLINDER MOUNTING BRACKET

- a. Remove cover from master cylinder actuating assembly.
- b. Using feeler gage, check that 0.010 to 0.040-inch clearance exists between master cylinder piston and actuator lever (See fig. 1).

#### NOTE:

If 0.010 to 0.040-inch clearance is noted, modification of mounting bracket is not required; perform steps m. and n. only.

If 0.010 to 0.040-inch clearance does not exist, perform modification procedure, steps c. thru n. below.

- c. Remove crew compartment trim panels to gain access to work area and/or prevent damage or soiling.
- d. Remove master cylinder assembly (Refer to HMI App. A, Group 12).
- e. Using drill guide, drill motor and bit, elongate attachment holes of master cylinder mounting bracket, per dimensions shown in Figure 1.

**NOTE:** The 369H92893 mounting bracket (two attachment holes) is used in current configuration rotor brake kits; the 369H92568 mounting bracket (four attachment holes) is used in early configuration kits.

- f. Coat slotted holes with zinc chromate primer.
- g. Replace existing master cylinder vent tube assembly with new 369A8010-673 vent tube assembly (new vent tube is longer).
- h. Reinstall master cylinder assembly; position cylinder assembly to provide 0.010 to 0.040-inch clearance between master cylinder piston and actuating lever, with lever in fully stowed position.

**NOTE:** If required, shim washers may be installed between master cylinder and mounting bracket to prevent persuading the bracket.

- i. Perform one-time alignment check of brake disc and caliper assembly per Part II below.
- j. Service and bleed rotor brake system, per HMI Appx A.
- k. Perform an operational check of the rotor brake system.
- 1. Reinstall crew compartment trim panels.
- m. Reinstall master cylinder cover.
- n. Record compliance with Part I of this Service Information Notice in Compliance Record of helicopter Log Book.



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#### PART II ALIGNMENT CHECK - BRAKE DISC AND CALIPER ASSEMBLY

a. Using feeler gage or equivalent, measure clearance between surface of brake disc and one of the inner parallel faces of the disc slot in the caliper assembly. Take measurement at bottom of caliper face. Repeat measurement for other side of brake disc and other parallel face of caliper assembly, Clearances on both sides of brake disc shall be equal within 0.015 inch.

#### NOTE:

If one measured clearance exceeds the other by more than 0.015 inch, realign the brake disc and caliper assembly, per HMI Appx A. When measuring clearance, be sure to use inner parallel faces of the caliper assembly as an alignment reference. Do NOT use the caliper pucks as a reference.

Whenever the brake disc or caliper assembly is removed or displaced, the alignment check (step a. above) shall be performed.

b. Record compliance with Part II of this Service Information Notice in Compliance Record of helicopter Log Book.



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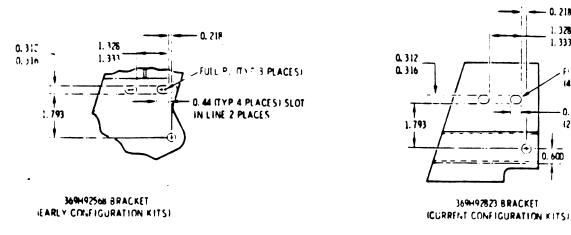
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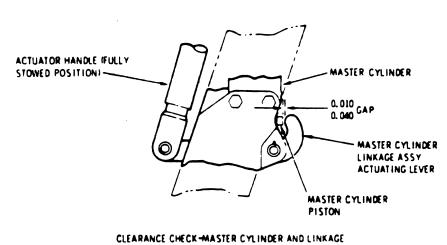
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#### MODIFICATION-MASTER CYLINDER MOUNTING BRACKET



86-074

Figure 1. Modification and Clearance Check - Rotor Brake Kit Installation