



# TECHNICAL BULLETIN

DATE: 17 DECEMBER 1971

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## SHOCK-MOUNTED VERTICAL-TO-HORIZONTAL STABILIZER STRUT ASSEMBLY

### 1. PLANNING INFORMATION

#### A. MODELS AFFECTED:

369HE Helicopter Serial No. 0101E thru 0215E  
369HS Helicopter Serial No. 0101S thru 0368S  
369HM Helicopter Serial No. 0001 thru 0004;  
0005M thru 0213M;  
0215M thru 0219M

#### B. PREFACE:

The information given in this Service Information Notice lists a procedure for installing a new vertical-to-horizontal stabilizer strut assembly (P/N 369A2001-601) which incorporates a damper assembly in the lower end of the strut. The damper is designed to decrease vibration effects on the horizontal stabilizer resulting from tail rotor out-of-balance condition.

Instructions are also provided for reworking the existing fixed strut assembly (P/N 369A2001) to accommodate the damper assembly. Replacement or rework of the fixed strut to the damped strut configuration is at the owners option.

#### C. TIME OF COMPLIANCE:

At owners and operators discretion.

#### D. REFERENCE:

500 Series - Basic Handbook of Maintenance Instructions, Revised I June 1971

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## E. PARTS LIST:

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
*Strut Assembly	369A2001-601	1	HTC -AD
**Damper Assembly	369A2128	1	HTC -AD
** Rivet or Rivet, Huck	NAS1398-4-2 MLSP-B4-2	12 12	Commercial
Bolt	MS21250-04004	*** 2	Commercial
Washer	MS20002C4	*** 2	Commercial

\* For replacement of existing fixed strut assembly.

\*\* For rework of existing fixed strut assembly.

\*\*\* One (1) required for rework of fixed strut assembly.

## F. TOOLS AND EQUIPMENT:

TOOLS AND EQUIPMENT Nut	
Nomenclature	Source
Gun, rivet	Commercial
Saw, metal cutting	Commercial
Drill, portable	Commercial
Drill bit - No. 30 (0.1285 in. dia.)	Commercial
Drill bit - No. 42 (0.0935 in. dia.)	Commercial
Wrench, torque - 0 to 250 inch-pounds	Commercial
C-clamps	Commercial
File - fine, double cut	Commercial

## G. MATERIALS:

MATERIALS	
Nomenclature	Source
Primer, zinc chromate	Commercial

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## PART I - REMOVAL OF EXISTING FIXED STRUT ASSEMBLY

- a. Remove access plate at each end of strut.
- b. Remove mounting bolt and washer at each end of strut.
- c. Loosen upper vertical stabilizer bolts and nuts far enough to allow strut to clear stabilizer attach fittings.
- d. Remove the fixed strut.

### NOTE:

1. Perform PART II for replacement of existing fixed strut with new P/N 369A2001-601 damped strut assembly.
2. Perform PART III for rework of existing fixed strut to incorporate the new P/N 369A2128 damper assembly only.

## PART II - INSTALLATION OF NEW P/N 369A2001-601 DAMPED STRUT ASSEMBLY

- a. Tighten upper vertical stabilizer bolts. Torque forward attachment bolt to 50 to 70 inch-pounds. Torque remaining two nuts to 170 to 200 inch-pounds.
- b. Install upper end of strut assembly (end opposite damper assembly) at the vertical stabilizer attach fitting, using MS20002C4 countersunk washer and MS21250-04004 bolt.
- c. At lower end of strut assembly, adjust threaded fitting at damper assembly attach point to the horizontal stabilizer fitting so that the bolt will slide into hole in stabilizer fitting.
- d. Turn fitting inward one full turn to shorten strut length and establish damper preload.
- e. Install MS20002C4 countersunk washer and MS21250-04004 bolt.
- f. Tighten check nut. Bend one tab washer tab to safety the fitting and another to safety the check nut.
- g. Torque strut bolts to 50 to 70 inch-pounds.
- h. Check installation of damped strut assembly for discrepancies.
- i. Record compliance with PART I and PART II of this Service Information Notice in Compliance Record of helicopter Log Book.

## PART III- REWORK OF FIXED STRUT TO INCORPORATE DAMPER ASSEMBLY

- a. Using metal cutting saw or equivalent, cut off -3 strut skin  $2.83 \pm 0.06$  inches from centerline of attachment hole at horizontal stabilizer end of strut; file any burrs and check interior of strut for preservation and condition; coat trimmed edge with zinc chromate primer. (See Figure 1.)
- b. Insert new 369A2128 damper housing into strut, flush with lower end as shown: secure housing with C-clamps or equivalent.
- c. Drill twelve (12) holes in -3 skin and damper housing; maintain 0.25 inch edge distance as shown; use No. 42 pilot and No. 30 drill bits.
- d. Install damper assembly with twelve (12) NAS1398-4-2 rivets or equivalent; trim pins and remove any burrs and coat with zinc chromate primer.

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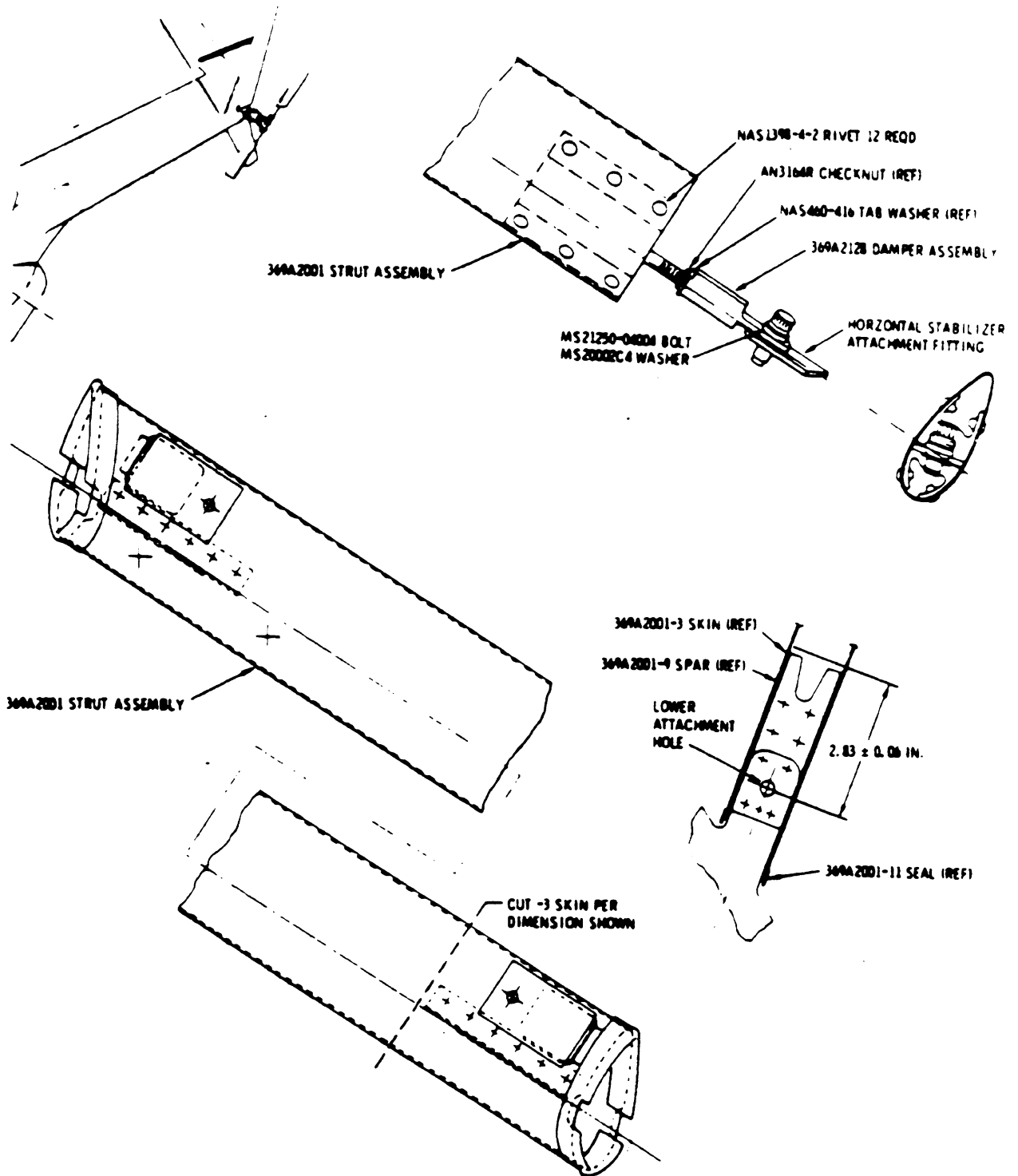
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- e. Tighten upper vertical stabilizer bolts. Torque forward attachment bolt to 50 to 70 inch-pounds. Torque remaining two nuts to 170 to 200 inch-pounds.
- f. Install upper end of strut assembly (end opposite damper assembly) at the vertical stabilizer attach fitting using existing attachment bolt and washer.
- g. At lower end of strut assembly, adjust threaded fitting at damper assembly attach point to the horizontal stabilizer fitting so that the bolt will slide into hole in stabilizer fitting.
- h. Turn fitting inward one full turn to shorten strut length and establish damper preload.
- i. Install MS20002C4 countersunk washer and MS21250-04004 bolt.
- j. Tighten check nut; bend one tab washer tab to safety the fitting and another to safety the check nut.
- k. Torque strut bolts to 50 to 70 inch-pounds.
- l. Check installation of damped strut assembly for discrepancies.
- m. Install access plate to vertical stabilizer end of strut assembly.
- n. Record compliance with PART I and PART III of this Service Information Notice in Compliance Record of helicopter Log Book.

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**Figure 1. Rework of Fixed Strut to Incorporate Damper Assembly**