



SERVICE BULLETIN

DATE: 22 JULY 1981

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* Supersedes Service Information Notice No. DN-91 Dated 26 May 1981

INSPECTION OF MAIN ROTOR HUB STRAP PACK RETENTION BOLTS AND REPLACEMENT OF BUSHINGS

1. PLANNING INFORMATION

A. MODELS AFFECTED:

500D Model 369D Helicopter Serial No. 0003D thru 1019D

B. PREFACE:

The information given in this Service Information Notice lists procedures for inspection of the main rotor hub strap pack retention bolts for general condition and possible corrosion and replacement of the associated bushings.

C. TIME OF COMPLIANCE:

Shall be accomplished within next 100 hours or 30 days after receipt of parts. Order parts from Hughes Parts Sales upon receipt of Notice.

D. FAA APPROVAL:

FAA/DER APPROVED

E. WEIGHT AND BALANCE:

Weight and balance not affected

F. REFERENCE:

500D Model 369D Basic HMI-Volume II Issued 15 September 1972, Revision No. 4, 1 December 1980

G. PARTS LIST:

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Bolt*	HS440-08-32	5	HHI
Nut*	HS4143-6	5	HHI
Bushing	369D21273-3	5	HHI

*If required

H. TOOLS AND EQUIPMENT:

TOOLS AND EQUIPMENT	
Nomenclature	Source
Torque wrench, 0 to 150 foot pounds	
Socket, wrench, 3/4 inch (minimum 3-inches deep)	
Micrometer, 3 to 4 inch (with ball caps)	

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I. MATERIALS:

MATERIALS	
Nomenclature	Source
Tool, threaded bar stock or bolt, 1/2-inch diameter x 6-inches long, 3-inches of thread minimum	
Locknut, 1/2-inch Thread	
Nut, 1/2-inch thread Jam nut, 1/2-inch thread (not required if locknut secured with tack weld or locking compound)	
Washer, steel, 1/2-inch ID	
Tube, Steel, 1-inch OD, 0.090/0.150-inch wall x 2,000 inches long. (Ends parallel within 0.002 inch)	
Locking compound, Loctite, Loctite Corp,	
Sealing compound, MIL-S-81733, Type II-2, PR1436-G, Class B-2,	Products Research and Chemical Corp., Glendale, CA 91209
Paint, acrylic lacquer -	Sherwin Williams Company, City of Commerce, CA Sterling Lacquer Mfg. Co., St. Louis, 140
Naptha., aliphatic, TT-N-95 or equivalent	
Primer, wet zinc chromate, TT-P-1757 or equivalent	

2. PROCEDURE

- (1). Remove main rotor blades per Section 7 of Basic HMI-Volume 1.
- (2). Remove hub fairing and fairing support assemblies. (See Figure 1)
- (3). Remove scissors crank assembly per Section 7 of Basic HMI-Volume 1.



Ensure that all main rotor blades are removed before loosening any bolts. Loosen, replace and torque only one bolt and bushing at a time to retain clamping force on the remainder of the strap pack assemblies. Use care when removing bolt to ensure that bushing does not come out with bolt.

- (4). Loosen and remove one nut, one PN 369D21270-5 spacer, one bolt and one PN 369D21270-3 spacer.
- (5). Assemble locknut on threaded tool, as shown, using tack weld, jam nut or locking compound. Insert tool through strap pack assembly as shown. (See Figure 2)
- (6). Slide new bushing on tool.

NOTE: Identification notch on bushing must be on top side.

- (7). Install steel washer after bushing and install nut on lower end.

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- (8). Tighten lower nut, holding top locknut to prevent tool from turning, until new bushing is completely seated in hub and previous bushing has been pressed out. Use 3-inch deep socket to accomplish this operation.
- (9). Visually inspect removed bolt for corrosion and general condition. Magnetic or dye penetrant inspect removed bolt for cracks. Replace bolt if corroded, cracked or if cad plate is scraped or worn away.
- (10). Clean ends of bushing (inside hub assembly) and inside diameter of bushing holes in hub shoes with naphtha or equivalent.
- (11). Measure free length of new or inspected bolt PN HS4440-08-32.
- (12). Prepare and apply sealing compound per manufacturer's instructions to interior areas shown, while installing bolt in hub with .spacers and nut. (See Figure 3) Install bolt with vet zinc chromate primer.
- (13). Retorque nut so that bolt is elongated 0.0075/0.0065 inch, from free length (step (11). above). Use a torque of 70 ft-lbs as a starting point for bolt stretch.

NOTE: If bolt is inadvertently elongated more than 0.0075 inch, but not more than 0.0090 inch, hack off nut completely, remeasure free length of bolt and retorque. If bolt elongation exceeds 0.0090 inch, discard bolt and use new bolt.

- (14). Apply sealing compound to faying surfaces of bolt head, hushing, hub shoe and nut as shown, (See Figure 3)
- (15). Repeat steps (4). through (14). for remaining bolts and bushings.
- (16). Apply a torque stripe with contrasting color acrylic lacquer paint to head of bolts, spacers and nuts.

NOTE: Torque stripe should be applied such that it can be viewed during daily walkaround/pre-flight inspection.

- (17). Reinstall scissors crank assembly, fairing support and hub fairing.
- (18). Reinstall main rotor blades.
- (19). Record compliance with this Service Information Notice in Compliance Record of helicopter Log Book.

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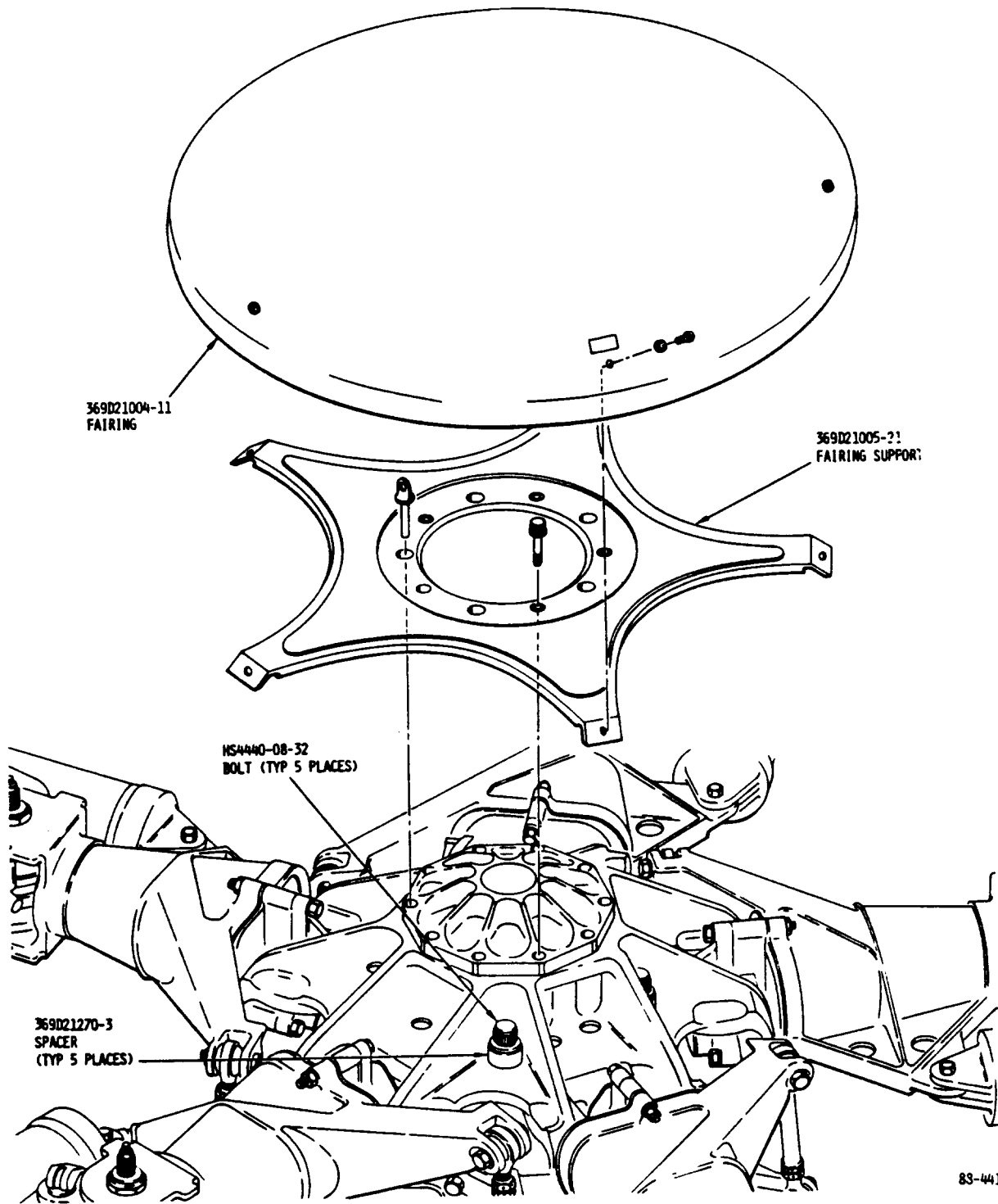


Figure 1. Removal and Inspection of Main Rotor Hub Strap Pack Retention Bolts and Bushings

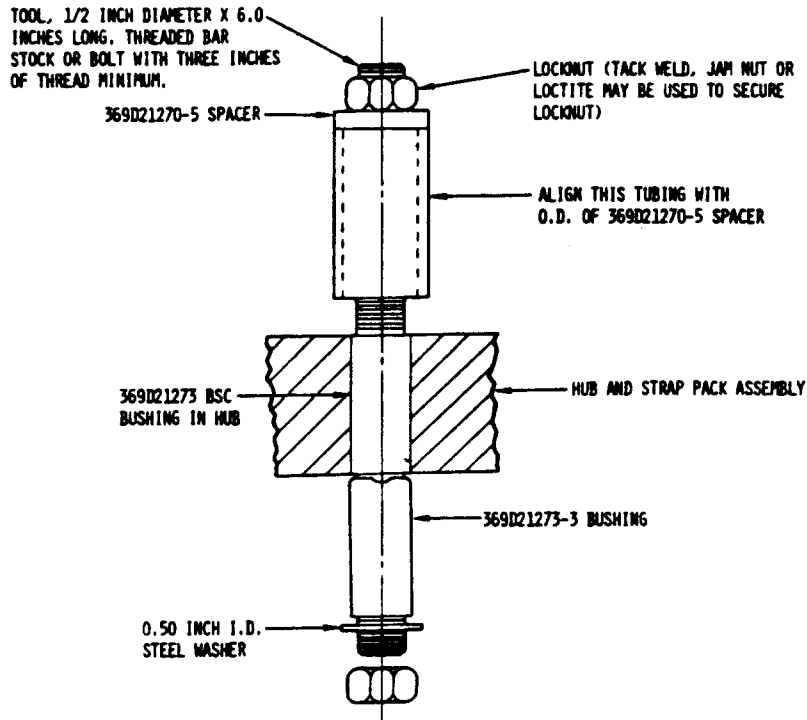
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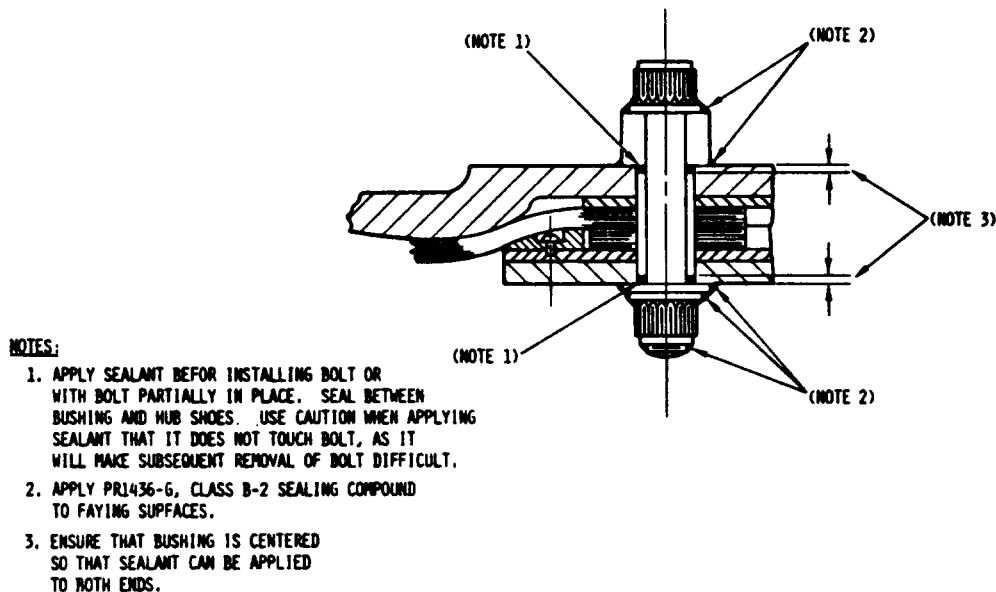
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Figure 2. Removal Tool for Bushing Extraction



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Figure 3. Application of Sealing Compound

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