



TECHNICAL BULLETIN

DATE: 11 NOVEMBER 1997

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ALTERNATE NUTPLATE INSTALLATION

1. PLANNING INFORMATION

A. Aircraft Affected:

All McDonnell Douglas Helicopter Systems (MDHS) MD900 Series Helicopters.

B. Assembly/Components Affected By This Notice:

HS5826CR3CR nutplates that have become unserviceable or disbonded.

C. Reason:

Operators have experienced disbonded HS5826CR3CR nutplates. Failure to repair an unserviceable nutplate will result in the reduction of component attachment.

D. Description:

This Bulletin provides operators with a procedure to replace bonded HS5826CR3CR nutplates that have become unserviceable. Nutplates may be replaced in any location with an alternate nutplate and rivets. If the original nutplate has disbonded, and is otherwise serviceable, it may be drilled and reattached with rivets.

E. Time of Compliance:

Customer option, at the discretion of the owner/operator.

F. Classification:

Compliance with this Bulletin is a minor repair.

G. FAA APPROVAL:

The technical aspects of this Bulletin are FAA Approved.

H. Manpower:

Nutplate replacement only, one half (0.5) man-hour.

I. Interchangeability:

None

J. Warranty Policy:

None

K. Tooling:

N/A

L. Weight and Balance:

N/A

M. Electrical Load Data:

N/A

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N. Other Publications Affected:

Rotorcraft Maintenance Manual (CSP-900RMM-2, and CSP-900IPL-4).

O. 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) 891-6342. DATAFAX: (480) 891-6782.

P. Material/Part Availability:



The NAS1474 nutplate has a cap height 0.222 in. (0.56 mm) less than the HS5826 nutplate, and requires the installation of a shorter screw or the addition of washers.

Table 1. Replacement Parts

Item No.	Qty.	Part Number	Description
1	1	NAS1474A3	Nut Plate
2	2	MS20605R3W*	Rivet

*Length of rivet as determined from Figure 1.

Table 2. MS20605 Dash Number Grip Range

Dash No.	Grip Range	
	Minimum	Maximum
1	0.040 IN (0.38mm)	0.062 IN (1.57mm)
2	0.063 IN (1.60mm)	0.125 IN (3.18mm)
3	0.126 IN (3.20mm)	0.187 IN (4.75mm)
4	0.188 IN (4.78mm)	0.250 IN (6.35mm)
5	0.251 IN (6.38mm)	0.312 IN (7.92mm)
6	0.313 IN (7.95mm)	0.375 IN (9.53mm)
7	0.376 IN (9.55mm)	0.437 IN (11.10mm)
8	0.438 IN (11.13mm)	0.500 IN (12.70mm)

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2. ACCOMPLISHMENT INSTRUCTIONS

(Ref. Figure 1 and CSP-900RMM-2)

Consumable Materials (Ref. CSP-SPM)

Item	Nomenclature
C215	Sealing Compound, Fireproof
C216	Sealant, Fuel Resistant
C310	Primer
C419	Alcohol, Isopropyl
C807	Sandpaper

NOTE: This procedure describes replacement of an HS5826CR3CR nutplate with a new NAS1474A3 nutplate. If the original nutplate has become disbonded, and is otherwise serviceable, it may be reinstalled with rivets. Step 1 and Figure 1 provide information for drilling of the original nutplate for the use of rivets.

- (1). Mask area to prevent FOD contamination.

WARNING Protective Equipment



CAUTION

- Do not cut or sand into or expose graphite/epoxy fibers.
 - Do not use aluminum oxide abrasives on graphite/epoxy materials.
- (2). Remove old nutplate if installed by carefully cutting baseplate away from adhesive.
 - (3). Lightly sand to remove remaining adhesive with sandpaper (C807).
 - (4). If reusing old nutplate, drill two 0.098 inch (2.49 mm) holes through baseplate of nutplate 0.37 inch (9.39 mm) from the center. Deburr holes.
 - (5). Matchdrill holes in nutplate to attachment structure.
 - (6). Countersink rivet holes 100°.
 - (7). Vacuum area and remove masking.

WARNING Alcohol, Isopropyl (C419)



- (8). Wipe area clean with isopropyl alcohol isopropyl alcohol (C419).

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WARNING Primer (C310)



(9). Secure nutplate to structure with rivets. Install rivets wet with primer (C310) .

NOTE: MS20605 rivets may be installed with any “Pop Rivet” hand rivet puller using the smallest nose piece that will accommodate the rivet stem.

WARNING

- **Sealing Compound (C215)**



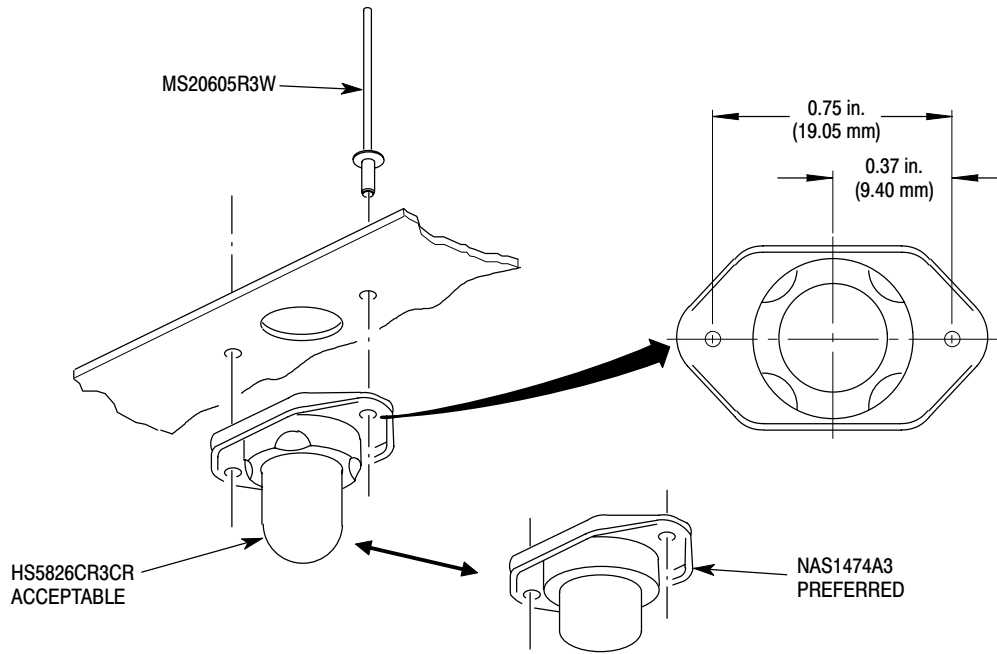
- **Sealant, Fuel Resistant (C216)**



- (10). If nutplate is an any engine firewall build up assembly component, seal rivets with sealing compound (C215). In all other areas seal rivets with sealant (C216). This is to prevent vapors, fluids, etc. from entering area beyond nutplate.
- (11). Record compliance of this Bulletin in the compliance record section of the helicopter log book.

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Figure 1. Alternate Nutplate Installation



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Alternate Nutplate Installation

Parts Request Form: Please fill in the following information and return to MDHS for parts/supplies required for compliance. This form may be faxed to MDHS Warranty and Repair Department at (602) 891-3952.

Aircraft Ser. No.:

Aircraft Total Time:

Date:

Parts Required:

Part Ser. No. (if required):

Ship to: