



SERVICE BULLETIN

DATE: 13 APRIL 2006

PAGE 1 OF 7

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TAILBOOM ASSEMBLY ATTACH FITTING ONE TIME INSPECTION, ATTACH FITTING AND NUTPLATE REPLACEMENT

1. PLANNING INFORMATION

A. Aircraft Affected:

Model 600N Helicopters, serial number RN003 thru RN058 that have not been modified by TB600N-007, or latest revision.

B. Assembly/Components Affected By This Bulletin:

Tailboom Attach Fitting (P/N 500N3422-BSC, -3).

C. Reason:

Analysis of the tailboom attach fittings indicate that cracks may occur and the nutplates may wear or experience thread damage. Failure to comply with this Bulletin may result in loss of tailboom and control of the helicopter.

D. Description:

Procedures in this Bulletin provide owners and operators with information pertaining to inspection of the tailboom attach fittings, replacement of the nutplates and attach fitting.

E. FAA Approval:

The technical design aspects of this Bulletin are FAA Approved.

F. Manpower:

Part 1: 1.0 man-hours.

Part 2: 25.0 man-hours.

G. Time of Compliance

Perform the requirements of this Bulletin according to the indicated schedule:

NOTE: For helicopter serial numbers RN003 thru RN058; ensure Service Bulletin SB600N-036 and Service Bulletin SB600N-039, or latest revision, have been accomplished prior to accomplishing this Bulletin.

Part 1: Aft Fuselage attach fitting inspection.

- Perform borescope inspection of all four attach fittings within five hours of receipt of this bulletin.

Part 2: Aft Fuselage rework, attach fitting replacement and nutplate replacement.

- Replace attach fitting before the next 25 flight hours after receipt of this Bulletin or before 23 June 2006, whichever occurs first.

NOTE: Tailboom Attach Fittings Recurring Inspection, Upper and Lower Tailboom Attach Fittings - Perform recurring inspection per SB600N-039, or latest revision.

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/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///

DATE: 13 APRIL 2006

PAGE 2 OF 7

SERVICE BULLETIN

/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///

H. Interchangeability:

None

I. Material/Part Availability:

Parts/supplies may be purchased from MDHI and locally from commercial sources.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Fitting, Ring, Frame (Steel) (Attach Fitting)	500N3422-3	AR	MDHI
Nutplate, Tailboom Attachment	MS21059-L5	2	MDHI
Nutplate, Tailboom Attachment	MS21059-L6	2	MDHI
Bolt	MHS 5482-5H18	AR	MDHI
Bolt	MHS 5482-6H18	AR	MDHI
Pin Rivet Collar	MHS5605-5-5 MHS5582-5	4 4	MDHI
Rivet	CR3212-4	8	Commercial
Rivet	NAS1097AD3-5	9	Commercial
Rivet	MS20615M4-4	11	Commercial
Rivet	MS20615M4-5	29	Commercial
Rivet	MS20427M5-4	2	Commercial
Rivet	NAS1919B04	AR	Commercial
Rivet	NAS1919B05	AR	Commercial
Enamel, Epoxy (White)	MDM 15-1100 (or equivalent)		Commercial

J. Warranty Policy:

MDHI Warranty and Repair Department will provide tailboom attachment nutplates, frame ring fitting (steel), pin rivets and collars at no cost to the operator.

MDHI will also provide, to Authorized Service Centers, up to 25 hours labor warranty for rework.

K. Tooling:

Lighted Borescope

L. Weight and Balance:

N/A

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/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///



SERVICE BULLETIN

DATE: 13 APRIL 2006

PAGE 3 OF 7

/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///

M. Electrical Load Data:

N/A

N. Other Publications Affected:

Handbook of Maintenance Instructions (CSP-HMI-2).

O. Points of Contact

For further assistance, contact your local MDHI Field Service Representative or contact the Field Service Department at MDHI, Mesa, Arizona.

Telephone 1-800-388-3378 or (480) 346-6387.

DATAFAX: (480) 346-6813.

2. ACCOMPLISHMENT INSTRUCTIONS

A. Part 1: Aft Fuselage Attach Fitting Inspection

- (1). Remove button plugs.

NOTE:

- In the following step, cleaning of the attach fitting may be necessary to complete inspection.
 - If attach fitting cannot be satisfactorily cleaned for borescope inspection, immediately proceed to Part 2 of this bulletin.
- (2). Using a lighted borescope, inspect all four attach fittings, and surrounding area, for cracks; no cracks allowed. If any cracks are found in the top-right attach point, proceed to Part 2 of this bulletin. If any cracks are found in the other attach fittings, perform TB600N-007, or latest revision.
 - (3). Reinstall button plugs.

B. Part 2: Aft Fuselage Rework and Nutplate Replacement

(Ref. Figure 1)

- (1). Using appropriate ground support equipment, support the weight of the tailboom to avoid damage to nutplate or bolt threads while removing bolts.
- (2). Remove tailboom (Ref. CSP-HMI-2, Sec. 53-40-30).
- (3). Using a 10x magnifying glass, inspect attach bolt threads and shank for damage, replace bolts if excessively worn or damaged.

NOTE: If any doubt about condition of bolt threads, replace the bolt.

- (4). Remove button plugs from all four attach points.
- (5). Remove covers over all four, upper and lower, tailboom attach points.
- (6). Remove tailboom attach nutplates.
- (7). Thoroughly clean attach fittings.
- (8). Using bright light and 10x magnifying glass, visually inspect for cracks in attach fittings and upper angle (Ref. Figure 1).

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/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///

DATE: 13 APRIL 2006

PAGE 4 OF 7

SERVICE BULLETIN

MANDATORY  **MANDATORY**  **MANDATORY** 

- (9). Using a magnet, check top-right attach fitting. If it is steel, attach fitting does not need to be replaced and proceed to step (10). If attach fitting is aluminum, proceed as follows.



A high level of sheet metal expertise and experience is required to perform this modification.

- (a). Remove anti-torque fan (Ref. CSP-HMI-2, Sec. 64-25-30, Anti-Torque Fan Removal).
- (b). Remove anti-torque fan liner (Ref. CSP-HMI-2, Sec. 64-25-30, Anti-Torque Fan Liner (Felt Metal Seal) Removal).
- (c). Remove rivets and remove and retain outer ring frame upper skin.
- (d). Remove rivets and remove and retain RH outer ring frame lower skin.
- (e). Remove and retain fan liner nutplate.
- (f). Remove rivets and remove and discard RH upper attach fitting.
- (g). Position new 500N3422-3 attach fitting between aft ring frame and fan support frame and securely clamp in place.
- (h). Mark location for all rivet holes and fan liner bolt hole on attach fitting.
- (i). Backdrill tailboom attach bolt hole, 0.315-0.322 in. (8.001-8.1788 mm), and nutplate rivet holes.
- (j). Remove attach fitting.



Ensure that minimum edge distance is maintained for all rivet holes.

- (k). Drill rivet holes and fan liner bolt hole in new attach fitting using drill press.
- (l). Deburr holes and remove all debris.
- (m). Temporarily install attach fitting with clecos.



Check fit clearance between rivet tails and nutplate retainer before final installation. Buck rivets again, if needed, to provide clearance for nutplate retainer.

- (n). Install rivets securing attach fitting in place.
- (o). Install fan liner nutplate.
- (p). Install RH outer ring frame lower skin.
- (q). Install outer ring frame upper skin.
- (r). Install anti-torque fan liner (Ref. CSP-HMI-2, Sec. 64-25-30, Anti-Torque Fan Liner (Felt Metal Seal) Installation).
- (s). Install anti-torque fan (Ref. CSP-HMI-2, Sec. 64-25-30, Anti-Torque Fan Installation).

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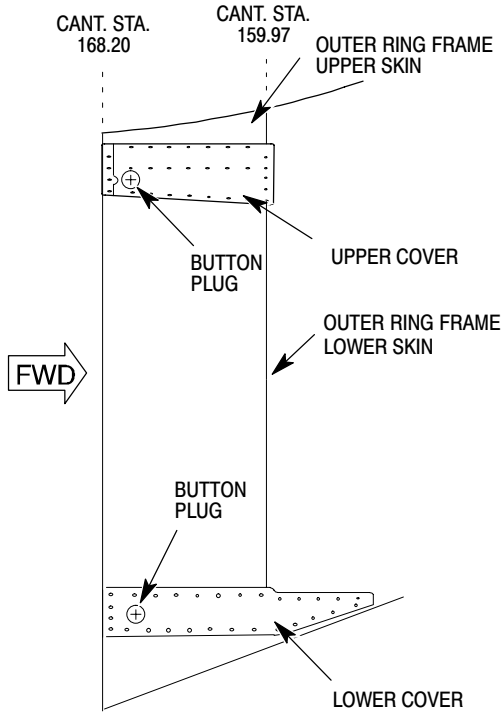
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SERVICE BULLETIN

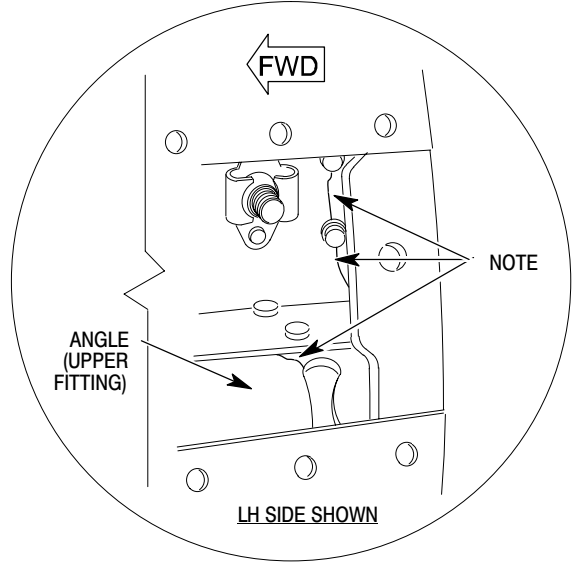
DATE: 13 APRIL 2006

PAGE 5 OF 7

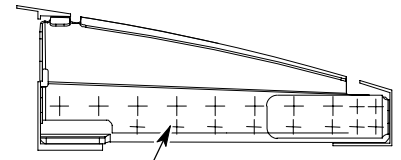
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RH SIDE SHOWN

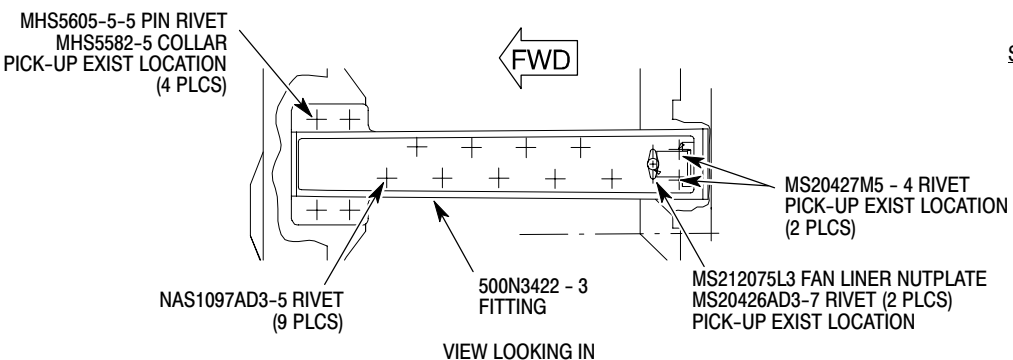


NOTE:
AREAS WHERE CRACKS ARE MOST LIKELY TO APPEAR.



MS206154M-5 RIVET
NEAR SIDE (18 PLCS)
OPPOSITE SIDE (11 PLCS)

SIDE VIEW



VIEW LOOKING IN

RIVET INSTALLATION

88-823

Figure 1. Attach Point Access

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MANDATORY

DATE: 13 APRIL 2006

PAGE 6 OF 7

SERVICE BULLETIN

MANDATORY  **MANDATORY**  **MANDATORY** 

- (10). Prepare area inside of attach fitting areas for paint.
- (11). Using painter's corks, or other suitable means, plug attach holes and rivets holes.
- (12). Cover felt metal seal nutplates to keep paint from entering them.

NOTE: Do not allow paint to pool in attach area.

- (13). Paint entire attach area with a thin coat of white paint (this will aid in future crack inspection).
- (14). After paint has cured, install MS21059-L5 nutplates in top right and bottom left attach points using CR3212-4 rivets.
- (15). Install MS21059-L6 nutplates in top left and bottom right attach points using CR3212-4 rivets.
- (16). Re-attach covers using NAS1919B04 rivets.



Do not lubricate tailboom attach bolts or nutplates, this will cause a false torque reading.

- (17). Using appropriate ground support equipment, support the weight of the tailboom to avoid damage to nutplate and bolt threads while installing bolts.
- (18). Re-install tailboom (Ref. CSP-HMI-2, Sec. 53-40-30).

3. IDENTIFICATION

N/A

4. DISPOSITION OF PARTS REMOVED

Scrap

5. COMPLIANCE RECORD

Record Compliance with this Service Bulletin in the Compliance Record section of the helicopter Log Book.

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