SERVICE BULLETIN

MANDATORY MANDATORY MANDATORY

ONE–TIME ADDITION OF RIVETS TO TAIL ROTOR ABRASION STRIP

SUMMARY: MD Helicopters, Inc. (MDHI) has developed and approved a procedure to rivet abrasion strips to the tail rotor blade which provides a secondary failsafe method of attachment of the abrasion strip. Helicopters that are equipped with tail rotor blades that have abrasions strips riveted are no longer subject to HN-197.2, DN-130.2, EN-19.2 or FN-17.1 dated MARCH 23, 1987. Tail rotor blade abrasion strips should still be inspected for security at the normal inspection intervals (pilot's preflight daily check and the 100/300 hour annual inspection) per the applicable HMI.

PURPOSE: To provide a secondary failsafe method of attachment of the tail rotor blade abrasion strip.

MODELS AFFECTED: All 369 Series helicopters equipped with 421–088, 369A1613–7, 369A1613–503, 369A1613–505, 369D21606, 369D21613–11, 369D21613–31, 369D21613–41, 369D21613–51, 369D21615 and 369D21615–21 tail rotor blades. Tail rotor blades that do not have abrasion strips are not affected by the requirements of this Notice.

TIME OF COMPLIANCE: **PART I** of this Service Information Notice shall be accomplished within the next 25 hours of helicopter operation after receipt of this Notice and every subsequent 100 hours not to exceed 300 hours until the requirements of **PART II** have been accomplished.

PART II shall be accomplished within the next 300 hours of helicopter operation.

REFERENCE PUBLICATIONS: (Use the manuals listed below or any later revisions.)

369H Basic HMI (CSP-H-2) Revised 15 June 1990
369D/E/F/FF HMI (CSP-HMI-2) Revised 10 May 1991

AIRCRAFT INSPECTION AND/OR REWORK PROCEDURE:

PART I - TAIL ROTOR BLADE ABRASION STRIP INSPECTION

a. Use a 10X magnifying glass to inspect abrasion strip/airfoil bond line for debonding. If abrasion strip debonding is suspected but cannot be confirmed by visual inspection, remove blades and perform dye penetrant and tap test inspection per the applicable maintenance manual to assure abrasion strip is secure. If debonding has occurred remove blade from service.

b. Record compliance to **PART I** of this Notice in the Compliance Record section of the helicopter Log Book.

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PART II - TAIL ROTOR BLADE ABRASION STRIP RIVETING

PARTS/SUPPLIES			
Nomenclature	**Part No.**	**Qty.**	**Source**
Rivet	CR2545-4-1, Bulbed Cherry-lock Unisink Head or CR3555-4-1, Cherrymax Unisink Head Rivets,	2 (per blade)	Cherry Textron 1224 E. Warner Ave. Santa Anna, CA 92707 (714) 545-5511 or Commercial
Drill bit	Cobalt No. 27	1	Commercial
Riveter, Pulling Head	For Bulbed Cherrylock use Unisink Head (preferred) or CTSK Head For Cherrymax Rivets use Cherrymax Head (Refer to current Cherry Rivet catalog)	1	Cherry Textron 1224 E. Warner Ave. Santa Anna, CA 92707 (714) 545-5511 or Commercial
Fiberglass cloth, No. 120 Resin, Epoxy	Spec. 3135A and B or any 2 part (1:1) Clear epoxy resin	A/R A/R	Commercial Commercial or Crest Products Corp. 2000-T S. Susan St. Santa Ana, CA 92704 (714) 540-9087
1,1,1 Trichloroethane	Spec. 0-T-620	A/R	Commercial
Emery Cloth		A/R	Commercial

CAUTION

DO NOT ATTEMPT TO PERFORM THIS PROCEDURE WITH THE TAIL ROTOR BLADES INSTALLED ON THE HELICOPTER. FAILURE TO COMPLY WITH THIS CAUTION MAY RESULT IN DEFECTIVE RIVET INSTALLATION AND POSSIBLE BLADE DAMAGE.

CAUTION

It is important to locate rivet holes exactly as specified in the following steps. Failure to do so may affect structural integrity of the tail rotor blades.

CAUTION

When performing the following step, drill bits should be equipped with drill stops to prevent them from going through both sides of the blade.

a. Remove the tail rotor blades from helicopter per the applicable maintenance manual.

b. Carefully secure the tail rotor blade in a suitable holding fixture.

c. Using a No. 27 Cobalt drill, drill holes (DIA. .143/.146) at the locations shown on Figure 1. (Light center punch prior to drilling is allowed.)

CAUTION

DO NOT exceed countersink depth of .011 inch when performing the following step as damage to the abrasion strip will result.

d. Hand deburr holes using 100 degree countersink.

NOTE

It is recommended that a practice rivet installation be made (using an equivalent thickness sheet stock, .046 inch) to check rivet gun for proper adjustment.

e. Apply zinc chromate primer to holes and install CR2545-4-1 or CR3555-4-1 rivets in locations shown in Figure 1 while the zinc chromate primer is still wet.

CAUTION

Installed rivet stems may be deburred using a file. Do not remove material from locking collar.

f. Inspect installed rivets in accordance with Cherry rivet catalog. (If rivet installation is satisfactory, proceed to step j. below.)

CAUTION

During removal of defective rivet observe the following:

- Do not damage or enlarge rivet hole.
- Do not drive or force rivet stem from hole.
- Do not remove rivets common to tip cap.

g. Remove defective rivets as follows:

1). Carefully grind off locking collar and upper portion of rivet head.

2). Carefully push center stem through rivet sleeve.

3). Using a drill stop, drill through rivet sleeve using care to prevent hole enlargement.

4). Push remaining rivet sleeve through hole.

5). Inspect hole in abrasion strip. If defective, consult MDHI Field Service Department.

h. Remove FOD from interior of tail rotor blade as follows:

1). Drill 0.250 inch diameter hole through tip-cap as shown in Figure 1.

2). Remove FOD from blade interior through hole (there is space at tip cap end for debris to pass aft of spar).

3). Return to step e. above and install new rivet(s).

CAUTION

Excessive use of trichloroethane may damage blade paint finish.

4). Abrade surface surrounding .250 inch diameter hole using emery cloth; wipe clean using clean cloth dampened with trichloroethane.

5). Bond two plies of 120 fiberglass cloth over hole with 3135A and B epoxy resin, or equivalent. Allow epoxy resin to cure according to manufacturers instructions.

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CAUTION

Do not allow resin to build up in hole.

i. Repeat inspection of abrasion strip.

j. Install tail rotor blades per the applicable maintenance manual.

k. Perform tail rotor balancing per the applicable maintenance manual.

l. Record compliance to **PART II** of this Notice in the Compliance Record section of the helicopter Log Book.

WEIGHT AND BALANCE: N/A.

POINTS OF CONTACT:

For further information, contact your local MDHI Field Service Representative (refer to the latest revision of the Product Support handbook for address and telephone numbers) or contact the Field Service Department at MDHI, Mesa Arizona. Telephone: 1-800-445-1516 or (602) 891-6342.

The resultant alterations to affected models as described by the procedures in this Notice has been shown to comply with Federal Aviation Regulations and is FAA Approved.

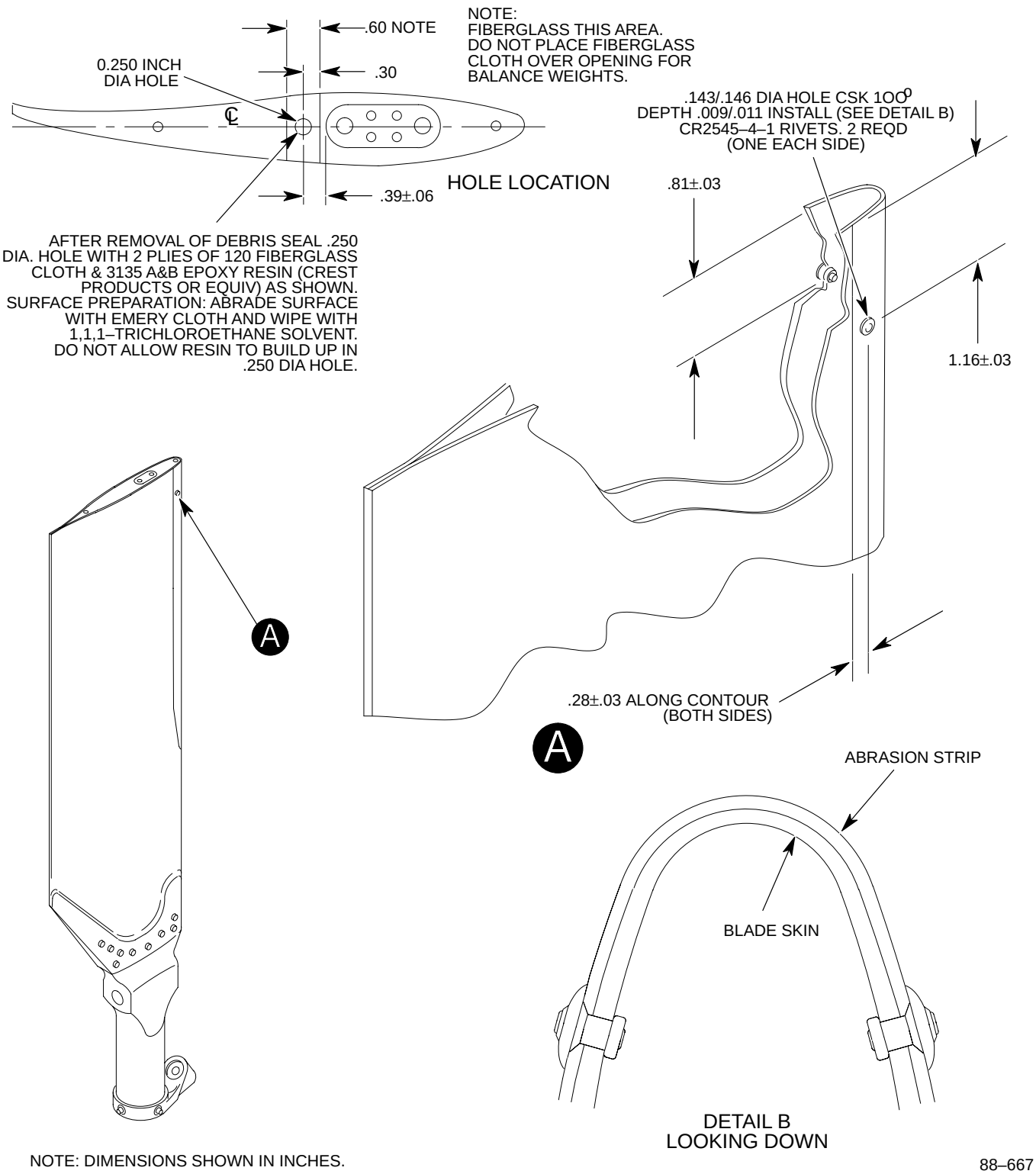

Figure 1. Addition of Rivets to Tail Rotor Abrasion Strip, FOD Removal from Blade Interior.