# SERVICE BULLETIN



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## TAIL ROTOR BLADE ABRASION STRIP MODIFICATION

### 1. PLANNING INFORMATION:

#### A. Aircraft Affected:

All MD Helicopters, Inc. (MDHI) 369 series helicopters that are equipped with tail rotor blades (two or four bladed) listed in Paragraph B. All tail rotor blades listed in Paragraph B in spares inventories.

#### B. Assemblies Affected by this Notice:

369A1613-7, 369A1613-503, 369A1613-505, 369A1613-509, 369D21606, 369D21606-509, 369D21613-11, 369D21613-31, 369D21613-41, 369D21613-51, 369D21613-71, 369D21615, 369D21615-21, 369D21615-41 and 421-088 tail rotor blade assemblies.

#### C. Reason:

MDHS has received reports of tail rotor blade abrasion strips debonding during operation. Separation of an abrasion strip could cause loss of the tail rotor gear box due to an out-of-balance condition. Therefore operators are required to comply with the requirements of this notice to ensure safe helicopter operation.

#### D. Description:

This notice requires operators to modify the tail rotor blades by applying 304 stainless steel tape (.0027 inch thick) over the inboard end of the abrasion strips. This notice also requires that existing tail rotor blades be replaced with tail rotor blades equipped with the new design abrasion strips within a required amount of time.

#### E. FAA Approval:

The design engineering aspects of this Notice have been shown to comply with the applicable Federal Aviation Regulations, and are FAA Approved.

#### F. Time of Compliance:

NOTE: The requirements of HN-232, DN-179, EN-70 and FN-57 (applying rivets to the tail rotor blade) must be accomplished before performing this notice.

**PART I:** The requirements of this notice shall be accomplished within the next 25 hours of helicopter operation and at each subsequent 100 hours of helicopter operation until PART II of the Notice has been accomplished. **NOTE:** It may be necessary to replace the tape more frequently depending on the environment in which the helicopter is being operated.

**PART II:** The requirements of PART II shall be accomplished within 1000 hours of tail rotor blade operation upon receipt of this Notice.

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### G. Material/Part Availability:

| MATERIAL | |
|---|---|
| **Nomenclature/Specification** | **Source** |
| 304 Stainless Steel Tape (.0027 inch thickness) 87–369D21104 30ft. | MDHI or Teledyne Rodney Metals (800–325–1455) |
| Abrasive Paper (400 grit) | Commercial |
| Naphtha, alphabetic | Commercial |

### H. Warranty Policy:

MDHI will provide tape free of charge through our Service Center/Distributor network for the initial installation. Additionally, MDHI will provide 1/2 hour labor per blade for the initial installation of the tape, provided the work is performed by an Approved MDHI Service Center.

### I. Tooling:

No special tooling required.

### J. Weight and Balance:

N/A

## 2. ACCOMPLISHMENT INSTRUCTIONS:

### A. PART I: Abrasion Strip Inspection and Modification

(1). Inspect the tail rotor blade leading edge abrasion strip per PART I of HN–197.2, DN–130.2, EN–19.2 and FN–19.2. If blade is removed from service because of separation or voids, notify an Approved MDHI Service Center or Distributor for disposition. Those blades in which voids are found shall be sent to an Approved repair station for abrasion strip replacement. If one blade is removed due to voids in the abrasion strip, the corresponding blade(s) will also have to be replaced. Proceed to PART II. If blades are equipped with the new and improved abrasion strips they must be installed in ship sets.

(2). Lightly abrade faying surface of tail rotor blade in the area where the tape is to be installed with 400 grit abrasive paper (see Figure 1).

(3). Wipe faying surface of blade with solvent to eliminate grease and dirt film.

(4). Use heat gun or equivalent to warm blade faying surface. Temperature must not exceed 120 deg. F.

(5). Remove backing and apply stainless steel abrasion tape to leading edge of tail rotor blade as shown in Figure 1. Apply tape so it overlaps each side of blade equally. Tape should overlap the inboard end of abrasion strip .5 in. +/– .03 at the leading edge of the blade.

(6). Smooth and press tape into place by hand.

(7). Re-apply pressure by hand following initial installation to ensure proper bonding. Abrasion tape must be free of surface wrinkles or air bubbles.

(8). Check tail rotor balance per the requirements of the HMI after installation of tape.

**B. PART II: Replacement of Tail Rotor Blade or Tail Rotor Blade Abrasion Strip**

(1). Contact MDHI or an authorized MDHI blade repair facility for installation of new style abrasion strip.

**NOTE:** The requirements of this Notice are not required on tail rotor blades with new design abrasion strip (see Figure 1).

(2). Install tail rotor blade equipped with a new design abrasion strip per the requirements of the HMI.

**NOTE:** New tail rotor blades must be installed in shipsets.

(3). Check tail rotor balance per the requirements of the HMI after installation of tail rotor blades.

## 3. COMPLIANCE RECORD:

Record compliance to this Service Information Notice in the Compliance Record section of the helicopter Log Book.

## 4. POINTS OF CONTACT:

For further assistance, contact your local MDHI Field Service Representative (refer to the latest revision of the Business Development and Customer Support handbook for address and telephone numbers) or contact the Field Service Department at MDHI, Mesa Arizona. Telephone: 1-800-388-3378 or (602) 891-6342. DATAFAX: (602)891-6782.

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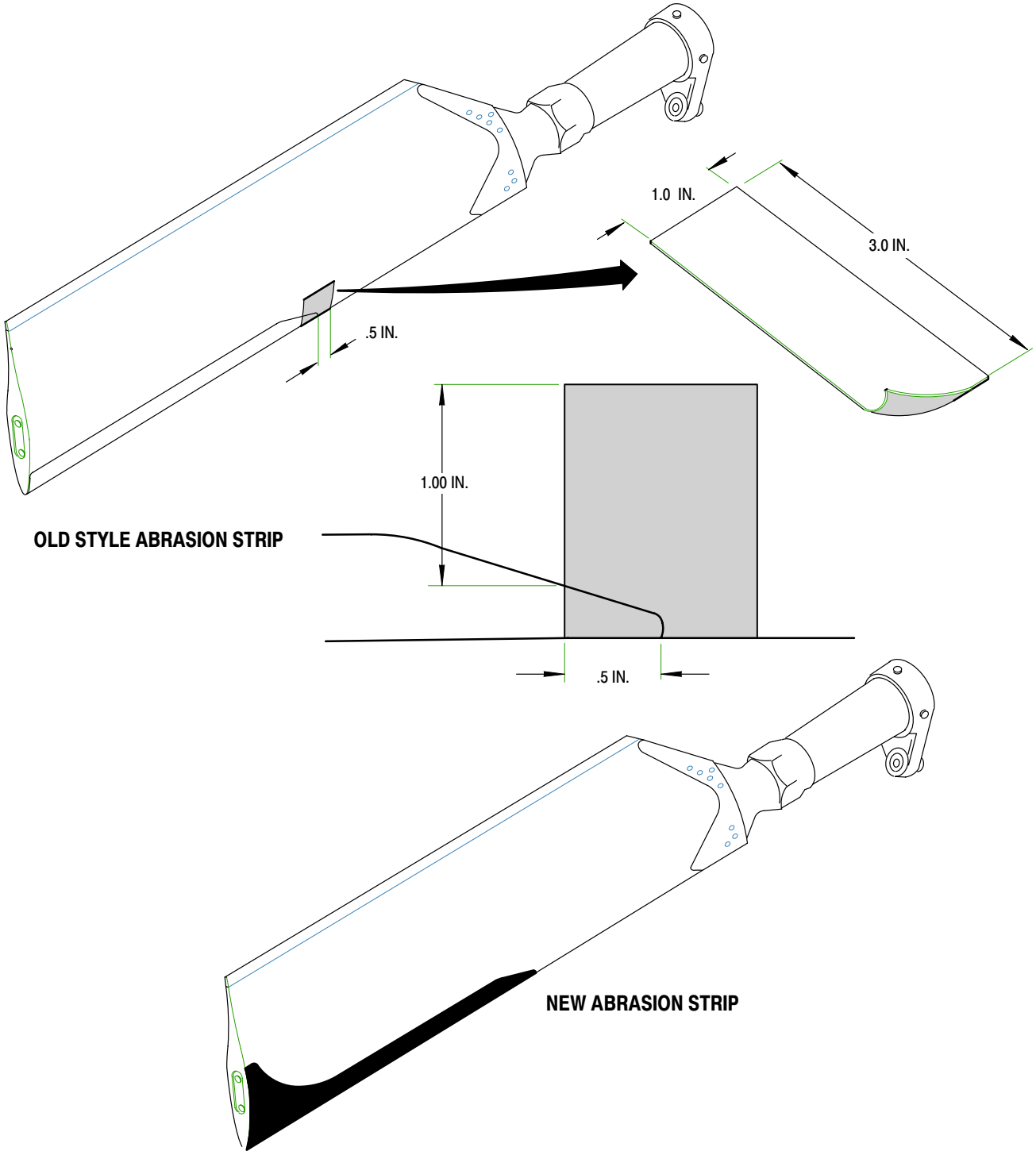


NOTES:
1. 304 STAINLESS STEEL TAPE SHALL BE APPLIED; 1/2-INCH TO ABRASION STRIP AND 1/2-INCH TO TAIL ROTOR BLADE.
2. APPLY TAPE EQUALLY TO BOTH SIDES OF BLADE.

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**Figure 1. Application of Steel Tape to Tail Rotor Blade.**