SERVICE BULLETIN

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* Supersedes SB369H-241, SB369D-193, SB369E-086 and SB369F-073, dated 18 December 1997.

TAIL ROTOR BLADE, LEADING EDGE INSPECTION FOR CRACKS

1. PLANNING INFORMATION:

A. Aircraft Affected:

MD Helicopters, Inc. (MDHI) models 369A, including the OH-6A, 369H, 369HE, 369HS, 369HM, 369D, 369E and 369FF Series Helicopters.

B. Assembly/Components Affected by this Notice:

369A1613 (equipped with abrasion strips), 369D21606, 369D21613 and 369D21615 series tail rotor blades that have had the abrasion strip replaced and have not been inspected for skin thickness with more than 100 hours time in service. New tail rotor blades and tail rotor blades that have had the abrasion strips replaced and have been properly inspected for skin thickness are not affected by this Service Bulletin but are still subject to inspection requirements contained in the Handbook of Maintenance Instructions.

C. Reason:

Boeing has received a tail rotor blade from an operator that shows evidence of blade skin cracking at the inboard end of the abrasion strip. No cracks are allowed at this or any other location on tail rotor blades. Failure to comply with the requirements of this Bulletin may result in tail rotor blades failing in service and subsequent loss of directional control of the helicopter.

D. Description:

Procedures in this Bulletin provide owners and operators with information pertaining to inspecting tail rotor blades for any evidence of cracking.

E. FAA Approval:

The technical design aspects of this Service Bulletin are FAA Approved.

F. Manpower:

0.5 manhours for the inspection and an additional 4.6 manhours if the tail rotor blades have to be replaced.

G. Time of Compliance:

The requirements of this Bulletin shall be accomplished within the next 100 hours of helicopter operation. Repetitive inspections should be accomplished per the requirements contained in the Handbook of Maintenance Instructions. **NOTE:** MDHI approved blade repair facilities now incorporate the requirement to inspect the leading edge skin thickness as part of their repair procedures. The minimum thickness for leading edge skin is 0.024 inch.

H. Interchangeability:

None

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I. Material/Part Availability:

Contact Warranty and Repair Dept.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	**Part No.**	**Qty.**	**Source**
Tail Rotor Blade	369A1613–507 (369H Series)	A/R	MDHI
Tail Rotor Blade	369D21606–511 (369FF)	A/R	MDHI
Tail Rotor Blade	369D21613–61 (369D/E)	A/R	MDHI
Tail Rotor Blade	369D21615–31 (4–Bladed Tail Rotor)	A/R	MDHI
Transparent Protective Tape	3M 8671–1	A/R	3M (1–800–453–8116 or 1–800–362–3550)
Promoter	3M #86	A/R	3M (1–800–453–8116 or 1–800–362–3550)
304 Stainless Steel Tape (0.0027 inch thickness)	87–369D21104 30ft.	A/R	MDHI or Teledyne Rodney Metals (800–325–1455)
Abrasive Paper (400 grit)	N/A	A/R	Commercial
Naphtha, aliphatic	TT–N–95 Type II or equivalent	A/R	Commercial
Dye Penetrant Kit	Per MIL–I–25135 (or equivalent)	A/R	Commercial

J. Warranty Policy:

Standard warranty policy applies.

K. Tooling:

N/A

L. Weight and Balance:

N/A

M. Electrical Load Data:

N/A

N. Other Publications Affected:

N/A

2. ACCOMPLISHMENT INSTRUCTIONS:

(Refer to figure 1)

(1). Inspect tail rotor blades with the new style abrasion strips as follows:

(a). Inspect leading edge for any evidence of cracking in the area shown in Figure 1. No cracks are allowed. If cracks are suspected, perform a dye penetrant inspection of the suspect area as follows:

1). By lightly abrading the blade skin, carefully remove the paint from the suspect area.

CAUTION Do not use any chemicals to remove the paint and do not penetrate the metal skin of the blade.

2). Perform dye penetrant inspection on the suspected area per MIL–I–25135 (or equivalent).

3). Tail rotor blades with evidence of cracking must be removed from service. **NOTE:** Tail rotor blades with the new abrasion strip configuration cannot be intermixed with tail rotor blades that have the old abrasion strip configuration.

4). If there is no evidence of cracking, the blade can be cleaned and touch–up epoxy paint applied to the affected area.

(b). To reduce errosion, up to a 2 inch length of 3M transparent protective tape may be applied to all blades. An equal length of tape must be applied to all blades. The protective tape should be applied spanwise centered on the leading edge and overlap the inboard end of the abrasion strip by approximately 1/2 inch. The square corners of the tape should be rounded off before application to reduce the chance of peeling. 3M Promoter 86 may be used to improve adhesion of the tape.

CAUTION DO NOT cut or trim tape after applied to the blades.

(c). The tape should be inspected for condition and security during the preflight inspection. Evidence of erosion, lifting or movement requires tape replacement.

(2). Inspect tail rotor blades with old style abrasion strips as follows:

(a). Remove stainless steel tape from the leading edge at the inboard end of the abrasion strip.

(b). Inspect that area for evidence of cracks. No cracks are allowed. If cracks are suspected, perform a dye penetrant inspection of the suspect area as follows:

1). Carefully remove the paint from the suspect area.

CAUTION Do not use any chemicals to remove the paint and do not abrade or penetrate the metal skin of the blade.

2). Perform dye penetrant inspection of the suspected area per MIL–I–25135 (or equivalent).

3). Tail rotor blades with evidence of cracking must be removed from service. **NOTE:** Tail rotor blades with the new abrasion strip configuration cannot be intermixed with tail rotor blades that have the old style abrasion strip.

4). If there is no evidence of cracking, the blade can be cleaned and touch–up epoxy paint applied to the affected area.

(c). Install new stainless steel tape in the same location as follows or perform PART II of HN-238, DN-187, EN-80 and FN-66:

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

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

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

4). Remove backing and apply stainless steel abrasion tape to leading edge of tail rotor blade. Apply 3.0 in. x 1.0 in. tape so that it overlaps each side of blade equally. Tape should overlap the inboard end of the abrasion strip 0.5 inch +/- 0.03 in. at the leading edge of the blade.

5). Smooth and press tape into place by hand.

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

(3). Check tail rotor balance per the requirements of CSP-H-2 or CSP-HMI-2 after installation of tape.

3. DISPOSITION OF PARTS REMOVED:

Return to MDHI.

4. COMPLIANCE RECORD:

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

5. 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 (602) 891-6342. DATAFAX: (602) 891-6782.

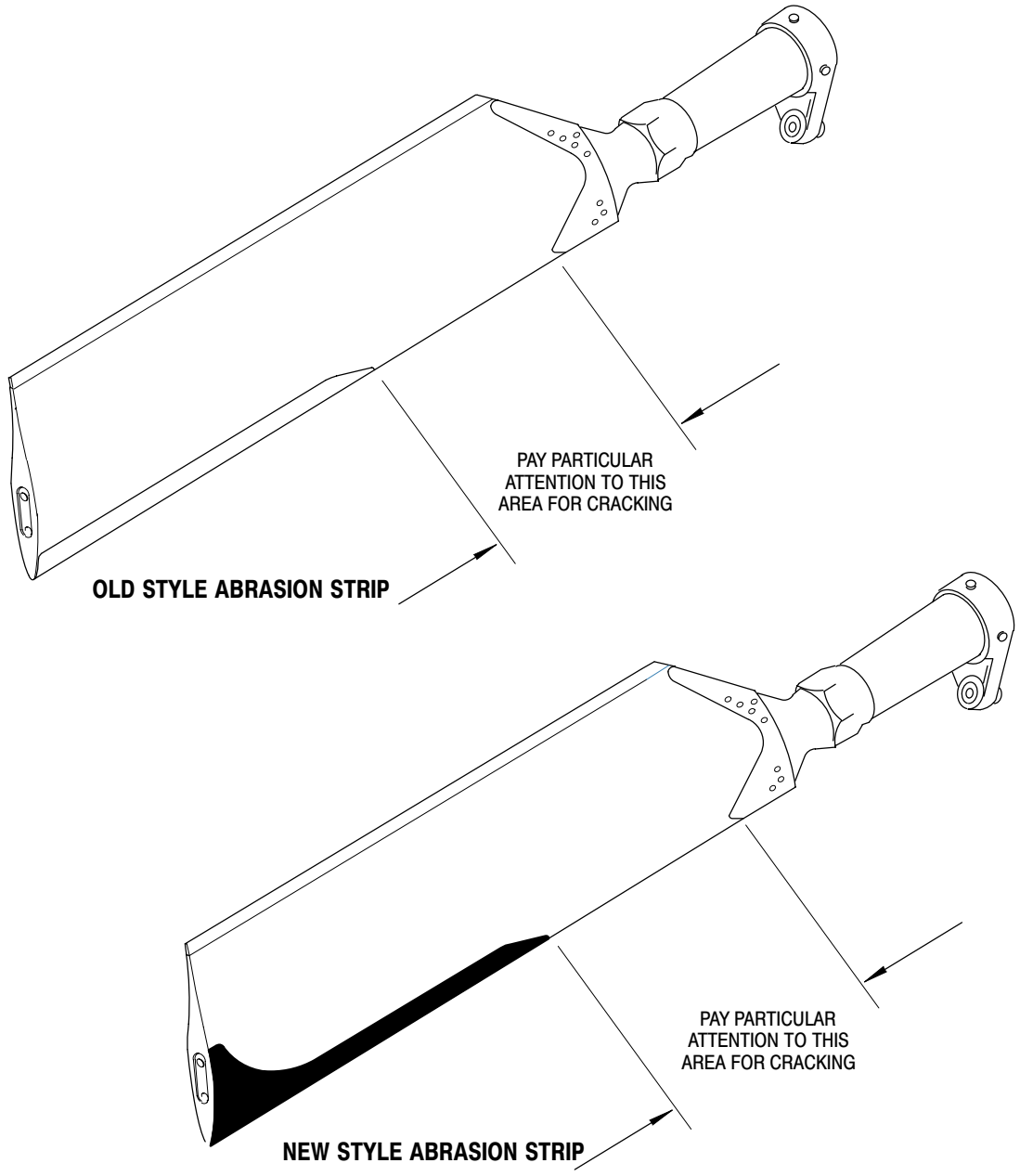

Figure 1. Tail Rotor Blade Inspection

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