

**Mandatory
Service Bulletin**

**TAIL ROTOR BLADE PITCH CONTROL ARM CORROSION
INSPECTION**

SUMMARY:

Procedures in this service notice provide owners and operators with information pertaining to the periodic inspection of **Pitch Control Arms** on **Tail Rotor Blades**. **Pitch Control Arms** have been found with Corrosion that was not detected under the Paint.

PURPOSE:

The purpose of this notice is to ensure the periodic inspection of **Pitch Control Arms** on **Tail Rotor Blades** to detect Corrosion under the Paint.

Failure to comply with this bulletin may result in fracture of the **Pitch Control Arm**. Fracture of the **Pitch Control Arm** could result in significant vibration, reduced tail rotor authority, and ultimately complete loss of directional control.

REVISION:

N/A.

PART NUMBERS AND SERIAL NUMBERS AFFECTED:

500P3100-101 including "M, MT, I, and IT" (STC Number SR09213RC), All Serial Numbers.
These blades are also known as MD Helicopters, Inc. Part Number 369D21640-501 and -503.

500P3100-301 including "M, MT, I, and IT" (STC Number SR01282LA), All serial Numbers.
These blades are also known as MD Helicopters, Inc. Part Number 369D21641-501 and -503.

500P3300-501 including "M, MT, I, and IT" (STC Number SR01282LA), All Serial Numbers.
These blades are also known as MD Helicopters, Inc. Part Number 369D21643-501 and -503.

500P3500-701 including "M, MT, I, and IT" (STC Number SR01282LA), All Serial Numbers.
These blades are also known as MD Helicopters, Inc. Part Number 369D21642-501 and -503.

HELICOPTER MODELS AFFECTED:

MD Helicopters, Inc. Models 369A, H, HE, HM, HS, D, E, and FF.

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TIME OF COMPLIANCE:

The **CORROSION INSPECTION** shall be accomplished within **5 Flight Hours** after receipt of this bulletin and **Annually** thereafter.

MANPOWER:

Approximately 5.5 man-hours will be required to accomplish this bulletin.

WARRANTY POLICY:

N/A.

DISPOSITION OF PARTS REMOVED:

N/A.

REFERENCES:

- 1) MD Helicopters, Inc. Handbook of Maintenance Instructions (CSP-H-2), Revision 17, dated May 15, 2001 or later
- 2) MD Helicopters, Inc. Appendix B (CSP-H-4), Revision 1, dated May 14, 2001 or later
- 3) MD Helicopters, Inc. Handbook of Maintenance Instructions (CSP-HMI-2), Revision 29, dated May 11, 2001 or later
- 4) MD Helicopters, Inc. Rotorcraft Log Book (CSP-RLB), Revision 2, dated February 17, 2000 or later
- 5) FAA Airworthiness Directive (AD) 2003-08-51
- 5) HTC Maintenance Manual HTCM-002, Tail Rotor Blades (Installation and Maintenance), Revision C, dated 22 November 2004 or later
- 6) HTC Alternate Means of Compliance (AMOC) for AD 2003-08-51.

REQUIRED EQUIPMENT / MATERIALS:

- 1) Isopropyl Alcohol
- 2) Clean Wipes
- 3) 10x Magnifying Glass
- 4) Bright Light
- 5) Paint Stripper, Turco 5351, Henkel Corporation
- 6) Aluminum Tape per MIL-T-23399, 0.005 inch thickness, 2.0 inch width, 3M Corporation
- 7) Alodine 1201 Solution, Brushable, Henkel Corporation
- 8) Zinc Chromate Primer per MIL-P-23377
- 9) Red or White Top Coat Paint as appropriate (Polyurethane, Imron or PPG, or Epoxy per MIL-C-22750)

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CORROSION INSPECTION:

Within 5 Hours of receiving this Bulletin and Annually thereafter:

- 1. Preparation for Inspection:** Remove affected Tail Rotor Blades from Helicopter. Mask Cross-Holes and Main Bore with **Aluminum Tape** to ensure **Paint Stripper** does not get inside blade. Remove Paint from front and back surfaces of the **Pitch Control Arm – Tail Rotor Blade** on affected Tail Rotor Blades using **Paint Stripper** on all affected Tail Rotor Blades (See **Figure 1**). Solvent wipe affected areas with **Isopropyl Alcohol** and **Clean Wipes**.
- 2. Inspection:** Using a **10x Magnifying Glass** and **Bright Light**, inspect all newly exposed surfaces of the **Pitch Control Arm – Tail Rotor Blade** on all affected Tail Rotor Blades (See **Figure 1**). Corrosion, Pitting, or Cracking is not permitted. Any evidence of Corrosion, Pitting, or Cracking renders the subject blade as **SCRAP**. Verify exposed areas have a “Dimpled” Shot Peen surface texture. Evidence of blending or material removal, which affect the Shot Peen surface appearance in the exposed areas, renders the subject blade as **SCRAP**. Verify in maintenance records that no rework has been done in this area.
- 3. Re-Finish and Reinstallation:** Touch-up any exposed metallic surfaces with **Brush Alodine Solution**. Apply **Zinc Chromate Primer** and then apply **Top Coat Paint** over affected areas. Reinstall serviceable Tail Rotor Blades.

Note: Paint Stripper can damage Structural Adhesive and shall not be permitted to come into contact with any part of the blade except the Pitch Arm Surfaces. In the event of Paint Stripper contact with any other area of the Blade, refer to HTC for disposition.

Note: Pitch Control Arm area is Shot Peened and protected with Chemical Processing. Do not attempt to remove corrosion by abrasive. Refer to HTC for any questions regarding disposition of Corrosion, Pitting, or Cracking.

Note: Do not allow feathering bearings to become damaged during this inspection.

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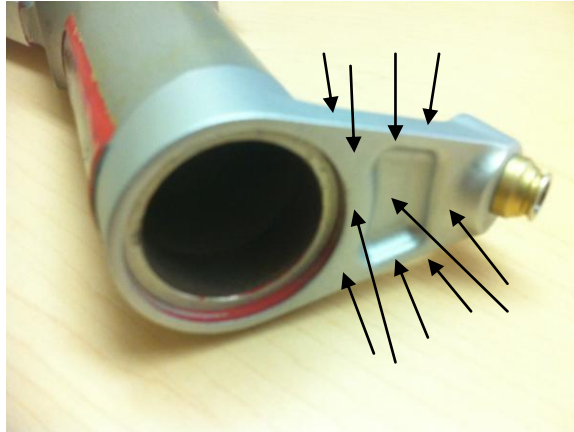


Figure 1 – Pitch Control Arm – Tail Rotor Blade

RECORDING AND COMPLIANCE:

Record compliance of this Service Bulletin in the Technical Directives and Bulletins section of the rotor blade Serviceable Component Record and/or rotorcraft log book.

POINTS OF CONTACT:

For further information and rotor blade disposition, contact HTC at (310) 523-2750, or FAX (310) 523-2745.