

R44

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SERVICE BULLETIN SB-27B

DATE: 22 May 1998    REV A: 29 May 1998    REV B: 18 June 1998

TO: All R44 Owners, Operators, and Service Centers

SUBJECT: Main Rotor Blade Inspection

ROTORCRAFT AFFECTED: R44 Helicopters S/N 0002 thru 0486 equipped with C016-1 Main Rotor Blades.

TIME OF COMPLIANCE: Perform PART A within next 5 flight hours.

Perform PART B each time aircraft is refueled or, when not possible, at an interval not to exceed 5 flight hours until C016-1 M.R. blades have been replaced with C016-2 M.R. blades.

BACKGROUND: RHC has received a report of a cracked main rotor blade skin. The crack was through a trim tab rivet hole and ran forward to the blade spar. The pilot heard a loud noise, felt a severe vibration, and landed immediately. There was no helicopter damage or injury to the passengers, but continued flight could have been catastrophic.

RHC has redesigned the blade to eliminate the inboard trim tab and rivets. Replacement blades will be available at a substantially discounted price. A notice providing details will be issued in the near future.

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COMPLIANCE PROCEDURE:

PART A (to be performed by a qualified mechanic)

1. Refer to figure on page 2. Remove all paint around both rivets at inboard trim tab on top and bottom of blade (4 places per blade). Use 180 grit or finer abrasive paper, followed by 600 grit or finer abrasive paper. Sand only in spanwise direction. (Pulling a strip of abrasive paper across rivet area while applying pressure on paper with your thumb is an effective method.) Do not use chemical paint strippers.
2. Dye penetrant inspect blade surfaces around rivet holes at all four locations in accordance with dye penetrant manufacturer's instructions. Scrap and replace blades with any indication of a crack at a rivet hole. (Chordwise cracks in paint up to 2 inches long are acceptable at either end of trim tab.)
3. Clean sanded area with 111-Trichloroethane or MEK. Apply clear lacquer (or clear fingernail polish) to seal surface.
4. When tracking blades, avoid bending inboard tab. Make adjustments at outboard tab.

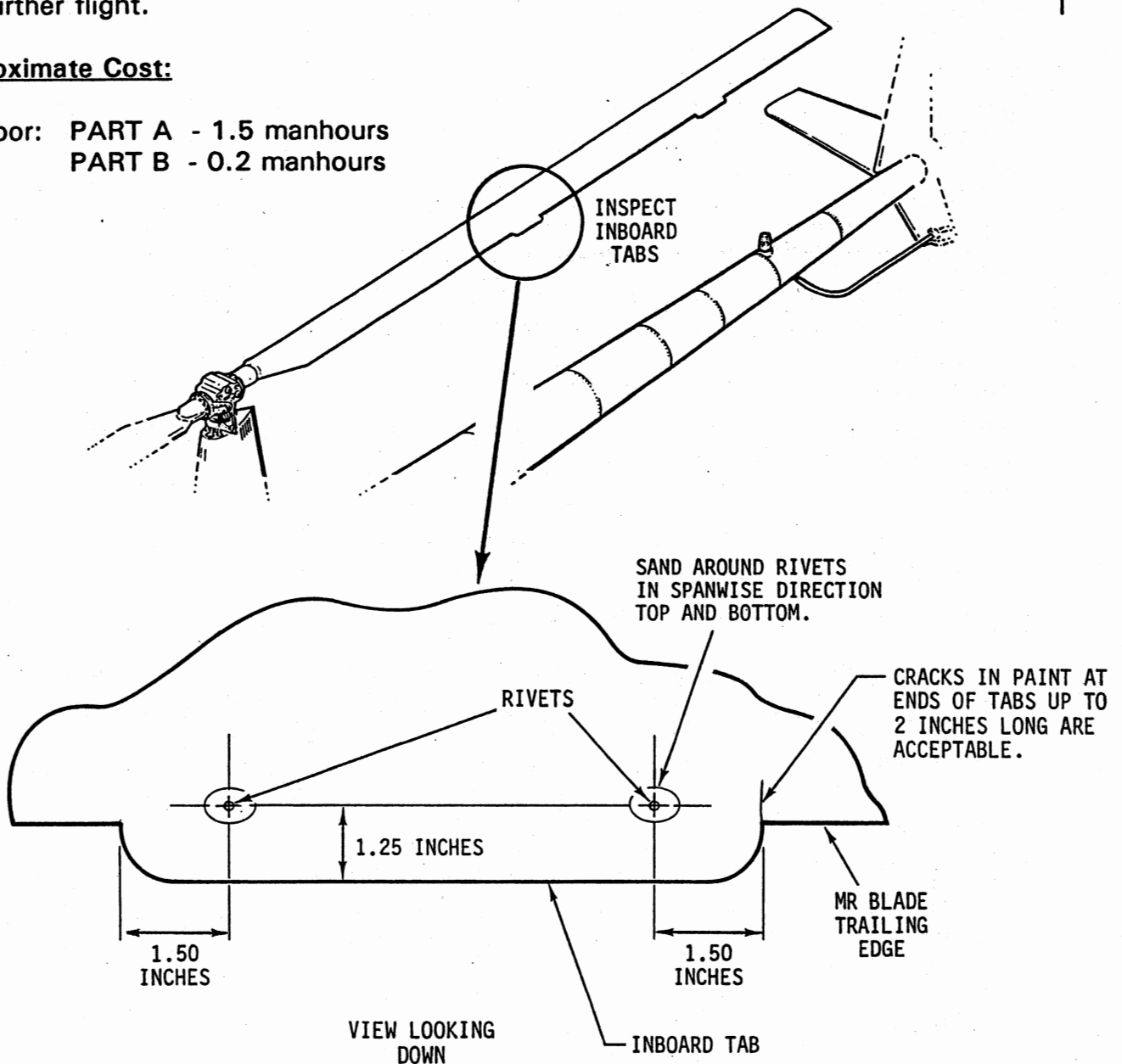
(OVER)

**PART B** (may be performed by either mechanic or pilot)

Visually inspect blade surfaces around both rivets at inboard trim tab on top and bottom of blade (4 places per blade). Using 5 power or greater magnifying glass, carefully check area around each rivet. Cracks will start from edge of rivet hole and progress radially, probably in chordwise direction. A crack may be very thin (hairline or thinner) and appear only as a small scratch. Any possible crack indication, no matter how small, requires additional inspection by a qualified mechanic. Any blade with a positive crack indication must be replaced before further flight.

**Approximate Cost:**

Labor: PART A - 1.5 manhours  
PART B - 0.2 manhours



THE DESIGN ENGINEERING ASPECTS OF THIS BULLETIN HAVE BEEN SHOWN TO COMPLY WITH APPLICABLE FEDERAL AVIATION REGULATIONS AND ARE FAA APPROVED.