

R22 SERVICE LETTER SL-93A

(supersedes R22 SL-93)

R44 SERVICE LETTER SL-82A

(supersedes R44 SL-82)

R66 SERVICE LETTER SL-40A

(supersedes R66 SL-40)

DATE: 30 June 2021

REV A: 3 June 2022

TO: R22-series, R44-series, & R66 Owners, Operators, & Maintenance Personnel

SUBJECT: Tail Rotor Blade Condition and Care

BACKGROUND: RHC has recently seen tail rotor blades that were allowed to corrode to an unserviceable condition including severe leading edge pitting and degradation of the bond at the tip cap. Regular preventive maintenance is imperative for continued safe operation and additional care may be required in corrosive environments such as coastal or shipboard operations. Recommended practices to prevent and mitigate the effects of corrosion are provided below. Revision A adds inspection criteria.

RECOMMENDED PRACTICES:

1. Inspect tail rotor blade leading edges & tip cap bond line carefully during daily preflight. Refer to Figure 1.

Bubbled paint can be an indication of underlying corrosion. If bubbled paint is observed at or adjacent to tip cap bond line, or if bond line is exposed, perform following maintenance prior to further flight.

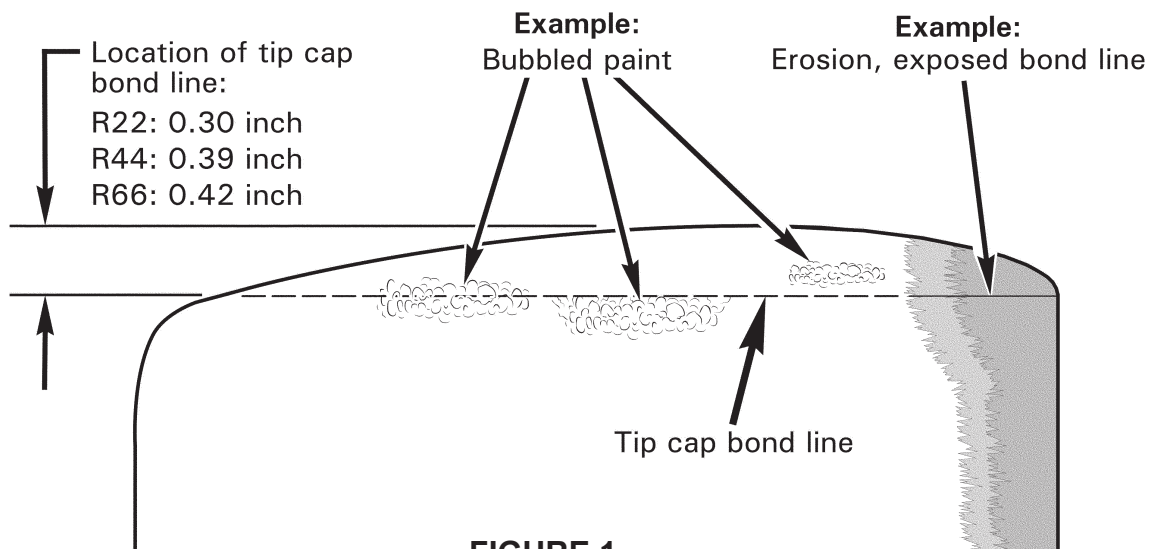


FIGURE 1

(OVER)

2. Maintain blade condition as follows:

At, or adjacent to, tip cap bond line: Remove loose or bubbled paint with fingernail or plastic scraper. Using minimum 10X magnification, examine bond line for both presence of adhesive & no corrosion (white powder and/or pitting). Metal-to-metal contact of tip cap to skin is permissible, but any gaps in remaining bond line due to missing blue (or brown) adhesive requires blade replacement. Any evidence of corrosion at bond line requires blade replacement. If blade(s) require replacement, contact RHC Technical Support with part number & serial number of affected and opposite blades.

At areas away from tip cap bond line: Remove any corrosion, and bubbled or loose paint, by hand-sanding in a spanwise direction using 220-grit aluminum-oxide abrasive paper and minimum 0.1 inch blend radius; finish sand with 320-grit aluminum-oxide abrasive paper. Remove only material necessary to eliminate corrosion; any hole that completely penetrates blade skin requires blade replacement.

Feather edge of paint bordering any bare metal by hand-sanding spanwise with 320-grit or finer wet-or-dry aluminum-oxide abrasive paper. Do not remove bare metal when feather sanding.

Preferred blade condition is with fully painted leading edge. Use two coats of Desoprime CA7502 epoxy primer (or equivalent). Scuff primer prior to applying second coat. Use Dupont Imron polyurethane enamel or equivalent paint. Refer to aircraft Maintenance Manual (MM) for specific paint codes. Blades with striped leading edges may be painted with solid black leading edge as shown in Figure 2 if desired for ease of application:

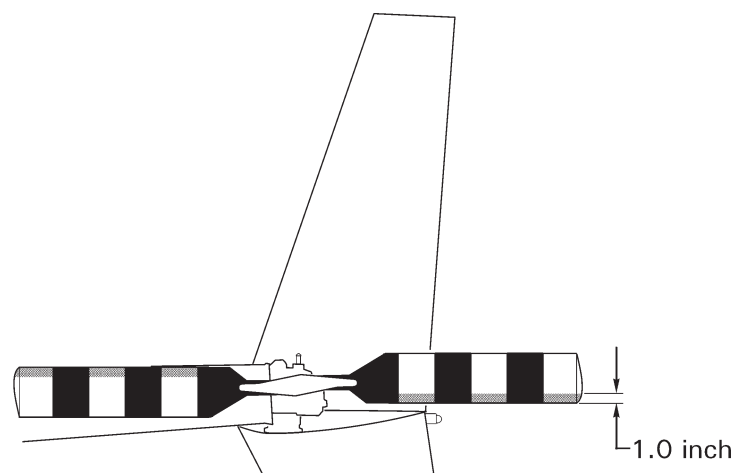


FIGURE 2

Paint offers the best protection against leading edge corrosion. If painting blades is impractical, apply at least a single coat of primer on tip cap bond lines and on leading edges to provide some protection.

3. Balance tail rotor per applicable MM after any corrosion removal or painting.
4. When operating in a corrosive environment, clean tail rotor daily per POH section 8, Cleaning Helicopter (mild soap means a pH between 7 & 9). If waxing blades is impractical, wipe blade leading edges with standard WD-40® brand light oil or equivalent; do not use ACF-50® lubricant or “Specialist” versions of WD-40® on blades, and do not use Salt-Away®.
5. At each 100-hour inspection, tap test tip cap bonded area shown in Figure 3 to verify bond integrity. Reference tap test instructional video at: https://robinsonheli.com/wp-content/uploads/2021/06/taptest_05_apr_2010.mp4

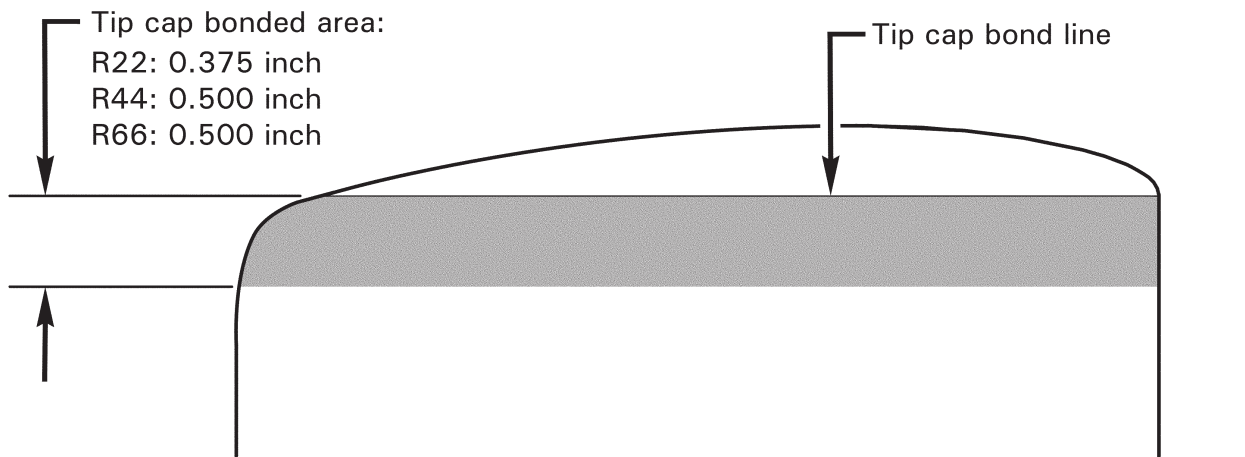


FIGURE 3