

**R22 SERVICE LETTER SL-79**

**R44 SERVICE LETTER SL-65**

**DATE:** 08 June 2018

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

**SUBJECT:** Unauthorized Repairs on Main Rotor Blades in Brazil

**BACKGROUND:** RHC has received reports and allegations from Brazil of unauthorized repairs to A016-4 (R22), C016-2 (R44), and C016-5 (R44 II) main rotor blades. During these unauthorized repairs, debonded blade skins were reglued at blade tip using unapproved materials. Repairs to debonded blade skins are not authorized by any RHC Maintenance Manual. In some cases, the blade data plate was altered; in all cases the unauthorized repairs were undocumented. **Unauthorized repairs to rotor blades have caused fatal crashes.**

This letter helps the technician determine if an unauthorized repair was performed on a main rotor blade. Any main rotor blade with an unauthorized or questionable repair must be immediately removed from service.

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**COMPLIANCE PROCEDURE:**

For A016-4, C016-2, and C016-5 main rotor (MR) blades that have service history in Brazil, RHC recommends:

1. Refer to Figure 1. Remove both MR blade tip covers. On each MR blade, verify the serial number is the same in the following locations:
  - a. Stamped on data plate on inboard lower skin (not shown).
  - b. Engraved on blade tip aft of tip weight recess (may require paint removal per step 5).
  - c. Engraved on blade tip between tip weight nutplates. (May require tip weight removal. If removed, install same weight[s] and special torque screws to 40 in.-lb wet with A257-9 anti-seize.)

Remove blade from service if serial number is not the same in the above locations, or if data plate is missing, or if any serial number is illegible.

(OVER)

2. Verify MR blade serial numbers listed in helicopter maintenance record match serial numbers of MR blades installed on helicopter. If serial numbers do not match then remove blade(s) from service due to undocumented history.
3. Unless an RHC Maintenance Record entry, RHC-issued FAA Form 8130, or RHC-issued Invoice indicates MR blades have less than 12-years time in service, remove from service the following blades due to calendar-life requirements:
  - P/N A016-4 serial number 5000 & prior
  - P/N C016-2 serial number 5700 & prior
  - P/N C016-5 serial number 2400 & prior
4. Position one main rotor blade to allow tip access and apply rotor brake. Support blade in level (spanwise) position with cushioned stand.
5. Using a sanding block with 320-grit aluminum-oxide abrasive paper, remove paint from blade tip outboard vertical surface by hand-sanding only in a chordwise direction to expose bare metal; do not remove serial number engraved on blade tip. Refer to Figure 1.
6. Inspect blade tips per the following:
  - a. Refer to Figure 1. Using 10X magnification, visually inspect adhesive surrounding tip cap; adhesive must be same light-brown color at all locations and without voids.
  - b. Refer to Figure 2. Using an AN970-4 washer, tap test skin-to-tip cap bond joints on both upper and lower surfaces for separation or voids (which cause a dull, non-metallic sound).

Remove blade from service if adhesive is not light-brown color, or if a void is visually or audibly detected.

7. Repeat steps 4 thru 6 for opposite blade.
8. Prime blade tip bare metal with at least two coats of aircraft epoxy primer (chromated epoxy is preferred) in accordance with primer manufacturer's instructions. Apply yellow topcoat. Allow to dry.

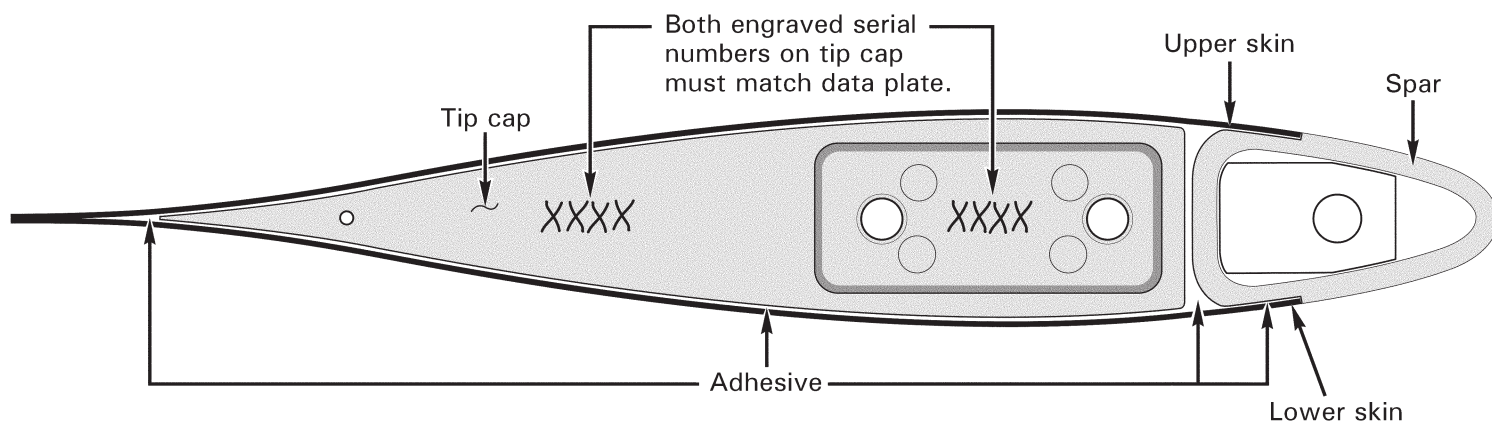
**CAUTION**

Do not apply heat to shorten cure times; blade bond can be damaged.

9. Install tip covers. Special torque screws to 40 in.-lb wet with A257-9 anti-seize. Remove blade support(s).

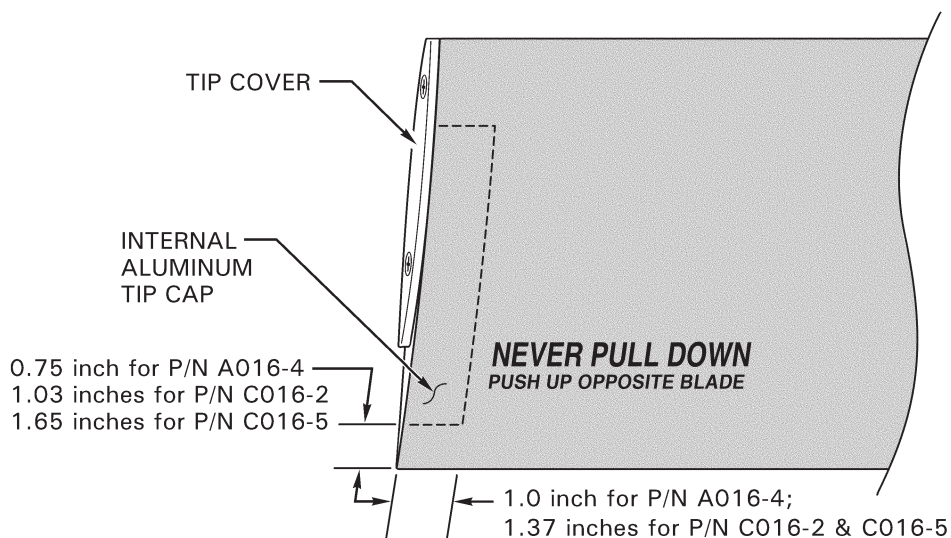
10. Make appropriate maintenance record entries.
11. Return any suspect blade(s) to RHC for evaluation. Returned blade(s) must be accompanied by a completed [Component Return Authorization](#) form.

RHC Technical Representative Peter Hallqvist ([ts3@robinsonheli.com](mailto:ts3@robinsonheli.com), fluente em português) may be contacted for assistance in ordering replacement blades.



**MAIN ROTOR BLADE TIP ADHESIVE AND SERIAL NUMBER LOCATIONS**  
(View looking inboard, tip cover and tip weights removed)

**FIGURE 1**



**MAIN ROTOR TIP CAP DIMENSIONS**  
(View looking up)

**FIGURE 2**