

**R44 SERVICE LETTER SL-43**

**DATE:** 30 May 2012

**TO:** R44 and R44 II owners, operators, and maintenance personnel

**SUBJECT:** C343-1 Push-Pull Tube Assembly

**ROTORCRAFT AFFECTED:** R44 and R44 II helicopters equipped with C343-1 push-pull tube assemblies revision L or prior, originally installed in R44 helicopters S/N 2198 and prior, and R44 II helicopters S/N 13290 and prior.

**BACKGROUND:** RHC has received reports of a lengthwise, stress-corrosion crack on the C343-1 tail rotor push-pull tube assembly near the lower rod end. The C343-1 push-pull tube assembly is located in the vertical control tunnel where it is exposed to outside airflow from the aft belly panel air scoop. This outside air can accelerate corrosion. Earlier C343-2 tubes, part of the C343-1 push-pull tube assembly, were made of 2024 aluminum alloy. C343-2 revision M or subsequent tubes are made of more corrosion-resistant 6061 alloy.

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**COMPLIANCE PROCEDURE:**

1. Refer to R44 Illustrated Parts Catalog (IPC) Figure 7-37, item 19. At each 100-hour inspection, inspect lower end of C343-1 push-pull tube assembly for cracks. Cracks have been found running lengthwise in the tube and passing through the witness hole.

NOTE: Cracks were likely due to corrosion accelerated by outside airflow from an air scoop in the aft belly panel. Some aircraft do not have an air scoop in the aft belly panel. C343-2 revision M tubes are made of 6061 aluminum alloy which is less susceptible to stress-corrosion cracking.

2. If evidence of a crack or corrosion is found, replace tube with C343-2 revision M or subsequent tube. Maintain same rod end center-to-center dimension. If rod end center-to-center dimension is changed, perform tail rotor rigging per R44 Maintenance Manual §10.140.

NOTE: C343-2 revision L (revision letter follows ink-stamped "C343-1" part number) or prior tube should be replaced at next 2200-hour or 12-year inspection.