

SERVICE BULLETIN #36

DATE: November 11, 1983

TO: R22 Owners and Operators

SUBJECT: Inspection of A121-7 Push-Pull (P-P) Tubes and Guide Wear

ROTORCRAFT AFFECTED: R22 Serial No. 0002 through 0369

TIME OF COMPLIANCE: Within the next 25 flight hours.

BACKGROUND: Excessive wear of the vertical push-pull tubes forward of the main rotor gearbox has been found on some R22 helicopters. The wear occurs when aluminum oxide from the tubes becomes embedded in the plastic guides causing accelerated fretting of the metal. To reduce or eliminate this wear, RHC has developed a plastic sleeve which can be installed on the tubes. Excessive wear could cause failure of the tubes and loss of main rotor control.

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INSPECTION PROCEDURE:

1. Using a small mirror and high intensity pen light visually inspect A121-7 vertical Push-Pull (P-P) tubes for wear in the area of the blue guide bushings. Also check for evidence of movement of blue bushings in their mount causing fretting and deterioration of guides.
2. If an A121-7 P-P tube is worn between .005 to .015 inch per side or guide bushing fretting is evident, install P-P tube protective sleeves and new guides supplied in RHC Kit KI-28 (instructions included) within the next 25 flight hours.
3. If an A121-7 P-P tube is worn over .015 inch per side or blue bushing is wearing through housing, replace P-P tube and install sleeve and new guide per RHC Kit KI-28 before further flight.

NOTE

When ordering KI-28, determine if vertical firewall maintenance hole and/or moveable guide have been installed.

- a. R22 S/N 300 and on have 7/8 inch maintenance hole in side of vertical firewall flight control tunnel to remove A121-7 P-P tube attach bolt. If hole not previously installed, also order RHC Kit KI-21 to put hole in firewall.
- b. R22 S/N 270 and prior originally had a fixed P-P tube guide riveted to airframe. If adjustable guide not previously installed in field, order RHC Kit KI-19 to modify airframe for adjustable guide installation.

COST: KI-28 List Price \$135.00 - Installation Labor, approximately 6 manhours.