ROBINSON HELICOPTER COMPANY

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## R44 SERVICE BULLETIN SB-93A

(supersedes R44 SB-93)

## **R66 SERVICE BULLETIN SB-22A**

(supersedes R66 SB-22)

DATE: 6 June 2017 REV A: 21 July 2017

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

**<u>SUBJECT</u>**: Horizontal Stabilizer Nutplates

**ROTORCRAFT AFFECTED:** R44-series & R66-series Helicopters equipped with C044-1 revision W and prior horizontal stabilizer assemblies. C044-1 revision X stabilizers are not affected. (Revision letter is located on C044-1 data plate at inboard rib.)

**<u>TIME OF COMPLIANCE</u>**: At next 100-hour inspection or annual inspection, whichever occurs first (unless previously accomplished).

**BACKGROUND:** RHC has received two reports of loose vertical stabilizer attach bolts. Loose bolts may be due to cracked MS21086L4 nutplates where the C042-1 & C043-1 vertical stabilizers attach to the C044-1 horizontal stabilizer (there are eight total nutplates, four per vertical stabilizer). This bulletin requires verifying the integrity of the nutplates. Revision A of this bulletin expands the range of affected stabilizers. Revision X stabilizers incorporate MS21087-4 nutplates which are less susceptible to cracking.

## **COMPLIANCE PROCEDURE:**

- Determine C044-1 stabilizer revision ("REV") letter on data plate at inboard rib. If stabilizer is revision W or prior it is affected by this bulletin. Revision X and subsequent are not affected. Also, for revision W and prior horizontal stabilizer assemblies, a yellow dot adjacent to part number on data plate indicates stabilizer has been reworked and no further action is required.
- 2. For revision W and prior stabilizer assemblies without yellow dot on data plate, remove torque stripe from eight NAS6604-6 bolts and eight C130-9 spacers securing C042-1 (upper) & C043-1 (lower) vertical stabilizers to C044-1 horizontal stabilizer.

- 3. Apply 185 inch-pounds torque to each bolt, and observe rotation. If any bolt rotates more than one flat (1/6 of a turn), remove vertical stabilizer(s) and visually inspect corresponding nutplate for cracks. If no cracked nutplates are found, proceed to step 5.
- 4. If a cracked nutplate is found, contact RHC Technical Support with location of cracked nutplate(s) and C044-1 horizontal stabilizer serial number. Replace all (8) MS21086L4 nutplates with (8) MS21087-4 nutplates using (16) MS20426AD3-5 rivets prior to further flight. Apply a yellow paint dot adjacent to part number on data plate to indicate MS21087-4 nutplates have been installed.
- 5. Reinstall vertical stabilizers and torque attach bolts to 185 inch-pounds. Apply torque seal from bolt head across spacer to vertical stabilizers, eight places.
- 6. Make appropriate maintenance entry records. Specify if nutplates were replaced.

## APPROXIMATE COST:

- Parts: None for torque checks. (8) MS21087-4 nutplates (\$6.50 each) and (16) MS20426AD3-5 rivets (\$1.25 for p/n MS20426AD3-5+ [50 pack]) for replacement of nutplates.
- Labor: Approximately 0.5 man-hour for torque checks. Approximately 3.0 man-hours for replacement of nutplates.