

R44

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SERVICE BULLETIN SB-43A

**DATE:** 01 August 2001 **REV A:** 10 June 2002

**TO:** All R44 Owners, Operators, and Service Centers

**SUBJECT:** Tail Rotor Pitch Control Bearings

**ROTORCRAFT AFFECTED:** R44 Helicopters equipped with C031-1 pitch control assembly revision G or prior (originally installed on R44s thru S/N 1208 except S/N 1143, 1165, 1183, 1189, 1192, 1196, 1197, 1198, 1200, 1203, and 1204).

**TIME OF COMPLIANCE:** Every 300 flight hours or annually, whichever occurs first. Additionally, for R44s S/N 0640 and prior, initial compliance by 31 Oct 2001.

**BACKGROUND:** RHC has received reports of rough or dragging tail rotor pitch control bearings. Regular inspections can identify deteriorating bearings to avoid an in-flight failure. Revision H or later C031-1 pitch control assemblies use corrosion-resistant bearings with improved seals and are therefore exempt from the requirements of this service bulletin.

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**COMPLIANCE PROCEDURE:**

For R44s with revision G or prior C031-1 pitch control assemblies:

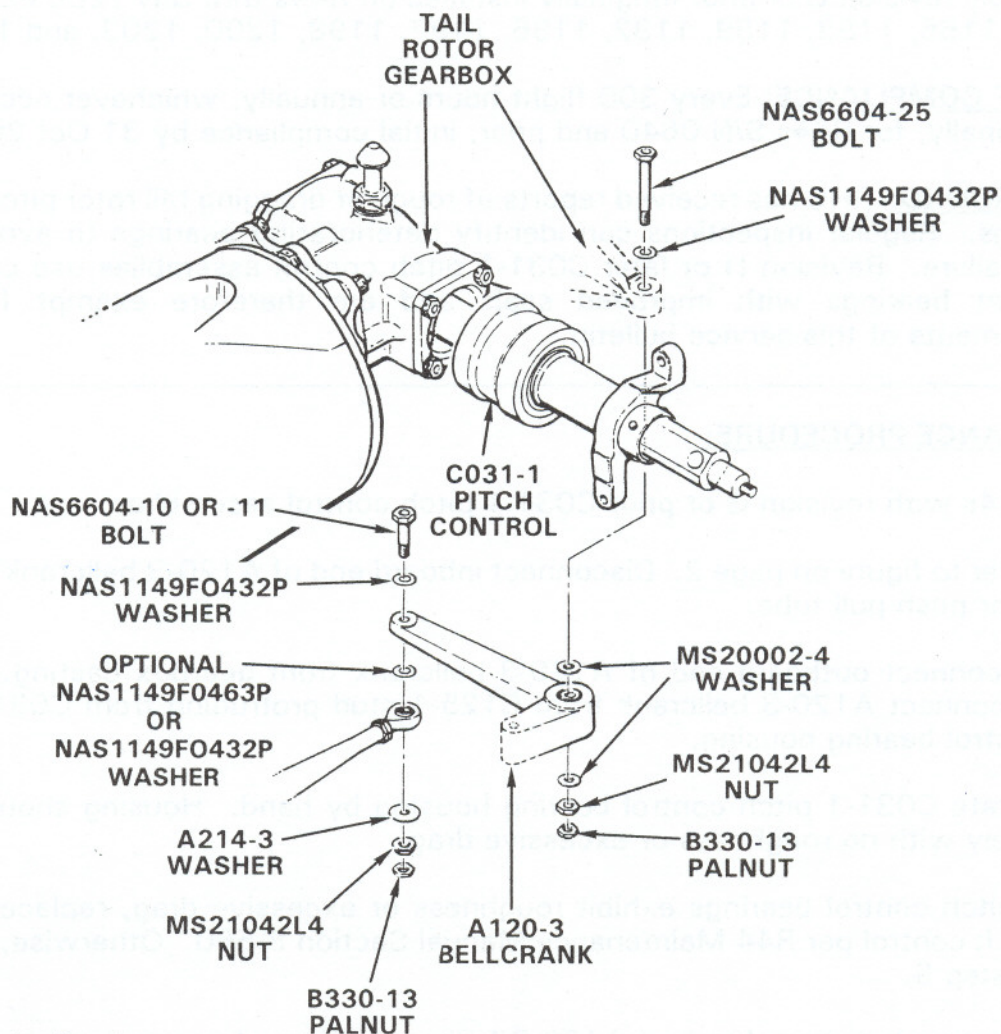
1. Refer to figure on page 2. Disconnect inboard end of A120-3 bellcrank from tail rotor push-pull tube.
2. Disconnect outboard end of A120-3 bellcrank from gearbox casting. Do not disconnect A120-3 bellcrank from C125-1 stud protruding from C031-1 pitch control bearing housing.
3. Rotate C031-1 pitch control bearing housing by hand. Housing should rotate freely with no roughness or excessive drag.
4. If pitch control bearings exhibit roughness or excessive drag, replace C031-1 pitch control per R44 Maintenance Manual Section 8.560. Otherwise, proceed to step 5.
5. Reconnect outboard end of A120-3 bellcrank to gearbox casting as shown in figure using hardware removed in step 2. Torque MS21042L4 nut to 120 in.-lb (includes locking torque) and B330-13 palnut to 11-25 in.-lb. Torque stripe.
6. Reconnect inboard end of A120-3 bellcrank to tail rotor push-pull tube as shown in figure using hardware removed in step 1. A214-3 (large diameter) safety washer must be under nut. Torque MS21042L4 nut to 120 in.-lb (includes locking torque) and B330-13 palnut to 11-25 in.-lb. Torque stripe.

(OVER)

**NOTE**

Some aircraft may have an optional NAS1149F0463P thick washer or NAS1149F0432P thin washer to ensure 0.050 inch minimum clearance between tail rotor push-pull tube and bulkhead casting. An NAS6604-11 bolt may be used in place of NAS6604-10 bolt to ensure proper thread engagement.

7. Make appropriate maintenance record entries.



**Approximate Cost:**

Parts: None required.

Labor: 0.3 man-hour.

THE DESIGN ENGINEERING ASPECTS OF THIS BULLETIN HAVE BEEN SHOWN TO COMPLY WITH APPLICABLE FEDERAL AVIATION REGULATIONS AND ARE FAA APPROVED.