

R22

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SERVICE BULLETIN SB-90A

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

TO: All R22 Owners, Operators, and Service Centers

SUBJECT: Tail Rotor Pitch Control Bearings

ROTORCRAFT AFFECTED: R22 Helicopters equipped with A031-1 pitch control assembly revision J or prior (originally installed on R22s thru S/N 3328 except S/N 3167, 3326, and 3327).

TIME OF COMPLIANCE: Every 300 flight hours or annually, whichever occurs first. Additionally, for R22s S/N 2970 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 K or later A031-1 pitch control assemblies use corrosion-resistant bearings with improved seals and are therefore exempt from the requirements of this service bulletin.

COMPLIANCE PROCEDURE:

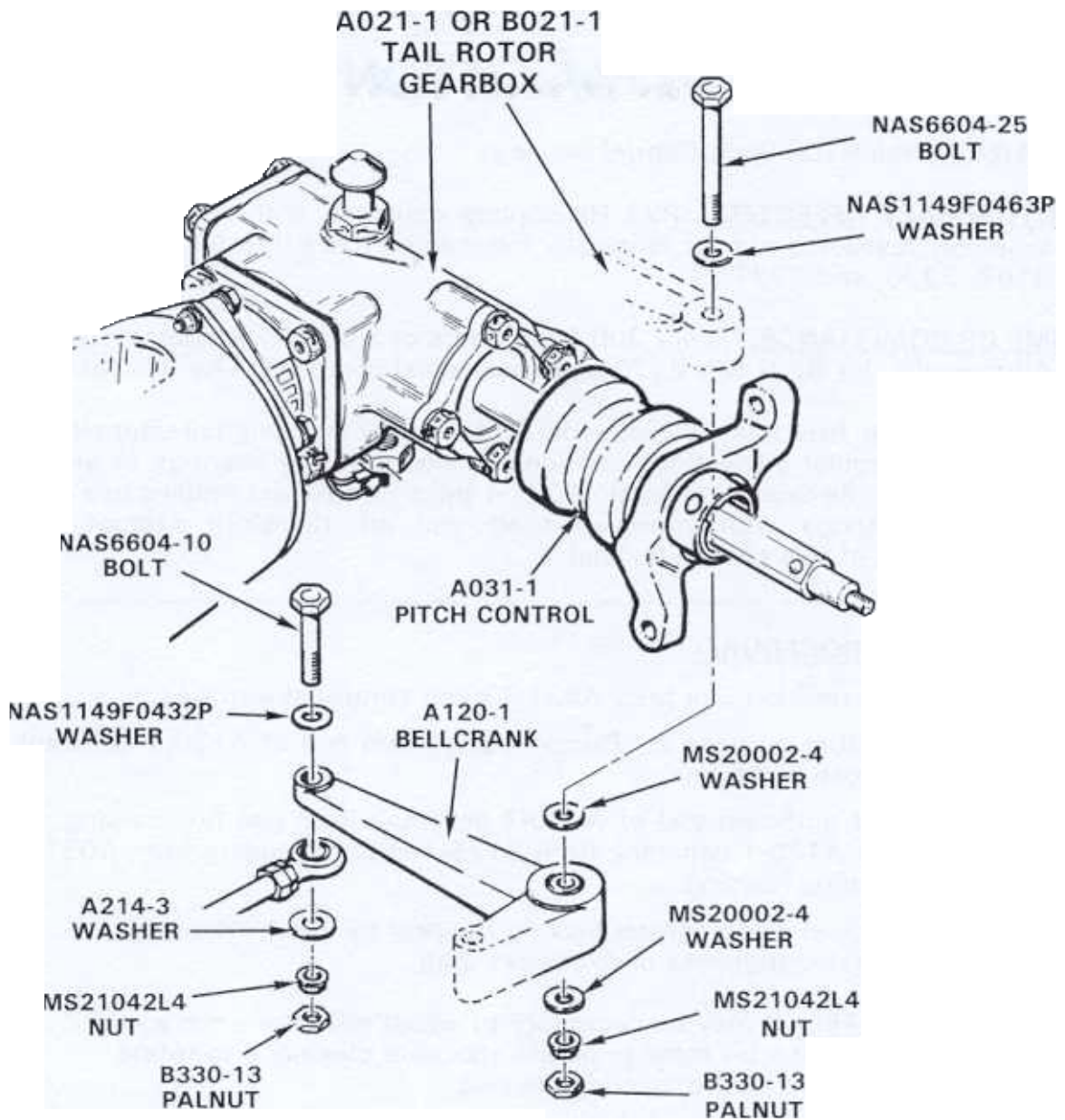
For R22s with revision J or prior A031-1 pitch control assemblies:

1. Refer to figure on page 2. Disconnect inboard end of A120-1 bellcrank from tail rotor push-pull tube.
2. Disconnect outboard end of A120-1 bellcrank from gearbox casting. Do not disconnect A120-1 bellcrank from A125-1 stud protruding from A031-1 pitch control bearing housing.
3. Rotate A031-1 pitch control bearing housing by hand. Housing should rotate freely with no roughness or excessive drag.

NOTE: It may be necessary to adjust tail rotor pitch and/or rotate the tail rotor to obtain adequate clearance to rotate the pitch control bearing housing.

4. If pitch control bearings exhibit roughness or excessive drag, replace A031-1 pitch control per R22 Maintenance Manual Section 8.560. Otherwise, proceed to step 5.
5. Reconnect outboard end of A120-1 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 A120-1 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.
7. Make appropriate maintenance record entries.

-OVER-



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.