

R44

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SERVICE BULLETIN SB-41A

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

TO: All R44 Owners, Operators, and Service Centers

SUBJECT: Tail Rotor Rigging

ROTORCRAFT AFFECTED: R44 Helicopters S/N 0001 thru 1225 except 1183, 1196, 1197, 1198, 1203, 1204, 1209 thru 1212, and 1219 thru 1224.

TIME OF COMPLIANCE: Within next 100 flight hours or by 15 September 2002, whichever occurs first.

BACKGROUND: Inadvertent abrupt application of full left pedal by the student during a simulated power failure could result in excessive flapping of the tail rotor and possible tail rotor blade contact with the tailcone. To reduce the possibility of that occurring, Safety Notice SN-27 Surprise Power Chops Can Be Deadly was reissued as a Safety Alert. In addition, Service Bulletin 41 was issued requiring reduction of the left pedal stop blade angle by five degrees (to 16.5°~17.0°) and installation of a harder teeter bumper. Revision A is being issued to allow an additional two degrees tail rotor pitch at the left pedal stop for increased control margin in hover.

COMPLIANCE PROCEDURE:

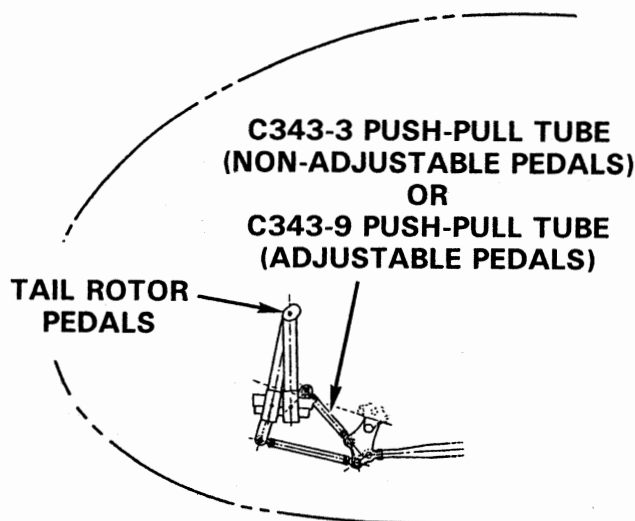
NOTE: Use R44 Maintenance Manual (MM) change 8 dated 31 Jan 00 or later.

1. Check tail rotor rigging per R44 MM section 10.140. Perform set up per steps 1(a) thru 1(g). Measure blade angles at full left pedal per steps 2(a) thru 2(e). (Blade angles at full right pedal are unchanged.)
2. Adjust blade angles at left pedal stop to **18.5° to 19.0°**. Adjust as follows:
 - a. Lift instrument console and disconnect intercom system and outside air temperature gage wiring.
 - b. Remove avionics, avionics face, and radio rack.

NOTE: It may be necessary to remove the cyclic friction knob and loosen the cyclic box cover to allow removal of the avionics face.

(OVER)

- c. Refer to figure below. Adjust C343-3 or C343-9 push-pull tube assembly per R44 MM section 10.002. Shortening C343-3 or -9 push-pull tube assembly will increase blade angles at left pedal stop. One turn of rod end increases blade angle approximately one degree for non-adjustable pedals or 1.5 degrees for adjustable pedals.
 - d. After final adjustment to 18.5°~19.0° blade angle at left pedal stop, torque nut and palnut at push-pull tube rod end per R44 MM section 1.320, and torque stripe.
 - e. Reinstall radio rack and avionics face. If removed, install cyclic friction knob and tighten cyclic box cover.
 - f. Manipulate pedals throughout operating range to verify controls are smooth and clear surrounding structure.
 - g. Install avionics.
 - h. Reconnect intercom system and outside air temperature gage wiring. Close and secure console.
 - i. Function check outside air temperature gage, intercom, and avionics.
 - j. If a tail rotor pitch link length was changed, balance tail rotor per R44 MM section 10.240.
3. Verify black-colored C119-2 elastomeric bumper is installed on tail rotor gearbox output shaft. If amber-colored C119-1 bumper is installed, replace with C119-2.
 4. Make appropriate maintenance record entries.



Approximate Cost:

Parts: \$12.00 for C119-2 bumper, if required.

Labor: 2.0 man-hours.

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