

SERVICE LETTER #7

DATE: 26 December 1995

TO: R44 Owners, Operators, and Service Centers

SUBJECT: Cyclic Friction

ROTORCRAFT AFFECTED: R44 Helicopter S/Ns 0004 thru 0225

BACKGROUND: RHC has received reports that excessive cyclic friction exists in some R44s with cyclic friction turned full off. RHC has redesigned the cyclic friction assembly to minimize cyclic friction when full off.

COMPLIANCE PROCEDURE:

Part A:

- 1) Rotate blades to align main rotor pitch links in fore and aft position.
- 2) With cyclic friction off and cyclic stick centered, switch trim on to neutralize forces, then switch trim off.
- 3) Using spring scale, measure average force required at top of cyclic to move cyclic laterally. It should be less than 3 lbs.
- 4) Rotate blades 90 degrees to align pitch links laterally.
- 5) Measure average force required at top of cyclic to move cyclic fore and aft. It should be less than 4 lbs.
- 6) If friction is within limits, no further action is required. If friction exceeds the specified limits, complete Part B.

Part B:

- 1) Order C048-1A Cyclic Friction Assembly from RHC.
- 2) Perform steps in Section 8.111 a, b, and c of R44 Maintenance Manual (MM).
- 3) Remove two NAS6603-8 bolts attaching rod ends to friction arms (per Figure 1).
- 4) Remove C130-2 spacer up through cyclic box.
- 5) Disconnect, but do not remove, two NAS6603-25 bolts (per Figure 1).
- 6) Tape threads of NAS6603-25 bolts to avoid losing spacers and remove friction assembly (per Figure 1).

(OVER)

COMPLIANCE PROCEDURE (cont'd):

- 7) Remove tape from threads of NAS6603-25 bolts and attach assembly to airframe. Torque to 50 in.-lb (includes locking torque).
- 8) Ensure wiring is ty-rapped to outboard side of friction assembly shaft and that there are no gaps between friction assembly plate spacers.
- 9) Slide C130-2 spacer down through cyclic box.
- 10) Attach rod ends to friction arms with NAS6603-8 bolts. Torque to 50 in.-lb (includes locking torque).
- 11) Complete installation per R44 MM Section 8.112 l, n, and o.
- 12) Adjust cyclic friction per R44 MM Section 8.150.

Approximate Cost:

Parts:	Part A:	No parts required
	Part B:	Discount price \$165.00 for C048-1A if ordered by 28 February 1996. Warranty will apply to R44 s/n 0125 and subsequent.
Labor:	Part A:	0.2 manhour
	Part B:	1.5 manhour

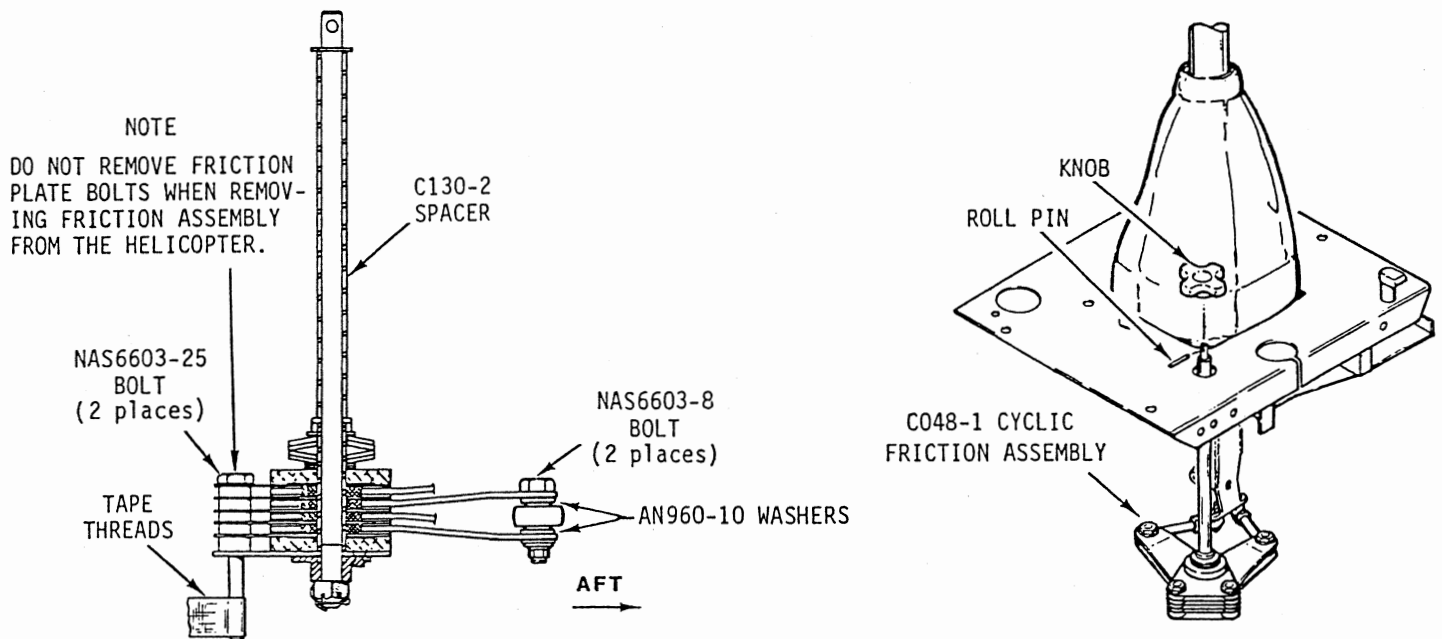


FIGURE 1 CYCLIC FRICTION ASSEMBLY