

R44 SERVICE BULLETIN SB-74

DATE: 30 April 2010

TO: R44 and R44 II owners, operators, and maintenance personnel

SUBJECT: MRGB Input Yoke Retaining Nut Torque

ROTORCRAFT AFFECTED: R44 helicopters S/N 0001 thru 2030. R44 II helicopters S/N 10001 thru 12691, 12693 thru 12697, 12699, & 12704. Spare C006-5 or C006-6 MRGBs Revision AD and prior.

TIME OF COMPLIANCE: Within next 150 flight hours or by 31 July 2010, whichever occurs first.

BACKGROUND: RHC has received reports of torque loss at the AN320-8 nut securing the C908-1 yoke to the main rotor gearbox (MRGB) pinion. Loss of nut torque can result in damage to the MRGB pinion splines. This bulletin requires increasing yoke retaining nut torque.

COMPLIANCE PROCEDURE:

1. Remove C706 tailcone cowling. Disengage clutch actuator.
2. Temporarily support forward end of clutch shaft. Remove C947-1 forward flex plate and record placement of any shim washers. Apply rotor brake.
3. Determine if cotter pin securing C908 yoke to MRGB pinion is broken or missing; if cotter pin is undamaged, proceed to step 4. If cotter pin is broken or missing, remove C908 yoke per R44 Maintenance Manual (MM) Section 7.140. Visually inspect yoke and pinion splines for damage (spline damage is indicated by wear steps). Replace yoke if damaged. If pinion is damaged, remove MRGB per MM Section 7.110 and return to RHC for repair.
4. Remove cotter pin from nut, special torque nut to 35-45 ft-lb, and install new MS24665-210 cotter pin.

NOTE

Deflection of washer under nut is permissible.

(OVER)

5. Release rotor brake. Verify gap between both yoke magnets and both B320-2 senders is 0.020-0.040 inch. Adjust gap as required by repositioning sender jam nuts.
6. Visually inspect C947-1 forward flex plate and verify no damage. Install flex plate per MM Fig. 7-4 using previously recorded shims, if any. Remove clutch shaft temporary support. Standard torque bolts to 350 in.-lb. Install four new B330-19 palnuts, standard torque to 29-60 in.-lb, and torque stripe per MM Figure 2-1.
7. Install C706 tailcone cowling. Connect any applicable antennas and ty-rap associated wiring as required.
8. Have qualified person run-up helicopter per Pilot's Operating Handbook. Verify correct function of dual tachometer and low rotor RPM warning system. Shutdown helicopter per Pilot's Operating Handbook.
9. Make appropriate maintenance record entries.

Approximate Cost:

Parts:	B330-19 palnut	\$.17 (4 required)
	MS24665-210 cotter pin	\$.04

Parts may be obtained from any R44 Dealer or Service Center, or ordered directly from RHC Customer Service (via RHC web site, fax, or phone). Order must include helicopter serial number.

Labor: 1 man-hour.