



SCHWEIZER SERVICE BULLETIN

*B-237.1
30 May 1991

MANDATORY

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SUBJECT: POSSIBLE RESTRICTION OF CYCLIC PITCH CONTROL

MODELS AFFECTED: Model 269C Helicopters with Serial Numbers 0004 through 1456

TIME OF COMPLIANCE: ● Part I or Part II must be complied with prior to next flight, on affected helicopters that HAVE NOT been modified in accordance with Service Bulletin 237 (B-237). The periodic inspection specified in Part I must be accomplished until Part II is complied with.

- REFERENCES:
- BHMI – 269 Series Basic HMI (Reissued: 15 March 1982; Revision 1: 24 Aug 1990)
 - HMICSC – 269 Series HMI, Configuration Supplement C (Reissued: 15 Sept 1982; Revised: 15 March 1989)
 - HMIB – 269 Series HMI, Appendix B (Reissued: 15 August 1982)
 - R-43 – HMI Temporary Revision 43 (30 May 1991)

- PREFACE:
- Field reports indicate that slippage of the lower longitudinal cyclic control rod spring attachment clamp (AN735-9) on control rod assembly (P/N 269A9940-7) has occurred. This slippage may result in restriction of cyclic flight controls which could lead to a loss of control of the helicopter and subsequent personal injury or death.
 - Part I provides instructions for installation of a worm clamp on the control rod assembly to prevent slippage of attachment clamp (AN735-9), and a periodic inspection of the worm clamp installation.
 - Part II provides instructions to slide a spacer tube over the control rod assembly to prevent slippage of attachment clamp (AN735-9). This is an alternate procedure to Part I and does not require a periodic inspection.

PART I INSTALLATION AND PERIODIC INSPECTION OF WORM CLAMP

PARTS

<u>Nomenclature</u>	<u>Part Number</u>	<u>Quantity</u>	<u>Source</u>
Clamp, worm	AN737TW22 or AN737TW24 or equivalent	1	Commercial
Clamp	AN735-9	A/R	Commercial

(■) Denoted portion of text added or revised.

*Supersedes B-237, dated 5 Apr 1990

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PROCEDURE:

- a. Gain access to Lower Longitudinal Cyclic Control Rod Assembly (BHMI, Figure 8-34).
- b. Inspection of Lower Longitudinal Cyclic Control Rod Assembly:
 - (1) Position cyclic stick to full forward position. Verify that stud in friction linkage is completely forward in the friction link slot (BHMI, Figure 8-33). If NOT, proceed to step c.
 - (2) On lower longitudinal cyclic control rod assembly (P/N 269A9940-7), measure the distance between aft face of forward jam nut and forward edge of AN735-9 clamp. The distance must be 7.85 to 7.97 inches. If NOT, proceed to step c.
 - (3) Verify that horizontal legs of angles attached to AN735-9 clamp are parallel to control rod and aligned with each other. If NOT, proceed to step c. If correct, while ensuring no movement of parts, torque nut to 20 – 25 in.-lbs. and proceed to step d.
- c. Adjustment of Clamp and Attached Angles:
 - (1) On lower longitudinal cyclic control rod assembly (P/N 269A9940-7), disconnect springs, and loosen screw and nut holding angles and AN735-9 clamp together. Set distance of 7.85 to 7.97 inches between aft face of forward jam nut and forward edge of AN735-9 clamp. Position horizontal legs of angles attached to AN735-9 clamp parallel to control rod, and align with each other. While ensuring no movement of parts, torque nut to 20 – 25 in.-lbs. Verify that clamp is secure. If NOT secure, replace clamp. Reconnect springs to angles.
- d. Install new worm clamp (AN737TW22 or AN737TW24 or equivalent) on control rod, forward of and touching AN735-9 clamp. Torque to 40 – 45 in.-lbs.
 - (1) Verify proper travel and clearance of cyclic control system (BHMI, paragraph 8-61, step a. (17)).
 - (2) Reinstall items removed in step a. Inspect for correct installation.
- e. Periodic Inspection of Worm Clamp Installation:
 - (1) Perform 100 Hour Inspection on worm clamp installation in accordance with HMIB, Section 2, Table B-2, as amended by HMI Temporary Revision R-43.
- f. Record compliance with Part I of this Service Bulletin in the aircraft records.

PART II INSTALLATION OF SPACER TUBE ON LOWER LONGITUDINAL CYCLIC CONTROL ROD ASSEMBLY

PARTS

<u>Nomenclature</u>	<u>Part Number</u>	<u>Quantity</u>	<u>Source</u>
Tube, spacer	269A9989-1	1	SAC

PROCEDURE:

- a. Gain access to Lower Longitudinal Cyclic Control Rod Assembly (BHMI, Figure 8-34).
- b. Remove cotter pin, nut, washers, bolt, and bushing, and disconnect forward rod end from torque tube extension.

CAUTION

In step c. below, count the number of turns required to remove the rod end. Failure to do so may result in loss of rigging adjustments during reassembly.

- c. Loosen jam nut (Figure B-237.1-1, Detail B). Unscrew and remove forward rod end from control rod, counting the turns carefully.
- d. Remove worm clamp forward of AN735-9 clamp on control rod (B-237) if installed. (Worm clamp not shown on Figure B-237.1-1.)
- e. Disconnect springs, and loosen screw and nut on AN735-9 clamp.
- f. Slide spacer tube (P/N269A9989-1) over control rod. The spacer tube must slide aft far enough to clear forward end of control rod. If necessary, slide AN735-9 clamp aft to allow clearance.
- g. Install forward rod end in original position in control rod, using the same number of turns required for removal.
- h. Connect forward rod end to torque tube extension, using hardware removed in step b. above. Torque nut in accordance with BHMI, Section 2, Table 2-3, and install cotter pin.
- i. Tighten jam nut against rod end, and torque jam nut in accordance with BHMI, Section 2, Table 2-3.
- j. Slide the clamp assembly forward until AN735-9 clamp contacts spacer tube (P/N 269A9989-1). Position horizontal legs of angles parallel to control rod, and align with each other. While ensuring no movement of parts, torque nut to 20 - 25 in.-lbs. Reconnect springs to angles.
- k. Verify proper travel and clearance of cyclic control system (BHMI, Section 8, Paragraph 8-61, step a.(17)).
- l. Reinstall items removed in step a. Inspect for correct installation.
- m. Verify proper flight operation of cyclic control system (HMICSC, Section 8, Paragraph 8-19, step b.(2)).
- n. Record compliance with Part II of this Service Bulletin in the aircraft records.

WEIGHT AND BALANCE

Weight and balance are not affected.

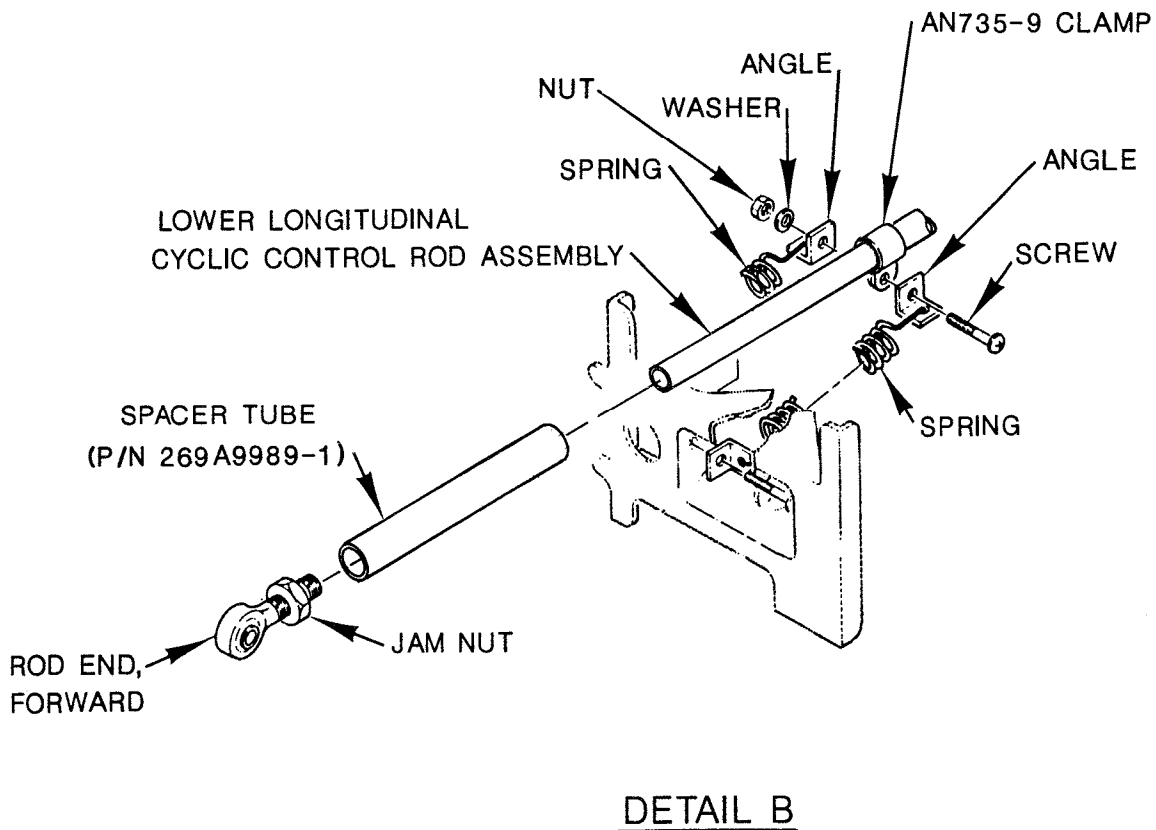
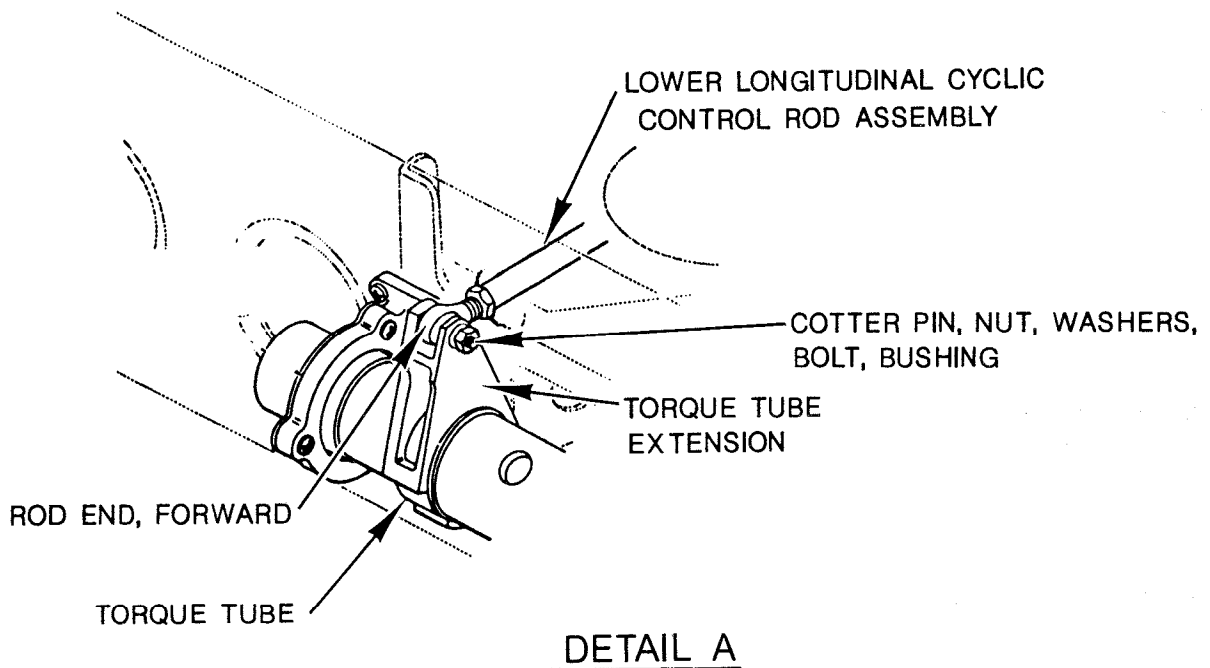


Figure B-237.1-1. Spacer tube installation, Lower Longitudinal Cyclic Control Rod Assembly