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269C™ HELICOPTER

ALERT SERVICE

BULLETIN



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ASB B-310

Basic Issue ▪ March 3/16

SUBJECT: MAIN ROTOR AND CONTROL SYSTEM AND TAIL ROTOR AND CONTROL SYSTEM –
Main Rotor and Tail Rotor Control Rods – One-time Inspection of Flight Control Pushrods
with Adjustable Rod Ends

Section 1. PLANNING INFORMATION

- A. Effectivity All 269A, TH-55A, A-1, B, and C model helicopters up to and including serial numbers S1966.
- B. Purpose To perform a one-time inspection of flight control pushrods with adjustable rod ends.
- C. Background Flight control pushrods have been found with incorrect rod-end jam-nut torque which can lead to failure of pushrod rod-ends.
- D. Description Helicopter is prepared for inspection. Access to flight control pushrods is gained. All flight control pushrods located in the fuselage, tailboom, and below the lateral pitch mixer bellcrank are inspected to make sure rod end is threaded into the rod past the inspection hole. All adjustable pushrods that have shear type jam-nuts (AN316-6R and AN316-5R), or equivalent are visually inspected to make sure the jam-nuts are seated against the flight control rod. If necessary, pushrod is removed and replaced, and rigging check is performed. Torque stripe is applied to all adjustable pushrod rod ends. Access panels, seats, and fairings are reinstalled, as required. Flight Control Pushrod Jam-Nut Inspection Data Sheet is completed and helicopter is returned to service.

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Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

NOTE: Shear type jam-nut (AN316-6R, or equivalent) has a 3/8-24 thread size;
Shear type jam-nut (AN3165-5R, or equivalent) has a 5/16-24 thread size.

- (a) As required, locally fabricate a non metallic pushrod tool that can fit between the mounting lug or clevis for each pushrod rod end to react torque to prevent damage during torquing. (Refer to Figure 3.)
- (b) As required, slide pushrod tool in-between rod end bearing and mounting lug or clevis at each end of the flight control pushrod while torque is applied.

NOTE: • Apply torque in the tightening direction only.

- Independently verify that each jam-nut has been correctly torqued.

- (c) Using torque wrench (commercially available or equivalent), apply torque to jam-nut. (Refer to HMI CSP-C-2, Paragraph 2-48, and Table 2-3, or HMI CSP-C-10, Paragraph 2-46, and Table 2-3.)
 - (d) Remove pushrod tool.
- (4) Apply torque stripe to all adjustable pushrod rod ends as follows:

NOTE: Make sure torque stripe is not applied over inspection hole (witness hole).

- (a) Clean areas where torque stripe is to be applied with trichloroethane (O-T-620, or equivalent).
- (b) Apply torque seal stripe (F900 Yellow, or equivalent) across rods, jam-nuts, and rod ends. Torque stripe shall extend a minimum of 0.5 inch.

WARNING

IF ANY COMPONENT OF ANY FLIGHT CONTROL SYSTEM IS DISCONNECTED, ADJUSTED, REMOVED, INSTALLED, OR REPLACED, A RIGGING CHECK MUST BE MADE TO MAKE SURE THAT CONTROL RANGES ARE WITHIN SPECIFIED LIMITS.

- (5) If rod end is not threaded past inspection hole (witness hole) do the following:
- (a) Record angular orientation of rod ends. Remove pushrod and readjust rod end to make sure rod end is threaded beyond the inspection hole (witness hole).
 - (b) Tighten pushrod jam-nuts hand tight and install pushrod. (Refer to HMI CSP-C-2, Paragraph 8-111, and Paragraph 9-43, or HMI CSP-C-10, Paragraph 8-107, and Paragraph 9-36.)
 - (c) Verify a 0.020 inch diameter piece of lockwire (commercially available or equivalent) cannot be inserted through the inspection hole (witness hole).
 - (d) Repeat Step (3).

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

- (6) If jam-nut is loose when checking finger pressure, pushrod will require removal and replacement as follows:
- (a) Remove pushrod, measure and record length from mounting centers and angular orientation. (Refer to HMI CSP-C-2, Paragraph 8-107, and Paragraph 9-42, or HMI CSP-C-10, Paragraph 8-103, and Paragraph 9-36.)
 - (b) Adjust the length from mounting centers and angular orientation on the replacement pushrod and tighten jam-nuts finger tight.

NOTE: If rod requires replacement and spare part is not available, contact Sikorsky Aircraft for assistance (1-800-946-4337 or 1-800-WINGED-S).

- (c) Install replacement pushrod. (Refer to HMI CSP-C-2, Paragraph 8-111, Paragraph 9-42, and Temporary Revision No. 269A-123, or HMI CSP-C-10, Paragraph 8-107, Paragraph 9-36, and Temporary Revision No. 269C-72.)
- (d) Perform rigging check, as required. (Refer to HMI CSP-C-2, Paragraph 8-62, Paragraph 9-3, and Temporary Revision No. 269A-120, or HMI CSP-C-10, Paragraph 8-57, Paragraph 9-3, and Temporary Revision No. 269C-69.)

NOTE: Independently verify that the jam-nut(s) or replacement pushrod has been correctly torqued.

- 1. Install locally manufactured Pushrod Tool (Figure 3), as required.
 - 2. Using torque wrench (commercially available or equivalent), apply torque to shear type jam-nuts (AN316-6R and AN316-5R, or equivalent).
 - 3. Remove Pushrod Tool. Report if jam-nut turned at minimum torque and include action taken. (Refer to Flight Control Pushrod Jam-Nut Inspection Data Sheet Step E.)
 - 4. Reapply torque seal stripe (F900 Yellow, or equivalent) across rods, jam-nuts, and rod ends. Torque stripe shall extend a minimum of 0.5 inch.
- (7) Report any wear, damage, or non-compliant conditions on the Inspection Data Sheet. (Refer to Step E.)
- (8) Reinstall access panels, seats, and fairings, as required.
- C. Complete the Flight Control Pushrod Jam-Nut Inspection Data Sheet (Step E.) and Alert Service Bulletin Compliance Record Card. Send to Email Address S300ASB@sikorsky.com.
- D. Return helicopter to service.

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

E. Flight Control Pushrods Jam-Nut Inspection Data Sheet:

- (1) Report the following to Sikorsky Aircraft Corporation Engineering (Email Address: S300ASB@sikorsky.com).

ASB No: B-310

Date ASB is Performed: _____

Customer/Operator Name: _____

Helicopter Serial Number: _____

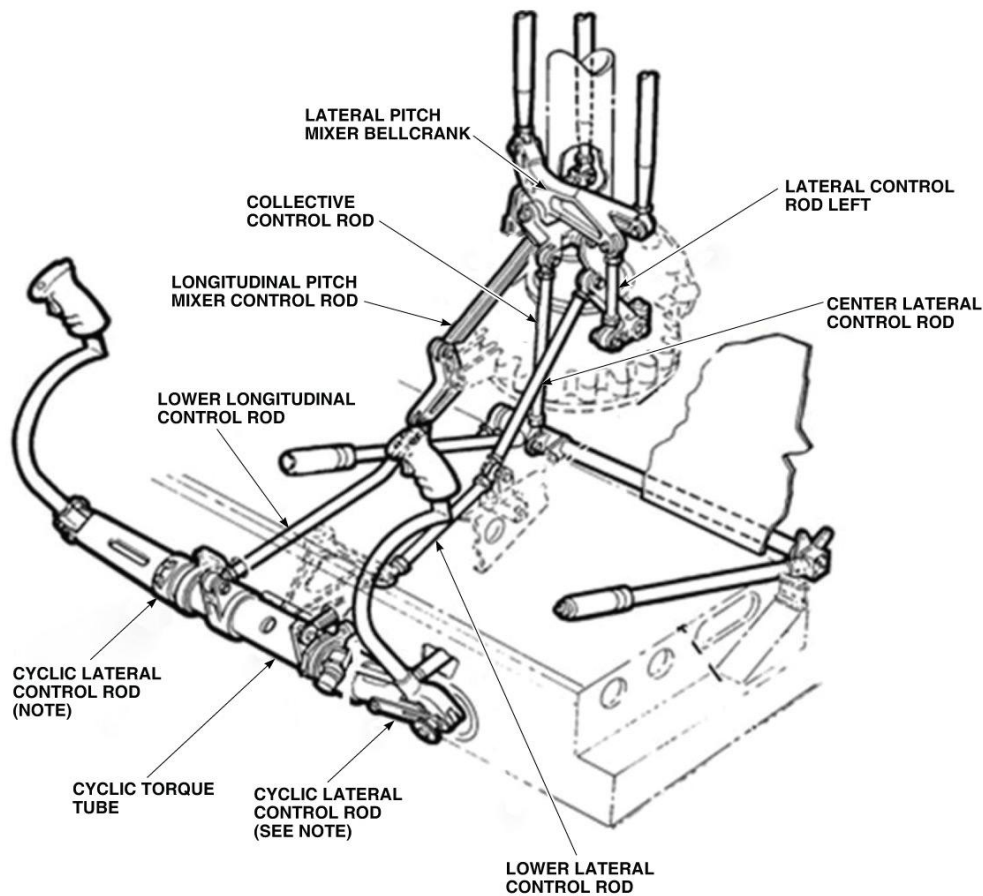
Helicopter Total Time Since New: _____

	Yes	No
Were any flight control pushrods with shear type jam-nuts (AN316-6R or AN316-5R) found unseated and/or loose?	_____	_____
Were any flight control pushrods found that failed the witness hole inspection (where the 0.02 inch wire passed through)?	_____	_____
Were any flight control pushrods, rod ends, or jam-nuts found with other abnormalities, wear, corrosion, cracks, yielding, etc.?	_____	_____

Please describe details of findings in table below:

Specify issue, part number, pushrod, details of condition.	Specify location and details of damage or condition.	Size of damage (inches)	Total time on part (Flight hours)

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)



NOTE

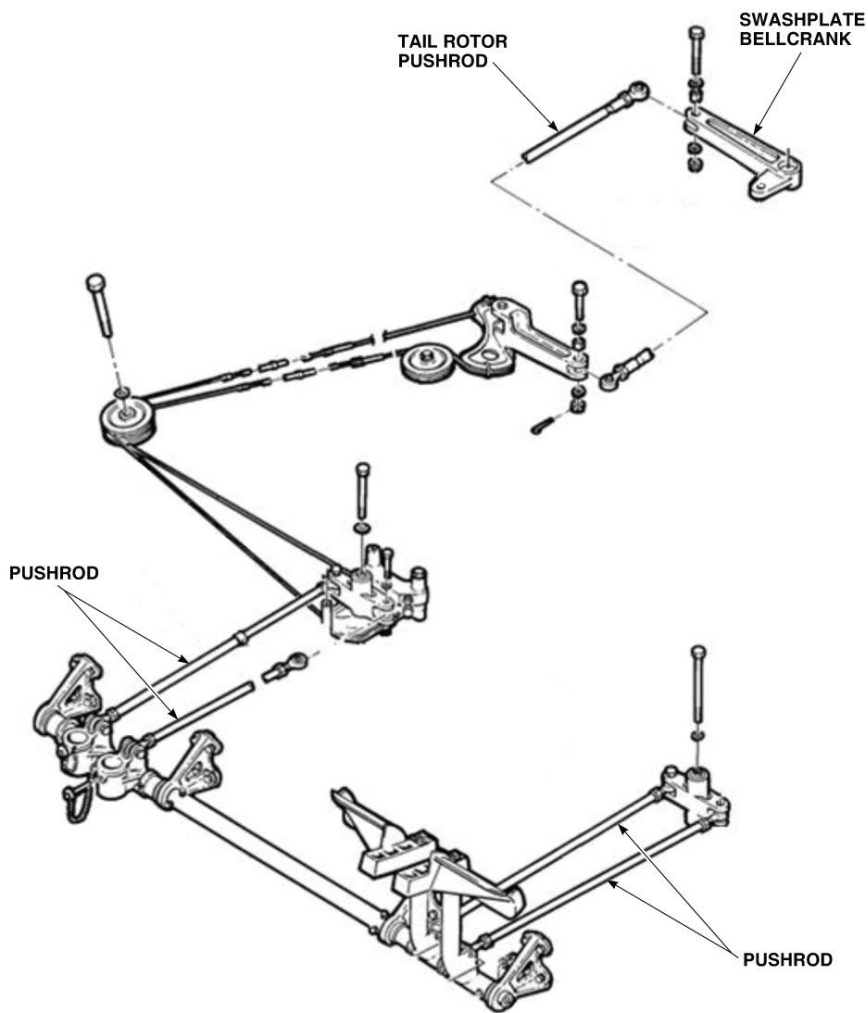
PILOTS AND CO-PILOTS CYCLIC LATERAL CONTROL RODS ARE INSIDE CYCLIC TORQUE TUBE (NOT VISIBLE IN THIS VIEW).

TD3772
SA

CYCLIC AND COLLECTIVE CONTROL PUSHRODS
(LEFT SIDE PILOT IN COMMAND SHOWN)
FIGURE 1

ONE-TIME
INSPECTION

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

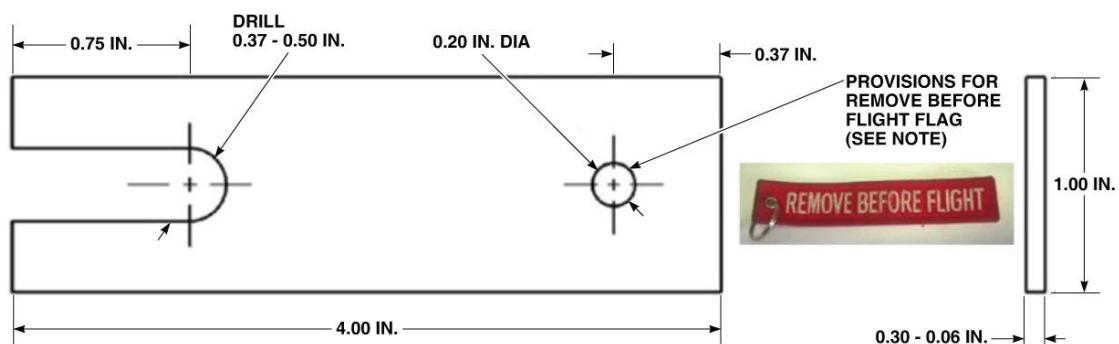


TAIL ROTOR CONTROL PUSHRODS
FIGURE 2

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ONE-TIME
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Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)



NOTE

LOCALLY MANUFACTURE FROM ABS PLASTIC SHEET, OR EQUIVALENT MATERIAL. ADJUST THICKNESS AND DRILL SIZE AS REQUIRED TO ACCOMMODATE DIFFERING SIZING BETWEEN ROD END INSTALLATIONS. SECURE "REMOVE BEFORE FLIGHT" FLAG MINIMUM 6 INCHES IN LENGTH.

TD3776
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PUSHROD TOOL
FIGURE 3

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Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

F. Record of compliance:

- (1) Make an appropriate helicopter logbook entry to show compliance with this ASB.
- (2) Upon compliance with the ASB, complete attached ALERT SERVICE BULLETIN COMPLIANCE RECORD CARD and return it to Sikorsky Aircraft Corporation.