Sikorsky Aircraft Corporation
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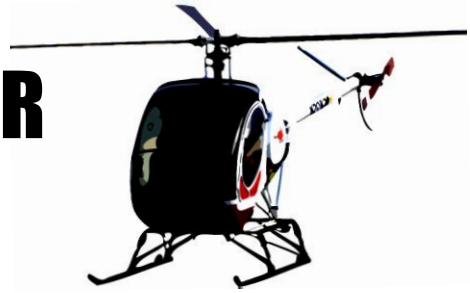
(203) 386-4000

269C-1™ HELICOPTER



ALERT SERVICE BULLETIN

ASB C1B-045

Basic Issue ▪ February 29/16

SUBJECT: POWER TRAIN – Belt Drive Clutch Control Installation – One-Time Inspection of Cable Pulley Bracket

Section 1. PLANNING INFORMATION

A. Effectivity — All 269C-1 model helicopters up to and including serial number S0373.

B. Purpose — To perform a one-time inspection of cable pulley bracket.

C. Background — In multiple instances, Sikorsky has been informed of cable pulley bracket (269A5472) wear and failure. The lower mounting tab of the cable pulley bracket (269A5472) has fractured, which caused a reduction in cable tension allowing slippage and power loss of the transmission drive belt.

D. Description — Helicopter is prepared for inspection. Clutch actuator is fully extended. Access to belt drive clutch control installation is gained. Clutch cable pulley bracket assembly, lower pulley bracket assembly, and pulley groove is inspected. Belt drive clutch control spring assembly is removed. Clutch control pulley bracket installation and clutch control pulley bracket installation is disassembled. Center frame cluster fitting lug, bushing, spacers, and brackets are cleaned and inspected. Clutch cable pulley bracket installation is reassembled. Clutch Cable Pulley Bracket Assembly Inspection Data Sheet is completed and helicopter is returned to service.

Section 1. PLANNING INFORMATION (Continued)

E. Compliance Compliance is essential. The inspection outlined herein shall be accomplished within the next 100 flight hours or no later than April 29, 2016.

F. Approval Inspection Item.

G. Manpower (Estimated)

Task	No. of Men	No. of Hours	Man-Hours*
Inspection of cable pulley bracket assembly, lower pulley bracket assembly, and pulley groove with transmission belt drive clutch cable tension released.	1	0.10	0.10
Removal of belt drive clutch control spring assembly.	1	0.15	0.15
Disassembly of clutch control pulley bracket installation.	1	0.10	0.10
Inspection of center frame cluster fitting lug, bushing, spacers, and brackets.	1	0.30	0.30
Reassembly of clutch cable pulley bracket installation.	1	0.30	0.30
Installation of clutch control installation including cable tension.	1	0.50	0.50
Total Man-Hours			1.45
*Estimate does not include time required to prepare helicopter or return it to flight status.			

H. Tooling

None.

I. Weight and Balance

Not affected.

J. Electrical Load Data

Not affected.

K. Software Load Data

Not changed.

L. References

(1) Handbook of Maintenance Instructions (HMI), CSP-C1-2.

(2) Temporary Revision No. 269C1-62, Removal of Belt Drive Clutch Control Installation, against HMI, CSP-C1-2, Section 10, is issued concurrently with this ASB.

Section 1. PLANNING INFORMATION (Continued)

(3) Temporary Revision No. 269C1-64, Belt Drive Clutch Control Installation, against HMI, CSP-C1-2, Section 10, is issued concurrently with this ASB.

(4) Temporary Revision No. 269C1-65, Installation and Adjustment of Belt Drive Clutch Control Installation, against HMI, CSP-C1-2, Section 10, is issued concurrently with this ASB.

M. Publications Affected

(1) Temporary Revision No. 269C1-62, Removal of Belt Drive Clutch Control Installation, against HMI, CSP-C1-2, Section 10, is issued concurrently with this ASB.

(2) Temporary Revision No. 269C1-63, Installation of Clutch Control Installation, against HMI, CSP-C1-2, Section 10, is issued concurrently with this ASB.

(3) Temporary Revision No. 269C1-64, Belt Drive Clutch Control Installation, against HMI, CSP-C1-2, Section 10, is issued concurrently with this ASB.

(4) Temporary Revision No. 269C1-65, Installation and Adjustment of Belt Drive Clutch Control Installation, against HMI, CSP-C1-2, Section 10, is issued concurrently with this ASB.

(5) Temporary Revision No. 269C1-66, What to Inspect - 100-hour Inspection, against HMI, CSP-C1-2, Appendix B, is issued concurrently with this ASB.

(6) Temporary Revision No. 269I-C1-11, Clutch Control Installation, against Illustrated Parts Catalog (IPC), CSP-C1-6, Section 3, is issued concurrently with this ASB.

N. Attachment

None.

Section 2. MATERIAL INFORMATION

A. Basis for Material Data

Per helicopter.

B. Bill of Material

None.

Section 2. MATERIAL INFORMATION (Continued)

C. Consumable Material

WARNING

OBSERVE ALL CAUTIONS AND WARNINGS ON CONTAINERS WHEN USING CONSUMABLES. WHEN APPLICABLE, WEAR NECESSARY PROTECTIVE GEAR DURING HANDLING AND USE. IF A CONSUMABLE IS FLAMMABLE OR EXPLOSIVE, MAKE CERTAIN CONSUMABLE AND ITS VAPORS ARE KEPT AWAY FROM HEAT, SPARK AND FLAME. MAKE CERTAIN FIREFIGHTING EQUIPMENT IS READILY AVAILABLE PRIOR TO USE. FOR ADDITIONAL INFORMATION ON TOXICITY, FLASHPOINT AND FLAMMABILITY OF CHEMICALS, CONSULT YOUR MEDICAL PEOPLE OR THE MANUFACTURER OF THE CONSUMABLE.

Qty	Nomenclature	Part No.	Source
A/R	Abrasive Cloth	ANSI B74.18 or equivalent	(1)

(1) Procure from local supply.

Section 3. ACCOMPLISHMENT INSTRUCTIONS

A. Prepare helicopter for inspection:

(1) Make sure clutch actuator is fully extended as follows:

(a) Set BAT switch to the ON position and CLUTCH control switch to RELEASE; set BAT switch to OFF after motor stops.

WARNING

TO PREVENT ELECTRICAL SHOCK OF PERSONNEL OR POSSIBLE DAMAGE TO HELICOPTER COMPONENTS, MAKE SURE TO TURN OFF ALL ELECTRICAL POWER.

(2) Turn off all helicopter electrical power.

(3) Gain access to belt drive clutch control installation. (Refer to HMI CSP-C1-2, Paragraph 10-23.)

NOTE: Bushing (HS12-4-028-028) is identified as a 0.25 inch outside diameter bushing, secured between the two cable pulley brackets (269A5472).

B. Perform inspection as follows:

(1) With transmission belt drive clutch cable tension released, inspect the following prior to disassembly:

(a) Inspect the bracket lower tab bushing (HS12-4-028-028) as follows:

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

1. Move clutch cable pulley bracket assembly by hand forward, aft, and laterally about the center frame cluster fitting lug. The bushing (HS12-4-028-028) must move freely in the inner diameter of the center frame cluster fitting lug with no sign of binding. Record results on Clutch Cable Pulley Bracket Installation Inspection Data Sheet (Step E.). (Refer to Temporary Revision No. 269C1-64.)

(b) Inspect cable pulley brackets (269A5472) as follows:

1. Turn lower nut or bolt with hand force to make sure that there is no looseness between the bushing (HS12-4-028-028) and the two cable pulley brackets (269A5472). If the bolt, bushing, and nut show any evidence of looseness between the bracket plates, record results on Clutch Cable Pulley Bracket Installation Inspection Data Sheet (Step E.). (Refer to Temporary Revision No. 269C1-64.)

(c) Inspect the groove of pulley (AN219-4) for wear, cracks, and misalignment. Rotate pulley to inspect bearing for smoothness of operation, record results on Clutch Cable Pulley Bracket Installation Inspection Data Sheet (Step E.).

(d) Record any wear, damage and other conditions as applicable on Clutch Cable Pulley Bracket Installation Inspection Data Sheet. (Step E.)

(2) Remove belt drive clutch control spring assembly. (Refer to HMI, CSP-C1-2, Paragraph 10-23, and Temporary Revision No. 269C1-62.)

(a) Disassemble clutch control pulley bracket installation, by removing all hardware including cotter pins, nuts, washers, bolts, guard pins, cable, pulley, pulley brackets, bushing, and spacers as required. Inspect parts and hardware as follows: (Refer to HMI, CSP-C1-2, and Temporary Revision No. 269C1-64.)

1. Clean and inspect inner diameter of center frame cluster fitting lug for sharp edges, elongation, wear, and corrosion. Area may be smoothed using abrasive cloth (ANSI B74.18 or equivalent). Maximum blending 0.005 inch. (Refer to HMI, CSP-C1-2, Appendix D.)

2. Inspect bushing (HS12-4-028-028) for wear on outer diameter. Roughness or minor wear may be smoothed using abrasive cloth (ANSI B74.18 or equivalent). Wear, damage, burrs, and sharp edges are cause for replacement.

WARNING

WEAR DAMAGE TO HOLE ON LOWER TAB OF THE CABLE PULLEY BRACKET (269A5472) COULD RESULT IN FAILURE AND LOSS OF BELT TENSION AND ENGINE POWER.

3. Inspect cable pulley brackets (269A5472) for corrosion, bending, cracks, fretting, wear, cleanliness, and security. Pay particular attention to the edges of the lower tab holes. Inspect edges of lower tab for fretting, sharp edges, burrs, and wear, which are cause for bracket replacement.

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

4. Inspect the two outer spacers (269A4337-003) for wear and to make sure they slide freely over bushing (HS12-4-028-028). Wear, burrs, and sharp edges are cause for replacement.

(b) For corrosion protection treatment, refer to HMI, CSP-C1-2, Appendix D.

(3) Reassemble clutch cable pulley bracket installation as follows:

(a) Install cable assembly on cable pulley and position pulley between cable pulley brackets (269A5472). Install clevis bolt, washer, and nut. Torque nut and install cotter pin. (Refer to HMI, CSP-C1-2, Table 2-3.)

(b) Install two guard pins (NAS427K8) in pulley brackets. Make sure that cable is positioned between pulley and guard pins.

(c) Install bushing (HS12-4-028-028) through center frame cluster fitting lug. Install two outer spacers (269A4337-003) on bushing (HS12-4-028-028), one spacer on each side of center frame cluster fitting lug. Install one bracket cable pulley bracket (269A5472) on each side of center from cluster fitting lug. Install clevis bolt, washer, and nut. Torque nut and install cotter pin. (Refer to HMI, CSP-C1-2, Table 2-3.)

(4) Complete assembly of clutch control installation including cable tension. (Refer to HMI, CSP-C1-2, Paragraph 10-30, Temporary Revision No. 269C1-65.)

C. Complete Clutch Cable Pulley Bracket Assembly Inspection Data Sheet (Step E.) and Alert Service Bulletin Compliance Record Card. Send to Email Address: S300ASB@sikorsky.com, Attn: SLH Engineering.

D. Return helicopter to service.

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

E. Clutch Cable Pulley Bracket Installation Inspection Data Sheet

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

ASB No: C1B-045

Date ASB is Performed: _____

Customer/Operator Name: _____

Helicopter Serial Number: _____

Helicopter Total Time Since New: _____

	Yes	No
Was bushing (HS12-4-028-028) moving freely in the center section frame cluster fitting lug?	___	___
Was bushing (HS12-4-028-028) found to be secure without movement between it and the cable pulley brackets (269A5472)?	___	___
Was there any evidence of cable pulley bracket (269A5472) cracking or wear around the lower bracket mounting hole?	___	___
Were lower pulley bracket assembly spacers (269A4337-003) found damaged?	___	___

Please describe details of findings in table below:

Specify issue (incorrect, binding, worn or loose hardware, cracked, nicked or worn bracket, etc.)	Specify damage location (bracket lower mounting hole, bushing inner diameter/outer diameter, cluster fitting lug bore)	Size of damage (inches)	Total time on part (Flight hours)

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.

(Fold over and tape closed)

SIKORSKY AIRCRAFT CORPORATION

FACSIMILE NUMBER (860) 998-7565

EMAIL ADDRESS: GPSIKSASProductSafet@utc.com

ATTENTION: PRODUCT SAFETY MANAGER
SIKORSKY AIRCRAFT CORPORATION

IMPORTANT NOTICE

Upon COMPLIANCE with the attached ASB, Sikorsky requests your cooperation in completing and returning this ENTIRE PAGE by MAIL, FAX, or scan & EMAIL.

Please fill in the requested information at the bottom of the page, so we may maintain proper records documenting the configuration of your aircraft. This information is useful when determining configuration and effectivity of issues affecting fielded aircraft.

This request is in keeping with our policy to assure that our customers receive the latest information applicable for the maintenance of your aircraft. Thank you.

ALERT SERVICE BULLETIN: No. C1B-045 **Compliance Record Card**

TITLE: POWER TRAIN – Belt Drive Clutch Control Installation – One-Time Inspection of Cable Pulley Bracket

OWNER/OPERATOR: _____

SUBMITTED BY: _____ **DATE:** _____

☐ **FOLLOWING SERIAL NUMBERS ARE NOT AFFECTED BY THIS ASB**

☐ **ASB HAS BEEN COMPLIED WITH ON HELICOPTER SERIAL NUMBERS:**

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

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