



# SCHWEIZER SERVICE NOTICE

NOTICE NO. N-146.2\*

DATE Dec. 7, 1979

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\*Supersedes Service Notice  
No. N-146.1, dated 3 October 1977

MANDATORY

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**SUBJECT:** BELT DRIVE TRANSMISSION ASSEMBLY - INSPECTION OF LOWER PULLEY BEARINGS AND SHIMMING OF LOWER PULLEY BEARING STRAPS: PERIODIC TORQUE CHECK OF FORWARD BEARING RETAINING NUT

**MODELS AFFECTED:** 269A Helicopter Serial No. 0011 thru 0314  
269A (TH-55A) Helicopter Serial No. 0315 thru 1109  
269A-1 Helicopter Serial No. 0001 thru 0041  
269B Helicopter Serial No. 0001 thru 0462  
269C Helicopter Serial No. 0004 thru 0589

**TIME OF COMPLIANCE:** Part I - Shall be accomplished within next 50 hours of helicopter operation, or within six (6) months after date of this Notice, whichever is sooner.

Part II - Shall be accomplished at each 100-hour periodic inspection interval.

**PREFACE:** Part I of this Service Information Notice lists procedures for (1) a one-time inspection of the lower pulley bearings, (2) removal of the lower forward bearing and reinstallation with Loctite A sealant, and (3) shimming of the lower bearing frame straps to minimize possible radial preloads on the lower bearings.

It is to be noted that shimming of the lower bearing straps is to be accomplished whenever the straps are removed and reinstalled.

A new 269A5573-11 belt drive H-frame assembly, designed to incorporate lower bearing caps as an integral part of the frame assembly, is being factory installed on Model 269C helicopter Serial No. 0590 and subsequent. The new lower bearing caps are machined to close tolerance to eliminate shimming and reduce possible overclamping and preloading of the lower bearings. The new -11 belt drive H-frame assembly will be available soon as replacement, when required, for existing H-frame assemblies on all Model 269 series helicopters.

Part II of this Notice lists a 100-hour periodic torque check of the lower pulley forward bearing retaining nut to ensure that proper torque is maintained.

(I) Denotes portion of text added or revised.

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#### Reference

269 Series - Basic HMI, Issued 1 April 1973; Revision No. 4, 15 December 1976

269 Series - HMI Appendix B, Issued 1 July 1973; Revision No. 5, 1 August 1976

#### MATERIALS

<u>Nomenclature</u>	<u>Part No. /Description</u>	<u>Mfr</u>
Locking compound	Loctite A	Loctite, Inc Newington, Conn.
Primer, zinc chromate	TT-P-1757	Commercial

#### PARTS LIST

<u>Nomenclature</u>	<u>Part No. /Description</u>	<u>Qty</u>	<u>Mfr</u>
Shim washer	HS306-327 Alum 1/32 in. thick	A/R	HH
	HS306-327H Alum 1/16 in. thick	A/R	HH
	HS306-327L Alum 1/64 in. thick	A/R	HH

#### PART I - INSPECTION OF LOWER PULLEY BEARINGS AND SHIMMING OF LOWER BEARING STRAPS

- a. Remove and disassemble the belt drive transmission components required to remove the lower pulley assembly from the H-frame assembly. (Refer to Basic HMI.)
- b. Remove lower coupling drive shaft with attached grease retainer from inside lower pulley drive shaft.
- c. Remove lockwasher and retaining nut securing lower forward bearing to lower pulley drive shaft. Hold pulley drive shaft with special lower pulley shaft wrench when removing nut. (Refer to Basic HMI.)
- d. Using bearing puller, remove lower forward bearing; do not apply side loads to outer race of bearing during removal.

NOTE

Lower pulley bearings need not be removed from lower pulley assembly to clean. Remove inboard seals from bearings and leave seals on the pulley assembly. Immerse pulley assembly in oil-based cleaning fluid while cleaning.

CAUTION

Do not use a carburetor type cleaner since it will damage the seals and could cause bearing corrosion.

e. Remove both grease seals and clean each bearing per HMI, pages 2-19 and 2-20, paragraph 2-28A.

f. Inspect each bearing for damage of individual components (cracked cage, cage rubbing shoulder on either inner or outer race, spalled or cracked races, damaged seals). Lubricate bearing with light oil. While rotating outer race by hand, check for looseness, roughness, or binding. Replace bearing as required. If the bearing passes inspection, regrease it and reinstall the seals per the HMI. (Mobil Grease 28 is preferred.)

NOTE

Pulley bearings are filled approximately 40 percent with 7.2 grams of grease in each lower bearing and with 3.7 grams in each upper bearing.

CAUTION

Use no more lubricant than specified; damage to bearing can result from excessive quantity of lubricant.

g. Clean bearing bores and lower pulley drive shaft; apply coat of Loctite A to ID bore of bearing and reinstall bearing on shaft. Do not apply side loads to outer race of bearing during installation.

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NOTE

1. Cure time for Loctite A is 2 to 4 hours. Use care to prevent locking compound from entering bearing.
2. Spray or brush a very light coat of zinc chromate primer onto both the upper and lower H-frame bearing bores before assembly.

CAUTION

Thick or excessive primer could reduce the bearing life. Thin primer for brushing if required.

- h. Reinstall removed belt drive transmission components, per Basic HMI.

NOTE

1. Torque lower pulley forward bearing retainer nut (SL61N12F) to 1000 to 1400 inch-pounds with adjustable spanner wrench while holding shaft with special lower pulley shaft wrench. Install lockwasher with special lockwasher installation tool. (Refer to Basic HMI.)
2. When installing 269A5463 lower bearing straps, torque one side of strap to 5 inch-pounds, and install shim washers on the opposite side so that a gap of 0.001 to 0.010 inch exists between the strap and the H-frame assembly. For shims, use HS306-327, HS306-327H, or HS306-327L washer; if additional shims are needed, make shims per Figure 1. Install washers with zinc chromate primer. Torque bolts per HMI.

- i. Record compliance with Part I of this Service Information Notice in Compliance Record of helicopter Log Book.

NOTE

Complete compliance of the 300 hour inspection per the HMI is stressed for bearing longevity and safety.

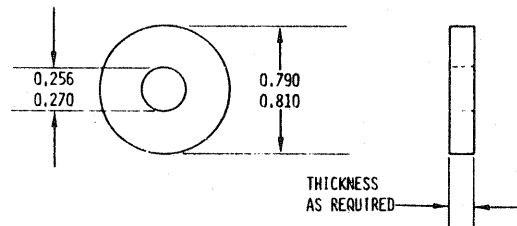
PART II - 100 HOUR TORQUE CHECK OF LOWER PULLEY  
FORWARD BEARING RETAINER NUT

- a. Check lower pulley forward bearing retainer nut (SL61N12F) for proper torque (1000 to 1400 inch-pounds or 84 to 116 foot-pounds). Loosening of existing torque on retainer nut is not required to check for proper torque.
- b. Record compliance with Part II of this Service Information Notice in Compliance Record of helicopter Log Book.

WEIGHT AND BALANCE DATA

Weight and balance not affected.

FAA APPROVED



MATERIAL:

AL ALLOY 5052 OR 6061 SHEET STOCK  
OR LAMINATED AL ALLOY 5052 SHIM STOCK.

NOTE:

ALL DIMENSIONS IN INCHES.

88-366

Figure 1. Additional Shims

