SCHWEIZER 269 SERIES

SCHWEIZER SERVICE NOTICE

NOTICE NO. N-122
DATE Dec. 4, 1974

MANDATORY MANDATORY MANDATORY

FAA APPROVED

SUBJECT: INSPECTION-IMPELLER BOLT INSTALLATION

MODELS AFFECTED:
269A Helicopter Serial No. 0011 thru 0314
269A (TH-55A) Helicopter Serial No. 0315 and subsequent
269A-1 Helicopter Serial No. 0001 thru 0041
269B Helicopter Serial No. 0001 and subsequent
269C Helicopter Serial No. 0004 thru 0389

TIME OF COMPLIANCE:

Shall be accomplished at or prior to next scheduled 100-Hour Periodic Inspection

PREFACE:

The information given in this Service Information Notice lists a procedure for a one-time inspection of the impeller to starter ring gear installation; an increase in bolt installation torque and a recheck of the nut torque at first 100-hours following the initial inspection and torque. The purpose of this Notice is to determine that proper clamp-up is obtained between the impeller and starter ring gear support assembly. Installation of non-approved hardware, particularly bolts having excessive grip length, can result in improper clamp-up, even though nut torque readings are correct.

Reference

269 Series - Basic HMI, Issued 1 April 1973; Revision No. 2, 1 January 1974

PARTS LIST

Nomenclature	Part Number	Qty.*	Manufacturer
Bolt	NAS1304-12	12	Commercial
Washer	AN960 PD416	12	Commercial
Washer	AN960 416L	12	Commercial
Nut	MS21042-4	12	Commercial

*Procure as required, quantities are maximum.

TOOLS AND EQUIPMENT

Hole Gage		Commercial
Wrench-Torque	150-200-inch lbs. minimum	Commercial

INSPECTION PROCEDURE

a. Remove engine cooling scroll assembly, per Basic HMI. For a shock-mounted scroll assembly, remove assembled impeller and starter ring gear support together with scroll assembly.

NOTE

When performing following procedures, replace non-approved hardware and/or washer stack-up with approved hardware specified and as shown.

b. Visually inspect bolt heads and nuts securing impeller to flywheel for evidence of fretting corrosion and or looseness between impeller and flywheel.

NOTE

Fretting will appear as a reddish brown or black powder accumulation around the head of the bolts and nuts on the surfaces of the impeller or flywheel.

c. If fretting is found, disassemble impeller and flywheel and inspect bolt holes for out of round condition (0.005 inch maximum allowable), if no corrosion is found, proceed with step d.

d. Remove two close tolerance AN bolts (identified by triangle marking on bolt head), at hole with black index mark and at hole directly opposite (See Figure 1.)

NOTE

Repaint index mark if required. Add black index mark on starter ring gear assembly adjacent to mark on impeller.

e. Install two NAS 1304-12 bolts with thick AN960 PD416 aluminum washer between flywheel and impeller; and thin AN 960-416L steel washer under MS21042-4 nuts, at locations specified in step d.

NOTE

1. It may be necessary to loosen all of the bolts in order to install the thick washers.
2. Ensure that there is no paint on the surfaces mating with the bolt heads or washers.
3. Ensure that MS21042-4 self-locking nut is installed at each bolt. The MS21042-4 nut is all metal, cadmium plated, non-corrosion resistant steel, non-lubricated self-locking nut with a 1/4-28 thread.
4. Ensure that a minimum of two threads of bolt project above surface of nuts. If less than two threads project above the nut surface, an NAS1304-13 bolt should be substituted. Check that the nut threads do not bottom out on bolt shank.

f. Visually check impeller bolt installation for proper hardware. If impeller and starter ring gear support are installed on helicopter, use dental-type mirror to view bolt installation.

1. Ensure that NAS1304-12 bolt is installed at each of 10 remaining holes. Check for correct bolt part number and dash number on head of each bolt.
2. Ensure that thick AN960 PD416 aluminum washer is installed between flywheel and impeller; and that thin AN960-416L steel washer is installed under MS21042-4 nut, 12 places, as shown.
3. Ensure that there is no paint on the surfaces mating with the bolt heads or washers.
4. Ensure that MS21042-4 self-locking nut is installed at each bolt. The MS21042-4 nut is all metal, cadmium plated, non-lubricated, non-corrosion resistant steel, self-locking nut with a 1/4-28 thread.
5. Ensure that a minimum of two threads of bolt project above surface of nuts. (Same note as e. 4.)

g. Torque MS21042-4 nut (12 places) to 90-100 inch-pounds, plus nut running torque.

NOTE

It is recommended that a clockwise torqueing sequence be used to ensure no bolts are left untorqued.

h. Reinstall removed components and assemblies in reverse order of removal.

i. Recheck torque of twelve MS21042-4 nuts (90-100 inch pound) after 100 hours of operation following completion of this Notice.

NOTE

If running torque is unknown, torque nuts to 100 - 110 inch pounds. Any time the torque is disturbed, retorque bolts after 100 hours of operation following completion of initial torque.

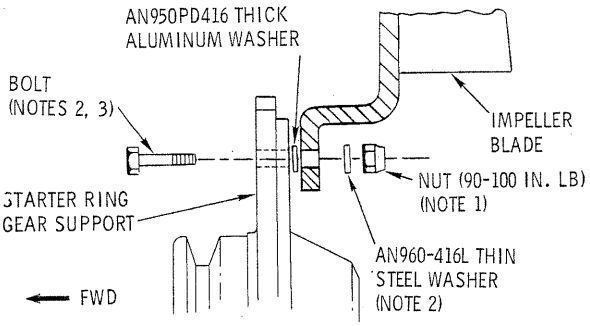
j. Record compliance with this Service Information Notice in Compliance Record of helicopter Log Book.

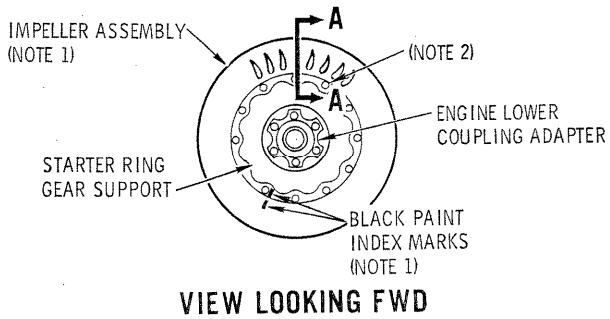
NOTE

Be sure to record torque recheck in Log Book.

WEIGHT AND BALANCE DATA

Weight and balance not affected.





NOTES:
1. IF NOT PRESENT ON IMPELLER, ADD TO IMPELLER BEFORE DISASSEMBLY. INDEX MARKS MUST ALIGN AT REASSEMBLY.
2. BOLT, WASHERS AND NUT INSTALLATION, TYPICAL 12 PLACES. USE NAS1304-12 BOLT (12 PLACES) AND MS21042-4 NUT (12 PLACES) TO ENSURE PROPER CLAMP-UP OF IMPELLER.
3. MINIMUM OF TWO FULL THREADS MUST PROTRUDE THROUGH NUTS AFTER NUTS ARE TORQUED; IF NOT, REPLACE BOLT WITH NAS1304-13 BOLT.

59-053C

Figure 1. Impeller bolt installation