



# SCHWEIZER SERVICE BULLETIN

DB-005  
24 Jul 1998

MANDATORY

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SUBJECT: REPLACEMENT OF MAIN ROTOR HUB HOISTING EYE

MODELS AFFECTED: 269D (330) Helicopters S/N 001 thru 011 and 014 thru 022

TIME OF COMPLIANCE: At next scheduled 100 hour inspection or at next disassembly of main rotor hub, whichever occurs first

REFERENCE: 269D Handbook Of Maintenance Instructions (Issued 14 Jun 93, revised 12 Jun 98)

PREFACE ● The main rotor hub hoisting eye is superseded by and is one-way interchangeable with a new retention fitting (P/N 269D5311). This fitting is split into three matched segments that provide improved clamp-up between the main rotor hub and shaft. Revised HMI pages, with instructions for installing the retention fitting, will be issued with this Service Bulletin.

NOTE

This Service Bulletin does not relieve the requirements of Service Bulletin DB004.2.

## PROCEDURE

NOTE

Hub removal is not required on aircraft subject to the inspection procedures of Service Bulletin DB-004.2.

1. Remove main rotor hub assembly in accordance with Basic HMI, Section 8. Using a 10X magnifying glass, inspect exposed areas of hub/shaft interface and bolt holes for cracks. If absence of cracks can not be confirmed visually, remove bearing and perform magnetic particle inspection in accordance with ASTM E1444 (see Attachment A).
2. Discard hoisting eye.

NOTE

In the next step, removal of grease should have been previously accomplished on aircraft subject to Service Bulletin DB-004.2.

3. If not already accomplished, clean all grease and gasket sealant from hub, interior and exterior of shaft, hub attach bolts, and washer plates.
4. Install 269D5311 retention fitting and assemble the rotor system in accordance with Basic HMI, Sections 8 and 10; insure 6 hub attachment bolts are torqued to 390-410 in-lbs.
5. Record compliance with this Service Bulletin in the aircraft records.

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WEIGHT AND BALANCE

Weight and Balance are not affected.

## ATTACHMENT A

### **Magnetic Particle Inspection Procedure For Service Bulletins DB-004.2 and DB-005**

Inspect by Magnetic Particle methods per ASTM Standard No. E1444 using either direct or indirect magnetization according to following:

Those areas to be inspected and in direct contact with magnetizing unit must be free of paint films, contaminates and residual magnetic fields. Solvent clean and demagnetize as necessary.

#### **1. DIRECT MAGNETIZATION**

Use AC, DC or AC/DC wet continuous method with fluorescent or non fluorescent particles

- a. CIRCULAR (Head Shot) - 1100 amperes

Look for Longitudinal cracks

- b. LONGITUDINAL (Coil shot) - Because of variations in coil design only length to diameter ratio based on effective diameter and inspection region length are provided.

Effective Diameter- 1.279 inches

Length - 6.00 inches

L/D Ratio - 5

Look for circumferential cracks

#### **2. INDIRECT MAGNETIZATION**

Use alternating (AC) current Electromagnetic Yoke (Magnaflux Product No. Y-6 or Equivalent)

Set spacing and angle to suit the external diameter of the shaft. Magnetize each of quantity of 6 hole areas by applying the yoke circumferentially across the hole. During each magnetization apply dry color contrasting particles to the inspection area and look for circumferential cracks propagating from holes. Demagnetize and repeat the inspections with poles of yoke positioned longitudinally across each hole group looking for circumferential cracks

Demagnetize and solvent wash inspection areas to remove residual particles.

Protect area as needed.