



SCHWEIZER SERVICE NOTICE

NOTICE NO. N-212

DATE: 10 March 1988

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MANDATORY

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SUBJECT: ONE-TIME X-RAY INSPECTION OF TAIL ROTOR BLADE SPAR (PN 269A6035-21 AND -23).

- MODELS AFFECTED:
- All 269 Series Helicopters equipped with a tail rotor blade assembly listed under BLADES AFFECTED unless x-ray inspection was accomplished at the factory.
 - All tail rotor assemblies in spares inventory equipped with a tail rotor blade assembly listed under BLADES AFFECTED unless x-ray inspection was accomplished at the factory.
 - All tail rotor blade assemblies, in spares inventory, listed under BLADES AFFECTED unless x-ray inspection was accomplished at the factory.

- BLADES AFFECTED:
- All 269A6035-21 tail rotor blades having a serial number of 0001 through 1157, S2655, and S6682.

NOTE

269A6035-21 tail rotor blades with Serial Numbers of 0961, 0955, 0686, 0870, 0873, 0874, 0877, 0809, 0817, 0875, 0910, 0942, and 6682 were x-rayed for corrosion at the factory (during fabrication or during reprocessing). Thus, the inspection requirements of this Service Information Notice have already been accomplished on the above mentioned serial number tail rotor blades. For these blades, omit the inspection instructions (steps a. through h.), and indicate/record compliance with this notice as specified in step i. of the procedure section.

- All 269A6035-23 tail rotor blades which have a serial number of 0001 through 6775 and S1 through S55.

NOTE

269A6035-23 tail rotor blades with Serial Numbers of 3255, 1342, 3075, 3185, and S53 were x-rayed for corrosion at the factory (during fabrication or reprocessing, as applicable). Thus, the inspection requirements of this Service Information Notice have already been accomplished on the above mentioned serial number tail rotor blades. For these blades, omit the inspection instructions (steps a. through h.), and indicate/record compliance with this notice as specified in step i. of the procedure section.

- TIME OF COMPLIANCE:
- Shall be accomplished on installed, affected blades at next compliance within next 600 hours of operation or within twelve months of issue date of this notice, whichever occurs first*.
 - Shall be accomplished on affected blades in spares inventory, within twelve months of issue date of this notice, or prior to placement into service, whichever occurs first.

* May be accomplished at same time as next periodic visual inspection of the spar used on subject tail rotor blades as required by HMI Appendix B.

REFERENCE: 269 Series - Basic HMI, Reissued 15 March 1982
269 Series - HMI Appendix B, Reissued 15 August 1982
269 Series - HMI Appendix C, Part VII, Issued 15 March 1976,
Revision No. 3, Dated 15 Dec. 1987.
Service Information Notice N-162, dated 12 October 1979
FAA AD Note 79-23-03 R1

PREFACE: Recent x-ray inspections of the affected tail rotor blade spars have revealed corrosive pits that were not evident during the periodic visual inspections for corrosion, required by HMI Appendix B. Engineering analysis of this situation has allowed SAC to determine that this pitting was caused by corrosion which occurred prior to the cadmium plate process on the blade spar.

This Service Information Notice requires a one-time x-ray inspection of the steel spar used on the affected tail rotor blades. In order to reduce helicopter downtime, it is recommended that this x-ray inspection be accomplished in conjunction with the next visual inspection of the tail rotor blade spar (required by FAA AD Note 79-23-03 R1 and HMI Appendix B). Tail rotor blades whose x-ray inspection reveals indication(s) of pitting must be subjected to a visual inspection with a borescope. This visual inspection is required to determine whether external corrosion exists in the inspection area of the spar. Any external corrosion, found to exist in the inspection area, is cause for removal of the blade from service. A casting procedure is then required to measure the size of the internal pits. Blades having pits which exceed the specified limits must be retired from service. Tail rotor blades which pass the inspections specified in this notice, may be returned to service, but must continue to be inspected for corrosion on a periodic basis as required by HMI Appendix B and FAA AD Note 79-23-03 R1.

PROCEDURE

NOTE

The inspections listed below must be accomplished in accordance with HMI Appendix C, Part VII, Revision No. 3 (Dated 15 Dec. 1987). If this revision to Appendix C is not available, contact SAC Product support department (phone no. (607) 739-3821, ext. 247) and obtain a copy of this revision before performing any of the instructions listed below.

- a. Perform preliminary procedure (HMI Appendix C, Part VII, para. 3-9).
- b. Perform periodic visual inspection of tail rotor blade spar (HMI Appendix C, Part VII, para. 3-10). Be sure to remove all loose scale and corrosion as specified in paragraph 3-10.
- c. X-ray each affected tail rotor blade in area from 0.75 inch to 6.75 inches outboard of blade retention bolt centerline (AREA B) as shown in Figure 1. Take x-rays in accordance with the referenced HMI Appendix C, Part VII, Paragraph 3-12.
- d. If any indication of pitting is visible in x-ray, inspect spar interior with a borescope to verify that all pits are on the interior surface of the blade spar.

NOTE

If an indication of pitting is NOT visible in the x-ray, omit steps e., f., and g. (below) and continue with step h.

CAUTION

IN ALL CASES WHERE THE BLADE'S X-RAY INSPECTION REVEALS INDICATION(S) OF PITTING IN THE INSPECTION AREA (FIGURE 1, AREA B), MAKE A COMPARISON BETWEEN THE X-RAY PATTERN AND THE INTERIOR PATTERN. IF PATTERNS DO NOT MATCH EXACTLY, THE BLADE MUST BE RETIRED FROM SERVICE BECAUSE IT INDICATES EXTERNAL CORROSION.

- e. If external corrosion is found, retire blade from service prior to next flight. Conspicuously tag or mark blade to prevent inadvertent return to service.

- f. If spar is free of external corrosion in Area B, perform casting procedure to determine depth of corrosion pits. (Refer to HMI Appendix C, Part VII, Paragraph 3-11.)

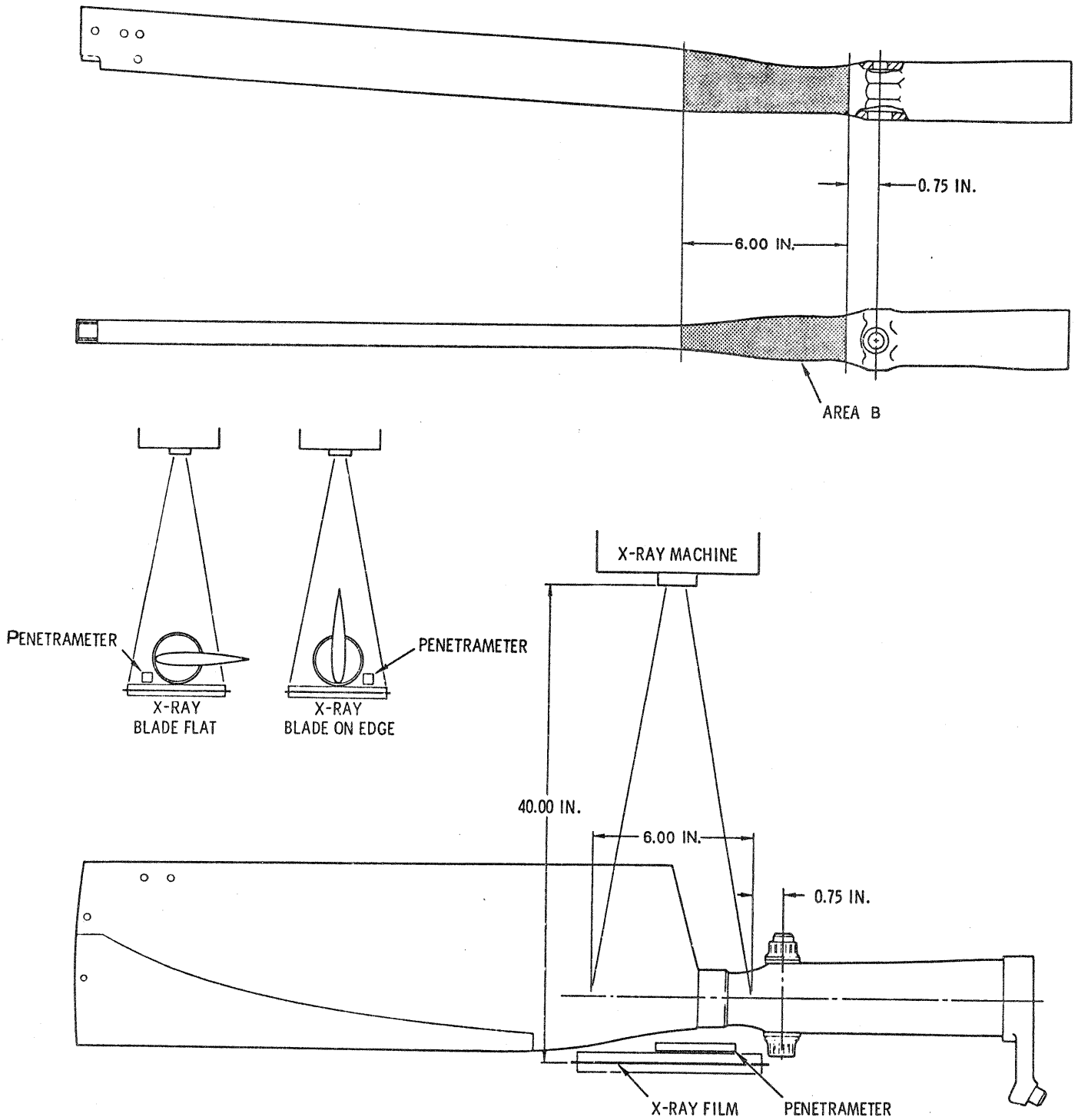
NOTE

As specified in HMI Appendix C, Part VII the maximum allowable pitting on the interior surface of the spar is 0.006 in. deep x 0.015 in. wide x 0.020 in. long. Tail rotor blades whose spars have internal pits which exceed these limits must be removed from service.

- g. If pits exceed the limits, remove and retire blade from service.
- h. If blade is determined to be serviceable, proceed as follows:
- (1) If corrosion was found on the interior surface of the blade spar during the visual inspection (step b, above), treat and protect spar (to inhibit future corrosion) in accordance with HMI Appendix C, Part VII, paragraphs 3-13 and 3-14 (or 3-15).
 - (2) As applicable, reinstall blade and balance tail rotor assembly in accordance with HMI Appendix C, Part VII, paragraph 3-16.
- i. As applicable, indicate/record compliance with this notice as follows:
- (1) Add letter "X" below the serial number and adjacent to the "GM" symbol on the blade ID plate to indicate compliance with this notice; use electric pencil or equivalent. (Refer to Figure 2.)
 - (2) If blade is installed on a helicopter and x-ray inspection was performed at the factory, record compliance with this notice in Compliance Record of Helicopter Log Book as "X-RAY INSPECTION PERFORMED AT THE FACTORY".
 - (3) If blade is installed on a helicopter and x-ray inspection was performed in accordance with this notice, record compliance in Compliance Record of Helicopter Log Book as "X-RAY INSPECTION PERFORMED IN ACCORDANCE WITH N-212".

WEIGHT AND BALANCE DATA

Weight and Balance not affected.



NOTE: PERFORM X-RAY IN ACCORDANCE WITH HMI APPENDIX C, PART VII, PARAGRAPH 3-12 OR SERVICE NOTICE N-130.

FIGURE 1. X-RAY INSPECTION OF TAIL ROTOR BLADE SPAR

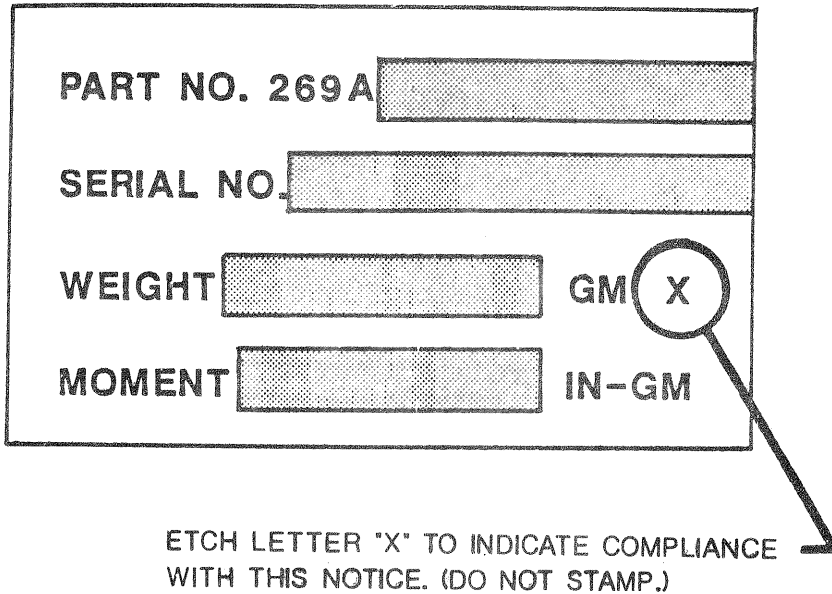


FIGURE 2. TAIL ROTOR BLADE IDENTIFICATION PLATE