



SCHWEIZER SERVICE NOTICE

NOTICE NO. N-220
DATE: 29 JAN 1988
PAGE 1 of 6

MANDATORY

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SUBJECT: ONE-TIME INSPECTION OF 269A2234-3 AND 269A2235-3 AFT CLUSTER FITTINGS.

MODELS AFFECTED: All Model 269C Helicopters with Serial Numbers of 1166 through 1289.

TIME OF COMPLIANCE: Shall be accomplished within next 25 hours of helicopter operation or within 60 days of issue date of this notice, whichever occurs first.

REFERENCE: 269 Series - Basic HMI, Reissued 15 March 1982
HMI Temporary Revision R-10, Dated 29 January 1988

PREFACE: Field reports have revealed a possibility of cracking of the attachment lugs (for the tailboom struts) on the subject cluster fittings. Analysis of this situation has allowed SAC to attribute this cracking to surface imperfections (nicks, scratches, and gouges) on the lugs and/or improper web radii.

This Service Information Notice provides instructions for a one-time inspection of the affected aft cluster fittings. A dye penetrant inspection of the fittings attachment lugs (for the tailboom support struts) is required to ensure that they are free of cracks. Fittings which are free of cracks must be visually inspected for other surface defects. All surface defects found on the fitting must be removed. An inspection of the web/lug radii is then required to ensure that sufficient radii exist. Radii which are not within the specified limits must be reworked.

Failure to comply with this Service information Notice at the time specified under TIME OF COMPLIANCE could result in separation of the tailboom support strut from the helicopter center frame, which may lead to loss of control of the helicopter and subsequent personal injury or death.

TOOLS AND EQUIPMENT

Flashlight
Dial/Vernier Calipers
Magnifying glass, 10x and 5x
Round File

MATERIALS

<u>NOMENCLATURE</u>	<u>SPECIFICATION</u>	<u>SOURCE</u>
Abrasive paper	P-P-101	Commercial
Paint stripper, acid fortified (for epoxy paint)		Commercial
Methyl-ethyl-Ketone	TT-M-261	Commercial
Dye penetrant kit	MIL-I-25135	Commercial
Primer, zinc chromate	TT-P-1757	Commercial
Paint, epoxy enamel		Commercial

PROCEDURE

CAUTION

OBSERVE AND COMPLY WITH THE FOLLOWING PRECAUTIONS WHEN PERFORMING THE FOLLOWING INSPECTIONS:

- BE SURE TO SUPPORT THE TAILBOOM AT THE AFT END BEFORE REMOVING STRUTS IN NEXT STEP. FAILURE TO DO SO COULD LEAD TO DAMAGE TO EQUIPMENT AND/OR INJURY TO PERSONNEL.
- DO NOT ALLOW THE TAILBOOM SUPPORT STRUTS TO BE SUSPENDED FROM THE AFT CLUSTER FITTINGS OR TAILBOOM CENTER ATTACHMENT FITTING, AT ANY TIME. TO DO SO MAY CAUSE UNREPARABLE DAMAGE TO THE ATTACHMENT LUGS FOR THE SUPPORT STRUT. THIS DAMAGE COULD RESULT IN IN-FLIGHT FAILURE OF THE LUGS, WHICH COULD LEAD TO LOSS OF THE TAILBOOM SUPPORT STRUT AND RESULTANT LOSS OF CONTROL OF THE HELICOPTER.

- a. Remove bolts, washers, and nuts, securing upper and lower tailboom support strut fittings to the tailboom center attachment fitting and the center frame aft cluster fittings. Remove struts from helicopter.

WARNING

PAINT STRIPPER CAN CAUSE BURNS. WEAR COMPLETE PROTECTIVE CLOTHING AND FACE MASK WHEN HANDLING STRIPPER. ALWAYS COMPLY WITH THE PAINT STRIPPER MANUFACTURER'S SAFETY PRECAUTIONS WHEN USING PAINT STRIPPER.

- b. Use paint stripper to remove paint from both attachment lugs for the tailboom support strut. (Refer to Figure 1.)

NOTE

Fitting may be examined for cracks with a 10x magnifying glass prior to the dye penetrant inspection. If cracks are observed, dye penetrant inspection need not be performed and fitting MUST be retired from service as specified in step d., below. If cracks are not observed, the fitting MUST be dye penetrant inspected in accordance with step c., below.

- c. Dye penetrant inspect attachment lugs for cracks in accordance with dye penetrant kit manufacturer's instructions. Use a 10x magnifying glass to examine fitting for indications of cracks.

CAUTION

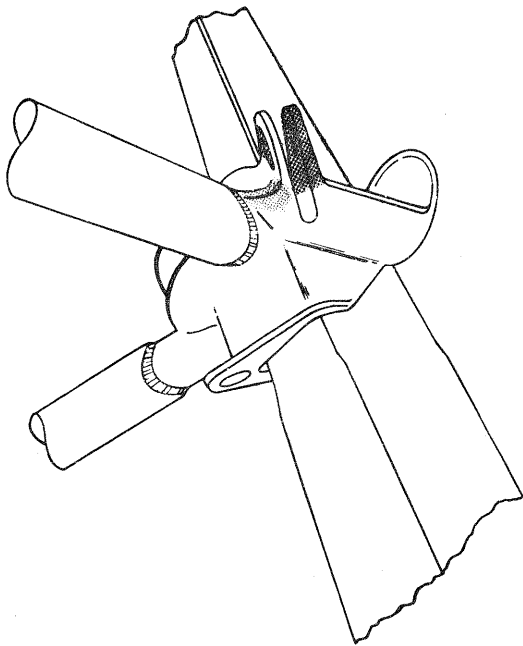
THE WELD REPAIR SPECIFIED BY TEMPORARY REVISION R-10 (AND SERVICE NOTICE N-82.3, STEP III) IS NOT PERMISSIBLE FOR -3 CLUSTER FITTINGS. ANY CRACKS FOUND ON -3 FITTINGS (NO MATTER HOW SLIGHT) IS CAUSE FOR REMOVAL OF THE FITTING FROM SERVICE.

- d. If any indication of cracking is found, immediately remove and retire fitting from service. (Refer to HMI Temporary Revision R-10 for replacement data on center frame aft cluster fittings.)
- e. Use a 5x or 10x magnifying glass and a flashlight to inspect cluster fitting attachment lugs (for tailboom support strut) and vertical webs (above and below attachment lugs) for scratches, nicks, gouges, or other surface imperfections. (Refer to Figure 1.)
- f. If imperfections (other than cracks) are found, use progressively finer grades of abrasive material to remove imperfections up to maximum reparable limits specified in Figure 1. Remove no more material than necessary to remove imperfection. Polish smooth with 320 grade (or finer grades) abrasive paper.

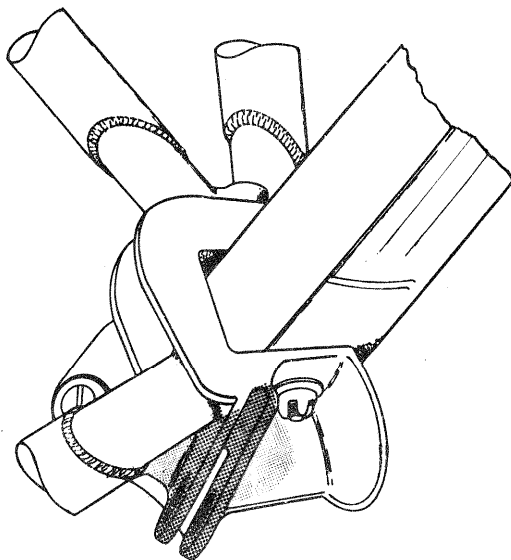
- g. Using a suitable measuring device, measure thickness of cluster fitting attachment lugs for tailboom support strut. Lugs must be a minimum of 0.115 inch thick after rework. If lug thickness is less than 0.115, replace the fitting in accordance with HMI Temporary Revision R-10.
- h. Use a radius gage (or suitable drill size) to ensure that the proper fillet radii (specified in Figure 2) exists between the vertical webs and the attachment lugs for the tailboom support strut.
- i. If proper radii do not exist, use appropriate size round file and abrasive paper to feather radii into web. (Do not feather radii into lugs. Remove no more material than necessary. No undercuts are permitted.)
- j. Visually inspect fittings' vertical webs (above and below attachment lugs) to ensure that a full radius exists at the outer edge of the webs.
- k. If radius is not present, use grade 220 (or finer grades) abrasive paper to obtain a smooth rounded edge.
- l. If fitting is determined to be serviceable, restore finish as follows:
 - (1) Remove dye penetrant solution from fitting.
 - (2) Wipe stripped areas with MEK.
 - (3) Apply a wash coat of zinc chromate primer on stripped portions of fitting.
 - (4) Apply epoxy enamel finish coat. (Match color as closely as possible.)
- m. Repeat steps b. through l. (above) for other -3 fitting.
- n. Install tailboom support struts in reverse order of removal.
- o. Remove support from aft end of tailboom.
- p. Record compliance with this Service Information Notice In Compliance Record of Helicopter Log Book.

WEIGHT AND BALANCE DATA

Weight and balance data not affected.



VIEW LOOKING OUTBOARD



VIEW LOOKING INBOARD

RIGHT SIDE CLUSTER SHOWN



INSPECTION AREA	TYPE OF INSPECTION	MAXIMUM SERVICEABLE LIMITS	MAXIMUM REPAIRABLE LIMITS
	VISUAL W/10X MAGNIFYING GLASS	NO IMPERFECTIONS ALLOWED	(REFER TO FIGURE 2.)
	DYE PENETRANT AND VISUAL	NO IMPERFECTIONS ALLOWED	LUG MUST BE MIN. OF 0.115 INCH THICK AFTER REWORK

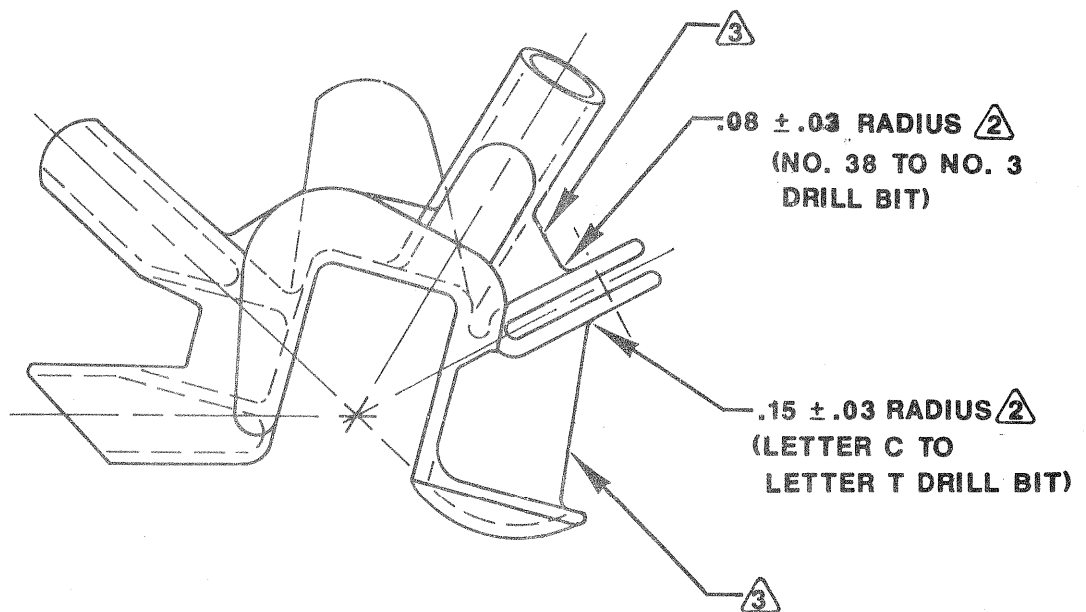
FIGURE 1. INSPECTION OF CLUSTER FITTINGS

NOTES:

1. ALL DIMENSIONS IN INCHES.

2 NO UNDERCUTS PERMITTED. SMOOTHLY TRANSITION RADI INTO WEB AND BLEND TO MATCH CONTOUR. USE RADIUS GAGE OR SUITABLE DRILL BIT SIZE TO MEASURE RADIUS.

3 FULL RADIUS REQUIRED ALONG ENTIRE EDGE OF WEBS.



RIGHT SIDE CLUSTER SHOWN

FIGURE 2. RADIUS LIMITATIONS