



# SCHWEIZER SERVICE BULLETIN

B-277  
25 Jan 2002

MANDATORY

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SUBJECT: ONE-TIME INSPECTION OF CERTAIN 269A2234-3 (LH) AND 269A2235-3 (RH) AFT CLUSTER FITTINGS

- MODELS AFFECTED:
- Model 269C Helicopters S/N 0570 through 1165 with 269A2234-3 aft cluster fitting
  - Model 269C Helicopters S/N 0500 through 1165 with 269A2235-3 aft cluster fitting
  - Any Model 269A, TH-55A, A-1, B or C Helicopter with installed 269A2234-3 and/or 269A2235-3 aft cluster fitting sold as a spare prior to June 1988
  - Any 269A2234-3 or 269A2235-3 sold as a spare prior to June 1988

- TIME OF COMPLIANCE:
- Installed cluster fittings: Within the next 25 hours flight time or within 60 days from issue date of this Service Bulletin, whichever occurs first.
  - Affected spares in stock: Prior to installation or within 30 days from issue date of this Service Bulletin, whichever occurs first.

REFERENCE: 269A, TH-55A, A-1, B & C Basic HMI (Issued: 15 Mar 1982; Revised 26 Oct 2001)

- PREFACE:
- Field reports indicate a possibility of cracking of the attachment lug (for tailboom struts) on subject cluster fittings. This cracking may be caused by surface defects (nicks, scratches, and gouges) on the lugs and/or incorrect web radii. This Service Bulletin requires a one-time special inspection to check for cracks and surface defects; and also provides appropriate corrective action. Any cluster fitting that is cracked or has surface defects beyond rework limits must be replaced.
  - Failure to comply with this Service Bulletin may lead to loss of control of the helicopter and subsequent injury, death and/or property damage.

## PROCEDURE - PART I:

- For 269A, A-1, B & C Model Helicopters S/N 004 through 570 check aircraft records, if aircraft records are not conclusive inspect fittings (Basic HMI, Figure 13-13) to determine which cluster fittings are installed (either subject fittings or 269A2234/2235-BSC fittings). If 269A2234/2235-BSC fittings are installed, no further action is required in response to this Service Bulletin. Record compliance with PART I of this Service Bulletin in the aircraft records.

NOTE: If subject cluster fittings are installed perform PART II.

## PROCEDURE - PART II:

<b>WARNING</b>
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**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.**

**WARNING**

**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 UNREPAIRABLE 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 RESULT IN LOSS OF CONTROL OF THE HELICOPTER.**

**NOTE**

If not already accomplished, verify that subject cluster fittings are installed (Basic HMI, Fig. 13-13).

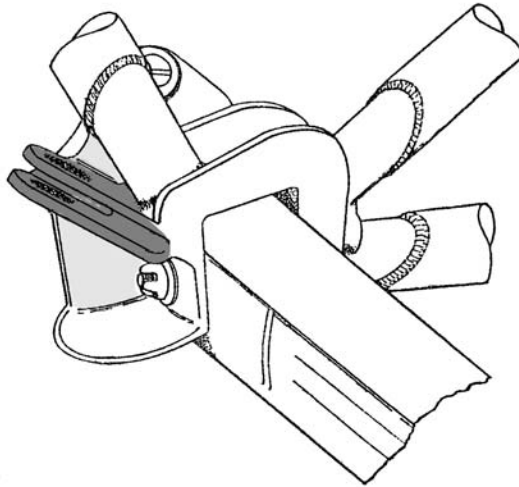
Perform the following procedure on each affected cluster fitting.

- 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.
- b. Perform dye penetrant inspection on cluster fitting tailboom strut attachment lugs using applicable steps of Basic HMI, Paragraph 13-43. If any indication of cracks are found, replace cluster fitting (Paragraph 13-44).
- c. If no cracks are found, perform at least a 5X visual inspection on attachment lugs (Figure B-277-1). Inspect lugs and vertical webs above and below lugs for nicks, scratches, gouges, and other surface defects.
- d. If surface defects are found on lugs, use progressively finer grades of abrasive material to remove defects up to the maximum repairable limits specified in Figure B-277-1. Remove material only as necessary to remove defects. Polish lugs smooth with 320 grade (or finer) abrasive paper.
- e. Measure thickness of lugs; it must be a minimum of 0.115 inch after rework. If lug thickness is less than 0.115 inch, replace cluster fitting (Paragraph 13-44).
- f. Using a radius gage or suitable drill size, check for correct fillet radii in web between attachment lugs (as shown in Figure B-277-2).
- g. If radii is not correct, use appropriate size round file and progressively finer grades of abrasive paper to feather radii into web (as shown in Figure B-277-3). Remove no more material than necessary; polish smooth with 320 grade (or finer) abrasive paper. Do not feather radii into lug. (Undercuts are not permitted.)
- h. Visually inspect vertical webs above and below lugs for a radius at outer edge of webs (Section A-A). If necessary, use grade 220 (or finer) abrasive paper to obtain a smooth rounded edge.
- i. Restore corrosion protection and surface finish on serviceable cluster fitting(s) (HMI Appendix D).
- j. Install tailboom support struts (Basic HMI, Section 13).
- k. Record compliance with PART II of this Service Bulletin in the aircraft records.

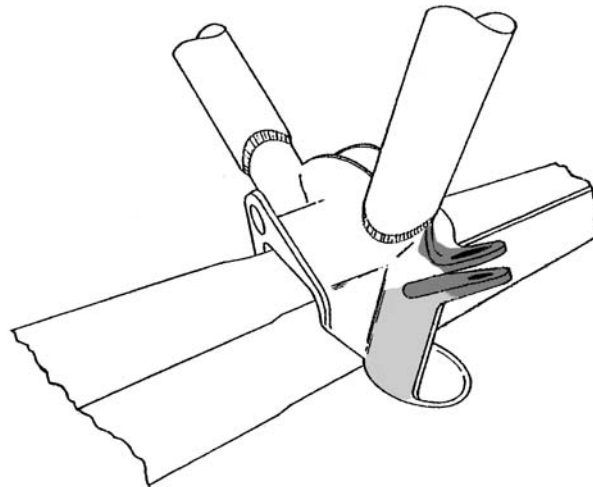
**WEIGHT AND BALANCE**

Weight and balance are not affected.

**RIGHT SIDE CLUSTER SHOWN (BOTH VIEWS)**



VIEW LOOKING INBOARD



VIEW LOOKING OUTBOARD



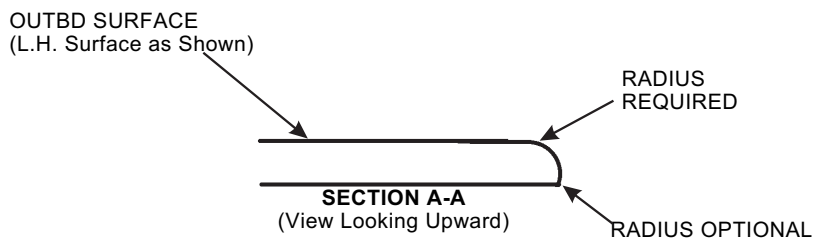
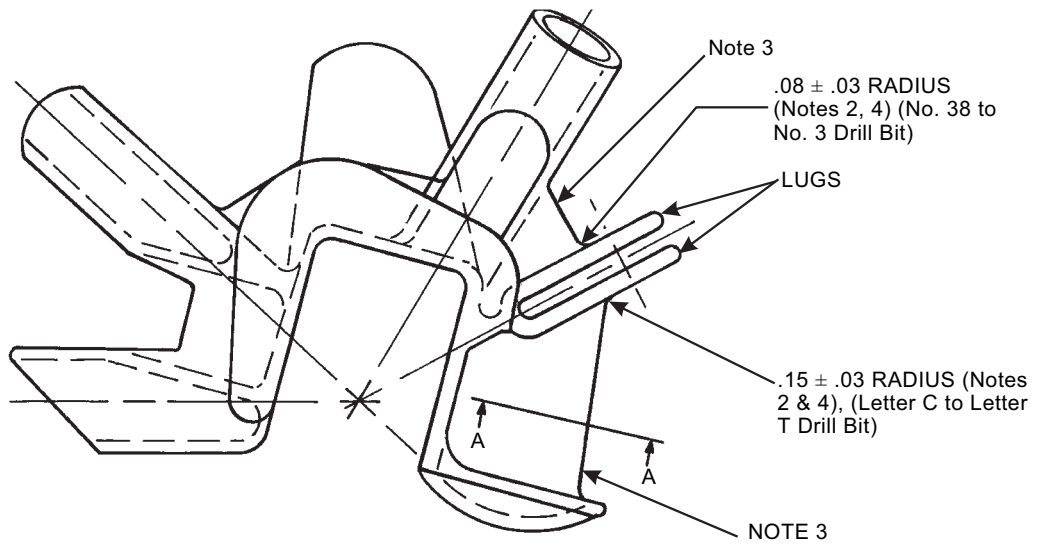
INSPECTION AREA	TYPE OF INSPECTION	MAXIMUM SERVICEABLE LIMITS	MAXIMUM REPAIRABLE LIMITS
	VISUAL W/10X MAGNIFYING GLASS	NO IMPERFECTIONS ALLOWED	REFER TO FIGURE B-277-2
	DYE PENETRANT AND VISUAL	NO IMPERFECTIONS ALLOWED	LUG MUST BE MIN. OF 0.115 INCH THICK AFTER REWORK

Figure B-277-1. Inspection of Cluster Fittings

NOTES:

1. ALL DIMENSIONS IN INCHES.
2. NO UNDERCUTS PERMITTED. SMOOTHLY TRANSITION RADII INTO WEB AND BLEND TO MATCH CONTOUR (see Figure B-277-3). USE RADIUS GAGE OR SUITABLE DRILL BIT SIZE TO MEASURE RADIUS.
3. RADIUS REQUIRED ALONG ENTIRE OUTBOARD EDGE OF WEBS.
4. IF REWORK OF RADIUS IS PERFORMED, DO NOT UNDERCUT INTO LUGS.



**LEFT SIDE CLUSTER SHOWN**

Figure B-277-2. Radius Limitations

