



TECHNICAL BULLETIN

DATE: 12 JANUARY 1998

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HEAT/DEFOG UPPER DECK THROUGH FITTING MODIFICATION

1. PLANNING INFORMATION

A. Aircraft Affected:

MD900 helicopters, serial number 900-00002 thru 900-00051.

B. Assembly/Components Affected By This Notice:

900P2250205 Line Assembly, Heat/Defog-CHK Valve to Deck and 900P2250209 Tube Assembly, Heat/Defog-Roof to Valve.

C. Reason:

Aircraft in the field have experienced bleed air leaks at the upper deck heat/defog through fitting. This causes loss of heating efficiency and failure to pass the heat/defog leak test.

D. Description:

Procedures in this Bulletin provide owners and operators with instructions to replace their existing bleed air through fitting with an AN flared bulkhead union and jam nut. This modification requires flaring of the ends of the affected line and tube assemblies.

E. Time of Compliance:

Customer option, at the discretion of the owner/operator.

F. Classification:

Compliance with this Bulletin is a minor alteration.

G. FAA Approval:

The technical design aspects of this Bulletin are FAA Approved.

H. Manpower:

Four (4) man-hours on a standard helicopter with a standard interior.

I. Interchangeability:

None

J. Disposition of Parts Removed

N/A

K. Points of Contact

For further assistance, contact your local MDHI Field Service Representative (refer to the latest revision of the "At Your Service" handbook for address and telephone numbers) or contact the Field Service Department at MDHI, Mesa, Arizona. Telephone 1-800-388-3378 or (480) 891-6342. DATAFAX: (480) 891-6782.

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L. Material/Part Availability:

Contact MDHS Commercial Warranty and Repair Dept. (See Parts Request Form at the end of this Bulletin).

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Union, Bulkhead, Flared Tube	AN832-12J	1	The Boeing Co. or Commercial
Nut, Union, Bulkhead, Flared Tube	AN924-12J	1	The Boeing Co. or Commercial
Nut, Tube Coupling, Short	AN818-12J	2	The Boeing Co. or Commercial
Sleeve, Flared Tube Fitting	MS20819-12J	2	The Boeing Co. or Commercial
Seal Assembly, Flexible Coupling	W932-12D	4	The Boeing Co. or Commercial
Thread Locking Compound	MIL-S-22473, GB, Color Yellow, RM002598	1.6 oz (47.32 Cu cm)	The Boeing Co. or Loctite Inc. 702 North Mountain Rd. Newington, CT. 06111 (203) 278-1280
Sealing Compound, Fireproof	HMS16-1191, RM011316	3.0 oz (88.72 Cu cm)	The Boeing Co. or Courtaulds Aerospace 5430 San Fernando Rd. Glendale, CA. 91209 (818) 240-2060
Tape, Adhesive	HS5227-K1208, RM009971	108 ft (32.92 M)	The Boeing Co. or Airtec International Inc. 2542 E. Del Amo Bl. Carson, CA. 90749 (213) 603-9683
Solvent Cleaner	Desoclean 45 or Equivalent	AR	DeSoto Aerospace Coatings Inc. 1608 Fourth St. Berkeley, CA. 94710 (818) 549-7823

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M. Warranty Policy:

None

N. Tooling:

Flaring equipment capable of flaring 0.75 in (19.05 mm) 321 CRES tubing with an 0.020 in. (0.51 mm) wall thickness.

O. Weight and Balance:

N/A

P. Electrical Load Data:

N/A

Q. Other Publications Affected:

N/A

2. ACCOMPLISHMENT INSTRUCTIONS

(Ref. Figure 1)

- (1). Access heat/defog system at FS 251.31 above and below the upper deck (Ref. CSP-900RMM-2, Section 21-40-00).
- (2). Remove 900P2250205 line assembly and 900P2250209 tube assembly (Ref. CSP-900RMM-2, Section 21-40-00).
- (3). Remove seal assemblies from ends of tube and line assemblies and discard.
- (4). Remove gaskets from above and below upper deck and discard.
- (5). Measure and mark the 900P2250205 line assembly **1.125 in. (2.86 cm)** from flange end.
- (6). Measure and mark the 900P2250209 tube assembly **1.375 in. (3.49 cm)** from flange end.

Protective Equipment



- (7). Cut the line and tube assemblies at the marks, and deburr.
- (8). Install one (1) each sleeve and coupling nut on each cut tube, and flare in accordance with MS33584 for **0.75 in. (19.05 mm)** tube.

Solvent Cleaner (C429)



- (9). Clean tubes with Desoclean 45 or equivalent and blow dry with filtered compressed air.

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- (10). Modify both removed flanges by removing all remaining tubing.
- (11). Enlarge hole in both flanges to **1.062 in. (2.70 cm)** in diameter and deburr.
- (12). Clean both sides of upper deck and both modified flanges with Desoclean 45 or equivalent and blow dry with filtered compressed air.

Sealing Compound (C215)



- (13). Reinstall flanges wet with fireproof sealing compound and original hardware. Torque bolts **36-46 in. lb. (4.0-5.2 N•m)**.
- (14). Clean AN bulkhead union and jam nut with Desoclean 45 or equivalent and blow dry with filtered compressed air.
- (15). Install bulkhead union through flanges, coat upper threads with thread locking compound and install jam nut. Torque jam nut **500-600 in. lb. (56.48-67.77 N•m)**.
- (16). Apply fireproof sealing compound to bulkhead union and jam nut.
- (17). Replace seal assemblies at both flexible couplings (Ref. CSP-900RMM-2, Section 21-40-00).
- (18). Reinstall modified line and tube assemblies (Ref. CSP-900RMM-2, Section 21-40-00). Torque coupling nuts **500-600 in. lb. (56.48-67.77 N•m)**.
- (19). Perform Heat/Defog System Leak Check (Ref. CSP-900RMM-2, Section 21-40-00).
- (20). Reinstall insulation and tape to tube assembly and close all opened areas (Ref. CSP-900RMM-2, Section 21-40-00).
- (21). Record compliance to this Technical Bulletin in the Compliance Record section of the helicopter Log Book.

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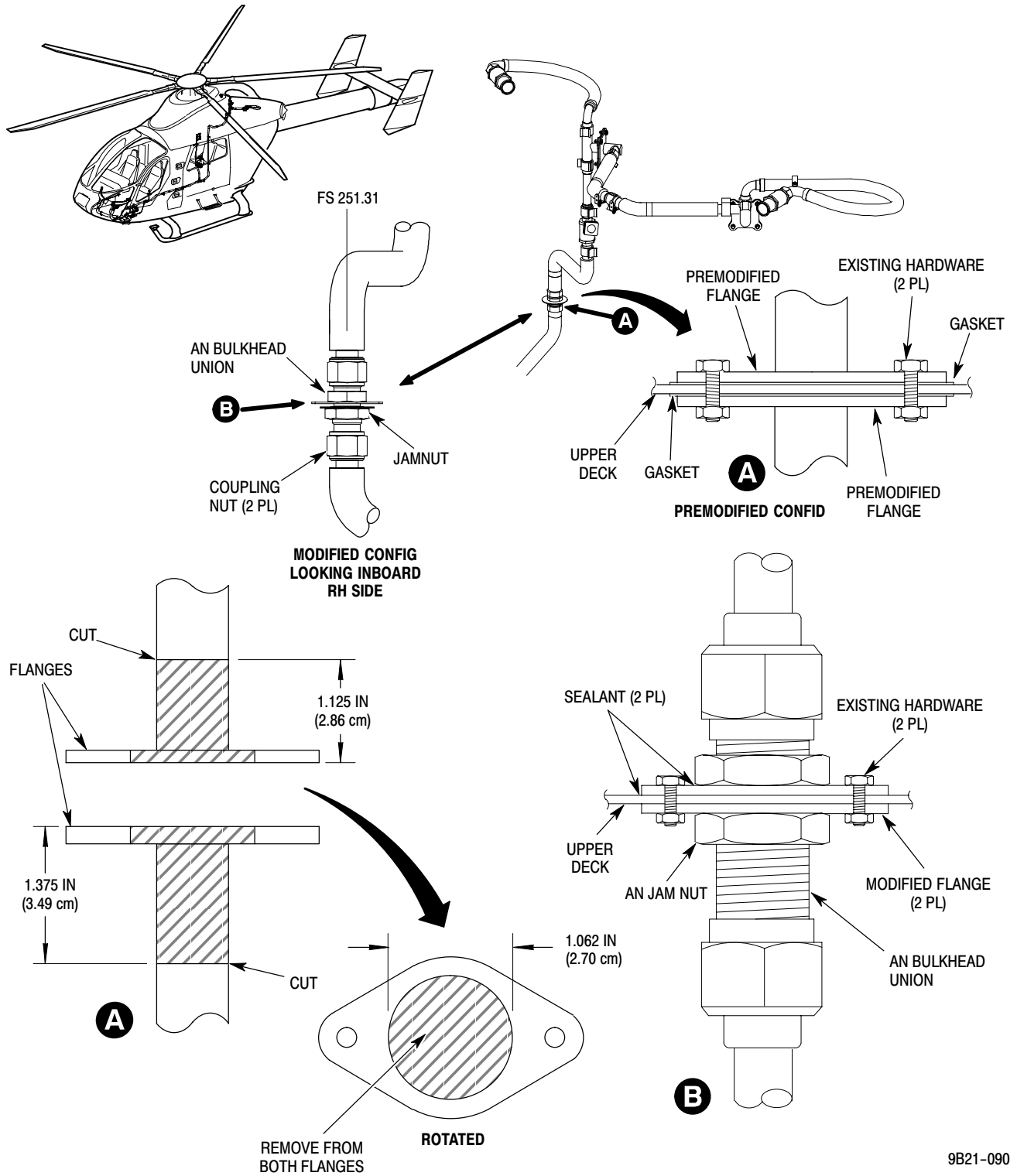


Figure 1. Heat/Defog Modification



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Parts Request Form: Please fill in the following information and return to MDHS for parts/supplies required for compliance. This form may be faxed to MDHS Warranty and Repair Department at (602) 891-3952.

Aircraft Ser. No.:

Aircraft Total Time:

Date:

Parts Required:

Part Ser. No. (if required):

Ship to: