SERVICE BULLETIN

Date: February 23, 2001

Subject: Transmittal of Revision 1,Service Bulletin Number V2500-NAC-78-0187

Service Bulletin History:

Event	Date
Basic Issue	Dec 20/00
Revision 1	Feb 23/01

Reasons for Issuance of Revision:

(1) To revise Figure 2.

Effect on Past Compliance:

(1) None.

List of Effective Pages:

Page No.	Rev No.	Date
Summary	1	Feb 23/01
1 - 13	basic	Dec 20/00
14	1	Feb 23/01

SERVICE BULLETIN

Number: V2500-NAC-78-0187, Revision No. 1

Summary

Date: February 23, 2001

ATA System: 78-11

SUBJECT: COMMON NOZZLE ASSEMBLY (CNA) PEN NIB FAIRING AFT SEGMENTS REPLACEMENT

BACKGROUND

GENERAL:

The CNA pen nib fairing aft segment can crack in service.

This service bulletin provides instructions to replace the aluminum CNA pen nib fairing aft segments with segments of a material (A286 CRES) more resistant to cracking.

NOTE: This service bulletin supersedes service bulletin V2500-NAC-78-0168.

ACTION:

Replace the aluminum CNA pen nib fairing aft segments with steel (A286 CRES) segments.

COMPLIANCE:

Category 6

Accomplish when the nacelle subassembly (i.e.,accessories, components) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

EFFECTIVITY:

All V2500-D5 CNAs with serial numbers prior to 0251008.

MANPOWER:

Manpower necessary to incorporate Service Bulletin is 8.0 manhours for each CNA.

MATERIAL INFORMATION:

The parts to accomplish this service bulletin are available from the manufacturer as kit V2578187-551.

SERVICE BULLETIN

"MODIFICATION SERVICE BULLETIN" - "NACELLE - EXHAUST - COMMON NOZZLE ASSEMBLY (CNA) PEN NIB FAIRING AFT SEGMENTS REPLACEMENT"

1. PLANNING INFORMATION

A. Effectivity

(1) Airplane: MD-90

(2) Nacelle: All V2500-D5 CNAs with serial numbers prior to 0251008.

B. Concurrent Requirements

None.

C. Reason

(1) Problem

(a) The CNA pen nib fairing aft segments can crack in service.

(2) Cause

(a) Thermal growth.

(3) Background

(a) Operators have found CNA pen nib fairing aft segments with cracks in service.

(4) Objective

(a) The changes in configuration recommended in this Service Bulletin are intended to maintain reliability of the nacelle by reducing the incidence of cracks in the CNA pen nib fairing aft segments.

(5) Substantiation

(a) Not applicable.

D. Description

This service bulletin provides instructions for removal of the aluminum CNA pen nib fairing aft segments and installation of steel (A286 CRES) segments.

E. Compliance

Category 6

Accomplish when the nacelle subassembly (i.e.,accessories, components) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

F. Approval

Incorporation of this Service Bulletin must be accomplished only in conjunction with Boeing Service Bulletin MD-90-78-047 which has received exclusive FAA approval for MD-90 Series aircraft.

G. Manpower

Estimated manhours to incorporate the full intent of this Service Bulletin.

VENUE	EST'D MAN HOURS
(1) In Service	
(a) To modify the C.N.A	8.0
Total	8.0 hours per nacelle (16.0 hours per aircraft)

NOTE: Man hour estimate is provided for planning purposes only. No labor reimbursement is provided under the terms of this service bulletin offering.

H. Material Cost and Availability

The parts to accomplish this Service Bulletin are available from the supplier as kit V2578187-551.

Operators with units listed in Paragraph 1.A. should submit a charge purchase order for the applicable quantity of kits. The purchase order must specify this Service Bulletin number and only the parts listed herein. Operators will have one year from the initial issue date of this Service Bulletin to place an order. After one year, the kit will no longer be available and operators will have to order parts individually at catalog prices if they wish to incorporate this change.

Direct Purchase Order to:
Rohr, Inc.
850 Lagoon Drive
Chula Vista, CA 91910-2098
U.S.A.

Attn: Regional Business Manager - MZ 107A
(Ref Service Bulletin No. V2500-NAC-78-0187)

NOTE: Please do not submit orders for kits via the Spec 2000 ordering system.

I. Tooling

None.

J. Weight and Balance

1)	Weight change	+1.7 lbs. per nacelle
2)	Moment Arm	No effect
3)	Datum	Engine front mount centreline (Powerplant Station PS 100)

K. References

Publication	Chapter/Section
IAE Standard Practices/Processes Manual (SPP-V2500-1IA)	70-09-00

L. Other Publications Affected

Publication	Chapter/Section
Common Nozzle Component Maintenance Manual (CMM-CN-V2500-3IA)	78-11-11

2. Material Information

A. Material Requirements

(1) The following is applicable to one CNA.

B. Kits necessary for this Service Bulletin:

NEW PART NO (ATA NO)	QTY	EST'D UNIT PRICE	KEYWORD	OLD PART NO (IPC NO)	INSTR/ DISPOS
V2578187-551	1	$8269	Kit		(A)
consisting of:					
290-1201-19	4		Shim		
290-1264-513	1		Fairing, aft upper left		
290-1264-514	1		Fairing, aft upper right		
290-1264-515	1		Fairing, aft lower left		
290-1264-516	1		Fairing, aft lower right		
2ASPFF-EU06-15	24		Pin		
ASP-LC-2AC06	24		Collar		
ASPF-S-EU06	24		Sleeve		
CR3522-5-02	24		Rivet		

C. Parts affected by this Service Bulletin:

D. Instructions/Disposition Codes:

(A) Kit will be available February, 2001.

NEW PNUMBER (ATA NUMBER)	QTY	ESTD UNIT PRICE	KEYWORD	OLD PN (IPL NUMBER)	INSTR/ DISPOS
290-1264-513	1		Fairing, Upr	290-1264-509	(B)(C)
(78-11-11)			LH	(06-390)	(S1)
290-1264-514	1		Fairing, Upr	290-1264-510	(B)(C)
(78-11-11)			RH	(06-420)	(S1)
290-1264-515	1		Fairing, Lwr	290-1264-511	(B)(C)
(78-11-11)			LH	(06-450)	(S1)
290-1264-516	1		Fairing, Lwr	290-1264-512	(B)(C)
(78-11-11)			RH	(06-480)	(S1)
290-1201-19	4		Shim	290-1201-17	(B)(C)
(78-11-11)				(06-545)	(S1)

(B) New part will be available February, 2001.

(C) Old part will no longer be available.

(S1) New part can replace old part but not vice versa.

E. Tooling - Price and Availability:

None.

F. Materials Required to do this Service Bulletin:

CoMat 01-438	Solvent
CoMat 02-099	Lint Free Cloth
CoMat 02-158	Release Agent
CoMat 05-074	Aluminum Oxide Abrasive Paper
CoMat 08-032	Primer
CoMat 08-033	Sealant

NOTE: To identify the consumable materials, refer to the Overhaul Processes and Consumable Index PCI-V2500-1IA.

3. Accomplishment Instructions

A. Remove the CNA pen nib fairing aft segments. Refer to Figure 1.

(1) Remove the fasteners, fairing segments, and any shim and liquid shim from the CNA.

B. Install the new fairing segments. Refer to Figure 2.

NOTE: If the liquid or laminated shims are not used, go to step 3.B.(7). If the laminated shim is used, you must use the liquid shim to bond it in place. If only the liquid shim is used, it must be cured before the final assembly. See step 3.B.(2) for shimming requirements.

(1) Put the new segments into position on the CNA. Remove material from the segments as necessary to get the space between the segments specified in Figure 2.

(2) Make the laminated shim (if necessary).

NOTE: The fairings must be level with each other within the limits specified in Figure 2. Use liquid shim for shimming requirements of less than 0.030 inch (0,76 mm).

(3) Back drill and countersink (100 deg) the holes in the fairing segments and laminated shim (if any) from existing holes in structure.

(4) If the laminated shim is used:

WARNING: ADHESIVE (COMAT 08-021) IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH MAY CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD BE USED ONLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC SAFETY AND HEALTH RECOMMENDATIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

a. Apply a thin layer of adhesive (CoMat 08-021) to the mating surface of the CNA.

b. Put the laminated shim into position on the CNA. Use temporary fasteners to align the holes. Use clamps to apply pressure.

WARNING: SOLVENT (COMAT 01-438) IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH MAY CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD BE USED ONLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC SAFETY AND HEALTH RECOMMENDATIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

c. Use a lint free cloth (CoMat 02-099) and solvent (CoMat 01-438) to remove any unwanted adhesive before it cures. Do not let solvent get into the joints.

d. Cure the adhesive for one hour between 190 and 210 deg F (88 and 99 deg C).

e. Go to step 3.B.(6).

(5) If only the liquid shim is used:

WARNING: ADHESIVE (COMAT 08-021) IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH MAY CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD BE USED ONLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC SAFETY AND HEALTH RECOMMENDATIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

a. Apply the required amount of liquid shim (adhesive CoMat 08-021) to the mating surface of the CNA.

WARNING: RELEASE AGENT (COMAT 02-158) IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH MAY CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD BE USED ONLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC SAFETY AND HEALTH RECOMMENDATIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

b. Apply release agent (CoMat 02-158) to the mating surface of the fairing segments.

c. Temporarily install the fairing segments. Use temporary fasteners (e.g. clamps, clecos) to align the holes. Apply enough pressure to the fairing segment to make it level with the adjacent segments.

d. Cure the liquid shim for one hour between 190 and 210 deg F (88 and 99 deg C).

e. Go to step 3.B.(6).

(6) Examine the installation.

a. Temporarily install the fairing.

b. Make sure the adjacent fairings are level with each other within the permitted limits.

c. Use aluminum oxide abrasive paper (CoMat 05-074) on the liquid shim or remove layers of laminated shim if necessary.

(7) Clean the CNA, the fairings, and the shims (if any). Use a lint free cloth (CoMat 02-099) made moist with solvent (CoMat 01-438). Rub the surfaces dry before the solvent becomes dry.

WARNING: PRIMER (COMAT 08-032) IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH MAY CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD BE USED ONLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC SAFETY AND HEALTH RECOMMENDATIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

(8) Apply primer (CoMat 08-032 to the mating surfaces of the CNA, the fairing segments, and the laminated shims (if any).

(9) Cure the primer. Refer to the manufacturer's instructions.

WARNING: SEALANT (COMAT 08-033) IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH MAY CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD BE USED ONLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC SAFETY AND HEALTH RECOMMENDATIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

(10) Apply a thin layer of sealant (CoMat 08-033) to the mating surface of the fairing segments.

(11) Install the fairing segments on the CNA with the fasteners. Wet install the fasteners with the sealant (CoMat 08-033).

(12) Remove unwanted sealant with a lint free cloth (CoMat 02-099) made moist with solvent (CoMat 01-438). Do not let the solvent go into the joints.

(13) Apply sealant (CoMat 08-033) to the spaces between the fairing segments and between the segments and the CNA surface.

a. Remove the old sealant.

b. Clean the area with a lint free cloth (CoMat 02-099) made moist with solvent (CoMat 01-438). Wipe the surfaces dry before the solvent becomes dry.

c. Apply masking tape (CoMat 02-178) along the edges of the spaces between the segments and between the segments and the CNA surface.

d. Apply sealant primer (CoMat 08-032) to the spaces between the pieces of masking tape.

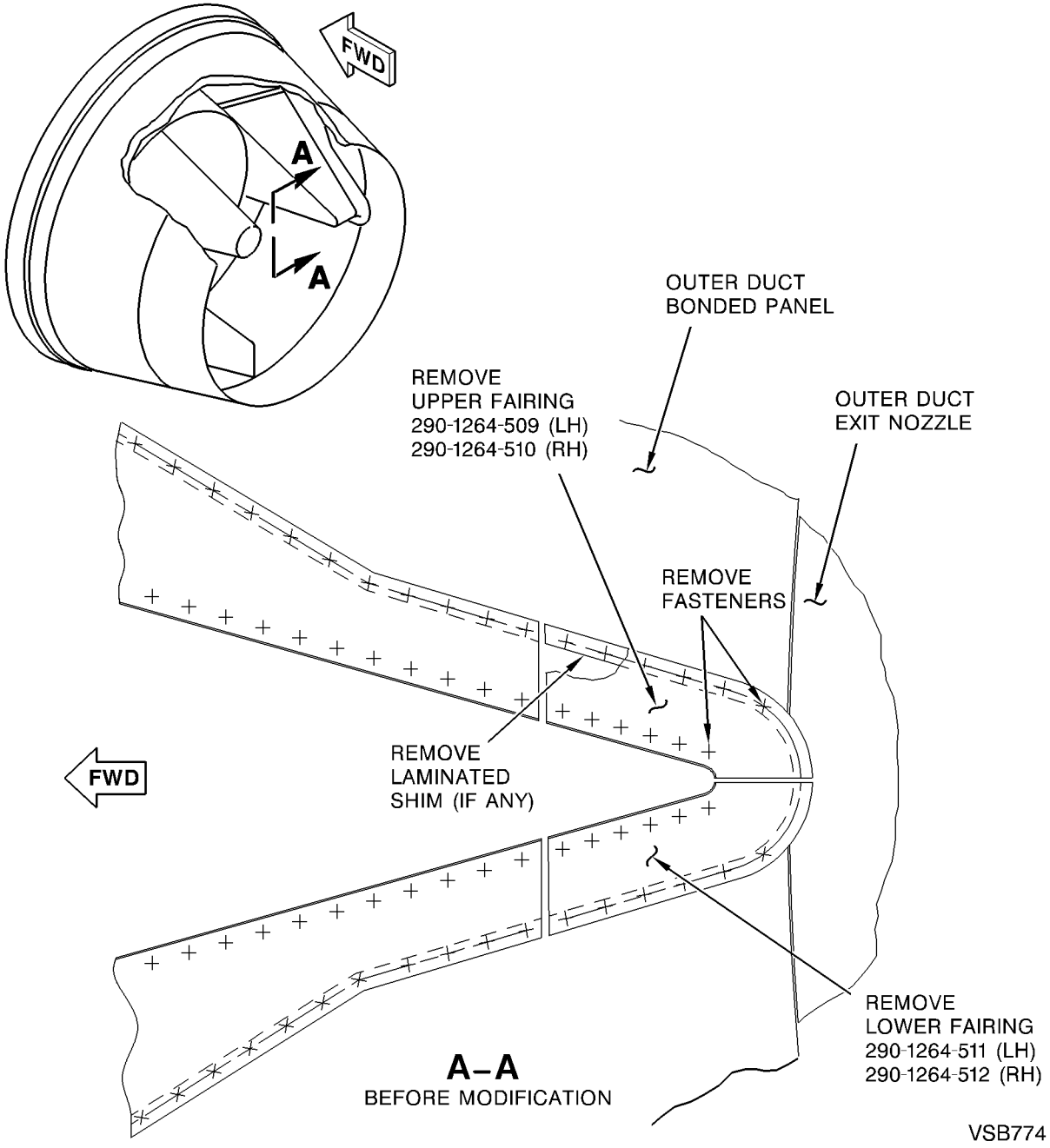
e. Cure the primer. Refer to the manufacturer’s instructions.

f. Apply sealant (CoMat 08-033) to the spaces between the pieces of masking tape. Make the sealant surface level with the surfaces of the fairing segments.

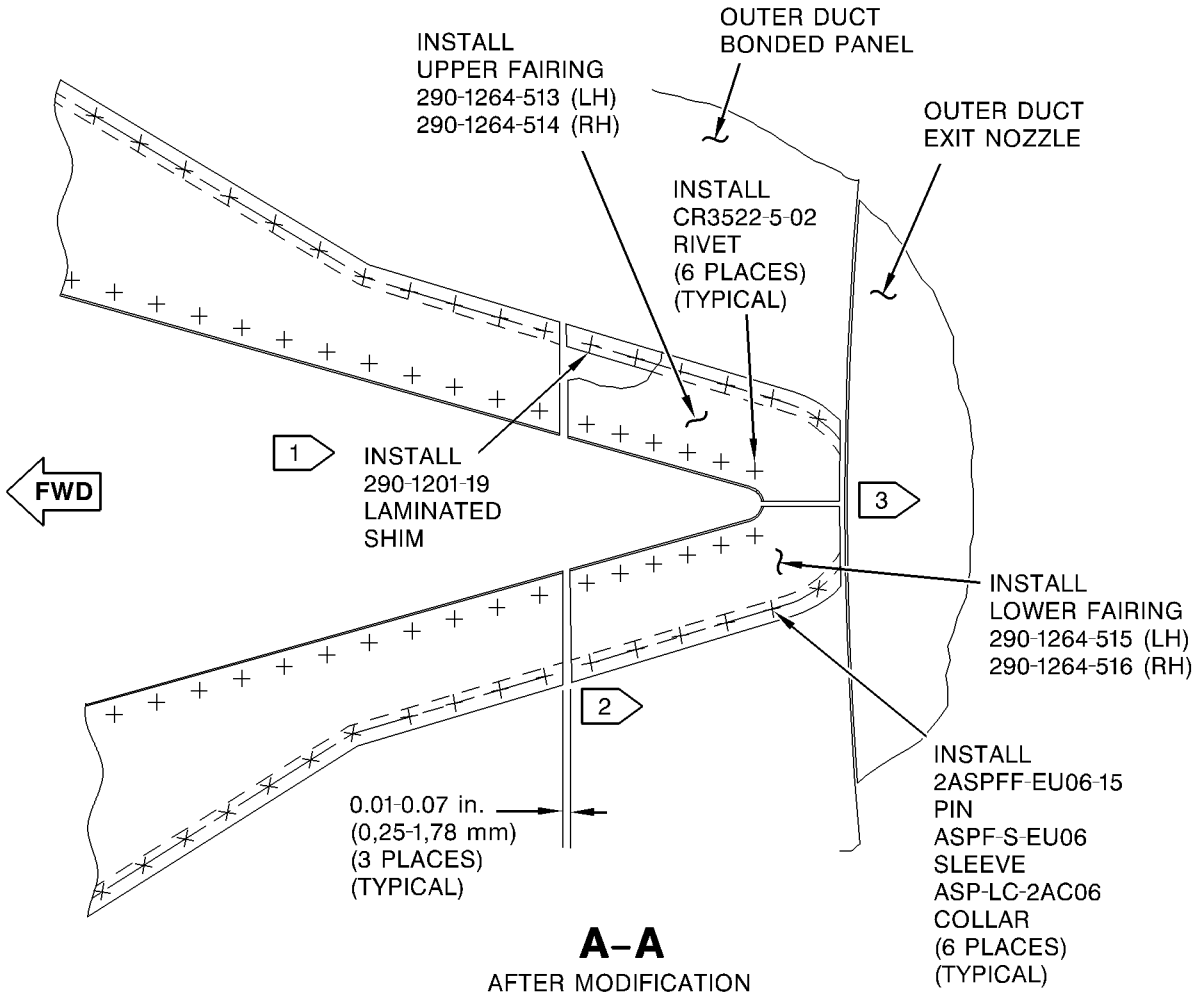
g. Cure the sealant. Refer to the manufacturer’s instructions. Remove the masking tape before the sealant is completely cured.

C. Recording Instructions

(1) A record of accomplishment is required. Write in the applicable records and metal stamp, electroetch, or vibroetch on the CNA data plate that Service Bulletin V2500-NAC-78-0187 has been done. Refer to the Standard Practices/Processes Manual (SPP-V2500-1IA), Chapter 70-09-00.



CNA Bifurcation Fairing Aft Segment Replacement
Figure 1



NOTES:

1. INSTALL THE SHIM BETWEEN THE FAIRINGS AND THE BONDED PANEL AS NECESSARY. FOR SPACE LESS THAN 0.030 in. (0,76 mm), USE LIQUID SHIM.
2. MAXIMUM ALLOWABLE STEP BETWEEN THE FAIRINGS:
   0.025 in. (0,64 mm) INTO THE WIND.
   0.040 in. (1,02 mm) OUT OF THE WIND.
3. MAXIMUM ALLOWABLE STEP BETWEEN THE FAIRINGS:
   0.040 in. (1,02 mm).

VSB775

CNA Bifurcation Fairing Aft Segment Replacement
Figure 2