V2500 International Aero Engines

V2500 Propulsion System — Nacelle

SERVICE BULLETIN

Date: December 5, 1997

Subject: Transmittal of Revision 1 to Service Bulletin Number V2500-NAC-78-0087

Service Bulletin Revision History:

Event	Date
Basic Issue	Jun. 18/96
Revision 1	Dec. 05/97

Reasons for Issuance of Revision

(1) To revise some text in Figure 3.

Effect on Past Compliance

None.

List of Effective Pages:

Page No.	Rev. No.	Date
1	1	Dec. 05/97
2 thru 8	Basic	Jun. 18/96
9	1	Dec. 05/97
10 thru 17	Basic	Jun. 18/96

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

International Aero Engines

V2500 Propulsion System — Nacelle

SERVICE BULLETIN

NACELLE — EXHAUST — VENT HOLES,
LEFT THRUST REVERSER DOOR — MODIFICATION AND ADDITION OF

MODEL APPLICATION

V2500-A5

BULLETIN INDEX LOCATOR

78-32-00

Compliance Category Code

4

Internal Reference No.

JG 93VN106

June 18, 1996
Revision 1 - December 5, 1997

V2500-NAC-78-0087

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

1. Planning Information

A. Effectivity

(1) Airplane: Airbus A320

(2) Nacelle: V2500-A5 Nacelle Thrust Reversers Prior To Serial Number 0421001 except 268, 269, 300, 301, 311, 312, 319, 320, 0327001, 0337001, 0343001, 0345001, 0347001, 0363001, 0385001, 0387001, 0397001, and 0399001.

B. Concurrency Requirements

Service Bulletin V2500-NAC-78-0085 must be incorporated prior to or concurrently with this service bulletin.

See Service Bulletin V2500-NAC-78-0095 for proper thrust reverser part number reidentification.

C. Reason

(1) Condition

Potentially inadequate ventilation of engine core compartment.

(2) Background

Not sufficient air in engine core area.

(3) Objective

To supply more air in engine core area.

(4) Substantiation

Flight test data has confirmed that the incorporation of this bulletin will provide the necessary ventilation.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

(5) Impact of Bulletin on Workshop Procedures:

Removal/Installation	Not Affected
Disassembly/Assembly	Not Affected
Cleaning	Not Affected
Inspection/Repair	Not Affected
Repair	Not Affected
Testing	Not Affected

(6) Supplemental Information

None.

D. Description

The change introduced by this Bulletin is to make a vent hole larger and install two new vents. This service bulletin should be done at the same time as IAE Service Bulletin V2500-NAC-78-0095.

E. Approval

The part number changes and/or part modifications described in Paragraphs 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved for the equipment model(s) listed.

F. Compliance

Category 4

Accomplish at the first visit of the nacelle or nacelle component to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action for the nacelle or nacelle component.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

G. Manpower

Estimated manhours to incorporate the intent of this Bulletin on one thrust reverser:

VENUE		ESTIMATED MAN HOURS
(1) In Service		
(a)	To get access	0.5 M/Hrs
(b)	To rework	2.0 M/Hrs
(c)	To put Nacelle to service	0.5 M/Hrs
	Total	3.0 M/Hrs

H. Material Cost and Availability

The parts to accomplish this Service Bulletin are available from the manufacturer as kit V2578087-551 at no cost to the operator.

Operators with units listed in Paragraph 1.A should submit a no-charge purchase order for the applicable quantity of kits. The purchase order must reference this service bulletin number with applicable Operator serial numbers and list only the parts shown in reference kit. Operators will have one year from the issue date of the Service Bulletin to place an order. After one year, kits will no longer be available and Operators will have to order parts individually at catalog price, if they desire to incorporate the change.

Direct Purchase order to:

Rohr, Inc.
850 Lagoon Drive
Chula Vista, CA. 91910-2098
U.S.A.

Attn: Airline Support Manager - Bldg 107A
(Ref: Service Bulletin V2500-NAC-78-0087)

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

I. Tooling Cost and Availability

Not applicable.

J. Weight and Balance

(1) Weight change ..... No effect

(2) Moment arm ..... No effect

(3) Datum ..... Engine Front Mount Centerline

K. Electrical Load Data

Not affected.

L. References

	Chapter/Section
A320/A321 Aircraft Maintenance Manual	78-32-00
Overhaul Processes and Consumable Index (PCI-V2500-1IA)	
IAE V2500 Standard Practices/Processes Manual (SPP-V2500-1IA)	70-09-00
IAE Service Bulletin V2500-NAC-78-0095	
IAE Service Bulletin V2500-NAC-78-0085	
Aircraft Modification 24810	
Airbus Industrie SB A320-72-1012	

M. Other Publications Affected

A320/V2500-A5 Engine Illustrated Parts Catalog (S-V2500-2IA)	78-30-00 78-32-49
A320/A321/V2500A5 Power Plant Illustrated Parts Catalog (PIP-V2500-2IA)	78-30-00 78-32-49

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

2. Accomplishment Instructions

A. Pre-requisite Instructions

(1) Open the thrust reverser halves. Refer to the A320/A321 Aircraft Maintenance Manual, Chapter 78-32-00, TASK 78-32-00-010-010).

B. Rework or Modification Instructions

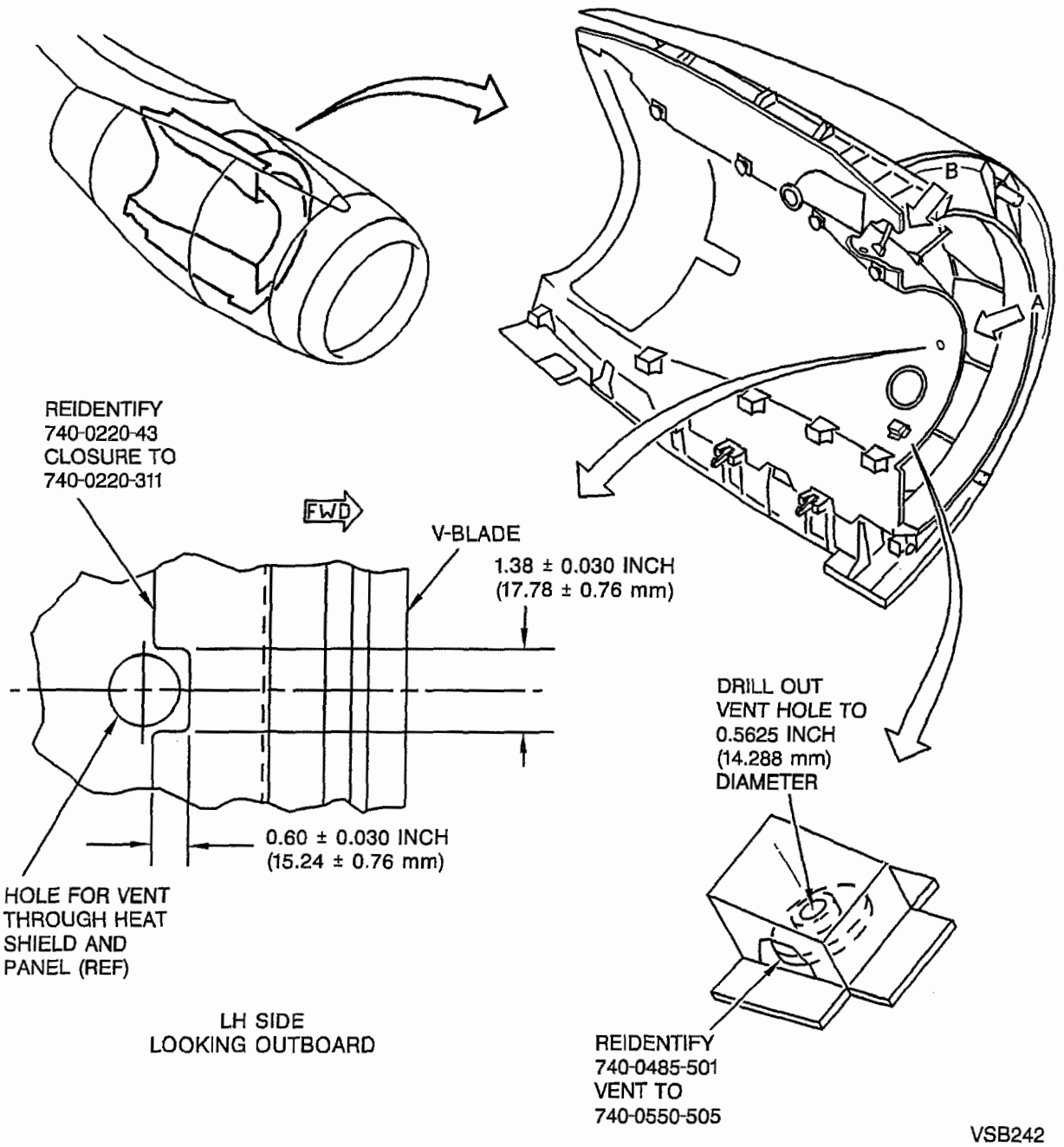
(1) Find the 740-0485-501 vent on the left thrust reverser half. Refer to Figure 1.

(2) Use a drill to make the diameter of the hole in the vent 0.5625 inches (14.288 mm).

WARNING: METHYLETHYLKEOTNE (MEK) (COMAT 01-076) IS CLASSIFIED AS A HAZARDOUS MATERIAL AND CAN CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD ONLY BE USED 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 RECOMMENDATIONS.

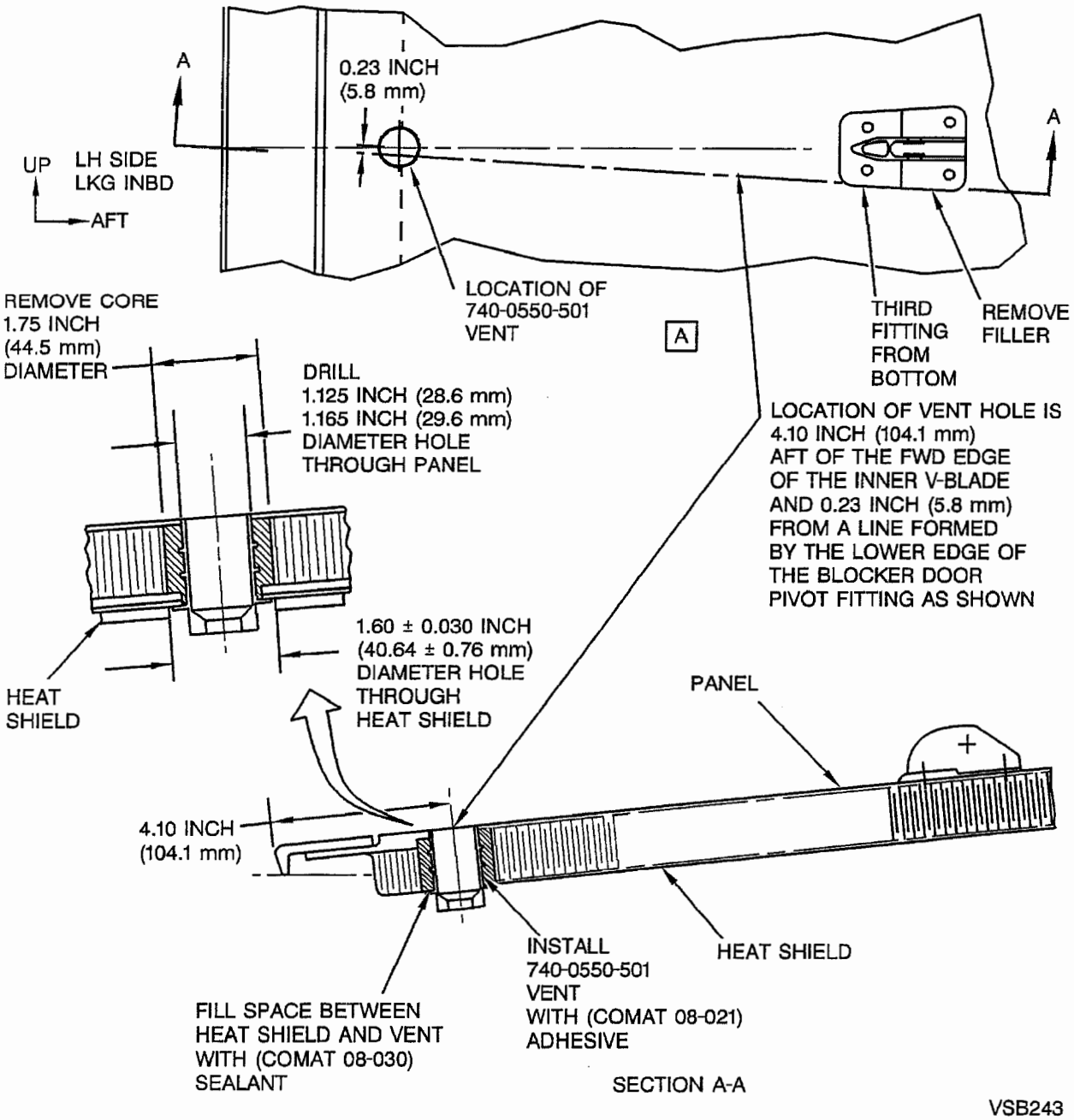
(3) Use a lint free cloth (CoMat 02-099) and MEK (CoMat 01-076) to clean the area around the vent. Wipe the surface dry before the solution becomes dry.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).



Thrust Reverser Fixed Duct Modification
Figure 1

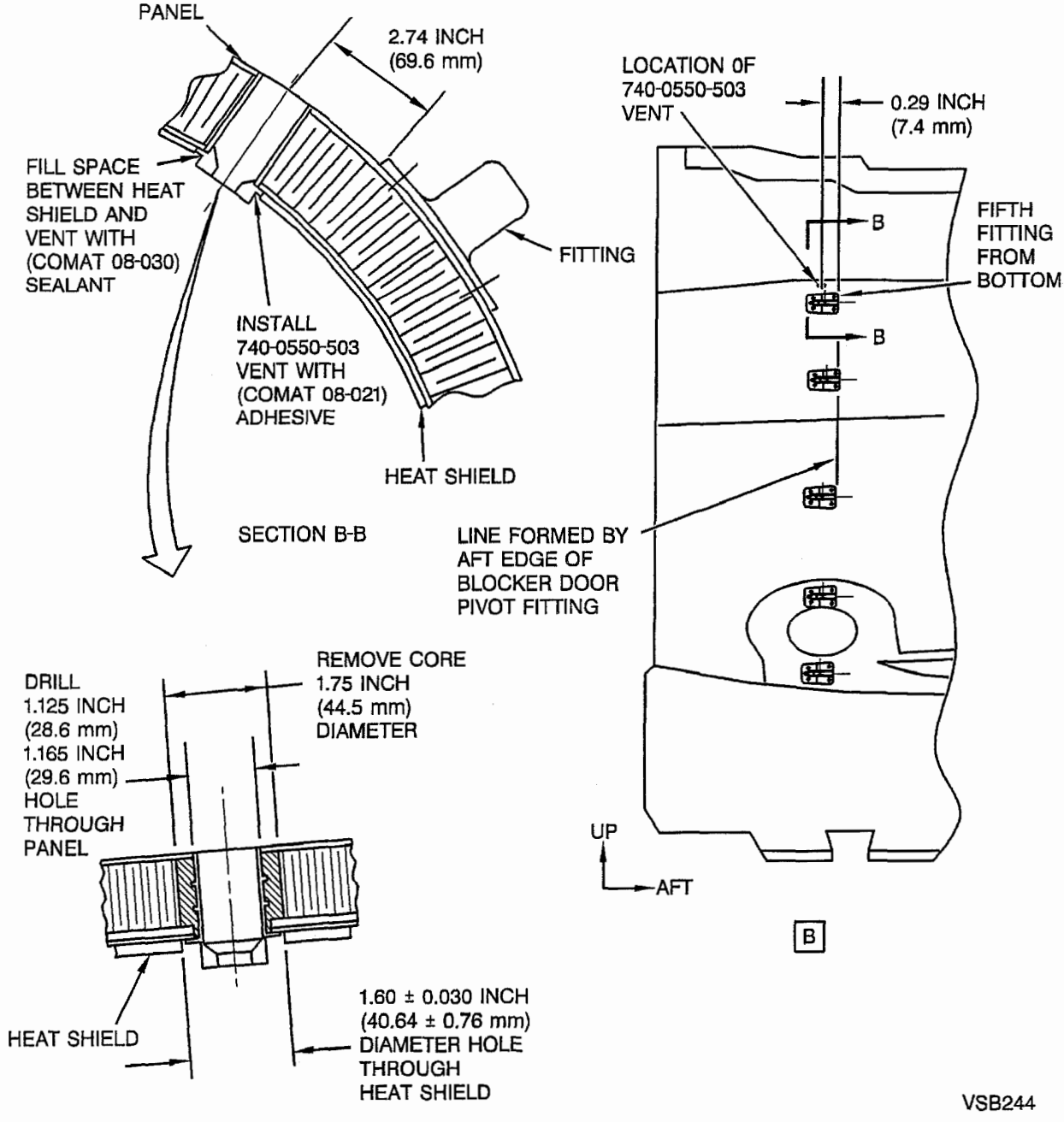
Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).



Thrust Reverser Fixed Duct Modification
Figure 2

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

R



Thrust Reverser Fixed Duct Modification
Figure 3

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

WARNING: CONVERSION COATING (COMAT 07-028) IS CLASSIFIED AS A HAZARDOUS MATERIAL AND CAN CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD ONLY BE USED 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 RECOMMENDATIONS.

(4) Apply conversion coating (CoMat 07-028) to the area around the surface of the vent with a nylon brush or cheesecloth. Keep surface wet with new solution for 2 to 5 minutes.

(5) Reidentify the 740-0485-501 vent to 740-0550-505. Use a rubber stamp and ink (CoMat 06-073). Refer to the IAE Standard Practices/Processes Manual, TASK 70-09-00.

(6) Install the 740-0550-501 vent.

(a) Make a mark at the position for the 740-0550-501 vent on the left thrust reverser half as shown in Detail A of Figure 2.

(b) Use a No. 40 or smaller drill to drill a pilot hole through the panel and the heat shield. Hold a backup plate against the heat shield while you drill the hole to prevent damage to the heat shield. Make sure you drill the hole perpendicular to the surface of the panel.

(c) Cut a 1.60±0.030 inch (40.64±0.76 mm) diameter hole through both sides of the heat shield and the filler. Center the hole on the hole drilled in step (2).

(d) Use a drill to make the pilot hole 1.125-1.165 inch (28.6-29.6 mm) diameter through the panel.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

(e) Remove the honeycomb core to make a 1.75 inch (44.5 mm) diameter hole in the core.

(f) Remove any burrs from the holes as necessary.

(g) Remove metal chips and unwanted material from the panel with a vacuum cleaner.

(h) Use a lint free cloth (CoMat 02-099) and MEK (CoMat 01-076) to clean the areas. Wipe the surfaces dry before the solution becomes dry.

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.

(i) Prepare the adhesive (CoMat 08-021). Refer to the manufacturer's instructions.

(j) Put the adhesive (CoMat 08-021) into the hole. Leave space for the vent.

(k) Put the 740-0550-503 vent into the hole until the flange contacts the panel surface.

(l) Put adhesive (CoMat 08-021) into one of the vent injection holes until adhesive comes out of the other holes.

(m) Cure the adhesive for 168 hours at room temperature or two hours at 200 degrees F.

(n) Use a lint free cloth (CoMat 02-099) and MEK (CoMat 01-076) to clean around the vent and the heat shield

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

cutout. Wipe the surfaces dry before the solution 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.

(o) Apply the primer (CoMat 08-032) to the space around the vent and the heat shield cutout. Allow to dry for 20 minutes.

WARNING: SEALANT (CoMat 08-030) 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.

(p) Mix the sealant (CoMat 08-030). Refer to the manufacturer's instructions.

(q) Apply sealant (CoMat 08-030) to the space between the vent and the heat shield. Make sure all edges of the heat shield cutout are covered with the sealant.

(7) Install the 740-0550-503 vent.

(a) Make a mark at the position for the 740-0550-503 vent on the left thrust reverser half as shown in Detail B of Figure 3. Remove the filler from the lower edge of the blocker door fitting before you use it to find the position for the vent.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

(b) Use a No. 40 or smaller drill to drill a pilot hole through the panel and the heat shield. Hold a backup plate against the heat shield while you drill the hole to prevent damage to the heat shield. Make sure you drill the hole perpendicular to the surface of the panel.

(c) Remove material from the closure as shown in Figure 1. Put a piece of metal between the closure and the heat shield to prevent damage to the heat shield.

(d) Cut a 1.60±0.030 inch (40.64±0.76 mm) diameter hole through both sides of the heat shield and the filler. Center the hole on the pilot hole drilled in step (b).

(e) Use a drill to increase the diameter of the pilot hole in the panel to 1.125-1.165 inch (28.6-29.6 mm).

(f) Remove the honeycomb core to make a 1.75 inch (44.5 mm) diameter hole in the core.

(g) Remove any burrs from the holes as necessary.

(h) Remove metal chips and unwanted material from the panel with a vacuum cleaner.

(i) Use a lint free cloth (CoMat 02-099) and MEK (CoMat 01-076) to clean the areas. Wipe the surfaces dry before the solution becomes dry.

(j) Prepare the adhesive (CoMat 08-021). Refer to the manufacturer's instructions.

(k) Put the adhesive into the hole. Leave space for the vent.

(l) Put the 740-0550-503 vent into the hole until the flange contacts the panel surface.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

(m) Put adhesive (CoMat 08-021) into one of the vent injection holes until adhesive comes out of the other holes.

(n) Cure the adhesive for 168 hours at room temperature or two hours at 200 degrees F.

(o) Use a lint free cloth (CoMat 02-099) and MEK (CoMat 01-076) to clean around the vent and the heat shield cutout. Wipe the surfaces dry before the solution becomes dry.

(p) Apply the primer (CoMat 08-032) to the space around the vent and the heat shield cutout. Allow to dry for 20 minutes.

(q) Mix the sealant (CoMat 08-030). Refer to the manufacturer's instructions.

(r) Apply sealant (CoMat 08-030) to the space between the vent and the heat shield. Make sure all edges of the heat shield cutout are covered with sealant.

(s) Reidentify the 740-0220-43 closure to 740-0220-311 with a rubber stamp and ink (CoMat 06-073). Refer to the IAE V2500 Standard Practices/Processes Manual, Chapter 70-09-00.

(8) Reidentify the 740-0002-709 or -711 left thrust reverser door to 740-0002-713 or -715. Use vibroetch or electroetch method. Refer to the IAE V2500 Standard Practices/Processes Manual, Chapter 70-09-00.

C. Post-requisite Instructions

None.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

D. Recording Instructions

(1) A record of accomplishment is necessary. Write in the aircraft log and metal stamp, vibroetch, or electroetch on thrust reverser data plate that Service Bulletin V2500-NAC—78-0087 has been done. Refer to the IAE V2500 Standard Practices/Processes Manual, Chapter 70-09-00.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

3. Material Information

NEW PART NO. (ATA NO.)	EST'D UNIT QTY	PRICE ($)	KEYWORD	OLD PART NO. (IPC NO.)	INSTR/ DISPOS

Applicability: For each V2500-A5 Nacelle thrust reverser to incorporate this Bulletin.

A. Kits Associated with this Bulletin:

V2578087-551
Consisting of:

740-0550-501	1	Vent		
740-0550-503	1	Vent		

B. Parts Affected by this Bulletin:

740-0002-713 (78-30-00)	1	No. 1 LH T/R	740-0002-709 (01-130)	(1D)
740-0002-715 (78-30-00)	1	No. 2 LH T/R	740-0002-711 (02-130)	(1D)
740-0550-505 (78-32-49) (78-32-49)	1	Vent	740-0485-501 (03-160) (03-170)	(1D)
740-0550-501 (78-32-49)	1	Vent	- - - (03-190)	(B)
740-0550-503 (78-32-49)	1	Vent	- - - (03-180)	(B)

C. Instruction/Disposition Code Statements

(A) New part is currently available and is part of kit.

(1D) New part number may be obtained by rework and reidentification.

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

D. Materials Required to Incorporate This Bulletin:

CoMat 01-076	Methylethylketone
CoMat 02-099	Lint Free Cloth
CoMat 06-073	Metal Marking Ink
CoMat 07-028	Chromate Conversion Coating for Aluminum
CoMat 08-021	Adhesive
CoMat 08-030	Sealant
CoMat 08-032	Primer

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

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).