



## SERVICE BULLETIN

### NACELLE - EXHAUST - THRUST REVERSER - INNER BARREL HEATSHIELD PANDOWN, ENLARGEMENT OF - CATEGORY CODE 6 - MOD.NAC-78-0081

#### 1. Planning Information

##### A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Nacelle: V2500-A1 Nacelle Thrust Reversers Serial Numbers 6 through 114 (except Serial Numbers 95, 96, 99, 104, 105, 106, 109 and 110) and Serial Numbers 118 and 119.

##### B. Reason

###### (1) Condition

Interference may exist between the aft hold-open rod fittings and the heatshield.

###### (2) Background

Several units were found to exhibit this condition.

###### (3) Objective

The changes incorporated in this Bulletin are intended to eliminate any interference between the aft hold-open rod fitting and the Thrust Reverser inner barrel.

###### (4) Substantiation

A trial assembly of a configuration similar to production was successfully fitted to a mock-up unit.

###### (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

###### (6) Supplemental Information

None

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### C. Description

The change introduced by this Bulletin is as follows:

- (1) Remove existing pandown doublers and enlarge cutout to accept new doubler and panel.

### D. 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.

### 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. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

VENUE	ESTIMATED MANHOURS
(1) In Service	Not applicable
(2) In shop	
(a) To embody	9.0 Hrs

### G. Material Cost and Availability

The parts to accomplish this Service Bulletin are available from the supplier as kit V2578081-551 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 specify this service bulletin number and only the parts listed herein. 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.

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Direct Purchase order to:

Rohr Inc.

P.O. Box 878

Chula Vista, CA 91912

U.S.A.

Attn: Manager, Spares Operations - Bldg. 107A  
(Ref. Service Bulletin No V2500-NAC-78-0081)

### H. Tooling Cost and Availability

None required.

### I. Weight and Balance

- (1) Weight change ..... None
- (2) Moment arm ..... No effect
- (3) Datum ..... Engine Front Mount Centerline  
..... (Power plant Station PPS 100.00)

### J. Electrical Load Data

Not affected.

### K. References

- (1) Internal Reference No.

93VN071

- (2) Other References

IAE V2500 Service Bulletin:

V2500-NAC-78-0037 - NACELLE - EXHAUST - THRUST REVERSER INNER BARREL  
-HEATSHIELD - PANDOWN - REWORK OF

### L. Other Publications Affected

A320/V2500-A1 Engine Illustrated Parts Catalog 78-32-49  
78-32-79

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### 2. Accomplishment Instructions

#### A. Prerequisite-Instructions

None.

#### B. Rework or Modification Instructions - Thrust Reverser

(1) Find thrust reverser forward pandown located on the left hand aft inner barrel. (Refer to Figure 1.)

(2) Pre SB V2500-NAC-78-0037 - Do the following if Service Bulletin V2500-NAC-78-0037 has not been incorporated.

(a) Remove four CR3523-4-2 rivets that attach the 740-0220-81 pan to thrust reverser inner barrel. (Refer to Figure 1.)

(b) Remove 740-0220-81 pan.

CAUTION: DO NOT DAMAGE SEPTUM WHEN YOU REMOVE HONEYCOMB CORE.

(c) Cut away heatshield and core to dimensions and shape shown in Figure 2. Depth of core to be removed is 0.25 in. ( 6.35 mm). Proceed to paragraph 2.B.(4).

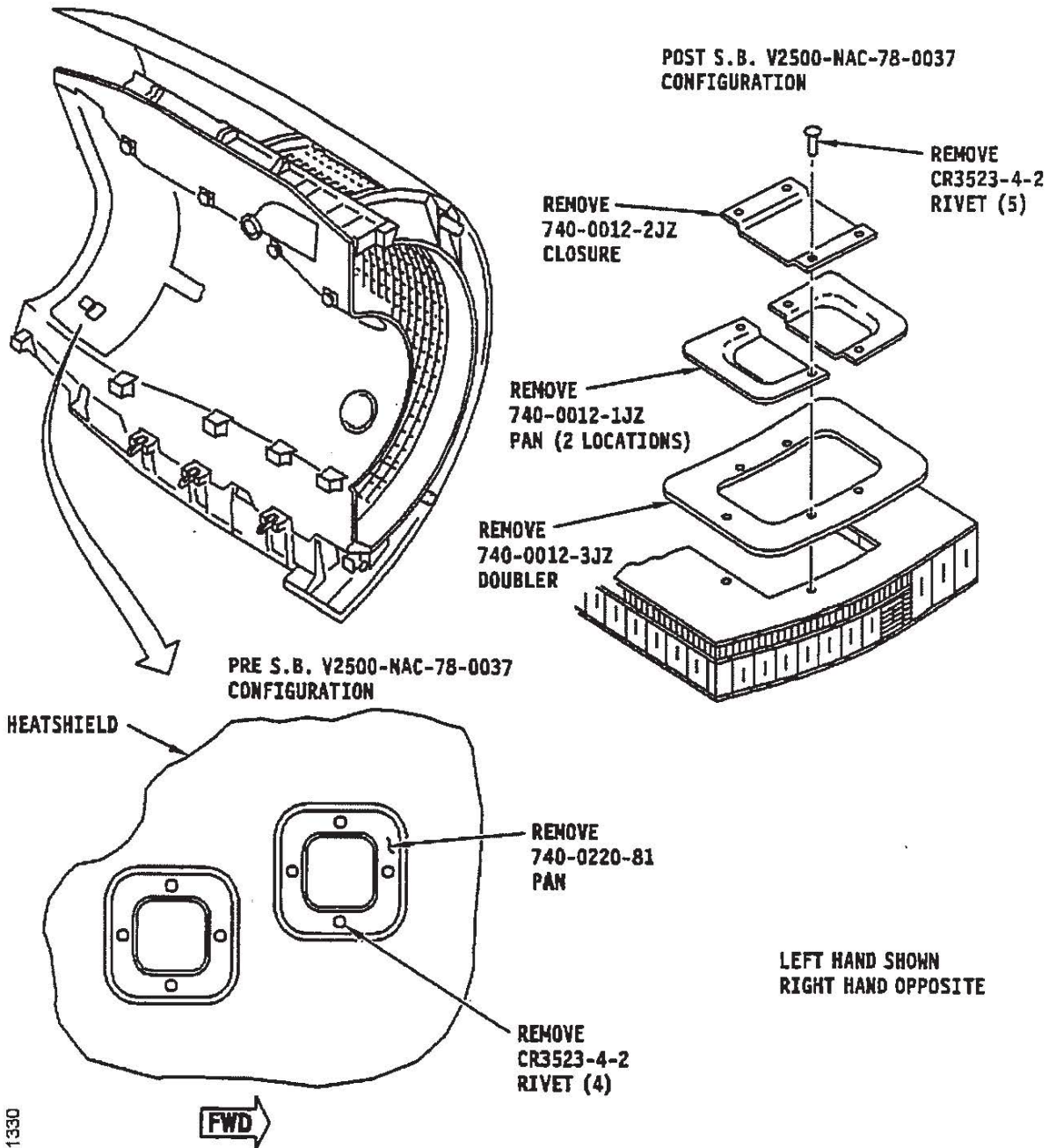
(3) Post SB V2500-NAC-78-0037 -Do the following if Service Bulletin has been incorporated.

(a) Remove five CR3523-4-2 rivets that attach closure, pans, and doubler to the inner barrel. (Refer to Figure 1).

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Removal of Closure, Pan, and Doubler  
Fig.1

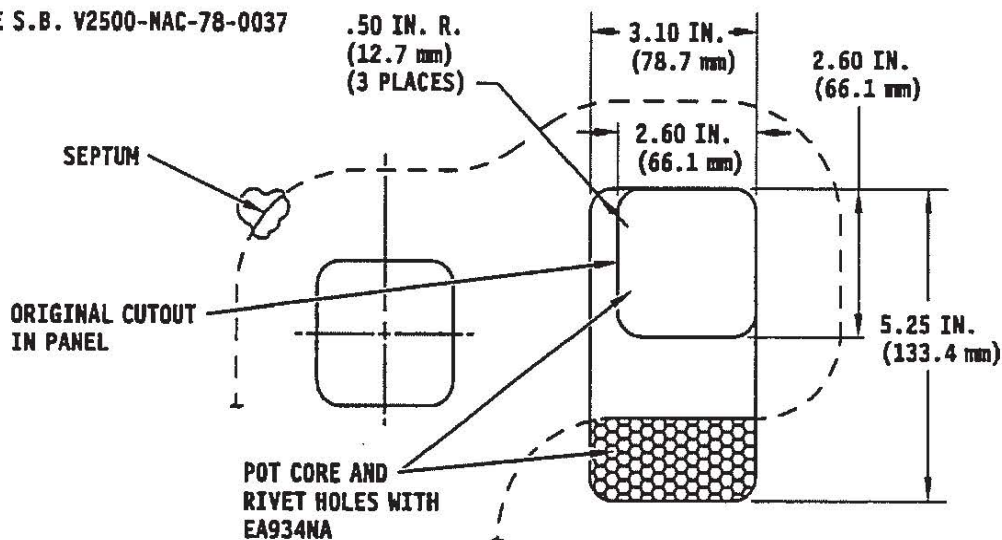
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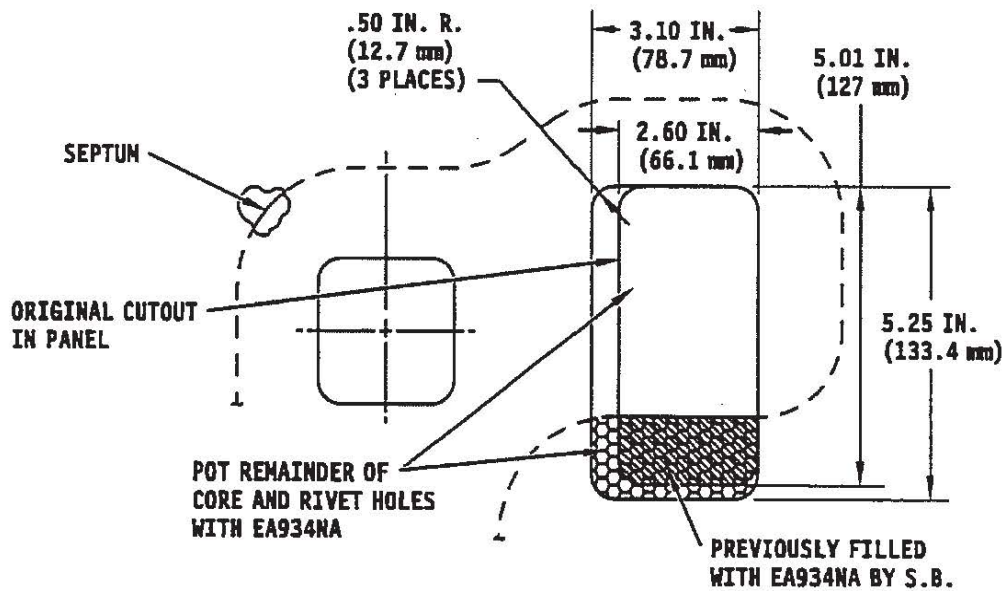
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PRE S.B. V2500-NAC-78-0037



POST S.B. V2500-NAC-78-0037



Enlargement of Pandown Area  
Fig.2

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- (b) Remove 740-0012-2JZ closure and two 740-0012-1JZ pans. Discard parts.
- (c) Break liquid shim bond between inner barrel and 740-0012-3JZ doubler. Remove doubler and discard.

NOTE: If it is difficult to break the bond of the liquid shim, use liquid nitrogen or equivalent to freeze the attachment to make separation of the doubler easier.

- (d) Cut away heatshield and core to dimensions and shape shown in Figure 2. Depth of core to be removed is 0.25 in. ( 6.35 mm).

NOTE: The heatshield will have already been cut back to a depth of 1.25 in. (31.8 mm) on two sides, an inch on one side, and 0.75 in. (19.1 mm) on the remaining side by Service Bulletin 78-0037; therefore only the one side will have to be enlarged from 0.75 (19.1 mm) to 1 in. (25.4 mm).

WARNING: METHYL ETHYL KETONE (MEK) IS FLAMMABLE AND VAPOR IS HARMFUL. USE IN A WELL-VENTILATED AREA. AVOID PROLONGED BREATHING OF VAPOR OR PROLONGED OR REPEATED CONTACT WITH SKIN. MAY CAUSE IRRITATION OF EYES, NOSE, THROAT, AND SKIN. HIGH CONCENTRATIONS MAY CAUSE IMPAIRED JUDGEMENT. PROTECTIVE GLOVES SHOULD BE WORN DURING USE. MAY CAUSE DERMATITIS BY REMOVING SKIN OILS. PRIOR TO USE OF THIS PRODUCT, READ THE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (4) Clean entire reworked area with a clean cotton cloth and MEK (CoMat 01-176). Wipe area dry before solvent evaporates.
- (5) Mix EA934NA adhesive (CoMat 08-021) in accordance with manufacturer's instructions. Apply adhesive to fill open core and rivet holes. Cure adhesive for 24 hours at room temperature or two hours at room temperature and one hour at 180 degF - 200 degF (82.2 degC - 93.3 degC).

WARNING: DOW CORNING 1200 PRIMER IS FLAMMABLE AND VAPOR IS HARMFUL. USE IN A WELL-VENTILATED AREA. WORK PERFORMED IN CONFINED AREAS REQUIRES THE USE OF ADDITIONAL FORCED MECHANICAL VENTILATION. AVOID BREATHING OF VAPOR OR PROLONGED OR REPEATED CONTACT WITH SKIN. MAY CAUSE IRRITATION TO SKIN, EYES, NOSE, AND THROAT. HIGH CONCENTRATIONS MAY CAUSE IMPAIRED JUDGEMENT. PROTECTIVE GLOVES SHOULD BE WORN DURING USE. MAY CAUSE DERMATITIS BY REMOVING SKIN OILS.

- (6) Apply DC1200 primer (CoMat 08-032) to mating surfaces of 740M0150-1 panel and septum/filled core. Allow to dry for 20 minutes.

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WARNING: USE DOW CORNING 910-006 IN WELL-VENTILATED AREAS. WORK PERFORMED IN CONFINED AREAS REQUIRES THE USE OF ADDITIONAL FORCED MECHANICAL VENTILATION. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. MAY CAUSE IRRITATION OF EYES AND SKIN. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (7) Mix DC90-006 sealant (CoMat 08-032) in accordance with manufacturer's instructions. Apply sealant to 740M0150-1 panel and install panel in cutout area. (Refer to Figure 3.)

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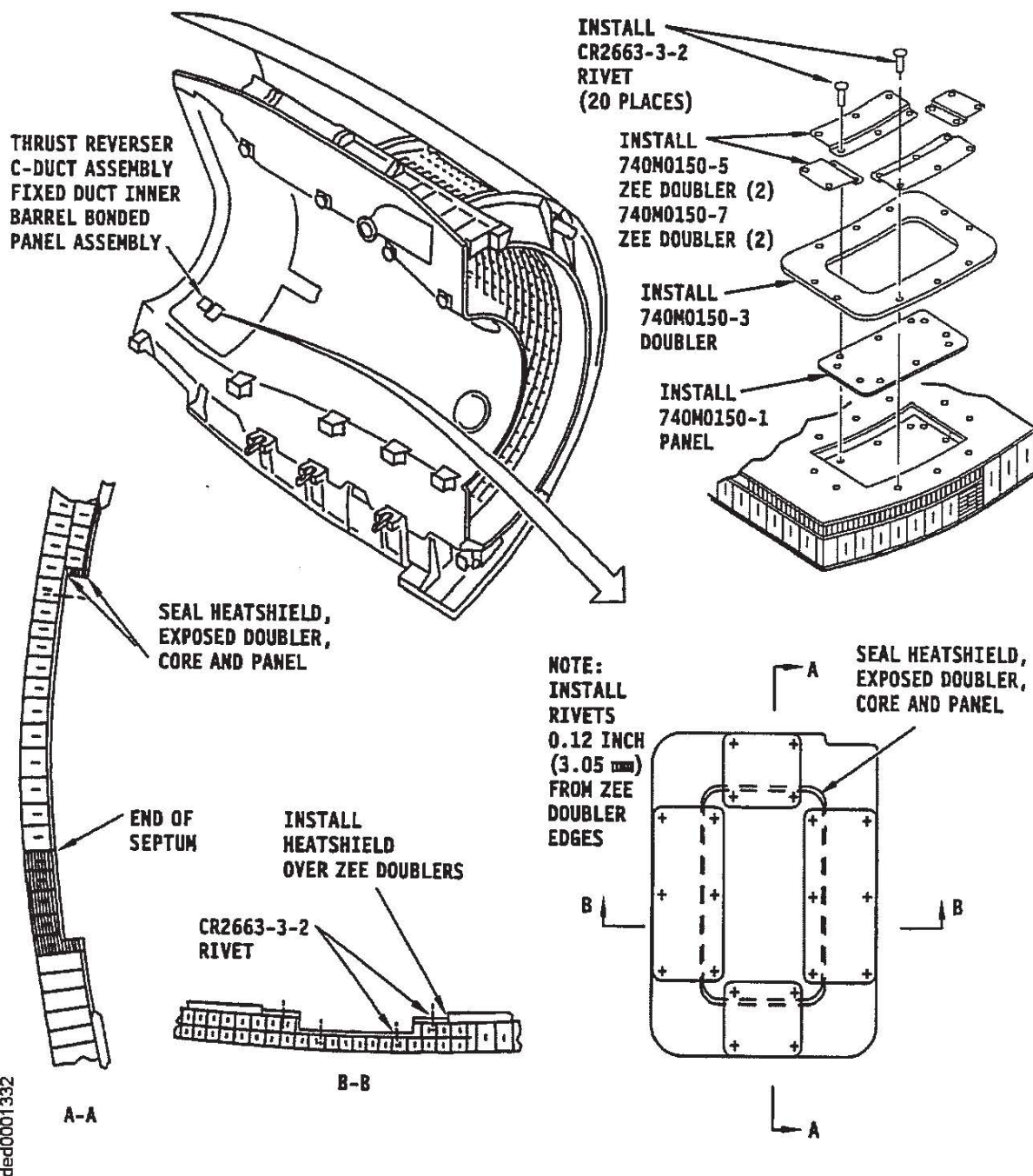
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Installation of Panel, Doubler, and Zee Doublers  
Fig.3

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**WARNING:** USE EA9321 PARTS A AND B ONLY IN AREAS WITH ADEQUATE VENTILATION. WORK PERFORMED IN CONFINED AREA REQUIRES THE USE OF ADDITIONAL FORCED MECHANICAL VENTILATION. AVOID ALL CONTACT WITH SKIN AND EYES. MAY CAUSE SEVERE BURNS TO EYES. CHEMICAL GOGGLES AND PROTECTIVE GLOVES SHOULD BE WORN DURING USE. PROLONGED OR REPEATED CONTACT WITH THIS ADHESIVE MAY RESULT IN A PERMANENT SKIN ALLERGY TO EA9321 PARTS A AND B. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE 'MATERIAL SAFETY DATA SHEET' AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (8) Mix EA9321 adhesive (CoMat 08-078) in accordance with manufacturer's instructions. Apply adhesive to underside of the 740M0150-3, -5, and -7 doublers and put doublers into position below heatshield. Allow to cure for one hour at 200 degf (93.3 degC).

**NOTE:** Accelerated cure shown must be utilized to achieve required structural integrity, as normal room temperature cure is five to seven days.

- (9) Make the hole pattern on 74M0150-5 and 740M0150-7 zee doublers. Holes should be 0.12 inch (3.05 mm) from zee doubler edges.
- (10) Drill (20) number 40 size holes through doublers. Burr holes.
- (11) Install (20) CR2663-3-2 rivets.

**WARNING:** PRO-SEAL 700 CONTAINS LEAD DIOXIDE AND MUST BE USED IN A WELL-VENTILATED AREA. AVOID INHALATION OF DUST PARTICLES AND WEAR APPROPRIATE RESPIRATORY PROTECTION. AVOID INGESTION. WEAR APPROPRIATE EYE AND SKIN PROTECTION WHEN USING PR-SEAL 700. WASH THOROUGHLY AFTER HANDLING AND BEFORE SMOKING OR EATING. READ "MATERIAL SAFETY DATA SHEET" FOR PRO-SEAL 700 PART A AND B AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE 'MATERIAL SAFETY DATA SHEET' AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (12) Mix Pro-Seal 700 (CoMat 08-094) in accordance with manufacturer's instructions. Apply Pro-Seal 700 to all exposed edges of heatshield, core, exposed doubler and panel. If heatshield foil was cut to insert doubler below foil, you must seal the cuts. Allow sealant to set for two hours at room temperature and then cure for two hours at 50% minimum relative humidity at 110 degF (43.4 degC).
- (13) Do procedures in paragraph 2.B(2) through 2.B.(12) to right hand thrust reverser inner barrel.

## C. Post-Requisite Instructions

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None

### D. Recording Instructions

- (1) A record of accomplishment is necessary. Write in aircraft log and on thrust reverser data plate that Service Bulletin V2500-NAC-78-0081 has been incorporated.

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### 3. Material Information

Applicability: For each V2500 Nacelle to incorporate this Bulletin

#### A. Kits associated with this Bulletin:

V2578081-551 1 \$2,762.00 Kit  
Consisting of:

740M0150-1	2	Panel
740M0150-3	2	Doubler
740M0150-5	4	Zee
740M0150-7	4	Zee
CR2663-3-2	40	Rivet

#### B. Parts affected by this Bulletin:

NEW PART NO. (ATA NO.)	QTY	EST'D UNIT PRICE (\$)	KEYWORD	OLD PART NO. IPC No.)	INSTR/ DISPOS
740M0150-1 (78-32-49) (78-32-79)	1	\$337.00	Panel	--- (30-280) (30-280)	(A)
740M0150-3 (78-32-49) (78-32-79)	1	\$429.00	Doubler	--- (30-285) (30-285)	(A)
740M0150-5 (78-32-49) (78-32-79)	2	\$143.00	Zee	--- (30-270) (30-270)	(A)
740M0150-7 (78-32-49) (78-32-79)	2	\$143.00	Zee	--- (30-260) (30-260)	(A)
CR2663-3-2 (78-32-49) (78-32-79)	20	\$1.76	Rivet	--- (30-265) (30-275) (30-265) (30-275)	
			Pan	740-0220-81	(B)(1D)
			Pan	740-0012-1JZ	(B)(1D)
			Closure	740-0012-2JZ	(B)(1D)
			Doubler	740-0012-3JZ	(B)(1D)

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### C. Instruction/Disposition Code Statements:

(A) Part supplied as a detail of the kit.

(1D) Discard old part.

(B) Not available as a spare for replenishment purposes.

### D. These materials are to be procured by the Operator or obtained from his stock:

Part Number	Keyword	Qty	Source	Code
Methyl Ethyl Ketone	Solvent	AN	Commercially Available	---
90-006	Sealant	AN	Dow Corning Corp.	71984
DC1200	Primer	AN	3901 S. Saginaw Road P.O. Box 997 Midland, MI 48640	
EA934NA	Adhesive	AN	Dexter Hysol	33564
EA9321	Adhesive	AN	Aerospace Inc. The Dexter Corp. 2850 Willow Pass Road P.O. Box 312 Pittsburg, CA 94565-3237 USA	
Proseal 700	Sealant	AN	Courtaulds Aerospace, Inc. 21800 Burbank Blvd. P.O. Box 4226 Woodland Hills, CA 91365	83574

NOTE: The estimated 1994 unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult the Rohr price catalog or contact Rohr Customer Support for information concerning firm prices.

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