



# SERVICE BULLETIN REVISION NOTICE

NACELLE - EXHAUST - LUG, THRUST REVERSER LOWER OUTBOARD TRACK ASSEMBLY  
LANYARD ATTACH – MODIFICATION OF

Turbojet Engine Service Bulletin No. V2500-NAC-78-0097 Revision No. 1 dated May 9, 2017

## Revision History

Original Issue October 15, 1995

Revision 1 dated May 9, 2017

## Reason for the Revision

The information contained in this Service Bulletin has been superseded by Service Bulletin V2500-NAC-78-0225. It is no longer necessary to do this Service Bulletin or Original Issue of this Service Bulletin.

## Effect of Revision on Prior Compliance

None.

This is a Complete Revision (Not Applicable to the SGML version)

The format of this Service Bulletin has not been changed from the Original Issue. See Reason for the Revision above.

MODEL APPLICATION  
V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE  
V2500 Series 78-0097

## Page

1 thru 16

## Revision No.

1

## Date

May 9/17  
Page 1 of 1  
95VN306

**A copy of this Revision Notice and any future revision notices must be filed as a permanent record with your copy of the subject bulletin.**

**NO TECHNICAL DATA SUBJECT TO THE EAR OR ITAR.**

# TRANSMITTAL



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V2500 Propulsion System — Nacelle

# SERVICE BULLETIN

NACELLE - EXHAUST - LUG, THRUST REVERSER LOWER OUTBOARD TRACK ASSEMBLY  
LANYARD ATTACH -MODIFICATION OF

MODEL APPLICATION

V2500-D5

BULLETIN INDEX LOCATOR

78-32-00

Compliance Category Code

6

Internal Reference No.

LL/AC 95VN306

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## 1. Planning Information

### A. Effectivity

- (1) Airplane: MD-90
- (2) Nacelle: V2500-D5 thrust reverser serial numbers 0006001, 0007001, 0022001, 0024001, 0026001, 0028001, 0030001, 0032001, 0034001, 0036001, and 0038001.

### B. Reason

#### (1) Condition

The lower thrust reverser outboard track assembly lanyard attach lug may exhibit cracking in service.

#### (2) Background

Inadequate lug thickness of lower thrust reverser outboard track assembly at lanyard attach location.

#### (3) Objective

To provide additional support for lower thrust reverser outboard track assembly lanyard attach location.

#### (4) Substantiation

Structural analysis of improved lanyard attach lug was successful.

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(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.

C. Description

The change introduced by this Bulletin is to remove the existing lug on lower outboard track assembly and install a fitting in its place.

D. Approval

Incorporation of this Service Bulletin must be accomplished only in conjunction with Douglas Aircraft Company Service Bulletin MD90 78-005 which has received exclusive FAA approval for MD-90 Series aircraft.

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.

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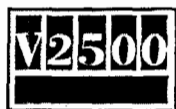
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## F. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

### VENUE

### ESTIMATED MANHOURS

(1) In Service	Not Applicable
(2) In shop	
(a) To rework	<u>4.0 M/Hrs.</u>
Total	4.0 M/Hrs.

## G. Material Cost and Availability

The parts to accomplish this Service Bulletin are available from the supplier as kits V2578097-551 and V2578097-553 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 prices, if they desire to incorporate the change.

Direct Purchase order to:  
Rohr Inc.  
P.O. Box 878  
Chula Vista, CA 91912  
U.S.A.

Attn: Airline Support Manager - Bldg. 107A  
(Ref. Service Bulletin No. V2500-NAC-78-0097)

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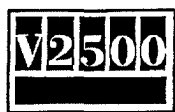
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## H. Tooling Cost and Availability

Not applicable.

## I. Weight and Balance

(1) Weight Change . . . . . No effect

(2) Moment Arm. . . . . No effect

(3) Datum . . . . . Engine Front Mount Centerline  
. . . . . Power Plant Station (PPS) 95.1

## J. Electrical Load Data

Not affected.

## K. References

### Chapter/Section

V2500 Standard Practices/Processes Manual	70-09-00
	70-23-05
	70-36-02
	70-39-03

## L. Other Publications Affected

None.

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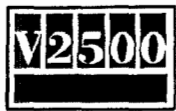
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## 2. Accomplishment Instructions

### A. Prerequisite Instructions

None.

### B. Rework or Modification Instructions

- (1) Carefully pull back insulation blanket on outboard track assembly of left hand lower thrust reverser to get access to rework area. Refer to Figure 1.
- (2) If installed, remove S700B0116-5C8 or S700B0116-5C16 bushing. Refer to Figure 2. Discard bushing.
- (3) If installed, remove 94-B043600-M angle bracket. Discard bracket.
- (4) Remove material from track assembly as shown in Figure 2.
- (5) Clean away metal chips or other unwanted material with dry air supply.

**WARNING:** 1,1,1 TRICHLOROETHANE VAPORS ARE HARMFUL. USE IN A WELL-VENTILATED AREA. AVOID PROLONGED BREATHING OF VAPOR AND PROLONGED OR REPEATED CONTACT WITH SKIN. OVEREXPOSURE MAY CAUSE HEADACHE, DIZZINESS OR DROWSINESS. VAPOR IS HEAVIER THAN AIR AND MAY REPLACE OXYGEN IN A CONFINED AREA. SMOKING AND ARC WELDING SHOULD BE AVOIDED WHEN USING THIS SOLVENT; VAPORS OF DECOMPOSITION MAY CAUSE SERIOUS BODILY HARM. PROTECTIVE GLOVES SHOULD BE WORN DURING USE. MAY CAUSE DERMATITIS BY REMOVING SKIN OILS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE 'MATERIAL SAFETY DATA SHEET' AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (6) Clean the area with a lint free cloth (CoMat 02-099) and trichloroethane (CoMat 01-001). Wipe surface dry before solvent becomes dry.

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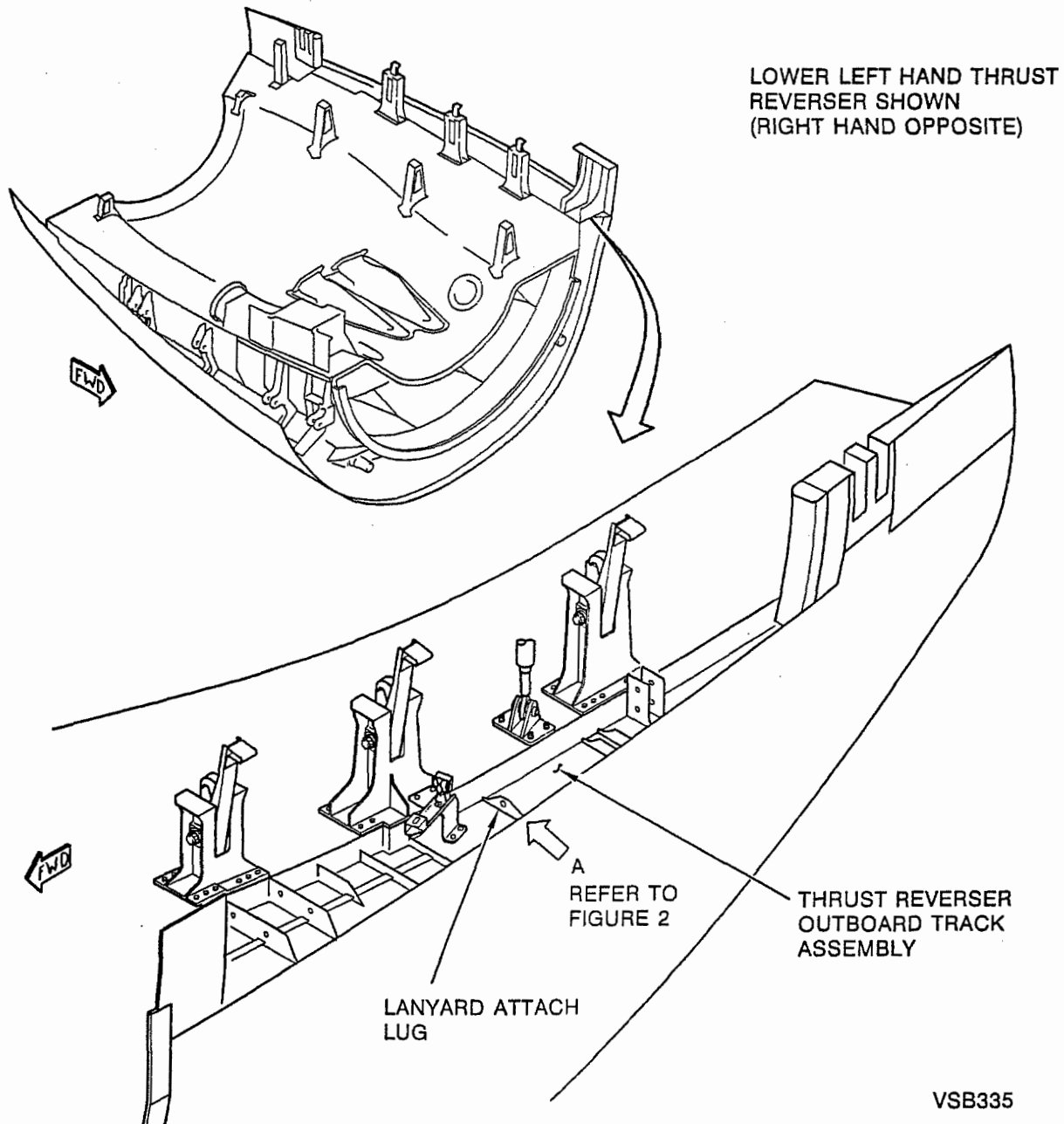
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OUTBOARD TRACK ASSEMBLY LANYARD ATTACH LUG  
FIGURE 1

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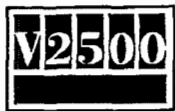
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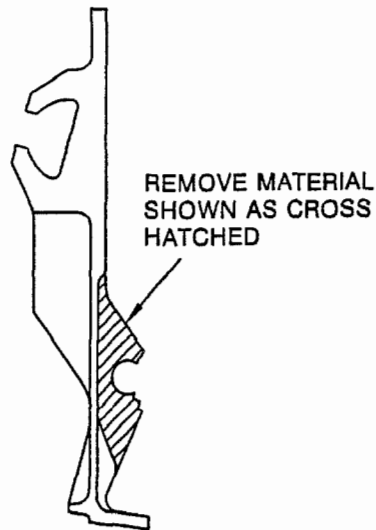
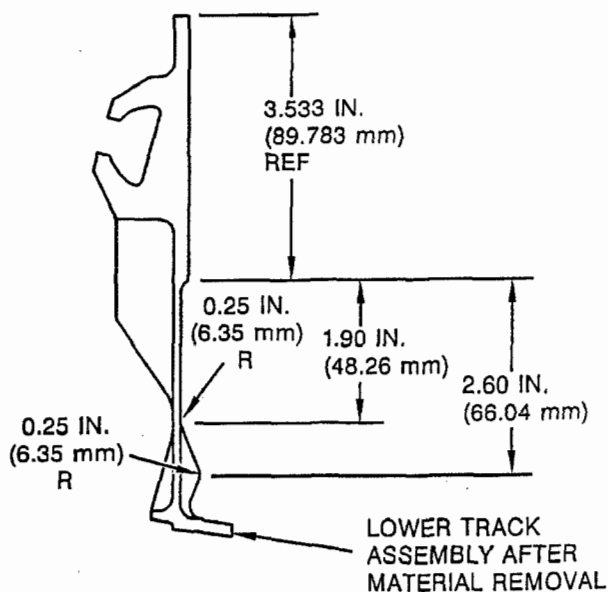
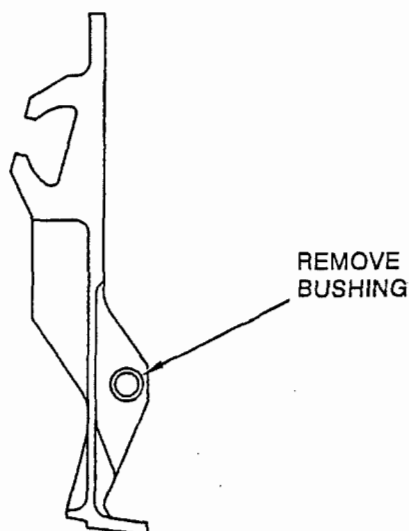
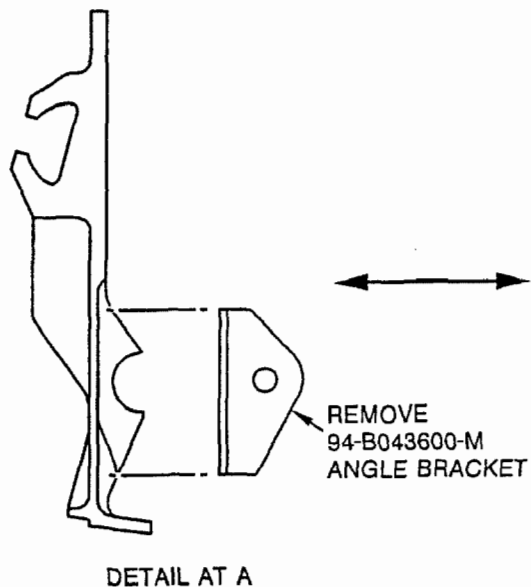




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VSB336

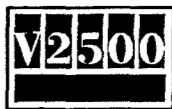
LANYARD ATTACH LUG REWORK  
FIGURE 2

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- (7) Dye penetrant inspect the rework area. Apply penetrant locally. Refer to the Standard Practices/Processes Manual, Chapter 70-23-05.
- (8) Use a clean (CoMat 02-099) lint-free cloth and (CoMat 01-001) trichloroethane to clean rework area to remove any remaining dye penetrant.

**WARNING:** 463-6-27 BASE, X337 CONVERTER, AND TL52-66 THINNER ARE FLAMMABLE AND VAPOR IS HARMFUL. INHALATION OF SPRAY MIST MAY CAUSE SERIOUS BODILY HARM. AVOID SOURCES OF IGNITION. USE ONLY IN AREAS WITH ADEQUATE VENTILATION. WORK PERFORMED IN CONFINED AREA REQUIRES THE USE OF ADDITIONAL FORCED MECHANICAL VENTILATION. AVOID BREATHING OF VAPOR AND CONTACT WITH SKIN AND EYES. MAY CAUSE IRRITATION TO SKIN AND EYES. SEVERE OVEREXPOSURE MAY CAUSE FATIGUE, WEAKNESS, CONFUSION, HEADACHE, DIZZINESS, DROWSINESS, AND IMPAIRED JUDGMENT. USE REGULATORY AGENCY APPROVED RESPIRATORY PROTECTION FOR SPRAY APPLICATIONS. THIS PRODUCT CONTAINS LEAD, A CUMULATIVE POISON. WASH HANDS WELL BEFORE EATING, DRINKING, OR SMOKING. PROTECTIVE GLOVES SHOULD BE WORN DURING MIXING APPLICATION. PROLONGED OR REPEATED CONTACT WITH THIS EPOXY PRIMER MAY RESULT IN A PERMANENT SKIN ALLERGY TO 463-6-27 BASE AND X337 CONVERTER. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (9) Mix 463-6-27 base (CoMat 07-071), X337 converter (CoMat 07-067), and TL52-66 thinner (CoMat 07-066) with manufacturer's instructions.
- (10) Apply the primer with a brush to the repair surface.
- (11) Cure the primer for seven hours at room temperature or for 40 minutes at 140°-180°F (60°-82°C) with an explosion-proof heat lamp.

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- (12) Make a mark for hole locations on 290M0003-1. Refer to Figure 3.
- (13) Attach with a clamp 290M0003-1 fitting and two 290M0003-3 radius blocks to lower track assembly. Refer to Figure 4.
- (14) Drill fastener holes through fittings, lower track assemblies, and radius blocks.

**NOTE:** Select drill size based on HL148-5 diameter fasteners.

- (15) Remove clamps, fittings, and radius blocks from lower track assemblies.
- (16) Remove burrs and clean away metal chips or other unwanted material with dry air supply.
- (17) Apply liquid shim (CoMat 08-021) to radius block and track assembly(s) mating surfaces. Refer to Standard Practices/Processes Manual, Chapter 70-36-02.
- (18) Install 290M0003-1 fitting and two 290M0003-3 radius blocks on LH lower track assembly with HL48DU5-7 pins, HL48DU5-4 pins, and HL78DU5 collars. Refer to Figure 5. Refer to Standard Practices/Processes Manual, Chapter 70-39-03.
- (19) Clean away any unwanted liquid shim with a lint free cloth (CoMat 02-099) and trichloroethane (CoMat 01-001). Wipe surface dry before solvent becomes dry.
- (20) Install insulation blanket to best fit around fittings.
- (21) Remove any loose or unbonded sealant from insulation blanket and track assembly.

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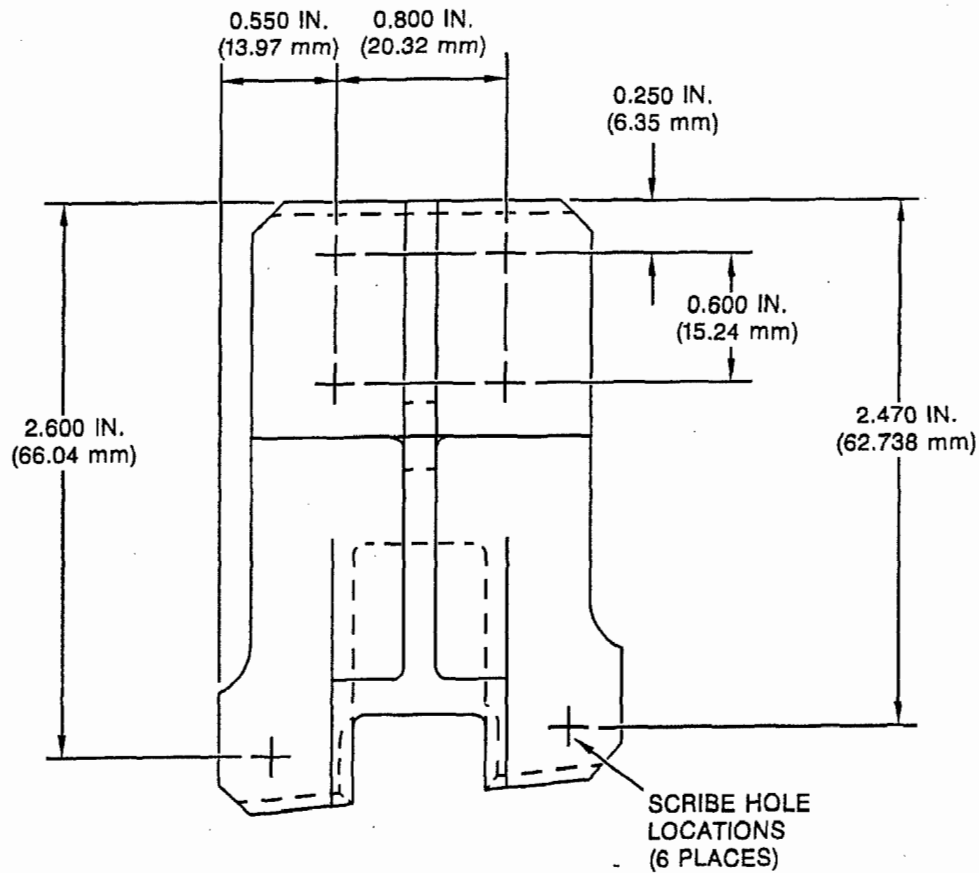
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290M0003-1 FITTING  
290M0003-2 OPPOSITE

VSB337

LANYARD FITTING HOLE LOCATIONS  
FIGURE 3

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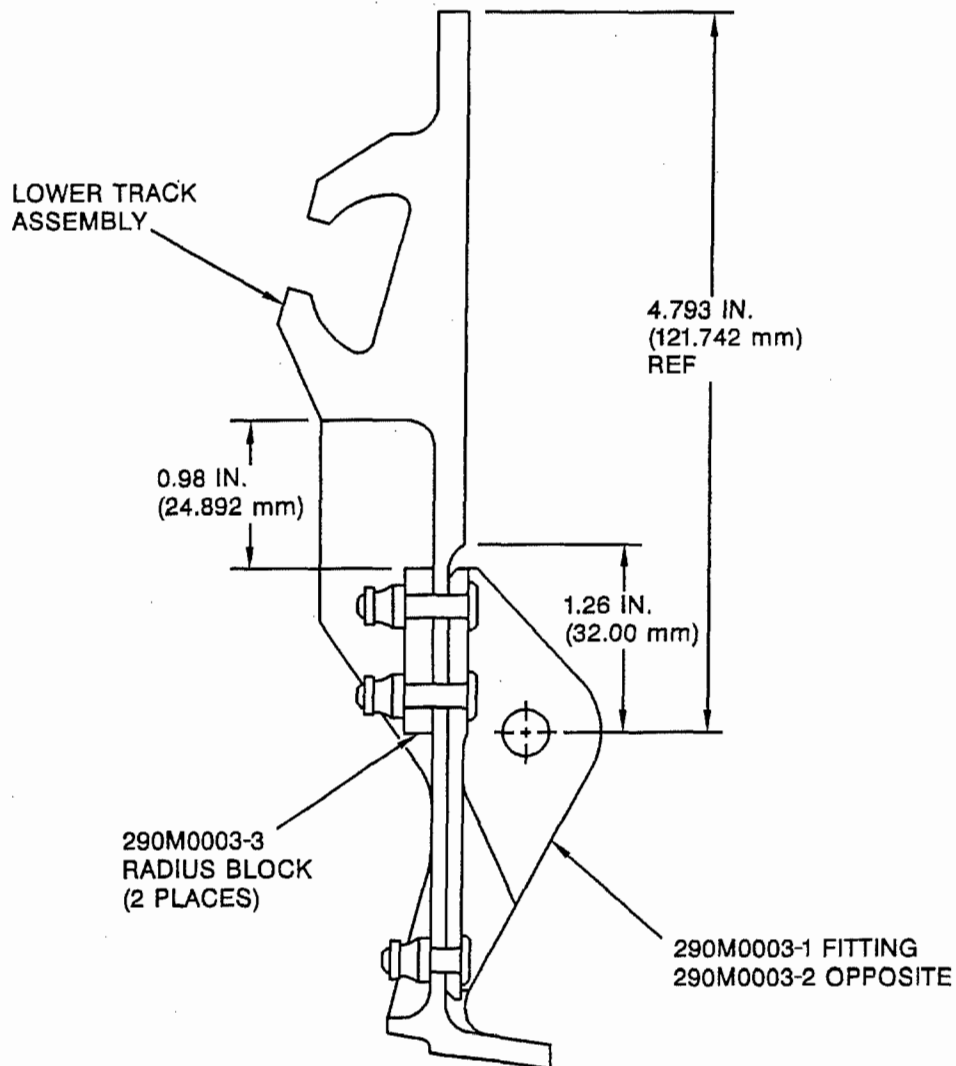
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VSB338

**FITTING AND RADIUS BLOCK PLACEMENT  
FIGURE 4**

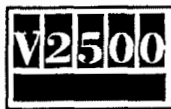
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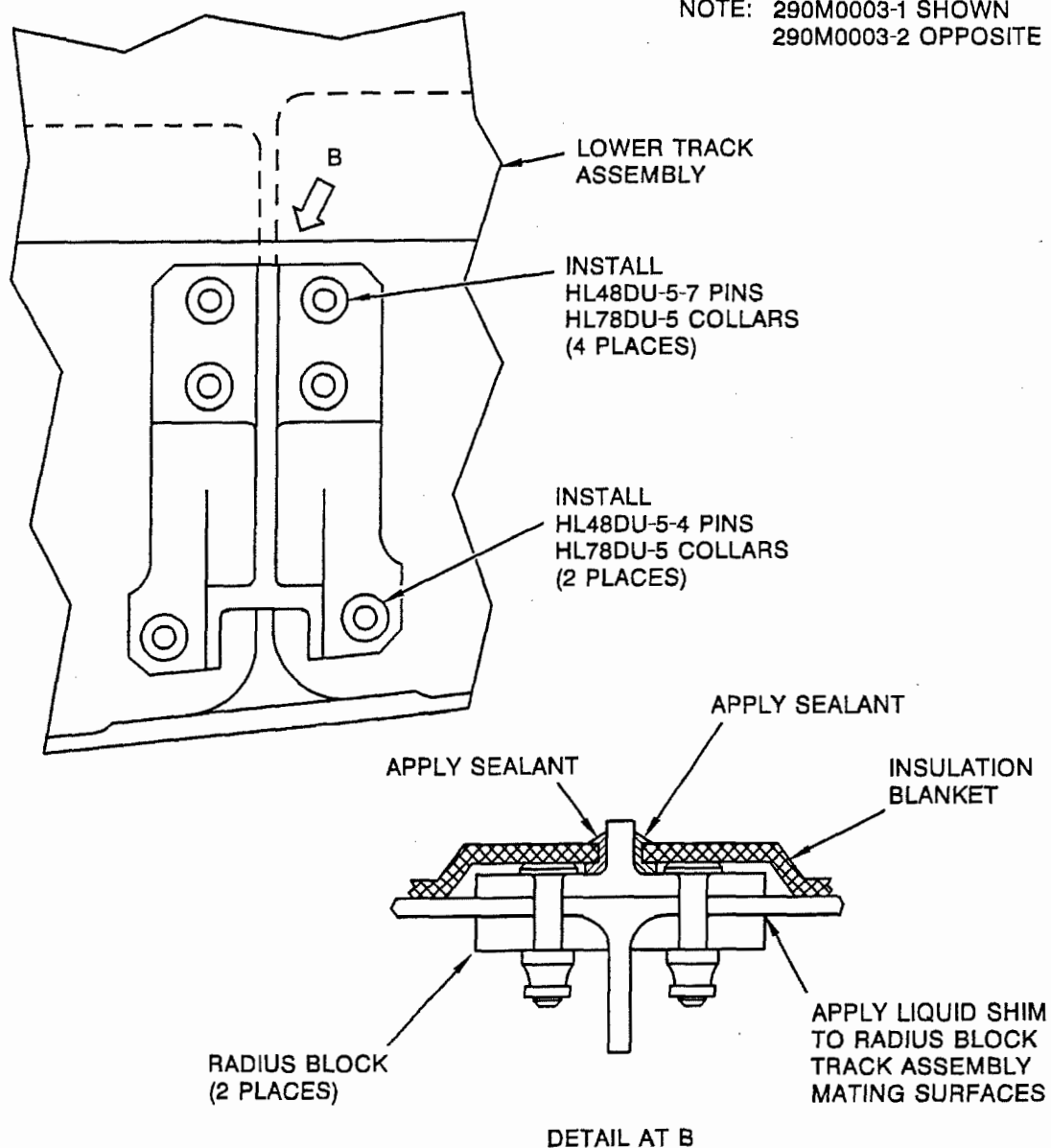


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NOTE: 290M0003-1 SHOWN  
290M0003-2 OPPOSITE



VSB354

FITTING AND RADIUS BLOCK INSTALLATION  
FIGURE 5

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**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 JUDGMENT. PROTECTIVE GLOVES SHOULD BE WORN DURING USE. MAY CAUSE DERMATITIS BY REMOVING SKIN OILS.

- (22) Apply a thin layer of primer (CoMat 08-032) to outer edge of insulation blanket and fittings where sealant will be applied. Let primer dry a minimum of 30 minutes before sealant is applied.

**WARNING:** USE SEALANT ONLY IN AREAS WITH GOOD VENTILATION. TAKE PRECAUTIONS TO PREVENT MATERIAL FROM COMING INTO CONTACT WITH SKIN. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE 'MATERIAL SAFETY DATA SHEET' AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (23) Use manufacturer's instructions to mix sealant (CoMat 08-030).
- (24) Fill gaps and seams between track assemblies, fittings, and insulation blankets with sealant.
- (25) Repeat steps (1) through (24) above for right hand thrust reverser.

## C. Postrequisite Instructions

None.

## D. Recording Instructions

A record of accomplishment is necessary. Write in engine log and metal stamp, vibroetch, or electroetch on thrust reverser data plate that Service Bulletin V2500-NAC-78-0097 has been done. Refer to IAE V2500 Standard Practices Manual, Chapter 70-09-00.

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## 3. Material Information

Applicability: For each V2500-D5 Nacelle Thrust Reverser to incorporate this Bulletin.

### A. Kits associated with this Bulletin:

NEW PART NO (ATA NO)	QTY	EST'D UNIT PRICE	KEYWORD	OLD PART NO (IPC NO)	INSTR/ DISPOS
V2578097-551 (Left Hand)		\$3520.00	Kit		(A)
Consisting of:					
290M0003-1	1		Fitting		
290M0003-3	2		Radius Block		
HL48DU5-7	4		Pin		
HL48DU5-4	2		Pin		
HL78DU5	6		Collar		
V2578097-553 (Right Hand)		\$3520.00	Kit		(A)
Consisting of:					
290M0003-2	1		Fitting		
290M0003-3	2		Radius Block		
HL48DU5-7	4		Pin		
HL48DU5-4	2		Pin		
HL78DU5	6		Collar		

### B. Parts affected by this Bulletin:

None.

### C. Instructions/Dispositions Code Statements

(A) Kit will be available August 1995.

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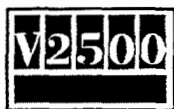
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- D. The following material is to be procured by the operator or obtained from their stock.

<u>Part Number</u>	<u>Keyword</u>	<u>Qty</u>	<u>Source</u>	<u>Code</u>
Trichloroethane (CoMat 01-001)	Solvent	AR	Commercially Available	---
Lint Free Cloth (CoMat 02-099)	Cloth	AR	Commercially Available	---
463-6-27 (CoMat 07-071)	Base	AR	Akzo Coatings America	98502
X337 (CoMat 07-067)	Converter	AR	Sikkens Aerospace Finishes Division 20846 S. Normandie	
TL52-66 (CoMat 07-066)	Thinner	AR	Avenue, Torrance, CA 90502-1601	
Hysol E.A. 934NA (CoMat 08-021)	Adhesive	AR	Dexter Adhesives & Structural Mat'ls Div 2850 Willow Pass Rd P.O. Box 312 Pittsburgh, CA 94565-3237 USA	33564
DC 1200 (CoMat 08-032)	Primer	AR	Dow Corning Corp P.O. Box 1-M Midland, MI	71984
DC 90-006 (CoMat 08-030)	Sealant	AR	48686-0997 USA	

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