



**International
Aero Engines**

V2500 Propulsion System — Nacelle

SERVICE BULLETIN

Date: March 31, 1998

Subject: Transmittal of Revision 3 to Service Bulletin Number V2500-NAC-26-0011

Service Bulletin Revision History:

<u>Event</u>	<u>Date</u>
Basic Issue	Mar. 21/97
Revision 1	Apr. 08/97
Revision 2	May. 16/97
Revision 3	Mar. 31/98

Reasons for Issuance of Revision

(1) To correct inch-to-millimeter conversion in Figure 1 (sheet 4).

Effect on Past Compliance

(1) None.

List of Effective Pages:

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
1	3	Mar 31/98
2	2	May 16/97
3 thru 6	Basic	Mar. 21/97
7 thru 9	1	Apr. 08/97
10	Basic	Mar. 21/97
11 and 12	1	Apr. 08/97
13	3	Mar. 31 /98
14	1	Apr. 08/97
15	Basic	Mar. 21 /97

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Transmittal

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NACELLE - EXHAUST - SUPPORT BRACKETS, OVERHEAT DETECTOR, THRUST REVERSER
MODIFICATION OF

MODEL APPLICATION

V2500-D5

BULLETIN INDEX LOCATOR

26-00-00

Compliance Category Code

4

Internal Reference No.

JG 96VN825

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1. Planning Information

A. Effectivity

- (1) Airplane: MD-90
- (2) Nacelle: V2500-D5 thrust reversers serial numbers 0021001 thru 0285001.

B. Reason

(1) Condition

The fasteners which attach the thrust reverser outboard bifurcation overheat detector sensor support brackets to the thrust reverser have failed in service.

(2) Background

Operators have experienced failed outboard bifurcation overheat detector sensor support bracket attach fasteners.

(3) Objective

Modify the overheat sensor support bracket installation to prevent the possibility of failure.

(4) Substantiation

Not applicable.

(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

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(6) Supplemental Information

None.

C. Description

The overheat detector assembly is removed from the support brackets. The support brackets are removed, modified, and installed. Then the overheat detector is installed on the support brackets.

NOTE: It is not necessary to do this service bulletin if repair VRS2558 or VRS2595 has been done.

D. Approval

Incorporation of this Service Bulletin must be accomplished only in conjunction with Douglas Aircraft Company Service Bulletin MD90 26-006 which has received exclusive FAA approval for MD-90 Series aircraft.

E. Compliance

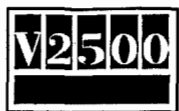
Category 4

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.

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F. Manpower

Estimated manhours to incorporate the full intent of this Bulletin for each nacelle:

VENUE

ESTIMATED MANHOURS

(1) In Service

(a) To gain access	0.5 M/Hrs.
(b) To rework	2.0 M/Hrs.
(c) To return to service	<u>0.5 M/Hrs.</u>
Total	3.0 M/Hrs.

(2) In Shop

(a) To Rework	<u>2.0 M/Hrs.</u>
Total	2.0 M/Hrs

NOTE: After incorporation of this modification, a maximum of 4.0 manhours for labor will be reimbursed by Rohr, as a labor credit allowance per affected aircraft to obtain a labor credit allowance after procurement of noted material. Labor claims should reference this service bulletin number and aircraft fuselage number and be submitted to:

Rohr, Inc.
850 Lagoon Drive
Chula Vista, CA 91910-2098
Attn: Airline Support Manager, MZ 107A
Warranty Department
(Ref. Service Bulletin V2500-NAC-26-0011)

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G. Material - Cost and Availability

The parts to do this Service Bulletin are available from Rohr Inc. as kits V2526011-551 and V2526011-553 at no cost to the operator.

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

Direct purchase order to:

Rohr, Inc

850 Lagoon Drive

Chula Vista, CA 91910-2098

Attn: Airline Account Manager, MZ 107A

(Ref. Service Bulletin No. V2500-NAC-26-0011)

H. Tooling - Cost and Availability

Not applicable.

I. Weight and Balance

- (1) Weight change None
- (2) Moment arm None
- (3) Datum Front Engine Mount Centerline
- (Power Plant Station (PPS) 100.0

J. Electrical Load Data

Not Applicable.

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K. References

MD-90 Aircraft Maintenance Manual 78-32-00

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

Overhaul Processes/Consumable Index (PCI-V2500-1IA)

L. Other Publications Affected

MD-90 Engine Illustrated Parts Catalog (S-V2500-3IA) 26-12-19

MD90/V2500D5 Thrust Reverser Component Maintenance Manual (CMM-TR-V2500-3IA) 26-12-19

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2. Accomplishment Instructions

A. Pre-requisite Instructions

- (1) Remove the four NAS1802-3-8 screws, NAS1149C0332R washers and the overheat detector assembly from the support brackets. Refer to Figure 1 (Sheet 1).

B. Modify the 290-5265-501 bracket assembly

NOTE: It is not necessary to do this modification to thrust reversers on which repair VRS2558 or VRS2595 has already been done.

NOTE: This procedure is the same for the left and right thrust reverser. The right thrust reverser parts are shown in parenthesis.

- (1) Remove the rivets and the 290-5265-501 bracket assembly from the latch housing. Refer to Figure 1 (Sheet 1).
- (2) Remove the rivets and separate the 290-5265-3 bracket from the 290-5265-5 bracket. Discard the 290-5265-5 bracket. Keep the 290-5265-3 bracket. Refer to Figure 1, Detail B.
- (3) Make the holes in the 290-5265-3 bracket and the latch housing 0.192-0.203 inch (4.88-5.16mm) for the NAS7802U2 bolts.
- (4) Attach the modified 290-5265-3 bracket to the 290-5265-7 (290-5265-8) bracket with the NAS7802U2 bolts, NAS1149CN816R washers, and MS21043-08 nuts. Torque the nuts to 50-70 inlbs (7-9 Nm). Refer to Figure 1, Detail D.
- (5) Reidentify the 290-5265-501 bracket assembly to 290-5265-503 (290-5265-504). Use ink (CoMat 06-073) and rubber stamp. Refer to the IAE V2500 Standard Practices/Processes Manual, Chapter 70-09-00.
- (6) Install the 290-5265-503 (290-5265-504) bracket assembly on the latch housing with the NAS7802U2 bolts, NAS1149CN816R washers, and MS21043-08 nuts. Torque the nuts to 50-70 inlbs (7-9 Nm). Refer to Figure 1, Detail D.

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R C. Modify the 290-5266-501 (290-5266-502) bracket assembly

NOTE: It is not necessary to do this modification on thrust reversers on which repair VRS2558 or VRS2595 has already been done.

R NOTE: This procedure is the same for the left and right thrust reverser. The
R right thrust reverser parts are shown in parenthesis.

- R (1) Remove the rivets and the 290-5266-501 (290-5266-502) bracket assembly from the bumper. Refer to Figure 1, Detail C.
- (2) Fill the holes in the bumper with NAS1200M4-4 rivets. Refer to Figure 1, Detail F.
- R (3) Remove the rivets and separate the 290-5266-3 bracket from the 290-5266-1 (290-5266-2) bracket. Discard the 290-5266-1 (290-5266-2) bracket. Keep the 290-5266-3 bracket. Refer to Figure 1, Detail C.
- (4) Make the holes in the 290-5266-3 bracket 0.192-0.203 inch (4.88-5.16mm) for the NAS7802U2 bolts.
- R (5) Attach the modified 290-5266-3 bracket to the 290-5266-5 (290-5266-6) bracket with the NAS7802U2 bolts, NAS1149CN816R washers, and MS21043-08 nuts. Torque the nuts to 50-70 inlbs (7-9 Nm). Refer to Figure 1, Detail E.
- R (6) Reidentify the 290-5266-501 (290-5266-502) bracket assembly to 290-5266-503 (290-5266-504). Use ink (CoMat 06-073) and rubber stamp. Refer to the IAE V2500 Standard Practices/Processes Manual, Chapter 70-09-00.
- R (7) Drill two 0.192-0.203 inch (4.88-5.16mm) holes in the bumper as shown in Figure 1, Detail F.
- R (8) Install the 290-5266-503 (290-5266-504) bracket assembly on the bumper with the NAS7802U2 bolts, NAS1149CN816R washers, and MS21043-08 nuts. Torque the nuts to 50-70 inlbs (7-9 Nm). Refer to Figure 1, Detail E.

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D. Post-requisite instructions

- R (1) Install the overheat detector assembly on the support brackets with the NAS1149C0332R washers and NAS1802-3-8 screws. Torque the screws to 20-25 inlbs (2.26-2.82 N.m). Refer to Figure 1 (Sheet 1).

E. Recording Instructions

- (1) A record of accomplishment is necessary. Write in the aircraft log and metal stamp, vibroetch, of electroetch on the thrust reverser assembly data plate that Service Bulletin V2500-NAC-26-0011 has been done. Refer to the IAE V2500 Standard Practices/Processes Manual, Chapter 70-09-00.

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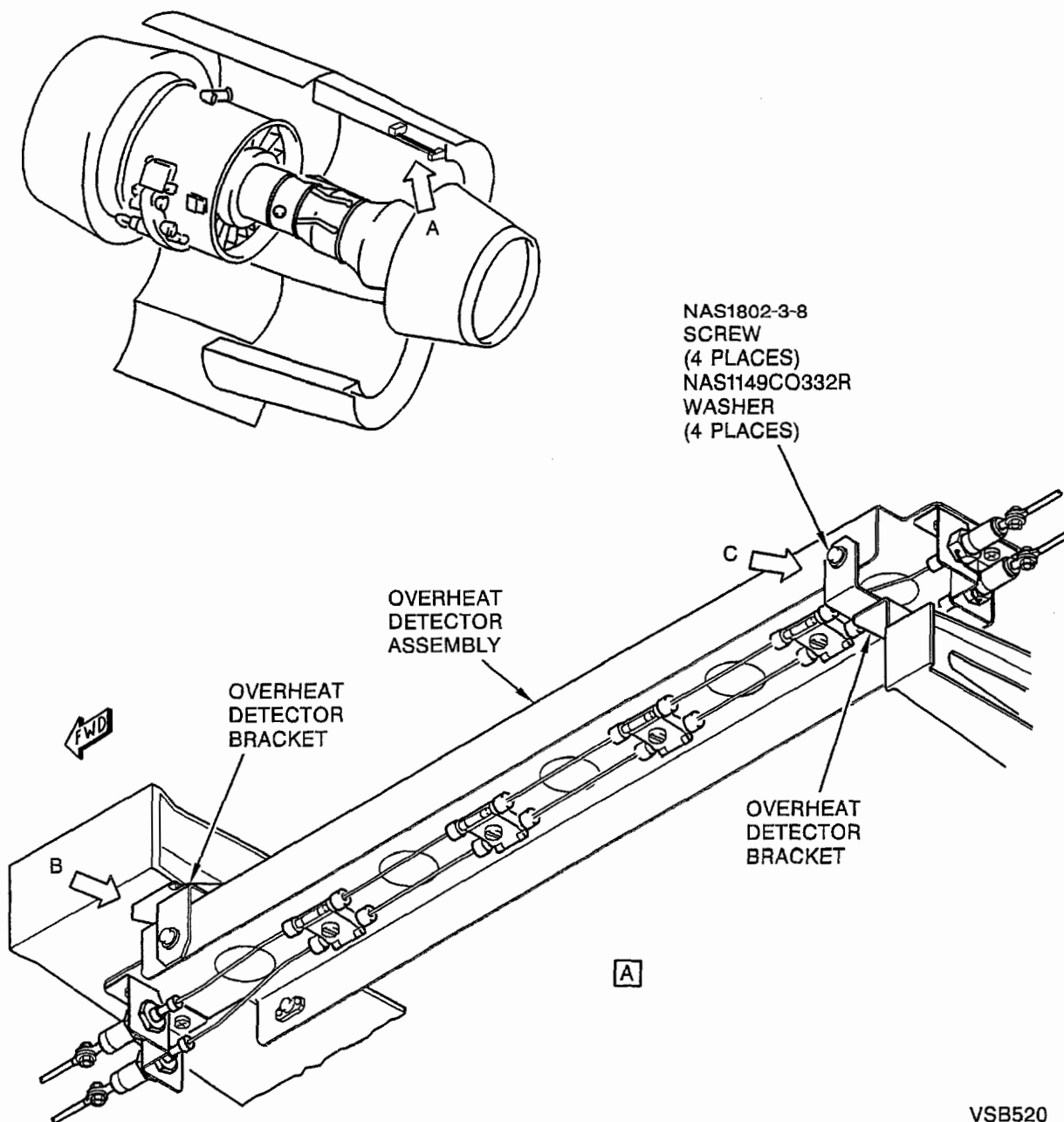
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VS8520

Overheat Detector Support Bracket Modification
Figure 1 (Sheet 1)

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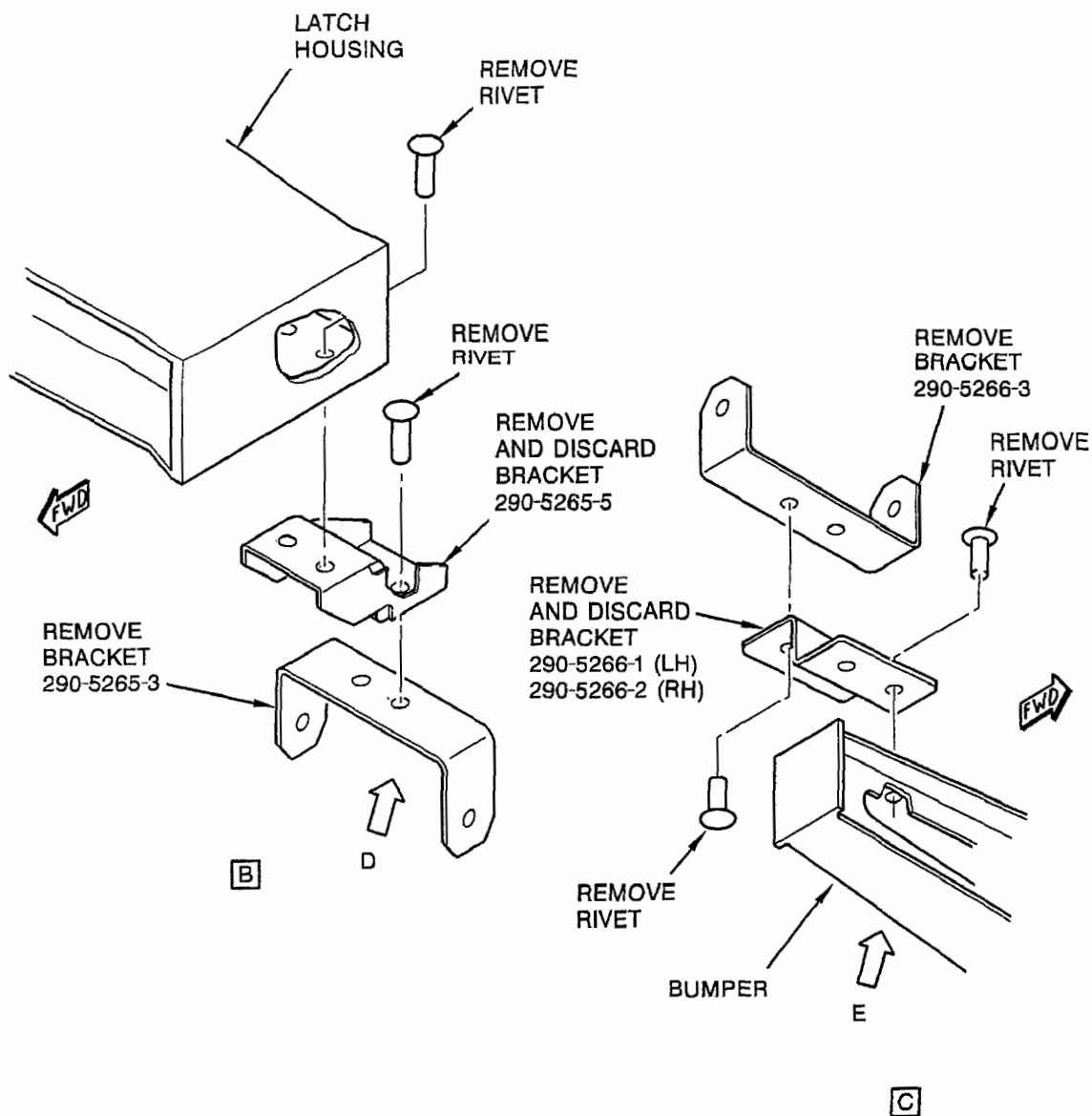
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VSB521

Overheat Detector Support Bracket Modification
Figure 1 (Sheet 2)

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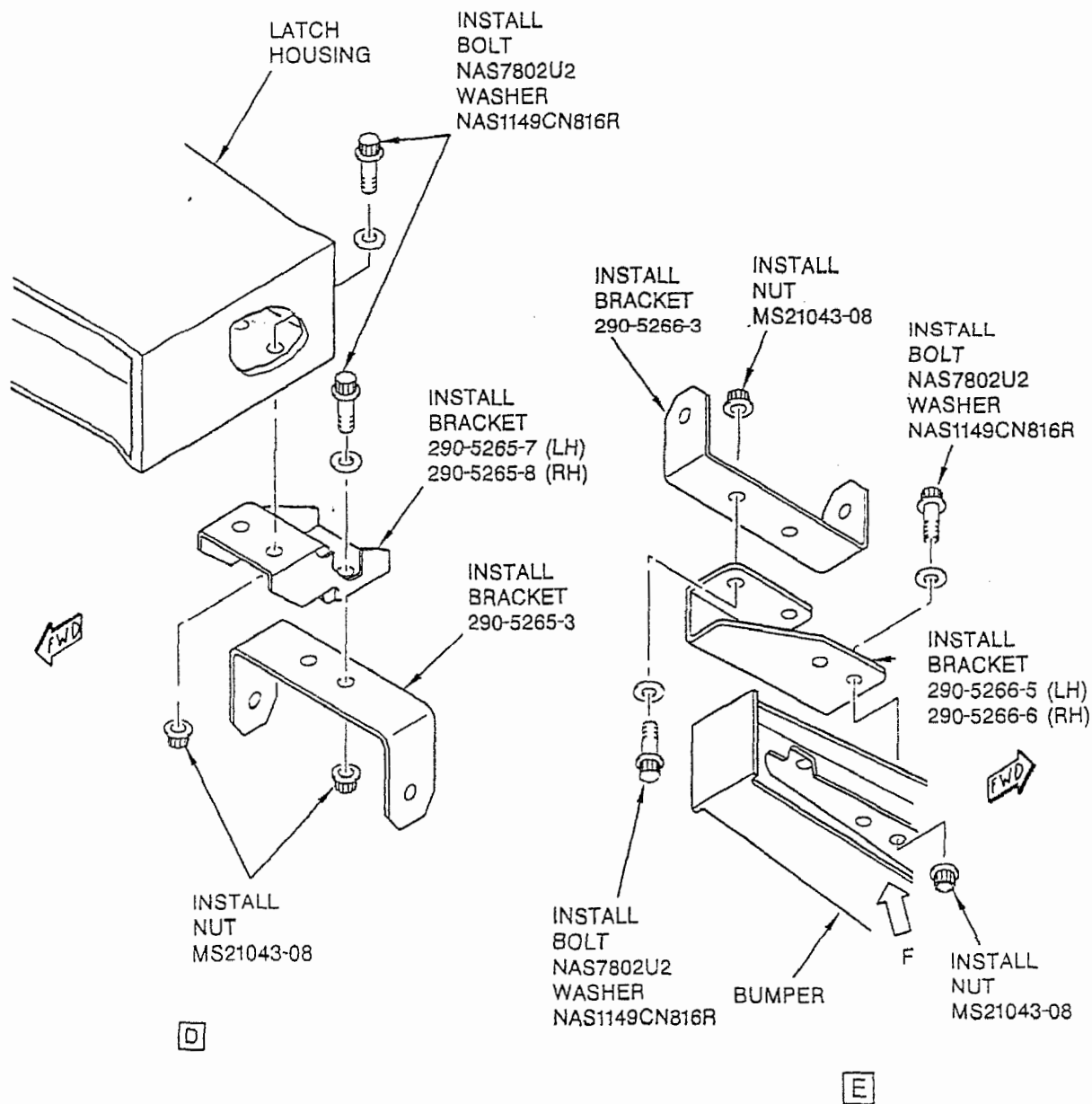
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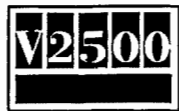


VS8522

Overheat Detector Support Bracket Modification
Figure 1 (Sheet 3)

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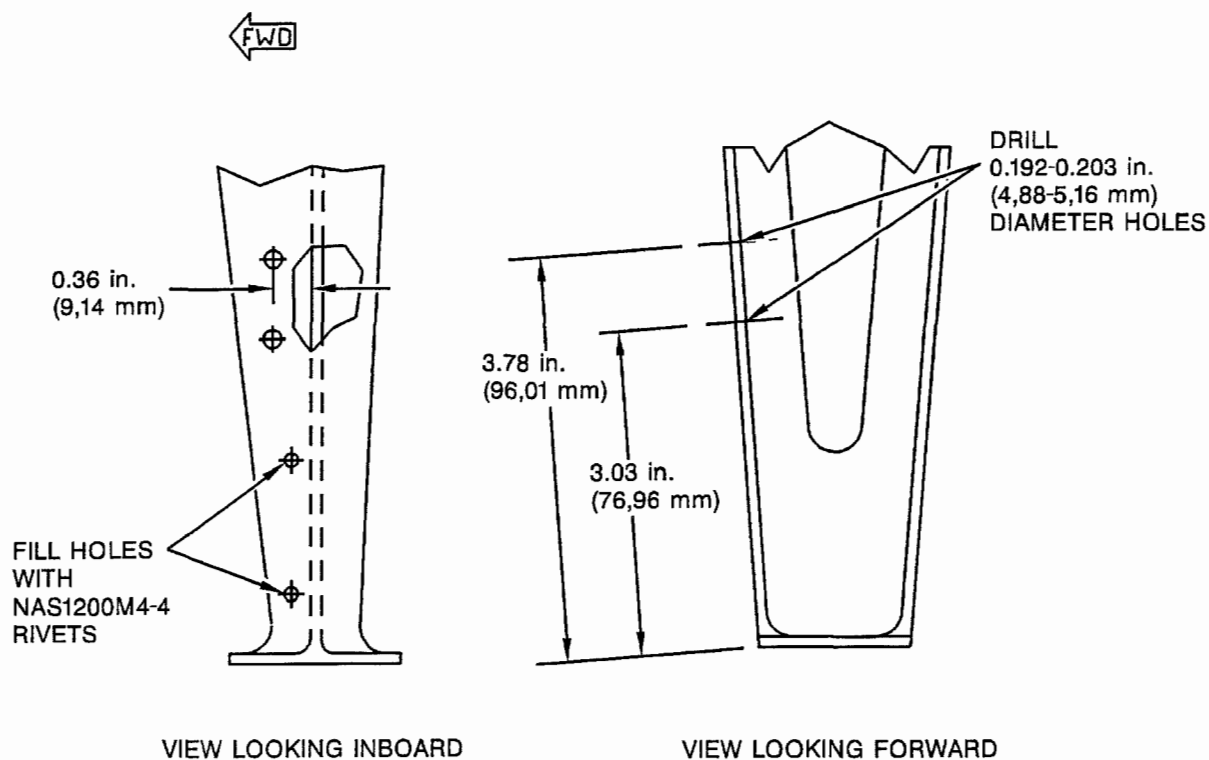
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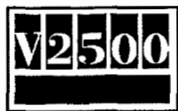
[F]

VSB523

Overheat Detector Support Bracket Modification
Figure 1 (Sheet 4)

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3. Material Information

Applicability: For each V2500-D5 thrust upper reverser half to incorporate this bulletin.

A. Kits associated with this Bulletin:

	<u>New Part No.</u> <u>(ATA No.)</u>	<u>Qty</u>	<u>Est'd Unit</u> <u>Price (\$)</u>	<u>Keyword</u>	<u>Old Part No.</u> <u>(IPC No.)</u>	<u>Instr/</u> <u>Dispos</u>
R	V2526011-551 Consisting of:	1		Kit (LH)		(A)
	290-5265-7	1		Bracket		
	290-5266-5	1		Bracket		
	NAS1149CN816R	8		Washer		
	MS21043-08	8		Nut		
	NAS7802U2	8		Bolt		
	NAS1200M4-4	2		Rivet		
R	V2526011-553 Consisting of	1		Kit (RH)		
	290-5265-8	1		Bracket		
	290-5266-6	1		Bracket		
	NAS1149CN816R	8		Washer		
	MS21043-08	8		Nut		
	NAS7802U2	8		Bolt		
	NAS1200M4-4	2		Rivet		

B. Parts affected by this Bulletin:

	<u>New Part No.</u> <u>(ATA No.)</u>	<u>Qty</u>	<u>Est'd Unit</u> <u>Price (\$)</u>	<u>Keyword</u>	<u>Old Part No.</u> <u>(IPC No.)</u>	<u>Instr/</u> <u>Dispos</u>
	290-5265-503 (26-12-19)	1		Bracket, LH Fwd Outboard	--- (02-200)	
	290-5265-503 (26-12-19)	1		Bracket, RH Fwd Outboard	--- (02-002)	

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<u>New Part No.</u> <u>(ATA No.)</u>	<u>Qty</u>	<u>Est'd Unit</u> <u>Price (\$)</u>	<u>Keyword</u>	<u>Old Part No.</u> <u>(IPC No.)</u>	<u>Instr/</u> <u>Dispos</u>
MS21043-08 (26-12-19)	1		Nut	--- (02-205)	
NAS7802U2 (26-12-19)	1		Bolt	--- (02-210)	
NAS1149CN816R (26-12-19)	1		Washer	--- (02-215)	
290-5266-503 (26-12-19)	1		Bracket, LH Aft Outboard	--- (02-250)	
290-5266-504 (26-12-19)	1		Bracket, RH Aft Outboard	--- (02-252)	
MS21043-08 (26-12-19)	1		Nut	--- (02-255)	
NAS7802U2 (26-12-19)	1		Bolt	--- (02-260)	
NAS1149CN816R (26-12-19)	1		Washer	--- (02-265)	

C. Instruction/Disposition Code Statements:

(A) Kit will be available April 1997.

D. Materials Required to Incorporate This Bulletin:

CoMat 06-073 Metal Marking Ink

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

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