



**IAE Propulsion System
NON-MODIFICATION
SERVICE BULLETIN**

NACELLE - EXHAUST – “MINOR” TRACK LINER, THRUST REVERSER – REPLACEMENT /
“MAJOR” TRACK LINER - INSPECTION
(NON-MODIFICATION)

MODEL APPLICATION

V2500-D5

BULLETIN INDEX LOCATOR

78-00-00

Compliance Category Code

3

Internal Reference No.

JG 99VN5AP

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NACELLE - EXHAUST – “MINOR” TRACK LINER, THRUST REVERSER – REPLACEMENT / “MAJOR” TRACK LINER - INSPECTION (NON-MODIFICATION)

1 Planning Information

A. Effectivity

- (1) Aircraft: MD-90
- (2) Nacelle: All V2500-D5 thrust reversers.

B. Reason

(1) Condition

MD-90 operators have reported three incidents in which the thrust reverser “minor” track liner has deteriorated in service and the translating sleeve slider has caused subsequent damage to the thrust reverser track beam. The track beam cannot be repaired and must be replaced.

(2) Background

The “minor” track liners can become worn and allow the slider to cause damage to the track beam.

(3) Objective

To replace the “minor” track liners before they become worn.

(4) Not applicable.

C. Description

The translating sleeve is removed. The “minor” track liners are removed and new liners installed. The “major” track liners are inspected and replaced if found damaged.

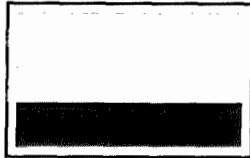
D. Approval

Incorporation of this Service Bulletin must be accomplished in conjunction with Boeing Service Bulletin MD90 78-037 which has received exclusive FAA approval for MD-90 Series aircraft.

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E. Compliance

Category 3

Accomplish at **6000 flight cycles**. For thrust reversers with more than **6000 flight cycles**, accomplish within three months from the issue date of this service bulletin.

F. Manpower

<u>VENUE</u>	<u>ESTIMATED MANHOURS</u>
(1) In Service	
(a) To gain access	6.0 M/Hrs.
(b) To rework	4.0 M/Hrs.
(c) To return to service	<u>6.0 M/Hrs.</u>
Total	16.0 M/Hrs.

NOTE: For thrust reversers which are out of warranty, Manhour labor claims will **not** be honored.

NOTE: For thrust reversers which are within warranty and with **4000** or more flight **cycles**, Manhour labor claims will be considered under the current warranty policy.

G. Material - Cost and Availability

1. Thrust Reversers:

- a. Warranty (**6000 flight hours** or less) and with **4000** or more flight **cycles**.

1 The parts to accomplish this service bulletin are available from the supplier as kit V2578176-551 at no cost to the operator.

For units listed in paragraph 1.A. which are within warranty, and have **4000** or more flight **cycles**, operators 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 kit part number listed herein. Operators will have one year from the issue date of the service bulletin to place an order. Upon receipt of purchase order, Rohr shall provide a delivery schedule for kits ordered. 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:

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

Attn: Airline Account Manager – MZ 107A
(Ref. Service Bulletin No. V2500-NAC-78-0176)

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

b. Warranty (**6000** flight **hours** or less) with fewer than **4000** flight **cycles**.

- 1 Operators with units in this category should provision a quantity of 11797-00 and 11824-00 “minor” track liners sufficient to replace the “minor” track liners of these units at **6000** flight **cycles**. Operators will have to order parts individually at catalog prices. Service bulletin kits will not be available for units in this category.

NOTE: The **6000** flight **cycle** replacement requirement for “minor” track liners will be included in a future revision of the On Aircraft Maintenance Planning (OAMP).

c. Post-Warranty (more than **6000** flight **hours**)

- 1 The parts to accomplish this service bulletin are available from the supplier as kit V2578176-551.

For units listed in paragraph 1.A. which are outside of warranty, and have **4000** or more flight **cycles**, operators should submit a **charge** purchase order for the applicable quantity of kits. The purchase order must specify this service bulletin number and only the kit part number listed herein. Operators will have one year from the issue date of the service bulletin to place an order. Upon receipt of purchase order, Rohr shall provide a delivery schedule for kits ordered. 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:

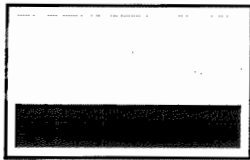
NOTE: The service bulletin kit will be available at a discounted price for a period of one year from the original issue date of this service bulletin.

Direct Purchase order to:
Rohr, Inc.

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

Attn: Airline Account Manager – MZ 107A
(Ref. Service Bulletin No. V2500-NAC-78-0176)

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

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 Centreline
(Powerplant Station PPS 100.0) |

J. Electrical Load Data

Not affected.

K. References

Chapter/Section

MD-90 Aircraft Maintenance Manual

78-32-16

Overhaul Processes and Consumables
Index (PCI-V2500-1IA)

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

70-09-00

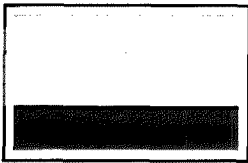
L. Other Publications Affected

None.

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Accomplishment Instructions

A. Pre-requisite Instructions

- (1) Remove the thrust reverser translating sleeves. Refer to the MD-90 Aircraft Maintenance Manual, Chapter 78-32-16, page block 401.

B. Instructions

- (1) Remove the upper and lower outboard "minor" track liners. Refer to Figures 1 and 2.
 - (a) Remove the bolts and track liners from the track beams. Discard the track liners and any damaged bolts.
- (2) Remove the upper and lower inboard "minor" track liners. Refer to Figures 1 and 2.
 - (a) Make two small cuts in the heatshield to expose the MS21043-08 nuts.
 - (b) Remove the nuts, bolts, and track liners from the track beams. Discard the track liners and any damaged bolts or nuts.
- (3) Examine the track beams for damage. If you find damage, contact your Rohr representative for disposition.
- (4) Install the upper and lower inboard "minor" track liners. Refer to Figures 1 and 2.

NOTE: Use the replacement attach hardware from the service bulletin kit if necessary.

- (a) Install the track liners on the track beam with the bolts and nuts.
- (b) Torque the MS21043-08 nuts to 12-17 lb in (1,4-2.0 Nm.).

WARNING: SOLVENT (COMAT 01-438) IS CLASSIFIED AS A HAZARDOUS MATERIAL AND 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 RECOMMENDATIONS.

- (c) Clean the area around the cuts in the heatshield with a lint free cloth (CoMat 02-099) made moist with solvent (CoMat 01-438). Wipe the surfaces dry before the solvent becomes dry.
- (d) Put the edges of the cuts as close together as possible.

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WARNING: PRIMER (COMAT 08-032) IS CLASSIFIED AS A HAZARDOUS MATERIAL AND 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 RECOMMENDATIONS.

- (e) Apply primer (CoMat 08-032) to the edges of the cuts in the heatshield. Refer to the manufacturer's instructions.

WARNING: SEALANT (COMAT 08-030) IS CLASSIFIED AS A HAZARDOUS MATERIAL AND 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 RECOMMENDATIONS.

- (f) Mix the sealant (CoMat 08-030). Refer to the manufacturer's instructions.
 - (g) Apply sealant (CoMat 08-030) to cover the cuts in the heatshield.
 - (h) Cure the sealant. Refer to the manufacturer's instructions.
- (5) Install the upper and lower outboard "minor" track liners. Refer to Figures 1 and 2.
- NOTE: Use the replacement attach hardware from the service bulletin kit if necessary.
- (a) Install the track liners on the track beam with the bolts.
 - (b) Torque the bolts to 15-20 lb-in (1,72-2,3 Nm.).
- (6) Examine the upper and lower inboard and outboard "major" track liners for damage. Use a mirror. If you find damage, replace the track liner as follows:
- (a) Remove the bolts and the track liner from the track. Refer to Figures 1 and 2.
 - (b) Examine the track beam for damage. If you find damage, contact your Rohr representative for disposition.
 - (c) Install the new track liner and bolts on the track. Torque the NAS8703A1 and NAS8703U1 bolts to 15-20 lb-in (1,72-2,3 Nm.).

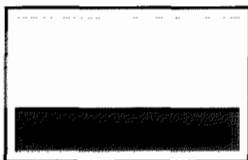
C. Post-requisite Instructions

- (1) Install the thrust reverser translating sleeves. Refer to the MD-90 Aircraft Maintenance Manual, Chapter 78-32-16, page block 401.

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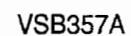
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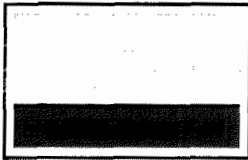
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D. Record of Accomplishment

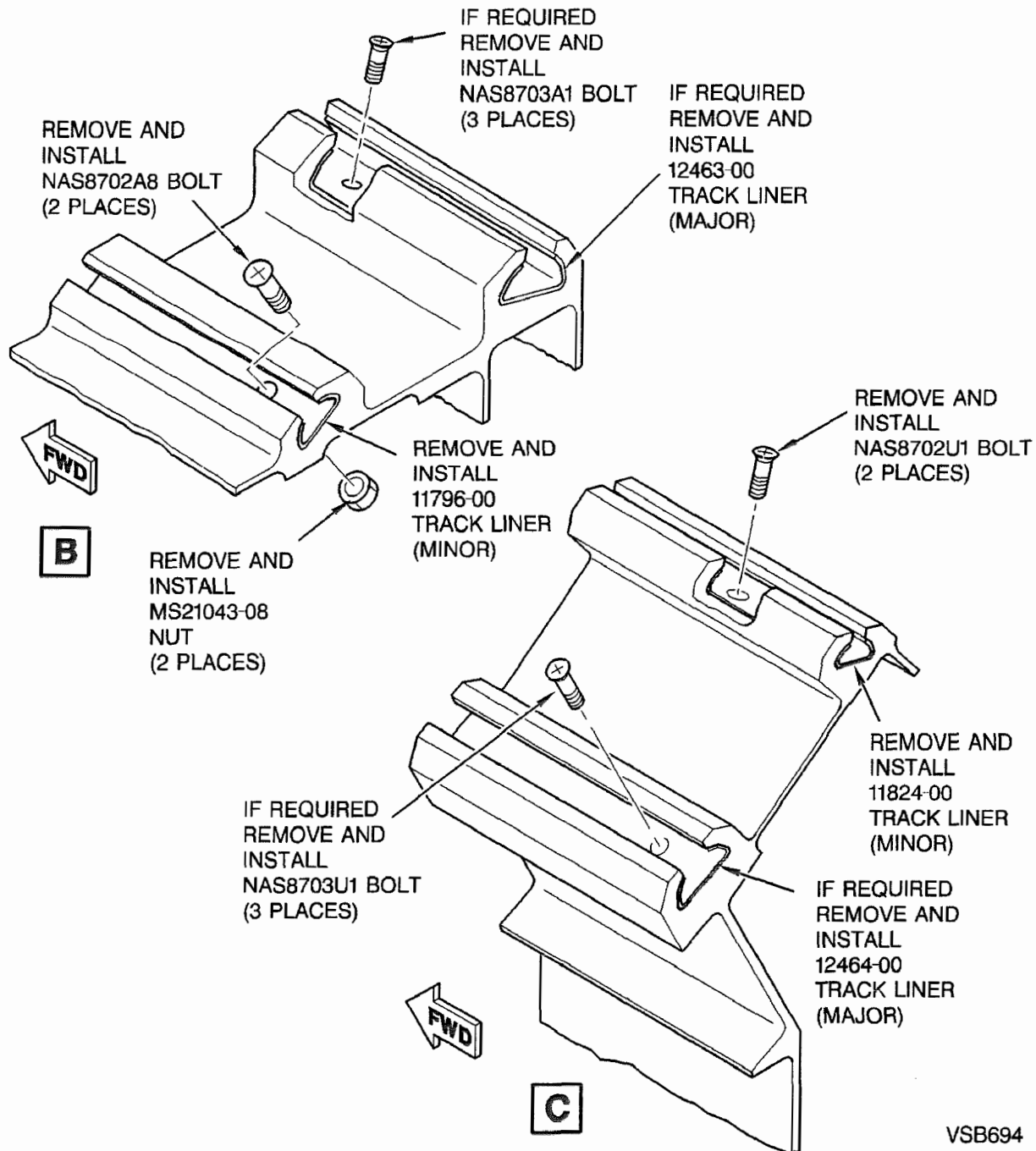
A record of accomplishment is necessary. Write in the applicable records and metal stamp, electroetch, or vibroetch on the thrust reverser data plate that Service Bulletin V2500-NAC-78-0176 has been done. Refer to the IAE V2500 Standard Practices/Processes Manual, Chapter 70-09-00.



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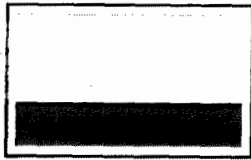


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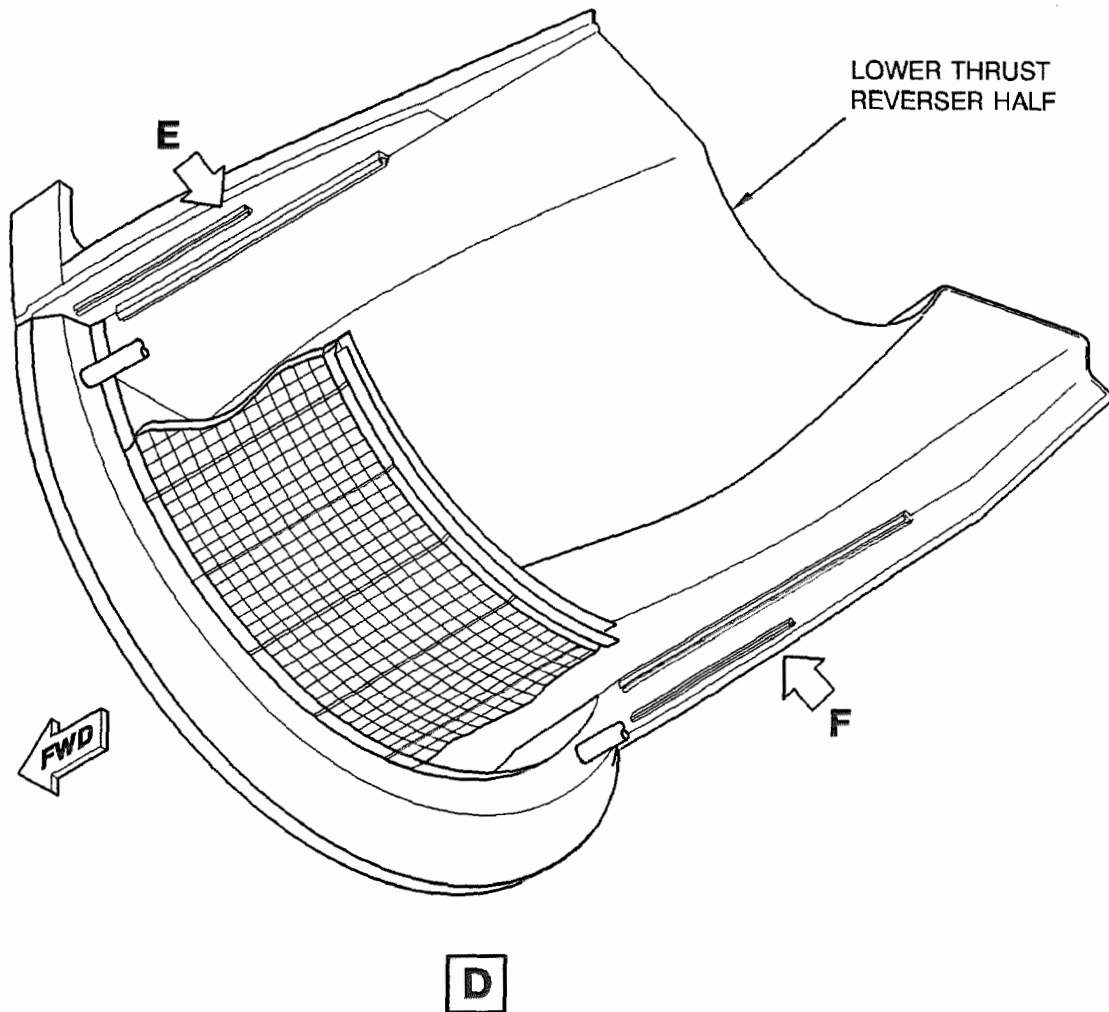


VSB694

Upper Thrust Reverser Half Track Liner Removal/Installation
Figure 1 (sheet 2)



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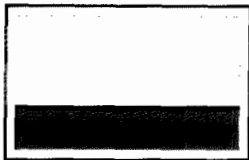
VSB695

Lower Thrust Reverser Half Track Liner Removal/Installation
Figure 2 (sheet 1)

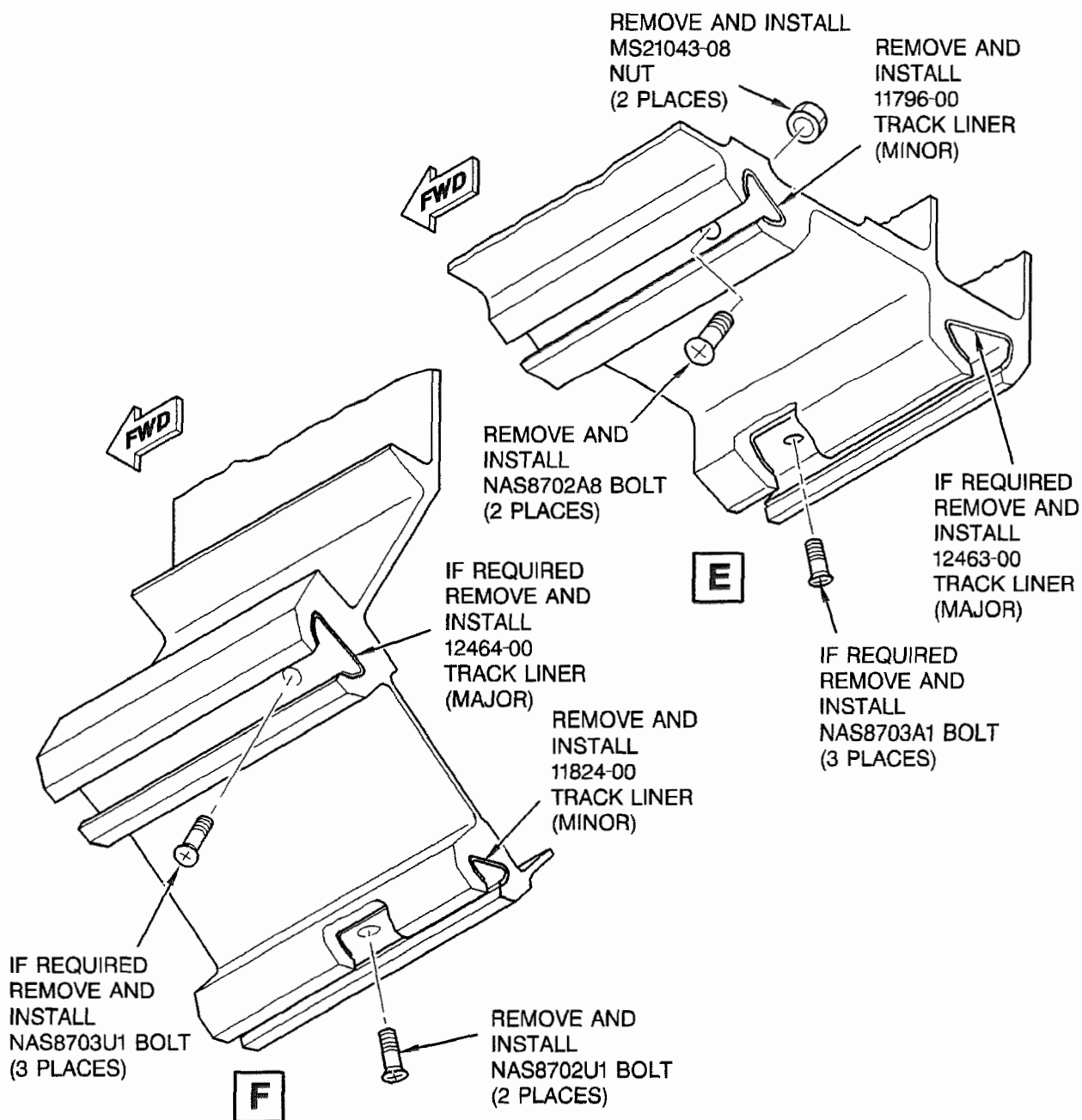
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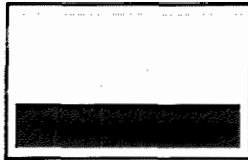
VSB696

Lower Thrust Reverser Half Track Liner Removal/Installation
Figure 2 (sheet 2)

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3. Material Information

Applicability: For each V2500-D5 thrust reverser 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>
V2578176-551	1	\$4182.00 *	Kit		(A)
Consisting of:					
11796-00	2		Liner		
11824-00	2		Liner		
MS21043-08	4		Nut		
NAS8702A8	4		Bolt		
NAS8702U1	4		Bolt		

* **This is a 50% discount from the full retail price of the kit. The kit will be available at this discounted price for one year from the original issue date of this service bulletin.**

NOTE: The estimated 1999 unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult the Rohr Price Catalog or contact Rohr's Customer Support Department for information concerning firm prices.

B. Parts affected by this Bulletin:

None.

C. Instruction/Disposition Code Statements

(A) Kit will be available September 1999.

D. Materials Required to Incorporate this Service Bulletin:

CoMat 01-438	Solvent
CoMat 02-099	Lint free cloth
CoMat 08-030	Sealant
CoMat 08-032	Primer

NOTE: To identify the consumable materials, refer to the Overhaul Processes and Consumable Index PCI-V2500-11A.

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