Aero Engines SERVICE BULLETIN

Summary V2500-NAC-78-0191 Number:

Date: April 24, 2001

ATA System: 78-30

Internal Reference No.

JG 01VN802

"MODIFICATION SERVICE BULLETIN" - "NACELLE - EXHAUST - THRUST SUBJECT:

REVERSER OPENING ACTUATOR SAFETY PINS - REPLACEMENT OF"

BACKGROUND

GENERAL:

Thrust reverser opening actuator safety have been found damaged or missing in service. This can allow the actuator pins to disengage and result in the lower thrust reverser half swinging free when the thrust reverser is opened.

ACTION:

Replace the thrust reverser opening actuator safety pins with cotter pins that are more resistant to damage.

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.

EFFECTIVITY:

All V2500-D5 thrust reversers with serial numbers prior to 0701001.

MANPOWER:

Manpower necessary to incorporate this Service Bulletin is 1.0 manhours for each thrust reverser.

MATERIAL INFORMATION:

The parts to accomplish this service bulletin are to be purchased locally or procured from operator stock.

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International V2500 Propulsion System - Nacelle

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"MODIFICATION SERVICE BULLETIN" - "NACELLE - EXHAUST - THRUST REVERSER OPENING ACTUATOR SAFETY PINS - REPLACEMENT OF"

PLANNING INFORMATION

- A. Effectivity
 - (1) Airplane: MD-90
 - (2) Nacelle: All V2500-D5 thrust reversers prior to serial number 0701001.
- B. Concurrent Requirements
 - (1) None.
- C. Reason
 - (1) Problem
 - (a) Thrust reverser opening actuator safety pins have been found damaged or missing in service. This can allow the actuator pins to disengage and result in the lower thrust reverser half swinging free when the thrust reverser is opened.
 - (2) Cause
 - (a) Not applicable.
 - (3) Background
 - (a) Not applicable.
 - (4) Objective
 - (a) To replace the thrust reverser opening actuator safety pins with cotter pins that are more resistant to damage.
 - (5) Substantiation
 - (a) Not applicable.

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D. Description

This service bulletin provides instructions for:

(1) Replacement of the thrust reverser opening actuator safety pins.

Ε. 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.

F. Approval

Incorporation of this Service Bulletin must be accomplished only in conjunction with Boeing Service Bulletin MD-90-78-051 which has received exclusive FAA approval for MD-90 Series aircraft.

G. Manpower

Estimated man hours to accomplish the full intent of this Service Bulletin.

EST'D MAN HOURS **VENUE**

(1) In Service

(a) To embody 1.0 M/hour

> Total 1.0 hours per thrust reverser (2.0 hours per

> > aircraft)

NOTE: Man hour estimate is provided for planning purposes only. No labor reimbursement is provided under the terms of this service bulletin offering.

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Material Cost and Availability Η.

The parts to accomplish this service bulletin are to be purchased locally or procured from operator stock.

Tooling I.

None.

Weight and Balance J.

1	Weight change	None

2) Moment Arm No effect

3) Engine front mount centreline (Powerplant Datum

Station PS 100)

Κ. References

> **Publication** Chapter/Section

MD-90 Aircraft Maintenance Manual 78-30-00

Other Publications Affected L.

> **Publication** Chapter/Section

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

MD-90 Aircraft Illustrated Parts Catalog

V2500-NAC-78-0191

Material Information

- Material Requirements
 - (1) The following is applicable to one thrust reverser.
- B. Parts necessary for this Service Bulletin:

NEW PNUMBER		ESTD UNIT		OLD PNNUM-	INSTR/
(ATA NUMBER)	QTY	<u>PRICE</u>	KEYWORD	BER	DISPOS
				(IPC NUMBER)	
MS24665-155	2		Pin		(A)

MS24665-155 Cotter Pin

C. Parts affected by this Service Bulletin:

NEW PNUMBER (ATA NUMBER)	<u>QTY</u>	ESTD UNIT PRICE	<u>KEYWORD</u>	OLD PNNUM- BER (IPC NUMBER)	INSTR/ DISPOS
MS24665-155	2		Pin	UDB444401	(A)(1D) (S1)

- Instructions/Disposition Codes: D.
 - (A) New part is available.
 - (1D) Old part can be used at other locations.
 - (S1) New part can replace old but not vice-versa.
- Tooling Price and Availability: Ε.

None.

Materials Required to do this Service Bulletin: F.

None.

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Accomplishment Instructions

A. Pre-requisite Instructions

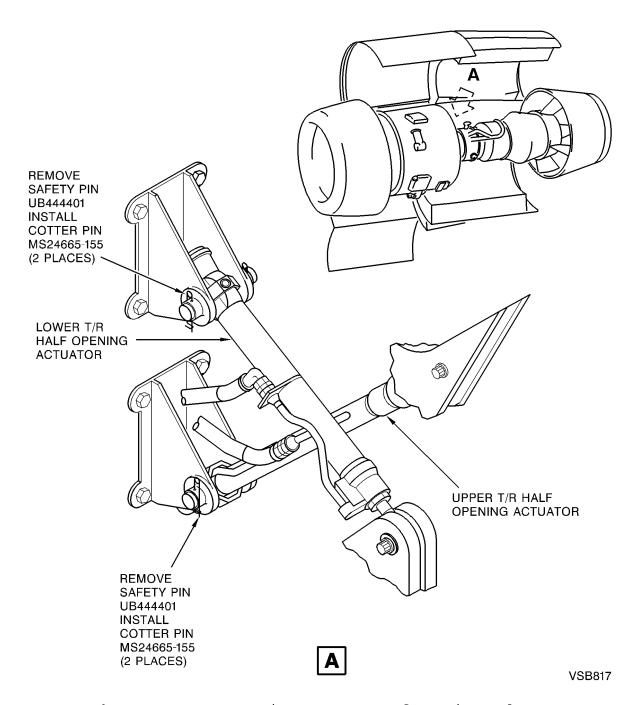
WARNING:

USE EXTREME CAUTION WHEN YOU OPEN THE THRUST REVERSER TO REPLACE THE OPENING ACTUATOR SAFETY PINS. DO NOT STAND BETWEEN THE LOWER THRUST REVERSER HALF AND THE FUSELAGE WHEN YOU OPEN THE LOWER THRUST REVERSER HALF. MAKE SURE YOU ENGAGE THE THRUST REVERSER HOLD OPEN RODS BEFORE YOU INSPECT THE OPENING ACTUATOR SAFETY PINS.

- (1) Open the thrust reverser. Refer to the MD-90 Aircraft Maintenance Manual. Make sure you engage the thrust reverser hold open rods.
- В. Replace the thrust reverser opening actuator safety pins. Refer to Figure 1.
 - (1) One at a time, remove the UDB444401 safety pins and install MS24665-155 cotter pins.
- C. Post-requisite Instructions
 - (1) Close the thrust reverser. Refer to the MD-90 Aircraft Maintenance Manual.
- D. Recording Instructions
 - (1) A record of accomplishment is required. Write in the applicable records and metal stamp, electroetch, or vibroetch on the thrust reverser data plate that Service Bulletin V2500-NAC-78-0191 has been done. Refer to the Standard Practices/Processes Manual (SPP-V2500-1IA), Chapter 70-09-00.



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Thrust Reverser Opening Actuator Safety Pin Replacement Figure 1

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