



V2500 Propulsion System — Nacelle

SERVICE BULLETIN

Date: October 12, 2001

Subject: Transmittal of Revision 2 to Service Bulletin Number V2500-NAC-71-0256

Service Bulletin Revision History:

<u>Event</u>	<u>Date</u>
Basic	Jun. 23/99
Rev 1	Nov. 13/00
Rev 2	Oct. 12/01

Reasons for issuance of Revision:

(1) To add minor clerical changes and additional picture for clarification. To add an alternative rivet.

Effect on Past Compliance:

None.

List of Effective Pages:

<u>Page No.</u>	<u>Rev No.</u>	<u>Date</u>
1 thru 16	2	Oct. 12/01

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Transmittal
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NACELLE - POWERPLANT – RIGHT HAND FAN COWL DOOR – MODIFICATION TO LATCH
ASSEMBLY

MODEL APPLICATION

V2500-A1
V2522-A5
V2524-A5
V2527-A5
V2527E-A5
V2530-A5
V2533-A5

BULLETIN INDEX LOCATOR

71-00-00

COMPLIANCE CATEGORY CODE

4

INTERNAL REFERENCE No

96VN208B/C

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1. Planning Information

A. Effectivity

(1) Aircraft:

- (a) Airbus A319
- (b) Airbus A320
- (c) Airbus A321

(2) Nacelle:

- (a) All V2500-A1 right Fan Cowl Doors.
- (b) V2522-A5 Fan Cowl Doors prior To Serial Number 1691001.
- (c) V2524-A5 Fan Cowl Doors prior To Serial Number 1691001.
- (d) V2527-A5 Fan Cowl Doors prior To Serial Number 1691001.
- (e) V2527E-A5 Fan Cowl Doors prior To Serial Number 1691001.
- (f) V2530-A5 Fan Cowl Doors prior To Serial Number 1691001.
- (g) V2533-A5 Fan Cowl Doors prior To Serial Number 1691001.

B. Concurrent Requirements

It is recommended that you do Service Bulletin V2500-NAC-71-0227 at the same time as this Service Bulletin for Fan Cowl Doors prior to Serial number 1613001.

C. Reason

(1) Condition

Several instances have been reported of Fan Cowl Doors not being fully latched (as per manual requirements) prior to flight. This may result in actual Door loss in flight.

(2) Background

There have been several reports from Operators of actual Fan Cowl Door loss due to the Doors not being fully latched.

(3) Objectives

To maintain engine reliability by introducing new anti-swivel plates and weights to the Fan Cowl Door latches. This will make the latches hang down when not fully engaged and so provide greater visibility of non-engaged latches.

(4) Substantiation

None



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(5) Effect of Bulletin on:

(a)	Removal/Installation	Not Affected
(b)	Disassembly/Assembly	Not affected
(c)	Cleaning	Not affected
(d)	Inspection/Check	Not affected
(e)	Repair	Not Affected
(f)	Testing	Not affected

(6) Supplemental Information

None.

D. Description

(1) The changes introduced by this Service Bulletin are as follows:

- A new 745-4082-501 anti-swivel plate is introduced at the two forward latch positions.
- A new 745-4081-501 anti-swivel plate is introduced at the two aft latch positions.
- A 745-4083-501 latch weight is installed to all four latches.

E. Approval

The technical content of this Service Bulletin has been approved under the authority of the DGAC Design Organisation Approval No. F.JA.02.

F. 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.

G. Manpower

Estimated man-hours to incorporate the intent of this Service Bulletin on each engine:

<u>VENUE</u>	<u>ESTIMATED MAN-HOURS</u>
(1) In Service	
(a) To gain access.....	0.25 M/Hr
(b) To embody.....	2.00 M/Hr
	Total 2.25 M/Hr

NOTE: Manhours are provided for planning purposes only.



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H. Material Cost and Availability

The parts to accomplish this Service Bulletin are available from the manufacturer as Kit No V2571256-551

Operators with units listed in Paragraph 1.A should submit a purchase order for the applicable quantity of kits. The purchase order must specify this Service Bulletin number and the parts listed herein. Operators will have one year from the issue date of this 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.

Direct request to:

BF Goodrich Aerospace
850 Lagoon Drive
Chula Vista, CA 91910-2098 USA

Attn: Airline Support Manager – MZ-107A
(Service Bulletin No. V2500-NAC-71-0256)

I. Tooling - Cost and Availability

None.

J. Weight and Balance

(1)	Weight change.....	None
(2)	Moment arm.....	No effect
(3)	Datum.....	Engine Front Mount Centreline (Powerplant Station PPS 100.00)

K. Electrical Load Data

Not Affected.

L. References

Publication

Chapter/Section

A320/V2500-A1 A319/A320/A321/V2500-A5 Aircraft
Maintenance Manual(M-V2500-1IA)
Overhaul Processes and Consumable Index
(PCI-V2500-1IA)

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M. Other Publications Affected

<u>Publication</u>	<u>Chapter/Section</u>
A320/V2500-A1 Engine Illustrated Parts Catalog (S-V2500-1IA)	71-13-13
A321/V2530-A5 Engine Illustrated Parts Catalog (S-V2500-2IA)	71-13-13
A321/V2533-A5 Engine Illustrated Parts Catalog (S-V2500-5IA)	71-13-13
A319/V2522/V2524-A5 Engine Illustrated Parts Catalog (S-V2500-6IA)	71-13-13
A320/V2527/V2527E-A5 Engine Illustrated Parts Catalog (S-V2500-7IA)	71-13-13
Powerplant Illustrated Parts Catalog (PIP-V2500-1IA)	71-13-13
Powerplant Illustrated Parts Catalog (PIP-V2500-2IA)	71-13-13

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2. Accomplishment Instructions

A. Pre-requisite Instructions

- (1) Open the Fan Cowl Doors as instructed in the A320/V2500-A1, A319/A320/A321/V2500-A1/A5 Aircraft Maintenance Manual, Task 71-13-00-010-010.

B. Rework Instructions

- (1) Remove and discard the SP90C4 Split Pin as shown at latch 1. Remove the 740-4026-505 collar. Refer to Figure 1 sheet 1.
- (2) Remove the 740-4132-501 Pin which holds the H3187-1 or H3187-9 Latch Assembly and the 740-4027-507 Anti-swivel Plate.
- (3) Remove the 740-4027-507 Anti-swivel Plate and the H3187-1 or H3187-9 latch Assembly as shown. Discard the Anti-swivel Plate.
- (4) Put the 745-4083-501 Latch Weight in position on the H3187-1 or H3187-9 Latch Assembly as shown. Hold the Latch Weight and drill a hole 0.128" (3.25mm) dia. from the Latch Weight through the Latch Assembly.
- R (5) Countersink the H3187-1 or H3187-9 Latch Assembly 100° X 0.044" (1.1mm) deep for the installation of an MS20427M46-5 or B0205013M4-6 Rivet.
- (6) Remove the 745-4083-501 Latch Weight from the H3187-1 or H3187-9 Latch Assembly and remove any burrs from both parts.
- R (7) Install the 745-4083-501 Latch Weight to the H3187-1 or H3187-9 Latch Assembly with an MS20427M46-5 or B0205013M4-6 Rivet and make flush at both ends. Cut the rivet to a suitable length to fill the countersink in the Handle of the Latch Assembly. Refer to Figure 2 sheet 1.

WARNING: SOLVENT IS FLAMMABLE AND THE VAPOUR IS HARMFUL. USE IN A WELL-VENTILATED AREA. AVOID PROLONGED BREATHING OF VAPOURS OR PROLONGED OR REPEATED CONTACT WITH 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.

- R (8) Use a clean, lint free cloth (CoMat 02-099) dampened with Solvent (CoMat 01-076), or an alternative suitable solvent to remove all oil, grease, dirt or other contaminants from the Latch Assembly, the Latch Housing on the Fan Cowl Door, and all parts used to install the Latch Assembly. Wipe the area dry with a clean, lint free cloth before the CoMat (01-076) , or an alternative suitable solvent evaporates.



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NOTE: FOR THOSE UNITS WHICH HAVE THE LATCH ASSEMBLYS PAINTED. DO STEPS (9) THRU (12) TO RESTORE THE PAINT FINISH OTHERWISE PROCEED TO STEP (13)

- (9) Abrade the non-painted area of the 745-4083-501 Latch Weight with Abrasive Paper (CoMat 05-112).

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R
R

- (10) Clean the Fan Cowl Door Latch handles with a clean lint-free cloth (CoMat 02-099) made moist with solvent (CoMat 01-076) or (CoMat 01-457) , or an alternative suitable solvent. Clean again with a dry lint-free cloth before the solvent evaporates.

WARNING: THE RED/ORANGE PAINT IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH 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 PRECAUTIONS.

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R
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NOTE: THE PAINT PROCESS DETAILED BELOW INVOLVES THE APPLICATION OF THREE COATS OF RED PAINT AND THE APPLICATION OF ONE COAT OF CLEAR LACQUER. THE PAINT AND THE LACQUER ARE ORDERED UNDER THE ONE Co-Mat NUMBER 07-152.

- (11) Apply paint (CoMat No. 07-152) to the H3187-9 latch Assembly as follows:-
- Apply paint with a brush to the 745-4083-501 Latch Weight and Rivet head on the Latch Assembly.
 - Leave paint for 0.5 hours until dry to the touch.
 - Apply two more coats of paint as described in the previous 2 steps
 - Completely dry the paint with a heat lamp placed so as to maintain a latch temperature of $70^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 1 hour
 - Alternatively, completely dry the paint at room temperature in accordance with manufacturers requirements

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WARNING: THIS LACQUER IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH MAY CAUSE INJURY OR ILLNESS IF NOT USED PROPERLY. 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 PRECAUTIONS.

- (12) Apply Lacquer (CoMat No. 07-152) to the H3187-9 Latch Assembly as follows
- Apply lacquer with a brush to the 745-4083-501 Latch Weight and Rivet head on Latch Assembly.
 - Leave the lacquer for 0.5 hours.
 - Completely dry the lacquer with a heat lamp placed so as to maintain a latch temperature of $70^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 1 hour
 - Alternatively, completely dry the lacquer at room temperature in accordance with manufacturers requirements
- (13) Remove the paint, dirt and burrs from the two flanges on the Latch Housing where the H3187-9 Latch Assembly is installed. Use Abrasive Paper (CoMat 05-112).

CAUTION: MAKE SURE YOU INSTALL THE ANTI-SWIVEL PLATES AT THEIR CORRECT LOCATION AS DETAILED ON FIGURE 2, DETAIL 'A' AND 'B'. THE ANTI-SWIVEL PLATES MAY CONTACT AND DAMAGE ADJACENT COMPONENTS ON CLOSING OF THE FAN COWL DOORS IF INCORRECTLY INSTALLED

- (14) Install the H3187-9 Latch assembly to the Latch Housing as shown with the new 745-4082-501 Anti-swivel Plate, the 740-4132-501 Pin, and 740-4026-505 Collar. Make the Pin safe with a new SP90C4 Split Pin.
- (15) Make sure that the H3187-9 Latch Assembly has unrestricted movement through its limit of travel and is not impeded by its clearance with the Latch Housing.
- (16) Do steps (1) thru (15) to install a new 745-4082-501 Anti-swivel plate at latch 2.
- (17) Do steps (1) thru (15) except install a new 745-4081-501 Anti-swivel plate in place of the 740-4027-507 Anti-swivel Plate at latch 3. Refer to Figure 2 sheet 2.
- (18) Do steps (1) thru (15) except install a new 745-4081-501 Anti-swivel plate in place of the 740-4027-507 Anti-swivel Plate at latch 4. Refer to Figure 2 sheet 2.

C. Post-requisite Instructions

- (1) Close the Fan Cowl Doors as instructed in the A320/V2500-A1, A320/A321/V2500-A5 Aircraft Maintenance Manual, Task 71-13-00-410-010.



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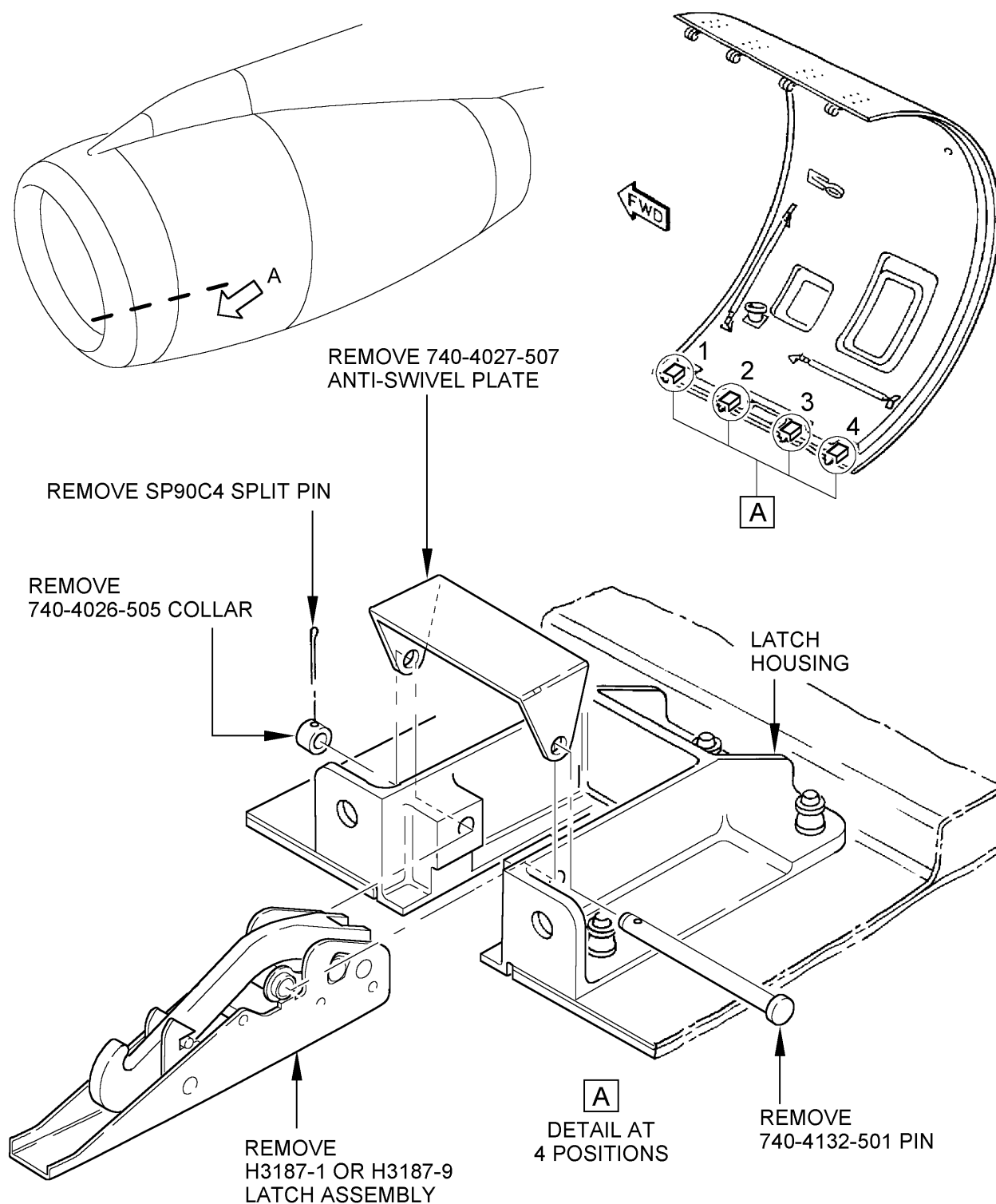
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D. Recording Instructions

- R (1) Write in the Aircraft Log Book, or other records and metal stamp, vibroetch or electroetch on the Fan Cowl Door data plate that Service Bulletin V2500-NAC-71-0256 has been done. Refer to the IAE V2500 Standard Practices/Processes Manual, Chapter 70-09-00.

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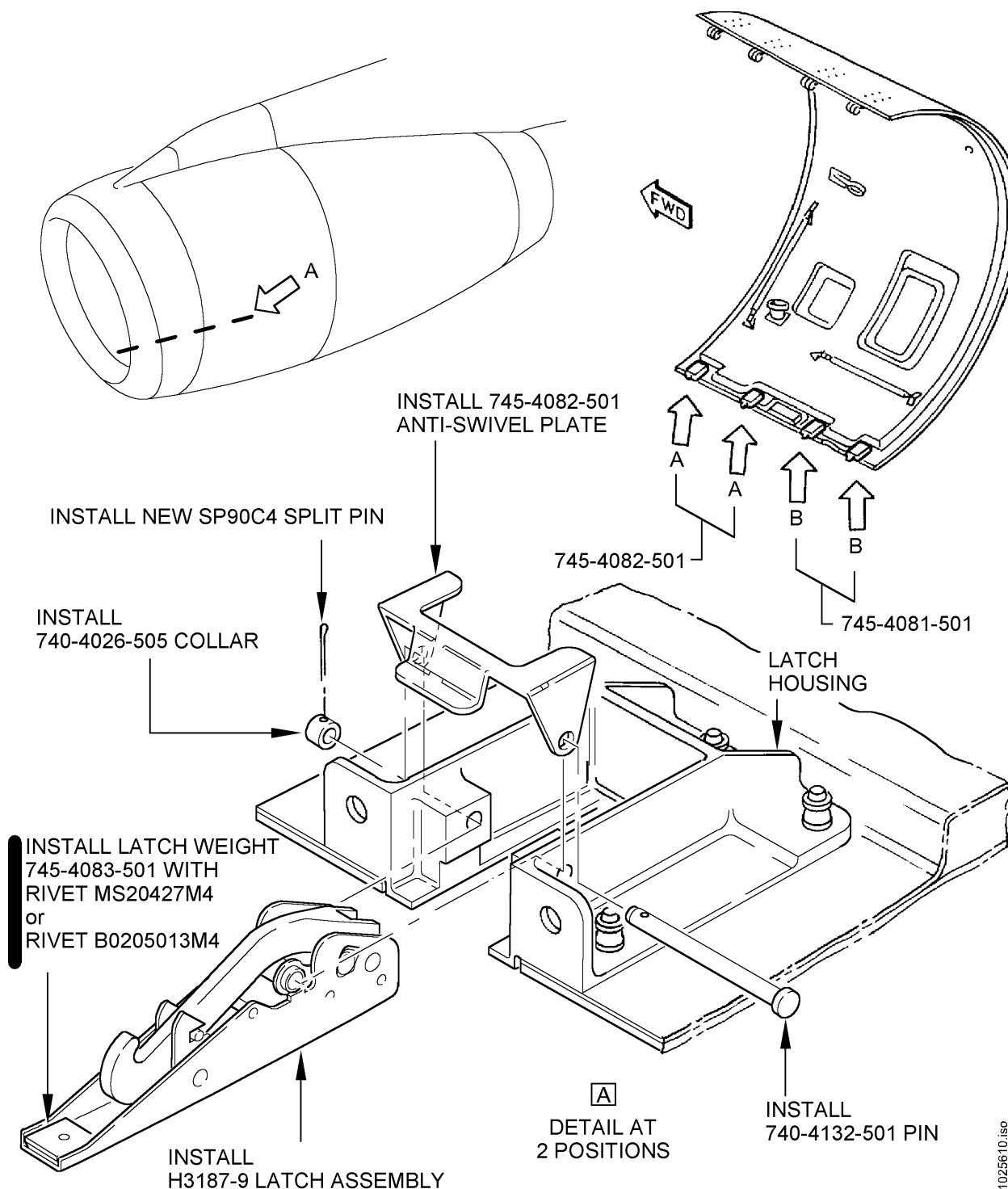
Removal of Anti-swivel Plate – Fan Cowl Door Latches 1,2,3 and 4
Figure 1 Sheet 1 of 1



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Installation of Anti-swivel Plate and Latch Weight – Fan Cowl Door Latches 1 and 2
Figure 2 Sheet 1 of 2

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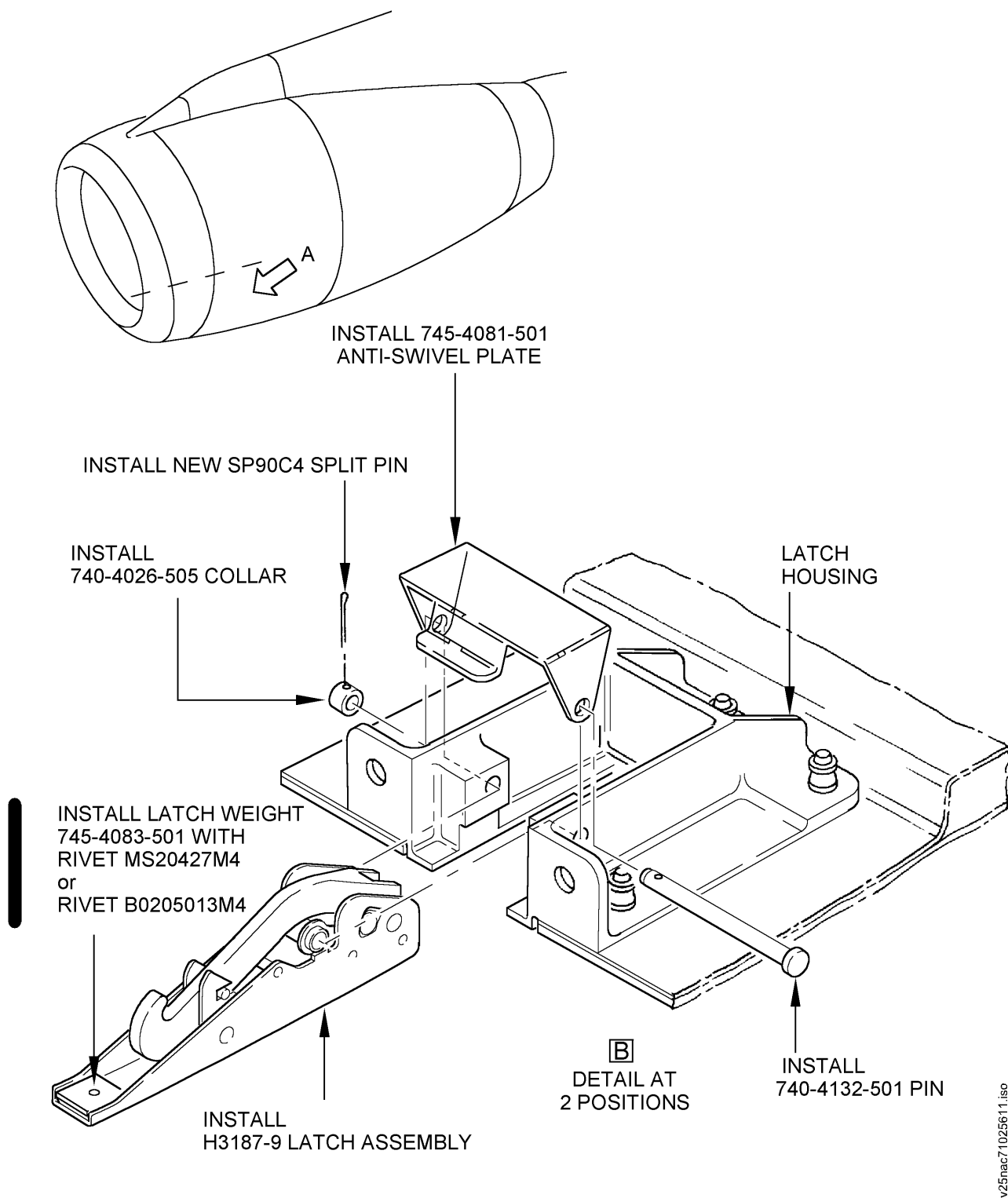
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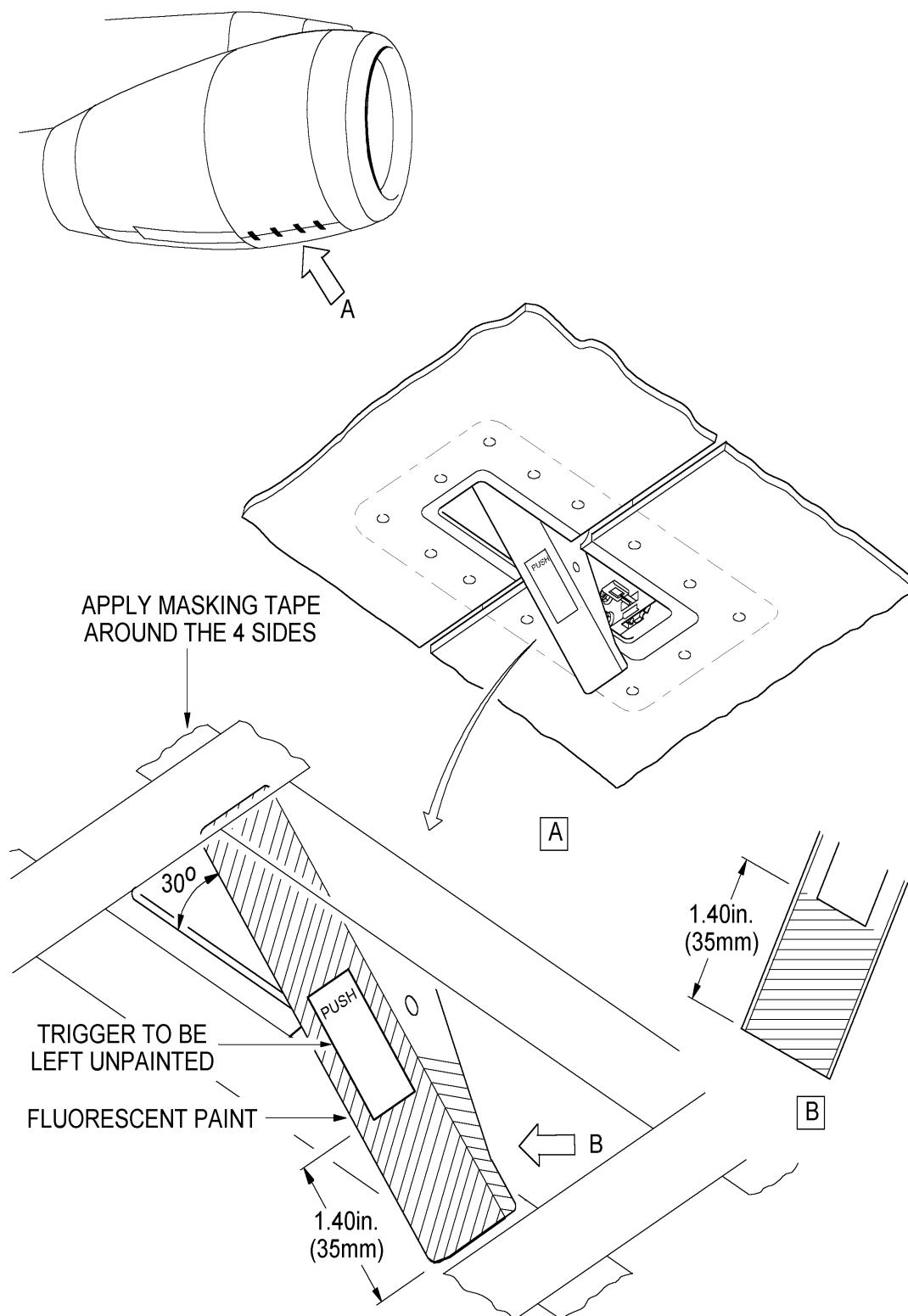


Installation of Anti-swivel Plate and Latch Weight – Fan Cowl Door Latches 3 and 4
Figure 2 Sheet 2 of 2

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Painting of Fan Cowl Door Latch Handles
Figure 3

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3. Material information

NEW PART No (ATA No)	QTY	EST'D UNIT PRICE (\$)	KEYWORD	OLD PART No (IPC No)	INSTR/ DISPOS
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Applicability: For each V2500-A1 or A5 Nacelle to incorporate this Bulletin.

A. Kits associated with this Bulletin

V2571256-551	1	Request	Kit, Rework of Fan Cowl Door Latch Assemblies	(A)
Consisting of:		Quote		

745-4081-501	2		Plate, Anti-swivel	
745-4082-501	2		Plate, Anti-swivel	
745-4083-501	4		Weight, Latch assembly (Vendor part No. 133780-1)	
MS20427M46-5 or Alternative (B02050013M4-6)	*8		Rivet, Solid Csk	

R	SP90C4	4	Pin, Split	
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* Quantity includes excess

B. Parts affected by this Bulletin

745-4081-501 (71-13-13)	2	Plate, Anti-swivel	740-4027-507 (02-040)	(B)(S1)
745-4082-501 (71-13-13)	2	Plate, Anti-swivel	740-4027-507 (02-045)	(B)(S1)
745-4083-501	4	Weight, Latch assembly		(B)

C. Instructions/Dispositions Code Statements

- (A) Kit is available.
- (B) New part supplied as detail of kit.
- (S1) New part may be used in place of old part but not vice-versa.



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D. Expendables required to incorporate this Bulletin.

Part No./CoMat No.	ATA/IPC No.	Qty	Keyword
R CoMat 01-076 (or suitable alternative)	See Note Below	A/R	Solvent
R CoMat 01-457 (or suitable alternative)	See Note Below	A/R	Solvent
CoMat 02-178	See Note Below	A/R	Masking Tape
CoMat 02-099	See Note Below	A/R	Lint free cloth
CoMat 05-112	See Note Below	A/R	Emery paper grade 0/grit size 400
CoMat 07-152	See Note Below	A/R	Paint MIL-P-21563 colour #38903 per FED-STD-595 fluorescent red/orange, and Clear Lacquer to MIL-P-21563.
Supplied by Aerospheres (UK) Ltd			
Aerospace House			
2A Tudor Road			
Harrow			
Middlesex HA3 5PE			
England			
		Tel:	44-(0)181-863-8578
		Fax:	44-(0)181-427-1005

NOTE: To identify consumable materials, refer to the Overhaul Processes and Consumable Index(PCI-V2500-11A) and procure only if required (Refer to Section 2, Accomplishment Instructions for details).



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V2500-NAC-71-0256 Incorporation Report Form	
Operator	
Aircraft Tail Number	
Fan Cowl	Serial Number
	Part Number
	Bulletin Incorporation Date
Fan Cowl	Serial Number
	Part Number
	Bulletin Incorporation Date

Please fax this form to:

IAE - Dave Crane - 44-1332-244067

BFGoodrich - Robert Rothwell - (619) 691-6403