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DATE: Dec.13/06

V2500-A1/A5 SERIES NACELLE SERVICE BULLETIN

This document transmits Revision 1 to Service Bulletin NV2500-78-0218 and Revision 1 to the Supplement

Document History

Service Bulletin Revision Status		Supplement Revision Status	
Initial Issue	Mar.31/05	Initial Issue	Mar.31/05

Bulletin Revision 1

Remove	Incorporate	Reason for change
All pages of the Summary		To revise the Effectivity, the Material Information and to make some editorial changes.
Pages 1 to 11 of the Service Bulletin	Pages 1 to 12 of the Service Bulletin	To revise the Effectivity, the Material Information and to make some editorial changes.

Supplement Revision 1

Remove	Incorporate	Reason for change
All pages	Page 1	To revise the Effectivity, the Material Information and to make some editorial changes.

V2500-NAC-78-0218

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
If any have not been received please advise Customer Data Services, Rolls-Royce plc, Derby, England

LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 1 to the Bulletin and Revision 1 to the Supplement are as follows:

	Page	Revision Number	Revision Date
	Bulletin		
R	1	1	Dec.13/06
R	2	1	Dec.13/06
R	3	1	Dec.13/06
R	4	1	Dec.13/06
R	5	1	Dec.13/06
R	6	1	Dec.13/06
R	7	1	Dec.13/06
R	8	1	Dec.13/06
R	9	1	Dec.13/06
R	10	1	Dec.13/06
R	11	1	Dec.13/06
R	12	1	Dec.13/06
	Supplement		
R	1	1	Dec.13/06

International Aero Engines

SERVICE BULLETIN

EXHAUST - THRUST REVERSER - RIGHT THRUST REVERSER HALF - FIXED STRUCTURE - 7TH STAGE BLEED PORT MODIFICATION

1. Planning Information

A. Effectivity

R (1) Airbus A319.

R (a) V2522-A5, V2524-A5, V2527M-A5 Engines.

R Nacelle

R All V2500-A5 right thrust reverser halves with CUM and serial numbers
R prior to 8519001.

R (2) Airbus A320.

R (a) V2500-A1 Engines.

R Nacelle

R All V2500-A1 right thrust reverser halves with CUM and serial numbers
R prior to 8519001.

R (b) V2527-A5, V2527E-A5 Engines.

R Nacelle

R All V2500-A5 right thrust reverser halves with CUM and serial numbers
R prior to 8519001.

R (3) Airbus A321.

R (a) V2530-A5, V2533-A5 Engines.

R Nacelle

R All V2500-A5 right thrust reverser halves with CUM and serial numbers
R prior to 8519001.

B. Concurrent Requirements

R None.

C. Reason

(1) Problem

(a) The right hand thrust reverser half fixed structure inner bond panel can become damaged in the area surrounding the 7A bleed port.

(2) Evidence

(a) Operators have reported damage to the right thrust reverser half fixed structure inner barrel at the 7A bleed port location. Damage found has varied from skin discoloration to delamination and missing areas of the skin and honeycomb at the aft edge of the 7A bleed port cutout.

(3) Substantiation

(a) Not applicable.

(4) Objective

(a) The changes in configuration recommended in this Service Bulletin are intended to maintain reliability of the nacelle by protecting the right hand thrust reverser 7A bleed port from 7th stage bleed air.

(5) Effect of Bulletin on:

(a) Operation

None

(b) Maintenance

None

(c) Overhaul

None

(d) Repair schemes

(i) SRM 54-30-00 repair 37

(ii) SRM 54-30-00 repair 40

(e) Interchangeability

None

(f) Fits and clearances

R Clearance between bleed port silencer and bond panel port reduced.

D. Description

This service bulletin provides instructions for installation of a closure and a doubler with mechanical fasteners to the 7A bleed port cut-out area of the inner bond panel of the R/H thrust reverser.

R The Service Bulletin standard that follows should be embodied together with
R this one, to realize the full benefit of the design change.

R V2500-ENG-75-0092 - AIR - HP COMPRESSOR STAGE 7 BLEED VALVE - INTRODUCTION
R OF A BLEED VALVE SPACER

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.

F. Approval

The technical content of this Service Bulletin has been approved under the authority of the EASA design Organization Approval No.EASA.21J.031. The authorizing document is EC 04VN602. In addition, the part number changes and/or part modifications described in sections 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-approved for the equipment model(s) listed.

G. Manpower

Estimated manhours to incorporate the full intent of this Service Bulletin.

(1) In Service

Not applicable

(2) At Overhaul

(a) To modify

2.5 hours per nacelle (5.0 hours per aircraft)

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

H. Material Cost and Availability

The parts required to accomplish this service bulletin are available from the manufacturer as kit V2578218-551.

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 only the kit numbers listed herein. Operators will have one year from the issue date of this service bulletin to place an order. Upon receipt of purchase order, Goodrich 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 this change.

Direct Purchase Order to: Goodrich Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098 U.S.A.

Attn: Regional Business Manager - MZ 107A (Ref Service Bulletin No. V2500-NAC-78-0218)

NOTE: Please do not submit orders for service bulletin parts via the Spec 2000 ordering system

I. Tooling Price and Availability

None

J. Industry Support Information

N/A

K. Weight and Balance

(1) Weight change

+0.214 lbs (0,097 kgs) per nacelle

(2) Moment arm

No effect

(3) Datum

Engine front mount centerline (Power Plant Station (PPS) 100)

L. Electrical Load Data

N/A

M. Software Accomplishment Summary

N/A

N. References

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

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

(3) IAE Engineering Change Number - 04VN602

(4) ATA Locator - 78-30-00

O. Other Publications Affected

(1) Thrust Reverser Component Maintenance Manual (CMM-TR-V2500-1IA) 78-30-00

P. Interchangeability of Part

N/A

2. Material Information

A. Kits required consist of the following parts:

Applicability: For each right hand V2500 Thrust Reverser only.

	FIG ITEM NO	NEW PART NO	QTY	PART TITLE	MAT	OLD PART NO	INSTR DISP
R		V2578218-551	1	Kit, 7th Stage Bleed			(A)
		Consisting of:					
		745M0017-1	1	Doubler			
		745-0616-503	1	Closure			
		CR3524-4-02	10	Rivet			

B. Parts to be reworked:

R 78-30-00

	FIG ITEM NO	NEW PART NO	QTY	PART TITLE	MAT	OLD PART NO	INSTR DISP
R	32-515B	740-0515-595	1	Panel Assembly, Bonded Inner Barrel		740-0515-595	(1D)

C. New production parts:

78-30-00

	FIG ITEM NO	NEW PART NO	QTY	PART TITLE	MAT	OLD PART NO	INSTR DISP
R	32-515C	740-0515-597	1	Panel Assembly, Bonded Inner Barrel		740-0515-595	(A)(S1)

D. Redundant Parts:

None.

E. Instructions/Disposition Codes:

R (A) New part is available. This part is necessary for the rework of the old
R Panel Assembly, Bonded Inner Barrel at ATA Chapter 78-30-00, Fig/Item No.
R 32-515B.

R (S1) The old and new parts are fully interchangeable.

R (1D) The Panel Assembly, Bonded Inner Barrel with or without this Service
R Bulletin incorporated remains fully interchangeable. The Panel Assembly, Bonded
R Inner Barrel part number does not change after incorporation of this Service
R Bulletin but the Service Bulletin number must be marked on the data plate of
R the Thrust Reverser.

F. Consumable Materials Required to do this Service Bulletin:

CoMat 01-410	Isopropyl Alcohol
CoMat 02-002	Tape, Masking
CoMat 02-099	Cloth, Lint Free
CoMat 05-127	Pad, Scotchbrite
CoMat 07-028	Conversion Coating
CoMat 07-139	Catalyst (Dexter EC117)
CoMat 07-140	Epoxy Primer (Dexter 10-P4-2)
CoMat 07-144	Thinner (Dexter TR 19)
CoMat 08-032	Primer (Dow Corning DC 1204)
CoMat 08-092	Sealant (General Electric RTV 93-076)

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

3. Accomplishment Instructions

A. Inspect the area around the R/H thrust reverser 7A bleed port cutout to make sure there is no damage (loss of edge filler, skin disbond, etc) on the inboard side, outboard side, or the edge of the cutout. If damaged, refer to the structural repair manual (SRM).

(1) If you find damage beyond the SRM limits, contact IAE for further instructions.

(2) If the 7A bleed port has been previously repaired per VRS2094 and that repair is intact, the intent of this Service Bulletin has already been incorporated and no further action is required.

NOTE: To obtain the maximum benefit of the intent of this service bulletin, IAE Service Bulletin V2500-ENG-75-0092 should also be incorporated at this time.

B. Install closure and doubler on the 7A bleed port cutout.

NOTE: These service bulletin instructions are written with the assumption the right thrust reverser half has been removed from the aircraft and the translating sleeve has been removed from the thrust reverser half.

NOTE: There are heatshields on the inboard side of the bond panel in proximity of the 7A bleed port valve cutout. It may be necessary to remove the heatshields to gain sufficient access to affected areas. Carefully remove heatshields.

R (1) Make the 0.10 inch (2,54 mm) x 45 degree chamfer around the inboard side of the 7A bleed port cutout. Remove all burrs.

WARNING:

BEFORE YOU USE CHEMICALS, READ, UNDERSTAND AND OBEY ALL SAFETY INSTRUCTIONS FOR THE CHEMICALS. THESE INSTRUCTIONS INCLUDE INSTRUCTIONS FROM THE MANUFACTURER, THE MATERIAL SAFETY DATA SHEET (MSDS), AND GOVERNMENT REGULATIONS. CHEMICALS MAY CAUSE INJURY TO YOU OR MAKE YOU SICK WHEN SAFETY INSTRUCTIONS ARE NOT OBEYED. AN MSDS GIVES INSTRUCTIONS ON HOW YOU MUST SAFELY USE, KEEP AND DISCARD CHEMICALS. GET INSTRUCTIONS FROM YOUR EMPLOYER ON HOW YOU MUST SAFELY USE, KEEP AND DISCARD CHEMICALS.

(2) Apply conversion coating (CoMat 07-028) to the cut edge of the inboard solid skin. Refer to the manufacturer's instructions.

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(3) Mix the primer (CoMat 07-140), catalyst (CoMat 07-139), and thinner (CoMat 07-144). Refer to the manufacturer's instructions.

(4) Apply the primer mix to the exposed edges of the inboard solid skin. Allow the primer to cure. Refer to the manufacturer's instructions.

(5) Position 745-0616-503 inner closure onto its mounting surface (over the existing seal land which is intregral to the bond panel assembly). Rotate the part as required to insure the flange sits correctly on the mating surface and is centered within the 7A bleed port cutout. An alignment mark (notch) is on the part to aid installation - the notch indicates the forward edge. Use CoMat 02-002 masking tape secure closure into place.

(6) Position the 745M0017-1 doubler on top of the 745-0616-503 closure. An alignment mark (notch) is on the part to aid installation - the notch indicates the forward edge. Use CoMat 02-002 making tape to temporarily secure parts in proper orientation.

(7) Drill 10 pilot holes as located on the 745M0017-1 doubler through the doubler, closure, seal land and inner bond panel skin. Use a No. 30 drill (0.129 - 0.132 in. dia (3,28 mm - 3,35 mm dia). Make 100 degree countersink in the holes on the doubler.

(8) Remove both drilled parts from the cutout area. Remove all burrs from the 745-0616-503 inner closure and 745M0017-1 doubler.

(9) Remove any loose honeycomb core in the new holes drilled in the bond panel to allow for proper seating of ten CR3524-4-02 rivets.

(10) Prepare surface for bonding. Abrade all the faying surfaces using CoMat 05-127 Scotchbrite pads and dust blast. Do not expose bare metal.

NOTE: If bare metal is exposed, apply conversion coating and prime affected area per steps (2) and (3) above.

(11) Clean all the mating surfaces with isopropyl alcohol (CoMat 01-410). Wipe the surfaces dry before the alcohol becomes dry.

(12) Apply primer (CoMat 08-032) to the faying surfaces. Refer to the manufacturer's instructions.

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(13) Apply sealant (CoMat 08-092) to the faying surfaces of 745-0616-503 inner closure and the existing bond panel doubler. Refer to the manufacturer's instructions.

R (14) Make sure to orient the notch in the 745M0017-1 doubler forward (as
R referenced in step (5)) and bond the 745-0616-503 inner closure (to be
R centered in the 7A bleed port cutout) to existing doubler, applying
R pressure (use 'C'-clamps) while sealant cures.

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R YOU MUST SAFELY USE, KEEP AND DISCARD CHEMICALS. GET INSTRUCTIONS FROM
R YOUR EMPLOYER ON HOW YOU MUST SAFELY USE, KEEP AND DISCARD CHEMICALS.

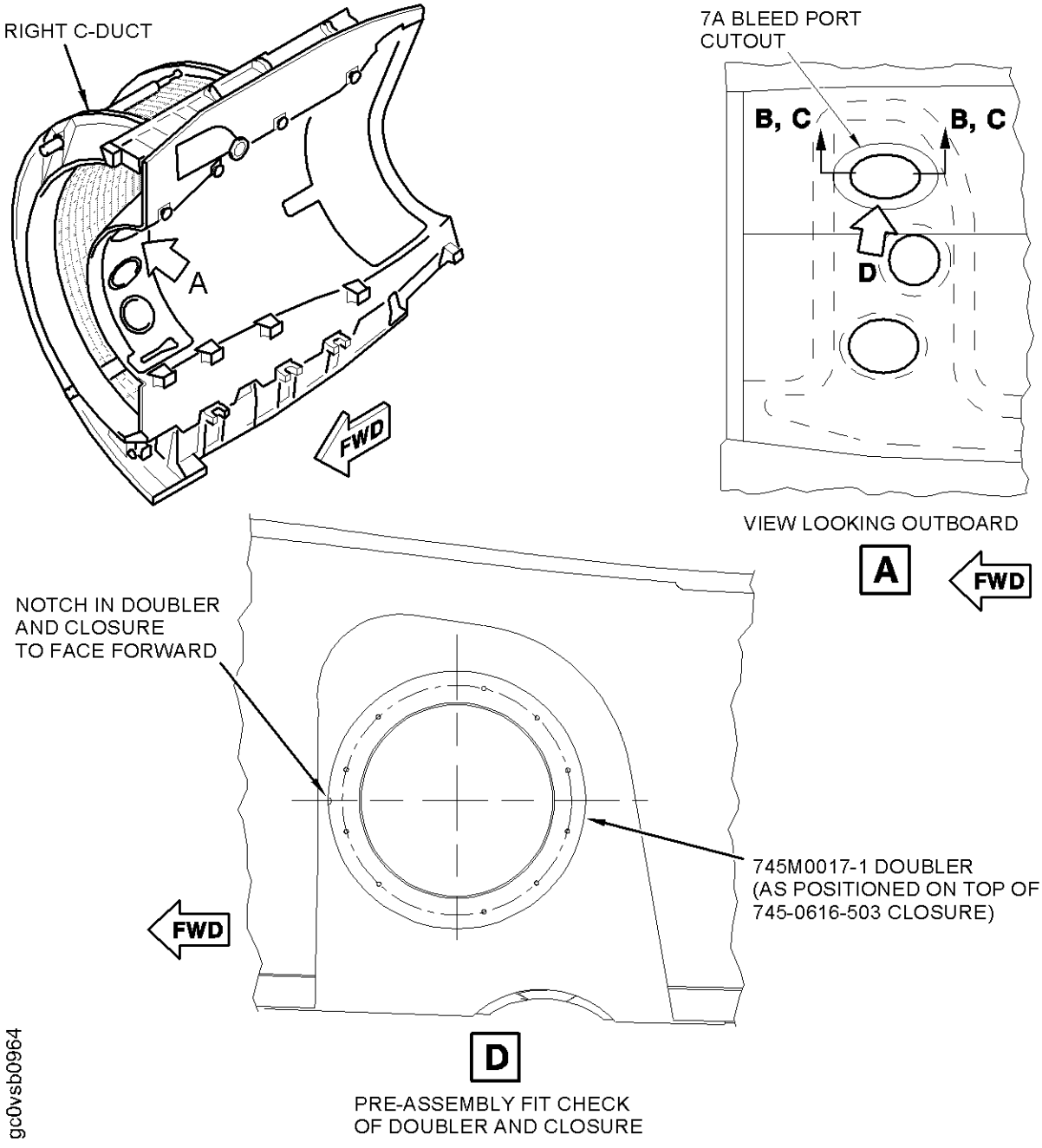
(15) Install ten CR3524-4-02 blind rivets in the ten previously drilled holes through the 745M0017-1 doubler, 745-0616-503 closure, seal land and inner bond panel skin.

(16) Fill the gap between the 745-0616-503 inner closure and the edge of the
R bond panel cutout with (CoMat 08-092) sealant (DC 93-076) mixing and
curing of the sealant per the manufacturer's instructions.

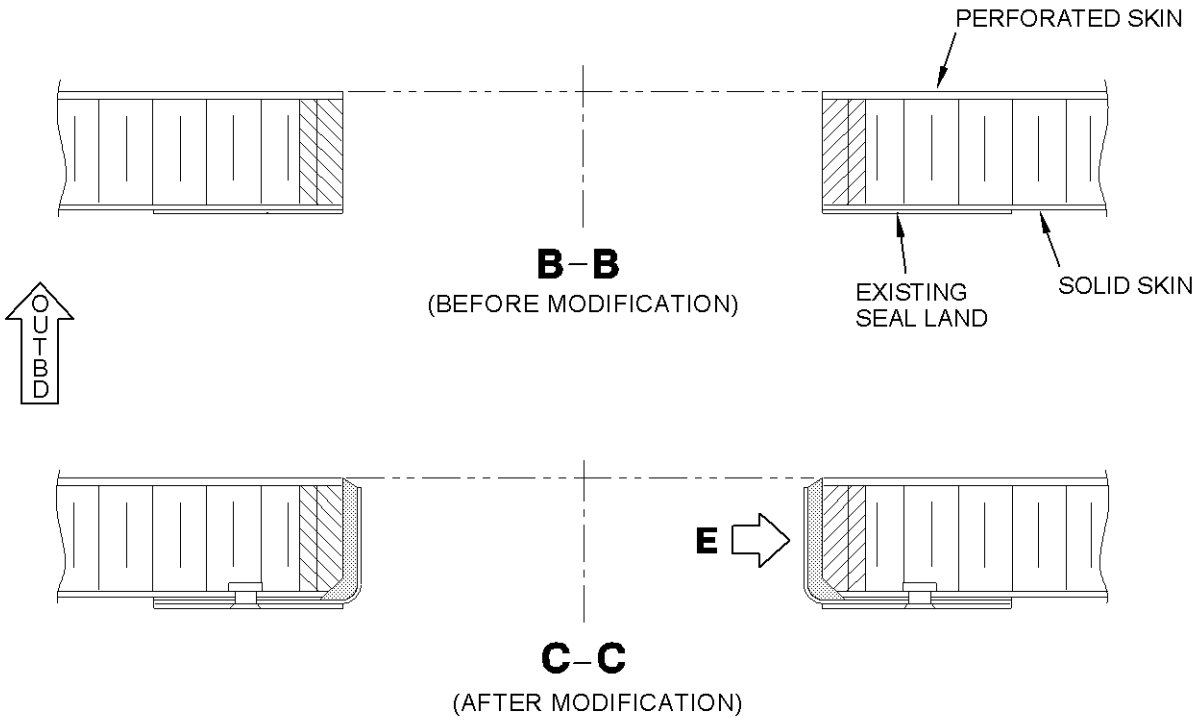
NOTE: If any heatshields were removed to gain access during this modification, carefully re-install all heatshields prior to completing the Recording Instructions.

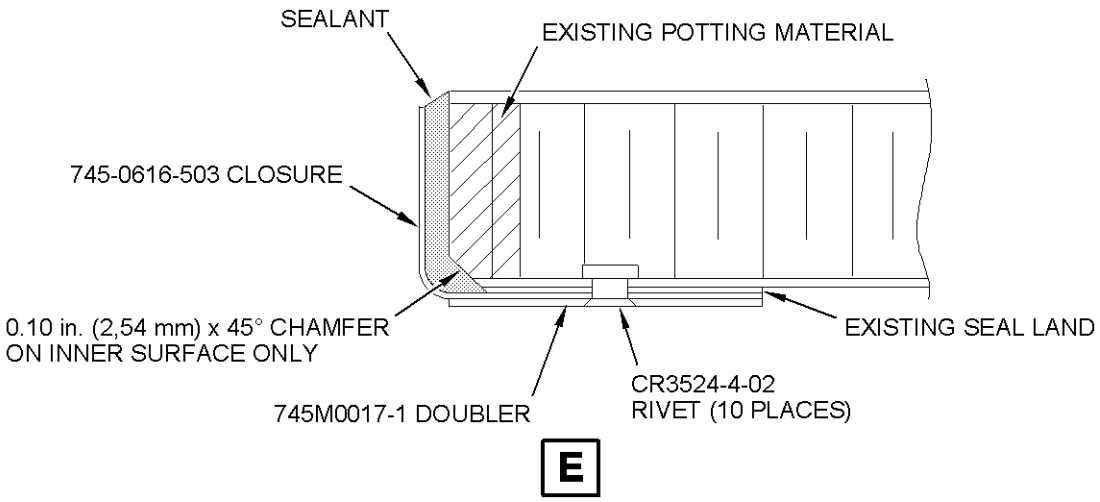
C. Recording Instructions

(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-78-0218 has been done. Refer to the Standard Practices/Processes Manual (SPP-V2500-1IA), Chapter 70-09-00.



Installation of 7A Bleed Port closure and doubler
Figure 1 (sheet 1 of 2)





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Installation of 7A Bleed Port closure and doubler
Figure 1 (sheet 2 of 2)

International Aero Engines

SERVICE BULLETIN

EXHAUST – THRUST REVERSER – RIGHT THRUST REVERSER HALF – FIXED STRUCTURE – 7TH STAGE BLEED PORT MODIFICATION

SUPPLEMENT – PRICES AND AVAILABILITY

Printed in Great Britain

The prices (if shown) are for estimating purposes only and as such are given in good faith, without commercial liability for advanced planning purposes only. Refer to IAE Spares and/or current price catalogue for current prices.

1. Modification Kit

Kit No.	Description	Unit Price US Dollars
V2578218-551	Kit, Modification 7A Bleed Port	1496.00

2. Parts required:

Part No.	Description	Unit Price US Dollars
745M0017-1	Doubler, 7A Bleed Port Inner	
745-0616-503	Closure, 7A Bleed Port Inner	
CR3524-4-02	Rivet (qty 10)	