# PUBLICATION TRANSMITTAL



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# **International Aero Engines**

# **RR-DERBY**

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DATE: May.22/01

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V2500-A1 PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Initial Issue of Service Bulletin EV2500-73-0175

**Bulletin Initial Issue** 

Remove Incorporate

Pages 1 to 9 of the Service Bulletin

Reason for change Initial issue

V2500-ENG-73-0175

Transmittal - Page 1 of 2

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED If any have not been received please advise Publication Services, Rolls-Royce plc, Derby, England © Rolls-Royce plc (date as above) Printed in Great Britain

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# LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin are as follows:

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#### ENGINE - FUEL AND CONTROL - PROVIDE NEW RIGHT AND LEFT PRESSURE CONTROL MANIFOLDS

#### 1. Planning Information

#### A. Effectivity

Airbus A320

V2500-A1 Engines Serial No. V0001 thru V0298

#### B. Concurrent Requirements

For delivered engines prior to Reference 1., Service Bulletin No. V2500-ENG-72-0063, but incorporating Reference 2., Service Bulletin No. V2500-ENG-73-0004.

This Service Bulletin must also be done concurrently with or subsequent to Reference 3., Service Bulletin No. V2500-ENG-73-0050.

#### C. Reason

#### (1) Problem

Manufacturers have reported difficulty producing the P4.9 manifolds used on the Turbine Exhaust Case Assemblies.

# (2) Background

New suppliers of P4.9 manifolds have recently been utilized, while previous manufacturers had been able to meet the design intent, new manufacturers have requested that additional clarification of certain design features be added.

# (3) Objective

The design has been revised to clarify the latest intent. New part numbers have been assigned to segregate parts made to the previous design

#### (4) Substantiation

The design intent has not changed from the previous configuration, which has proven to have acceptable service history. The new parts have been successfully fit checked on a V2500-A1 Turbine Exhaust Case.

#### (5) Effect of Bulletin on:

#### (a) Operation

Not affected

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(b) Maintenance

Not affected

(c) Overhaul

Not affected

(d) Repair Schemes

Not affected

(e) Interchangeability

Not affected

(f) Fits and Clearances

Not affected

(g) Supplemental Information

None

# D. <u>Description</u>

Replace the right and left pressure control Manifold Assemblies

#### E. Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

#### F. Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved for the engine models listed.

# G. Manpower

Estimated man-hours to incorporate the full intent of this Bulletin:

(1) In service

Not applicable

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(2) At overhaul

Not applicable

#### H. Weight and Balance

(1) Weight Change

None

(2) Moment Arm

No effect

(3) Datum

Engine front mount centreline (Power Plant Station PPS 100)

#### I. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load

#### J. Software Accomplishment Summary

Not applicable

See Vendor Supplier Service Bulletin

#### K. References

- (1) IAE V2500 Service Bulletin V2500-ENG-72-0063 (Engine LP Turbine Rotor and Stator Assembly Introduce New Tube Assemblies Required for Modified Turbine Exhaust Case).
- (2) IAE V2500 Service Bulletin V2500-ENG 73-0004 (Engine Fuel and Control Provide New Pressure Control Manifolds with Improved Clipping).
- (3) IAE V2500 Service Bulletin V2500-ENG-73-0050 (Engine Fuel and Control provide Re-routed P4.9 Pressure Control Manifolds).
- (4) V2500 Engine Illustrated Parts Catalogue (S-V2500-1IA), Chapter/Section 73-22-51.
- (5) V2500 Engine Manual (E-V2500-1IA), Chapter/Section 73-22-51.

# L. Other Publications Affected

(1) V2500 Engine Illustrated Parts Catalogues (S-V2500-1IA), Chapter/Section 73-22-51.

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(2) V2500 Engine Manuals (E-V2500-1IA), Chapter/Section 73-22-51 Cleaning, Inspection and Repair, to add new part.

# M. Interchangeability of Parts

Not affected

# N. <u>Information in the Appendix</u>

Alternate Accomplishment Instructions (No)

Progression Charts (Yes)

Added Data (No)

Revision to Table of Limits (No)

Inspection Procedures (No)



# 2. Material Information

# A. Material - Price and Availability

- (1) The estimated price of new material to do this Service Bulletin using new replacement parts is \$4,000.00.
- (2) There is no kit provided to do this Service Bulletin.
- (3) Part availability information is provided in material data Instructions-Disposition.

#### B. New production parts:

PART NO.	QTY	UNIT PRICE		
		US DOLLARS		
2A3547-01	1	2,000.00		
AS3268-082	4	6.29		
AS15769	2	Price on application		
AS15701	2	15.60		
AS15777	2	4.48		
2A3548-01	1	2,000.00		

<u>NOTE</u>: The unit prices, if shown, are an estimate and they are given for the purpose of planning only. For actual prices, refer to the IAE Price Catalogue or contact IAE's spare parts sales department.

#### C. Parts affected by this bulletin:

# 73-22-51

01050       2A3547-01       1       Manifold, RH press Control -       4B8071       (2) (A)         01055       -       1       Sleeve -       -       4B8069-01       (L)         01055       AS3268-082       2       Sleeve -       -       (D)         01057       AS15769       1       Ferrule -       -       (D)         01058       AS15701       1       Nut, Tube Coupling -       -       (D)         01059       AS15777       1       Wire, Thrust -       -       4B8072       (2) (A)         01180       2A3548-01       1       Manifold, LH Press Control -       4B8072       (2) (A)         01183       -       1       Sleeve -       -       4B8069-01       (L)         01185       AS3268-082       2       Sleeve -       -       -       (D)         01186       AS1569       1       Ferrule -       -       -       (D)         01187       AS15701       1       Nut, Tube Coupling -       -       -       (D)         01189       AS15777       1       Wire, Thrust -       -       -       (D)	FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01055       AS3268-082 2       Sleeve       -       -       (D)         01057       AS15769       1       Ferrule       -       -       (D)         01058       AS15701       1       Nut, Tube Coupling       -       -       (D)         01059       AS15777       1       Wire, Thrust       -       -       (D)         01180       2A3548-01       1       Manifold, LH Press Control       -       4B8072       (2) (A)         01183       -       1       Sleeve       -       4B8070-01       (L)         01185       -       1       Sleeve       -       4B8069-01       (L)         01185       AS3268-082       2       Sleeve       -       -       (D)         01186       AS1569       1       Ferrule       -       -       (D)         01187       AS15701       1       Nut, Tube Coupling       -       -       (D)	01050	2A3547-01	1	Manifold, RH press Contro	ι -	4B8071	
01057       AS15769       1       Ferrule       -       -       (D)         01058       AS15701       1       Nut, Tube Coupling       -       -       (D)         01059       AS15777       1       Wire, Thrust       -       -       (D)         01180       2A3548-01       1       Manifold, LH Press Control       -       4B8072       (2) (A)         01183       -       1       Sleeve       -       4B8070-01       (L)         01185       -       1       Sleeve       -       4B8069-01       (L)         01185       AS3268-082       2       Sleeve       -       -       (D)         01186       AS1569       1       Ferrule       -       -       (D)         01187       AS15701       1       Nut, Tube Coupling       -       -       (D)	01055	_	1	Sleeve	_	4B8069-01	(L)
01058       AS15701       1       Nut, Tube Coupling       -       -       (D)         01059       AS15777       1       Wire, Thrust       -       -       (D)         01180       2A3548-01       1       Manifold, LH Press Control       -       4B8072       (2) (A)         01183       -       1       Sleeve       -       4B8070-01       (L)         01185       -       1       Sleeve       -       4B8069-01       (L)         01185       AS3268-082       2       Sleeve       -       -       (D)         01186       AS1569       1       Ferrule       -       -       (D)         01187       AS15701       1       Nut, Tube Coupling       -       -       (D)	01055	AS3268-082	2	Sleeve	_	-	(D)
01059       AS15777       1       Wire, Thrust       -       -       (D)         01180       2A3548-01       1       Manifold, LH Press Control -       4B8072       (2) (A)         01183       -       1       Sleeve       -       4B8070-01       (L)         01185       -       1       Sleeve       -       4B8069-01       (L)         01185       AS3268-082       2       Sleeve       -       -       (D)         01186       AS1569       1       Ferrule       -       -       (D)         01187       AS15701       1       Nut, Tube Coupling       -       -       (D)	01057	AS15769	1	Ferrule	_	-	(D)
01180       2A3548-01       1       Manifold, LH Press Control -       4B8072       (2) (A) (L)         01183       -       1       Sleeve -       -       4B8070-01       (L)         01185       -       1       Sleeve -       -       4B8069-01       (L)         01185       AS3268-082       2       Sleeve -       -       -       (D)         01186       AS1569       1       Ferrule -       -       (D)         01187       AS15701       1       Nut, Tube Coupling -       -       (D)	01058	AS15701	1	Nut, Tube Coupling	_	-	(D)
(L) 01183 - 1 Sleeve - 4B8070-01 (L) 01185 - 1 Sleeve - 4B8069-01 (L) 01185 AS3268-082 2 Sleeve (D) 01186 AS1569 1 Ferrule (D) 01187 AS15701 1 Nut, Tube Coupling - (D)	01059	AS15777	1	Wire, Thrust	_	-	(D)
01185       -       1       Sleeve       -       4B8069-01 (L)         01185       AS3268-082 2       Sleeve       -       -       (D)         01186       AS1569       1       Ferrule       -       -       (D)         01187       AS15701       1       Nut, Tube Coupling       -       -       (D)	01180	2A3548-01	1	Manifold, LH Press Contro	ι –	4B8072	
01185       AS3268-082 2       Sleeve       -       -       (D)         01186       AS1569       1       Ferrule       -       -       (D)         01187       AS15701       1       Nut, Tube Coupling       -       -       (D)	01183	_	1	Sleeve	_	4B8070-01	(L)
01186 AS1569 1 Ferrule (D) 01187 AS15701 1 Nut, Tube Coupling (D)	01185	_	1	Sleeve	_	4B8069-01	(L)
01187 AS15701 1 Nut, Tube Coupling (D)	01185	AS3268-082	2	Sleeve	_	-	(D)
one many rade coupling	01186	AS1569	1	Ferrule	_	-	(D)
01189 AS15777 1 Wire, Thrust (D)	01187	AS15701	1	Nut, Tube Coupling	_	-	(D)
	01189	AS15777	1	Wire, Thrust	_	-	(D)

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# D. <u>Instructions disposition codes:</u>

- (2) The new part is a replacement part only, and cannot be obtained by modification of the old part.
- (A) The new part is available
- (D) The new part is a detail of the assembly. It is available as a replacement part.
- (L) The old part will be supplied until the supply is fully used

# E. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin

# F. Other Material Information Data

Not Applicable



# 3. Accomplishment Instructions

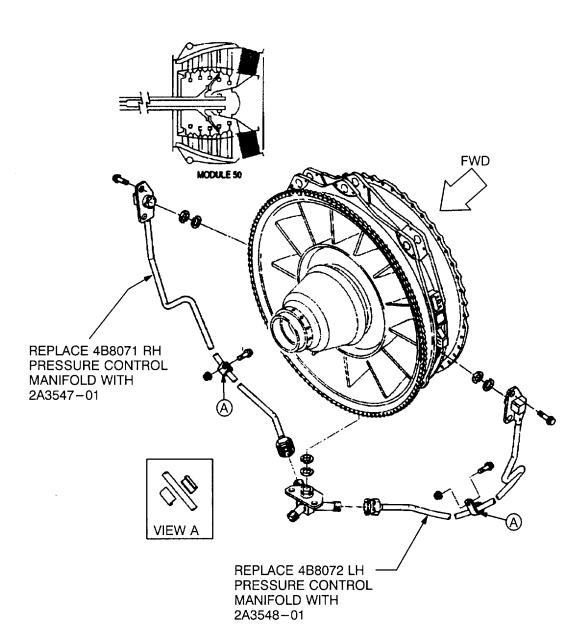
A. Rework Instructions

None

- B. Assembly Instructions
  - (1) Replace the Right Hand Pressure Control Manifold Assembly, PN 4B8071 with PN 2A3547-01 by the procedure specified in Reference 5 Engine Manual, 72-00-50-420-005-A00.
  - (2) Replace the Left Hand Pressure Control Manifold Assembly, PN 4B8072 with PN 2A3548-01 by the procedure specified in Reference 5 Engine Manual, 72-00-50-420-005-A00.
- C. Recording Instructions

A record of accomplishment is required.

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Location of pressure control manifolds Fig 1

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MODIFICATIONS PART NUMBER CHANGE PART NUMBER CHANGE RIGHT MANIFOLD LEFT MANIFOLD (ITEM 050) (ITEM 180) **BASE LINE** 4B8051 4B8052 V2500-ENG-73-0004 ENGINE - FUEL AND CONTROL PROVIDE NEW PRESSURE 4B8070 4B8069 CONTROL MANIFOLDS WITH IM-PROVED CLIPPING. V2500 ENG-72-0063 ENGINE - LP TURBINE ROTOR AND STATOR ASSEMBLY -INTRODUCE NEW TUBE 2A2361-01 2A2358-01 ASSEMBLIES REQUIRED FOR MODIFIED TURBINE EXHAUST **CASE** V2500 ENG-73-0050 ENGINE - FUEL AND CONTROL 4B8071 4B8072 PROVIDE REROUTED P4.5 PRESSURE CONTROL MANIFOLDS. V2500-ENG-72-0175 ENGINE - FUEL AND CONTROL - PROVIDE NEW RIGHT AND 2A3547-01 2A3548-01 LEFT PRESSURE CONTROL MANIFOLDS.

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> Family tree - Left and right pressure control manifolds Ref catalog sequence no. 73-22-51 Fig 01 item 050 and 180 Fig 2

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