

# **International Aero Engines**

**RR-DERBY** 

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DATER Feb.21/02

#### V2500-A1 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits Revision 1 to Service Bulletin EV2500-72-0243

#### **Document History**

Service Bulletin Revision Status Supp Initial Issue Jan.10/97

Supplement Revision Status

#### **Bulletin Revision 1**

Remove Incorporate Reason for change
All pages of the Pages 1 to 5 of the To revise Compliance
Service Bulletin Service Bulletin Category

# Printed in Great Britai

# LIST OF EFFECTIVE PAGES

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

<u>Page</u>		<u>Revision Number</u>	<u>Revision Date</u>
Bu	lletin		
R	1	1	Feb.21/02
R	2	1	Feb.21/02
R	3	1	Feb.21/02
R	4	1	Feb.21/02
R	5	1	Feb.21/02

# ENGINE - HP COMPRESSOR BLADES - INTRODUCTION OF INCREASED STAGE 3 TO 6 ROTOR TIP CLEARANCES

#### 1. Planning Information

#### A. Effectivity

Airbus A320

V2500-A1 Engines prior to Serial No V0362

# B. Concurrent Requirements

None.

#### C. Reason

#### (1) Condition

Material can be released from the HP compressor stage 3-6 abradable linings during low speed engine running conditions.

This can result in deterioration of compressor efficiency and downstream contamination by abradable deposits.

#### (2) Background

This condition has been noted on in service A1 models which have experienced heavy rotor tip rubs and grooving of the abradable rotor path linings.

#### (3) Objective

Incorporation of the changes introduced by this Service Bulletin are designed to maintain reliability.

#### (4) Substantiation

The changes introduced by this Service Bulletin have been the subject of extensive satisfactory testing on a development rig (252/2) and successful in service experience on A5 and D5 models which have identical cold build tip clearances.

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

#### (a) Operation

Not affected

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Not affected

(c) Overhaul

Not affected

(d) Repair Schemes

Not affected

(e) Interchangeability

Not affected

(f) Fits and Clearances

Not affected

(6) Supplemented Information

None.

#### D. <u>Description</u>

- (1) The change introduced by this Service Bulletin is as follows:
  - (a) A revised build procedure for the HP Compressor module is introduced similar to existing except the cold build clearance between the stage 3 to 6 rotor blade tips and rotor path abradable lining has been increased by 0.005in. (0,127 mm).

#### E. Approval

The part number changes and/or part modifications described in Section 2 and 3 of the Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

# F. <u>Compliance</u>

R Category Code 5

Accomplish when the Engine is disassembled sufficiently to afford access to the affected subassembly (i.e. modules, accessories, components, build groups) and to all affected spare subassemblies.

#### G. Manpower

R

R

Estimated manhours to incorporate the full intent of this Bulletin:

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(1) In service

Not applicable

(2) At overhaul

Not affected

#### H. Material - Price and Availability

- (1) Modification Kit not required
- (2) See Section 2. Material Information for prices and availability of future spares.

#### I. Tooling - Price and Availability

Special tools are not required.

## J. Weight and Balance

(1) Weight change

Not affected

(2) Moment arm

Not affected

(3) Datum

Engine front mount centreline - Power Plant Station (PPS) 100

#### K. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

## L. References

(1) Internal Reference No.

95VR021

(2) V2500 Engine Manual, 72-41-10, Assembly.

# M. Other Publications Affected

None.

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# 2. Material Information

# A. Applicability:

For each V2500 Engine to incorporate this Bulletin.

# B. <u>Kits associated with this Bulletin:</u>

None.

# C. Parts affected by this Service Bulletin:

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FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP				
-	6A6458	REF	Instruction clearances, HP compressor rotor	-	6A3967 (99301)	-				
-	6A6457	REF	Rotor clearances, HP compressor	-	6A3966 (99302)	-				
72-41-21										
FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP				
-	6A6457	REF	Rotor clearances, HP compressor	-	6A3966 (99302)	-				
72-41-22										
FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP				
-	6A6457	REF	Rotor clearances, HP compressor	-	6A3966 (99302)	-				
72-41-32										
FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP				
-	6A6457	REF	Rotor clearances, HP compressor	-	6A3966 (99302)	-				

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# 3. Accomplishment Instructions

A. Rework Instructions

None.

B. Assembly Instructions

Refer to V2500 Engine Manual, 72-41-10, Assembly.

C. Recording Instructions

A record of accomplishment is necessary.

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