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# **International Aero Engines**

# RR-DERBY

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DATE: Oct. 9/00

V2500-A1 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Initial Issue of Service Bulletin EV2500-72-0377

**Bulletin Initial Issue** 

Remove Inc

Incorporate
Pages 1 to 6 of the
Service Bulletin

Reason for change Initial issue

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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 HP COMPRESSOR DISCS (STAGES 9-12) - INTRODUCTION OF HP COMPRESSOR STAGE 9-12 DISC ASSEMBLY WITH REVISED ROTOR LOCATION

#### 1. Planning Information

#### A. Effectivity

(1) Airbus A320

V2500-A1 Engines

(2) ATA Locator

72-41-12

#### B. Concurrent Requirements

None

#### C. Reason

(1) Problem

The V2500-A1 engine has experienced HP system rotor bow problems in service.

Investigations have highlighted a potential loss of interference fit between the HP compressor stage 9-12 disc assembly and the HP compressor rear shaft.

(2) Background

The problem was highlighted during an engineering review.

(3) Objective

Incorporation of this Service Bulletin (Modification) is designed to maintain reliability.

(4) Substantiation

The changes introduced by this Service Bulletin have been the subject of successful development engine testing and detailed SCO3 finite element analysis.

- (5) Effect of Bulletin on:
  - (a) Operation

Not affected

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(b) Maintenance

Not affected

(c) Overhaul

Affected

(d) Repair Schemes

Affected

(e) Interchangeability

Not affected

(f) Fits and Clearances

Not affected.

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

The minimum interference between the HP compressor stage 9-12 disc assy. and the HP compressor rear shaft has been increased from 0.001in. to 0.002in.

- (1) A revised HP compressor stage 9-12 disc assembly is introduced similar to the existing item except for a change in the diameter of the rear spigot from 343,128-343,078mm to 343,1285- 343,1035mm.
- (2) For effect on declared life see Time Limits Manual, 5-10-01, Group A Parts Lives.

#### E. Compliance

Category Code 6.

Accomplish when the sub assembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

#### F. Approval

The part number changes and/or part modification described in Section 2 and 3 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

(1) In service

Not applicable

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(2) At overhaul

Not affected

<u>NOTE</u>: The parts affected by this Service Bulletin are accessible at overhaul.

#### H. Material Price and Availability

Modification kit not required; parts supplied as single line items.

For prices and availability of future spares refer to 2. Material Information.

#### I. Tooling Price and Availability

Special tools are not required.

J. Industry Support Information

None

## K. Weight and Balance

(1) Weight Change

None

(2) Moment Arm

No effect

(3) Datum

Engine Front Mount Centreline (Power Plant Station PPS 100)

## L. <u>Electrical Load Data</u>

This Service Bulletin does not affect the aircraft electrical load

#### M. References

- (1) Internal reference OOVROO7
- (2) Engine Manual, 72-41-10, Disassembly and Assembly

#### N. Other Publications Affected

- (1) Illustrated Parts Catalogue (IPC), S-V2500-1IA, 72-41-12
- (2) Time Limits Manual, 05-10-01, Group A Parts Lives

- (3) Engine Manual:
  - (a) 72-41-10, Disassembly and Assembly
  - (b) 72-41-12, Cleaning and Inspection/Check
- 0. <u>Interchangeability of Parts</u>

Not affected.

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## 2. Material Information

A. The kit required consists of the following parts:

None

B. Parts to be reworked:

None

#### C. New production parts:

PART NO.	QTY	UNIT PRICE
6A7574	1	Price will be supplied
		on request

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

# D. Parts affected by this Service Bulletin:

All Engines

72-41-12

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01600	6A7574	1	.Disc assy stage 9-12 HP compressor	-	6A7545	(A) (S1)

#### E. Instructions disposition codes

- (A) New part will be made available from September 2000.
- (S1) Old and new parts are freely and fully interchangeable.

# 3. Accomplishment Instructions

A. Rework Instructions

None

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B. Assembly Instructions

The revised HP compressor disc assembly introduced by this Service Bulletin is interchangeable with existing. Remove existing and install new in accordance with current overhaul procedures (Engine Manual, 72-41-10, Disassembly and Assembly).

C. Recording Instructions

A record of accomplishment is necessary.