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**V2500-A5/D5 PROPULSION SYSTEMS SERVICE BULLETIN**

Printed in Great Britain

This document transmits the Initial Issue of Service Bulletin EV2500-72-0376

Bulletin Initial Issue

Remove

Incorporate  
Pages 1 to 8 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  
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LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin are as follows:

Page                      Revision Number      Revision Date

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ENGINE - HP COMPRESSOR DISCS (STAGES 3 - 8) - INTRODUCTION OF A REVISED STAGE 3 - 8  
DISC ASSEMBLY WITH INCREASED LIFE

1. Planning Information

A. Effectivity

- (1) Airbus A319

V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No.V11393.

- (2) Airbus A320

V2527-A5, V2527E-A5 Engines prior to Serial No.V11393.

- (3) Airbus A321

V2530-A5, V2533-A5 Engines prior to Serial No.V11393.

- (4) Boeing Longbeach Division MD-90

V2525-D5, V2528-D5 Engines prior to Serial No.20286

- (5) ATA Locator

72-41-11.

B. Concurrent Requirements

None.

C. Reason

- (1) Problem

There is an IAE requirement that the HP Compressor Stage 3-8 disc assembly has a declared safe cyclic life of 20,000 cycles.

- (2) Evidence

See (1) Problem.

- (3) Substantiation

The changes introduced by this Service Bulletin (Modification) have been the subject of satisfactory engineering analysis.



(4) Objective

Incorporation of this Service Bulletin is designed to meet IAE requirements.

(5) Effect of Bulletin on:

(a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Not affected.

(d) Repair Schemes

Not affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. Description

(1) This Service Bulletin introduces a revised HP Compressor 3-8 disc assembly similar to the existing item except for the following changes:

(a) The material for the Stage 6, 7 and 8 discs has been changed from Titanium 5331s to Titanium 6246.

(b) A single blend radius of 35 mm. has been introduced onto the Stage 4 disc profile.

(c) The profile under the rim on the forward side of the Stage 8 disc has increased in thickness.

(d) The diaphragm radius at the rear of the Stage 8 disc is increased from 5,00 mm. to 10,00 mm.

(e) In order to optimise manufacture, various non-life related manufacturing easements have been introduced.



(2) For effect on declared life see Time Limits Manual, 05-10-01.

E. Compliance

Category Code 7

Accomplish when the supply of superseded parts has been depleted.

F. Approval

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 engine model(s) listed.

G. Manpower

Estimate of manhours necessary to do this Service Bulletin in full:

(1) In service:

Not applicable.

(2) At overhaul:

Not affected.

NOTE: It is possible to get access to the parts affected by this Service Bulletin at overhaul.

H. Material Price and Availability

Modification kit not required.

For prices and availability of future spares see 2. Material Information.

I. Tooling Price and Availability

Special tools are not required.

J. Weight and Balance

(1) Weight Change

Plus 2.25 lb. (1,02 kg.).

(2) Moment Arm

13.42in. (341 mm.) rearwards of datum.



(3) Datum

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

K. Electrical Load Data

The aircraft electrical load is not affected by this Service Bulletin.

L. References

(1) Engineering Change number – EC02VR005.

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

M. Other Publications Affected

(1) Illustrated Parts Catalogue (IPC), 2IA, 2IB, 3IA, 3IB, 5IA, 5IB, 6IA, 6IB, 7IA and 7IB Chapter/Section 72-41-11 will be revised.

(2) Engine Manual, 72-41-11, Cleaning, Inspection/Check and Repairs.

(3) Time Limits Manual, 05-10-01.

N. Interchangeability of Parts

Not affected.



## 2. Material Information

### A. Kits associated with this Bulletin:

None.

### B. Parts to be reworked:

None.

### C. Part prices:

Part No.	Est. Unit Price US Dollars
6A7705	Price supplied on request
6A7706	Price supplied on request

The prices are an estimate and are given for planning purposes only. For information about actual prices, refer to the IAE Price catalogue or contact the IAE Spare Parts Sales Department.

### D. New production parts:

All Engines

72-41-11

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01200	6A7705	1	.Disc, assembly of, Stage - 3-8	-	6A7401	(A)(B) (S1)
01245	6A7706	Ref	..Disc, assembly of, Stage - 3-8	-	6A7402	(B)(C)

### E. Instruction disposition codes:

(A) New part will be made available from December 2002.

(B) Old part becomes redundant upon embodiment of this Service Bulletin.

(C) Part of Disc Assembly 6A7705. Will not be made available as a spare for replenishment purposes.

(S1) Old and new parts are freely and fully interchangeable.



### 3. Accomplishment Instructions

#### A. Rework Instructions

None.

#### B. Assembly Instructions

For the correct assembly procedures refer to Engine Manual, 72-41-10, Disassembly/Assembly.

#### C. Recording Instructions

A record of accomplishment is necessary.





## HP Compressor Stage 3-8 Disc Assembly Family Tree

A5 and D5 Engines (Not including A533)

Baseline

**V2500-ENG-72-0178**

Engine - HP Compressor Discs - Stage 3 to 8 Drum with Thicker Stage 6 Disk Hub and Damping Wire Location Lips

**V2500-ENG-72-0254**

Engine - HP Compressor Discs (Stage 3 to 8) Introduction of HPCompressor Drum with Revised Disc Profiles

**V2500-ENG-72-0304**

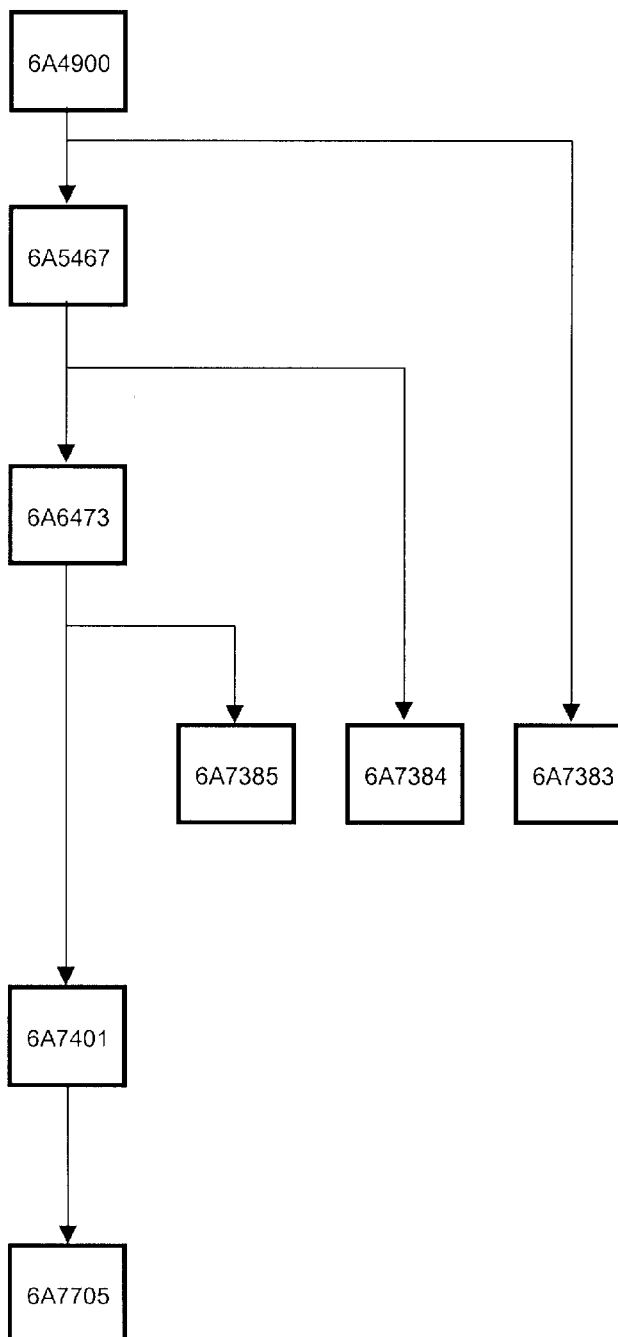
Engine - HP Compressor Discs - Introduction of a reworked Stage 3 to 8 disc with revised L shaped sealing wires

**V2500-ENG-72-0300**

Engine - Stage 3 to 8 - HP Compressor Discs - Introduction of revised stage 3 to 8 disc assembly and revised stage 7 and 8 sealing wires

**V2500-ENG-72-0376**

Engine - HP Compressor Discs (Stages 3-8) - Introduction of a Revised Stage 3-8 Disc Assembly With Increased Life.

Family Tree - A5 and D5 Engines (Not including A533)  
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**HP Compressor Stage 3-8 Disc Assembly Family Tree**

**A533 Engines Only**

**Baseline**

**V2500-ENG-72-0304**

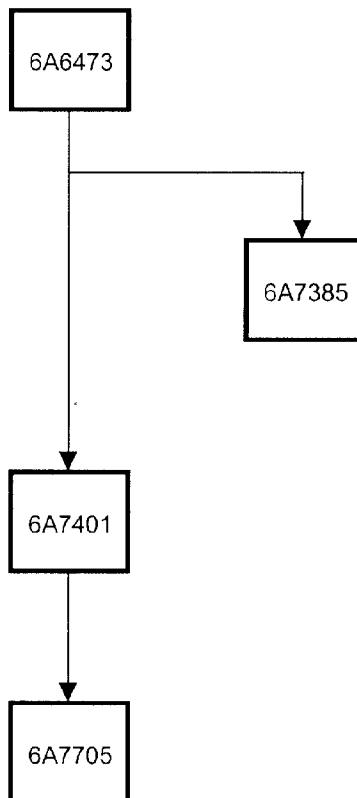
Engine - HP Compressor Discs Introduction of a reworked Stage 3 to 8 disc assembly with revised L shaped sealing wires

**V2500-ENG-72-0300**

Engine - Stage 3 to 8 - HP Compressor Discs - Introduction of revised stage 3 to 8 disc assembly and revised stage 7 and 8 sealing wires

**V2500-ENG-72-0376**

Engine - HP Compressor Discs (Stages 3-8) - Introduction of a Revised Stage 3-8 Disc Assembly With Increased Life.



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Family Tree - A533 Engines Only  
Fig 2

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Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

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