400 MAIN STREET, MAIL STOP 121-10 EAST HARTFORD, CT 06108, USA. TELEPHONE:- 860 565 5515 FAX:- 860 565 0600 P.O. BOX 31, DERBY TELEGRAMS - 'ROYCAR' DERBY TELEX - 37645 TELEPHONE:- 44 (0) 1332 242424 FAX:- 44 (0) 1332 249936

DATE: Aug.16/06

V2500-A1 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits Revision 2 to Service Bulletin EV2500-72-0157 and Revision 2 to the Supplement

<u>Document History</u>

Service Bulletin Revision Status
Initial Issue Jul.29/94
Revision 1 Feb.17/06 Revision 1 Feb.17/06

Bulletin Revision 2

Remove Incorporate Reason for change Page 1 and 2 of the All pages of the To revise the Material Summary Information and to bring Summary the Service Bulletin in line with the new format. To revise the Material All pages of the Pages 1 to 6 of the Service Bulletin Service Bulletin Information and to bring the Service Bulletin in line with the new format.

<u>Supplement Revision 2</u>

Remove Incorporate Reason for change

V2500-ENG-72-0157

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

To revise the Material Information and to bring the Service Bulletin in line with the new format.

Printed in Great Britain

LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 2 to the Bulletin and Revision 2 to the Supplement are as follows:

<u>Pag</u>	<u>e</u>	Revision	Number <u>Revision Date</u>
s	ummary		
R	1	2	Aug.16/06
R	2	2	Aug.16/06
В	ulletin		
R	1	2	Aug.16/06
R	2	2	Aug.16/06
R	3	2	Aug.16/06
R	4	2	Aug.16/06
R	5	2	Aug.16/06
R	6	2	Aug.16/06
S	upplement		
R	1	2	Aug.16/06





ENGINE - LP TURBINE ASSEMBLY - INTRODUCTION OF LP TURBINE DISKS STAGE 3 TO 7 WITH SHOTPEENED BLADE SLOTS

SUMMARY

1. PLANNING

A. EFFECTIVITY

Engine

V2500-A1 Engines V0001 to V0348

B. CONCURRENT REQUIREMENTS

None

C. REASON

Problem:

Some experimental engines have shown a potential of fretting at the LP Turbine disk slots at the blade retaining faces.

R Evidence:

R Fretting was seen on the disk slot fir tree on some experimental engines.

Objective:

To introduce an additional shot peen process during manufacturing to prevent fretting and increase surface durability

Substantiation

None.

D. DESCRIPTION

Introduction of new disks with shotpeened blade slots.

E. COMPLIANCE

Category Code 7

Accomplish when supply of superseded parts has been depleted.

F. MANPOWER

In Service

Not Applicable

Jul.29/94 R Aug.16/06 SUMMARY V2500-ENG-72-0157



At Overhaul

Not Applicable

G. INTERCHANGEABILITY OF PARTS

Refer to section 2 Material Information.

2. MATERIAL INFORMATION

Parts Prices

Refer to supplement to this bulletin.

SUMMARY V2500-ENG-72-0157



ENGINE - LP TURBINE ASSEMBLY - INTRODUCTION OF LP TURBINE DISKS STAGE 3 TO 7 WITH SHOTPEENED BLADE SLOTS

1. Planning Information

- A. Effectivity
 - (1) Airbus A320

V2500-A1 Engines prior to Serial No.V0349

B. Concurrent Requirements

None.

Printed in Great Britain

R

- C. Reason
 - (1) Problem

Some experimental engines have shown a potential of fretting at the LP Turbine disk slots at the blade retaining faces.

(2) Evidence

Fretting was seen on the disk slot fir tree on some experimental engines.

(3) Substantiation

None.

(4) Objective

To introduce an additional shot peen process during manufacturing to prevent fretting and increase surface durability

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

Not affected.

(b) Disassembly/Assembly

Not affected.

(c) Cleaning

Not affected.

Jul.29/94 R Aug.16/06



(d) Inspection/Check

Not affected.

(e) Repair Schemes

Not affected.

(f) Testing

Not affected.

(6) Supplemental Information

None.

D. <u>Description</u>

- (1) The changes introduced are:
 - (a) Introduction of new disks with shotpeened blade slots.

E. Compliance

Category Code 7

Accomplish when supply of superseded parts has been depleted.

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 Model listed.

G. Manpower

(1) In service

Not applicable.

(2) At overhaul

Not applicable.

H. Material Price and Availability

- (1) Modification kit not required; parts supplied as single line items.
- (2) For prices and availability of future spares see Supplement to this bulletin.



I. Tooling Price and Availability

Not applicable.

J. <u>Industry Support Information</u>

Not applicable.

K. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

Not affected.

(3) Datum

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

L. Electrical Load Data

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

M. Software Accomplishment Summary

Not applicable.

N. References

- (1) Engineering Change Nos. 91VM005, 91VM005-01, 91VM005A
- (2) V2500 Engine Illustrated Parts Catalogue
- (3) V2500 Engine Manual E-V2500-1IA
- (4) ATA Locator 72-50-31

0. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalogue, Chapter/Section 72-50-31 to add the new Part Numbers.
- (2) V2500 Engine Manual Chapter/Section 72-50-31, Cleaning to add the new Part Numbers.
- (3) V2500 Engine Manual Chapter/Section 72-50-31, Inspection/Check to add the new Part Numbers.



- (4) V2500 Engine Manual Chapter/Section 72-50-31, Repair to add the new Part Numbers.
- (5) V2500 Engine Manual Chapter/Section 05-10-01, Group A Parts Lives

P. <u>Interchangeability of Parts</u>

Refer to section 2 Material Information.



2. <u>Material Information</u>

A. The kit required consists of the following parts:

Not applicable.

R B. Parts to be reworked:

R None.

Printed in Great Britain

C. Parts affected by this Bulletin:

72-50-31

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01-100	3A2153	1	Disk, Turbine Stage 5	3A1665	(A)(S1)
01-200	3A2151	1	Disk, Turbine Stage 3	3A0713	(A)(S1)

- R D. Redundant parts:
- R None.
 - E. <u>Instructions disposition codes:</u>
 - (A) New part is available for sale.
 - (S1) Old and new parts are fully interchangeable.

Jul.29/94 R Aug.16/06



3. Accomplishment Instructions

A. Rework Instructions

Not applicable.

B. Assembly Instructions

Assemble LP turbine module by the instructions given in Reference (3), Chapter/Section 72-50-10, Assembly.

C. Recording Instructions

A record of accomplishment is required.



ENGINE - LP TURBINE ASSEMBLY - INTRODUCTION OF LP TURBINE DISKS STAGE 3 TO 7 WITH SHOTPEENED BLADE SLOTS

SUPPLEMENT - PRICES AND AVAILABILITY

The prices 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:

Not applicable.

2. Parts required:

Part No.	Description	Unit Price US Dollars
3A2153	Disk, Turbine Stg 5	56,000.00
3A2151	Disk, Turbine Stg 3	50,700.00

