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: Nov. 7/08

V2500-A1/A5/D5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Initial Issue of Service Bulletin V2500-ENG-70-0980 and the Initial Issue of the Supplement

Service Bulletin Initial Issue

Remove Incorporate Reason for change

Pages 1 to 5 of the Service Bulletin Page 1 of the of the Supplement

Initial Issue.

Initial Issue.

V2500-ENG-70-0980
Transmittal - Page 1 of 1

Printed in Great Britain

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





INFORMATION - ENGINE - HIGH PRESSURE (HP) COMPRESSOR VARIABLE STATOR VANES (VSV) INNER SHROUD - CHANGE OF MATERIAL OF INNER SHROUD BUSHES

1. Planning Information

A. Effectivity

- (1) Airbus A319
 - (a) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial Number V13150.
- (2) Airbus A320
 - (a) All V2500-A1 Engines.
 - (b) V2524-A5, V2527-A5, V2527E-A5 Engines prior to Serial Number V13150.
- (3) Airbus A321
 - (a) V2530-A5, V2533-A5 Engines prior to Serial Number V13150.
- (4) Boeing MD-90
 - (a) All V2525-D5, V2528-D5 Engines.

B. Concurrent Requirements

The Service Bulletin that follows must be done before or at the same time with this one:

(1) For V2500 A1 Engines:

V2500-ENG-72-0422 - ENGINE - HP COMPRESSOR VARIABLE VANE INNER SHROUDS - INTRODUCTION OF REVISED ONE PIECE BUSHES

(2) For V2500 A5/D5 Engines:

V2500-ENG-72-0410 - ENGINE - HP COMPRESSOR VARIABLE VANE INNER SHROUDS - INTRODUCTION OF REVISED ONE PIECE BUSHES

C. <u>Reason</u>

(1) Problem:

Examination of in-service engines has revealed significant wear of the variable stator vanes (VSV) inner shroud bushes leading to frequent replacement of the bushes during overhaul. VSV rubbing marks on the inner shroud annulus have also been found.

Nov. 7/08

Nov. 7/08 Initial Issue



(2) Objective:

The new inner shroud bushes, of a different material, on the variable inlet guide vanes (VIGV) and on the VSV stages 3 to 5, will be introduced to prevent potential wear on the VIGV and the VSV inner shroud bushes.

(3) Substantiation:

The changes introduced by this General Information Bulletin were the subject of satisfactory engineering analysis, extensive engine testing and flight test. This Service Bulletin complies with the applicable engine certification basis.

D. <u>Description</u>

This General Information Bulletin replaces the current inner shroud bushes at the VIGV and the VSV stages 3 to 5 of the high pressure (HP) compressor with bushes of a different material. The new part number introduced by this Service Bulletin is the same part number introduced for V2500-A5 select engines.

E. Compliance

Category Code 7.

Accomplish when supply of superseded parts has been depleted.

F. Approval

The part number changes and/or part modifications described in section 2 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.

(2) At Overhaul

Not affected.

H. Weight and Balance

(1) Weight

None.

(2) Moment Arm

Not affected.

Nov. 7/08

Nov. 7/08 Initial Issue



(3) Datum

Engine Front Mount Centerline (Power Plant Station (PPS) 100)

I. General Information

- (1) This General Information Bulletin introduces new VIGV and VSV inner shroud bushes.
- (2) Publications affected:
 - (a) The V2500-A1/A5/D5 Engine Illustrated Parts Catalogs (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, S-V2500-7IB) will be revised to include the new part. Refer to Section 2. "Material Information" for ATA locations.
 - (b) The V2500 Engine Manuals (E-V2500-1IA and E-V2500-3IA) Chapter/Section 72-41-33 will be revised to include the new part.

J. References

- (1) IAE Service Bulletin V2500-ENG-72-0410 ENGINE HP COMPRESSOR VARIABLE VANE INNER SHROUDS INTRODUCTION OF REVISED ONE PIECE BUSHES
- (2) IAE Service Bulletin V2500-ENG-72-0422 ENGINE HP COMPRESSOR VARIABLE VANE INNER SHROUDS INTRODUCTION OF REVISED ONE PIECE BUSHES
- (3) Internal Reference No.:

Engineering Change No. 08VR005.

(4) ATA Locator -72-41-33.

Nov. 7/08 Nov. 7/08 Initial Issue



2. Material Information

A. Parts affected by this Service Bulletin:

Applicability: For all V2500-A1/A5/D5 Engines

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
72-41-33						
01-190	6B1137	40	Bush	-	6A7728	(\$1)(\$2)
02-190	6B1137	32	.Bush	-	6A7728	(\$1)(\$2)
03-190	6B1137	50	.Bush	-	6A7728	(\$1)(\$2)
04-190	6B1137	64	.Bush	_	6A7728	(S1)(S2)

B. <u>Instruction/Disposition Codes:</u>

(S1) Old and new parts are not interchangeable.

(S2) New parts must be fitted as a set per stage. Mixing of old and new parts is not permissable.

Nov. 7/08

Nov. 7/08 Initial Issue



3. Accomplishment Instructions

None.

Printed in Great Britain

Nov. 7/08 Nov. 7/08 Initial Issue





<u>INFORMATION - ENGINE - HIGH PRESSURE (HP) COMPRESSOR VARIABLE STATOR VANES (VSV)</u> <u>INNER SHROUD - CHANGE OF MATERIAL OF INNER SHROUD BUSHES</u>

SUPPLEMENT - PRICES AND AVAILABILITY

The prices (if 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. New Production Parts:

Unit Price US Dollars

P.O.A.

Part No. Description US Dollars

.Bushing

P.O.A. - Price On Application

3. <u>Tools</u>

6B1137

None.

Nov. 7/08

Nov. 7/08 Initial Issue

V2500-ENG-70-0980
Supplement Page 1 of 1