



International Aero Engines SERVICE BULLETIN

ENGINE – HP COMPRESSOR RING CASES – INTRODUCTION OF REVISED HP COMPRESSOR
STAGE 7 AND 10 CASE ASSEMBLIES WITH REDUCED QUANTITY OF BLEED SLOTS

MODEL APPLICATION

V2522-A5
V2524-A5
V2527-A5
V2527E-A5
V2527M-A5
V2530-A5
V2533-A5
V2525-D5
V2528-D5

BULLETIN INDEX LOCATOR

72-41-00

Compliance Category Code

7

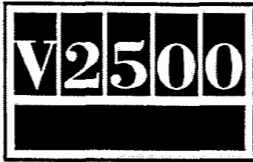
Reference Internal No.

EC99VR007

V2500-ENG-72-0358

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1. Planning Information

A. Effectively

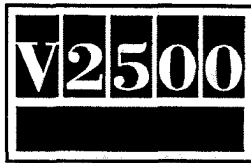
(1) Aircraft

- (a) Airbus A319
- (b) Airbus A319CJ
- (c) Airbus A320
- (d) Airbus A321
- (e) Boeing – Douglas Product Division MD-90

(2) Engines

- (a) V2522-A5 Engines prior to Serial No.V10675
- (b) V2524-A5 Engines prior to Serial No.V10675
- (c) V2527-A5 Engines prior to Serial No.V10675
- (d) V2527E-A5 Engines prior to Serial No.V10675
- (e) V2527M-A5-Engines prior to Serial No.V10675
- (f) V2530-A5 Engines prior to Serial No.V10675
- (g) V2533-A5 Engines prior to Serial No.V10675
- (h) V2525-D5 Engines prior to Serial No.V20286
- (i) V2528-D5 Engine prior to Serial No.V20286

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B. Concurrent Requirements

None

C. Reason

(1) Problem

A design review of the HP Compressor has indicated that manufacture of the stage 7 and 10 case path assemblies may be optimised.

(2) Background

(See Condition)

(3) Objective

Incorporation of this modification is designed to simplify manufacture.

(4) Substantiation

The changes introduced by this modification have been the subject of extensive assessment by Rolls-Royce Fluid Systems Group, successful stress analysis and testing on V2500 development engine 804/19.

(5) Effect on Bulletin on:-

(a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Not affected.

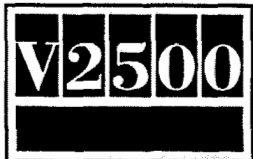
(d) Repair Scheme

Affected (refer to O. (2) of this Service Bulletin)

(e) Interchangeability

Affected (See References 1.N)

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(f) Fits and Clearances

Not affected

D. Description

This modification introduces changes to the combined HPC stage 7 case and stage 8 rotor path assembly (Case assy, rotor path St.8) and the combined HPC stage 10 case and stage 11 rotor path assembly (Case assy, rotor path St.11).

- (1) The HP Compressor stage 8 case and rotor path assembly has been revised, the changes are as follows:
 - (a) The shape of the bleed slots has been changed from a generated rectangular profile to a formed lozenge, which increases the overall size of the bleed slot
 - (b) Due to the increase in slot size and in order to maintain the total bleed area, the quantity of slots is reduced from 88 to 44.
- (2) The HP Compressor stage 11 case and rotor path assembly has been revised, the changes are as follows:
 - (a) The shape of the bleed slots has been changed from a generated rectangular profile to a formed lozenge, which increases the overall size of the bleed slot.
 - (b) Due to the increase in slot size and in order to maintain the total bleed area, the quantity of slots is reduced from 100 to 50.
 - (c) The opportunity has been taken to optimise the position of the bleed slots relative to Top Dead Centre.

E. 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.

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F. Compliance

Category Code 7

Accomplish when the supply of superseded parts has been depleted.

G. Manpower

Estimate of man-hours necessary to embody this Service Bulletin in full:

- | | |
|-----------------|--|
| (1) In Service | Not applicable. |
| (2) At Overhaul | No additional time is necessary to embody this Service Bulletin. |

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

H. Material Price and Availability

- (1) Modification kit is not required.
- (2) See "Material Information" section for prices and availability of future spares.

I. Tooling Price and Availability

Special tools are not required.

J. Industry Support Information

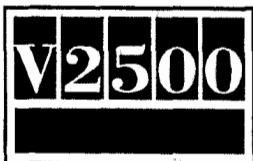
Not applicable.

K. Weight and Balance

- (1) Weight Change
Minus 0.1lb (0,05kg)
- (2) Moment Arm
22.0in (558.8mm) rearwards
- (3) Datum

Engine Front Mount Centreline (Power Plant Station - PPS 100)

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L. Electrical Load Data

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

M. Software Accomplishment Summary

Not applicable

N. References

- (1) This modification must only be fitted to engines which incorporate the following IAE V2500 Service Bulletin :-

72-0343 ENGINE - HP COMPRESSOR RING CASES - INTRODUCTION OF
COMBINED HP COMPRESSOR CASINGS AND ROTOR PATHS.

- (2) For the correct removal/installation procedures refer to:

A5 and D5 Engine Manual (EM), Chapter/Section 72-41-20, Disassembly and Assembly

O. Other Publications Affected

- (1) Illustrated Parts Catalogue (IPC), Chapter/Section 72-41-21.
- (2) A5 and D5 Engine Manual (EM), Chapter/Section 72-41-21, Cleaning, Inspection/Check and Repair.

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2. Material Information

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

NEW PART No. (ATA No.)	QTY	EST'D UNIT PRICE (\$)	PART TITLE	OLD PART No. (IPC No.)	INSTR DISP
6A7529 (72-41-21)	1	14200.00	.Case assy, rotor path Stage 8 HP Compressor	6A6548 (03-500)	(A) (S1)
6A7531 (72-41-21)	1	42660.00	.Case assy, rotor path Stage 11 HP Compressor	6A6551 (04-350)	(A) (S1)

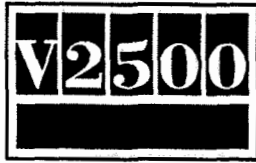
NOTE: The unit prices, if shown, are an estimate and they given for the purposes of planning only.

For actual prices, refer to the IAE Price Catalogue or contact IAE,s spare parts sales department.

C. Instruction Disposition Codes

- (A) New part will be made available from October 1999.
- (S1) Old and new parts are freely and fully interchangeable.

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3. Accomplishment Instructions

A Rework Instructions

None

B Assembly Instructions

(1) For the correct removal/installation procedures refer to:

A5 and D5 Engine Manual (EM), Chapter/Section 72-41-20, Disassembly and Assembly

C Recording Instructions

A record of accomplishment is necessary.

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