

ENGINE - HP COMPRESSOR SPLIT CASES - INTRODUCTION OF REVISED INNER HALF BUSH FOR THE HPC STAGE-6 VANE MANUFACTURED FROM AVIMID-N - CATEGORY CODE 6 - MOD.ENG-72-0308

## 1. Planning Information

### A. Effectivity

- (1) Aircraft (a) Airbus A320
- (2) Engines (a) V2500-A1 Engines prior to Serial No. V0362

## B. Concurrent Requirements

None.

### C. Reason

## (1) Problem

Wear of the internal face of the inner location of the Stage-6 Variable stator vane (VSV) of the HP Compressor front casing can occur. In extreme conditions this wear can be more than the acceptable limits.

The problem is caused by frettage between the blade aerofoil and the casing. This frettage is caused by excess wear and temperatures which causes deterioration of the Fabroid-X lining applied to the Stage-6 VSV Half bushes.

### (2) Evidence

The problem has been found on several occasions during overhaul of in-service engines.

## (3) Substantiation

A satisfactory engineering analysis, rig tests and successful comparative in-service experience have been carried out on the changes introduced by this Service Bulletin.

### (4) Objective

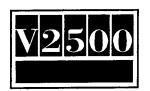
The purpose of this Service Bulletin is to maintain unit reliability.

#### (5) Effect of Bulletin on:

### (a) Operation

Not applicable.

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(b) Maintenance

Not applicable.

(c) Overhaul

Not applicable.

(d) Repair Schemes

Not affected.

(e) Interchangeability

No affected.

(f) Fits and Clearances

Not affected.

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

- (1) The changes introduced are as follows:
  - (a) The material for the inner half-bush of the HPC Stage-6 VSV has changed from Fabroid-X to composite Avimid-N.
- (2) To get the best results from the changes contained in this Service Bulletin, it is recommended that the new composite bushes are installed to the engine as a complete set.

## E. Compliance

Category Code 6.

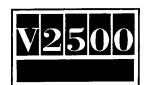
This Service Bulletin must be embodied when the subassembly (That is modules, accessories, components, build groups) is disassembled sufficiently to get access to the affected parts.

#### F. Approval

The part number changes and/or modification are given in Section 2 and 3 of this Service Bulletin. They obey the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model listed.

#### G. Manpower

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



## International Aero Engines

## SERVICE BULLETIN

Venue Estimated Man-hours

In Service Not applicable

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) A modification kit is not necessary.
- (2) Refer to 3. Material Information for the prices and availability of future spares.

### I. Tooling Price and Availability

Special tools are not necessary.

## J. Weight and Balance

(1) Weight Change

Plus 0,05 kg (0.1 lb).

(2) Moment Arm

396 mm (15.6 in) rearward of datum.

(3) Datum

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

## K. Electrical Load Data

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

#### L. <u>References</u>

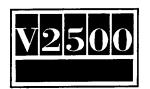
(1) Internal Reference No.

EC97VR028

#### M. Other Publications Affected

(1) A1 Engine Manual (EM), Chapter/Section 72-41-31, Cleaning-00 and -07 CONFIG-02, Inspection/Check-00 and -10.

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(2) Illustrated Parts Catalogue (IPC), Chapter/Section 72-41-31.



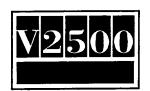
## 2. Accomplishment Instructions

A. Rework Instructions

None

- B. Assembly Instructions
  - (1) Remove the inner half-bushes (1012392) from the HPC Stage-6 VSV. (For the correct removal procedures refer to the A1 Engine Manual (EM), Chapter/Section 72-41-30, Disassembly CONFIG-01.
  - (2) Install the inner half-bushes (13786-00) to the HPC Stage-6 VSV. (For the correct installation procedures refer to the A1 Engine Manual (EM), Chapter/Section 72-41-30, Assembly-07 CONFIG-07.
- C. Recording Instructions

A record of accomplishment is necessary.



## 3. Material Information

Applicability: For each V2500 engine for which this Service Bulletin is applicable.

## A. Kits necessary for this Service Bulletin.

None.

## B. Parts affected by this Service Bulletin:

NEW PART No. (ATA No.)	QTY	ESTD UNIT PRICE (\$)	PART TITLE	OLD PART No. (IPC No.)	INSTR DISP
13786-00 (72-41-31)	168	NOTE	Bush, half, HPC Stage-6 inner spindles	1012392 (01–290)	(A)(S1)
- (72-41-31)	REF		Bush,half, HPC Stage-6 inner spindles	1039400 (01–290)	(B)

NOTE: 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 IAE Price Catalog or contact IAE's spare parts sales department.

## C. <u>Instruction Disposition Codes:</u>

- (A) New part will be available from September 1998.
- (B) Redundant part.
- (S1) Old and new parts are freely and fully interchangeable (Refer to 1.D.).