

# International Aero Engines

# SERVICE BULLETIN

<u>ENGINE - MAIN GEARBOX ASSEMBLY - PROVIDE A NEW HYDRAULIC PUMP SHROUD - CATEGORY CODE 6</u>
<u>- MOD.ENG-72-0264</u>

### 1. Planning Information

### A. Effectivity

(1) Aircraft: Airbus A321

(2) Engine: V2500-A1 Engines prior to Serial No. V0362

V2522-A5 Engines prior to Serial No. V10213 V2524-A5 Engines prior to Serial No. V10213 V2527-A5 Engines prior to Serial No. V10213 V2530-A5 Engines prior to Serial No. V10213

### B. Concurrent Requirements

None

### C. Reason

(1) Condition

The Hydraulic Pump Gearshaft Shroud can become damaged during service.

(2) Background

It has been reported in service some Hydraulic Pump Gearshaft Shroud with cracked flanges and or distorted.

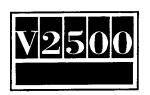
(3) Objective

To avoid the vibrations in service which cause cracks and distort the shroud.

(4) Substantiation

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

(5) Effects of Bulletin on Workshop Procedures



### International Aero Engines

# SERVICE BULLETIN

Removal/Installation Not affected
Disassembly/Assembly Affected
Cleaning Not affected
Inspection/Check Not affected
Repair Not affected
Testing Not affected

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

This Service Bulletin introduces a revised Hydraulic Pump Gearshaft shroud similar to the existing item except for:

- (a) The new shroud is made in two pieces
- (b) Each piece has a flange for attachment

#### E. Approval

The part number changes and part modifications described in Section 3 of this Service Bulletin has been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

#### F. Compliance

Category Code 6

Accomplish when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

#### G. Manpower

Estimated man-hours to incorporate the full intent of this Bulletin:

Venue Estimated Manhours

(1) In Service Not applicable

(2) At Overhaul Not affected

(Parts are accessible

at Overhaul)

### H. Material - Price and Availability

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

V2500-ENG-72-0264



### International Aero Engines

# SERVICE BULLETIN

## I. Tooling - Price and Availability

Not affected

### J. Weight and Balance

(1) Weight Change Negligible

(2) Moment Arm No effect

(3) Datum Engine front mount centerline (Powerplant Station (P.P.S) 100)

### K. Electrical Load Data

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

### L. References

(1) Internal Reference No.

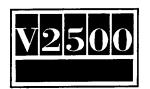
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(2) Other References

The V2500-Engine Manual (E-V2500-1IA) Chapter/Section 72-60-10, Disassembly/Assembly.

#### M. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog (S-V2500-1IA and S-V2500-2IA)Chapter/Section 72-60-23 will be changed to add new part
- (2) V2500 Engine Manual (E-V2500-1IA) Chapter/Section 72-60-10 Assembly / Disassembly will be changed to update illustration and procedure.



# SERVICE BULLETIN

### 2. Accomplishment Instructions

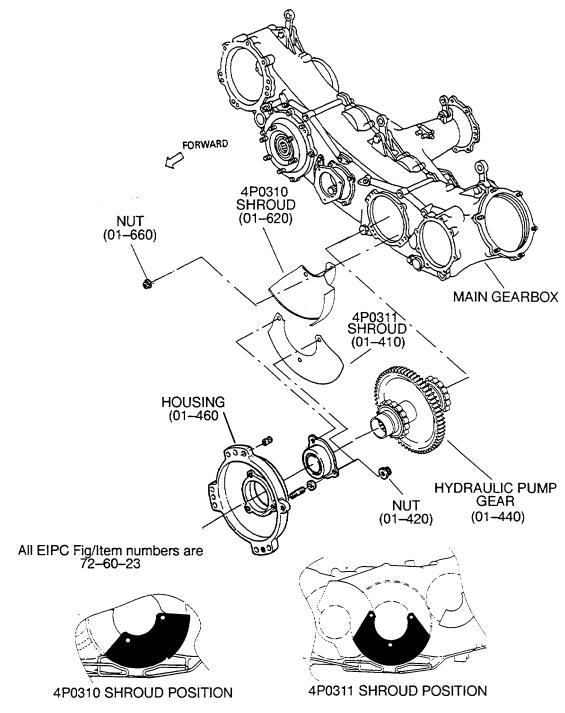
A. Rework Instructions

None

- B. Disassembly Instructions.
  - (1) Disassemble the Hydraulic Pump Gearshaft Shroud, refer V2500 Engine Manual, Chapter/Section 72-60-10, Disassemble/Assembly.
- C. Assembly Instructions. See Figure 1
  - (1) Align the holes on the new 4PO310 shroud with the studs on the gearbox casing.
  - (2) Install the new 4P0310 shroud and the three nuts which attach the outer race to the gearbox casing Torque the nuts to 85 to 95 lbfin (9,604 Nm to 10,734 Nm.).
  - (3) Put the hydraulic pump drive gear in the gearbox casing. Make sure the ID splined end points to the front of the gearbox.
  - (4) Install the rear roller bearing and the hydraulic gearshaft in to the outer race installed in the gearbox casing
  - (5) Remove the three nuts that secure the outer race to the hydraulic pump housing
  - (6) Align and install the new 4PO311 shroud on to the outer race. Install the nuts and torque to 85 to 95 lbfin (9,604 Nm to 10,734 Nm.)
  - (7) Complete the installation, refer V2500 Engine Manual, Chapter/ Section 72-60-10, Disassembly/Assembly
- D. A record of accomplishment is necessary.



# **SERVICE BULLETIN**



Shrouds installation Fig.1

V2500-ENG-72-0264



# SERVICE BULLETIN

# 3. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. <u>Kits associated with this Bulletin:</u>

None

# B. Parts affected by this Bulletin:

New Part No. (ATA No.)	Qty	Est'd Unit Price (\$)	Keyword	Old Part No. (IPC No.)	Instructions /Disposition
4P0311 (72-60-23)	1	-	.Shroud	4B0247 (01-620)	(A) (B) (S1)
4P0310 (72-60-23)	1	-	.Shroud	- (01-410)	(A)(S1)

### C. Instruction/Disposition Code Statements:

- (A) Parts are available for sale.
- (B) Scrap old part.
- (S1) old and new parts are fully interchangeable

NOTE: The estimated 1997 Unit Prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult the IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.