

International Aero Engines

SERVICE BULLETIN

<u>ENGINE - LP COMPRESSOR - PROVIDE MARKING INSTRUCTION FOR VARIOUS MAJOR ASSEMBLIES - CATEGORY CODE 6 - MOD.ENG-72-0066</u>

1. Planning Information

A. Effectivity

(1) Aircraft: (a) Airbus A320

(2) Engine: (a) V2500-A1 engines prior to serial number V0122.

B. Concurrent Requirements

None.

C. Reason

(1) Condition

Some major assemblies in the LP Compressor/Intermediate Case Module do not have the Identification Number and the Serial Number marked on them.

(2) Background

It was determined that certain assemblies in the LP Compressor/Intermediate Case Module have to be identified as Sub-Module to facilitate maintenance control.

(3) Objective

The incorporation of the Service Bulletin (Modification) is intended to maintain the maintenance credibility.

(4) Substantiation

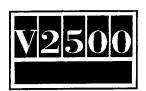
Substantiation test is not required.

C. <u>Description</u>

(1) New Part Numbers are introduced to identify the major assemblies in the LP Compressor/Intermediate Case Module as a serialized Sub-Module.

The changes introduced are:

- (a) No.3 Bearing, Internal Gearbox and Support Assembly is identified as Sub-Module with new Part Number and Serial Number.
- (b) LP Shaft, NO.2 and NO.2 Bearing Assembly is identified as sub-Module with new Part Number and Serial Number.



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- (c) LP Compressor Stage 1.5, 2 and 2.5 Assembly is identified as Sub-Module with new Part Number and Serial Number.
- (2) The existing Assemblies can be reworked.
- (3) This Service Bulletin is in three parts covering the following:
 - Part 1 No.3 Bearing, Internal Gearbox and Support Assembly (Sub-Module).
 - Part 2 LP Shaft, No.1 and NO.2 Bearing Assembly (Sub-Module).
 - Part 3 LP Compressor Stage 1.5, 2 and 2.5 Assembly (Sub-Module).

D. Approval

The part number changes and/or part modifications 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.

E. Compliance

Category Code 6

Accomplish when the sub-assembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected spare parts.

F. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

Venue

Estimated Manhours

(1) In Service

Not applicable

- (2) At Overhaul (NOTE: The parts affected by this Service Bulletin are accessible at overhaul).
 - Part 1 To accomplish the identification numbering on NO.3 Bearing, Internal Gearbox and Support Assembly (Sub-Module) 3 minutes
 - Part 2 To accomplish the identification numbering on LP Shaft, No.1 and No.2 Bearing Assembly (Sub-Module) 3 minutes



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Part 3 To accomplish the identification numbering on LP Compressor Stage 1.5, 2 and 2.5 Assembly (Sub-Module) 12 minutes

TOTAL: 18 minutes

- G. Material Price and Availability
 - (1) Modification Kit is not required.
 - (2) See "Material Information" section for prices and availability of future spares.
- H. Tooling Price and Availability

Special tools are not required to accomplish this Service Bulletin.

- I. Weight and Balance
 - (1) Weight Change None
 - (2) Moment Arm No effect
 - (3) Datum Engine front mount centerline (Power Plant Station (PPS) 100)
- J. Electrical Load Data

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

- K. References
 - (1) Internal Reference No.

EC89VR014A

ECM89VR014A-01

ECM89VR014A-04

(2) Other references



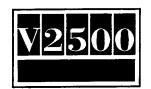
V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-32-00, 72-32-10, 72-32-50, and 72-32-80.

V2500 Engine Manual, 72-32-10, No.3 Bearing, Internal Gearbox and Support Assembly - Assembly, TASK 72-32-10-440-001, and 72-32-50, LP Shaft, No.1 and No.2 Bearing Assembly - Assembly, TASK 72-32-50-440-001, and 72-32-80, LP Compressor Stage 1.5, 2 and 2.5 Assembly - Assembly, TASK 72-32-80-440-001.

V2500 Standard Practices/Processes Manual, 70-09-00, Marking of Parts, TASK 70-09-00-400-501.

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-32-00, 72-32-10, 72-32-50, and 72-32-80.
- (2) V2500 Engine Manual, 72-32-00, LP Compressor/Intermediate Case Module Disassembly, Assembly, 72-32-10, No.3 Bearing, Internal Gearbox and Support Assembly Disassembly, Assembly, 72-32-50, LP shaft, No.1 and No.2 Bearing Assembly Disassembly, Assembly and 72-32-80, LP Compressor Stage 1.5, 2 and 2.5 Assembly Disassembly, Assembly.



2. Accomplishment Instructions

A. Rework Instructions

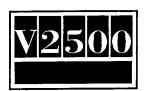
NOTE: A Serial Number of the major assemblies (Sub-Modules) in the LP Compressor/Intermediate Case Module is identified by three alphabetical number JIA followed four digit number which is equal number to the last four digits of each LP Compressor/Intermediate Case Module Serial Number Identified on the Identification Plate on Fan Case as follows:

Example

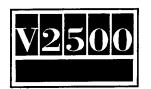
JIA0123

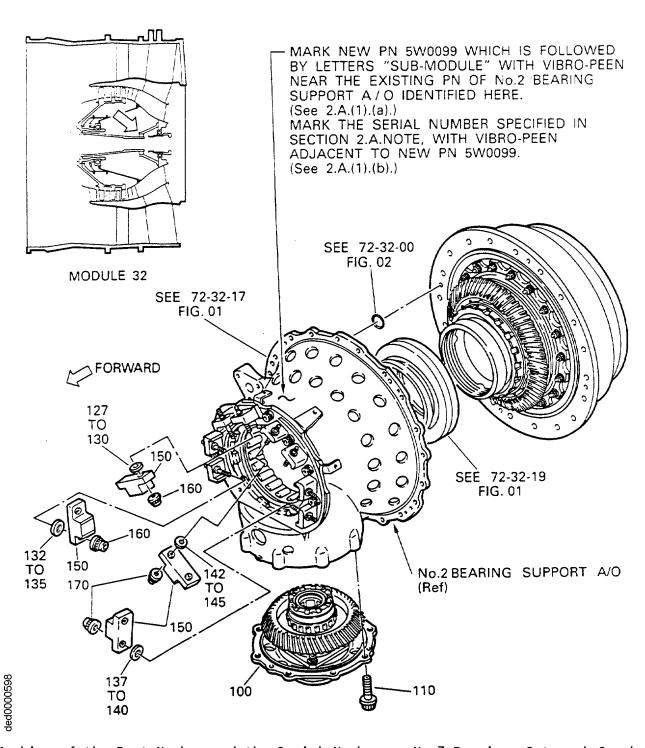
The last four digits of each LP Compressor/Intermediate Case Module Serial Number.

- (1) Part 1 of Service bulletin
 - (a) Mark a new Part Number 5W0099 which is followed by the letters "SUB-MODULE" (i.e. SUB-MODULE 5W0099) with Vibro-peen near the existing Part Number of No.2 Bearing support A/O. (Refer to Figure 1, and 1.K.(3)).
 - (b) Mark the Serial Number with Vibro-peen adjacent to the new Part Number 5W0099 marked on the No.2 Bearing support A/O. (Refer to Figure 1, 1.K. (3), and 2.A. Note).
- (2) Part 2 of Service bulletin
 - (a) Mark a new Part Number 5W0098 which is followed by the letters "SUB-MODULE" (i.e. SUB-MODULE 5W0098) with Vibro-peen near the existing Part Number of LPc Stub Shaft Rotor Center A/O marked on its front surface. (Refer to Figure 2, and 1.K.(3)).
 - (b) Mark the Serial Number with Vibro-peen adjacent to the new Part Number 5W0098 marked on the front surface of LP Stub Shaft Rotor Center A/O. (Refer to Figure 2, 1.K.(3), and 2.A. Note).
- (3) Part 3 of Service Bulletin
 - (a) Mark a new Part Number 5W0097 which is followed by the letters "SUB-MODULE" (i.e. "SUB-MODULE 5W0097) with Electrochemical Etching near the existing Part Number of LPC Stage 1.5, 2 and 2.5 Disc A/O. (Refer to Figure 3, and 1.K.(3)).



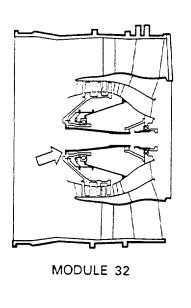
- (b) Mark the Serial Number with Electrochemical Etching adjacent to the new Part Number 5W0097 marked on the LPC Stage 1.5, 2 and 2.5 Disc A/O. (Refer to Figure 3, 1.K.(3), and 2.A. Note).
- B. Assembly Instructions
 - (1) Part 1 of Service Bulletin
 - (a) Assemble 5W0099, No.3 Bearing, Internal Gearbox and Support Assembly (Sub-Module) by the approved procedures in the Engine Manual, 72-32-10, Assembly. TASK 72-32-10-440-001. (Refer to 1.K.(2)).
 - (2) Part 2 of Service Bulletin
 - (a) Assemble 5W0098, LP Shaft, No.1 and No.2 Bearing Assembly (Sub-Module) by the approved procedures in the Engine Manual, 72-32-50, Assembly, TASK 72-32-50-440-001. (Refer to 1.K.(2)).
 - (3) Part 3 of Service Bulletin
 - (a) Assemble 5W0097, LP Compressor Stage 1.5, 2 and 2.5 Assembly (Sub-Module) by the approved procedures in the Engine Manual, 72-32-80, Assembly, TASK 72-32-80-440-001. (Refer to Figure 1.K.(2)).
- C. Recording Instructions
 - (1) A record of accomplishment is necessary.

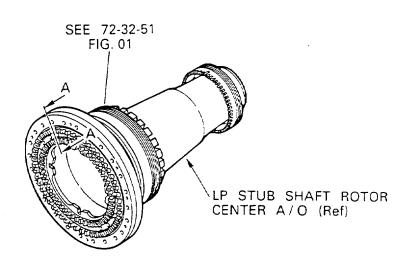


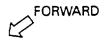


Marking of the Part Number and the Serial Number on No.3 Bearing, Internal Gearbox and Support Assembly
Fig.1



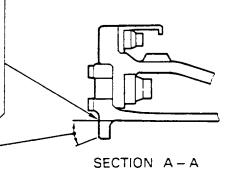






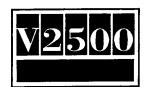
MARK NEW PN 5W0098 WHICH IS FOLLOWED BY LETTERS "SUB-MODULE" WITH VIBRO-PEEN NEAR THE EXISTING PN OF LP STUB SHAFT ROTOR CENTER A / O IDENTIFIED HERE. (See 2.A. (2). (a).)
MARK THE SERIAL NUMBER SPECIFIED IN SECTION 2.A. NOTE, WITH VIBRO-PEEN ADJACENT TO NEW PN 5W0098. (See 2.A. (2). (b).)

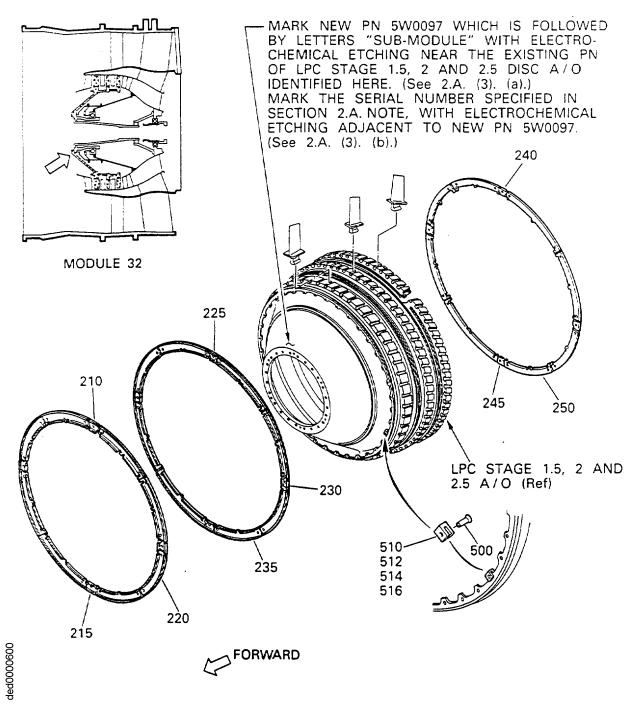
MARKING IS NOT PERMITTED ON THIS AREA.



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Marking of the Part Number and the Serial Number on LP Shaft, No.1 and No.2 Bearing
Assembly
Fig.2





Marking of the Part Number and the Serial Number on LP Compressor Stage 1.5, 2 and 2.5

Assembly

Fig.3



3. Material Information

Applicability: For each V2500 Engine to incorporate

this Bulletin.

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

New Part No.	2.1	Est'd Unit	K 1	Old Part No.	Instruction
(ATA No.)	Qty 	Price (\$) 	Keyword 	(IPC No.)	Disposition
5W0099 (72-32-10)	1		PTO, Grbx & Rotor Center Front Assy	- (01–001)	(1D)
5W0098 (72-32-50)	1		LP, Stub Shaft & 1, 2 Brg Assy	- (01-001)	(1D)
5W0097 (72-32-80)	1		LPC, Rotor Assy	- (01-00	(1D) 11)

C. <u>Instruction/Disposition Code Statements:</u>

(1D) Old Part having no Part Number can be identified to new Part Number.