



Date: Sep.5/00

Subject: Transmittal of Revision 1 To Service Bulletin Number
V25000-ENG-72-0363.

Service Bulletin Revision History:

<u>Event</u>	<u>Date</u>
Basic Issue	Aug.8/00
Revision 1	Sep.5/00

Reason For Issuance Of Revision:

(1) To correct effectivity on page 2.

Effect on Prior Compliance:

None.

List of Effective Pages:

<u>Bulletin Page No.</u>	<u>Rev. No.</u>	<u>Effective Date</u>
1 and 2	1	Sep.5/00
3 to 15	Basic	Aug.8/00

V2500-ENG-72-0363

Transmittal

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International Aero Engines SERVICE BULLETIN

ENGINE - PROVIDE NEW FIRST AND SECOND STAGE TURBINE AIR SEALS

MODEL APPLICATION

V2500-A1
V2522-A5
V2524-A5
V2527-A5
V2527E-A5
V2527M-A5
V2530-A5
V2533-A5
V2525-D5
V2528-D5

BULLETIN INDEX LOCATOR

72-45-00

Compliance Category Code

7

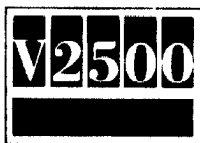
Internal Reference No.

98VB050

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ENGINE - PROVIDE NEW FIRST AND SECOND STAGE TURBINE AIR SEALS

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A319, A320, A321

McDonnell Douglas MD-90

(2) Engine:

V2500-A1 Engines Before Serial No. V0362.

V2500-A5 Engines before Serial No V10721, except Engines V10699, V10701, V10703, V10705, V10707, V10709, V10711, V10713, V10715, V10717, AND V10719.

V2500-D5 Engines Before Serial No. V20286.

B. Concurrent Requirements

None.

C. Reason

(1) Condition:

The present first and second stage HPT Seals are pre-cut from spools at assenbly and look similar.

(2) Background:

One of the seals is fabricated from NICKEL and the other from NICHROME, which is more durable and does not deteriorate as quickly at similar temperatutes.

(3) Objective:

Replace the existing seals with a common diameter continuous spool which is fabricated from the more durable material (AMS 5687 NICHROME).

(4) Substantiation

Field experience on other engine models has proven the new design to be successful.

(5) Effects of Bulletin on Workshop Procedures:

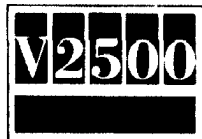
Removal/Installation	Not affected
Disassembly/Assembly	Not affected
Cleaning	Not affected
Inspection/Check	Not affected
Repair	Not affected
Testing	Not affected

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(6) Supplemental Information

None.

D. Description

Replace the first and second Air Seals with Air Seals made from more durable material.

E. 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.

F. Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

G. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue

Estimated Manhours

(1) In service

Not applicable

(2) At overhaul

Not affected

NOTE: The parts affected by this Service Bulletin are accessible at overhaul.

H. Material - Price and Availability

(1) Modification kit is not required. Parts are supplied as single line items.

(2) See "Material Information" section for prices and availability of future spares.

I. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin. The following tools are required to accomplish the Service Bulletin.

J. Weight and Balance

(1) Weight change

None

(2) Moment arm

No effect

(3) Datum

Engine Front mount Centerline
(Power Plant station (PPS) 100)

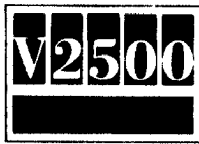
K. Electrical Load Data

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

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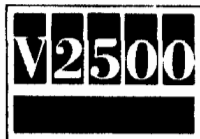
L. References

- (1) The V2500 Engine Illustrated Parts Catalog, (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, Chapter/Section 72-45-00, 72-45-12, 72-45-14, and 72-45-33.
- (2) The V2500 Engine Manual, 72-45-00, Assembly TASK.
- (3) The v2500 Standard Practices/Processes Manual, 70-00-00
- (4) The V2500 Overhaul Processes and Consumables Index.

M. Other Publications Affected

- (1) The V2500 Engine Illustrated Parts Catalog, (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, Chapter/Section 72-45-00, 72-45-12, 72-45-14, and 72-45-33, to add the new part number.
- (2) The V2500 Engine Manual, 72-45-00, Assembly TASK.

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2. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kit associated with this bulletin.

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
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Applicability: For each V2500 Engine to incorporate this Service Bulletin

50L294 (72-45-00)	1		Seal, 1 & 2 STG HPT	2A0044 (01-040)	(S1)(A)(B)
50L294 (72-45-00)	1		Seal, 1 & 2 STG HPT	2A0044 (01-100)	(S1)(A)(B)
50L294 (72-45-12)	1		Seal, 1 & 2 STG HPT	2A0044 (01-010)	(S1)(A)(B)
50L294 (72-45-14)	1		Seal, 1 & 2 STG HPT	2A0140 (01-060)	(S1)(A)(B)
50L294 (72-45-33)	1		Seal, 1 & 2 STG HPT	2A0044 (01-010)	(S1)(A)(B)

C. Consumable Materials

None.

D. Instructions/Disposition Code Statements:

(S1) Old and New Parts are freely and fully interchangeable

(A) The old part will no longer be supplied.

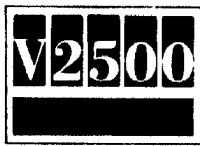
(B) The new part is currently available and sold in rolls of 900 inches;
it must be cut to length at assembly.

NOTE: The estimated unit prices, if 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.

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3. Accomplishment Instructions

- A. Cut a length of seal wire 72.5 inch (1841.5 mm) from part number 50L294 roll for each new seal required. At assembly trim the seal wire to maintain an end gap of 0.030 - 0.225 inch (0.762 - 5.715 mm).
- B. Replace the 2A0044 Seal, 1st and 2nd Stage HPT (2 off) with Seal 50L294 when you assemble the HPT Rotor and Stator Assembly by the procedure specified in Reference 2, Chapter/Section 72-45-00. See Figure 1.
- C. Replace the 2A0044 Seal, 1st and 2nd Stage HPT (1 off) with Seal 50L294 when you assemble the Stage 1 HPT Air Seal (Outer) by the procedure specified in Reference 2, Chapter/Section 72-45-12. See Figure 2.
- D. Replace the 2A0140 Seal, 1st and 2nd Stage HPT (1 off) with Seal 50L294 when you assemble the Stage 1 High Pressure Turbine Blade Assembly by the procedure specified in Reference 2, Chapter/Section 72-45-14. See Figure 3.
- E. Replace the 2A0044 Seal, 1st and 2nd Stage HPT (1 off) with Seal 50L294 when you assemble the Stage 2 HPT Blade Retaining Plate by the procedure specified in Reference 2, Chapter/Section 72-45-33. See Figure 4.
- F. Recording Instructions
 - (1) A record of accomplishment is necessary.

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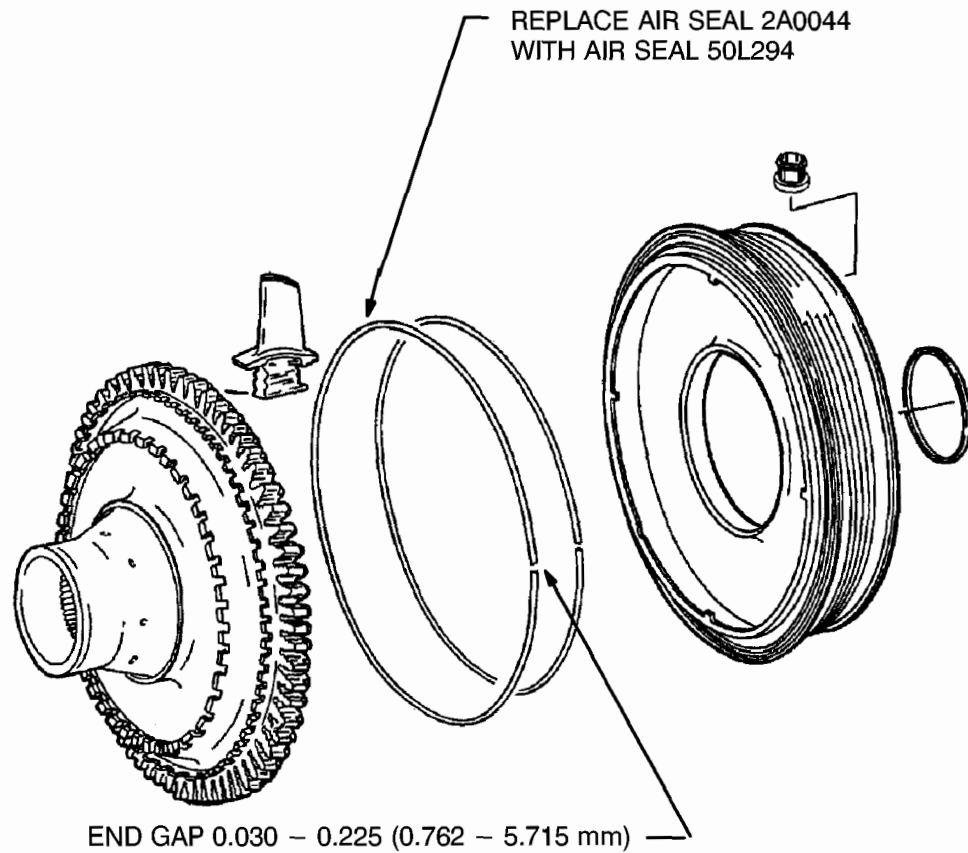
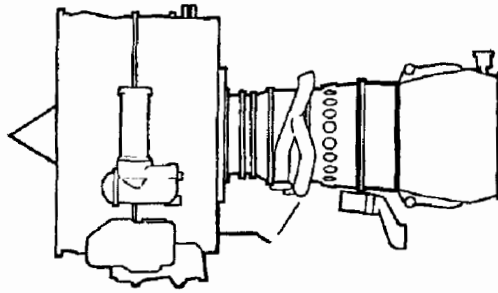
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E8230

HPT Rotor and Stator Assembly
Ref. Catalog Sequence No 72-45-00. Fig. 1 Item 100.
Figure 1 (Sheet 1 of 2)

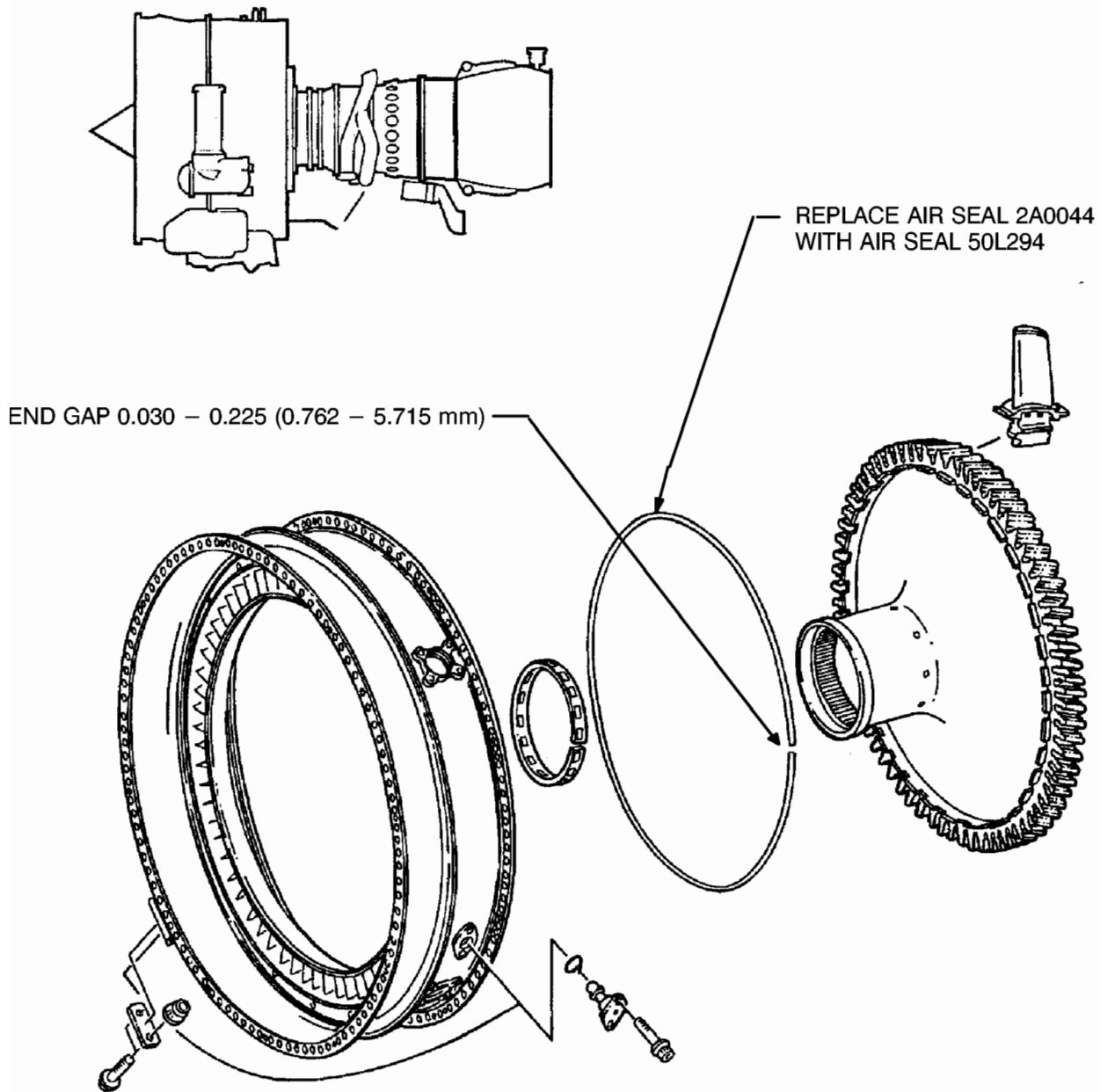
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E8231

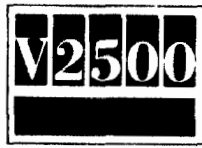
HPT Rotor and Stator Assembly
Ref. Catalog Sequence No 72-45-00. Fig. 1 Item 040.
Figure 1 (Sheet 2 of 2)

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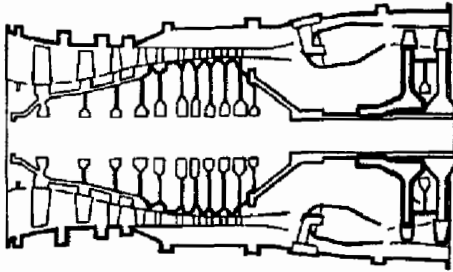
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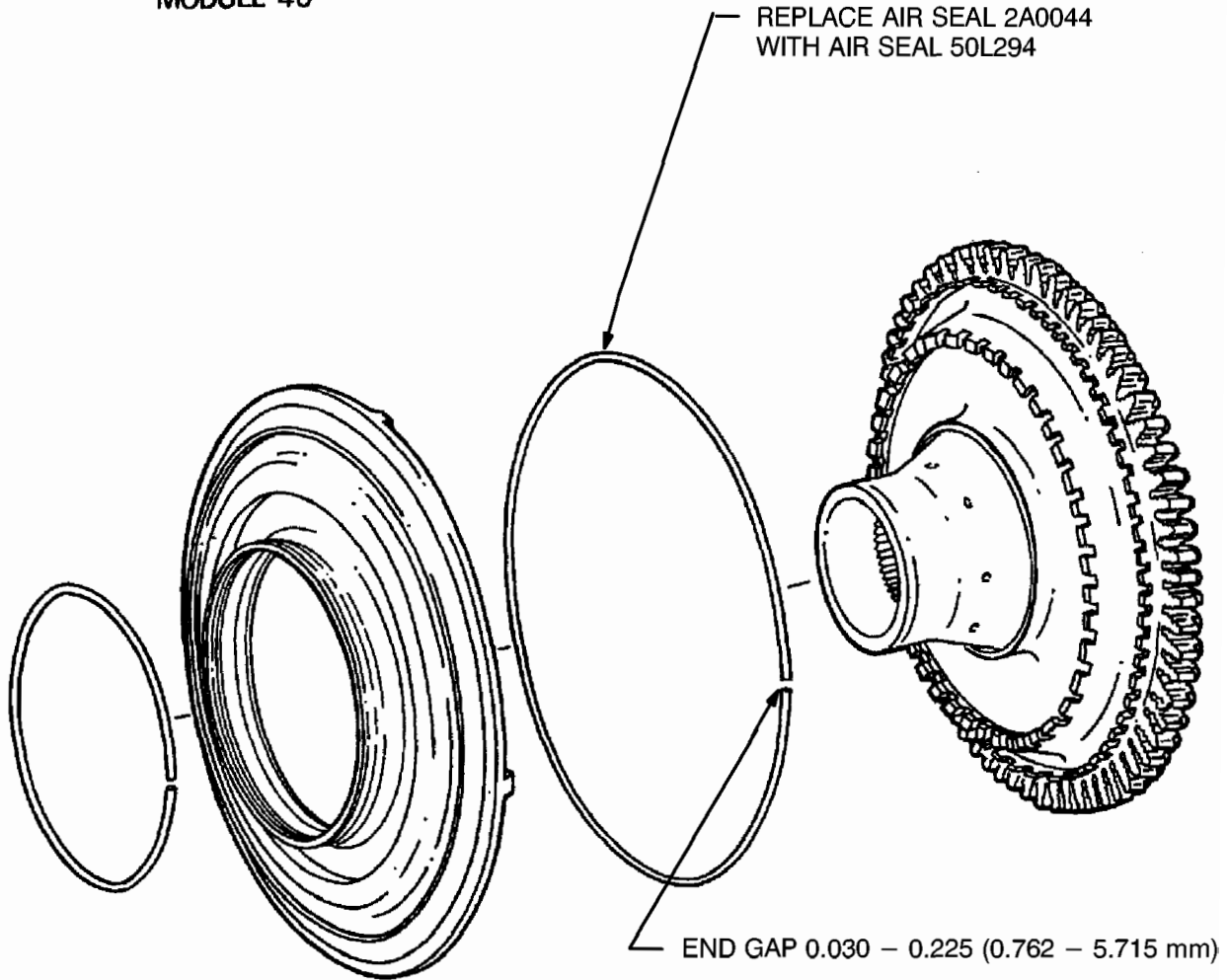
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MODULE 40



E8232

Stage 1 HPT Air Seal (Outer)
Ref. Catalog Sequence No 72-45-12. Fig. 1 Item 010.
Figure 2

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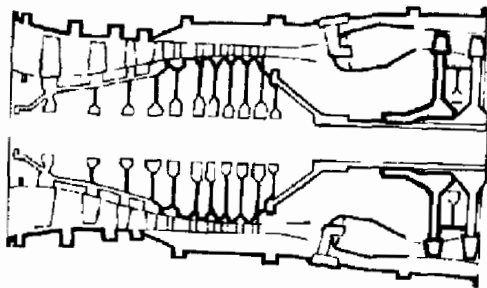
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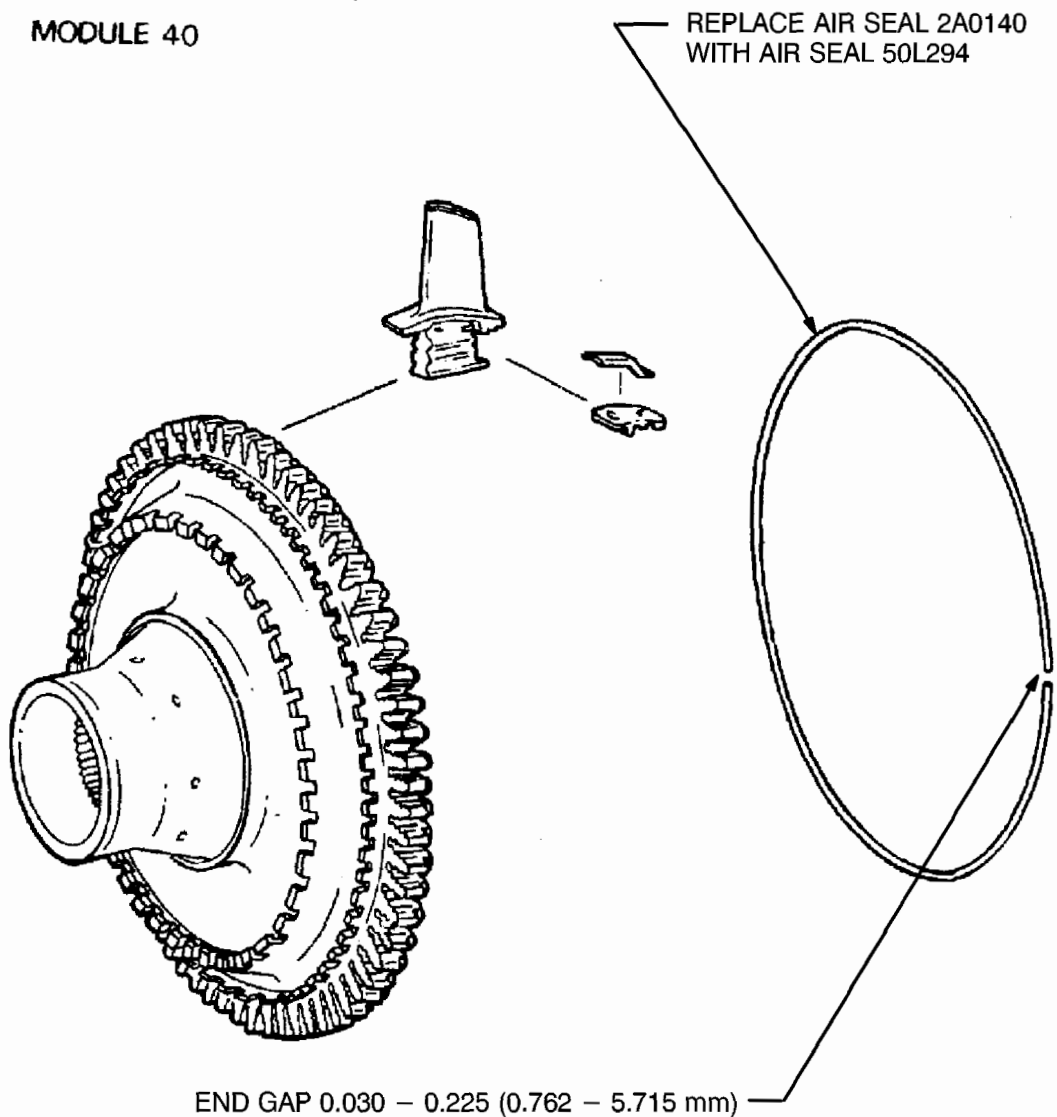


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MODULE 40



E8233

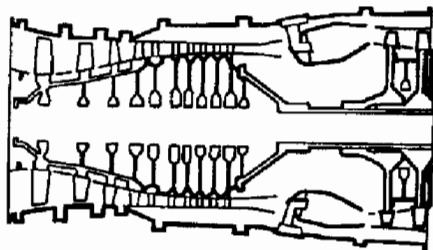
Stage 1 High Pressure Turbine Blade Assembly
Ref. Catalog Sequence No 72-45-14. Fig. 1 Item 060.
Figure 3

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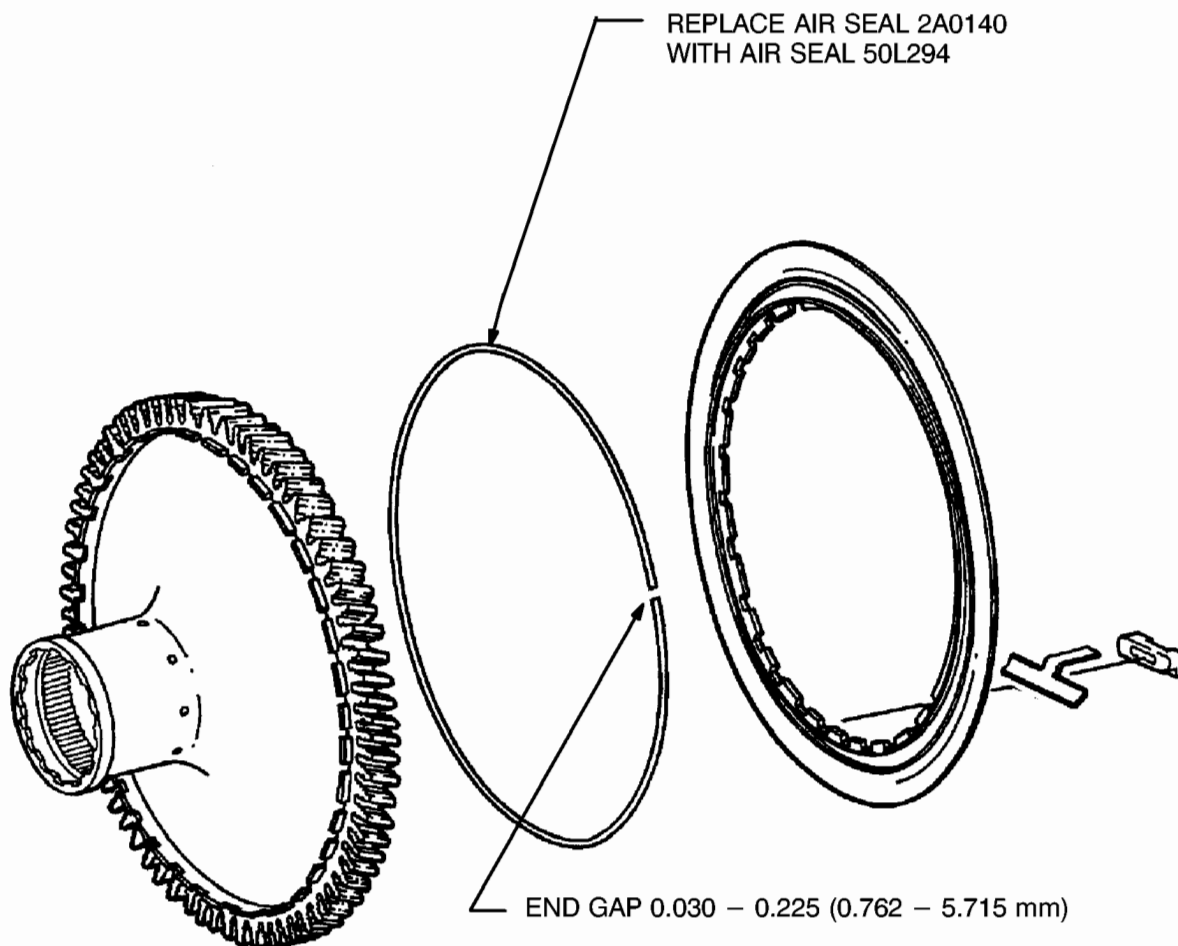
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MODULE 40



E8234

Stage 2 HPT Blade Retaining Plate
Ref. Catalog Sequence No 72-45-33. Fig. 1 Item 010.
Figure 4

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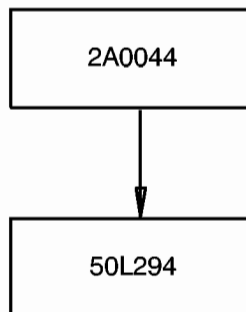
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MODIFICATIONS

PART NUMBER CHANGE

BASELINE

V2500-ENG-72-0363
ENGINE - PROVIDE NEW
FIRST AND SECOND STAGE
TURBINE AIR SEALS



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E8235

Family Tree - HPT Rotor and Stator Assembly
Ref. Catalog Sequence No 72-45-00. Fig. 1 Item 040 and 100.
Figure 5

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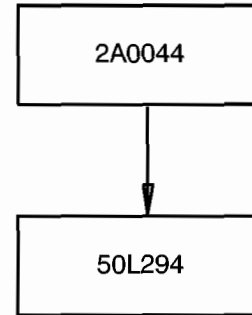
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MODIFICATIONS

PART NUMBER CHANGE

BASELINE

V2500-ENG-72-0363
ENGINE - PROVIDE NEW
FIRST AND SECOND STAGE
TURBINE AIR SEALS



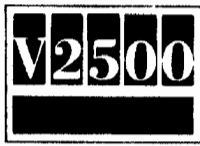
E8236

Family Tree - Stage 1 HPT Air Seal (Outer)
Ref. Catalog Sequence No 72-45-12. Fig. 1 Item 010.
Figure 6

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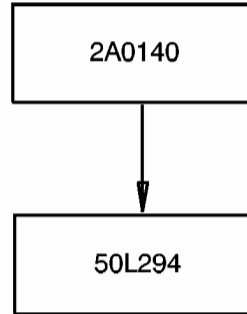
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MODIFICATIONS

PART NUMBER CHANGE

BASELINE

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ENGINE - PROVIDE NEW
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TURBINE AIR SEALS



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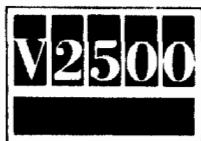
E8237

Family Tree - Stage 1 High Pressure Turbine Blade Assembly
Ref. Catalog Sequence No 72-45-14. Fig. 1 Item 060.
Figure 7

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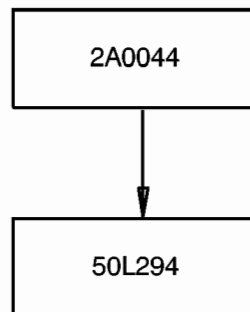
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MODIFICATIONS

PART NUMBER CHANGE

BASELINE

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ENGINE - PROVIDE NEW
FIRST AND SECOND STAGE
TURBINE AIR SEALS



E8238

Family Tree - Stage 2 HPT Blade Retaining Plate
Ref. Catalog Sequence No 72-45-33. Fig. 1 Item 010.
Figure 8

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