



400 MAIN STREET, MAIL STOP 121-10
EAST HARTFORD, CT 06108, USA.
TELEPHONE:- 860 565 5515

DATE: Nov. 5/10

V2500-A1/A5/D5 PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Revision 6 of Service Bulletin V2500-ENG-72-0359.

Document History

Service Bulletin Revision Status

Initial Issue	Jun.29/01
Revision 1	Feb. 8/02
Revision 2	Jul.18/02
Revision 3	Mar.14/06
Revision 4	Aug.17/06
Revision 5	Apr.14/09

Service Bulletin Revision 6

Remove	Incorporate	Reason for change
All pages of the Service Bulletin.	Pages 1 to 11 of the Service Bulletin.	To change the references.
All pages of the Appendix 1.	Page 1 of the Appendix 1.	Minor editorial changes.
All pages of the Supplement.	Page 1 of the Supplement.	No change.
		To change the prices.

V2500-ENG-72-0359

Transmittal - Page 1 of 1

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
If any have not been received please advise IAE International Aero Engines AG

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ENGINE - LP TURBINE - INNER TRANSITION DUCT - APPLICATION OF WEAR RESISTANT COATING
TO PREVENT FRETTING

1. Planning Information

A. Effectivity

(1) Airbus A319

R V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V11025 and
R V11296 (A5 Standard and A5 SelectOne™ Retrofit Standard).

(2) Airbus A320

R (a) V2500-A1 Engines prior to Serial No. V0362.

R (b) V2527-A5, V2527E-A5 Engines prior to Serial No. V11025 and V11296 (A5
R Standard and A5 SelectOne™ Retrofit Standard).

(3) Airbus A321

R V2530-A5, V2533-A5 Engines prior to Serial No. V11025 and V11296 (A5
R Standard and A5 SelectOne™ Retrofit Standard).

R (4) Boeing MD-90

R V2525-D5, V2528-D5 Engines prior to Serial No. V20286.

B. Concurrent Requirements

None.

C. Reason

(1) Condition

In several cases the hook of the inner support ring showed heavy fretting, liberating the rear hook of the particular inner transition duct segment. The problem is caused by relative movement of the inner transition duct segments and the ring assy support.

R (2) Background

Several unacceptable loose inner segments, as well as complete unhooked inner duct segments, found during LPT interface inspection.

(3) Objective

This Service Bulletin introduces new parts with wear resistant coating on the affected areas, and used parts can be reworked to the new standard.

With the introduction of this Service Bulletin fretting of the affected parts will be reduced and hence maintenance costs.

(4) Substantiation

Application of this wear resistant coating is an industry standard to prevent fretting in such applications as the inner transition duct retaining rings. Slight thinning of the rings compensate the coating thickness will not affect the strength and durability of the components.

(5) Effect of Bulletin on:

(a) Operation

R Not affected.

(b) Maintenance

R Not affected.

(c) Overhaul

R Affected (Refer to paragraph 1.0. Other Publications Affected).

(d) Repair Schemes

R Affected (Refer to paragraph 1.0. Other Publications Affected).

(e) Interchangeability

R Not affected.

(f) Fits and Clearances

R Not affected.

(6) Supplemental Information

In order to achieve the full benefit of this Service Bulletin the LP turbine module must be rebuilt with both new or modified parts together. Old parts must be modified or rejected.

D. Description

(1) The changes introduced by this Service Bulletin are as follows:

(a) This Service Bulletin introduces new parts, as well as a rework procedure for the Inner Support Assy Diffuser and the Ring Assy Support. Rework can be done at the LPT piece part level.

(b) Modified parts will be re-identified with a new part number.

E. Compliance

Category Code 6

- R Accomplish based when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected parts.

F. 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 Model(s) listed.

G. Manpower

(1) In service

- R Not applicable.

(2) At overhaul

(a) Accomplish rework and re-ident of Inner Support Assy Diffuser

- R 3 hours.

(b) To accomplish rework and re-ident of Ring Assy Support

- R 2 hours 45 minutes.

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

- R (c) Total 5 hours 45 minutes.

H. Material Price and Availability

Modification kit not required.

For prices and availability of future spares see section 2. Material Information and Supplement of this Service Bulletin.

I. Tooling Price and Availability

- R None.

J. Industry Support Information

- R Not applicable.

K. Weight and Balance**(1) Weight Change**

R None.

(2) Moment Arm

R No effect.

(3) Datum

R Engine front mount centerline (Power Plant Station (PPS) 100).

L. Electrical Load Data

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

M. Software Accomplishment Summary

Not applicable

N. References

R (1) Engineering Change 98VM021, 98VM021-01, 98VM021-02, 98VM021-03, 98VM021-04, 98VM021-05, 98VM021-06, 98VM021-07, 98VM021-08.

R (2) Service Bulletin V2500-ENG-72-0138.

R (3) ATA Locator - 72-50-24.

O. Other Publications Affected

R (1) The V2500 Illustrated Parts Catalogue, Chapter/Section 72-50-24, to add the new part number.

R (2) The V2500 A1/A5/D5 Engine Manual Chapter/Section 72-50-24, Cleaning, to add the new part number.

R (3) The V2500 A1/A5/D5 Engine Manual Chapter/Section 72-50-24, Inspection/Check, to add one new part number.

R (4) The V2500 A1/A5/D5 Engine Manual Chapter/Section 72-50-24, Repair, to add the new part number.

R (5) The V2500 Standard Practices/Processes Manual to add the process 70-34-17 Plasma Spray Coating - Cobalt Composites.

R (6) The V2500 Process and Consumable Manual to add new CoMat.

P. Interchangeability of Parts

Refer to section 2. Material Information.

2. Material Information

A. The kit required consists of the following parts:

R None.

B. New production parts:

See supplement of this Service Bulletin.

C. Parts affected by this Service Bulletin:

V2500-A1 Engines applications only

72-50-24

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-100	3A2529	1	Support, Assy Diffuser Inner	-	3A2202	(B)(S1) (S2)(S3)
01-170	3A2527	1	Ring, Assy Support	-	3A0113	(A)(S1) (S2)(S3)

V2500-A1 Engines, post Service Bulletin V2500-ENG-72-0138, and V2500-A5 Engines applications only

72-50-24

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-100	3A2525	1	Support, Assy Diffuser Inner	-	3A2201	(A)(S1) (S2)(S3)
01-170	3A2523	1	Ring, Assy Support	-	3A1560	(A)(S1) (S2)(S3)

V2500-D5 Engines applications only

72-50-24

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-100	3A2525	1	Support, Assy Diffuser Inner	-	3A2201	(A)(S1) (S2)(S3)
01-170	3A2523	1	Ring, Assy Support	-	3A1560	(A)(S1) (S2)(S3)

Jun.29/01

Nov. 5/10 Revision 6

V2500-ENG-72-0359

Page 6

D. Instructions disposition codes:

(A) Part is available for spare.

(B) Not spareable.

(S1) Old and new parts are freely and fully interchangeable.

(S2) Modified parts can be obtained by rework.

(S3) For interchangeability information of parts refer to Appendix 1, Table 1.

3. Accomplishment Instructions

A. Rework Instructions Part 1

Rework existing Inner Diffuser Assy (3A2201 and/or 3A2202) (72-50-24)

The Source Demonstration requirements of this rework means that any facility not authorized to accomplish this repair either, utilize the Authorized Repair Vendors listed below or contact the IAE Repair Service Group to determine if a qualification program can be initiated at their facility.

IAE INTERNATIONAL AERO ENGINES AG
400 Main Street
East Hartford, CT 06108
USA

Attn: Manager Repair Services

Authorized Repair Vendors for this rework are listed below:

MTU Aero Engines
Dachauer Strasse 665
80995 München
Germany

(1) Tools

Contact an authorized repair vendor

(2) Consumable Materials

Contact an authorized repair vendor

OLD PART NUMBER	NEW PART NUMBER
3A2201	3A2525
3A2202	3A2529

B. Rework Instructions Part 2

Rework existing Ring Assy Support (3A0113 and/or 3A1560) (72-50-24)

The Source Demonstration requirements of this rework means that any facility not authorized to accomplish this repair either, utilize the Authorized Repair Vendors listed below or contact the IAE Repair Service Group to determine if a qualification program can be initiated at their facility.

IAE INTERNATIONAL AERO ENGINES AG
400 Main Street
East Hartford, CT 06108
USA

Attn: Manager Repair Services

Authorized Repair Vendors for this rework are listed below:

MTU Aero Engines
Dachauer Strasse 665
80995 München
Germany

(1) Tools

Contact an authorized repair vendor

(2) Consumable Materials

Contact an authorized repair vendor

OLD PART NUMBER	NEW PART NUMBER
3A1560	3A2523
3A0113	3A2527

C. Assembly Instructions

For the assembly refer to Engine Manual 72-50-10-430-000

D. Recording Instructions

A record of accomplishment is required.

MODIFICATION

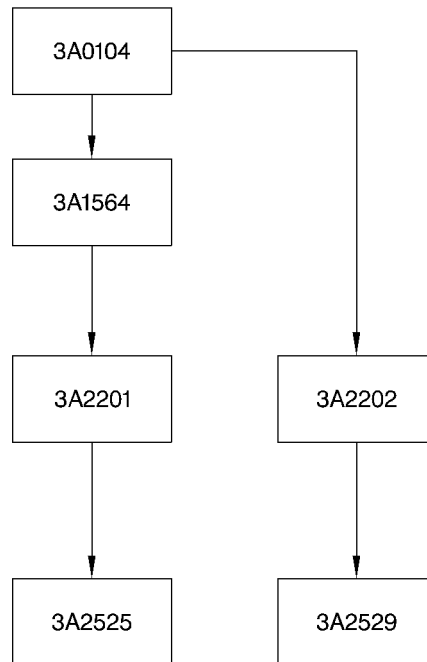
PART NUMBER CHANGE

BASELINE

SBE 70-0072
ENGINE LP TURBINE INTRODUCE WHEIGHT
REDUCED DIFFUSOR INNER SUPPORT ASSEMBLY
AND STG. 3 TURBINE AIRSEAL RING

SBE 72-0125
ENGINE - LP TURBINE - ROTOR AND
STATOR INCORPORATE LPT DISK AND
DIFFUSER SUPPORT ASSEMBLY NUTS
WITH REVISED COATING

SBE 72-0359
ENGINE - LP TURBINE - INNER
TRANSITION DUCT - APPLICATION
OF WEAR RESISTANT COATING
TO PREVENT FRETTING



NOTE: This Family Tree contains no interchangeability information.
For interchangeability information refer Table 1

Family Tree - Support Assy Diffuser Inner
Figure 1

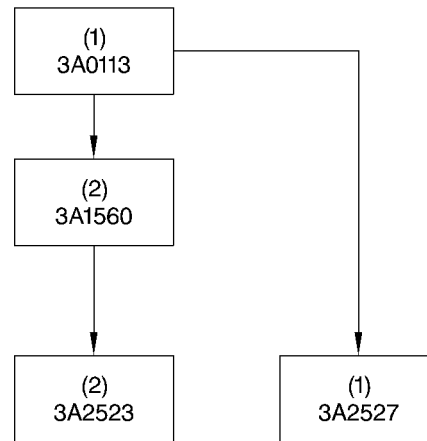
MODIFICATION

PART NUMBER CHANGE

BASELINE

SBE 72-0138
ENGINE - LP TURBINE - ROTOR AND
STATOR ASSEMBLY INTRODUCE NEW
LP TURBINE BLADES AND VANES

SBE 72-0359
ENGINE - LP TURBINE - INNER
TRANSITION DUCT - APPLICATION
OF WEAR RESISTANT COATING
TO PREVENT FRETTING



(1) For A1 pre SB 72-0138 only
(2) For A5/D5 and A1 SB 72-0138

NOTE: This Family Tree contains no interchangeability information.
For interchangeability information refer Table 1

Family Tree – Ring Assy Support
Figure 2

APPENDIX 1

Configuration Alternatives related to V2500 Model Application

Table 1:

V2500-A1 Engine application only (pre Service Bulletin V2500-ENG-72-0138)		
FIG./ITEM NO.	PART NO.	PART TITLE
Configuration Alternative 1		
01-100	3A2529	Support, Assy Diffuser Inner
01-170	3A2527	Ring, Assy Support
Configuration Alternative 2		
01-100	3A2525	Support, Assy Diffuser Inner
01-170	3A2527	Ring, Assy Support
V2500-A1 Engine (post Service Bulletin V2500-ENG-72-0138) and V2500-A5 Engine applications only		
FIG./ITEM NO.	PART NO.	PART TITLE
01-100	3A2525	Support, Assy Diffuser Inner
01-170	3A2523	Ring, Assy Support
V2500-D5 Engine application only		
FIG./ITEM NO.	PART NO.	PART TITLE
01-100	3A2525	Support, Assy Diffuser Inner
01-170	3A2523	Ring, Assy Support

ENGINE - LP TURBINE - INNER TRANSITION DUCT - APPLICATION OF WEAR RESISTANT COATING
TO PREVENT FRETTINGSUPPLEMENT- PRICES AND AVAILABILITY

The prices (if shown) are for estimating purposes only and as such are given in good faith, without commercial liability for advanced planning purposes only. Refer to IAE Spares and/or current price catalogue for current prices.

Part No.	Description	Unit Price US Dollars
R 3A2529	Support, assy diffuser inner	P.O.A.
R 3A2527	Ring, assy support	24,750.00
R 3A2525	Support, assy diffuser inner	20,960.00
R 3A2523	Ring, assy support	25,580.00