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V2500-A1/A5/D5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

Printed in Great Britain

This document transmits Revision 1 to Service Bulletin EV2500-72-0472 and Revision 1 to the Supplement

Document History

Service Bulletin Revision Status
Initial Issue Aug.26/04

Supplement Revision Status
Initial Issue Aug.26/04

Bulletin Revision 1

Remove	Incorporate	Reason for change
All pages of the	Page 1 and 2 of the	To revise engine
Summary	Summary	incorporation information
All pages of the	Pages 1 to 11 of the	To revise engine
Service Bulletin	Service Bulletin	incorporation information

Supplement Revision 1

Remove	Incorporate	Reason for change
All pages	Page 1	To revise engine
		incorporation information

V2500-ENG-72-0472

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LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 1 to the Bulletin and Revision 1 to the Supplement are as follows:

<u>Page</u>	<u>Revision Number</u>	<u>Revision Date</u>
Summary		
R 1	1	Jul.27/05
R 2	1	Jul.27/05
Bulletin		
R 1	1	Jul.27/05
R 2	1	Jul.27/05
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R 10	1	Jul.27/05
R 11	1	Jul.27/05
Supplement		
R 1	1	Jul.27/05

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SUMMARY

1. PLANNING

A. EFFECTIVITY

Engine	Serial No.
V2500-A1	V0001 to V0361
V2500-A5	V10001 to V11813 and V11815, V11817, V11819, V11821, V11823, V11825, V11827, V11828, V11829, V11830 and V11832.
V2500-D5	V20001 to V20285

B. CONCURRENT REQUIREMENTS

None.

C. REASON/PROBLEM

Problem

Fretting of the HP Compressor 3-8 drum Stage 6, 7 and 8 Damper wire grooves may occur. This leads to wear of the drum and in some cases may result in a portion of wire being released into the gas stream, causing damage to blades and stators.

The problem has been attributed to axial and radial movement of the damper wire ends within the grooves.

Evidence

The problem has been experienced on engines in service.

Substantiation

The changes introduced by this Service Bulletin (modification) have been the subject of extensive engineering analysis. A fit check was carried out using a prototype stage 7 damper wire.

Objective

Incorporation of this Service Bulletin is designed to maintain engine reliability.

D. DESCRIPTION

Revised HP Compressor Stage 6, 7 and 8 Damper Wires are introduced, similar to the existing items except at the overlapping position, where the profile has been changed from a vertical cut to a 45 degree chamfer.

E. COMPLIANCE

Category Code 6

Accomplish when the sub-assembly (ie. Modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

F. MANPOWER

In service - Not applicable.

At overhaul - Not affected.

G. INTERCHANGEABILITY OF PARTS

Not affected.

2. MATERIAL INFORMATION

A. PARTS PRICES

Part No.	Description	Unit Price US Dollars
6A8339	Wire, Seal Stage 6 Front	677.00
6A8340	Wire, Seal Stage 6 Rear	677.00
6A8341	Wire, Seal Stage 7 Front	1076.00
6A8342	Wire, Seal Stage 7 Rear	1076.00
6A8343	Wire, Seal Stage 8 Front	1076.00
6A8344	Wire, Seal Stage 8 Rear	1076.00

ENGINE – HP COMPRESSOR DISCS (STAGES 3-8) – INTRODUCTION OF REVISED DAMPER WIRES1. Planning InformationA. Effectivity

(1) Airbus A319

R V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No.V11814 and
R V11815, V11817, V11819, V11821, V11823, V11825, V11827, V11828, V11829,
R V11830 and V11832.

(2) Airbus A320

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

R (b) V2527-A5, V2527E-A5 Engines prior to Serial No.V11814 and V11815,
R V11817, V11819, V11821, V11823, V11825, V11827, V11828, V11829, V11830
R and V11832.

(3) Airbus A321

R V2530-A5, V2533-A5 Engines prior to Serial No.V11814 and V11815, V11817,
R V11819, V11821, V11823, V11825, V11827, V11828, V11829, V11830 and V11832.

(4) Boeing – Longbeach Division MD-90

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

B. Concurrent Requirements

None.

C. Reason

(1) Problem

Fretting of the HP Compressor 3-8 drum Stage 6, 7 and 8 Damper wire grooves may occur. This leads to wear of the drum and in some cases may result in a portion of wire being released into the gas stream, causing damage to blades and stators.

The problem has been attributed to axial and radial movement of the damper wire ends within the grooves.

(2) Evidence

The problem has been experienced on engines in service.



(3) Substantiation

The changes introduced by this Service Bulletin (modification) have been the subject of extensive engineering analysis. A fit check was carried out using a prototype stage 7 damper wire.

(4) Objective

Incorporation of this Service Bulletin is designed to maintain engine reliability.

(5) Effect of Bulletin on:

(a) Operation

Not affected.

(b) Maintenance

Affected.

(c) Overhaul

Affected.

(d) Repair Schemes

Not affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. Description

(1) The changes introduced are:

- (a) Revised HP Compressor Stage 6, 7 and 8 Damper Wires are introduced, similar to the existing items except at the overlapping position, where the profile has been changed from a vertical cut to a 45 degree chamfer.

(2) This Service Bulletin is in four parts as follows:

Part 1

Covers full embodiment of HP Compressor Stage 6, 7 and 8.

Part 2

Covers embodiment of HP Compressor Stage 6.

Part 3

Covers embodiment of HP Compressor Stage 7.

Part 4

Covers embodiment of HP Compressor Stage 8.

NOTE: New production engines fully embodying this modification will not be annotated with a mod part and can be considered equivalent to Part 1.

E. Compliance**Category Code 6**

Accomplish when the sub-assembly (ie. Modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

F. Approval

The part number changes and/or part modifications described in Sections 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 models listed.

G. Manpower**(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

Modification kit not required; parts supplied as single line items.

For prices and availability of future spares see Supplement to this Bulletin.

I. Tooling Price and Availability

Special tools are not required.

J. Industry Support Information

Not applicable.

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

None.

(2) Moment Arm

No Effect.

(3) Datum

Engine Front Mount Centreline (Power Plant Station PPS100).

L. Electrical Load Data

The aircraft electrical load is not affected by this Service Bulletin.

M. Software Accomplishment Summary

Not applicable.

N. References

(1) Engine Manual, Chapter/Section 72-41-10, Assembly.

R (2) Engineering Change No. - 03VR011, 03VR011-01.

(3) ATA Locator - 72-41-11.

O. Other Publications Affected

(1) Illustrated Parts Catalogue (IPC), Chapter/Section 72-41-11 will be revised.

(2) Engine Manual, Chapter/Section 72-41-10, Assembly.

(3) Engine Manual, Chapter/Section 72-41-11, Cleaning, Inspection/Check and Repair.

P. Interchangeability of Parts

Not Affected.

2. Material Information

A. The kit required consists of the following parts:

None.

B. Parts to be reworked:

None.

C. New production parts:

All Engines

Part 1 and Part 2 of SB

72-41-11

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01386	6A8339	1	.Wire, seal Stage 6 - Front	6A1146	(A)(S1)
01388	6A8340	1	.Wire, seal Stage 6 - Rear	6A1147	(A)(S1)

Part 1 and Part 3 of SB

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01390	6A8341	1	.Wire, seal Stage 7 - Front	6A7386	(A)(S1)
01392	6A8342	1	.Wire, seal Stage 7 - Rear	6A7387	(A)(S1)

Part 1 and Part 4 of SB

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01394	6A8343	1	.Wire, seal Stage 8 - Front	6A7388	(A)(S1)
01396	6A8344	1	.Wire, seal Stage 8 - Rear	6A7389	(A)(S1)

D. Instruction Disposition Codes:

(A) New part will be available from August 2004.

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

3. Accomplishment Instructions

A. Rework Instructions

None.

B. Assembly Instructions

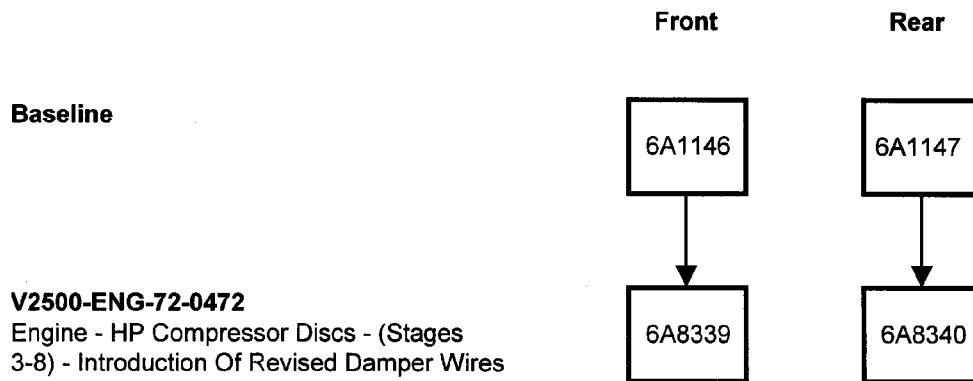
For the correct Assembly Instructions refer to Engine Manual, Chapter/Section 72-41-10, Assembly.

C. Recording Instructions

A record of accomplishment is necessary.

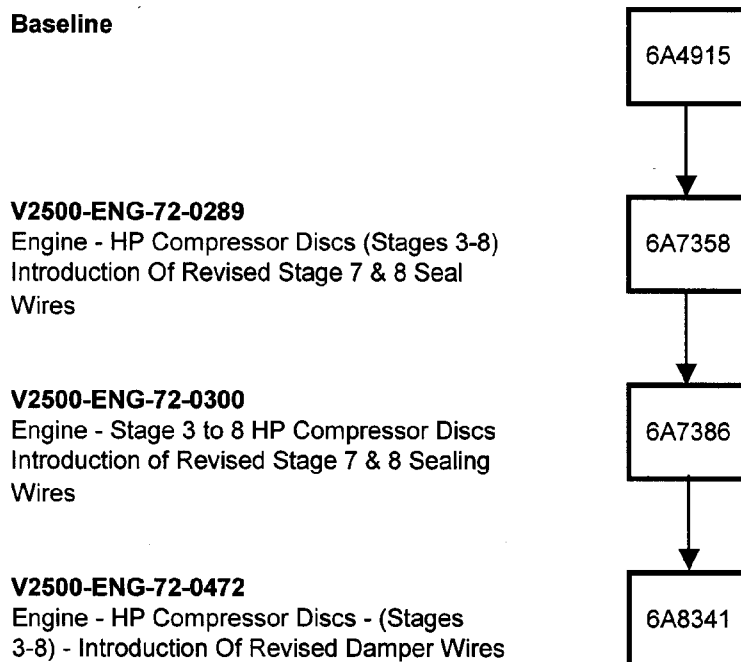
HP Compressor Stage 6 Damper Wire Family Tree

All Engines



HP Compressor Stage 7 Front Damper Wire Family Tree

All Engines



Family Tree
Sheet 1 of 4

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HP Compressor Stage 7 Rear Damper Wire Family Tree

All Engines

Baseline

V2500-ENG-72-0289

Engine - HP Compressor Discs (Stages 3-8)
Introduction Of Revised Stage 7 & 8 Seal
Wires

V2500-ENG-72-0304

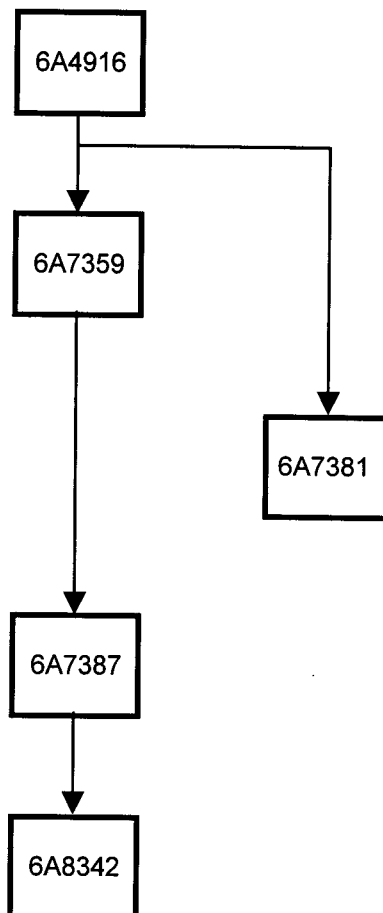
Engine - HP Compressor Discs Introduction
of a Reworked Stage 3 to 8 Disc Assembly
with Revised L Shaped Sealing Wires

V2500-ENG-72-0300

Engine - Stage 3 to 8 HP Compressor Discs
Introduction of Revised Stage 7 & 8 Sealing
Wires

V2500-ENG-72-0472

Engine - HP Compressor Discs - (Stages
3-8) - Introduction Of Revised Damper Wires



Family Tree
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HP Compressor Stage 8 Front Damper Wire Family Tree
All Engines
Baseline
V2500-ENG-72-0289

Engine - HP Compressor Discs (Stages 3-8)
Introduction Of Revised Stage 7 & 8 Seal
Wires

V2500-ENG-72-0304

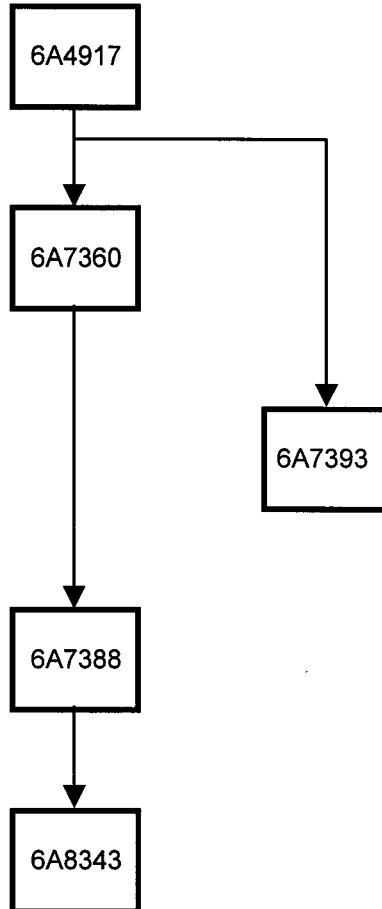
Engine - HP Compressor Discs Introduction
of a Reworked Stage 3 to 8 Disc Assembly
with Revised L Shaped Sealing Wires

V2500-ENG-72-0300

Engine - Stage 3 to 8 HP Compressor Discs
Introduction of Revised Stage 7 & 8 Sealing
Wires

V2500-ENG-72-0472

Engine - HP Compressor Discs - (Stages
3-8) - Introduction Of Revised Damper Wires



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Family Tree
Sheet 3 of 4

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HP Compressor Stage 8 Rear Damper Wire Family Tree

All Engines

Baseline

V2500-ENG-72-0289

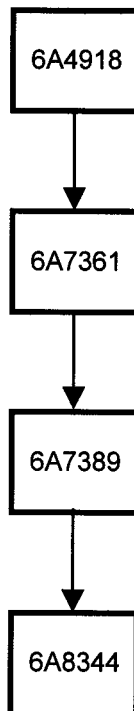
Engine - HP Compressor Discs Introduction of a Reworked Stage 3 to 8 Disc Assembly with Revised L Shaped Sealing Wires

V2500-ENG-72-0300

Engine - Stage 3 to 8 HP Compressor Discs Introduction of Revised Stage 7 & 8 Sealing Wires

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Engine - HP Compressor Discs - (Stages 3-8) - Introduction Of Revised Damper Wires



Family Tree
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ENGINE – HP COMPRESSOR DISCS (STAGES 3–8) – INTRODUCTION OF REVISED DAMPER WIRES
SUPPLEMENT – 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.

1. Modification Kit:

Not applicable.

2. Parts required:

Part No.	Description	Unit Price US Dollars
6A8339	Wire, Seal Stage 6 Front	677.00
6A8340	Wire, Seal Stage 6 Rear	677.00
6A8341	Wire, Seal Stage 7 Front	1076.00
6A8342	Wire, Seal Stage 7 Rear	1076.00
6A8343	Wire, Seal Stage 8 Front	1076.00
6A8344	Wire, Seal Stage 8 Rear	1076.00