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Printed in Great Britain

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

This document transmits the Revision 1 of Service Bulletin V2500-ENG-72-0589.

Document History

Service Bulletin Revision Status

Initial Issue Jul.15/09

Service Bulletin Revision 1

Remove	Incorporate	Reason for change
All pages of the Service Bulletin.	Pages 1 to 11 of the Service Bulletin.	To revise the Effectivity.
All pages of the Supplement.	Page 1 of the Supplement.	No change.

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Transmittal - Page 1 of 1

ENGINE – HP COMPRESSOR DISCS (STAGES 3–8) – RE-INTRODUCTION OF DAMPER WIRES OF PRE
SERVICE BULLETIN ENG-72-0472 STANDARD

1. Planning Information

A. Effectivity

(1) Airbus A319

R V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V13171 and
R Engines with Serial No. V13172 to V13180 (A5 Standard).

(2) Airbus A320

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

R (b) V2524-A5, V2527-A5, V2527E-A5 Engines prior to Serial No. V13171 and
R Engines with Serial No. V13172 to V13180 (A5 Standard).

(3) Airbus A321

R V2530-A5, V2533-A5 Engines prior to Serial No. V13171 and Engines with
R Serial No. V13172 to V13180 (A5 Standard).

(4) Boeing MD-90

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

NOTE: Engines of post Service Bulletin V2500-ENG-72-0565 standard (SelectOne™ Retrofit Standard) are not affected.

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 stage 3–8 HP compressor 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 have been the subject of extensive engineering analysis.

(4) Objective

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

(5) Effect of Bulletin on:

(a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Affected (Refer to paragraph 1.0 Other Publications Affected).

(d) Repair Schemes

Not affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. Description

This Service Bulletin re-introduces HP Compressor Stage 6, 7 and 8 Damper Wires of pre Service Bulletin ENG-72-0472 standard, originally introduced by Service Bulletin ENG-72-0300 for stages 7 and 8 and by baseline for the stage 6.

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 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.

R The authorising IAE documents are EC 09VR002 and EC 09VR002-02.

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 Service 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) V2500 Service Bulletins:

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

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

R (3) Engineering Change No. 09VR002 and 09VR002-02.

(4) ATA Locator – 72-41-11.

O. Other Publications Affected

(1) IAE V2500 Engine Illustrated Parts Catalogues (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 72-41-15 will include the new part numbers (Refer to 2. Material Information).

(2) IAE V2500 Engine Manuals (E-V2500-1IA, E-V2500-3IA) Chapter/Section 72-41-10, Assembly to add the new part.

(3) IAE V2500 Engine Manuals (E-V2500-1IA, E-V2500-3IA) Chapter/Section 72-41-11 Cleaning, Inspection and Repair to add the new part.

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:

Applicability: For all affected V2500-A1/A5/D5 Engines

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
72-41-11						
01-386	6A1146	1	.Wire, Seal Stage 6 - Front	-	6A8339	(1D)(S1)
01-388	6A1147	1	.Wire, Seal Stage 6 - Rear	-	6A8340	(1D)(S1)
01-390	6A7386	1	.Wire, Seal Stage 7 - Front	-	6A8341	(1D)(S1)
01-392	6A7387	1	.Wire, Seal Stage 7 - Rear	-	6A8342	(1D)(S1)
01-394	6A7388	1	.Wire, Seal Stage 8 - Front	-	6A8343	(1D)(S1)
01-396	6A7389	1	.Wire, Seal Stage 8 - Rear	-	6A8344	(1D)(S1)

D. Instruction Disposition Codes:

(1D) Old parts can be used until stock is exhausted.

(S1) Old and new parts are fully interchangeable.

3. Accomplishment Instructions

A. Rework Instructions

None.

B. Assembly Instructions

All Parts of this Service Bulletin:

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

- R
- (1) Remove the applicable old HP compressor Stage 6, 7 and 8 Damper Wires from the stage 3-8 HP compressor drum.
 - (2) Install the applicable new HP compressor Stage 6, 7 and 8 Damper Wires on the stage 3-8 HP compressor drum.

C. Recording Instructions

A record of accomplishment is required.

HP Compressor Stage 6 Damper Wire Family Tree

All Engines

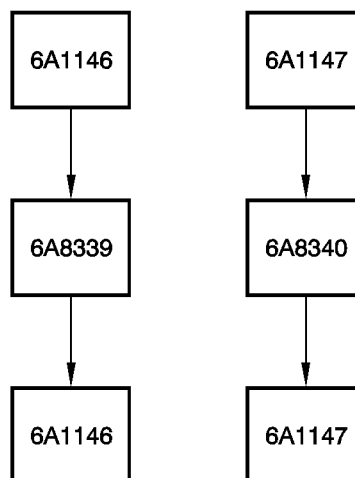
Baseline

V2500-ENG-72-0472

Engine – HP Compressor Discs (Stages 3–8) – Introduction of Revised Damper Wires

V2500-ENG-72-0589

Engine – HP Compressor Discs (Stages 3–8) – Re-Introduction of Revised Damper Wires of Pre Service Bulletin ENG-72-0472 Standard

Front
Rear


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Family Tree
Sheet 1 of 5

HP Compressor Stage 7 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-72-0300

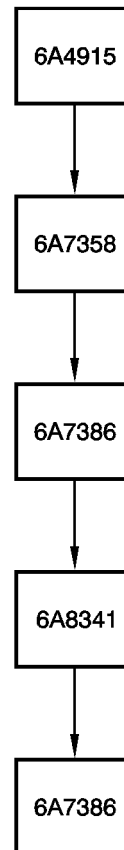
Engine – Stage 3 to 8 HP Compressor Discs
Introduction of Revised Stage 7 & 8 Sealing Wires

V2500-ENG-72-0472

Engine – HP Compressor Discs (Stages 3–8) – Introduction of Revised Damper Wires

V2500-ENG-72-0589

Engine – HP Compressor Discs (Stages 3–8) – Re-Introduction of Revised Damper Wires of Pre Service Bulletin ENG-72-0472 Standard



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Family Tree
Sheet 2 of 5

HP Compressor Stage 7 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

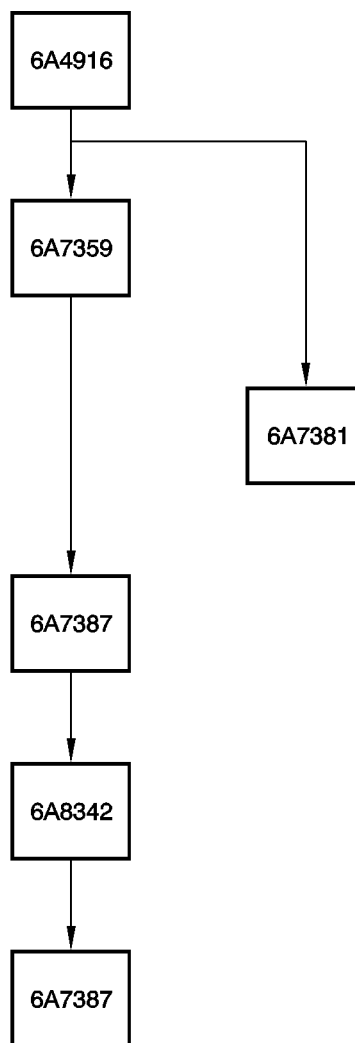
Engine – Stage 3 to 8 HP Compressor Introduction of Revised Stage 7 & 8 Sealing Wires

V2500-ENG-72-0472

Engine – HP Compressor Discs (Stages 3–8) – Introduction of Revised Damper Wires

V2500-ENG-72-0589

Engine – HP Compressor Discs (Stages 3–8) – Re-Introduction of Revised Damper Wires of Pre Service Bulletin ENG-72-0472 Standard


Family Tree
Sheet 3 of 5



HP Compressor Stage 8 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

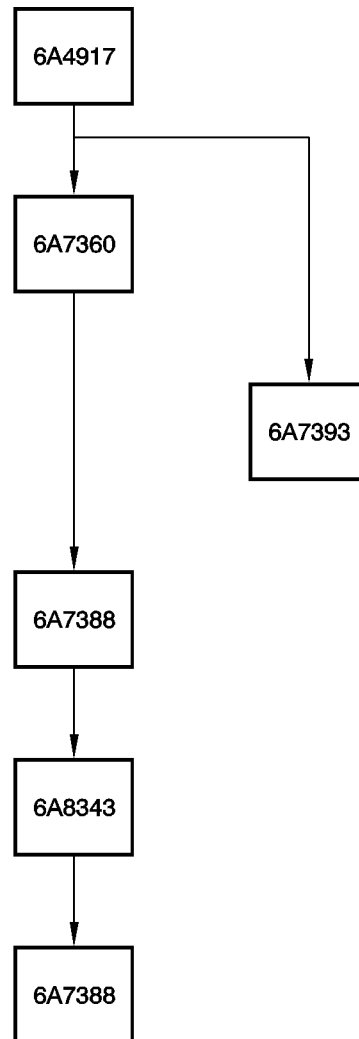
Engine – Stage 3 to 8 HP Compressor Discs Introduction of Revised Stage 7 & 8 Sealing Wires

V2500-ENG-72-0472

Engine – HP Compressor Discs (Stages 3–8) – Introduction of Revised Damper Wires

V2500-ENG-72-0589

Engine – HP Compressor Discs (Stages 3–8) – Re-Introduction of Damper Wires of Pre Service Bulletin ENG-72-0472 Standard



Family Tree
Sheet 4 of 5

HP Compressor Stage 8 Damper Wire Family Tree

All Engines

Baseline

V2500-ENG-72-0289

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

V2500-ENG-72-0300

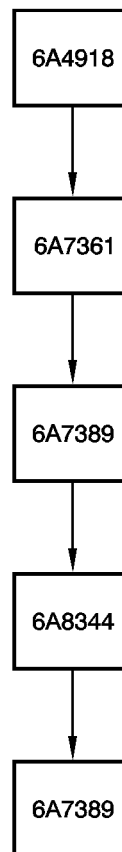
Engine – Stage 3 to 8 HP Compressor Discs Introduction of Revised Stage 7 & 8 Sealing Wires

V2500-ENG-72-0472

Engine – HP Compressor Discs (Stages 3–8) – Introduction of Revised Damper Wires

V2500-ENG-72-0589

Engine – HP Compressor Discs (Stages 3–8) – Re-Introduction of Damper Wires of Pre Service Bulletin ENG-72-0472 Standard



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Family Tree
Sheet 5 of 5

ENGINE – HP COMPRESSOR DISCS (STAGES 3-8) – RE-INTRODUCTION OF DAMPER WIRES OF PRE
SERVICE BULLETIN ENG-72-0472 STANDARD

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.	Desc.	Unit Price US Dollars
6A1146	Wire, Seal Stage 6 Front	867.00
6A1147	Wire, Seal Stage 6 Rear	867.00
6A7386	Wire, Seal Stage 7 Front	1,381.00
6A7387	Wire, Seal Stage 7 Rear	1,381.00
6A7388	Wire, Seal Stage 8 Front	1,381.00
6A7389	Wire, Seal Stage 8 Rear	1,381.00

3. Tools

None.