



400 MAIN STREET, MAIL STOP 121-10
EAST HARTFORD, CT 06108, USA.
TELEPHONE:- 860 565 5515
FAX:- 860 565 0600

DATE: Mar.12/09

P.O. BOX 31, DERBY
TELEGRAMS - 'ROYCAR' DERBY
TELEX - 37645
TELEPHONE:- 44 (0) 1332 242424
FAX:- 44 (0) 1332 249936

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V2500-A5/D5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Revision 2 of Service Bulletin V2500-ENG-72-0485

Document History

Service Bulletin Revision Status

Initial Issue	Sep. 1/05
Revision 1	Nov.25/08

Service Bulletin Revision 2

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 13 of the Service Bulletin	To revise a SB reference in Figures 3 and 4.

V2500-ENG-72-0485

Transmittal - Page 1 of 1

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED

If any have not been received please advise Customer Data Services, Rolls-Royce plc, Derby, England

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ENGINE – LP COMPRESSOR – REWORK THE INSERT HOLES OF LPC BLEED DUCT ASSEMBLY**1. Planning Information****A. Effectivity****(1) Airbus A319**

V2522-A5, V2524-A5 Engines prior to Serial Number V10503

(2) Airbus A319CJ

V2527M-A5 Engines prior to Serial Number V10503

(3) Airbus A320

V2527-A5, V2527E-A5 Engines prior to Serial Number V10503

(4) Airbus A321

V2530-A5, V2533-A5 Engines prior to Serial Number V10503

(5) Boeing-Douglas MD-90

V2525-D5, V2528-D5 Engines prior to prior to Serial Number V20280 except V20272, V20273, V20274, V20275 and V20276

B. Concurrent Requirements

None

C. Reason**(1) Problem**

Service Bulletin V2500-ENG-70-0631 announced that insert, screen assembly, washer and screw can be deleted from an engine equipped with the old configuration LPC bleed duct assembly.

Customer requests to produce a rework instruction which show filling the insert hole with filler, and remarking a new part number after above hardware is removed from the LPC bleed duct assembly, in order to avoid further maintenance confusion/error.

(2) Evidence

See (1) Problem

(3) Substantiation

The changes introduced by this Service Bulletin have been the subject of extensive engineering analysis.

(4) Objective

This Service Bulletin is to produce a rework instruction that shows filling the insert hole of the LPC bleed duct assembly and remarking with a new part number after the screen assemblies are removed from the LPC bleed duct assembly.

(5) Effect of Bulletin on:

(a) Operation

Not Affected.

(b) Maintenance

Not Affected.

(c) Overhaul

Not Affected.

(d) Repair Schemes

Affected.

(e) Interchangeability

Not Affected.

(f) Fits and Clearances

Not Affected.

D. Description

The changes introduced by this Service Bulletin are as follows:

(1) To produce a rework instruction.

(2) To define the new part number for reworked the LPC bleed duct assembly.

- (3) Existing LPC bleed duct assembly can be reworked to the following new part numbers.

ATA/Fig-Item	New P/N	Existing P/N	Engine Model
72-32-60/01-250	5W2331	5W2231	V2500-A5
72-32-60/01-250	5W2332	5W2268	V2500-A5
72-32-60/01-250	5W2334	5W2247	V2500-D5
72-32-60/01-250	5W2335	5W2271	V2500-D5

E. Compliance

Category Code 8

Accomplish based upon experience with the prior configuration.

F. Approval

The part number changes and/or part modification described in Section 2 and 3 of this Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Models listed.

G. Manpower

Estimated Man-hours to incorporate the full intent of this Service Bulletin:

- (1) In service

Not applicable

- (2) At overhaul

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

(a) To remove the Helicoil inserts	20 Mins
(b) To surface treat the insert holes	30 Mins
(c) To fill the sealant into the insert holes	1 Hr
Including minimum 30 Mins primer curing time	
(d) To cure the sealant	48 Hrs
(e) To vibro engrave the new part number	5 Mins
Total	49 hours 55 minutes

H. Material Price and Availability

Modification kit not required.

For prices and availability of future spares see 2. Material Information.

I. Tooling Price and Availability

Special tools are not required.

J. Industry Support Information

None.

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

None.

(2) Moment Arm

None.

(3) Datum

Engine front mount centreline (Power Plant Station PPS 100).

L. Electrical Load Data

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

M. Software Accomplishment Summary

Not applicable.

N. References**(1) IAE V2500 Service Bulletin - V2500-ENG-72-0155**

Engine - LP compressor - Provide a new LPC bleed duct assembly with improved durability features - Category code 6 - MOD.ENG-72-0155

(2) IAE V2500 Service Bulletin - V2500-ENG-70-0631

Information - Engine - LP compressor - To announce the availability of a new rubber seal of LPC bleed duct assembly

(3) IAE Overhaul Process and Consumable Index**(4) IAE Standard Practices/Procedures Manual****(5) Engineering Change Number 04VJ006****(6) ATA Locator 72-32-00**

0. Other Publications Affected

- (1) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-2IA), 72-32-60 to add new parts.
- (2) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-2IB), 72-32-60 to add new parts.
- (3) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-5IA), 72-32-60 to add new parts.
- (4) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-5IB), 72-32-60 to add new parts.
- (5) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-6IA), 72-32-60 to add new parts.
- (6) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-6IB), 72-32-60 to add new parts.
- (7) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-7IA), 72-32-60 to add new parts.
- (8) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-7IB), 72-32-60 to add new parts.
- (9) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-3IA), 72-32-60 to add new parts.
- (10) IAE V2500 Engine Illustrated Parts Catalog (S-V2500-3IB), 72-32-60 to add new parts.
- (11) IAE V2500 Engine Manual (E-V2500-1IA); 72-32-60 Cleaning, Inspection/Check and Repair.
- (12) IAE V2500 Engine Manual (E-V2500-3IA); 72-32-60 Cleaning, Inspection/Check and Repair.

P. Interchangeability of Parts

- (1) Affected (See 2.Material Information).

2. Material Information

A. The kit required consists of the following parts:

None

B. New production parts:

None

C. Parts affected by this Bulletin:

V2500-A5 Engines

72-32-60

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01250	5W2331	1	.Duct Assy. Bleed, LPC	-	5W2231	(S1)(1D) (A)
01250	5W2332	1	.Duct Assy. Bleed, LPC	-	5W2268	(S1)(1D) (A)
01264	-	-	..Insert	-	MS21209C 0410	(S1)(B) (C)

V2500-D5 Engines

72-32-60

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01250	5W2334	1	.Duct Assy. Bleed, LPC	-	5W2247	(S1)(1D) (A)
01250	5W2335	1	.Duct Assy. Bleed, LPC	-	5W2271	(S1)(1D) (A)
01264	-	-	..Insert	-	MS21209C	(S1)(B) (C)

D. Instructions disposition codes:

(1D) Old part can be reworked and re-identified to the new part number.

(S1) New parts must replace old parts as a COMPLETE SET per Engine. Mixing of old and new parts is not permissible.

(A) Old part will no longer be available.

(B) Old part will continue to be supplied until existing stock is exhausted.

(C) This part must not be used with PN 5W2331, PN 5W2332, 5W2334 and PN 5W2335 LPC bleed duct assembly. And also the part can be deleted from an engine equipped with PN 5W2231, PN 5W2247, PN 5W2268 and PN 5W2271 LPC bleed duct assembly.

NOTE: 1). PN 5W2332 and PN 5W2318 are freely and fully interchangeable.

2). PN 5W2334 and PN 5W2321 are freely and fully interchangeable.

3). PN 5W2331 must replace PN 5W2318 as a COMPLETE SET per Engine.

Refer to V2500-ENG-72-0155 and V2500-ENG-70-0631.

4). PN 5W2335 must replace PN 5W2321 as a COMPLETE SET per Engine.

Refer to V2500-ENG-72-0155 and V2500-ENG-70-0631.

3. Accomplishment Instructions

A. Remove the LPC Bleed Duct Assembly and the five Screens

- (1) Remove the LPC bleed duct assembly from the engine by the approved Engine Manual procedure.

B. Rework Instructions

- (1) Remove the Inserts.

- (a) Remove the Helicoil inserts. Refer to TASK 70-35-08-300-501.

- (2) Surface Treat the Insert Hole

- (a) Apply a thin even coat of primer to the thread hole from which inserts are removed. Use CoMat 07-070 zinc chromate primer

- (3) Fill the sealant into insert holes.

- (a) Apply thin layer of CoMat 08-014 primer to the faces of the insert holes with a soft brush. Air dry for 30 minutes minimum.

NOTE: Apply the primer in less than eight hours after the surfaces are cleaned.

- (b) Fill and press CoMat 08-074 sealant into the insert hole.

- (i) Fill the sealant into the insert hole from the nozzle of the tube.

- (ii) Press the sealant into position with a spatula.

NOTE: Press the sealant into the insert hole immediately it is applied to the insert hole.

- (4) Cure the sealant at the room temperature for 48 hours. Do not push the sealant during this time.

- (5) Vibro engrave the new part number

- (a) Vibro engrave the new part number near to the existing part number.

New P/N	Existing P/N	Engine Model
5W2331	5W2231	V2500-A5
5W2332	5W2268	V2500-A5
5W2334	5W2247	V2500-D5
5W2335	5W2271	V2500-D5

- (b) Cross off the existing part number with a double line.

(c) Surface treat the vibro area.

(i) De-grease the blended surface with a cloth. Refer to the TASK 70-11-26-300-503

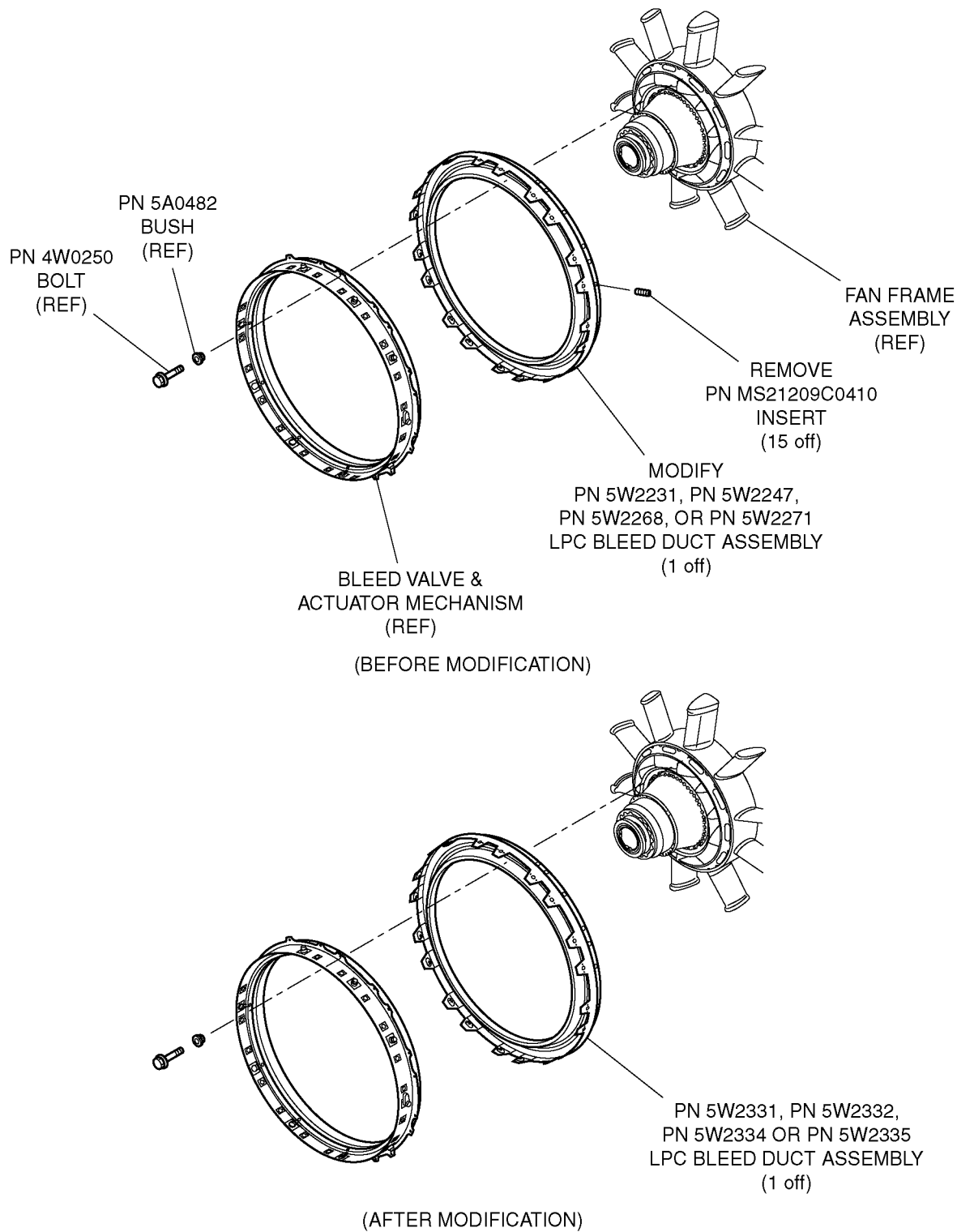
(ii) Do a chemical touch-up to the blended surface with a brush. Use a CoMat 07-028 chemical conversion coating.

C. Install the LPC Bleed Duct Assembly

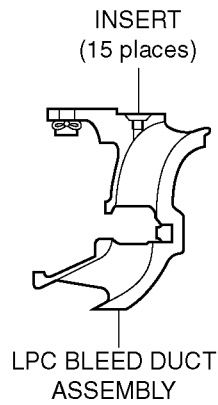
(1) Install the LPC bleed duct assembly to the engine by the approved Engine Manual procedure.

D. Recording Instructions

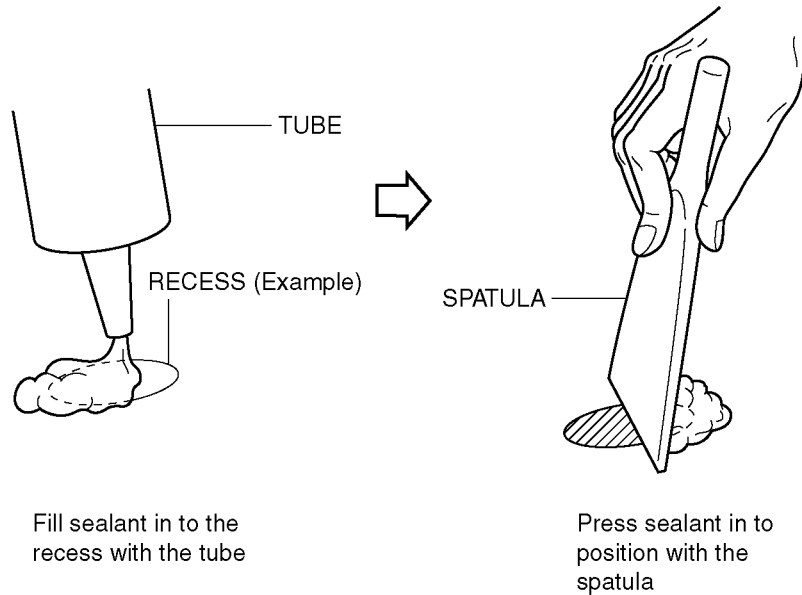
(1) Record of accomplishment is necessary.



LPC Bleed Duct Assembly – Before and After Alteration
Figure 1

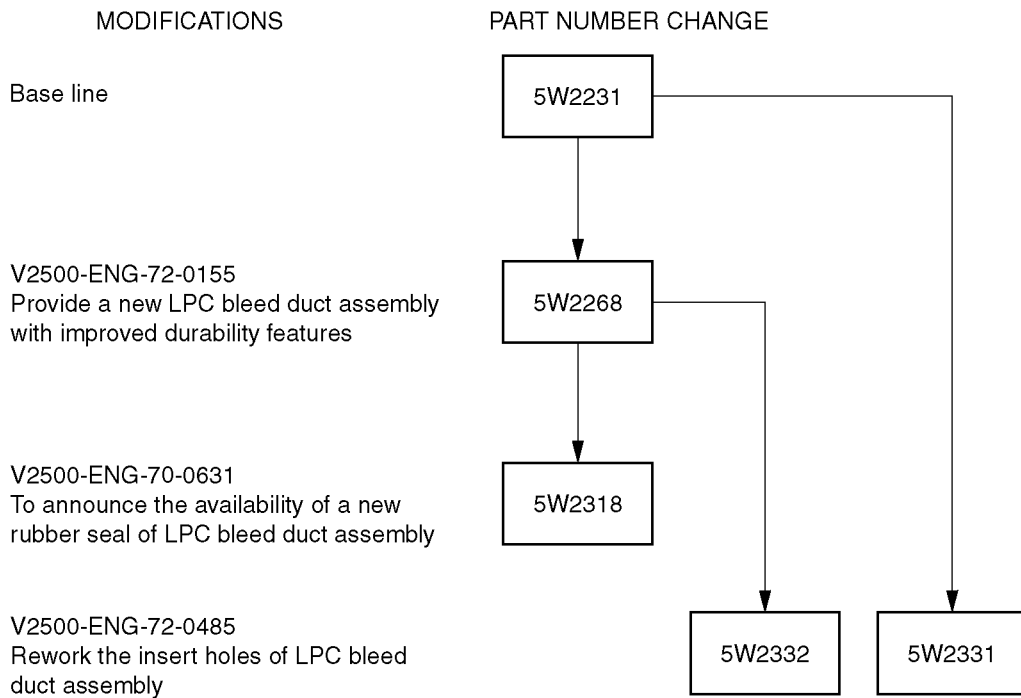


PART NUMBER	
BEFORE MODIFICATION	AFTER MODIFICATION
5W2231	5W2331
5W2268	5W2332
5W2247	5W2334
5W2271	5W2335



jaz00e1942

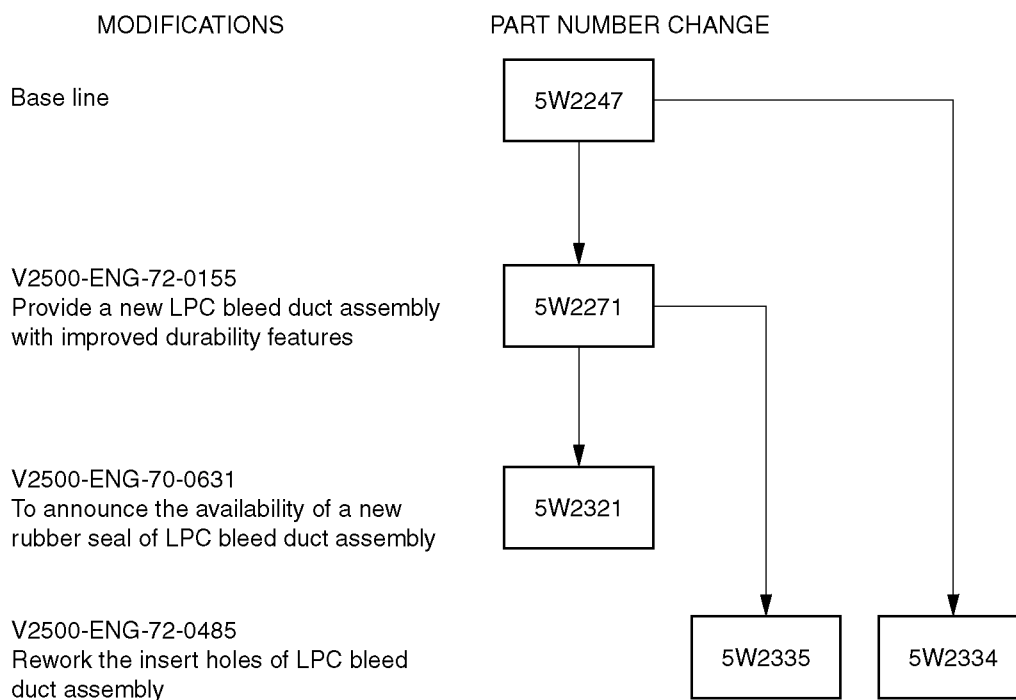
Rework and re-identification of LPC Bleed Duct Assembly
Figure 2



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Family Tree – LPC Bleed Duct Assembly for V2500-A5 (ATA 72-32-60, Fig-Item 01-250)
Figure 3

R



jaz00e1944b

R
R

Family Tree - LPC Bleed Duct Assembly for V2500-D5 (ATA 72-32-60, Fig-Item 01-250)
Figure 4