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V2500-A5 SERIES PROPULSION SYSTEM NON-MODIFICATION SERVICE BULLETIN

This document transmits Revision 2 to Service Bulletin EV2500-72-0460

Document History

Service Bulletin Revision Status		Supplement Revision Status
Initial Issue	Jun.27/03	
Revision 1	Nov.21/03	

Bulletin Revision 2

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 4 of the Service Bulletin	To change the engine serial numbers
All pages of Appendix 1	Page 1 of Appendix 1	To change the engine serial numbers

V2500-ENG-72-0460

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
If any have not been received please advise Publication Services, Rolls-Royce plc, Derby, England

LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 2 are as follows:

	Page	Revision Number	Revision Date
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	Appendix 1		
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International Aero Engines

SERVICE BULLETIN

ENGINE - IN SHOP ACTION FOR ENGINES IN THE RANGE V10600 TO V11304 WITH P/N 2A1170 (MRC) NUMBER 3 BEARINGS INSTALLED WITH A LOW ENERGY STANDARD OF HARD FACE COATING HIGH PRESSURE COMPRESSOR (HPC) STUBSHAFT

1. Planning Information

A. Effectivity

(1) Airbus A319, A320, A321

R V2500-A5 Aircraft with engine Serial Nos. within the range V10600 to
R V11304 known to have had 2A1170 bearings installed at new production build
R in conjunction with an HPC stubshaft with low energy standard of hard face
R coating.

B. Concurrent Requirements

None.

C. Reason

To mitigate against the risk of further In Flight Shut Downs (IFSD's) due to No.3 Bearing Outer Race fractures.

D. Description

The Accomplishment Instructions must be completed for the rework of the Stubshaft (in accordance with SB V2500-ENG-72-0421) This applies to engines with Bearing Part No. 2A1170 installed. Once this action is complete then the requirements of this NMSB are no longer applicable.

Appendix 1 provides a list identifying which engines within the range V10600 to
R V11304, which had 2A1170 Bearings installed at new production build in
R conjunction with an HPC stubshaft with low energy standard of hard face
R coating.

E. Compliance

Category 5

Accomplish when the engine is disassembled sufficiently to afford access to the affected subassembly (i.e. modules, accessories, components, build groups) and to all affected spare subassemblies.

(1) Replacement of existing High Pressure (HP) Compressor Stubshafts with new
R or reworked Stubshafts in accordance with SB V2500-ENG-72-0421.

F. Approval

The Compliance statement at 1.E. and the procedures in Section 3. Accomplishment Instructions of this Non-Modification Service Bulletin comply with the applicable Federal Aviation Regulations and are FAA Approved for the engine models listed.

G. Manpower

Estimated man-hours to embody this Non-Modification Service Bulletin in full:

(1) To rework the HPC Stubshaft

(a) Rework only - 10 hours

(b) Rework through approved sources - 15 days

NOTE: Time to rework the actual shaft having been removed from the engine.

(2) To remove/install the HPC Stubshaft - 350 hours

H. References

R (1) IAE Internal Reference Number EC 03VR863C.

(2) Service Bulletin V2500-ENG-72-0421 - Engine - HP Compressor front stubshaft - Introduction of a revised HP Compressor front stubshaft with high energy plasma coating.

(3) V2500 Engine Manual (EM) (E-V2500-1IA):

(a) 72-00-31, Removal/Installation

(b) 72-00-40, Removal/Installation

(c) 72-00-50, Removal/Installation

(d) 72-00-60, Removal/Installation

(e) 72-32-00, Disassembly/Assembly

(f) 72-32-10, Disassembly/Assembly

(g) 72-32-20, Disassembly/Assembly

(4) ATA Locator - 72-32-20.

(5) Appendix 1 - List identifying which engines within the range V10600 to
R V11304 known to have had 2A1170 Bearings installed at new production build
R in conjunction with an HPC stubshaft with low energy standard of hard face
R coating.

2. Material Information

None.

3. Accomplishment Instructions

(1) Disassembly instructions for the No.3 Bearing and HP Compressor Stubshaft:

R NOTE: Inspect all removed bearings and components in accordance with
R applicable engine referenced below to assure no defective hardware
R is reinstalled into the engine

(a) Remove the LPT Module. Refer to Engine Manual (EM), TASK 72-00-50.

(b) Remove the Fan Module. Refer to Engine Manual (EM), TASK 72-00-31.

(c) Remove the External Gearbox Module. Refer to Engine Manual (EM), TASK 72-00-60.

(d) Remove the HP System Module. Refer to Engine Manual (EM), TASK 72-00-40.

(e) Remove the No.3 Bearing, Internal Gearbox and Support Assembly. Refer to Engine Manual (EM), TASK 72-32-00.

(f) Disassemble the No.3 Bearing, Internal Gearbox and Support Assembly. Refer to Engine Manual (EM), TASK 72-32-10.

(g) Disassemble the No.3 Bearing, Rotor Centre and Support Assembly. Refer to Engine Manual (EM), TASK 72-32-20.

(2) Replacement of existing High Pressure (HP) Compressor Stubshaft with new or reworked Stubshaft:

(a) Existing Stubshafts should be reworked in accordance with Service Bulletin V2500-ENG-72-0421.

(3) Assembly Instructions

(a) The assembly/installation instructions are the reverse of the disassembly/removal instructions stated above.

APPENDIX 1

R List identifying engines within range V10600 to V11304 known to have had 2A1170
R Bearings installed at new production build in conjunction with a HPC stubshaft with
R low energy standard of hard face coating

NOTE: Operators should check their records for Part No. 2A1170 Bearings, particularly those engines with Stubshafts in range specified, that have had a shop visit.

V10605, V10606, V10607, V10608, V10609, V10617, V10618, V10627, V10630, V10631,
V10635, V10636, V10637, V10638, V10639, V10640, V10643, V10645, V10647, V10648,
V10649, V10651, V10652, V10653, V10655, V10660, V10661, V10663, V10664, V10666,
V10667, V10668, V10669, V10671, V10672, V10673, V10674, V10675, V10676, V10677,
V10678, V10680, V10681, V10685, V10686, V10687, V10688, V10689, V10690, V10691,
V10694, V10695, V10698, V10699, V10700, V10701, V10704, V10705, V10706, V10707,
R V10708, V10709, V10710, V10712, V10713, V10714, V10715, V10716, V10717, V10718,
V10720, V10722, V10724, V10725, V10726, V10727, V10728, V10729, V10733, V10735,
V10736, V10739, V10740, V10747, V10748, V10750, V10751, V10752, V10753, V10754,
V10755, V10756, V10757, V10762, V10763, V10764, V10765, V10766, V10773, V10775,
V10776, V10782, V10784, V10785, V10789, V10794, V10795, V10796, V10797, V10798,
R V10799, V10800, V10802, V10803, V10804, V10806, V10808, V10809, V10810, V10811,
V10822, V10823, V10824, V10826, V10827, V10828, V10835, V10836, V10840, V10852,
V10853, V10854, V10855, V10856, V10860, V10861, V10862, V10863, V10864, V10865,
V10866, V10867, V10868, V10869, V10870, V10871, V10872, V10873, V10874, V10876,
V10877, V10878, V10879, V10881, V10882, V10883, V10884, V10885, V10891, V10892,
V10893, V10894, V10895, V10896, V10897, V10898, V10899, V10900, V10923, V10926,
R V10928, V10930, V10936, V10939, V10940, V10942, V10944, V10947, V10961, V10962,
V10964, V10965, V10967, V10968, V10969, V10973, V10975, V10976, V10977, V10978,
V10979, V10981, V10982, V10984, V10985, V11021, V11022, V11028, V11029, V11030,
V11031, V11038, V11039, V11040, V11041, V11042, V11046, V11047, V11050, V11053,
R V11063, V11064, V11065, V11066, V11069, V11071, V11072, V11074, V11134, V11141,
R V11142, V11145, V11146, V11147, V11148, V11157, V11164, V11165, V11177, V11178,
V11179, V11180, V11183, V11184, V11193, V11194, V11196, V11204, V11205, V11206,
R V11207, V11208, V11209, V11210, V11212, V11223, V11232 and V11233