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DATE: Dec. 8/06

V2500-A1/A5/D5 PROPULSION SYSTEM NON-MODIFICATION SERVICE BULLETIN

This document transmits Revision 6 to Service Bulletin EV2500-72-0297

Document History

Service Bulletin Revision Status		Supplement Revision Status
Initial Issue	Jan.9/98	
Revision 1	Sep.1/98	
Revision 2	Oct.2/98	
Revision 3	Aug.18/99	
Revision 4	Mar.6/03	
Revision 5	Oct.12/05	

Bulletin Revision 6

Remove	Incorporate	Reason for change
Pages 1 to 4 of the Service Bulletin	Pages 1 to 6 of the Service Bulletin	To extend the Effectivity, to add an Accomplishment Form and to include minor editorial changes.

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

LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 6 are as follows:

Page		Revision Number	Revision Date
	Bulletin		
R	1	6	Dec.8/06
R	2	6	Dec.8/06
R	3	6	Dec.8/06
R	4	6	Dec.8/06
R	5	6	Dec.8/06
R	6	6	Dec.8/06

International Aero Engines

SERVICE BULLETIN

ENGINE - LP COMPRESSOR FAN BLADES - TO ANNOUNCE THE FREQUENCY OF TRANSIENT ACOUSTIC PROPAGATION (TAP) TESTS - NON-MODIFICATION SERVICE BULLETIN

1. Planning Information

A. Effectivity

(1) Aircraft:

Airbus A319, A320, A321

Boeing MD-90

(2) Engines:

R All V2500-A1, A5, D5 Engines.

B. Reason

(1) The requirement for on-aircraft Transient Acoustic Propagation (TAP) tests
R of Low Pressure (LP) compressor fan blades was introduced by SIL034 (Refer to E.(2)) and later modified to the requirements contained in A0W1035
R (Refer to E.(3)). Although the V2500 LP compressor fan blades do not have a declared life limit, the tests are required for on-going condition inspections.

R (2) TAP tests have identified fifteen V2500-A1 cross-rolled plate LP
R compressor fan blades with small cracks.

(3) Following an event in 1998, which resulted in release of approximately two
R thirds of the aerofoil section of an LP compressor fan blade, investigation revealed that a small percentage of part number batches of
R LP compressor fan blades manufactured between 1990 and 1993 may be more
R prone to experiencing aerofoil cracking. Due to this, these LP compressor
R fan blades require to be TAP tested at a reduced inspection interval (Refer to F.(1)(a)).

R (4) This Non-Modification Service Bulletin has been re-issued to extend the
R population of LP compressor fan blades that require a TAP test inspection
R at a reduced interval. The population has been extended to reflect the
R latest understanding of an event in 2006, which resulted in release of
R approximately two thirds of the aerofoil section of an LP compressor fan
R blade. The released LP compressor fan blade was not part of the affected
R population, issued with Revision 1 of this Non-Modification Service
R Bulletin.

(5) Service Information Letter SIL127 was originally issued in September 1998 to advise operators of a reduced TAP test inspection interval for a
R selected population of LP compressor fan blade serial numbers. This SIL
R has been re-issued to inform operators about an extension to the
R population of the LP compressor fan blades that need to inspected at a
R reduced interval.

R (6) Revision 6 of this Non-Modification Service Bulletin is issued to extend
R the population of LP compressor fan blades that need to be inspected at a
R reduced interval.

C. Approval

The Compliance statement and the procedures given in paragraph F. of this Non-Modification Service Bulletin, obey the Federal Aviation Regulations and are FAA-Approved for the engine models listed.

D. Compliance

Category 3

Accomplish within the timescales in Paragraph F.

E. References

(1) IAE Service Bulletin:

V2500-ENG-72-0271 - LP Compressor Blades and Fillers - Introduction of Revised Pressure and Suction Airfoil Panels

(2) Service Information Letter:

R SIL No.127 Issue 3 dated Dec. 5/06

(3) All Operators Wire:

AOW No.1035 - 23rd October 1994

(4) V2500 Aircraft Maintenance Manual:

(a) Chapter 72-00-00 TASK 72-00-00-200-011 (A1 Engines)

(b) Chapter 72-00-00 TASK 72-00-00-200-011 (A5 Engines)

(c) Chapter 72-00-00 Inspection/Check-09 (D5 Engines)

(5) V2500 Engine Manual:

(a) Chapter 72-00-00 TASK 72-00-00-200-010 (A1 and A5 Engines)

(b) Chapter 72-00-00 Inspection/Check-10 (D5 Engines)

(6) ATA Locator - 72-00-00.

R (7) Internal Reference Number 97VR832, 97VR832A, 97VR832B, 97VR832C, 97VR832D
R and 97VR832E.

F. Action

R (1) Carry out a Transient Acoustic Propagation (TAP) test on the Low Pressure
R (LP) compressor fan blades (Refer to E.(4)):

R (a) The LP compressor fan blades that follow must be TAP tested at the
R next A-Check, but not later than 750 cycles after receipt of this
R Non-Modification Service Bulletin and must be repeated every 750
R cycles, irrespective of operational stage length:

R (i) The part numbers of LP compressor fan blades that need to be
R inspected at a reduced interval are as follows:

R (1) For V2500-A1 Engines:

R P/N 6A3971, P/N 6A5485, P/N 6A7403, P/N 6A7650, P/N 6A7651
R and P/N 6A7653.

R (2) For V2500-A5 and V2500-D5 Engines:

R P/N 6A4700 and P/N 6A7654.

R (ii) The serial numbers of the LP compressor fan blades that need to
R be inspected at a reduced interval are as follows:

R From RGA10000 to RGA13462, for RGB61156, RGB61187, RGB61193,
R RGB61195, RGB61199, RGB61203, RGB61204, RGB61208, RGB61218,
R RGB61220, RGB61223, RGB61227, RGB61228, RGB61305, RGB61313,
R RGB61314, RGB61319, RGB61323, RGB61332, RGB61334, RGB61340,
R RGB61346, RGB61348, RGB61388, RGB61391, RGB61393, RGB61396,
R RGB61398, RGB61399, RGB61402, RGB61407, RGB61410, RGB61411,
R RGB61412, RGB61413, RGB61424, RGB61425, RGB61426, RGB61432,
R RGB61439, RGB61451, RGB61453, RGB61454, RGB61459, RGB61460,
R RGB61462, RGB61471, RGB61473, RGB61480, RGB61481, RGB61489,
R RGB61502, RGB61504, RGB61506, RGB61507, RGB61511, RGB61514,
R RGB61517, RGB61519, RGB61520, RGB61533, RGB61539, RGB61570,
R RGB61580, RGB61584, RGB61621, RGB61647, RGB61733, RGB61748,
R RGB61781, RGB61793, RGB61794, RGB61798, RGB61801, RGB61808,
R RGB61815, RGB61823, RGB61839, RGB61844, RGB61863, RGB61874,
R RGB61877, RGB61885, RGB61886, RGB61889, RGB61907, RGB61915,
R RGB61922, RGB61923, RGB61932, RGB61936, RGB61937, RGB61943,
R RGB61947, RGB61958, RGB61962, RGB61965, RGB61973, RGB61989,
R RGB62006, RGB62069, RGB62111, RGB62125, RGB62341, RGB62386,
R RGB62583, RGB62728, RGB62745, RGB62860, RGB62959, RGB63236,

R RGB63331, RGB63675, RGB63704, RGB63741, RGB63810, RGB63898,
R RGB63909, RGB64338, RGB64619, RGB64674, RGB64821, RGB64921,
R RGB64935, RGB64943, RGB64965, RGB65021, RGB65069, RGB65085,
R RGB65097, RGB65107, RGB65111 and from RGB65116 to RGB69999.

R NOTE: A number of the LP compressor fan blades in the above range
R were supplied as spareable parts and may have been
R installed in any V2500 engine currently in service at the
R date of issue of this Non-Modification Service Bulletin.

R NOTE: It is possible that some of these LP compressor fan blades
R in the above range may have been removed for maintenance or
R trim balancing purposes or during engine shop visits and
R that these may currently be held by Operators or Repair
R Shop stores as serviceable parts.

R (iii) From engine records, identify the location (ESN and LP
R compressor fan blade position) of any of the above LP
R compressor fan blade serial numbers and then accomplish the TAP
R test as specified in step F.(1)(a) above.

R NOTE: If the LP compressor fan blade location cannot be
R identified, TAP test all the LP compressor fan blades
R installed in the engine.

R (iv) On any time-run LP compressor fan blade in the above serial
R number range currently held as a serviceable part, accomplish
R the TAP test prior to installation of these LP compressor fan
R blades on an engine.

R (v) Maintain a record of the location of each of the above LP
R compressor fan blade serial numbers installed in your engines
R or held as serviceable parts, and amend these records whenever
R any of the LP compressor fan blades are removed, transferred or
R installed in another engine.

R (b) All LP compressor fan blades which are not listed in step F.(1)(a),
R must be TAP tested within 1500 cycles after receipt of this
R Non-Modification Service Bulletin and must be repeated every 1500
cycles, irrespective of operational stage length.

R (2) Complete the Accomplishment Form on page 6.

(3) Reporting Instructions

R Send the completed Accomplishment Form on page 6 to the local IAE Representative.

R Return any LP compressor fan blade that does not give a satisfactory TAP test result to IAE Technical Services for further investigation.

R If for any reason a LP compressor fan blade referenced in the serial
R number range listed in F.(1)(a) experiences damage which makes it
R unsuitable for further running, return the LP compressor fan blade to IAE Technical Services.

R For the return address of any LP compressor fan blade rejected in accordance with this Non-Modification Service Bulletin, contact the local IAE Representative.

2. Material Information

None.

3. Accomplishment Instructions

R Refer to 1.F.

V2500 LOW PRESSURE (LP) COMPRESSOR FAN BLADE TAP–TEST INSPECTION RECORD

OPERATOR: _____

SHOP/BASE: _____

ENGINE TYPE: V2500 –A1 ☐
–A5 ☐ RATING: _____
–D5 ☐ RATING: _____

ENGINE SERIAL NUMBER: _____

ENGINE RUNNING TIMES: TSN: _____ CSN: _____

DETAILS OF INSPECTED LOW PRESSURE (LP) COMPRESSOR FAN BLADES

LP COMPRESSOR FAN BLADE	PART NUMBER	SERIAL NUMBER	TAP–TEST READING IN db/s	LP COMPRESSOR FAN BLADE	PART NUMBER	SERIAL NUMBER	TAP–TEST READING IN db/s
1				12			
2				13			
3				14			
4				15			
5				16			
6				17			
7				18			
8				19			
9				20			
10				21			
11				22			

DETAILS OF FAILED LOW PRESSURE (LP) COMPRESSOR FAN BLADES

LP COMPRESSOR FAN BLADE	PART NUMBER	SERIAL NUMBER	TAP–TEST READING IN db/s	TSN	CSN	TIME/CYCLES SINCE LAST TAP–TEST	TIME/CYCLES SINCE LAST SCAN

NOTE: RETURN ANY LP COMPRESSOR FAN BLADE THAT FAILED TAP–TEST INSPECTION TO IAE TECHNICAL SERVICES.

INSPECTED BY: _____ STAMP: _____ DATE: _____

PLEASE SEND THE COMPLETED ACCOMPLISHMENT FORM TO THE LOCAL IAE REPRESENTATIVE.

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