**International Aero Engines****RR-DERBY**

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

DATE: **Mar.23/03**

P.O. BOX 31, DERBY
TELEGRAMS - 'ROYCAR' DERBY
TELEX - 37645
TELEPHONE - DERBY 242424

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

Printed in Great Britain

This document transmits the Initial Issue of Service Bulletin EV2500-72-0453

Bulletin Initial Issue

Remove

Incorporate
Pages 1 to 6 of the
Service Bulletin

Reason for change
Initial issue

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LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin are as follows:

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ENGINE - LP TURBINE INSPECTION OF LP TURBINE SHAFTS WHICH SUFFERED FROM INTERNAL FIRE
- NON-MODIFICATION SERVICE BULLETIN

1. Planning Information

A. Effectivity

(1) Airbus A320

(a) V2500-A1 Engines Serial Number V0168, V0210, V0213

(b) V2527-A5 Engine Serial Number V10410

B. Reason

The LP Turbine Shaft installed on the engine serial number V0089, which suffered from internal fire, was examined for hardness check, and was rejected due to out of limits. The engine serial numbers V0168, V0210, V0213 and V10410 also suffered from internal fire, however the shafts installed on these engines were not examined for hardness check. This Non-Modification Service Bulletin requires the hardness check and dimensional inspection of the LP Turbine Shafts which are installed on the engines serial numbers V0168, V0210, V0213 and V10410.

C. Compliance

Category Code 4

Accomplish at the first visit of an engine or module to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action or the reason for engine removal.

D. Approval

The compliance statement at 1.C. and the procedures in section 3 of this Non-Modification Service Bulletin, comply with the Federal Aviation Regulations and are FAA-APPROVED for the Engine Models Listed.

E. References

(1) ATA Locator - 72-00-00

(2) Engineering Change No. 03VJ601

(3) V2500 Engine Manual (EM)(E-V2500-1IA), Chapter/Section 72-50-00, Disassembly-02

(4) V2500 Engine Manual (EM)(E-V2500-1IA), Chapter/Section 72-50-41, Cleaning

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Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).



- (5) V2500 Engine Manual (EM)(E-V2500-1IA), Chapter/Section 72-50-41, Inspection
- (6) V2500 Engine Manual (EM)(E-V2500-1IA), Chapter/Section 72-50-41, Repair 003 (VRS 1491)
- (7) V2500 Engine Manual (EM)(E-V2500-1IA), Chapter/Section 72-50-00, Assembly-01

2. Material Information

None.



3. Accomplishment Instructions

A. Prerequisite Instructions

- (1) Remove LP Turbine Shaft. Refer to EM 72-50-00 Disassembly-02

B. Actions

- (1) Tool

Vickers hardness tester

- (2) Identify the locations where hardness checks are done. Refer to Fig.1. Do not measure the hardness at the marked area of location 2 and 7.
- (3) Clean the shaft. Then, remove the corrosion resistant coating on the areas for the hardness check. Refer to EM 72-50-41 Cleaning.
- (4) Examine the LP Turbine Shaft for hardness.
 - (a) Do the hardness check at locations 1 thru 8. Use Vickers hardness tester. Each hardness check at locations 1 thru 8 must be measured circumferentially at 4 positions equally spaced. Record all data of the hardness on the data sheet of Appendix A.
 - (i) V2500-A1 V0168, V0210 and V0213:

Reject unless the hardness is between 377 HV and 420 HV.
 - (ii) V2500-A5 V10410:

Reject unless the hardness is between 406 HV and 454 HV.
 - (b) The indentations made by the above hardness check must be removed. Refer to EM 72-50-41 Repair 003 (VRS 1491).
- (5) Examine the LP Turbine Shaft for dimension
 - (a) Measure axial length L circumferentially at 8 positions equally spaced. Refer to Fig.1. Record all data of the length L on the data sheet of Appendix A.
 - (b) Do a check of Length J marked at location C. Refer to Fig.1. Record the data of Length J on the data sheet of Appendix A.
 - (c) Reject unless all measured length L are between Length J minus 0.0039 in. (0,1 mm.) and Length J plus 0.0039 in. (0,1 mm.).
- (6) Examine the LP Turbine Shaft. Refer to EM 72-50-41 Inspection.

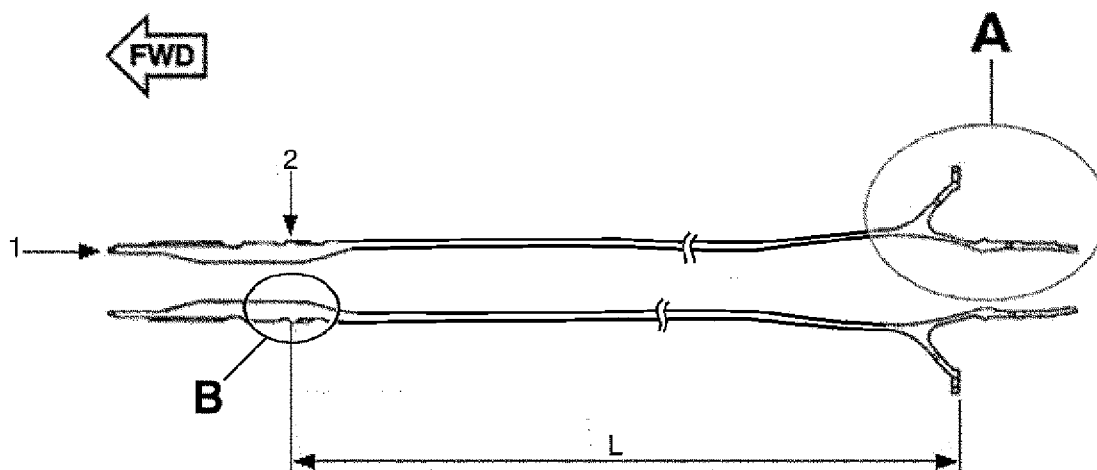


C. Post-requisite Instructions

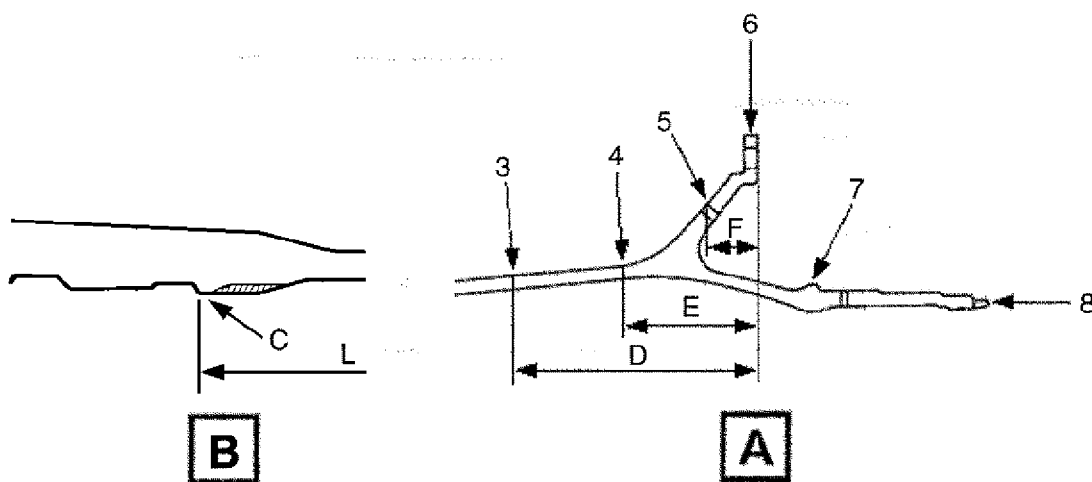
- (1) Install the LP Turbine Shaft. Refer to EM 72-50-00 Assembly-01.

D. Recording Instructions

- (1) A record of accomplishment is required. Inform the IAE representative that this NMSB has been accomplished. Complete the Appendix A - Inspection Record Form - at the back of this bulletin, and return it to the IAE representative.



5 IS THE AREA EXCEPT HOLES.



D : 6.38 TO 6.49 (162 TO 168)
E : 2.64 TO 2.87 (67,0 TO 73,0)
F : 1.03 TO 1.25 (26,0 TO 32,0)

ALL DIMENSIONS ARE IN INCHES (MILLIMETRES).

Requirements of Hardness and Dimensional Check
Figure 1



Appendix A - Inspection Record Form

Inspection Place:

Date:

Engine Serial No.:

Part Name: LP Turbine Shaft

Part No.:

Part Serial No.:

(1) Hardness Check

Limit - For A1: 377 to 420 HV, For A5: 406 to 454 HV

Location 1		Location 2		Location 3		Location 4	
1		1		1		1	
2		2		2		2	
3		3		3		3	
4		4		4		4	

Location 5		Location 6		Location 7		Location 8	
1		1		1		1	
2		2		2		2	
3		3		3		3	
4		4		4		4	

(2) Dimensional Check

Limit of length L: Length J - 0.0039 in (- 0,10 mm) to Length J + 0.0039 in (+0,10 mm)

1		5		J	
2		6			
3		7			
4		8			

Inspection Record Form
Appendix A