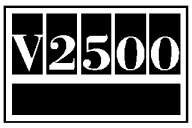
P U B L I C A T I O N T R A N S M I T T A L

RR-DERBY



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DATER Sep.20/02

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

This document transmits Revision 1 to Service Bulletin EV2500-72-0420

Document History

Service Bulletin Revision Status		Supplement Revision Status
Initial Issue	Aug.30/02	

Bulletin Revision 1

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 9 and 11, 12 of the Service Bulletin	To reposition illustrations in Appendix A (technical content unchanged)

LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 1 are as follows:

Page		Revision Number	Revision Date
	Bulletin		
R	1	1	Sep.20/02
R	2	1	Sep.20/02
R	3	1	Sep.20/02
R	4	1	Sep.20/02
R	5	1	Sep.20/02
R	6	1	Sep.20/02
R	7	1	Sep.20/02
R	8	1	Sep.20/02
R	9	1	Sep.20/02
R	11	1	Sep.20/02
R	12	1	Sep.20/02

NON-MODIFICATION SERVICE BULLETIN - ENGINE - NO. 5 COMPARTMENT OIL LOSS TROUBLESHOOTING PROCEDURE AND PROPOSED CORRECTIVE ACTIONS

1. Planning Information

A. Effectivity Data

(1) (For Airbus A319)

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5 - All Engines

(2) (For Airbus A320)

Engine Models Applicable

V2500-A1 - All Engines

V2527-A5, V2527E-A5 - All Engines

(3) (For Airbus A321)

Engine Models Applicable

V2530-A5, V2533A5 - All Engines

(4) (For Boeing MD-90)

Engine Models Applicable

V2525-D5, V2528-D5 - All Engines

B. Concurrent Requirements

There are no concurrent requirements.

C. Reason

A number of engines have been removed from service for oil leakage from the No. 5 Bearing Compartment that resulted in tail pipe smoke event and/or in some cases, resulting in a high oil consumption engine. This leakage can be observed as oil wetting on the lower TEC struts and trailing edge of the LPT blades.

(1) To provide a trouble-shooting guide and suggested workscope for engines inducted into shops for oil leakage from the No. 5 compartment.

(2) To gather necessary data for root cause investigation of events and to support potential engineering change.

(3) Effects of Bulletin on:

Removal/Installation: None.

Disassembly/Assembly: None.

Cleaning: None.

Inspection/Check: None.

Repair: None.

Testing: None.

(4) Supplemental Information

None.

D. Description

To provide a trouble shooting guide for number 5 compartment oil loss.

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.

F. Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

The `compliance' statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

G. Manpower

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

Venue	Estimated Manhours
In Service	1 Hour

Venue	Estimated Manhours
At Overhaul	6 Hours

NOTE: The parts affected by this Service Bulletin are accessible at maintenance and/or overhaul.

H. Weight and Balance

Weight Change	None
Moment	No Effect
Datum	Engine Front Mount Centerline (Power Plant Station (PPS) 100)

I. Electrical Load Data

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

J. Software Accomplishment Summary

Not applicable.

K. References

1. IAE V2500 Service Bulletin V2500-ENG-72-0408 (Non Modification Service Bulletin - Engine - Internal Gearbox Assembly - FBC Troubleshooting and Teardown Procedures) .

2. IAE V2500 Service Bulletin V2500-ENG-72-0419 (Non Modification Service Bulletin - Engine - No. 4 Compartment Oil Loss Investigation and Trouble shooting Guide

3. IAE V2500 All Operators Wire No.: 1050 Issue 2 (Troubleshooting Actions for the No. 4 Bearing Scavenge Valve and High Engine Oil Consumption).

4. IAE V2500 All Maintenance Representatives Wire No.: 045 Issue 4 (Coking in the No. 5 Oil Service Lines).

5. Internal Reference Number - 01VC242

6. ATA Locator - 72-00-00.

L. Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (No)

Revision to Table of Limits (No)

Inspection Procedures (No)

2. Material Information

A. Material - Price and Availability

1. There is no new material cost to do this Service Bulletin.

   Other source of oil loss issues are being investigated with the following NMSB's.

2. NMSB 72-0408 (Engine - Internal Gearbox Assembly - FBC Troubleshooting and Teardown Procedure).

3. NMSB 72-0419 (Engine - No.4 Compartment Oil Loss Investigation and Trouble Shooting Guide).

B. Industry Support Program

Not applicable.

C. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin.

3. Accomplishment Instructions

NOTE: Service Bulletin incorporation on engines installed on aircraft may be desirable and should be individually evaluated.

(1) Pre-requisite Instructions

(a) On wing troubleshooting for the engine and aircraft to prevent unnecessary engine removal.

(b) If engine oil consumption is greater than 0.3 quart per hour, follow All Operators Wire 1050 issue 2 (Reference 3.).

(c) If the number 5 bearing compartment LPT Shaft blind cap leaking, determine after removal of the LPC Spinner (AMM ATA 72-38-11, page block 401). If leakage found, replace seal and properly seat the blind cap (Airbus SIL21-029, page block 201- Environmental Control Systems decontamination procedure) (ATA 21-00-00).

(2) Actions

(a) Follow troubleshooting Process Flow chart in Figure 1 Appendix A. Record the results of all inspections in Appendix B Tables I and II and return tables via PSCOMM to IAE Technical Services through the local IAE representative.

(3) Address for Return of Parts/Debris (As Required)

(a) All parts/debris for analysis to be returned F.A.O. Gary Fountain.

IAE Technical Services,

Pratt Whitney

400 Main Street M/S 169-15

East Hartford Ct. 06108

USA

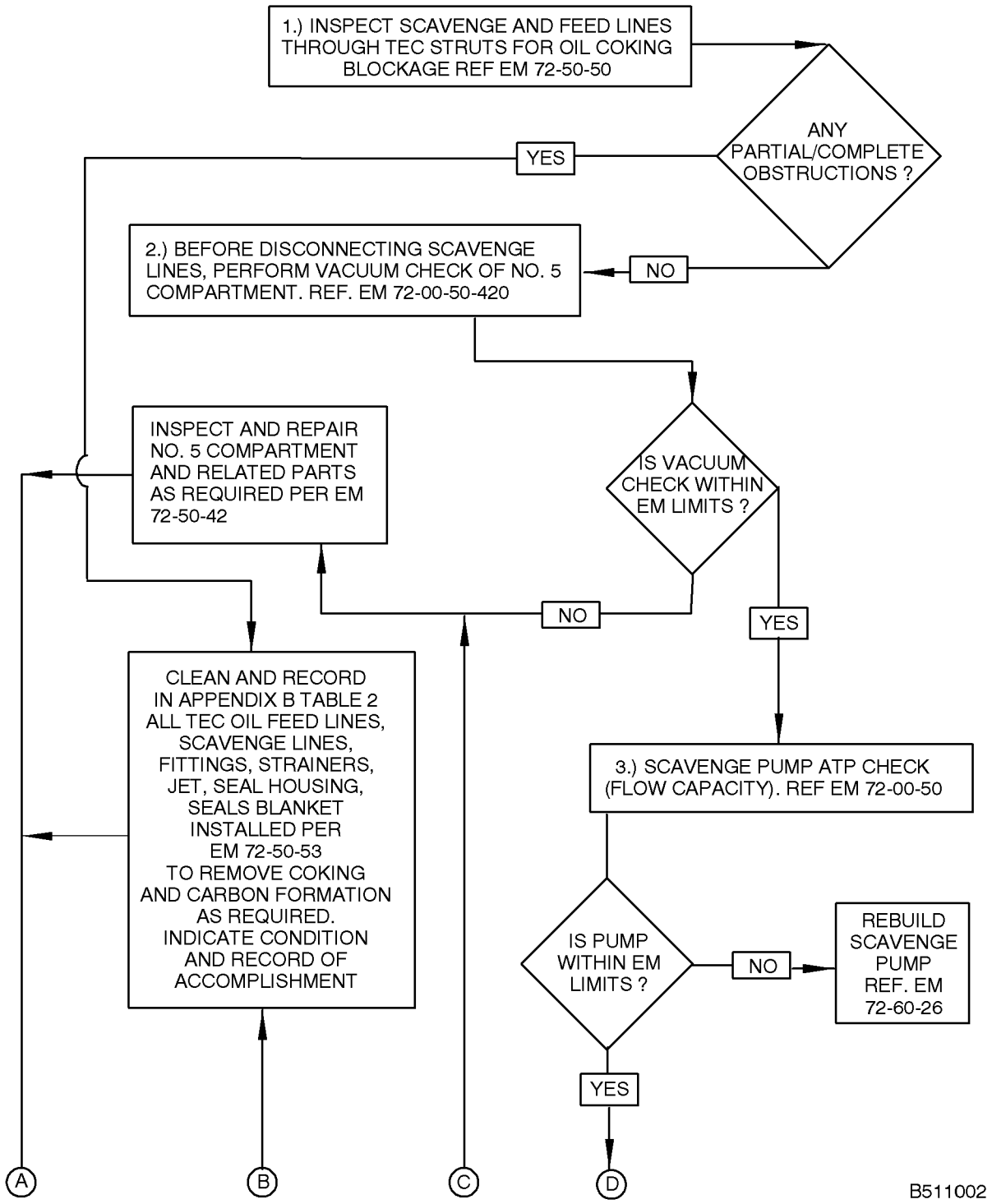
(4) Recording Instructions

(a) A record of accomplishment is required.

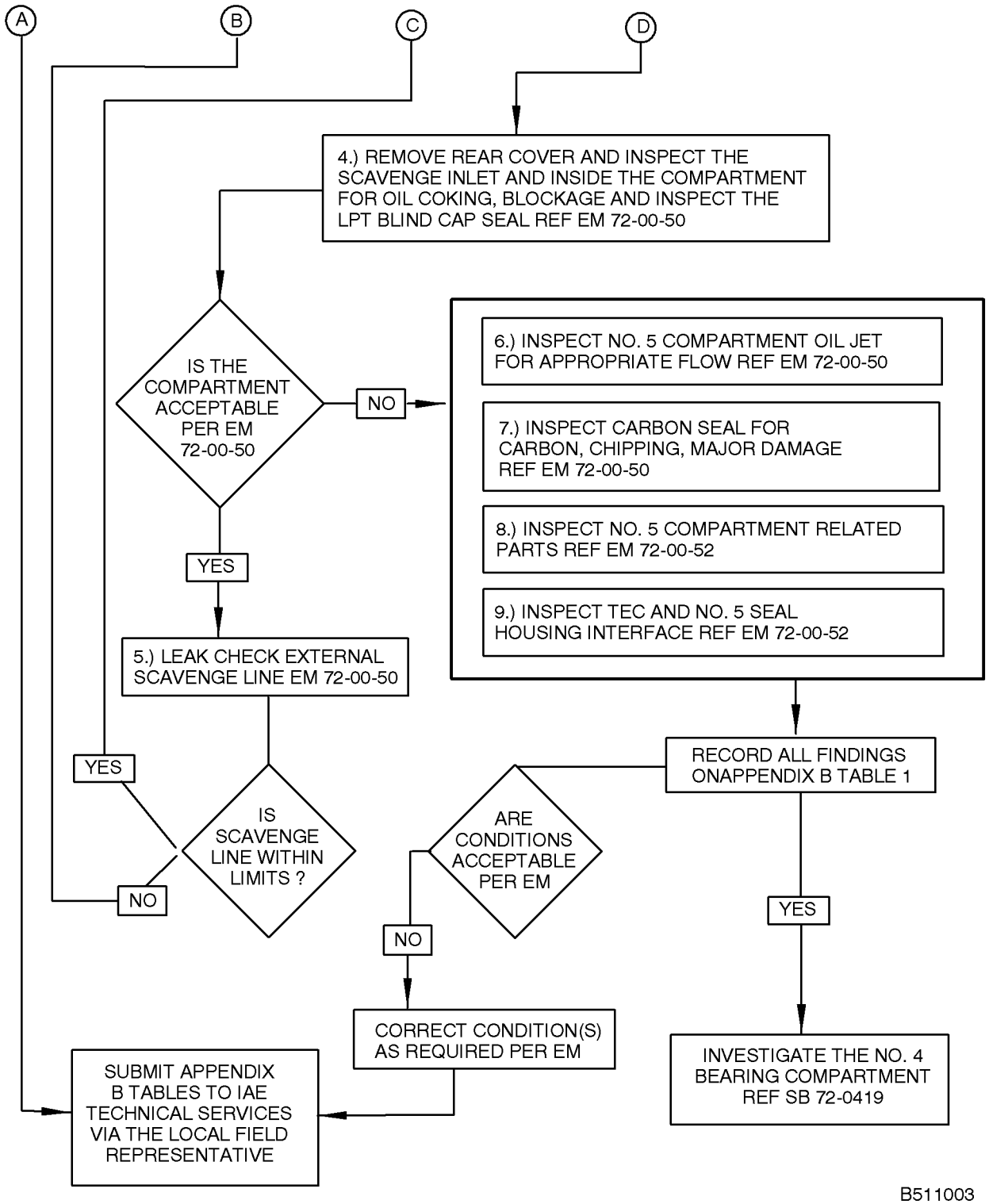
APPENDIX A

APPENDIX A NO. 5 COMPARTMENT TROUBLE SHOOTING CHART

APPENDIX A NO. 5 COMPARTMENT TROUBLESHOOTING CHART



R No.5 Compartment Trouble Shooting Chart
R Figure 1 (Sheet 1)



R No.5 Compartment Trouble Shooting Chart
R Figure 1 (Sheet 2)

APPENDIX B

APPENDIX B

Appendix B Inspection Table 1

ACTION	LIMIT(S)	ACTUAL	PHOTOS Y/N
1.) Inspect Scavenge and feed lines through TEC struts for oil coking blockage. Ref. EM 72-50-50			
2.) Before disconnecting scavenge lines, perform vacuum check of No. 5 compartment. Ref. EM 72-00-50-420.	5pph max. @ 20inHg		
3.) Scavenge pump ATP check (flow capacity). Ref. EM 72-00-50. 79-22-41-700-401.			
4.) Remove rear cover and inspect the scavenge inlet inside the compartment for oil coking, blockage and inspect the LPT blind cap seal. Ref. EM 72-00-00.	Within limits ?		
5.) Leak check externals scavenge line. Ref. EM 72-50-53.	20 Psig shop air, w, /leak check fluid.		
6.) Inspect No. 5 compartment oil jet for appropirate flow. Ref. EM 72-50-51.	9-18 pph		
7.) Inspect carbon seal for carbon chipping, major damage. Ref. EM 72-50-42.			
8.) Inspect No. 5 compartment related parts. Ref EM 72-50-42.			
9.) Inspect TEC and No. 5 Seal Housing interface. Ref. EM 72-50-53.			
9.1.) Seal Housing diameter, Loc. 1 EM 72-50-53.	5.753-5.754 in. (146.126-146.152 mm)		
9.2.) Seal diameter perpendicularty.	0.001 in. (0.025 mm) max		
9.3.) TEC (Seal Housing maiting surface) diameter EM 72-50-53-990-004 Fig. 803.	5.751-5.752 in. (146.075-146.101 mm)		
9.4.) TEC (Seal Housing maiting surface) perpendicularity.	0.001 in. (0.025 mm) max		
9.5.) Evidence of coking, carbon formation.			

Appendix B Cleaning Table 2

Parts/References. Cleaning per EM complied with ?	Yes	No	Photo
Feed lines: EM's 72-50-53-01-170, 72-50-53-20-176, 79-21-49-16-100, 79-21-49-12-100, and 79-21-49-15-100.			
Scavenge Tubes: EM's 72-50-53-01-520, 72-50-53-20-435, 79-21-46-01-100, 79-21-49-01-500.			
Oil Jets: EM's 72-50-51-01-160, 72-50-51-20-070.			
Oil Strainer Tube: EM's 72-50--51-01-140, 72-50-51-20-130.			
Strainer: EM's 72-50-51-01-100, 79-21-49-16-115.			
Turbine Exhaust Case 2A3183: EM's 72-50-50.			
No. 5 Bearing Compartment: EM's 72-50-42.			