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

RR-DERBY

V2500 International Aero Engines

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

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

DATE R Aug.15/02

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

This document transmits Revision 2 to Service Bulletin EV2500-72-0427

Document History

Service Bulletin Revision Status		Supplement Revision Status
Initial Issue	Apr.17/02	
Revision 1	Apr.25/02	

Bulletin Revision 2

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 10 of the Service Bulletin	To revise Effectivity, revise Table II, add D5 models.
All pages of Appendix 1	Page 1 of Appendix 1	To revise Effectivity, revise Table II, add D5 models.

V2500-ENG-72-0427

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
	Bulletin		
R	1	2	Aug.15/02
R	2	2	Aug.15/02
R	3	2	Aug.15/02
R	4	2	Aug.15/02
R	5	2	Aug.15/02
R	6	2	Aug.15/02
R	7	2	Aug.15/02
R	8	2	Aug.15/02
R	9	2	Aug.15/02
R	10	2	Aug.15/02
	Appendix 1		
R	1	2	Aug.15/02

NON MODIFICATION SERVICE BULLETIN - ENGINE - NO. 5 SCAVENGE TUBE LOT NUMBER M26805OS1 IDENTIFICATION AND REPLACEMENT OF

1. Planning Information

A. Effectivity Data (For Airbus A319)

Engine Models Applicable

R V2522-A5, V2524-A5, V2527M-A5 Engines Serial No. V10111, V11183, V11200, V11206, V11207, V11214, V11216, V11229.

B. Effectivity Data (For Airbus A320)

Engine Models Applicable

R V2527-A5, V2527E-A5 Engines Serial No. V10111, V11183, V11200, V11206, V11207, V11214, V11216, V11229.

C. Effectivity Data (For Airbus A321)

Engine Models Applicable

R V2530-A5, V2533A5 Engines Serial No. V10111, V11183, V11200, V11206, V11207, V11214, V11216, V11229.

R D. Effectivity Data (For Boeing MD-90)

R V2525-D5, V2528-D5 Engines Serial No. V20227.

E. Concurrent Requirements

There are no concurrent requirements.

F. Reason

(1) Problem: Their is a quality escape involving 2A3092-01 No. 5 Scavenge Tubes from production.

(2) Evidence: A batch of 5 tubes with the lot number M26805OS1 were inadvertently shipped to the TEC producer after having been rejected; failing x-ray inspection due to incomplete brazing. Three (3) tubes were found with oil leakage at prior to engine delivery and replaced. The two (2) remaining tubes with incomplete braze on the ferrule with batch lot number M26805OS1 are suspect in the engines specified in the effectivity section.

(3) Objective: Locate and replace the suspect tubes.

(4) Effects of Bulletin on:

Removal/Installation: None

Disassembly/Assembly: None

Cleaning: None

Inspection/Check: None

Repair: None

Testing: None

(5) Supplemental Information

None.

G. Description

Take appropriate action to inspect the suspect engines (listed in Table I) within 10 cycles of engine service.

Table I for 10 Cycle Inspection

ESN	MSN
V11207	1707
V11214	1707

Take appropriate action to inspect the suspect engines (listed in Table II) within 200 cycles of engine service.

Table II for 200 Cycle Inspection

	ESN	MSN
R	V10111	Spare
	V11216	1663
	V11206	1698
	V11200	1688
	V11183	1729
	V11229	Spare
R	V20227	Spare

H. Compliance

Category 3

Accomplish within 10 or 200 cycles of engine service (as described in Tables I and II Description Section).

I. 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.

J. Manpower

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

Venue	Estimated Manhours
In Service Inspect	0.5 Hours
In Service Inspect and Replace Tube	1.5 Hours
At Overhaul	Not Applicable

K. Weight and Balance

Weight Change	None
Moment	No Effect
Datum	Engine Front Mount Centerline (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 All Operators Wire -1061 Dated April 4, 2002.

2. V2500 Engine Illustrated Parts Catalogs (S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, and S-V2500-71B), Chapter/Section 72-50-53-20-435.

3. V2500 Engine Manual (E-V2500-1IA), Chapter/Section 72-50-50.

4. V2500 Engine Manual (E-V2500-1IA), Chapter/Section 78-11-12.

R 5. V2500 Engine Manual (E-V2500-3IA), Chapter/Section 72-50-50.

R 6. V2500 Engine Manual (E-V2500-3IA), Chapter/Section 78-11-12.

R 7. Internal Reference Number 02VC083, 02VC083A, 02VC083B.

8. ATA Locator - 72-50-00.

0. Interchangeability of Parts

Parts marked with lot number M26805OS1 must not be used.

P. Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

2. Material Information

A. Material - Price and Availability

1. Part prices were not available at the time of Service Bulletin publication. Contact IAE's Spare Parts Sales Department for firm quotations.

B. Industry Support Program

Not Applicable.

C. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin.

D. Other Material Information Data

Not Applicable.

3. Accomplishment Instructions

NOTE: SERVICE BULLETIN INCORPORATION ON ENGINES INSTALLED ON AIRCRAFT MAY BE DESIRABLE AND SHOULD BE INDIVIDUALLY EVALUATED.

(1) Enable access to No. 5 Scavenge Tube PN 2A3092-01 per step B below assuming adequate access is previously arranged.

(a) Inspection:

(i) Remove the Tail Cone Assembly reference (remove 13 bolts) EM 78-11-12-020-001.

(ii) Remove Heat Shield Assembly PN 2A2242 from the No. 5 Scavenge Tube PN 2A3092-01. Reference sections 6 and 7 of step B disassembly sequence EM 72-50-50-040-001.

(iii) With a flashlight and mirror as necessary, inspect the tube nut PN MS9198-07 at the No. 5 Scavenge port exit (nearest view J-J Figure 1). Verify and remove the No. 5 Tube per steps B below if M26805OS1 batch lot number is marked on the nut. Tubes marked MS26805O without the S1 are not suspect.

(iv) If the suspect Tube is identified, proceed to steps B, C, and D for replacement instructions. If the No.5 scavenge tube is not of suspect lot, return to service securing any affected part removed/disassembled referencing steps C and D.

(b) Disassembly instructions: Remove the No.5 Bearing Scavenge Tube. Reference EM 72-50-50-040-001 and Figure 1.

(i) Remove the bolts and nuts that attach the bracket to the oil scavenge tube and to the rear external flange of the turbine exhaust case. Remove the bracket.

(ii) Disconnect the scavenge tube nut at the elbow at external opening incase. Remove the elbow.

(iii) Remove the thrust wire from the tube nut at the external opening in the case. Remove the tube nut and discard the thrust wire.

(iv) Release the nut that attaches the oil scavenge tube and the heat shields to the inner bracket. Remove the nut, washers and bolt.

(v) Remove the lockwire that attaches the two heat shields to the scavenge tube and remove the two heat shields.

(vi) Remove the two bolts and nuts that attach the inner bracket to the inner support of the turbine exhaust case. Remove the bracket. Release the tube nut from the inner adapter on the exhaust case. Remove the adapter from the inner support of the turbine exhaust case.

(vii) Discard the packing.

(c) Assembly instructions: Install the No.5 Bearing Scavenge Tube. Reference EM 72-50-50-040-060 and Figure 2.

(i) Install a new Packing PN AS3209-015 (1 off) on the Adapter PN 5OP186. Install the adapter and packing to the scavenge port on the Exhaust Case housing. Torque the adapter 150 to 170 lbfin (16,948 to 19.207 Nm).

(ii) Install the No.5 Bearing Scavenge Tube PN 2A3092-01 into the exhaust case strut and attach the tube nut to the adapter, hand tight only. Assure that the replacement tube does not have lot number MS26050S1 on nut as referenced in A3.

(iii) Attach the Tube Nut PN 493975 to the Scavenge Tube with ThrustWire PN ST1003-07 where the tube comes out of case.

(iv) Install the Bracket PN 2A2212 (if removed) and secure with two Bolts PN 4W0002 and Nuts PN 4W0165 hand tight only to the external flange of the case.

(v) Secure the No.5 Bearing Scavenge Tube and installed hardware asfollows:

NOTE: When you do the next steps you should make sure the tube is in the center of the exhaust case opening.

(1) Torque the inner tube nut 225 to 250 lbfin (25,422 to 28,246 Nm). Lockwire the tube nut and adapter.

(2) Torque the outer tube nut 320 to 350 lbfin (36,155 to 39,545 Nm). Lockwire the tube nut, thrust wire and elbow.

(3) Torque the three nuts which hold the elbow to the bracket and the bracket to the case 85 to 95 lbfin (9,604 to 10,734 Nm).

(vi) Install the Bracket PN 2A2176 onto the inner support of the case. Install the two Bolts PN 4W0165 and the two Nuts PN 4W0002. Torque the nuts 85 to 95 lbfin (9,604 to 10,734 Nm).

(vii) Install the upper Heatshield and lower Heatshield (previously removed assembly PN 2A2242) over the inner end of the Scavenge Tube.

(viii) Install the Bolt (72-50-53,20-480), washers (72-50-53,20-475) and nut (72-50-53,20-470) to secure the upper heatshield to the bracket on the inner housing. Torque the nut 36 to 40 lbfin (4,067 to 4,519 Nm).

(ix) Safety the upper and lower heatshields to each other with CoMat 02-141 lockwire.

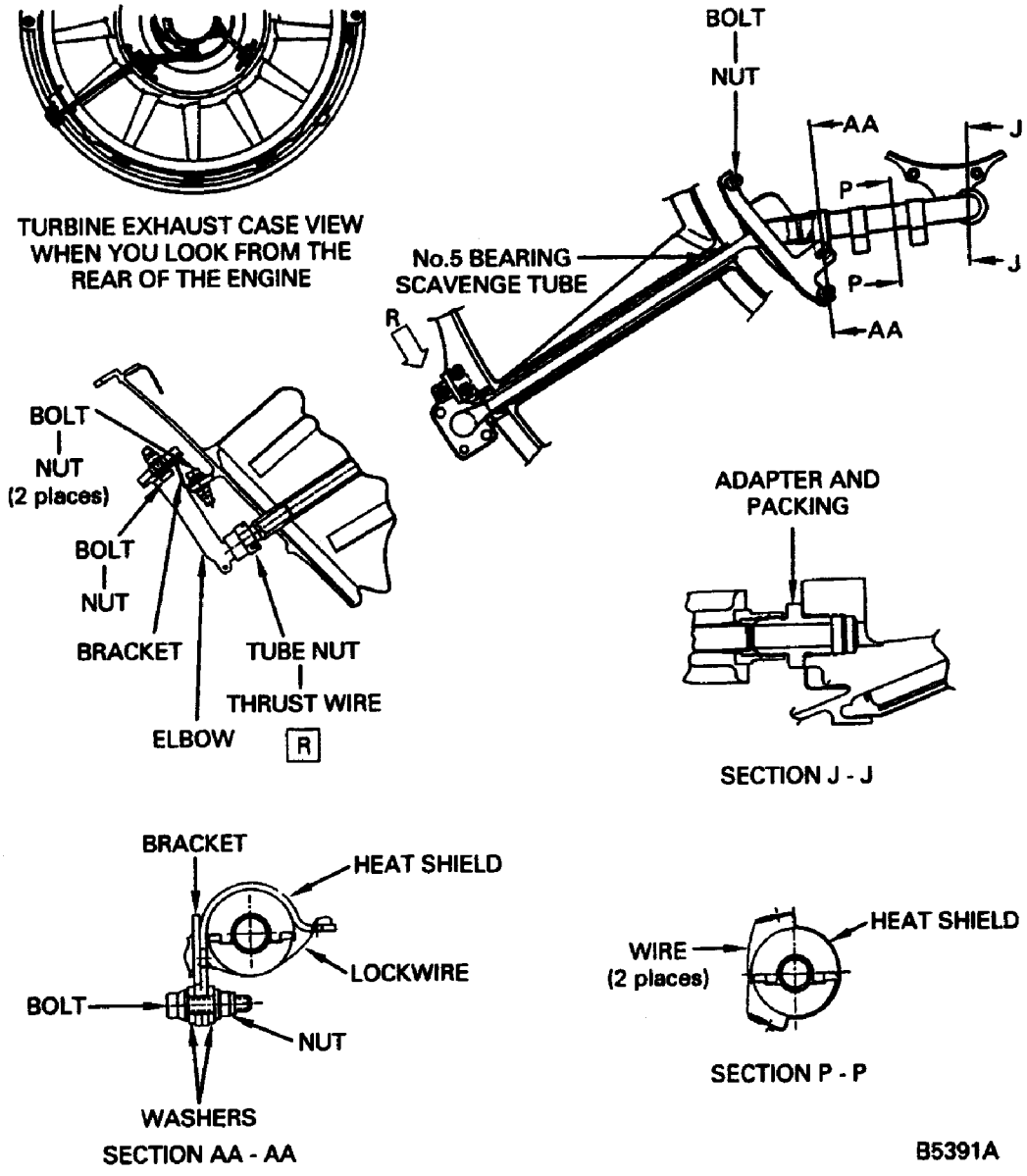
(d) Test requirements:

(i) Perform Test No.3 Idle leak check 71-00-00-700-003, as applicable.

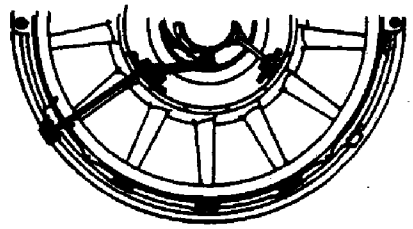
(2) Recording Instructions

(a) A record of accomplishment is required.

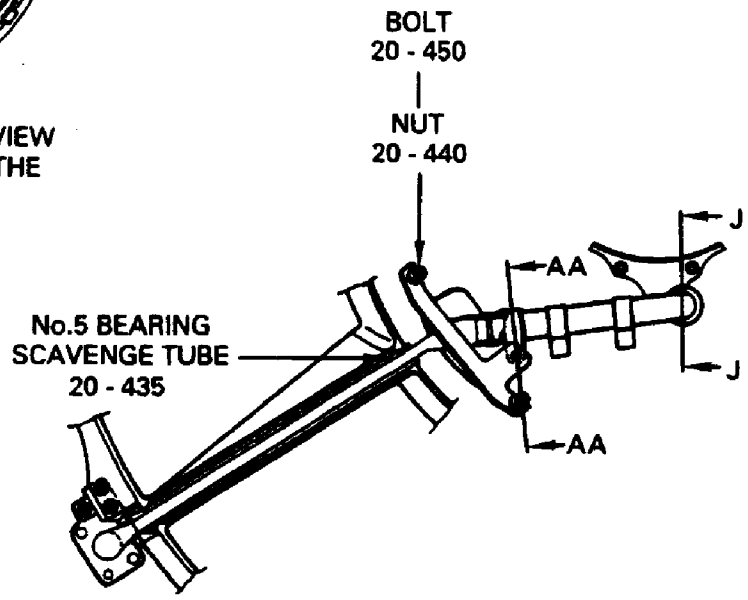
(b) Notify IAE Technical Services via field representative with all findings.

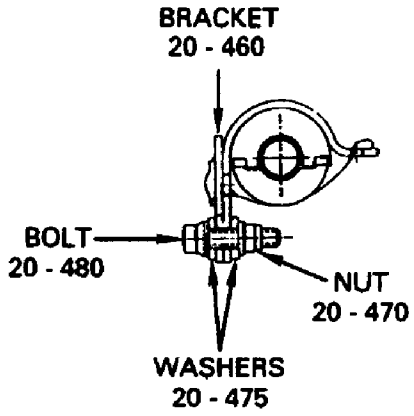


Remove the No.5 Bearing Scavenge Tube
Figure 1

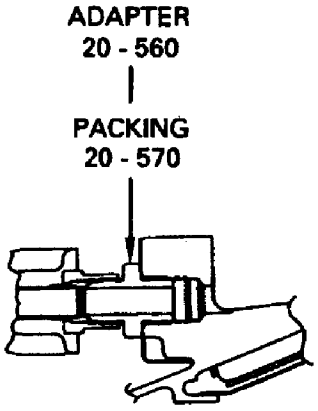


TURBINE EXHAUST CASE VIEW
WHEN YOU LOOK FROM THE
REAR OF THE ENGINE





SECTION AA - AA



SECTION J - J

All EIPC Fig/Item numbers are 72 - 50 - 53
unless specified differently

B5413

Install the No.5 Bearing Scavenge Tube
Figure 2

APPENDIX 1

Added Data

Number values shown in parenthesis adjacent to U.S. values are Systeme Internationale equivalents.