



**International
Aero Engines**

V2500 Propulsion System — Nacelle

SERVICE BULLETIN

Date: August 15, 1997

Subject: Transmittal of Revision 1 to Service Bulletin Number V2500-NAC-30-0002

Service Bulletin Revision History:

| <u>Event</u> | <u>Date</u> |
|--------------|-------------|
| Basic Issue | Jul. 01/97 |
| Revision 1 | Aug 15/97 |

Reasons for Issuance of Revision

(1) To add information to the Planning Information section of the bulletin.

Effect on Past Compliance

(1) None.

List of Effective Pages:

| <u>Page No.</u> | <u>Rev. No.</u> | <u>Date</u> |
|-----------------|-----------------|-------------|
| 1 thru 4 | 1 | Aug 15/97 |

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Transmittal

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**NACELLE - ICE AND RAIN PROTECTION - ANTI-ICE REGULATOR VALVE -
REPLACEMENT OF**

MODEL APPLICATION

V2500-D5

BULLETIN INDEX LOCATOR

30-00-00

Compliance Category Code

4

Internal Reference No.

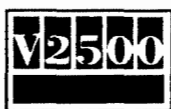
JG/LL 97VN810

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NACELLE - ICE AND RAIN PROTECTION - ANTI-ICE REGULATOR VALVE - REPLACEMENT OF

1. Planning Information

A. Effectivity

(1) Aircraft: McDonnell-Douglas MD-90

(2) Nacelle: V2500-D5

(3) Unit:

(a) Thermal anti-ice regulator valves, RYLB52192-2 and RYLB52192-3, with Serial Numbers 20 through 216.

B. Reason

A limited number of thermal anti-ice regulator valves may experience early failure due to ceramic ball/valve seat wear. These valves must be returned to the vendor for modification and/or replacement.

C. Compliance

Category 4.

Accomplish at the first visit of the nacelle or nacelle component to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action for the nacelle or nacelle component.

D. Approval

Incorporation of this Service Bulletin must be accomplished only in conjunction with Douglas Aircraft Company Service Bulletin MD-90-30-015 which has received exclusive FAA approval for MD-90 Series aircraft.

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E. References

- (1) IAE Engineering Change 97VN810.
- (2) Barber-Colman Service Bulletin RYLB52192-2/30-3.
- (3) MD90 Aircraft Maintenance Manual

F. Manpower

| VENUE | ESTIMATED MANHOURS |
|----------------------|-----------------------|
| (1) In Service | |
| (a) To gain access | 0.1 M/Hrs |
| (b) To replace valve | 1.0 M/Hrs |
| (2) At Overhaul | <u>Not Applicable</u> |
| TOTAL | 1.1 M/Hrs |

NOTE: After incorporation of this modification, a maximum of 2.2 manhours for labor will be reimbursed by Rohr, as a labor credit allowance per affected aircraft to obtain a labor credit allowance after procurement of noted material. Labor claims should reference this service bulletin number and aircraft fuselage number and be submitted to:

Rohr, Inc.
850 Lagoon Drive
Chula Vista, CA 91910-2098
Attn: Airline Support Manager, MZ 107A
Warranty Department
(Ref. Service Bulletin V2500-NAC-30-0002)

G Material - Cost and Availability

The parts to do this Service Bulletin are available from Barber Colman at no cost to the operator.

Operators will have one year from Revision 1 issue date of this

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R Service Bulletin to request the parts from Barber Colman. After
R one year, operators will be required to purchase parts at the
R current catalog price, if they desire to incorporate this
R change.

R Direct Inquiries to:

R Barber Colman Company
R Aerospace and Power Controls Division
R 1354 Clifford Avenue
R P.O. Box 2940
R Loves Park, IL 61132-2940
R U.S.A.

R Attn: Repair Administrator
R Phone - (815) 637-5045
R Fax - (815-877-8046
R (Ref. RYLB52192-2/30-3

H. Action

- (1) Open the fan cowl doors. Refer to Reference (3), Chapter 71-13-01, Page Block 201.
- (2) Remove any thermal anti-ice regulator valve within the serial numbers shown in the Effectivity paragraph. Refer to Reference (3), Chapter 30-22-51.
- (3) Install the replacement RYLB52192-2 "B" or RYLB52192-4 valve. Refer to Reference (3), Chapter 30-22-51.
- (4) Close the fan cowl doors. Refer to Reference (3), Chapter 71-13-01, Page Block 201.
- (5) Return the removed valve to the vendor as specified in reference (2).
- (6) Record in the Engine Log Book that this Service Bulletin has been incorporated.

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ANTI-ICE VALVES RYLB 52192-2 AND RYLB 52192-3: REWORK OF INTERNAL REFERENCE REGULATOR VALVE ASSEMBLY BY REPLACING ITS PIN AND ITS VALVE BODY; REPLACEMENT OF RELATED MAIN VALVE SMALL SPRING AND BALL TO IMPROVE PRODUCT RELIABILITY. REWORKED RYLB721-2 REFERENCE REGULATOR VALVE ASSEMBLIES WILL BECOME RYLB721-3 REFERENCE REGULATOR VALVE ASSEMBLIES AND RYLB 52192-3 ANTI ICE VALVES WILL BECOME RYLB 52192-4 VALVES WITH A NEW NAMEPLATE

PLANNING INFORMATION

1. Effectivity

The effectivity is for all anti-ice regulator valves RYLB 52192-2, serial numbers 20 through 47, and all anti-ice regulator valves RYLB 52192-3, serial numbers 48 through 216, used on the McDonnell Douglas MD90/V2500 aircraft. All RYLB 52192-2 and RYLB 52192-3 valves returned to Barber-Colman under warranty rework will be modified as detailed in this Service Bulletin. Each reworked RYLB 52192-2 valve will be identified by marking a suffix "B" after the serial number on its nameplate. Reworked RYLB 52192-3 valves will become RYLB 52192-4 valves as shown on their replacement nameplates. All valves with serial numbers 217 and above will be manufactured as RYLB 52192-4 valves with all changes associated with Service Bulletins RYLB 52192-2/30-2 and -3.

2. Reason for Change

Anti ice valves in the field have experienced early failure due to reference regulator valve assembly seat wear/damage. To prevent this wear, the reference regulator valve assembly will be reworked, and the related ball and small spring will be replaced by improved parts. The new ball, spring and reworked reference regulator valve assembly will prevent this wear/damage.

3. Description

Action of the existing main valve ball and small spring related to the reference regulator valve assembly have caused excessive wear/damage of the ball-seat of the regulator body of the reference regulator valve assembly. This can cause valve failure. Reworking the reference regulator valve assembly by replacing its regulator body and its regulator pin and then replacing the related main valve ball and spring with improved parts will prevent this wear/damage.

The reworked reference regulator valve assembly RYLB721-2 will go to RYLB721-3 and includes the new AP4-87 seamless wire orange reference regulator spring. Reworked RYLB 52192-2 units will have their nameplates marked by stamping or by using either an electric engraving pen or carbide tipped stylus to clearly mark a suffix "B" after the serial number. Reworked RYLB 52192-3 units will have a new nameplate installed showing RYLB 52192-4 as their new dash part number.



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Service Bulletin RYLB52192-2/30-2 must be accomplished prior to or in conjunction with this Service Bulletin.

4. Approval

This Service Bulletin RYLB52192-2/30-3 has been shown to comply with the appropriate federal airworthiness regulations and is FAA approved for those units listed in this Service Bulletin.

5. Compliance

This Service Bulletin will be incorporated on RYLB 52192-2 and RYLB 52192-3 valves with serial numbers 20 through 216. This change is highly recommended by the OEM as the preferred configuration for all units. All anti ice valves returned to Barber-Colman for other repairs will have the reference regulator valve assembly reworked and the related main valve ball and small spring replaced as warranty items. New nameplates will be installed for reworked RYLB 52192-3 to RYLB 52192-4 valves, as a warranty item.

6. Manpower Required to Accomplish Change

Mean Man Hours to complete the valve rework at Barber-Colman is 12 hours.

7. Material - Cost and Availability

Table 1. Material Cost and Availability

| MATERIALS | PRICE | LEADTIME | SOURCE OF SUPPLY |
|---|-------|---------------------|-----------------------|
| RYLB721-2 REFERENCE REGULATOR VALVE (FROM REPAIR UNIT) | N/A | Stock to 8 Weeks | Barber-Colman Company |
| RYLB729-2 REGULATOR BODY (MAKING -3 REFERENCE REGULATOR VALVE) | | | |
| RYLB728-1 REGULATOR PIN (MAKING -3 REFERENCE REGULATOR VALVE) | | | |
| AP1-36 MAIN VALVE BALL | | | |
| AP4-89 MAIN VALVE SMALL SPRING | | | |



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| MATERIALS | PRICE | LEADTIME | SOURCE OF SUPPLY |
|--|-------|----------|------------------|
| RYLB680-11 NAMEPLATE (FOR REWORKED RYLB 52192-3 UNITS) | | | |

8. Tooling Required

No special tooling is required.

9. Weight and Balance

Weight and balance are not affected.

10. Electrical Load Data

No change in loading.

11. Software Accomplishment Summary

Not applicable.

12. References

Reference Component Maintenance Manual ATA 30-28-51 for RYLB 52192-2 and RYLB 52192-3.

Reference the latest issue of IAE Service Bulletin V2500-NAC-30-0002.

13. Other Publications Affected by Bulletin

The Component Maintenance Manual affected by this bulletin is ATA 30-28-51 for RYLB 52192-2 and -3. The Service Bulletin List is affected. A manual revision will be distributed.

14. ACCOMPLISHMENT INSTRUCTIONS

Not Applicable.