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

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:- 44 (0) 1332 242424
FAX:- 44 (0) 1332 249936

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V2500-A5/D5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits Revision 2 to Service Bulletin V2500-ENG-72-0525 and Revision 2 to the Supplement

Document History

Service Bulletin Revision Status

Initial Issue	Jun.12/06
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Service Bulletin Revision 2

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 8 of the Service Bulletin	To change Engine Serial Number V10652 to V10637.
All pages of the Supplement	Page 1 of the Supplement	To change Engine Serial Number V10652 to V10637.

International Aero Engines

SERVICE BULLETIN

NON-MODIFICATION SERVICE BULLETIN - ENGINE - MAGNETIC CHIP DETECTOR (MCD) INSPECTIONS FOR ENGINES WITH A CERTAIN POPULATION OF ENGINES WITH PN 2A1170 NUMBER 3 BEARINGS INSTALLED

1. Planning Information

A. Effectivity

(1) Airbus A319.

(a) Engine Models Applicable.

V2522-A5, V2524-A5, V2527M-A5.

Any engine as applicable per Appendix 1 Table 1.

(2) Airbus A320.

(a) Engine Models Applicable.

V2527-A5, V2527E-A5.

Any engine as applicable per Appendix 1 Table 1.

(3) Airbus A321.

(a) Engine Models Applicable.

V2530-A5, V2533-A5.

Any engine as applicable per Appendix 1 Table 1.

(4) Boeing MD-90.

(a) Engine Models Applicable.

V2525-D5, V2528-D5.

Any engine as applicable per Appendix 1 Table 1.

B. Concurrent Requirements

None.

C. Reason

(1) Problem:

(a) Material and process anomalies have been reported involving number 3 bearings, part number 2A1170, from production. The anomalies have caused number 3 bearing ball spalls, which have resulted in unscheduled engine removals and in-flight shut downs in the field.

(2) Background:

(a) Six bearings have been reported to have a material anomaly within one of the bearing balls. All affected bearing balls have originated within one particular bearing lot.

(b) Three bearings have been reported to have a material anomaly with the forming of one of the bearing balls. All affected bearing balls have originated within one particular bearing lot.

Manufacturing records have suggested that an additional bearing ball lot has a similar process anomaly, although no ball spalls have been reported from this lot.

(3) Objective:

(a) Engines listed in Appendix 1 table 1 to have AMM MCD (Magnetic Chip Detector) inspection every 125 hours until the number 3 bearing has been replaced.

(4) Effects of Bulletin on:

(a) Removal/Installation:

Not affected.

(b) Disassembly/Assembly:

Not affected.

(c) Cleaning:

Not affected.

(d) Inspection/Check:

Reduced inspection interval of Magnetic Chip Detectors for affected engines.

(e) Repair:

Not affected.

(f) Testing:

Not affected.

(5) Supplemental Information

None.

D. Description

This service bulletin is issued to provide fleet management instructions for affected engines as described in All Operators Wire (AOW) 1071 Revision 2 due to a Fleet Assessment from IAE engineering.

This service bulletin instructs how to carry out the MCD inspection procedures for a certain population of engines with part number 2A1170 number 3 bearings. Three distinct bearing ball production lots have been identified, as well as affected engines, have been identified.

Appendix 1 Table 1 provides a list of engine serial numbers that will require AMM MCD (Magnetic Chip Detector) inspection every 125 hours untill the number 3 bearing 2A1170 is replaced.

E. Compliance

Category 3

Accomplish every 125 hours until the number 3 bearing has been replaced.

F. Approval

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

(1) To inspect the Master Magnetic Chip Detector only.

Total - 0.3 hours:

(a) To gain access - 0.1 hours.

(b) To inspect - 0.1 hours.

(c) To close up - 0.1 hours.

(2) To Inspect Number 1, 2, 3 Magnetic Chip Detector only.

Total - 0.3 hours:

(a) To gain access - 0.1 hours.

(b) To inspect - 0.1 hours.

(c) To close up - 0.1 hours.

H. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

No Effect.

(3) 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) V2500 Engine Illustrated Parts Catalogs (S-V2500-2IA, S-V2500-2IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, and S-V2500-71B), Chapter/Section 72-32-24-01-100.

(2) V2500 Aircraft Maintenance Manual (AMM) 79-00-00, Inspection/Check.

(3) V2500 Maintenance Planning Document (MPD) 792000-14-1.

(4) Internal Reference No. - 06VC018.

(5) ATA Locator - 72-32-20.

L. Other Publications Affected

Not Required.

M. Interchangeability of Parts

Old and new parts are directly interchangeable.

N. 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. Industry Support Program

Not Applicable.

B. Instructions/Disposition Code Statements

Not applicable

C. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin.

D. Reidentified Parts

Not Applicable.

E. 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) Examine the master MCD or the number 1, 2, 3, MCD for debris in accordance with Airbus Maintenance Manual and Maintenance Planning Document 792000-I4-I.

NOTE: IAE recommends this decreased inspection interval for the affected population of Appendix 1 Table 1 until the part number 2A1170 number 3 bearing listed in Appendix 1 has been replaced during a shop visit.

NOTE: The recommendation for a reduced MCD inspection interval is applicable to engines with 2A1170 number 3 bearings that are installed in engines identified in Appendix 1 Table 1 only.

NOTE: All unscheduled engine removals and in-flight shut downs described in AOW 1071 Revision 2 have involved number 3 bearings within this population. It may, however, be more practical for operators to apply the reduced inspection interval to all V2500 engines in their operation.

CAUTION: IN ORDER TO REDUCE THE POTENTIAL FOR MULTIPLE ENGINE IN-FLIGHT SHUT DOWN, POWER LOSS, OR OTHER ANOMALIES DUE TO MAINTENANCE ERROR, IAE RECOMMENDS THAT OPERATORS AVOID PERFORMING MAINTENANCE ON MULTIPLE ENGINES INSTALLED ON THE SAME AIRCRAFT AT THE SAME TIME. IF IT IS NOT POSSIBLE TO AVOID MAINTENANCE ON MORE THAN ONE ENGINE AT THE SAME TIME, IAE RECOMMENDS THAT ADDITIONAL CONTROLS BE APPLIED IN ORDER TO ENSURE THAT MAINTENANCE TASK HAVE BEEN COMPLETED AS DEFINED. MAINTENANCE GUIDELINES SHOULD BE REVISED WHERE POSSIBLE TO PROMOTE THIS RECOMMENDATION.

(a) Remove and examine the Master MCD or the number 1, 2, 3, MCD at an interval not to exceed 125 flight hours until the number 3 bearing is replaced during shop visit. Refer to Aircraft Maintenance Manual (AMM) TASK 79-00-00.

NOTE: This criterion is IAE's recommendation. However if an airline performs the MCD inspection as part of a weekly check this is acceptable.

(b) Inspect the master MCD's or the number 1, 2, 3, MCD at this interval. Both MCD's need not be checked simultaneously.

(c) Continue to inspect Master MCD at each 600 hours as described in Aircraft Maintenance Manual (AMM) TASK 79-00-00.

(2) Recording Instructions

(a) A record of accomplishment is required.

NON-MODIFICATION SERVICE BULLETIN - ENGINE - MAGNETIC CHIP DETECTOR (MCD) INSPECTIONS FOR ENGINES WITH A CERTAIN POPULATION OF ENGINES WITH PN 2A1170 NUMBER 3 BEARINGS INSTALLED

Appendix 1

Table 1: List of identifying engine KNOWN to have part number 2A1170 bearings for which a reduced Magnetic Chip Detector (MCD) inspection is recommended.

NOTE: Operators should check their record for part number 2A1170 bearings which have been replaced during a previous shop visit against the following table.

Table 1.

R V10011, V10021, V10079, V10097, V10139, V10332, V10429, V10540, V10563, V10613, V10619, V10628, V10637, V10659, V10682, V10738, V10744, V10766, V10795, V10818, V10916, V10918, V10922, V10951, V10987, V10989, V11003, V11024, V11027, V11060, V11082, V11084, V11085, V11093, V11104, V11109, V11111, V11116, V11121, V11123, V11155, V11162, V11166, V11181, V11248, V11262, V11290, V11363, V11514, V11515, V11517, V11518, V11519, V11520, V11521, V11522, V11523,V11524, V11525, V11526, V11527, V11528, V11529, V11530, V11531, V11532, V11533, V11534, V11535, V11538, V11540, V11541, V11543, V11550, V11552, V11553, V11554, V11558, V11565, V11567, V11570, V11571, V11573, V11575, V11577, V11578, V11580, V11581, V11584, V11585, V11593, V11595, V11608, V11654, V11666, V11667, V11669, V11670, V11671, V11673, V11676, V11677, V11678, V11679, V11681, V11682, V11690, V11694, V11744, V11748, V11749, V11750, V11752, V11753, V11755, V11757, V11759, V11765, V11767, V11771, V11795, V11839, V11842, V11844, V11865, V20053