V2500 International Aero Engines

V2500 Propulsion System — Engine

SERVICE BULLETIN

Date: October 19, 1999

Subject: Transmittal of Revision 1 to Service Bulletin Number V2500-ENG-79-0042

Service Bulletin Revision History:

Event	Date
Original Issue	June 16, 1995
Revision 1	October 19, 1999

Reasons for issuance of Revision:

(1) To introduce the new part numbers as an acceptable replacement for the old part numbers. The new part numbers were satisfactorily evaluated in-service under "Controlled Service Use" conditions (as per original issue of Service Bulletin V2500-ENG-79-0042).

Effect on Past Compliance:

The compliance category was "Not Applicable" and is now category 7 – 'Accomplish when the supply of superseded parts has been depleted'.

List of Effective Pages:

Page No.	Rev No.	Date
1 - 10	1	October 19, 1999

V2500 International Aero Engines

V2500 Propulsion System — Engine

SERVICE BULLETIN

R
R

ENGINE – POWERPLANT - INTRODUCTION OF A NEW MAGNETIC CHIP DETECTOR

MODEL APPLICATION

V2500-A1
V2522-A5
V2524-A5
V2527-A5
V2527E-A5
V2527M-A5
V2530-A5
V2533-A5

BULLETIN INDEX LOCATOR

79-00-00

R
R

COMPLIANCE CATEGORY CODE
7

INTERNAL REFERENCE No
MM/SM 92VN073/B/C/D

June 16, 1995
Revision 1 - October 19, 1999

V2500-ENG-79-0042

1. Planning Information

A. Effectivity

(1) Airplane:
- (a) Airbus A319
- (b) Airbus A320
- (c) Airbus A321

(2) Engine:
- (a) All V2500-A1 Engines.
- (b) V2522-A5 Engines prior to V10615
- (c) V2524-A5Engines prior to V10615
- (d) V2527-A5 Engines prior to V10615
- (e) V2527E-A5 Engines prior to V10615
- (f) V2527M-A5 Engines prior to V10615
- (g) V2530-A5 Engines prior to V10615
- (h) V2533-A5 Engines prior to V10615

B. Reason

(1) Condition

The current Magnetic Chip Detector Assembly has been experiencing a wear problem on the probe pins and housing slots. Consequently, a new magnetic chip detector was evaluated in-service under "Controlled Service Use" conditions (Ref: original issue of this Service Bulletin) and demonstrated satisfactory performance.

(2) Backround

The new Magnetic Chip Detector Assembly introduced by the original issue of this Service Bulletin has successfully completed a Control Service Use (CSU) trial. The duration of the trial was for 3000 hours.

(3) Objective

To introduce a new Magnetic Chip Detector with improved durability characteristics to maintain engine reliability.

(4) Substantiation

The new magnetic chip detector demonstrated satisfactory performance under "Controlled Service Use" conditions.

(5) Effect of Bulletin on:

(a)	Removal/Installation	Affected
(b)	Disassembly/Assembly	Affected
(c)	Cleaning	Not affected
(d)	Inspection/Check	Affected
(e)	Repair	Not affected
(f)	Testing	Not affected

(6) Supplement Information

None.

C. Description

(1) The change introduced by this Service Bulletin is as follows: -

The Magnetic Chip Detectors are removed and replaced with new, more durable Detectors.

D. Approval

The part number changes and/or part modifications described in sections 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviaition Regulations and are FAA-APPROVED for the Engine Model (s) listed.

E. Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

F. Manpower

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

VENUE	ESTIMATED MANHOURS
(1) At Overhaul	1.5 M/Hrs
	Total 1.5 M/Hrs

NOTE: Manhours are provided for planning purposes only. No labor reimbursement is provided under the terms of this service bulletin.

G. Material Cost and Availability

Modification kit not required. Refer to Section 3, Material Information, for information concerning the availability of the new parts.

H. Tooling – Cost and Availability

None required.

I. Weight and Balance

(1) Weight..... None
(2) Moment arm.....None
(3) Datum.....Engine Front Mount Centerline
(Powerplant Station PPS 100.00)

J. Electrical Load Data

Not affected

K. References

Airbus Industries Modification Number 21820.

Publication	Chapter/Section
A320/V2500-A1, A320-A321/V2500-A5 Aircraft Maintenance Manual. (M-V2500-1IA)	12-13-79 70-23-13 71-00-00 79-22-45

L. Other Publications Affected

Publication	Chapter/Section
A320/V2500-A1 Powerplant Illustrated Parts Catalog (All Variants)	79-22-45
A319/A320/A321/V2500-A5 Powerplant Illustrated Parts Catalog (All Variants)	79-22-45
A320/V2500-A1 Engine Illustrated Parts Catalog (All Variants)	79-22-45
A319/A320/A321/V2500-A5 Engine Illustrated Parts Catalog (All Variants)	79-22-45

2. Accomplishment Instructions

A. Pre-requisite Instructions

(1) None.

B. Installation Instructions

Note: Do not remove or replace the O-Ring Seals or Omni Seal from the new MCD Assemblies. The new MCD Assemblies are delivered with a 44066 O-Ring Seal, an M83248/1-012 O-Ring Seal and a 250-015-0107 Omni Seal installed (ref: Figure 2).

(1) Install the new AS43003-908 or M83248-1-908 O-Ring Seal to the new 1A6794 MCD Assembly. Refer to the Aircraft Maintenance Manual, Task 70-23-13-911-010.

(2) Install the 1A6794 MCD Assembly as instructed in the Aircraft Maintenance Manual, Task 79-22-45-400-011. Torque the 1A6794-2 MCD Housing to 225 to 250lb in (25.4 to 28.25 Nm).

(3) Lightly pull the 1A6794-1 MCD Plug and try to turn it clockwise and then counter-clockwise. The MCD Plug must stay locked. Make sure the red index alignment mark on the Plug aligns with the red index alignment mark on the Housing.

(4) Repeat steps (1) thru (3) as necessary for the replacement of the MCD Assemblies at the locations listed below. Refer to Figure 1:

* HS Gearbox Chip Detector RH Scavenge Housing
* No. 5 Bearing Chip Detector Housing
* No. 1,2 and 3 Bearing Chip Detector Housing
* De-oiler Chip Detector Housing
* Angle Gearbox Chip Detector Housing
* HS Gearbox LH Scavenge Chip Detector Housing

(5) Make sure there is sufficient oil in the system. Refer to the Aircraft Maintenance Manual, Task 12-13-79-610-011.

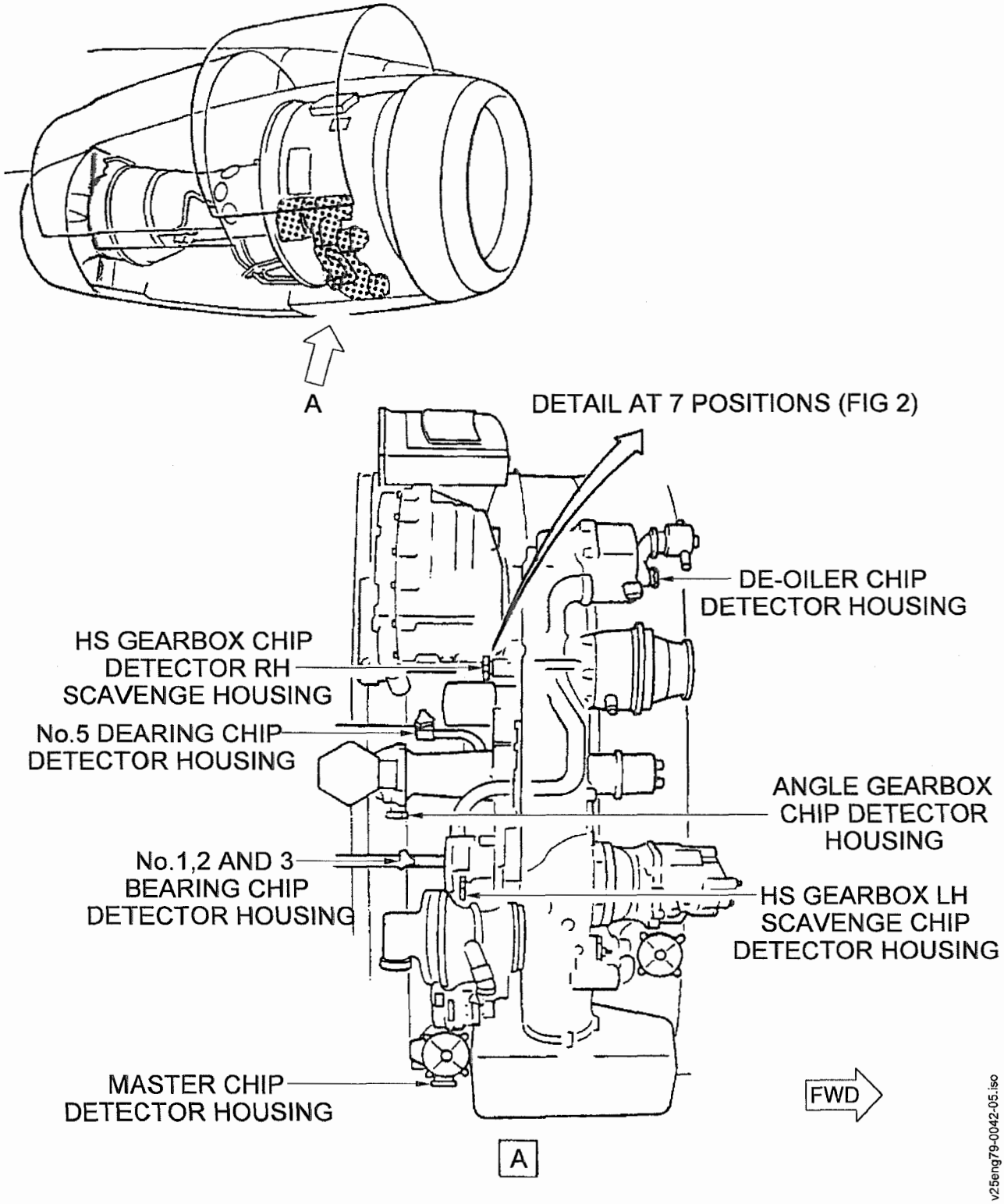
(6) Examine the MCD Assembly for leaks. Refer to the Aircraft Maintenance Manual, Task 71-00-00-710-017 for oil leak tests.

C. Post-requisite Instructions

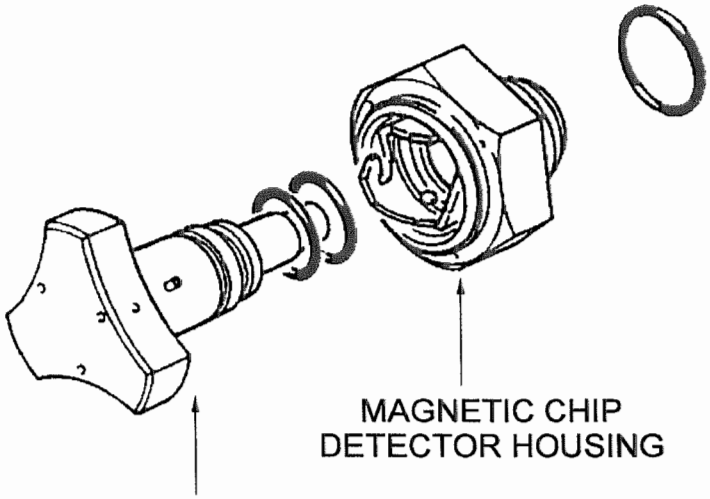
None.

D. Recording Instructions

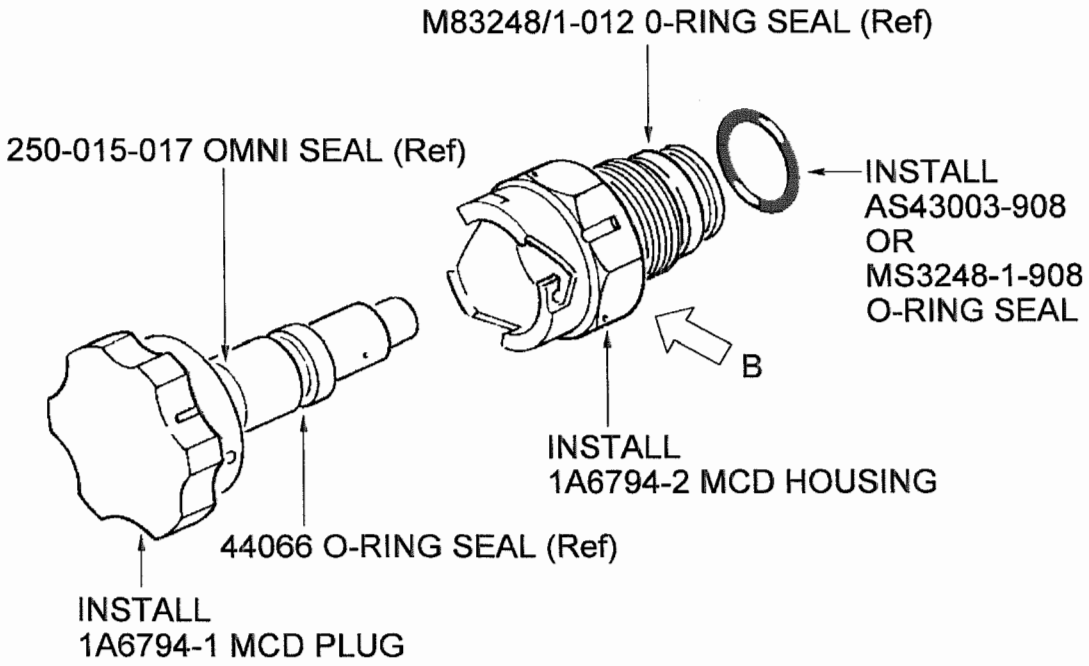
(1) A record of accomplishment is necessary. Write in the Aircraft Log that Service Bulletin V2500-ENG-79-0042 Revision 1 has been done.



LOCATION OF MCD ASSEMBLIES
FIGURE 1



REMOVAL OF P/N VB3505 PLUG, P.N VB3522-2 HOUSING
AND O-RING SEALS



INSTALLATION OF THE 1A6794 MCD ASSEMBLIES
TYPICAL OF SEVEN POSITIONS

v25eng79-0042-06.iso

REPLACEMENT OF MCD ASSEMBLIES
FIGURE 2

3. Material Information

Applicability: For each V2500-A1 or V2500-A5 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin

None.

B. Parts affected by this Bulletin

NEW PART No (ATA No)	QTY	EST'D UNIT PRICE ($)	KEYWORD	OLD PART No (IPC No)	INSTR/ DISPOS
AS43003-908 (79-22-45)	1	$6.00	.O-Ring Seal	M83248-1-909 (01-049)	(A)(B) (S1)(4D)
1A6794 (79-22-45)	1	$3,586.00	.Assembly, Chip collector	VB3521-2 (01-050)	(A)(1D) (S5)
1A6794-1 (79-22-45)	1	$972.00	..Plug, Chip Detector	VB3505 (01-051)	(A)(S1)
1A6794-2 (79-22-45)	1	$1576.00	..Housing, Valve	VB3522-2 (01-052)	(A)(S1)
44066 (79-22-45)	1	$36.00	..O-Ring Seal	44066 (01-053)	(A)(1D) (S1)
--- (79-22-45)	1		.O-Ring Seal	AS43003-908 (01-054)	(B1)
M83248-1-012 (79-22-45)	1	$14.00	..O-Ring Seal	--- (01-057)	(A)(S1)
AS43003-908 (79-22-45)	1	$6.00	.O-Ring Seal	M83248-1-909 (01-058)	(A)(C) (S2)(4D)
1A6794 (79-22-45)	1	$3,586.00	.Assembly, Chip Detector	--- (01-059)	(A)(S5)
1A6794-1 (79-22-45)	1	$972.00	..Plug, Magnetic	VB3505 (01-060)	(A)(1D) (S2)
1A6794-2 (79-22-45)	1	$1576.00	..Housing, Valve	VB3522-2 (01-070)	(A)(1D) (S2)
44066 (79-22-45)	1	$36.00	..O-ring Seal	44066 (01-080)	(A)(1D) (S2)
M83248-1-012 (79-22-45)	1	$14.00	..O-Ring Seal	M83248-1-012 (01-085)	(A)(1D) (S2)
--- (79-22-45)	2		.O-ring Seal	AS43003-908 (01-090)	(A)(C1) (S2)
--- (79-22-45)	5		.Assembly, Chip collector	VB3521-2 (01-100)	(G)(S5)
AS43003-908 (79-22-45)	1	$6.00	.O-Ring Seal	M83248-1-909 (01-102)	(A)(D) (S3)(4D)

1A6794 (79-22-45)	1	$3,586.00	.Assembly, Chip collector	--- (01-103)	(A)(S5) (G1)
1A6794-1 (79-22-45)	1	$972.00	..Plug, Chip collector	VB3505 (01-106)	(A)(S3)
1A6794-2 (79-22-45)	1	$1,576.00	..Housing, Valve	VB3522-2 (01-107)	(A)(S3)
44066 (79-22-45)	1	$36.00	..O-Ring Seal	44066 (01-108)	(A)(1D) (S3)
--- (79-22-45)	1		.O-Ring Seal	AS43003-908 (01-109)	(D1)
--- (79-22-45)	4		.Plug, Magnetic	VB3505 (01-110)	(A)(E)
M83248-1-012 (79-22-45)	1	$14.00	..Ring, Sealing	--- (01-112)	(A)(S3)
AS43003-908 (79-22-45)	4	$6.00	.O-Ring Seal	M83248-1-909 (01-114)	(A)(F) (S4)(4D)
1A6794 (79-22-45)	4	$3,586.00	.Assembly, Chip collector	--- (01-115)	(A)(S5) (G2)
1A6794-1 (79-22-45)	4	$972.00	..Plug, Chip collector	--- (01-118)	(A)(E1) (S4)
1A6794-2 (79-22-45)	4	$1,576.00	..Housing, Valve	VB3522-2 (01-120)	(A)(S4)
44066 (79-22-45)	4	$36.00	..O-ring Seal	44066 (01-130)	(A)(2D) (S4)
M83248-1-012 (79-22-45)	4	$14.00	..O-Ring Seal	M83248-1-012 (01-135)	(A)(3D) (S4)
-- (79-22-45)	4		..O-ring Seal	AS43003-908 (01-140)	(A)(F1)

C. Instructions/Dispositions Code Statements

(A) New parts are currently available.
(1D) Quantity of old part number was two.
(2D) Quantity of old part number was eight.
(3D) Quantity of old part number was five.
(4D) Part number M83248-1-908 is an alternative to AS43003-908.
(S1) New parts coded (S1) are fully and freely interchangeable with old parts coded (S1) as a complete set.
(S2) New parts coded (S2) are fully and freely interchangeable with old parts coded (S2) as a complete set.
(S3) New parts coded (S3) are fully and freely interchangeable with old parts coded (S3) as a complete set.
(S4) New parts coded (S4) are fully and freely interchangeable with old parts coded (S4) as a complete set per location.
(S5) Part number 6U1000 is the IAE reference number relative to part number 1A6794.
(B) Part number moved from ATA location 79-22-45 (01-054)
(B1) Part number moved to revised ATA location 79-22-45 (01-049)

(C) Part number moved from ATA location 79-22-45 (01-090)
(C1) Part number moved to revised ATA location 79-22-45 (01-058)
(D) Part number moved from ATA location 79-22-45 (01-109)
(D1) Part number moved to revised ATA location 79-22-45 (01-102)
(E) Part number moved from ATA location 79-22-45 (01-118)
(E1) Part number moved to revised ATA location 79-22-45 (01-110)
(F) Part number moved from ATA location 79-22-45 (01-140)
(F1) Part number moved to revised ATA location 79-22-45 (01-114)
(G) Part number moved to revised ATA location 72-22-45 (01-103) qty 1 off, and ATA location 72-22-45 (01-115) qty 4 off .
(G1) Part number moved from ATA location 79-22-45 (01-100)
(G2) Part number moved from ATA location 79-22-45 (01-100)

NOTE: The estimated 1999 Unit Price shown is provided for planning purposes only and does not constitute a firm quotation. Consult the Rohr Price Catalog or contact Rohr's Spares Parts Sales Department for information concerning firm prices.

D. Materials Required to Incorporate this Bulletin.

CoMat	V10-039	Engine Oil
CoMat	V02-126	Lockwire

NOTE: To identify the consumable materials, refer to the Overhaul Processes and Consumable Index PCI-V2500-1IA.