



ENGINE - DIFFUSER AND COMBUSTION SECTION - INTRODUCE NEW INNER AND OUTER COMBUSTION  
CHAMBER ASSEMBLIES - CATEGORY CODE 7 - MOD.ENG-72-0159

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320, A321  
McDonnell Douglas MD-90
- (2) Engine: V2500-A5 Engines before Serial No.V10010  
V2500-D5 Engines before Serial No.V20007

B. Reason

(1) Condition

It was possible to make the durability of the Inner and Outer Combustion Chamber Assemblies better.

(2) Background

Incorporation of the changes that were made to the Inner and Outer Combustion Chamber Assemblies on another engine model will increase the durability of those parts for the V2500-A5 and the V2500-D5.

(3) Objective

To increase the durability of the Inner and Outer Combustion Chamber Assemblies.

(4) Substantiation

Satisfactory endurance testing.

(5) Effects of Bulletin on Workshop Procedures:

Removal/Installation	Not affected
Disassembly/Assembly	Not affected
Cleaning	Not affected
Inspection/Check	Not affected
Repair	Not affected
Testing	Not affected

(6) Supplemental Information

None

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**C. Description**

- (1) Replace the Outer Combustion Chamber Assembly with one that has:
- (a) a modified rear seal
  - (b) new liners with added holes and revised hole patterns.
  - (c) a new hood liner with a revised cooling hole pattern and an increased hardcoating thickness on the hood
  - (d) new liner segments commonly used in V2500-A1 Engines
  - (e) a new liner assembly with a revised hole pattern and additional hardface on the forward liner.
- (2) Replace the Inner Combustion Chamber Assembly with one that has the following features:
- (a) new liner segments commonly used in V2500-A1 Engines
  - (b) a new liner assembly with a revised hole pattern and additional hardface on the forward liner.

**D. Approval**

The Part Number Changes and/or part modifications described in Section 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

**E. Compliance**

Category Code 7

Accomplish when supply of superseded parts has been depleted.

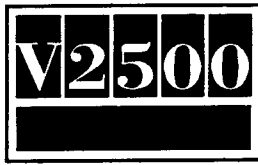
**F. Manpower**

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In Service	Not applicable
(2) At Overhaul	Not applicable

**G. Material - Price and Availability**

- (1) Modification Kit not required.
- (2) See "Material Information" section for prices and availability of future spares.

H. Tooling - Price and Availability

None.

I. Weight and Balance

- |     |               |    |    |    |   |
|-----|---------------|----|----|----|---|
| (1) | Weight Change | .. | .. | .. | None  |
| (2) | Moment Arm    | .. | .. | .. | No effect   |
| (3) | Datum         | .. | .. | .. | Engine front mount centerline<br>(Powerplant station P.P.S.100) |

K. Electrical Load Data

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

K. Reference

- (1) Internal Reference No.

92VA099

- (2) Other References

V2500 Engine Illustrated Parts Catalogs (V2500-A5 and V2500-D5).

V2500 Engine Manual.

MD-90 Engine Manual.

L. Other Publications Affected

- (1) The V2500-A5 and V2500-D5 Engine Illustrated Parts Catalogs, Chapter/Section 72-42-61 and 72-44-30, Figure 1, to add the new parts.
- (2) The V2500 Engine Manual and the MD-90 Engine Manual, Chapter/Section 72-42-61 and 72-44-30, Cleaning, to add the new parts.
- (3) The V2500 Engine Manual and the MD-90 Engine Manual, Chapter/Section 72-42-61 and 72-44-30, Inspection, to add the new parts.
- (4) The V2500 Engine Manual and the MD-90 Engine Manual, Chapter/Section 72-42-61 and 72-44-30, Repair, to add the new parts.

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## 2. Accomplishment Instructions

### A. Rework Instructions

- (1) There are no rework instructions necessary to accomplish this Service Bulletin.

### B. Assembly Instructions

#### (1) For V2500-A5 Engines

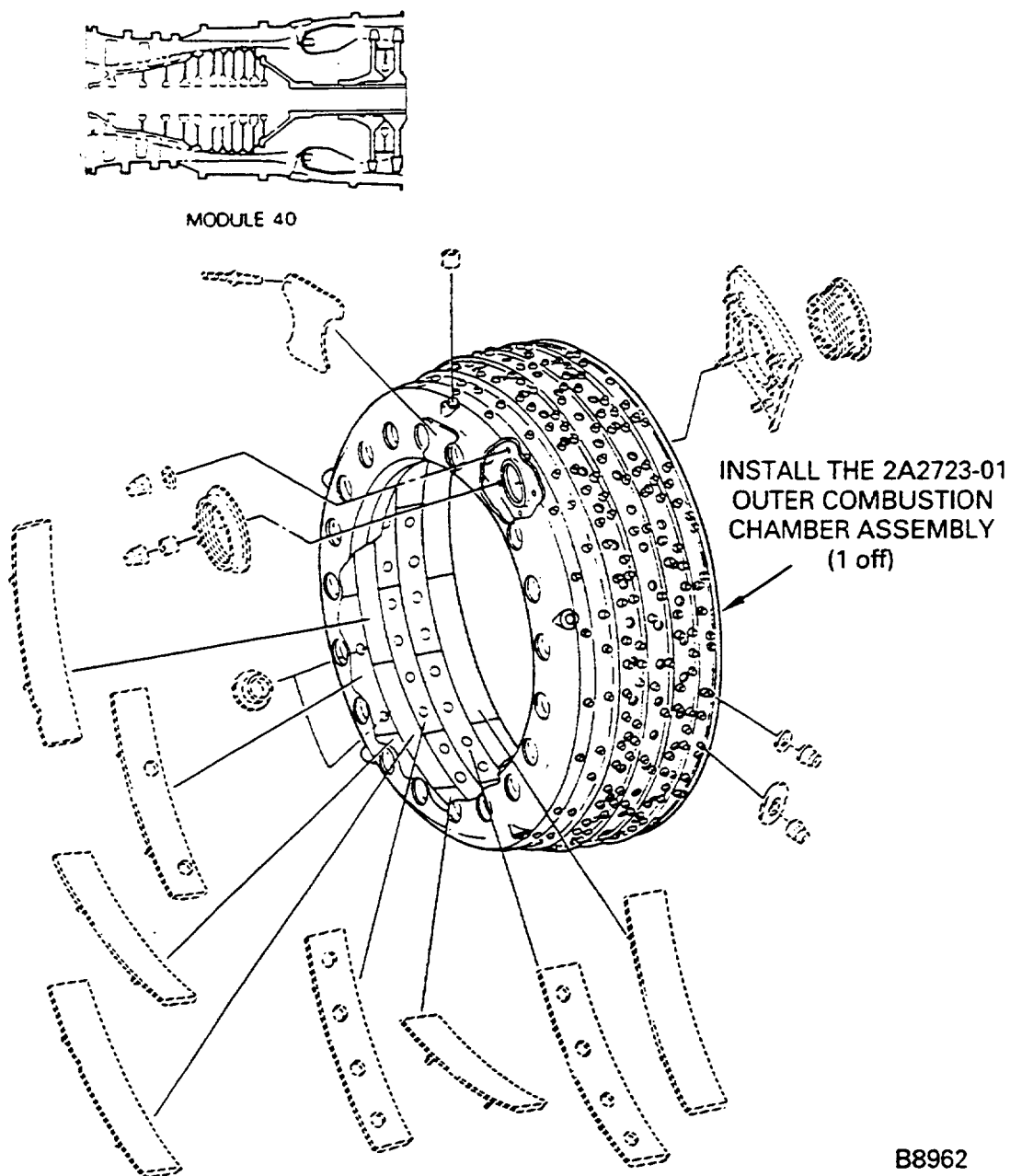
- (a) Install the 2A2723-01 Outer Combustion Chamber Assembly (1 off) by the approved procedure given in Reference (2), Chapter/Section 72-42-00, Assembly, and Figure 1.
- (b) Install the 2A2722-01 Inner Combustion Chamber Assembly (1 off) by the approved procedure given in Reference (2), Chapter/Section 72-44-00, Assembly, and Figure 2.

#### (2) For V2500-D5 Engines

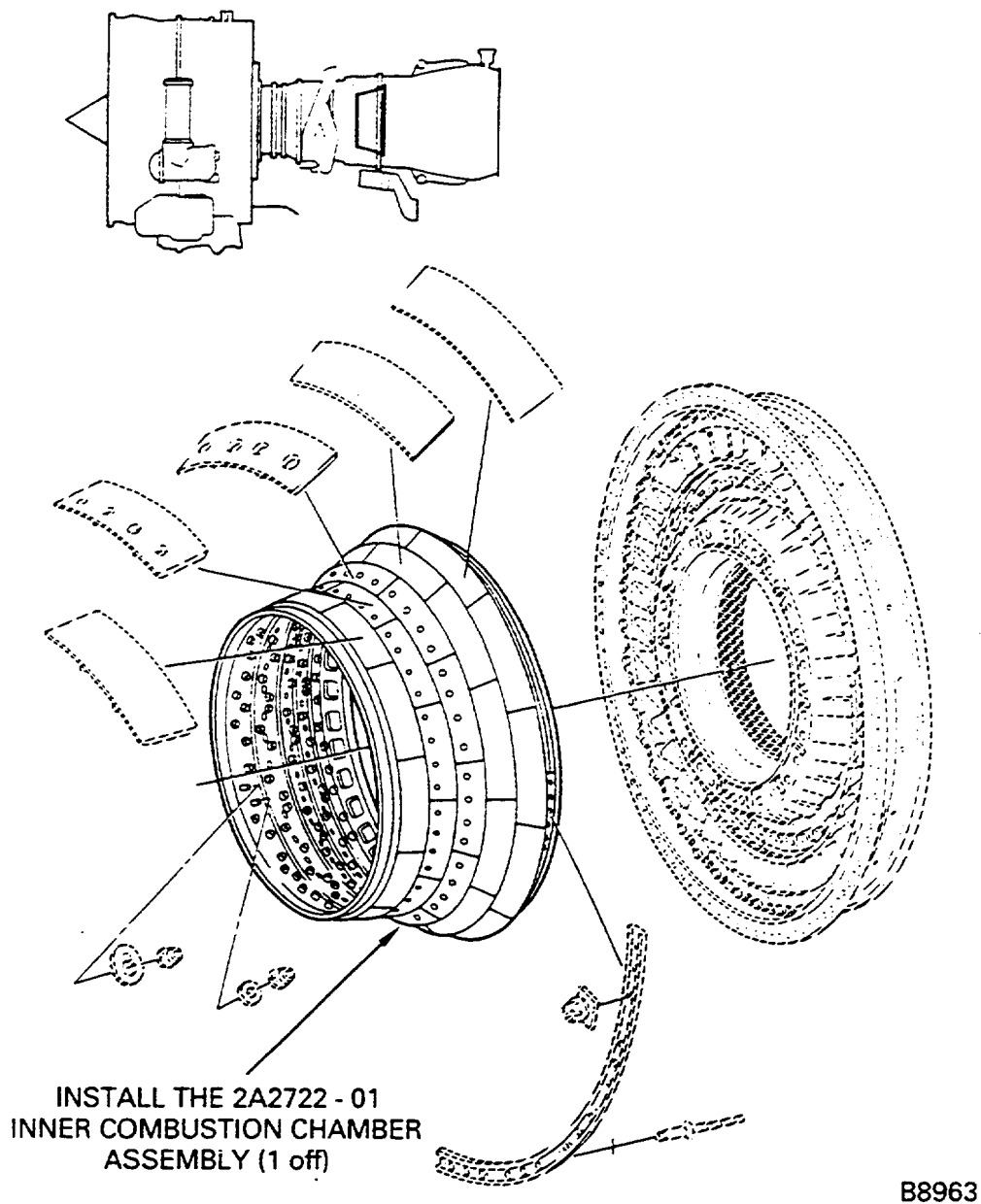
- (a) Install the 2A2723-01 Outer Combustion Chamber Assembly (1 off) by the approved procedure given in Reference (3), Chapter/Section 72-42-00, Assembly, and Figure 1.
- (b) Install the 2A2722-01 Inner Combustion Chamber Assembly (1 off) by the approved procedure given in Reference (3), Chapter/Section 72-42-00, Assembly, and Figure 2.

### C. Recording Instructions

- (1) A record of accomplishment is necessary.



Location of the Outer Combustion Chamber Assembly  
Fig.1



Location of the Inner Combustion Chamber Assembly  
Fig.2

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## SERVICE BULLETIN

3. Material Information

Applicability: For each V2500 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.)	Instructions Disposition
2A2723-01 (72-42-61)	1	-	.Chamber, Combustion, Outer, Assembly	2A0550-01 (01-501)	(S1)(A)(B)
2A2711-01 (72-42-61)	1	-	..Liner, Assembly, Combustion Chamber Outer	2A0546-01 (01-520)	(S1)(A)(B)
2A2085 (72-42-61)	8	-	..Liner, Segment, Combustion Chamber Outer (Row 2)	2A2366 (01-650)	(S1)(A)(B)
2A2086 (72-42-61)	1	-	..Liner, Segment, Combustion Chamber Outer (Row 2)	2A2367 (01-660)	(S1)(A)(B)
2A2087 (72-42-61)	1	-	..Liner, Segment, Combustion Chamber Outer (Row 2)	2A2368 (01-670)	(S1)(A)(B)
2A2722-01 (72-44-30)	1	-	.Chamber, Combustion, Inner, Assembly	2A0549-01 (01-401)	(S1)(A)(B)
2A2718-01 (72-44-30)	1	-	..Liner, Assembly, Combustion Chamber Inner	2A0543-01 (01-420)	(S1)(A)(B)
2A2094 (72-44-30)	10	-	..Liner, Segment, Combustion Chamber Inner (Row 4)	2A2344 (01-580)	(S1)(A)(B)
2A2092 (72-44-30)	10	-	..Liner, Segment, Combustion Chamber, Inner (Row 2)	2A2369 (01-620)	(S1)(A)(B)

C. Instruction/Disposition Code Statements:

- (S1) New parts coded (S1) must replace old parts coded (S1) in a COMPLETE SET per engine.  
(A) New part is currently available.  
(B) Old part is no longer available for sale.

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International Aero Engines

## SERVICE BULLETIN

NOTE: The estimated 1994 unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult the IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.

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