



ENGINE - HP COMPRESSOR - STAGE 10 CASE ASSEMBLY WITH INTEGRAL FRONT RETAINING ARM FOR  
SEAL RING - CATEGORY CODE 7 - MOD.ENG-72-0185

1. Planning Information

A. Effectivity

- (1) Aircraft: (a) Airbus A320  
(b) Airbus A321  
(c) McDonnell Douglas MD-90
- (2) Engine: (a) V2527-A5 Engines prior to Serial No.V10089 and Engines V10090 and V10095.  
(b) V2530-A5 Engines prior to Serial No.V10089 and Engines V10090 and V10095.  
(c) V2525-D5 Engines prior to Serial No.V20012.  
(d) V2528-D5 Engines prior to Serial No.V20012.

B. Concurrent Requirements

None

C. Reason

(1) Condition

Instances have occurred where the retainer of the stage 10 case seal ring assembly have been deflected forward following release of a number of its securing rivets.

(2) Background

A review of fitting procedures has established that the rear outer casing can foul the seal assembly if it is not properly aligned during engine assembly and this may cause overstressing of the rivets. Service Bulletin V2500-ENG-72-0154 was subsequently introduced to reduce rivet stresses by increasing the number of securing rivets.

(3) Objective

To prevent stressing of the rivets at engine build.

(3) Substantiation

The mechanical integrity of the modified design has been proven by stress analysis.

(5) Effect of Bulletin on Workshop Procedures:

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## SERVICE BULLETIN

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

D. Description

This Service Bulletin instructs a new HP compressor stage 10 case assembly with the integral seal retaining arm extended forwards to support the front face of the seal ring.

The retainer is transferred to the outside of the stage 10 case to support the rear face of the seal ring.

At engine build the integral seal retaining arm supports the ring seal thus lowering build stress levels, enabling a reduction in the number of rivets on the retainer from 96 to 24.

E. 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.

F. Compliance

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Accomplish when supply of superseded parts has been depleted.

G. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

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

H. Material – Price and Availability

(1) Modification kit not required.

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## SERVICE BULLETIN

- (2) See 'Material Information' section for prices and availability of future spares.

I. Tooling - Price and Availability

Special tools are not required.

J. Weight and Balance

- |                   |   |
|-------------------|---|
| (1) Weight Change | None  |
| (2) Moment arm    | No effect   |
| (3) Datum         | Engine front mount centerline<br>(Power Plant Station (PPS)100) |

K. Electrical Load Data

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

L. References

- (1) Internal Reference No.

EC93VR032

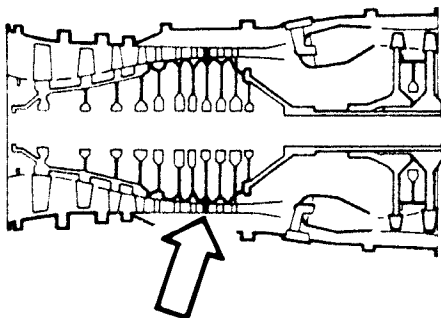
- (2) Other References

Service Bulletin V2500-ENG-72-0154 (Engine - HP Compressor Ring Case - Stage 10 Case Assembly with Increased Number of Rivets).

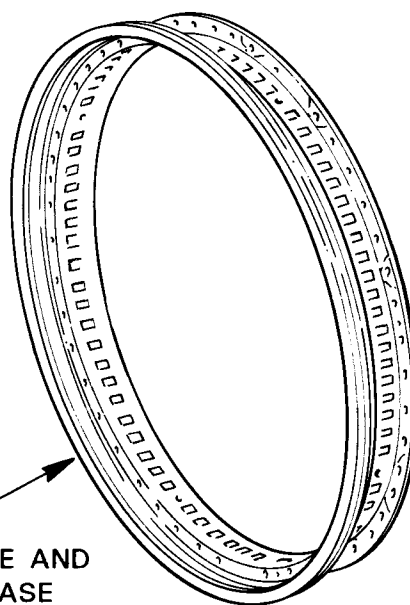
M. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog (S-V2500-2IA and S-V2500-3IA), Chapter/Section 72-41-21.
- (2) V2500 Engine Manual (E-V2500-1IA), 72-41-20, Assembly-04, Config-2 and Assembly-07, Config-2.
- (3) V2500 Engine Manual (E-V2500-1IA), 72-41-21, Cleaning-12, Inspection/Check-11, Repair VRS6099 and Repair VRS6169.
- (4) V2500 Engine Manual (E-V2500-3IA), 72-41-20, Assembly-04 and Assembly-07.
- (5) V2500 Engine Manual (E-V2500-3IA), 72-41-21, Cleaning-12, Inspection/Check-11, Repair VRS6099 and Repair VRS6169.

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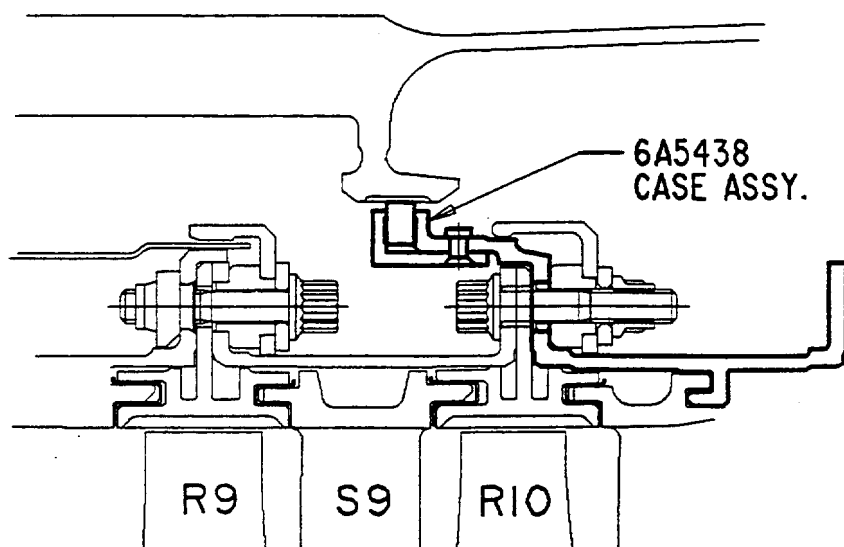


REMOVE 6A5438 CASE AND  
INSTALL 6A5624 CASE

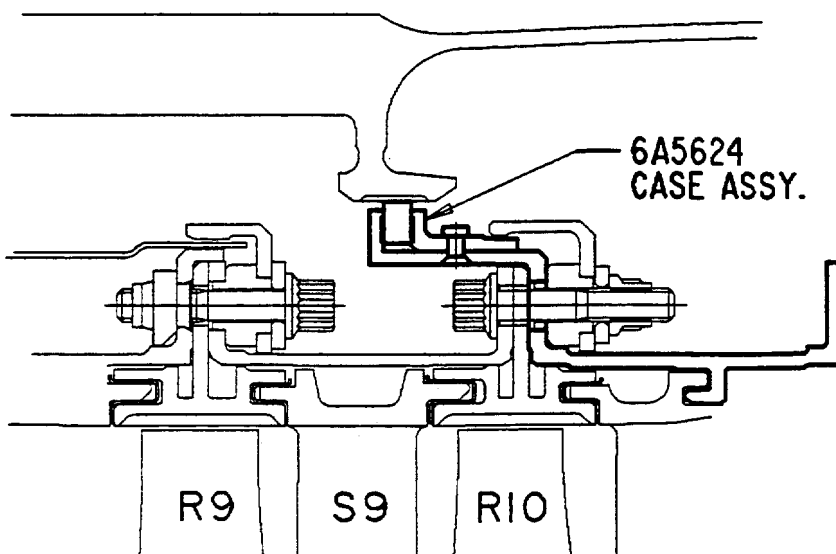
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Location of stage 10 compressor case assembly  
Fig.1

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**VIEW ON STAGE 10 CASE ASSEMBLY  
BEFORE ALTERATION**



**VIEW ON STAGE 10 CASE ASSEMBLY  
AFTER ALTERATION**

View on stage 10 compressor case assembly - Before and after alteration  
Fig.2

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2. Accomplishment Instructions

A. Rework Instructions

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

B. Assembly Instructions

- (1) Assemble the stage 10 case assembly 6A5624 by use of approved procedures, Engine Manual, 72-41-20. (Refer to 1.M.(2) and 1.M.(4)).

C. Recording Instructions

- (1) A record of accomplishment is necessary.



### 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
6A5624 (72-41-21)	1	35,400.00	Case assembly, stage 10 compressor	6A5438 (04-350)	(A)(B)(S1)

#### C. Instruction/Disposition Code Statements:

(A) New part is currently available.

(B) Old part will no longer be available.

(S1) New part is physically but not functionally interchangeable with the old part.

NOTE: The estimated 1995 unit price shown is provided for planning purposes only and does not constitute a firm quotation. Consult the IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.

