



AIR - HP COMPRESSOR STAGE 7 BLEED VALVES - INTRODUCTION OF REVISED BLEED-VALVE SILENCER  
WITH INTEGRAL SEAL LAND - CATEGORY CODE 7 - MOD.ENG-75-0073

Printed in Great Britain

1. Planning Information

A. Effectivity

- (1) Aircraft: (a) Boeing - Douglas Product Division MD-90
- (2) Engines: (a) V2525-D5 Engines prior to Serial No.V20235  
(b) V2528-D5 Engines prior to Serial No.V20235

B. Concurrent Requirements

None.

C. Reason

(1) Problem

A design review has shown that the manufacture of the stage-7 upper and lower bleed-valve silencers of the HP Compressor can be easier.

(2) Evidence

Refer to C.(1) Problem.

(3) Substantiation

A satisfactory engineering analysis and a successful trial run on V2500 development engines have been carried out on the changes introduced by this Service Bulletin.

(4) Objective

The purpose of this Service Bulletin is to make the manufacture of the silencer easier.

(5) Effect of Bulletin on:

(a) Operation

Not affected.

(b) Maintenance

Affected.

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(c) Overhaul

Affected.

(d) Repair Schemes

Affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. Description

(1) The upper silencer of the HP 7 bleed-valve has changed as follows:

(a) The shape of the silencer cap has changed.

(b) The seal land has been made an integral part of the silencer.

(c) To make the manufacture of the silencer easier, various pressed radii and draw angles have been changed.

(d) The exhaust configuration has been revised to increase the flow area.

(2) The lower silencer of the HP 7 bleed-valve has changed as follows:

(a) The seal land has been made an integral part of the silencer.

(b) To make the manufacture of the silencer easier, various pressed radii and draw angles have been changed.

(c) The exhaust configuration has been revised to increase the flow area.

(3) The length of the bolts that attach the upper and lower silencer assemblies to the bleed-valve has decreased.

(4) The self-locking plate nuts and associated rivets located on the air seal, are replaced by standard self locking bihexagonal nuts.

E. Compliance

Category Code 7.

This Service Bulletin can be accomplished when there are no original parts remaining.

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F. Approval

The part number changes and/or part modification are given in Section 2 and 3 of this Service Bulletin. They comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine models listed.

G. Manpower

Estimate of man-hours necessary to embody this Service Bulletin in full:

| Venue                   | Estimated Man-hours |
|-------------------------|---------------------|
| (1) In service .. .. .  | Not applicable      |
| (2) At overhaul .. .. . | Not applicable      |

NOTE: It is possible to get access to the parts affected by this Service Bulletin at overhaul.

H. Material – Price and Availability

- (1) A modification kit is not necessary.
- (2) Refer to 3. Material Information for the prices and availability of future spares.

I. Tooling – Price and Availability

Special tools are not necessary.

J. Weight and Balance

- (1) Weight change  
Plus 0.53 lb (0,24 Kg)
- (2) Moment arm  
22.0 in. (558,8 mm) to the rear of the datum
- (3) Datum  
Engine front mount centreline (Power Plant Station – PPS 100)

K. Electrical Load Data

The aircraft electrical load is not affected by this Service Bulletin.



**L. References**

(1) Internal Reference No.

EC96VR016B

**M. Other Publications Affected**

(1) Illustrated Parts Catalog (IPC), Chapter/Section, 75-32-52

(2) Repair Schemes

(3) D5 Engine Manual (EM), Chapter/Section, 72-00-40 Removal-03 and Installation-08.

(4) MD-90 Aircraft Maintenance Manual (AMM), Chapter/Section, 75-33-52 Removal/Installation.

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2. Accomplishment Instructions

A. Rework instructions

None.

B. Assembly instructions

(1) Install the silencer 6A6539

- (a) Remove and discard the 12 bolts (AS49912).
- (b) Remove the silencer (6A4813) and the seal (6A4410) from the LH lower bleed-valve. Discard the silencer and seal.
- (c) Install the silencer (6A6539) to the LH lower bleed-valve.
- (d) Safety the silencer with the 12 bolts (4W1244) and the 12 nuts (4W0002).

(2) Install the silencer (6A6537)

- (a) Remove and discard the 12 bolts (AS49912).
- (b) Remove the silencer (6A4404) and the seal (6A4415)
- (c) Install the silencer (6A6537).
- (d) Safety the silencer with the 12 bolts (4W1244) and the 12 nuts (4W0002).

C. Recording instructions

A record of accomplishment is necessary.



## SERVICE BULLETIN

3. Material Information

Applicability: For each V2500 Engine for which this Service Bulletin is applicable.

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

| New<br>Part No.<br>(ATA No.) | Qty | Est'd<br>Unit<br>Price (\$) | Keyword                                      | Old<br>Part No.<br>(IPC No.) | Instructions<br>Disposition |
|------------------------------|-----|-----------------------------|--|------------------------------|-----------------------------|
| 6A6539<br>(75-32-52)         | 1   | 5142.00                     | .Silencer assembly, air,<br>HP7 - LH lower   | 6A4813<br>(01-060)           | (A)(B)(S1)                  |
| 4W0002<br>(75-32-52)         | 12  | 8.88                        | .Nut, self locking bihex<br>(0.250in. dia)   | -<br>(01-061)                | (A)(C)(S1)                  |
| 4W1244<br>(75-32-52)         | 12  | 8.50                        | .Bolt, hex head (0.250in.<br>dia x 0.625in.) | AS49912<br>(01-062)          | (A)(1D)(S1)                 |
| -<br>(75-32-52)              | 1   |                             | .Seal LH - assembly of                       | 6A4410<br>(01-070)           | (B)(E)                      |
| -<br>(75-32-52)              | 24  |                             | ..Rivet, solid csk head                      | AS16446<br>(01-076)          | (E)(1D)                     |
| -<br>(75-32-52)              | 12  |                             | ..Nut, self locking plate                    | 4W0039<br>(01-078)           | (E)(1D)                     |
| 6A6537<br>(75-32-52)         | 1   | 5142.00                     | .Silencer assembly, air,<br>HP7 - LH upper   | 6A4404<br>(01-250)           | (A)(B)(S2)                  |
| -<br>(75-32-52)              | 1   |                             | .Seal, upper - assembly of                   | 6A4415<br>(01-265)           | (B)(E)                      |
| 4W0002<br>(75-32-52)         | 12  |                             | .Nut, self locking bihex<br>(0.250in. dia)   | -<br>(01-266)                | (A)(C)(S2)                  |
| 4W1244<br>(75-32-52)         | 12  |                             | .Bolt, hex head (0.250in.<br>dia x 0.625in.) | AS49912<br>(01-268)          | (A)(1D)(S2)                 |
| -<br>(75-32-52)              | 12  |                             | Nut, self locking plate                      | AS46726<br>(01-296)          | (E)(1D)                     |

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- 24 Rivet, solid csk head AS16446 (E)(1D)  
75-32-52) (01-298)

NOTE: The unit prices, if shown, are an estimate and they are given for the purpose of planning only. For information about actual prices, refer to the IAE Price Catalog or contact IAE's Spare Parts Sales Department.

C. Instructions disposition codes

- (A) New part will be available from October 1997.
- (B) Old part will be discontinued.
- (C) Additional.
- (E) Redundant part.
- (S1) New parts coded (S1) are freely and fully interchangeable as a complete set with old parts coded (S1).
- (S2) New parts coded (S2) are freely and fully interchangeable as a complete set with old parts coded (S2).
- (1D) Old part can be used on other applications.

