

<u>AIR - HP COMPRESSOR STAGE 7 BLEED VALVES - INTRODUCTION OF REVISED BLEED-VALVE SILENCER</u> WITH INTEGRAL SEAL LAND - CATEGORY CODE 7 - MOD.ENG-75-0071

1. Planning Information

A. Effectivity

- (1) Aircraft: (a) Airbus A319
 - (b) Airbus A320
 - (c) Airbus A321
- (2) Engines: (a) V2500-A1 Engines prior to Serial No.V0362
 - (b) V2522-A5 Engines prior to Serial No.V10350
 - (c) V2524-A5 Engines prior to Serial No.V10350
 - (d) V2527-A5 Engines prior to Serial No.V10350
 - (e) V2527E-A5 Engines prior to Serial No.V10350
 - (f) V2530-A5 Engines prior to Serial No.V10350
 - (g) V2533-A5 Engines prior to Serial No.V10350

B. Concurrent requirements

None.

C. Reason

(1) Problem

A design review has shown that the manufacture of the Stage 7 upper (7A) and lower (7C) bleed-valve silencer 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.

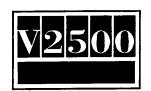
(4) Objective

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

(5) Effect of Bulletin on:

(a) Operation

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Not affected.

(b) Maintenance

Affected.

(c) Overhaul

Affected.

(d) Repair Schemes

Affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. <u>Description</u>

- (1) The upper (7A) 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) The material has been changed from titanium to the nickel based alloy C263.
 - (c) To make the manufacture of the silencer easier, various pressed radii and draw angles have been changed.
- (2) The lower (7C) silencer of the HP 7 bleed valve has changed as follows:
 - (a) The silencer caps have a different shape.
 - (b) The seal land has been made an integral part of the silencer.
 - (c) The material has been changed from titanium to nickel based alloy C263.
 - (d) To make the manufacture of the silencer easier, various pressed radii and draw angles have been changed.
- (3) The length of the bolts that attach the upper and lower silencer assemblies to the bleed-valves has decreased.



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(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.

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:

- (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. <u>Material - Price and Availability</u>

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

I. <u>Tooling - Price and Availability</u>

Special tools are not necessary.

J. Weight and Balance

(1) Weight change

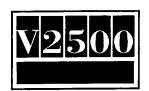
Plus 1.20 lb (0,54 Kg)

(2) Moment arm

22.0 in. (558,8 mm) to the rear of the datum

(3) Datum

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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.

EC96VR016

M. Other Publications Affected

- (1) Illustrated Parts Catalog (IPC), Chapter/Section, 75-32-52
- (2) Repair Schemes are affected
- (3) A319, A320, A321 Aircraft Maintenance Manual (AMM), Chapter/Section 75-32-52.
- (4) A1/A5 Engine Manual (EM), Chapter/Section 72-00-40, Removal-03 and Installation-08.



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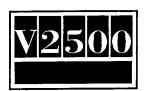
2. Accomplishment Instructions

A. Rework instructions

None.

- B. Assembly Instructions
 - (1) Remove the LH lower (7C) and RH upper (7A) silencer and bleed-valves
 - (a) Remove and discard the bolts (4W1486 and AS21012).
 - (b) Remove the silencers (6A1497 and 6A2092) and the seals (6A3192 and 6A3194) from the LH lower (7C) and the RH upper (7A) bleed-valves.
 - (2) Install the silencer (6A6533) to the LH lower (7C) bleed-valve
 - (a) Safety the silencer to the bleed-valve with the 12 bolts (4W1484) and the 12 nuts (4W0002).
 - (3) Install the silencer (6A6535) to the RH upper (7A) bleed-valve
 - (a) Safety the silencer to the bleed-valve with the 12 bolts (AS21010).
- C. Recording Instructions

A record of accomplishment is necessary.



3. Material Information

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

A. Kits associated with this Service Bulletin:

None

B. Parts affected by this Bulletin:

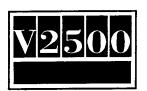
New Part No. (ATA No.)			Part Title		Instructions Disposition
4W1484 (75-32-52)	12	7.00	Bolt, hex head (0.250in. dia x 0.625in.)	4W1486 (01-062)	(A)(1D)(S1)
6A6533 (75-32-52)	1	5142.00	Silencer assembly, air, HP7 - LH lower	6A1497 (01-060)	(A)(B)(S1)
4W0002 (75-32-52)	12	8.88	Nut, self locking bihex (0.250in. dia)	- (01-061)	(A)(C)(S1)
- (75-32-52)	1		Seal assembly of, air, HP7 - LH lower	6A3192 (01-070)	(B)(E)
6A6535 (75-32-52)	1	5142.00	Silencer assembly, air, HP7 - RH upper	6A2092 (01-250)	(A)(B)(S2)
- (75-32-52)	1		Seal assembly of, air, HP7 - RH upper	6A3194 (01-265)	(B)(E)
AS21010 (75-32-52)	12	3.30	Bolt, bihex head (0.250in. dia x 0.625in.)	AS21012 (01-268)	(A)(1D)(S2)

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. <u>Instructions disposition codes</u>

- (A) New parts will be available from October 1997
- (B) Old part will be discontinued
- (C) Additional

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- (E) Redundant part
- (S1) New parts coded (S1) are freely and fully interchangeable as a complete engine set with old parts coded (S1)
- (S2) New parts coded (S2) are freely and fully interchangeable as a complete engine set with old parts coded (S2)
- (1D) Old part can be used on other applications

