



ENGINE - ENGINE HP COMPRESSOR DISCS (STAGES 3 TO 8) - INTRODUCTION OF REVISED STAGE 7
AND 8 SEAL WIRES - CATEGORY CODE 6 - MOD.ENG-72-0289

1. Planning Information

A. Effectivity

- (1) Aircraft: (a) Airbus A319
(b) Airbus A320
(c) Airbus A321
(d) McDonnell Douglas MD-90
- (2) Engines: (a) V2500-A1 Engines prior to Serial No.V0362
(b) V2522-A5 Engines prior to Serial No.V10302
(c) V2524-A5 Engines prior to Serial No.V10302
(d) V2527-A5 Engines prior to Serial No.V10302
(e) V2527E-A5 Engines prior to Serial No.V10302
(f) V2530-A5 Engines prior to Serial No.V10302
(g) V2533-A5 Engines prior to Serial No.V10302
(h) V2525-D5 Engines prior to Serial No.V20177
(i) V2528-D5 Engines prior to Serial No.V20177

B. Concurrent Requirements

None.

C. Reason

(1) Condition

Fretage on the sides of the slots for the stage 7 and 8 sealing wires in the HP compressor stage 3 to 8 drum assembly can occur.

The problem is caused by sharp edges at the split line of the seal wire, together with the vibration of the wire during engine operation.

(2) Background

The problem has been found on engines in service.

(3) Substantiation

Satisfactory engineering analysis and finite element analysis have been done on the changes contained in this Service Bulletin.

(4) Objective

The purpose of this Service Bulletin is to maintain engine reliability.

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(5) Effect of Bulletin on:

Operation	Not affected
Maintenance	Not affected
Overhaul	Not affected
Repair Schemes	Not affected
Interchangeability	Not affected
Fits and Clearances	Not affected

D. Description

(1) The stage 7 and 8 front and rear seal wires of the HP compressor have changed as follows:

(a) A fillet has been added that rounds off the ends of the wire at the split line.

(b) The chamfer has decreased from 30 to 15 degrees.

(2) The front and rear seal wires that exist can be reworked. (Refer to Fig.1 and Fig.2)

E. Compliance

Category Code 6

Do this Service Bulletin when the sub-assembly (That is modules, accessories, components, build groups) is disassembled sufficiently to get access to the affected parts.

F. Approval

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

G. Manpower

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

Venue	Estimated man-hours
(1) In service	Not applicable
(2) At overhaul	Not additional time is necessary to do this Service Bulletin

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

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**H. Material - Price and Availability**

- (1) A modification kit is not necessary
- (2) See 'Material Information' section for prices and availability of spares.

I. Tooling - Price and Availability

Special tools are not necessary.

J. Weight and Balance

- (1) Weight change None
- (2) Moment arm Not affected
- (3) Datum Engine front mount centreline
Power Plant Station (PPS) 100

K. Electrical Load Data

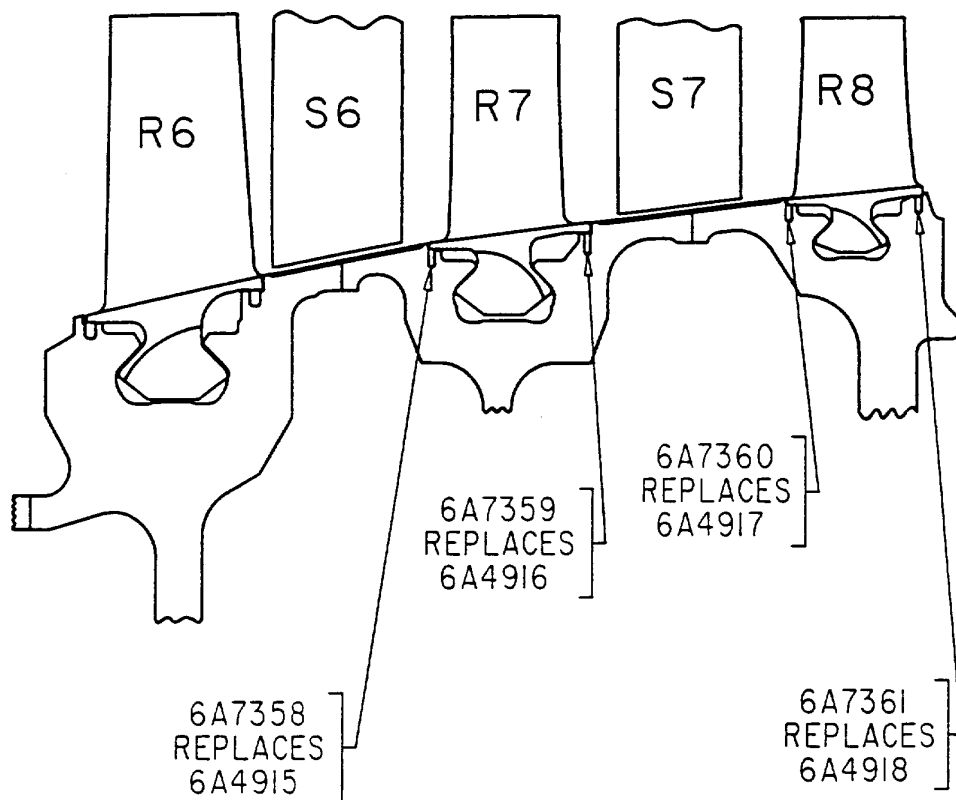
This service bulletin has no effect on the aircraft electrical load.

L. References

- (1) Internal Reference No.
EC97VR018

M. Other Publications Affected

- (1) Illustrated Parts Catalog (IPC), Chapter/Section 72-41-11



GENERAL SECTION THRU H.P. COMPRESSOR
BEFORE AND AFTER ALTERATION

ALL DIMENSIONS ARE IN INCHES (MILLIMETRES)

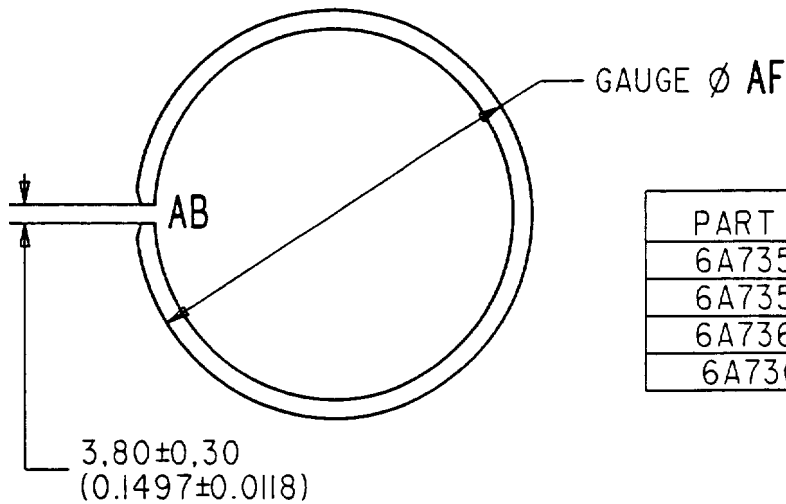
MACHINE SURFACE FINISH TO BE 125 MICROINCHES (3,2 MICROMETRES)

MACHINE WHERE MARKED ✓

General section through the HP compressor - Before and after alteration
Fig.1

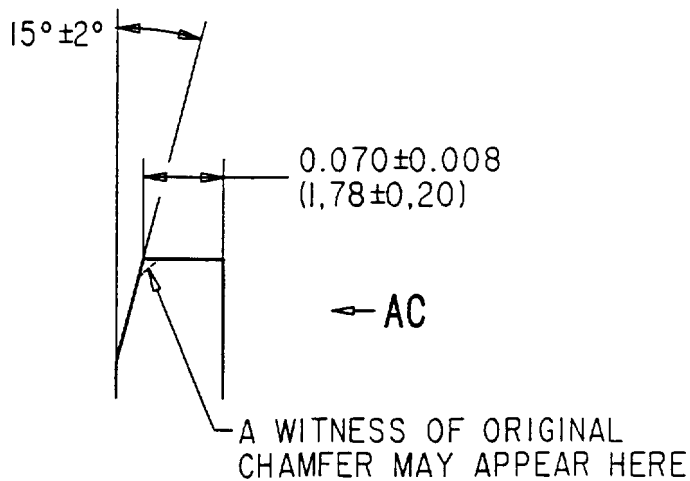
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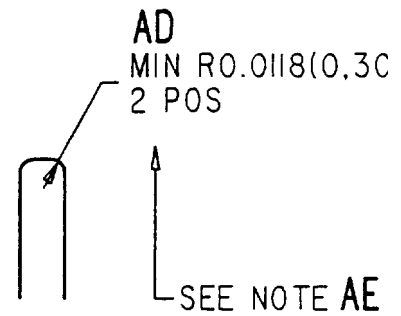


PART N°	Ø AF
6A7358	17.3622 (441.00)
6A7359	17.5984 (447.00)
6A7360	17.9921 (457.00)
6A7361	18.1102 (460.00)

VIEW ON SEAL WIRE



VIEW AT AB
TYP 2 POS



VIEW → AC

NOTE AE
BOTH ENDS MAY VARY BETWEEN RADUS AD AND FULL RADIUS

ded0002209

View of rework of seal wires
Fig.2



2. Accomplishment Instructions

A. Rework Instructions

(1) Rework the parts that follow:

6A4915, wire, seal, Stage 7, front (Refer to 72-41-11, Fig./Item 01-390)
6A4916, wire, seal, Stage 7, rear (Refer to 72-41-11, Fig./Item 01-392)
6A4917, wire, seal, Stage 8, front (Refer to 72-41-11, Fig./Item 01-394)
6A4918, wire, seal, Stage 8, rear (Refer to 72-41-11, Fig./Item 01-396)

Standard Equipment

Chemical cleaning equipment
Penetrant crack test equipment
Grinding machine
Standard workshop equipment
Workshop inspection equipment
Vibro-engraving equipment

Consumable Materials

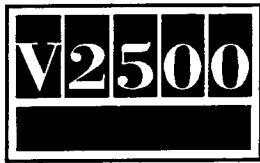
CoMat 05-106 Abrasive stone
CoMat 05-110 Emery polishing paper
CoMat 05-111 Emery polishing paper
CoMat 06-022 Fluorescent penetrant

Procedure

Supplementary Information

- | | |
|--|--|
| (a) Chemical clean the wire seal(s), as necessary | Use chemical cleaning equipment. (Refer to SPM TASK 70-11-03-300-503). |
| (b) Do a local penetrant crack test on the repaired area | Use CoMat 06-022 fluorescent penetrant, with penetrant crack test equipment. Reject if cracks are found. (Refer to SPM TASK 70-23-05-230-501). |
| (c) Grind back the chamfer and make the radius 'AD' on the ends of the Stage 7 and 8 front and rear wire seals | Use a grinding machine and/or standard workshop equipment. (Refer to Figure 1 and Figure 2). |
| (d) Remove sharp edges | Use CoMat 05-106 abrasive stone and/or CoMat 05-111 emery polishing paper, with standard workshop equipment. (Refer to Figure 1 and Figure 2). |

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- (e) Polish the repaired area
- Use CoMat 05-110 emery polishing paper and/or CoMat 05-111 emery polishing paper. To remove scratches and dressing marks, polish the repaired area.
- Make sure all marks are completely removed and the repaired area is made smooth into the adjacent material.
(Refer to Figure 1 and Figure 2).
- (f) Etch the repaired area with the cold ferric chloride procedure
- Use chemical cleaning equipment.
(Refer to SPM TASK 70-11-39-300-503, SUBTASK 70-11-39-300-001).
- (g) Do a local penetrant crack test on the repaired area
- Use CoMat 06-022 fluorescent penetrant, with penetrant crack test equipment.
Reject if cracks are found.
(Refer to SPM TASK 70-23-05-230-501).
- (h) Visually examine and measure the dimensions of the repaired area
- Make sure the end 'AD' has a good radius and that there is no sharp edges around the repaired area.
Use workshop inspection equipment.
(Refer to Figure 1 and Figure 2).
- (i) Remove the old part number and identify with the new part number
- | Old Part Number | New Part Number |
|-----------------|-----------------|
| 6A4915 | 6A7358 |
| 6A4916 | 6A7359 |
| 6A4917 | 6A7360 |
| 6A4918 | 6A7361 |
- Use vibro-engraving equipment.
(Refer to SPM TASK 70-09-00-400-501, SUBTASK 70-09-00-400-001).

B. Assembly Instructions

For the correct removal installation procedures, refer to the applicable Engine Manual (EM), Chapter/Section, 72-41-10, Assembly/Disassembly.

C. Recording Instructions

A record of accomplishment is necessary.

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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
6A7358 (72-41-11)	1	799.00	Wire, seal - Stage 7 - Front	6A4915 (01-390)	(A)(B)(S1) (1D)
6A7359 (72-41-11)	1	799.00	Wire, seal - Stage 7 - Rear	6A4916 (01-392)	(A)(B)(S1) (1D)
6A7360 (72-41-11)	1	799.00	Wire, seal - Stage 8 - Front	6A4917 (01-394)	(A)(B)(S1) (1D)
6A7361 (72-41-11)	1	799.00	Wire, seal - Stage 8 - Rear	6A4918 (01-396)	(A)(B)(S1) (1D)

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 currently available
- (B) Old part will be discontinued
- (S1) Old and new part are freely and fully interchangeable
- (1D) Old part may be reworked and re-identified to the new part number.

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