ENGINE - H.P. COMPRESSOR - INTRODUCTION OF SCALLOPED HEAT SHIELD RETAINER - STAGE 7 BOROSCOPE POSITION - CATEGORY CODE 6 - MOD.ENG-72-0033

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500-A1 Engines prior to Serial No.V0127 except V0124 and V0125

B. Reason

(1) Condition

Possible obstruction at the stage 7 boroscope access position.

(2) Background

Examination during audit strip, revealed a foul on the stage 7 rear heat shield retaining half ring after difficulties were experienced in carrying out a boroscope inspection. An appraisal of the tolerances on the relevant components revealed that it is possible to have a clearance to interference situation.

(3) Objective

The incorporation of this Service Bulletin (Modification) is designed to ease boroscope inspection.

(4) Substantiation

The changes introduced by this modification have been subjected to a satisfactory assembly check.

(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

C. Description

(1) A new H.P. compressor stage 7 rear heatshield is introduced

(2) The changes introduced by this Service Bulletin are as follows:

(a) An additional scallop is machined, adjacent to the boroscope access, at the same compound angle as the boroscope, the size is such that it breaks through the half ring and produces a small leakage hole. Any sharp corners produced by break through to be removed by hand dressing. For commonality and to prevent interchangeability problems both half rings to be the same.

(b) Existing H.P. compressor stage 7 rear heatshield retainers can be reworked, see Fig.1 to 3.

D. Approval

The Part Number changes and/or part modifications described in Sections 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 6

Accomplish when the subassembly (ie. Modules, Accessories, Components, Build Groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

F. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In service	Not applicable
(2) At overhaul (Note: The parts affected by this Service Bulletin are accessible at overhaul)	
(a) To rework stage 7 rear heatshield	1 hour

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

The following tools are required to accomplish this Service Bulletin when re-working the existing rear heatshield.

Tool No.	Qty.	Description	Function	Availability
3R18732	1	Filing fixture	Component Fixturing	(1)

(1) Indicates that Tool Design Aperture Card is currently available from IAE for use in the local manufacture of the fixture.

I. Weight and Balance

(1) Weight change .. .. .. None

(2) Moment arm .. .. No effect

(3) Datum .. .. Engine front mount centerline (Powerplant Station (P.P.S.) 100)

J. Electrical Load Data

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

K. References

(1) Internal Reference No.

88VR171

(1) V2500 Engine Manual, 72-41-00, Assembly.

L. Other Publications Affected

(1) V2500 Engine Illustrated Parts Catalog, 72-41-21.

(2) V2500 Engine Manual, 72-41-21, Inspection/Check and Cleaning

2. Accomplishment Instructions

A. Rework Instructions

(1) Rework 6A3028 H.P. compressor stage 7 rear heatshield retainer. Refer to 72-41-00, (Fig./Item No.03-880)

CoMat 07/037	Touch up coating
CoMat 07/038	Air drying enamel
CoMat 06/073	Ink
CoMat 07/924	Aerolac metal protective clear varnish

Standard Equipment

Air operated rotary cutter

Procedure	Supplementary Information
(a) Align and clamp the component	Use fixture 3R18732
(b) Remove material to form the scallop	Use a hand held air operated rotary cutter to remove the bulk of the material. Finish using a round file. Remove the part from the fixture after filing to size
(c) Deburr the machined edges	Remove all sharp edges and cusps. Refer to Fig.1, 2 and 3. Use hand tools
(d) Visually/dimensionally inspect	Refer to Fig.1, 2 and 3
(e) Crack test	Standard Practices Manual TASK 70-23-01 or 70-23-03. Reject if cracked
(f) Degrease	S.P.M. TASK 70-11-01
(g) Enamel the areas exposed by machining and make good all damage to the enamel	S.P.M. TASK 70-38-21-380-501, SUBTASK 70-38-21-380-010. Use CoMat 07/037 or 07/038
(h) Re-identify the part	Existing 6A3028 — Renumber 6A3993

S.P.M. TASK 70-09-00-400-501,
SUBTASK 70-09-00-400-002.
Use CoMat 06/073 followed by
CoMat 07/024.
Delete the old part number and
add the new part number
adjacent to the existing markings

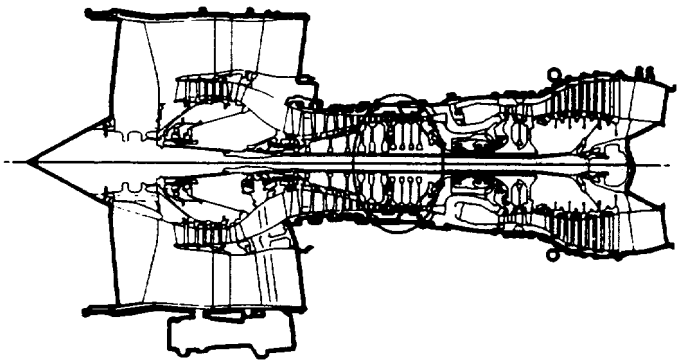
B. Assembly Instructions

(1) New 6A3993 H.P. compressor stage 7 rear heatshield retainers are interchangeable with in use H.P. compressor stage 7 rear heatshield retainers.

(2) Assemble new 6A3993 H.P. compressor stage 7 rear heatshield retainers by use of approved procedures, Engine Manual, 72-41-00, Assembly.

C. Recording Instructions

(1) A record of accomplishment is necessary



DIMENSIONS IN INCHES(MILLIMETRES)
MACHINE WHERE SHOWN ▽
REMOVE THE SHARP EDGES 0.012±0.008 ins(0,30±0,20 mm)
MACHINED SURFACE FINISH TO BE 125 MICROINCHES (3,2 MICROMETERS)
GEOMETRIC SYMBOLS CONFORM TO ISO R1101-1969.
AFTER REWORKING, MAKE GOOD ALL DAMAGE TO ENAMEL AS GIVEN IN TEXT.
EXISTING IDENTITY MARKINGS TO BE CANCELLED AND NEW IDENTITY MARKINGS TO BE ADDED ADJACENT AS GIVEN IN TEXT.
THE PART NUMBER TO BE FOLLOWED BY THE LETTERS 'ASSY'.

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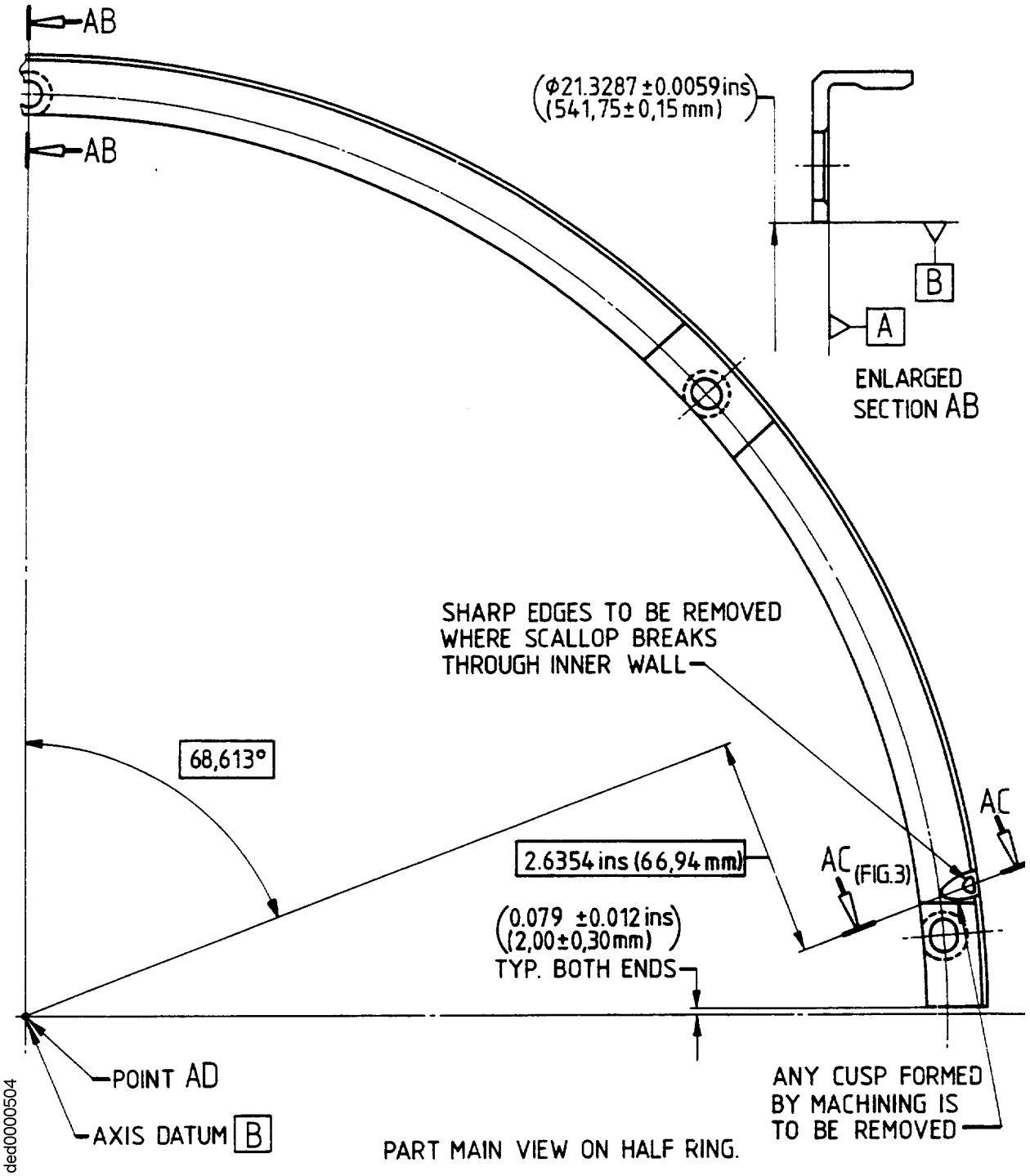
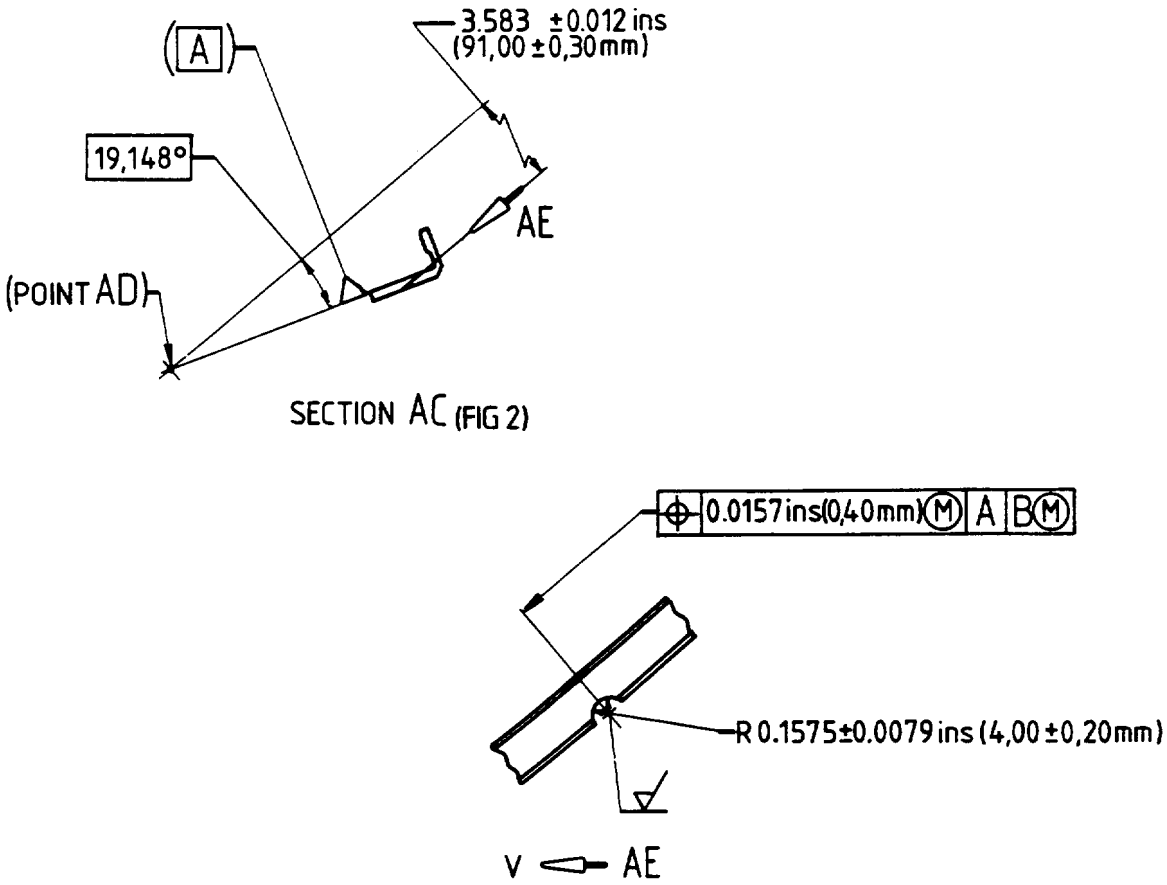
Rework of H.P. compressor stage 7 rear heatshield retainer
Fig.1



Rework of H.P. compressor stage 7 rear heatshield retainer
Fig.2



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Rework of H.P. compressor stage 7 rear heatshield retainer
Fig.3

3. Material Information

New Part No. (ATA No.)	Qty	Est'd Unit Price ($)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
6A3993 (72-41-21)	2	-	Retainer A/O, heatshield stage 7 rear	6A3028 (03880)	(D1)(A)

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

C. Instruction/Disposition Code Statements:

(D1) Old part reworked and re-identified to new part number (see Fig.1, 2 and 3).

(A) New part currently available

NOTE: The estimated 1990 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.