



ENGINE - H.P. COMPRESSOR CASE - INTRODUCTION OF STRENGTHENED BORESCOPE BLANKING PLUG ASSEMBLIES AND GASKET SEALS AT STAGES 8, 9 AND 11 AND GASKET SEAL AT STAGE 7 - CATEGORY CODE 6 - MOD.ENG-72-0100

1. Planning Information

A. Effectivity

- (1) Aircraft - Airbus A320
- (2) Engine - V2500 A1 Engines prior to Serial No.V0176

B. Reason

(1) Condition

Difficulty could occur during removal of existing stage 8, 9 and 11 borescope blanking plug assemblies.

(2) Background

Breakage of the stem on the blanking plug assemblies during extraction has been reported. Breakage was at the weld beads at either end of the stem.

In addition, the use of SQ2 sealing compound between the plug flange and compressor case could result in a 'cement' seal. Consequently, excessive force may be required to break the seal before the assembly can be removed.

(3) Objective

To prevent breakage of blanking plug assemblies and ease disassembly.

(4) Substantiation

A stress assessment of the mechanical integrity of the new blanking assembly stem concluded that the new design is completely satisfactory. Similar changes to borescope plugs on other engine types have proved successful.

(5) Effect of Bulletin on Workshop Procedures:

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## SERVICE BULLETIN

Removal/Installation	Not affected
Disassembly/Assembly	Affected
Cleaning	Affected
Inspection/Check	Not affected
Repair	Not affected
Testing	Not affected

## (6) Supplemental Information

When blanking plug assemblies prior to V2500-ENG-72-0005 standard are replaced under this Service Bulletin the attaching bolts to 72-0005 must be fitted.

C. Description

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

- (a) New borescope blanks are introduced at stages 8, 9 and 11 featuring a stem which has been strengthened by increasing its diameter from 1.5 (0.059in.) to 8,0 mm. (0.315in.). the stem welds have been eliminated by making the inner bulb integral with the stem and enlarging the stem at its outer end to form a spigot. The weld is not between the spigot and flange. The new flange incorporates 2 tapped holes. The assembly retaining bolts can be screwed into these holes to assist removal.
- (b) Corrujoints are introduced in place of jointing compound at stages 8, 9 and 11. This change is also applied at the stage 7 borescope location at which a flat blanking plate is fitted.

D. 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.

E. Compliance

Category Code 6

Accomplish when the sub assembly (i.e. 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.

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Venue	Estimated Manhours
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(1) In Service	Not applicable
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(2) At overhaul	Not affected
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## G. Material - Price and Availability

(1) Modification kit not required.

(2) See 3. Material Information for prices and availability of future spares.

## H. Tooling - Price and Availability

Special tools are not required.

The extraction tool used with the old assembly becomes redundant on application of this Service Bulletin.

## I. Weight and Balance

(1) Weight change .. ..	Minus 0.1 lbs
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(2) Moment arm .. ..	22.5in. (572 mm.) rearward of datum
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(3) Datum .. ..	Engine front mount centreline (Power Plant Station P.P.S. 100)
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## J. Electrical Load Data

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

## K. References

(1) Internal Reference No.

EC89VR042

ECM89VR042-02

(2) Other references

IAE V2500 Service Bulletin

IAE V2500-ENG-72-0005 - Reduced weight borescope plugs and shorter attaching bolts.

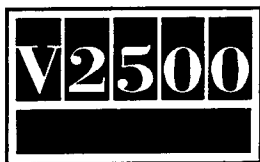
A320 A320 Aircraft Maintenance Manual.

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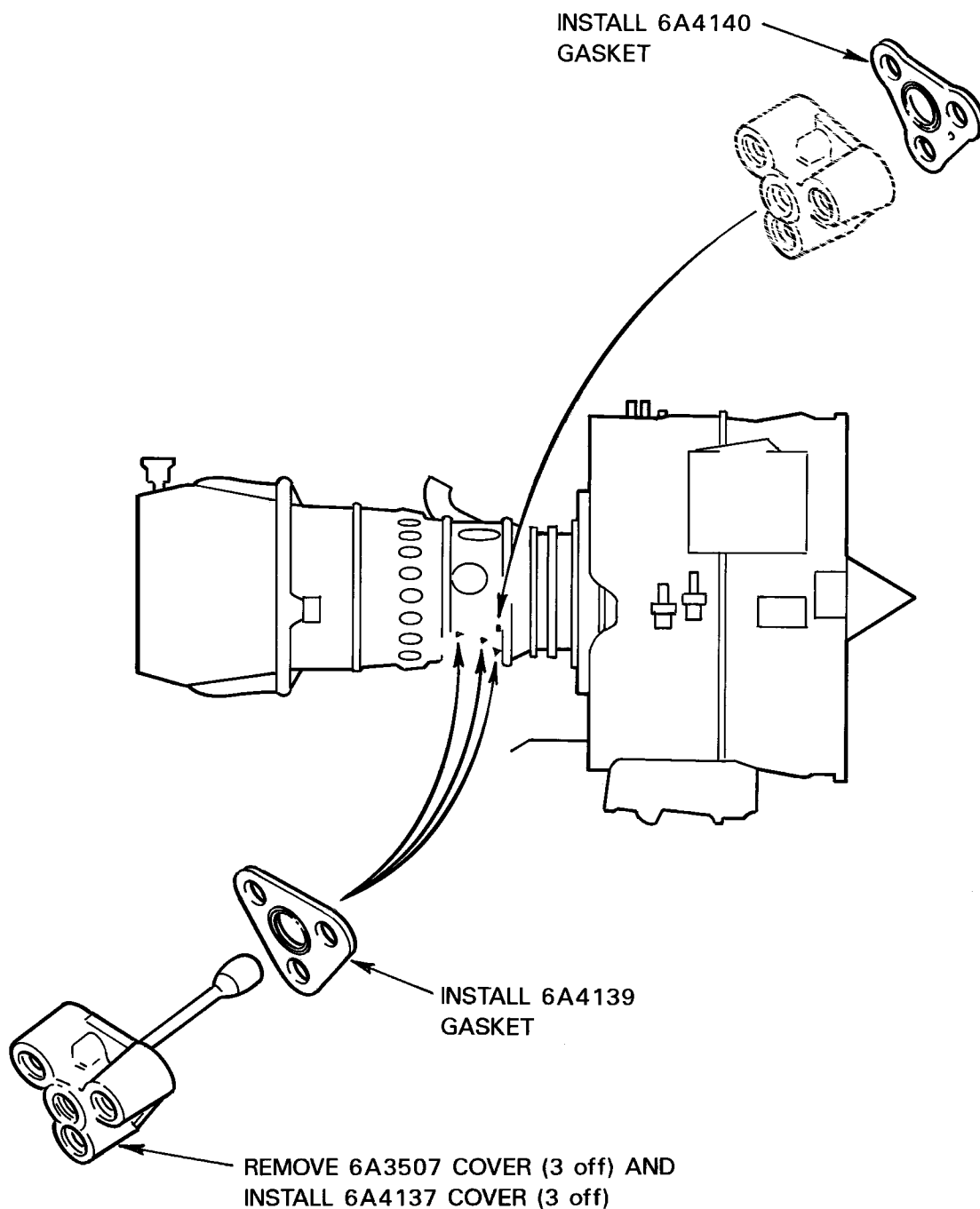


**L. Other Publications Affected**

- (1) V2500 Engine Illustrated Parts Catalog, 72-41-00, 72-41-23.
- (2) V2500 engine Maintenance Manual, 72-00-00, Inspection/Check.
- (3) V2500 Engine Manual, 72-41-00, Disassembly/Assembly, Cleaning and Inspection/Check.



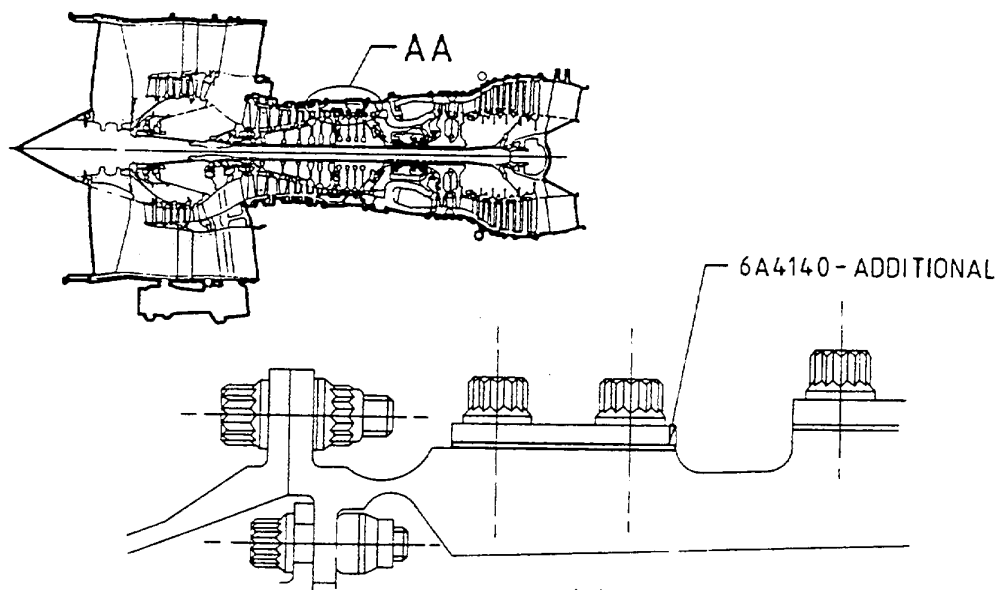
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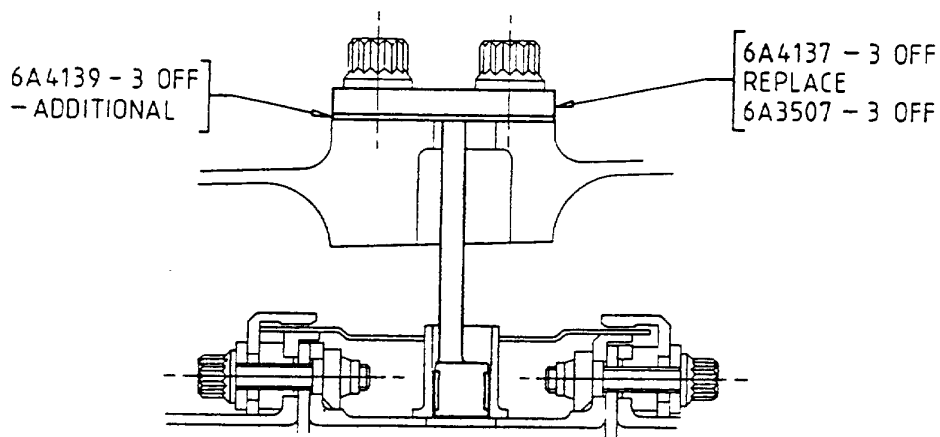
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Location of borescope blanks  
Fig.1

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VIEW AT AA  
SHOWING THE STAGE 7 BLANK.



VIEW AT AA TYPICAL 3 POSITIONS  
SHOWING STAGE 8,9 AND 11 BLANKS.

View of borescope blanks - Before and after alteration  
Fig.2

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2. Accomplishment Instruction

A. Rework Instructions

None

B. Assembly Instructions

- (1) Assemble new 6A4137 borescope cover assemblies and new 6A4139 and 6A4140 corrugated gaskets by use of approved procedures, Engine Manual, 72-41-00 Assembly.

C. Recording Instructions

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
6A4137 (72-41-00)	3	413,00	Cover assy blank borescope	6A3507 (02-100)	(B)(C)(S1)
6A4139 (72-41-00)	3	10,20	Gasket, corrjoint	- (02-108)	(A)(B)(S1)
6A4140 (72-41-23)	1	10,20	Gasket, corrjoint	- (02-108)	(A)(B)(S2)

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

- (A) Additional.
- (B) New parts currently available for sale.
- (C) Old part will no longer be available for sale.
- (S1) Items coded (S1) must be fitted as a set per location but to achieve the full benefit of the Service Bulletin all new parts should be incorporated.
- (S2) Item coded (S2) may be fitted independent of items (S1) but to achieve the full benefit of the Service Bulletin all new parts should be incorporated.

NOTE: The estimated 1991 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.