



ENGINE - H.P. COMPRESSOR VARIABLE STATOR VANES - INTRODUCTION OF STAGE 6 VANES MADE OF
IMPROVED CORROSION RESISTANT MATERIAL - CATEGORY CODE 6 - MOD.ENG-72-0169

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines prior to Serial No.V0162 except V0142 and V0144 to V0160.

B. Reason

(1) Condition

The existing stage 6 variable stator vanes may not have adequate long term corrosion resistance.

(2) Background

Experience has shown that stage 6 stator vanes may be susceptible to corrosion. The vane aerofoil surfaces and spindle diameters can be subject to corrosion attack and may prevent achievement of the full life potential.

(3) Objective

To provide vanes in a material offering improved corrosion resistance and fatigue properties.

(4) Substantiation

An extensive design and stress assessment of the mechanical integrity of the new vane material has been carried out. Also, laboratory and engine testing has been undertaken with satisfactory results.

(5) Effect 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

V2500-ENG-72-0169

**C. Description**

This Bulletin introduces the following:

Stage 6 variable stator vanes in improved corrosion resistant material. Changing the material incurs a weight penalty and to partially compensate for this the vane spindle waist diameter is reduced to 0.298 in. (7,57mm) from 0.324 in. (8,22mm).

The material properties are such that this can be achieved without compromising spindle strength.

D. Approval

The part number changes and/or part modification 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.

G. Manpower

Estimated manhours to incorporate the full intent of this Bulletin.

Venue	Estimated Manhours
(1) In Service	Not applicable
(2) At Overhaul	Not affected

NOTE: The parts affected by this Service Bulletin are accessible at overhaul.

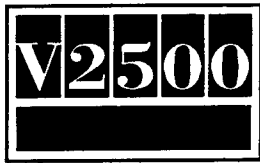
G. Material – Price and Availability

- (1) Modification kit is not required.
- (2) See "Material Information" section for prices and availability of future spares.

H. Tooling – Price and Availability

Special tools are not required.

V2500–ENG–72–0169



SERVICE BULLETIN

I. Weight and Balance

- | | | | | | |
|-----|---------------|----|----|----|--|
| (1) | Weight change | .. | .. | .. | +0.2lb. (0.10 kg) |
| (2) | Moment Arm | .. | .. | .. | +15.8in. (401 mm) rearward of datum |
| (3) | Datum | .. | .. | .. | Engine front mount centerline
(Power Plant Station - PPS 100) |

K. Electrical Load Data

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

K. References

- (1) Internal Reference No.

EC88VR064

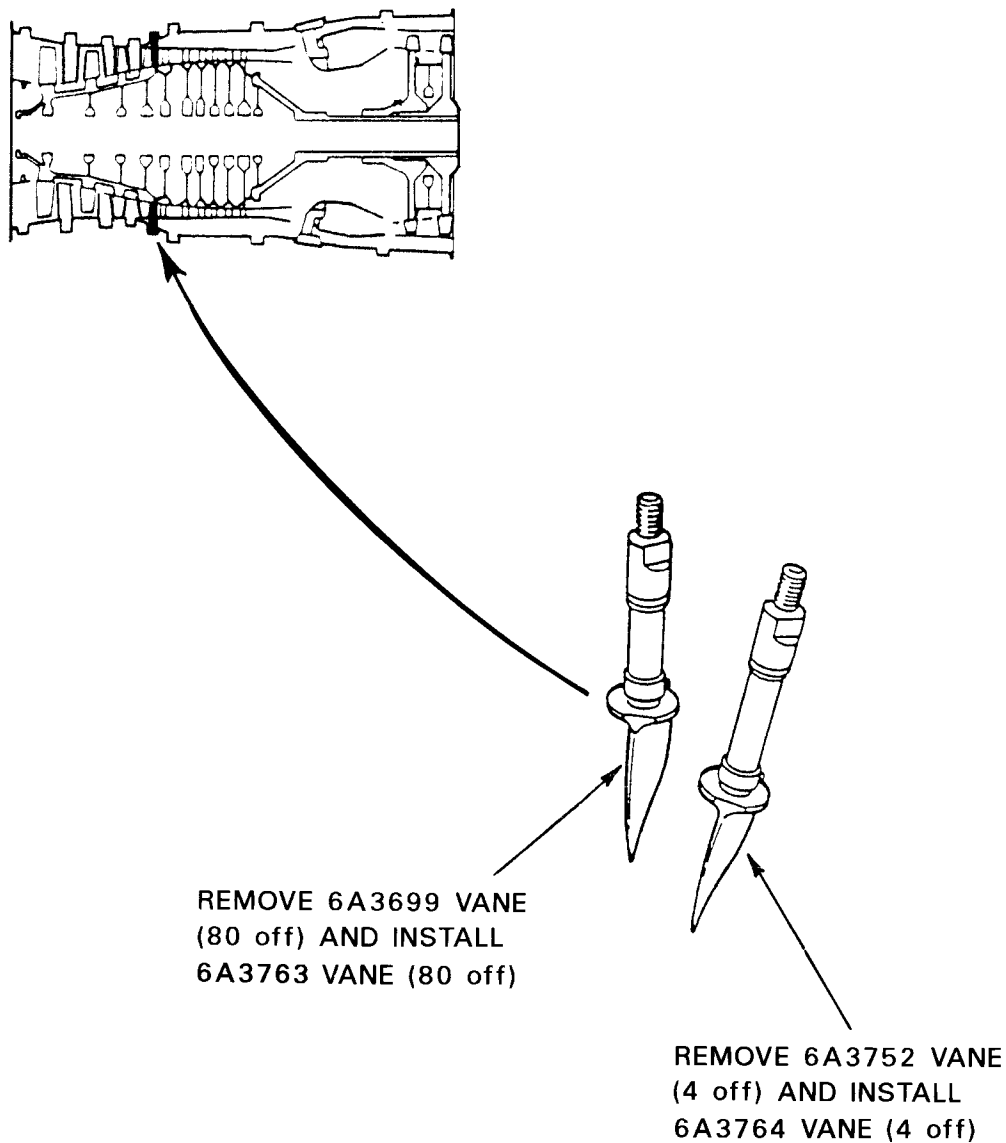
L. Other publications affected

- (1) Repair Schemes VRS6037, VRS6079 and VRS6185 are also applicable to the new part numbers being introduced by this Service Bulletin.
- (2) V2500 Engine Illustrated Parts Catalog, 72-41-32 will be revised.
- (3) V2500 Engine Manual, 72-41-32 Cleaning, Inspection/Check and repair will be revised.

V2500-ENG-72-0169

Jul.2/93

Page 3



E1032

Location of stage 6 variable inlet guide vanes
Fig.1

V2500-ENG-72-0169



2. Accomplishment Instructions

A. Rework Instructions

Not applicable

B. Assembly Instructions

- (1) New 6A3763 and 6A3764 stage 6 H.P. compressor variable stator vanes are only interchangeable as a COMPLETE SET with in-use vanes.
- (2) Assemble 6A3763 and 6A3764 stage 6 H.P. compressor variable stator vanes by use of approved procedures in the Engines Manual, 72-41-30 Assembly.

D. Recording Instructions

A record of accomplishment is necessary.



SERVICE BULLETIN

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
6A3763 (72-41-32)	80	287.00	Vane, variable - Stage 6	6A3699 (05-500)	(A)(B)(S1)
6A3764 (72-41-32)	4	287.00	Vane, variable - Stage 6	6A3752 (05-600)	(A)(B)(S1)

C. Instructions/Disposition Code Statements:

(A) New parts are currently available.

(B) Old parts are no longer available.

(S1) New parts coded (S1) must replace old parts coded (S1) as a complete set per engine.

NOTE: The estimated 1993 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.

V2500-ENG-72-0169