International Aero Engines

SERVICE BULLETIN

ENGINE - LP COMPRESSOR - REWORK THE NO.1 BEARING SEAL ASSEMBLY TO INCORPORATE A REVISED SLEEVE SPACER AND RETAINING COLLAR - CATEGORY CODE 6 - MOD.ENG-72-0082

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1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500-A1 Engines before Serial No.V0162

B. Reason

(1) Condition

When the parts are in a free state, the No.1 Carbon Seal Assembly Piston Ring is riding in the carbon carrier chamfer, instead of the sealing land. This can cause chipping of the Carbon Nose or an improperly seated carbon seal at assembly.

(2) Background

The original Retaining Collar for the No.1 Bearing Carbon Seal Carrier Retaining Pin was not long enough. Collar length could only be increased 0.040 inch (1.016 mm.) becuase of design requirements. At extreme conditions, when the parts were assembled, the No.1 Bearing Carbon Seal Assembly was found to be improperly seated.

(3) Objective

When the parts are in a free state, prevent the seal carrier from riding up on the piston ring instead of the sealing land.

(4) Substantiation

Analytical review of the new tolerance stack up indicates this problem will no longer exist.

(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:

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

C. Description

(1) A new longer Retaining Collar and a new Sleeve Spacer are provided to decrease the possiblity that the No.1 Bearing Carbon Seal will seat improperly.

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.

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E. Compliance

Category Code 6

Accomplish when the subassembly (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 incorporated the full intent of this Bulletin:

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

Remarks: No additional time will be required to maintain the new configuration

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

Special tools are not required.

I. Weight and Balance

(1)	Weight change	None
(2)	Moment arm	No effect

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

(3) Datum — Engine front mount centreline (Power Plant Station (PPS) 100)

J. Electrical Load Data

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

K. References

(1) Internal Reference No.

90VA004

(2) Other References

V2500 Engine Manual

V2500 Standard Practices Manual

L. Other Publications Affected

(1) V2500 Illustrated Parts Catalog, Chapter/Section 72-32-53, Figure 1, to add the new parts.

(2) The V2500 Engine Manual, Chapter/Section 72-32-53, Cleaning, to add the new parts.

(3) The V2500 engine Manual, Chapter/Section 72-32-53, Inspection/Check, to add the new parts.

(4) The V2500 Engine Manual, Chapter/Section 72-32-53, Repair, to add the new parts.

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2. Accomplishment Instructions

A. Rework Instructions

(1) There are no rework instructions necessary for this Service Bulletin.

B. Assembly Instructions

(1) Assemble the No.1 Bearing Seal Assembly by Figure 1 and approved procedure in Reference (1), Chapter/Section 72-32-53, except:

(a) Install 2A2057 Sleeve Spacers (2 off) on the two pins that are almost 90 degrees form both sides of the offset pin.

(b) Install 2A2035 Retaining Collars (4 off) on the pins.

(2) Identify 2A1782 No.1 Bearing Seal Assembly as 2A2036. Refer to Reference (2), Chapter/Section 70-09-00, Marketing of Parts. Use the vibration peen method.

C. Recording Instructions

(1) A record of accomplishment is necessary.

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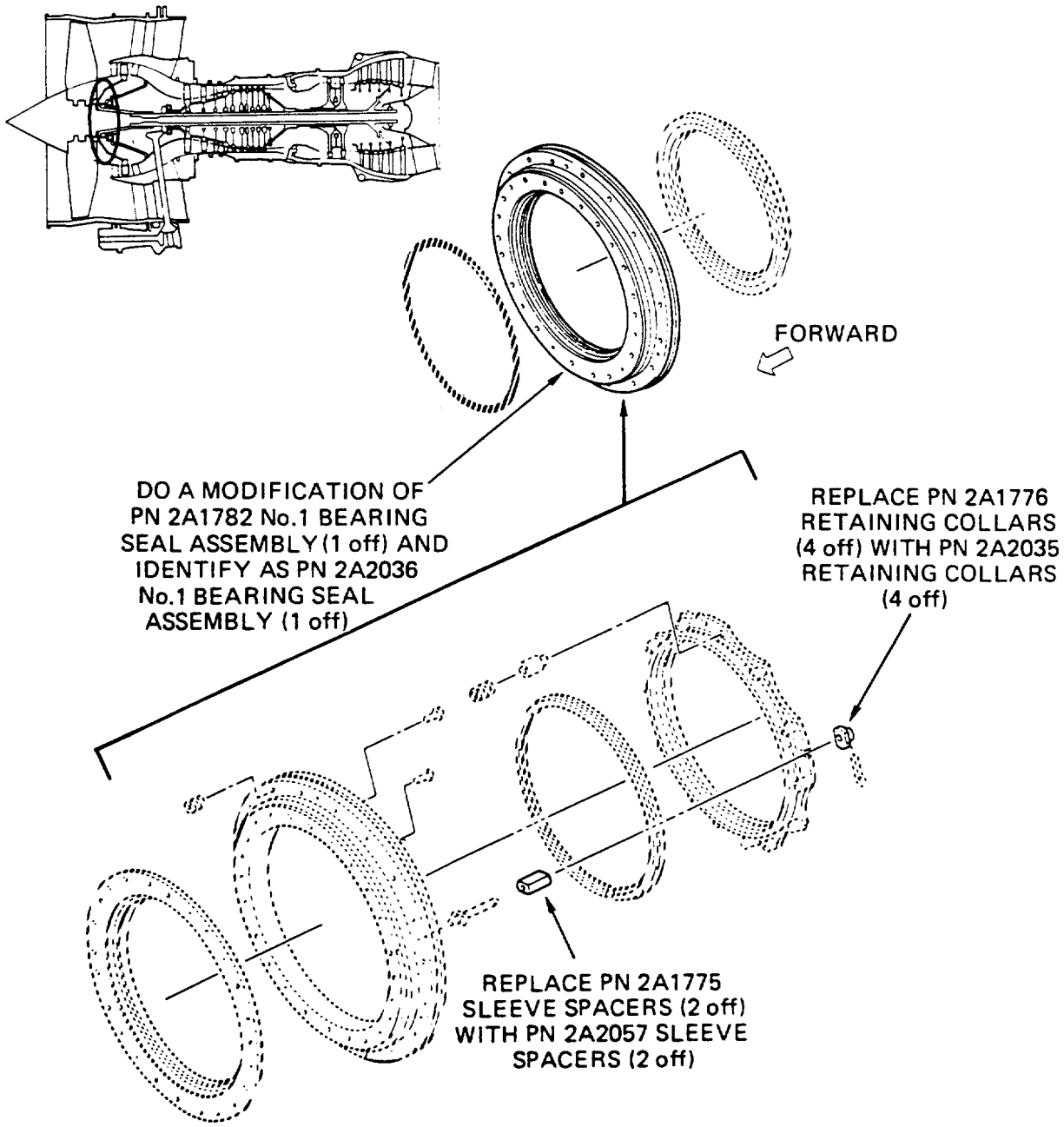

Location of No.1 Bearing Seal Assembly
Fig.1

Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

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
2A2036 (72-32-53)	1	-	Seal Assembly No.1 Bearing	2A1782 (01-105)	(S1)(1D)(A)
2A2057 (72-32-53)	2	158.00	.Spacer - Sleeve	2A1775 (01-280)	(S1)(A)(B)
2A2035 (72-32-53)	4	37.00	.Collar - Retaining	2A1776 (01-300)	(S1)(A)(B)

C. Instruction/Disposition Code Statements:

(S1) New Parts Coded (S1) must replace Old parts coded (S1) in a COMPLETE set per Engine.
(1D) A modification can be done to the Old Part and it can be identified as the New Part Number. Modification is the only way to get this part.
(A) Old Part will no longer be available.
(B) New Part is 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.

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