

SERVICE BULLETIN

ENGINE - LP TURBINE - PROVIDE AN OUTER DIFFUSER SUPPORT ASSEMBLY WITH SILVER PLATED CLINCH NUTS - CATEGORY CODE 6 - MOD.ENG-72-0110

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines Prior to Serial Number V0203

B. Reason

(1) Condition

In the present configuration the Outer Diffuser Support Assemblies have fully silver plated Clinch Nuts. The silver plate can contribute to a chemical reaction which may result in sulfidation/corrosion of the support in hot gas environment.

(2) Background

Strip inspection of LP Turbine Assemblies from development engines revealed signs of corrosion on the Outer Diffuser Parts.

(3) Objective

The changes in configuration recommended in this Service Bulletin are intended to prevent corrosion on the Outer Diffuser Parts and to improve durability.

(4) Substantiation

Engineering assessment has concluded that the change introduced by this modification will be beneficial.

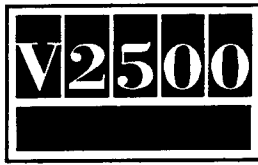
(5) Effects of Bulletin on Workshop Procedures:

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

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**C. Description**

- (1) The Self-Locking Clinch Nuts of the Outer Diffuser Support Assemblies are silver plated in the thread area only.
- (2) Existing Outer Diffuser Support Assemblies can be reworked, See Figure 1.
- (3) New Self-Locking Clinch Nuts will be available for replacement purposes.

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

Compliance 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 Service Bulletin:

Venue	Estimated Manhours
(1) In Service	Not applicable
(2) At Overhaul	TOTAL 45 minutes

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

- (a) To accomplish the rework
on the Outer Diffuser
Support Assemblies(8 off) 45 minutes
TOTAL: 45 minutes

G. Material - Price and Availability

- (1) Modification kit not required. Parts supplied as single line items.
- (2) See "Material Information" section for prices and availability of future spares.

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**SERVICE BULLETIN****H. Tooling - Price and Availability**

Special tools are not required to accomplish this Service Bulletin.

I. Weight and Balance

- | | |
|-------------------|--|
| (1) Weight change | None |
| (2) Moment arm | No effect |
| (3) Datum | Engine front mount centerline
(Powerplant Station (PPS)100) |

J. Electrical Load Data

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

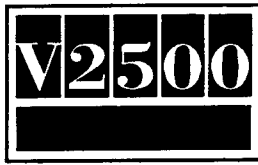
K. References

- (1) Internal Reference No.
90VM014
- (2) Other References
Engineering Change 90VM014
V2500 Engine Illustrated Parts Catalogue
V2500 Engine Manual
V2500 Standard Practice/Processes Manual

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalogue, 72-50-25, Figure 1 to add the new part.
- (2) V2500 Engine Manual 72-50-25, Cleaning to add the new part.
- (3) V2500 Engine Manual 72-50-25, Inspection/Check to add the new part.
- (4) V2500 Engine Manual 72-50-25, Repairs to add the new part.

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2. Accomplishment Instructions

A. Removal Instructions

- (1) Remove the P/N 3A0084 Outer Diffuser Support Assembly (8 off) by the instructions given in Reference (3), 72-50-10 Disassembly 11.

B. Rework Instructions

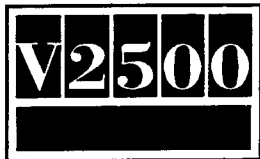
- (1) Rework P/N 3A0084, Outer Diffuser Support Assembly (Ref.(2), 72-50-25, Fig/Item No.01-010) and reidentify as follows:

Procedure	Supplementary Information	
(a) Machine off flared portion of clinch nut.	Refer to Figure 1. Make sure that the chamfer, bore and faces of the Support do not become damaged.	
(b) Tap through remainder of shaft and nut.	Use flat-nosed punch or similar.	
(c) Inspect for damage in bore.	Fine scratches are permitted but raised material must be removed.	
(d) Install P/N ST1578 (2 off) Self-Locking Clinch Nut onto the Support.	Refer to Figure 1. The nut shoulder must be located so that the Nut can not rotate.	
(e) Flare over location diameter of Clinch Nut.	Use hydraulic portable yoke riveter. Axial movement up to 0.010in. (0.25 mm) is permitted. Refer to Figure 1.	
(f) Inspect visually the assembled Clinch Nuts for cracks.	No cracks are permitted.	
(g) Inspect the Support for correct assembly	The flared area of the Nut should be continuous with no broken or rough edges.	
(h) Re-number adjacent to existing Part Number. Use the vibration peening method.	Old Part Number	New Part Number
	3A0084	3A1907
	Refer to Reference (4), Task 70-09-00-400-501	

C. Assembly Instructions

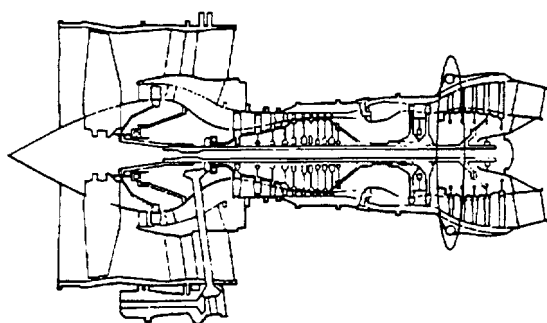
- (1) Install new P/N 3A1907 Outer Diffuser Support Assembly (8 off) by the instructions given in Reference (3), 72-50-10 Assembly 01.

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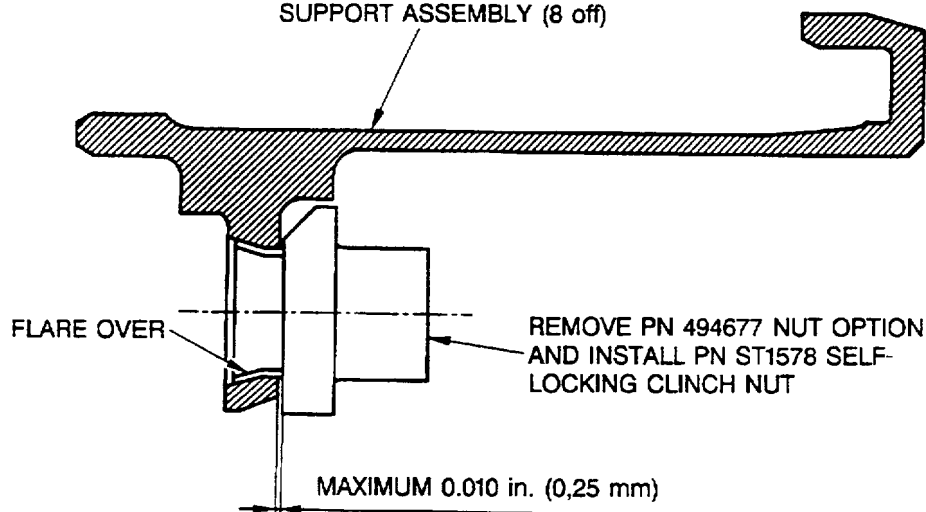


C. Recording Instructions

- (1) A record of accomplishment is necessary.



REMOVE PN 3A0084 OUTER
DIFFUSER SUPPORT ASSEMBLY
(8 off), DO A MODIFICATION,
RE-NUMBER AND INSTALL
PN 3A1907 OUTER DIFFUSER
SUPPORT ASSEMBLY (8 off)



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Modification of the LP Turbine Outer Diffuser Support Assembly
Fig.1

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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
3A1907 (72-50-25)	8	1947.00	Support, Assey, Outer Diffuser	3A0084 (01-010)	(A)(B)(S1) (1D)
-- (72-50-25)	2	-----	.Nut, Option	494677 (01-030)	(S1)(S2)(2D)
ST1578 (72-50-25)	2	8.77	.Nut. Clinch, Self-Lok king	---- (01-030)	(C1)(S1)

C. Instruction/Disposition Code Statements:

- (A) New part will be available for sale in October 91.
- (B) Old part no longer available for sale.
- (C) New part currently available for sale.
- (S1) Old and new part are fully interchangeable functionally.
- (S2) Old part will continue to be used on other applications.
- (1D) Rework Old Part Number and identify to the new part Number.
- (2D) Old Part Number is destroyed during rework.

NOTE: The estimated 1992 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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