



SERVICE BULLETIN

ENGINE - HP TURBINE - INCORPORATE AN IMPROVED TURBINE LOCK - CATEGORY CODE 5 -
MOD.ENG-72-0076

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines before Serial No.V0140 except V0125, V0128, V0136, V0137 and V0138.

B. Reason

(1) Condition

The stage 2 Turbine Hub may not adequately align with the HPC Shaft circumferentially. In such a case, pressure, used during the assembly of the HPC Shaft, could cause damage to the mating spline areas.

(2) Background

The present Hub Lock used to retain the Stage 1 and 2 Turbine Disks allows circumferential movement of the Stage 2 Turbine Hub. This movement, in some instances, can cause spline misalignment.

(3) Objective

To improve the alignment of the Stage 2 Turbine Hub and the HPC Shaft.

(4) Substantiation

Not necessary

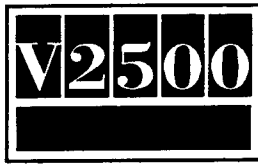
(5) Effects of Bulletin on Workshop Procedures:

| | |
|----------------------|--------------|
| 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) Replace the Turbine Hub Lock with a new lock that features a more stringent dimensioning of the first slot.

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 5.

Accomplish when the engine is disassembled sufficiently to afford access to the affected subassembly (i.e. modules, accessories, components, build groups) and to all affected spare subassemblies.

F. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

| Venue | Estimated Manhours |
|--|-------------------------|
| (1) In Service | Not applicable |
| (2) In shop | TOTAL 1 hour 18 minutes |
| (a) To gain access | |
| (i) Install the tooling to position the H.P.T. rotor and stator assembly | 32 minutes |
| (ii) Remove the ladder .. | 16 minutes |
| | TOTAL 48 minutes |
| (b) To embody | |
| (i) Install the new H.P. turbine hub lock (ladder lock) | 4 minutes |
| | TOTAL 4 minutes |
| (c) Return module to overhaul condition | |

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(i) Remove the tooling
from the H.P.T. rotor
and stator assembly .. 22 minutes

(ii) Trunnion the H.P.T.
rotor and stator
assembly 4 minutes

TOTAL 26 minutes

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

G. Material - Price and Availability

(4) 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 |
| (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.

89VA153

90VK018

(2) Other References

V2500 Engine Manual

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L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog, Chapte/Section 72-45-00, Figure 1, to add the new part.
- (2) V2500 Engine Manual, Chapter/Section 72-45-00, Cleaning, to add the new part.
- (3) V2500 Engine Manual, Chapter/Section 72-45-00, Inspection, to add the new part.



2. Accomplishment Instructions

A. Rework Instructions

- (1) There are no rework instructions necessary to accomplish this Service Bulletin.

B. Disassembly Instructions

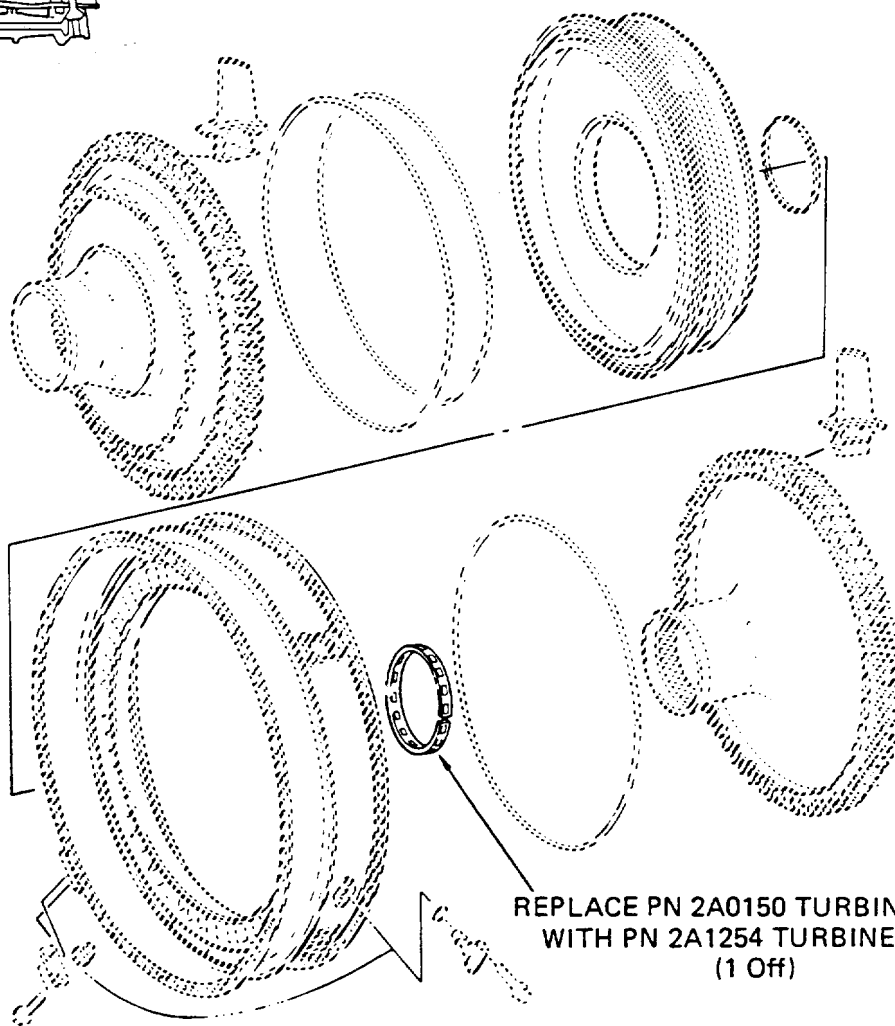
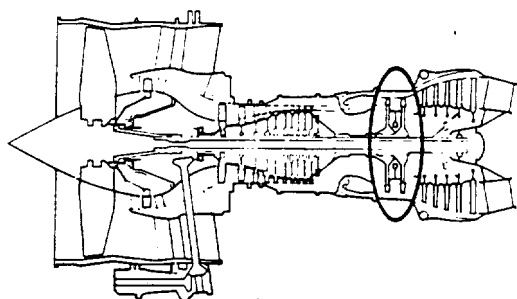
- (1) Remove 2A0150 Turbine Hub Lock by the approved procedures in Reference (1), Chapter/Section 72-45-00 Disassembly. See Figure 1.

C. Assembly Instructions

- (1) Install 2A1254 Turbine Hub Lock (1 off) by the approved procedures in Reference (1), Chapter/Section 72-45-00 Assembly. See Figure 1.

D. Recording Instructions

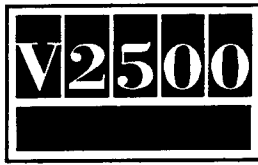
- (1) A record of accomplishment is necessary.



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Location of HP Turbine Hub Lock
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 |
|------------------------------|-----|-----------------------------|------------------|------------------------------|-----------------------------|
| 2A1254 (72-45-00) | 1 | 150.00 | Lock-Turbine Hub | 2A0150 (01-020) | (A)(B) |

C. Instruction/Disposition Code Statements:

- (A) New is currently available.
(B) Old part will no longer be available.

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 Department for information concerning firm prices.

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