V2500 International Aero Engines

Date: Jan.31/01

Subject: Transmittal of Revision 1 To Service Bulletin Number V25000-ENG-73-0152.

Service Bulletin Revision History:

Event	Date
Basic Issue	Jun.2/99
Revision 1	Jan.31/01

Reason For Issuance Of Revision:

(1) To clarify the Effectivity and the Compliance sections.

(2) To add reference Service Bulletin V2500-NAC-70-0592.

(3) Add Model.

(4) Minor editorial corrections.

(5) Revise format to latest specifications.

Effect on Prior Compliance:

None.

List of Effective Pages:

Bulletin Page No.	Rev. No.	Effective Date
1 to 7	1	Jan.31/01
8	Basic	Jun.2/99

V2500 International Aero Engines
SERVICE BULLETIN

ENGINE - INTRODUCTION OF LONGER P2T2 PROBE

MODEL APPLICATION

V2522-A5
V2524-A5
V2527-A5
V2527E-A5
V2527M-A5
V2530-A5
V2533-A5

BULLETIN INDEX LOCATOR

73-00-00

Compliance Category Code

4, 8

Internal Reference No.

EC 97VZ015

Jun.2/99
Revision 1 - Jan.31/01

ENGINE - INTRODUCTION OF LONGER P2T2 PROBE

1. Planning Information

A. Effectivity

(1) Airbus: A319, A320 and A321

(2) Engine: All V2500-A5 Engines before Serial No V10591.

(3) Engine: All V2500-A5 Engine Nacelle Inlets in the fleet of those operators operating the following engine ratings and conditions:

(a) All V2533-A5

(b) V2530-A5 from airfields above 3000 feet

(c) V2527E-A5 from airfields above 5000 feet

(d) V2527M-A5 from airfields above 5000 feet

(e) V2524-A5 from airfields above 11000 feet

B. Concurrent Requirements:

(1) Either Service Bulletin V2500-NAC-71-0206 or V2500-NAC-70-0592 must be incorporated prior to or concurrently with this Service Bulletin.

C. Reason

(1) Condition:

It has been demonstrated that the current P2T2 probe can result in EPR shortfalls during Take-off due to boundary layer effects in the intake at certain conditions.

(2) Background:

For higher thrust-rated A5 engines, changes to the inlet boundary layer has resulted in inadequate P2 measurement at very low Mach. number, high air flow conditions.

(3) Objective:

Increase the immersion of the probe into the inlet air stream by approximately 3 inches. This extends through the increased boundary layer, into the clear air stream and improves measurement accuracy.

(4) Substantiation

(a) Engine Fan Flutter Test:

Development Engine 807-9, V2500-D5, executed a fan flutter test with the new part number 154JU P2T2 inlet probe installed. Rolls Royce test report no. DNS 45722 documents that the probe has no detrimental effect on the vibration behavior of the fan blades.

(b) Engine Performance Test:

Aircraft 364 flight tested a P2T2 inlet probe of equivalent dimensions to the 154JU proposal. The 3 inch (76.200 mm) length increase was fully adequate to eliminate the P2T2 measurement deficiency and is therefore good for all conditions.

(c) Supplier Bench Certification Test:

FAA certification bench testing was completed at B.F. Goodrich-Rosemont Aerospace. The P2T2 inlet probe, Rosemont Part Number 154JU successfully completed all test according to the Rosemont test procedure D9830176 proving compliance with P&W PPS 2153 and FAA approved 36-item component certification checklist. The most significant segments of this testing were the vibration endurance and impact tests. Complete test results are documented in the Rosemont Aerospace document "RMTAEOR document D9830176".

(d) Engine Endurance:

The engine endurance of this probe is substantiated by similarity to previous probes as well as the engine time accumulated during the above described testing.

(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

This change must be incorporated concurrently with or subsequent to Reference 1 Service Bulletin V2500-NAC-71-0206 (Rohr Engineering Change 96VN207 (10400)).

D. Description

(1) Provide a longer P2T2 Probe to improve measurement accuracy.

E. 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.

The 'compliance' statement and the procedures described in paragraph E of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-Approved for the Engine Model listed.

F. Compliance

Category 4

For all operators operating the following ratings and conditions:

(1) All V2533-A5

(2) V2530-A5 from airfields above 3000 feet

(3) V2527E-A5 from airfields above 5000 feet

(4) V2527M-A5 from airfields above 5000 feet

(5) V2524-A5 from airfields above 11000 feet

Accomplish at the first visit of the nacelle or nacelle component to a maintenance base capable of compliance with the accomplishment instruction regardless of the planned maintenance action for the nacelle, or nacelle component.

NOTE: Accomplish before or at the next aircraft C-check.

Category 8

All Operators not specified in Category 4 above. Accomplish based upon experience with the prior configuration.

G. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In service	Not Applicable
(2) At overhaul	Not Applicable

H. Material - Price and Availability

(1) Modification kit is not required. Parts are supplied as single line items.

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

I. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin.

J. Weight and Balance

(1) Weight change	Plus 0.75lb (0.03kg)
(2) Moment arm	No effect
(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.

L. References

(1) IAE V2500 Service Bulletins, V2500-NAC-71-0206 and V2500-NAC-70-0592.

(2) The V2500 Engine Illustrated Parts Catalog, (S-V2500-2IA, S-V2500-2IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, S-V2500-7IB,) Chapter/Section 73-22-11

(3) The V2500 Engine Manual, (E-V2500-1IA, Removal 71-11-00-050-011; Installation 71-11-00-400-001.

(4) The V2500 Aircraft Maintenance Manual, Removal 73-22-11-000-010; Installation 73-22-11-400-010.

(5) Airbus Service Bulletin A320-73-1066 and Modification No. 28306.

M. Other Publications Affected

(1) The V2500 Engine Illustrated Parts Catalog, (S-V2500-1IA Chapter/Section 73-22-11, Figure 01, to add new part.

2. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kit 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
Applicability: For each V2500 Engine to incorporate this Service Bulletin					
2A3343 (0154JU) (73-22-11)	1		PROBE	2A0528 (154DB3) (01-10 A)	(S1)(A)

C. Consumable Materials

D. Instructions/Disposition Code Statements:

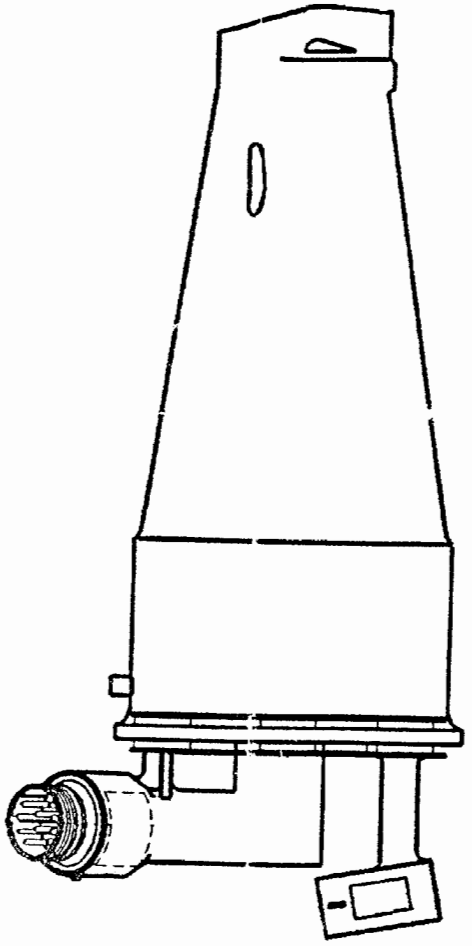
(S1)The New Part Number can only be installed after incorporation of Reference 1, Service Bulletin V2500-71-0206.
(A) The new part is currently available.

3. Accomplishment Instructions

A. Replace Probe P2T2, PN 2A0528 (Vendor, PN 154DB3) with Probe, PN 2A3343 (Vendor, PN 154JU).

(1) Remove old probe, PN 2A0528 per Reference 3 Chapter/Section 71-11-00-050-011 or Reference 4 Chapter/Section 73-22-11-000-010.

(2) Install new probe, PN 2A3343 per Reference 3 Chapter/Section 71-11-00-400-001 or Reference 4 Chapter/Section 73-22-11-400-010.



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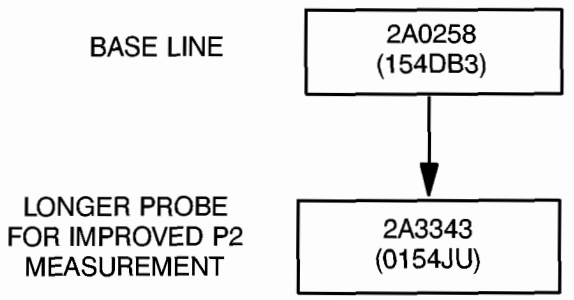
Typical P2T2 Probe
Figure 1



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Family Tree - P2T2 Probe
Ref. Catalog Sequence No 73-22-11. Fig. 01 Item 010
Figure 1