SERVICE BULLETIN REVISION NOTICE

NON — MODIFICATION SERVICE BULLETIN — BORESCOPE INSPECTION OF HIGH PRESSURE TURBINE (HPT) STAGE 1 DUCT SEGMENTS

Turbojet Engine Service Bulletin No. V2500-ENG-72-0557 Revision No. 1 dated August 12, 2014.

Revision History

Original Issue May 29, 2008

Revision 1 dated August 12, 2014

Reason for the Revision

It is no longer necessary to do this Service Bulletin. This Service Bulletin has been superseded by Reference 12, Service Bulletin No. V2500-ENG-72-0580.

Effect of Revision on Prior Compliance

None.

This is a Complete Revision (Not Applicable to the SGML version)

The contents are in accordance with the list of effective pages. All pages have the current revision number. Technical changes are marked with black bars.

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 72-0557

Page	Revision No.	Date
1 thru 20	1	August 12/14

A copy of this Revision Notice and any future revision notices must be filed as a permanent record with your copy of the subject bulletin.

SERVICE BULLETIN

NON — MODIFICATION SERVICE BULLETIN — BORESCOPE INSPECTION OF HIGH PRESSURE TURBINE (HPT) STAGE 1 DUCT SEGMENTS

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 72-0557

ATA NUMBER

72-00-00

Compliance Category

3

P&W Distribution Code

V2500

Summary

See the Reason.

Planning Information

Effectivity Data (For Airbus A319)

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5
See Appendix B

Effectivity Data (For Airbus A320)

Engine Models Applicable

V2500-A1
See Appendix A

V2527-A5, V2527E-A5
See Appendix B

Effectivity Data (For Airbus A321)

Engine Models Applicable

V2530-A5, V2533-A5
See Appendix B

Effectivity Data (For Boeing MD-90)

Engine Models Applicable

V2525-D5, V2528-D5
See Appendix C

Concurrent Requirements

There are no concurrent requirements.

Reason

NOTE: It is no longer necessary to do this Service Bulletin. This Service Bulletin has been superseded by Reference 12, Service Bulletin No. V2500-ENG-72-0580.

1. Problem: Field experience has shown that the HPT Stage 1 Duct Segments (Blade Outer Air Seals; BOAS) pre SB 72-0483 (A5/D5), SB 72-0542 (A1) and post 72-0464 (D5) can develop cracking and inward radial bowing.

2. Background: This condition could result in interaction between the BOAS and the HPT Stage 1 Blades. This interaction may contribute to increased blade clearances and reduced time on-wing. Certain operators who operate in hot and sandy environments have experienced conditions which aggravate and accelerate the distress. This service bulletin applies to those engines which operate in hot and sandy environments. These engines are listed in appendices A, B and C.

3. Objective: This service bulletin recommends inspection intervals for performing a 360 degree Borescope Inspection (BSI) of the Stage 1 BOAS. This service bulletin is intended to identify accelerated BOAS distress that occurs at certain hot and sandy operator locations.

4. Substantiation: The recommended inspection intervals are based on a statistical review of BOAS event data and hardware. Pre and Post SB 72-0483 and SB 72-0542 engines will require this inspection until sufficient field experience successfully demonstrates it is not required. This service bulletin will be revised once this information is reviewed and accepted by engineering.

5. Effects of Bulletin on:

   Removal/Installation: None.

   Disassembly/Assembly: None.

   Cleaning: None.

   Inspection/Check: None.

   Repair: None.

   Testing: None.

6. Supplemental Information

   None.

Description

This service bulletin provides recommended inspection intervals for performing a 360 degree Borescope Inspection of the Stage 1 BOAS.

This service bulletin applies to all Stage 1 BOAS that are pre and post SB 72-0483 (A5/D5), 72-0464 (D5) and SB 72-0542 (A1).

Compliance

Category 3

PRE SB 72-0483 and SB 72-0542, POST SB 72-0464

Applicable A1 and A5 engines:

Accomplish at or before the engine has accumulated 6,000 hours since last Hot Section refurbishment. The 360 degree Borescope Inspection is provided in the subsequent Accomplishment Instructions. Revised Borescope Inspection limits are provided in Appendix G.

Repeat Borescope Inspection every 1,200 hours until damage is observed per Appendix G. Once damage is identified, subsequent Borescope inspections must be performed in accordance with the inspection limits.

Applicable D5 engines:

Accomplish at or before the engine has accumulated 2,300 hours since last Hot Section refurbishment. The 360 degree Borescope Inspection is provided in the subsequent Accomplishment Instructions. Revised Borescope Inspection limits are provided in Appendix G.

Repeat Borescope Inspection every 500 hours until damage is observed per Appendix G. Once damage is identified, subsequent Borescope inspections must be performed in accordance with the inspection limits.

POST SB 72-0483 and SB 72-0542

Applicable A1 and A5 engines:

Accomplish at or before the engine has accumulated 11,200 hours since last Hot Section refurbishment. The 360 degree Borescope Inspection is provided in the Accomplishment Instructions. Revised Borescope Inspection limits are provided in Appendix G.

Repeat Borescope Inspection every 1,200 hours until damage is observed per Appendix G. Once damage is identified, subsequent Borescope inspections must be performed in accordance with the inspection limits.

Applicable D5 engines:

Accomplish at or before the engine has accumulated 3,000 hours since last Hot Section refurbishment. The 360 degree Borescope Inspection is provided in the Accomplishment Instructions. Revised Borescope Inspection limits are provided in Appendix G.

Repeat Borescope Inspection every 500 hours until damage is observed per Appendix G. Once damage is identified, subsequent Borescope inspections must be performed in accordance with the inspection limits.

Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

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

Manpower

1. In Service
   A. To gain access:
   ..... 45 Minutes
   B. To perform Borescope Inspection:
   ..... 1 Hour 10 Minutes
   C. To return Engine to Flyable status:
   ..... 45 Minutes
2. Total Necessary Man-hours
   ..... 2 Hours 40 Minutes
3. At Overhaul
   ..... Not Applicable.

Weight and Balance

1. Weight Change

   None.

2. Moment Arm

   No Effect.

3. Datum

   Engine Front Mount Centerline (Power Plant Station (PPS) 100)

Electrical Load Data

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

Software Accomplishment Summary

Not Applicable.

References

1. IAE V2500 Service Bulletin V2500-ENG-72-0464 (Engine — New First Stage Blade Outer Air Seal And HPT Vane Support (Controlled Service Use).
2. IAE V2500 Service Bulletin V2500-ENG-72-0483 (Engine — New First Stage Duct Segments And HPT Vane Support).
3. IAE V2500 Service Bulletin V2500-ENG-72-0542 (Engine — New First Stage Duct Segments And HPT Vane Support).
4. V2500 Engine Illustrated Parts Catalogs (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, and S-V2500-7IB), Chapter/Section 72-44-10 Figure 1 Item 010 and 72-45-23 Figure 02 Items 060 and 062.
5. V2500 Engine Manual (E-V2500-1IA), Chapter/Section 72-44-10 and 72-45-23.
6. V2500 Engine Manual (E-V2500-3IA), Chapter/Section 72-44-10 and 72-45-23.
7. V2500 Standard Practices/Processes Manual (E-V2500-1IA), Chapter/Section 70-09-00-400-50.
8. V2500 Standard Practices/Processes Manual (E-V2500-3IA), Chapter/Section 70-09-00-400-501.
9. Aircraft Maintenance Manual.
10. Internal Reference No. — IEN 07VC233, EA12VC219.
11. ATA Locator — 72-00-00.
12. IAE V2500 Service Bulletin V2500-ENG-72-0580 (Non-Modification Service Bulletin — Borescope Inspection Of High Pressure Turbine (HPT) Stage 1 Duct Segments).

Other Publications Affected

None.

Interchangeability of Parts

Not applicable.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Supplement (Yes)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

Material Information

Material — Price and Availability

There is no kit provided to do this service bulletin.

Industry Support Program

Not Applicable.

The material data that follows is for each engine.

This service bulletin is for inspection only.

Instructions/Disposition Code Statements:

Parts Modification Conditions

Not applicable.

Spare Parts Availability

Not applicable.

Cleaning, Inspection and Repair Information

Not applicable.

Tooling — Price and Availability

The following special tools are required to accomplish this service bulletin.

For V2500-A1 Model:

2.5 meter or greater flex Borescope with forward viewing tip 7 mm or greater or 5 mm or less.

For V2500-A5/D5 Models:

2.5 meter or greater flex Borescope with forward viewing tip 6 mm or greater.

Reidentified Parts

Not Applicable.

Other Material Information Data

Not Applicable.

Accomplishment Instructions

For Airbus Aircraft: Perform Borescope Inspection of Stage 1 Duct Segments (Blade Outer Air Seal; BOAS)

1. Job set-up procedure

A. Safety Precautions

(1) On the center pedestal, on the ENG panel 115VU place a warning notice not to start the engine.

CAUTION: THE ENGINE IS HOT IMMEDIATELY AFTER SHUTDOWN AND CAN CAUSE BURNS AND DAMAGE TO THE BORESCOPE EQUIPMENT. WAIT 2-3 HOURS AFTER SHUTDOWN BEFORE YOU DO A BORESCOPE INSPECTION.

(2) On the overhead maintenance panel 50VU make sure that the ON legend of the ENG/FADEC GND PWR pushbutton switch is off for engine 1 and 2.

(a) Put a warning notice that indicates not to energize the FADEC for engine 1 and 2.

(b) Open the fan cowls in accordance with Reference 9, Aircraft Maintenance Manual, Task 71-13-00-010-010.

WARNING: THE THRUST REVERSER HYDRAULIC CONTROL UNIT (HCU) MUST BE DEACTIVATED BEFORE WORKING ON OR AROUND THE THRUST REVERSER. FAILURE TO DEACTIVATE THE HCU CAN RESULT IN INADVERTENT THRUST REVERSER OPERATION AND INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

(c) Deactivate the thrust reverser.

1 Deactivate the thrust reverser hydraulic control unit (HCU) in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-30-00-040-012.

(d) Open the thrust reverser halves in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-32-00-010-010.

2. Procedure

A. General

(1) Identify Borescope ports. Reference Appendix D and E for Borescope Inspection port location

B. Do a close up borescope inspection of the Stage 1 BOAS. Reference Appendix F.

(1) Get access to the Stage 1 BOAS through the T1/2L or T1/2R ports.

WARNING: MAKE SURE THE BORESCOPE PLUG IS SUFFICIENTLY COOL BEFORE YOU REMOVE IT. THE TEMPERATURE STAYS HIGH FOR A SHORT TIME AFTER ENGINE SHUTDOWN.

(a) Remove the lockwire and bolts which hold the plugs.

(b) Put the IAE 1P16184 Knocker-Puller into the center hole of the plug.

CAUTION: THE BORESCOPE PLUG CAN BE DIFFICULT TO REMOVE AND AS A RESULT IT CAN BE BROKEN. CARE SHOULD BE TAKEN WHEN REMOVING THE PLUG.

(c) Use the puller to remove the plug from the port.

(d) Remove the gasket from the plug.

(e) Remove the plug from the puller.

(2) Put the flexible borescope into the T1/2L or T1/2R port.

(3) Articulate the borescope until you can see the trailing edge of the 1st Stage HPT Blades and leading edge of the 2nd Stage Vanes.

NOTE: When the borescope is in approximately 12 in. (0.30 m), withdraw the borescope to make sure there is a minimum of resistance. If there is resistance, remove the borescope and rotate the rotor for a better position.

(4) Continue inserting the borescope around the circumference until you can see the borescope at the entrance point.

(5) Articulate the borescope to view the Stage 1 BOAS.

(6) Inspect the Stage 1 BOAS as you slowly retract the scope.

NOTE: BOAS should be counted as they are inspected to ensure all 38 have been inspected and to record a location if damage is observed.

(7) If damage is found, compare the findings with the limits in Appendix G.

(8) Continue inspecting the Stage 1 BOAS as the borescope is gently retracted and reaches the point of entry.

(9) Remove the boresope after completing the inspection.

3. Close-up

A. Ensure all Inspection Equipment has been removed.

B. Close the borescope inspection ports after the borescope inspection is completed as follows:

(1) For the T1/2L or T1/2R port, proceed as follows:

(a) Put the gasket option in the case recess.

(b) Replace the gasket if the seal is not above the case surface.

(c) Put the gasket on the plug and install it in the case.

(d) Lubricate the bolt threads with anti-seize paste or anti-seize compound. Wipe off excess paste.

(e) Install the bolts.

(f) Torque the bolts to between 75 and 85 lbf. in (8,4 and 9,6 Nm).

(g) Safety the bolts with corrosion resistant steel lockwire. (Material No. V02-141).

C. Close Access.

(1) Make sure that the work area is clean and clear of tool(s) and other items.

(2) Close the thrust reverser halves in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-32-00-410-010.

D. Activate the thrust reverser HCU in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-30-00-440-012.

(1) Close the fan close in accordance with Reference 9, Aircraft Maintenance Manual, Task 71-13-00-410-010.

(2) Remove the warning notice(s).

For Boeing Aircraft: Perform Borescope Inspection of Stage 1 Duct Segments (Blade Outer Air Seal; BOAS)

1. Job set-up procedure

   A. Safety Precautions

      (1) Put a “DO NOT OPERATE” tag on the throttel thrust lever in accordance with Reference 9, Aircraft Maintenance Manual, Task 72-00-04-490-001.

         WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT MAY OCCUR.

      (2) Open the fan cowls in accordance with Reference 9, Aircraft Maintenance Manual, Task 71-13-00/201.

         WARNING: THE THRUST REVERSER HYDRAULIC CONTROL UNIT (HCU) MUST BE DEACTIVATED BEFORE WORKING ON OR AROUND THE THRUST REVERSER. FAILURE TO DEACTIVATE THE HCU CAN RESULT IN INADVERTENT THRUST REVERSER OPERATION AND INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

         (a) Deactivate the thrust reverser.

            1 Deactivate the thrust reverser hydraulic control unit (HCU) in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-30-00-040-801.

            2 Open the thrust reverser halves in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-32-00-010-006.

2. Procedure

   A. General

      (1) Identify Borescope ports. Reference Appendix D and E for Borescope Inspection port location

   B. Do a close up borescope inspection of the Stage 1 Stage 1 BOAS. Reference Appendix F.

      (1) Get access to the Stage 1 Stage 1 BOAS through the T1/2L or T1/2R ports.

         WARNING: MAKE SURE THE BORESCOPE PLUG IS SUFFICIENTLY COOL BEFORE YOU REMOVE IT. THE TEMPERATURE STAYS HIGH FOR A SHORT TIME AFTER ENGINE SHUTDOWN.

         (a) Remove the lockwire and bolts which hold the plugs.

         (b) Put the IAE 1P16184 Knocker-Puller into the center hole of the plug.

            CAUTION: THE BORESCOPE PLUG CAN BE DIFFICULT TO REMOVE AND AS A RESULT IT CAN BE BROKEN. CARE SHOULD BE TAKEN WHEN REMOVING THE PLUG.

         (c) Use the puller to remove the plug from the port.

(d) Remove the gasket from the plug.

(e) Remove the plug from the puller.

(2) Put the flexible borescope into the T1/2L or T1/2R port.

(3) Articulate the borescope until you can see the trailing edge of the 1st Stage HPT Blades and leading edge of the 2nd Stage Vanes.

NOTE: When the borescope is in approximately 12 in. (0.30 m), withdraw the borescope to make sure there is a minimum of resistance. If there is resistance, remove the borescope and rotate the rotor for a better position.

(4) Continue inserting the borescope around the circumference until you can see the borescope at the entrance point.

(5) Articulate the borescope to view the Stage 1 BOAS.

(6) Inspect the Stage 1 BOAS as you slowly retract the scope.

NOTE: BOAS should be counted as they are inspected to ensure all 38 have been inspected and to record a location if damage is observed.

(7) If damage is found, compare the findings with the limits in Appendix G.

(8) Continue inspecting the Stage 1 BOAS as the borescope is gently retracted and reaches the point of entry.

(9) Remove the boresope after completing the inspection.

3. Close-up

A. Ensure all Inspection Equipment has been removed.

B. Close the borescope inspection ports after the borescope inspection is completed as follows:

(1) For the T1/2L or T1/2R port, proceed as follows:

(a) Put the gasket option in the case recess.

(b) Replace the gasket if the seal is not above the case surface.

(c) Put the gasket on the plug and install it in the case.

(d) Lubricate the bolt threads with anti-seize paste or anti-seize compound. Wipe off excess paste.

(e) Install the bolts.

(f) Torque the bolts to between 75 and 85 lbf. in (8,4 and 9,6 Nm).

(g) Safety the bolts with corrosion resistant steel lockwire. (Material No. V02-141).

C. Close Access.

(1) Make sure that the work area is clean and clear of tool(s) and other items.

(2) Close the thrust reverser halves in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-32-00-942-001.

D. Activate the thrust reverser HCU in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-30-00-440-801.

(1) Close the fan close in accordance with Reference 9, Aircraft Maintenance Manual, Task 71-13-00/201.

(2) Remove the warning notice(s), safety tags and close circuit breakers in accordance with Reference 9, Aircraft Maintenance Manual, Task 78-32-00-865-001.

Appendix

Supplement

1. Appendix A - Applicable A1 Engines

   A. The following A1 engines require Borescope Inspection to accomplish this service bulletin:

      V0008, V0023, V0024, V0026, V0027, V0028, V0030, V0036, V0038, V0043, V0044, V0045, V0050, V0052, V0056, V0057, V0059, V0062, V0063, V0064, V0068, V0070, V0071, V0072, V0073, V0074, V0077, V0079, V0080, V0082, V0087, V0092, V0094, V0095, V0097, V0098, V0100, V0102, V0105, V0107, V0108, V0109, V0114, V0116, V0117, V0118, V0119, V0121, V0125, V0126, V0128, V0129, V0130, V0131, V0133, V0134, V0135, V0139, V0140, V0144 V0145, V0146, V0148, V0149, V0150, V0151, V0158, V0160, V0172, V0180, V0197, V0198, V0200, V0204, V0220, V0221, V0222, V0224, V0228,V0233, V0234, V0236, V0238, V0239, V0242, V0243, V0244, V0246, V0252, V0257, V0258, V0264, V0265, V0270, V0271, V0272, V0273, V0278, V0279, V0280, V0281, V0282, V0289, V0290, V0294, V0297, V0298, V0299, V0303, V0304, V0306, V0307, V0308, V0309, V0312, V0329, V0330, V0332, V0338, V0341, V0342, V0345, V0346, V0348, V0350, V0352, V0353, V0354, V0355, V0356, V0357, V0358, V0359, V0360

2. Appendix B - A5 Engines

   A. The following A5 engines require Borescope Inspection to accomplish this service bulletin:

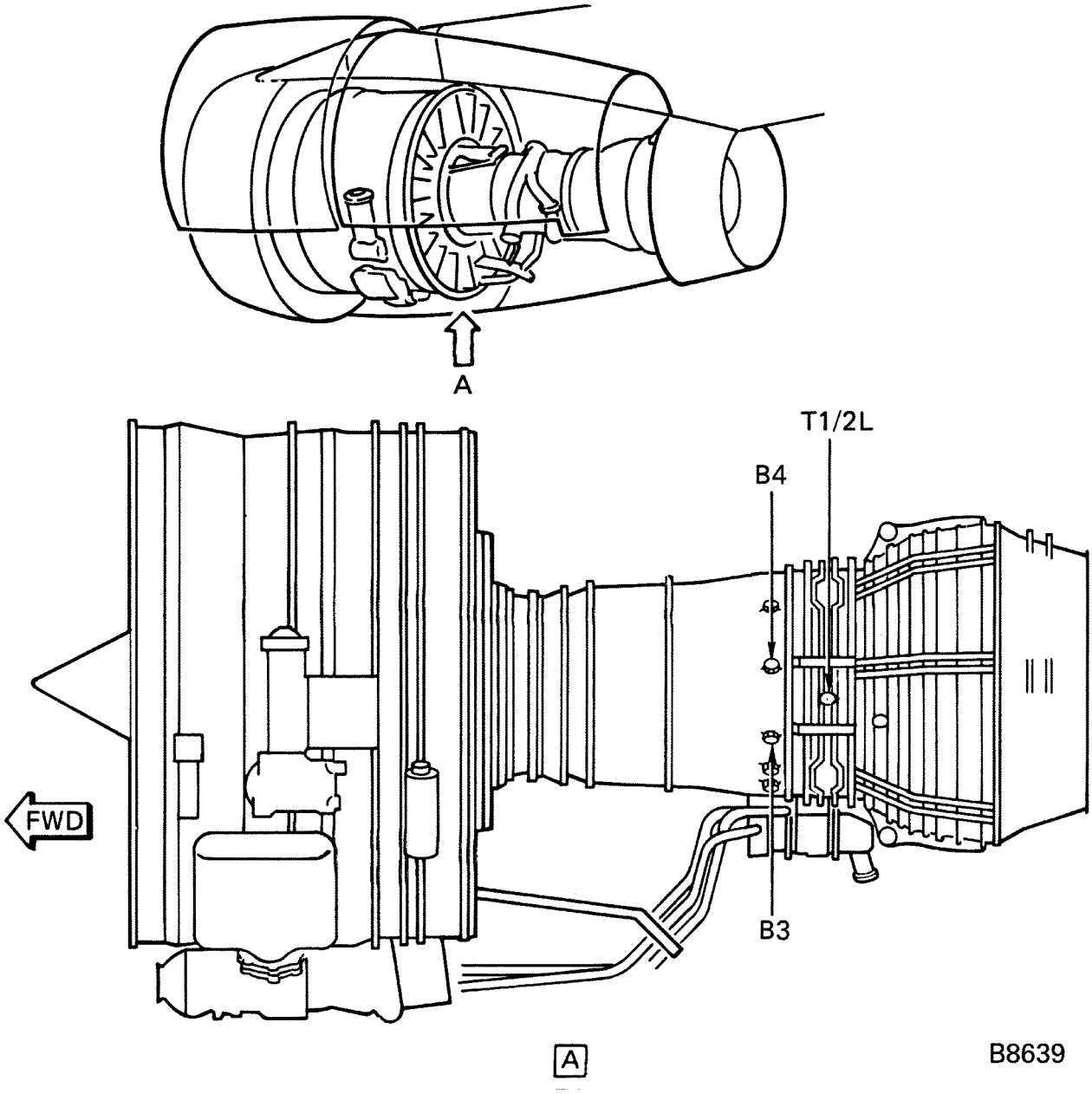
      V10221, V10229, V10239, V10251, V10252, V10258, V10260, V10261, V10356, V10706, V11503, V11509, V11510, V11513, V11518, V11523, V11533, V11535, V11537, V11539, V11615, V12233

3. Appendix C - D5 Engines

   A. The following D5 engines require Borescope Inspection to accomplish this service bulletin:

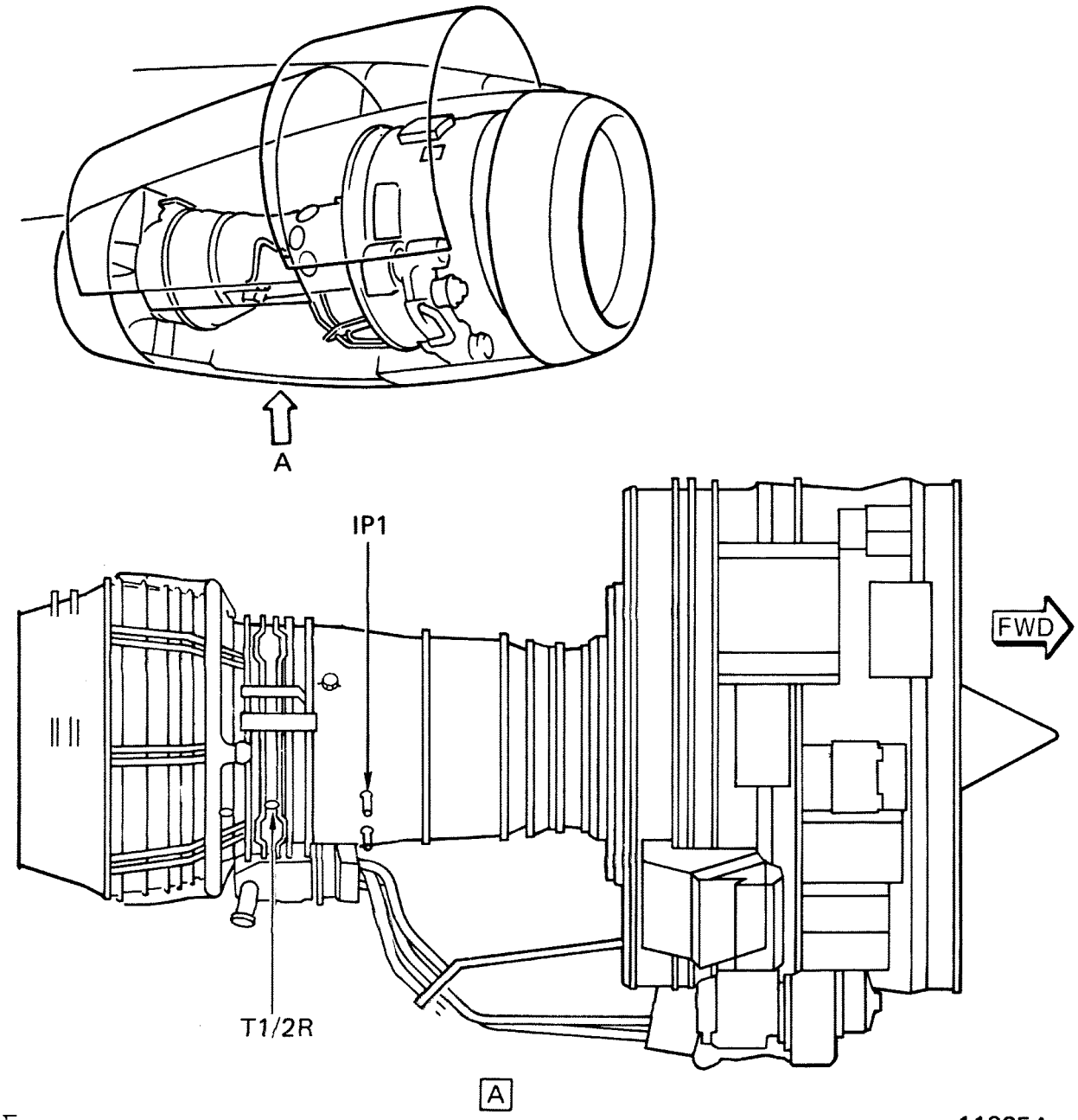
      V20002, V20129, V20130, V20132, V20150, V20151, V20154, V20155, V20161, V20164, V20165, V20167, V20168, V20169, V20170, V20171, V20174, V20175, V20176, V20180, V20181, V20184, V20185, V20188, V20189, V20190, V20191, V20194, V20195, V20196, V20197, V20198, V20199, V20200, V20201, V20206, V20207, V20208, V20211, V20212, V20218, V20228, V20232, V20233, V20236, V20237, V20238, V20239, V20242, V20243, V20244, V20245, V20246, V20248, V20249, V20250, V20251, V20252, V20256, V20257, V20262, V20263, V20264, V20265, V20266, V20270, V20271, V20272, V20273, V20274, V20275, V20276, V20278, V20280

4. Appendix D - HP Turbine Borescope Location for Inspection of the Stage 1 HPT Duct Segments (Left Side and Right Side)



pw0b520100

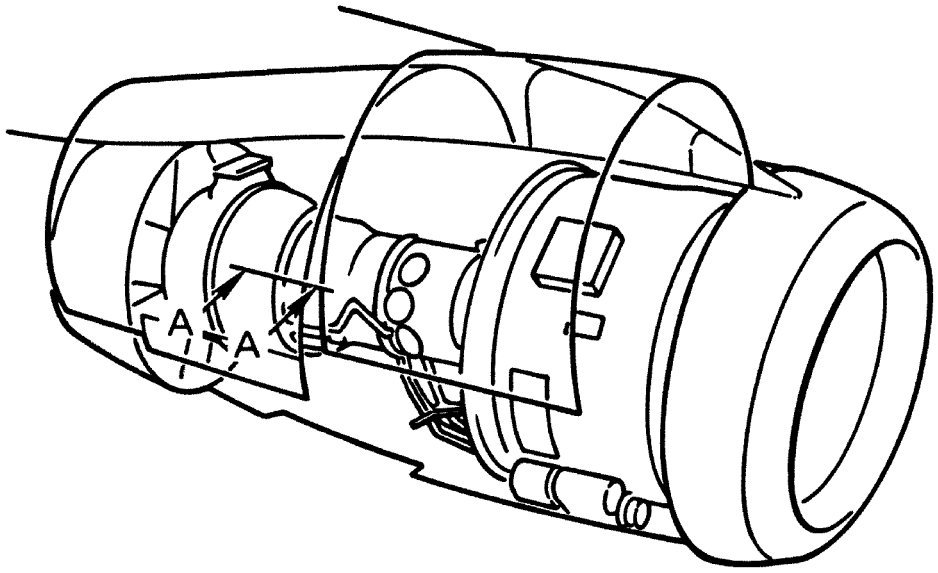
HP TURBINE BORESCOPE LOCATION FOR INSPECTION OF THE STAGE 1 HPT DUCT SEGMENTS (LEFT SIDE)
Appendix D (Sheet 1 of 2)

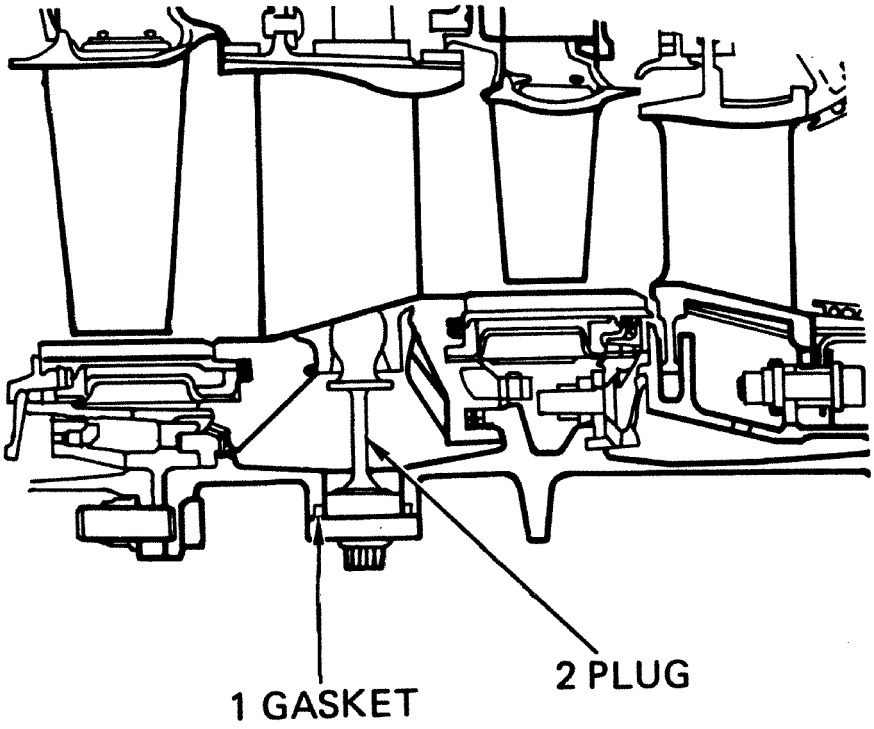


pw0b520101

HP TURBINE BORESCOPE LOCATION FOR INSPECTION OF THE STAGE 1 HPT DUCT SEGMENTS (RIGHT SIDE)
Appendix D (Sheet 2 of 2)

5. Appendix E - HP Turbine Ports for Inspection of the Stage 1 HPT Duct Segments





FWD

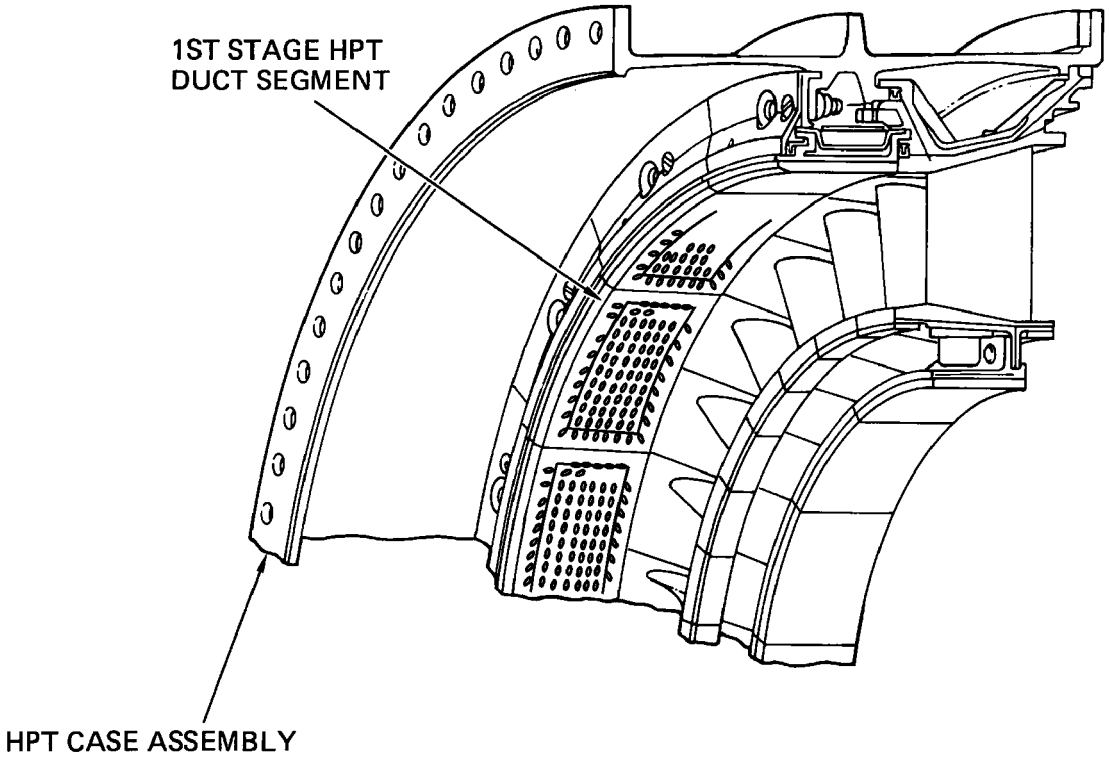
pw0b520102

SECTION A–A
(T1/2L and T1/2R)
2 LOCATIONS

11927B

HP TURBINE PORTS FOR INSPECTION OF THE STAGE 1 HPT DUCT SEGMENTS
Appendix E

6. Appendix F - Stage 1 HPT Duct Segment Inspection Locations



pw0b520103

PWC

STAGE 1 HPT DUCT SEGMENT INSPECTION LOCATIONS
Appendix F

7. Appendix G - Stage 1 HPT Duct Segment Inspection Limits

Condition	300-hr inspection	125-hr inspection	Pull in 10 cycles
Cracking Axial	< 0.5 in. (12,7 mm) (individual crack)	≥ 0.5 in. (12,7 mm) or < 1.20 in. (30,5 mm) (Area 1, Area 2 or Area 1 and 2 combined)	≥ 1.20 in. (30,5 mm) (Area 1, Area 2 or Area 1 and 2 combined)
Cracking Circumferential	< 0.5 in. (12,7 mm) (individual crack)	≥ 0.5 in. (12,7 mm) or < 1.50 in. (38,1 mm) (Area 1, Area 2 or Area 1 and 2 combined)	≥ 1.50 in. (38,1 mm) (Area 1, Area 2 or Area 1 and 2 combined)
Burning/Erosion of base metal Area 1 (No Burn Through)	Any Amount	Does Not Apply	Does Not Apply
Burning/Erosion of base metal Area 2 (No Burn Through)	Shiplap burning up to 2nd row of cooling holes	Shiplap burning beyond 2nd row of cooling holes	Does Not Apply
Burn Through Area 1 & 2	Does Not Apply	< 0.5 in. (12,7 mm) of continuous burn through (Area 1, Area 2 or Area 1 and 2 combined)	≥ 0.5 in. (12,7 mm) of continuous burn through (Area 1, Area 2 or Area 1 and 2 combined)
Burn Through Impingement Plate	Does Not Apply	Does Not Apply	Any Amount
Lifting of LE Material	Does Not Apply	Does Not Apply	Lifting of Seal Edge
Loss of LE Material	< 0.3 in. (7,6 mm)	≥ 0.3 in. (7,6 mm) or < 0.5 in. (12,7 mm)	≥ 0.5 in. (12,7 mm)

Definitions:

Use the names which follow when you identify a HPT Stage 1 Duct segment condition seen at borescope inspection:

1) Erosion: A local area where material has been removed by causes other than heat distress.

2) Burns: A local area where material has been removed because of heat distress.

3) Burn through: A hole in the Duct Segment gas path side open to the cavity behind it.

Any crack greater than 0.5 in. (12,7 mm) over the cooling pocket is considered a burn through.

4) Cracks: A linear opening that can easily be seen and which can cause the material to break.

5) LE Lifting – When the Duct Segment Leading Edge has become loose and can move radially inward.

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	IEN07VC233	JP/TR
1	EA12VC219	MJS/JP