

Work Scope 104376 Issue 4 Lufthansa Technik

ESN: Version: V2533-A5	Removal Reason: HPT Stg.1 Reduced Interval Removed from: UNK	Customer: 9KD Removal Date: 17.08.2025	Date: 29.01.2026
TSN: 51,526:50 CSN: 19,644	TSLSV: 16,585 CSLSV: 6,192	ETOPS: 180 Min.	Revision: 706386
			Actual EGTM: UNK °C Req. RLTC: 13808

Issue Date Remarks

- 4 29.01.2026 Seal break-in added to test cell requirements due to the replacement of several honeycomb seals.
- 3 18.12.2025 Revision due to CRAS.
- 2 01.12.2025 Revision following table inspection.
- 1 10.11.2025 Issue 1 Proposal

Contacts

Customer Support Engineer Head of Customer Projects Customer Service Manager Tim F. Zippel / Efrain Ramos Jens Weuthen Joseph Ochwo

ATA Module S/N TSO

CSO RLTC

**Previous Issue
Actual Issue**

**mo val
Remarks / Conditional**

Tasks

72-31 Fan P311616 13808 VC VC	Due to PV glass bead peening is not required, and is to be added as a carry forward item for next Shop Visit.		VC
██████████ VC			
██████████ VC			
██████████ VC			
██████████ VC			

Remove and replace the M-Flange per AD 2021-05-18 (SB 72-0709)

Issue 2

72-42 Diffuser Case VC VC X

Removed diffuser case shall be sent back to the customer.

On the replacement diffuser case, replace 1ea fuel nozzle identified during table inspection.

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ATA Module S/N TSO CSO RLTC

Previous Issue
Actual Issue

72-42 Combustor VC VC X 72-43 Bearing No.4 VC VC X

Remarks / Conditional Tasks

mo
val



Remove to gain access to Diffuser Case.

serviceability of 30 cycles. Remove parts and Set up Table Inspection to identify parts that need to

Multiple bulkhead deflectors reported with reduced be
Following table inspection, replace all bulkhead deflectors and combustion chamber liners identified.
Remove only to gain access to the Diffuser Case.

Issue 2:
Remove Bearing No.4 from the removed Diffuser Case and install into the replacement Diffuser Case.

replaced/repared to terminate reduced serviceability.

Issue 2:

VC X Remove the HPT module to gain access the Diffuser Case.

Multiple blades have a reduced serviceability limit of 30 cycles and 1ea duct segment is under reduced inspection interval. Set up Table Inspection to identify parts that need to be replaced/repared to terminate reduced inspection/serviceability.

reduced inspection/serviceability. Blades and duct segments that are close to reduced inspection limits should also be replaced.

72-45 HPT Rotor / Stg.2

NGV 453349 13808 VC VC X

Issue 2:

Following the table inspection, replace vanes identified during table inspection.

Issue 3:

ENC was denied. CRAS signed by customer for HPT blades and duct segments replacement. Replace 16ea Stg.1 HPT blades and 6ea Stg.1 duct segments.

Submit an ENC to replace the HPT blades and duct segments identified during table inspection with

72-50 LPT Rotor / Stator 5012687 13808 VC VC X Remove LPT/TEC as a major module. Remove only to gain access to the HPT and the Diffuser Case.

VC VC

--- QEC Kit VC VC X Remove QEC and accessories only as necessary to access the HPT and the Diffuser Case.

VC VC

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Assy VI VI 71-XX Engine Aft Mount

Assy VI VI

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[Redacted]

[Redacted]

Remarks

ATA Module Stage Part IN OUT Remarks

72-32 LPC

1.5 & 2.5 2.0 & 2.3

[Redacted]
Lock & Retaining Plates -
Rubber Seal (1.5 Stg) -
AMM only
Lock & Retaining Plates -
EM only

EM only

72-41 HPC

6

[Redacted]
[Redacted]
[Redacted] 7
[Redacted]
[Redacted] 8
[Redacted]

9

[Redacted]

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ATA Module Stage Part IN OUT Remarks

10

[Redacted]
Heatshield -
AMM &

Classic only

11

Bulkhead

Segments &

Deflectors X

72-42 Combustor

72-45 HPT Rotor / Stg.2 NGV 72-50

LPT Rotor / Stator --- Additional

Drive Gear

Shroud (only pre
72-0264)

Hydr. Pump

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LLP Remo

val RLTC Remarks LLP Remo

val RLTC Remarks

Stg.1 Fan Disk 13808 LPT Stg.5 Airseal 13808 LPC Disk Assembly 13808 LPT Stg.5 Disk 13808 HPC Stg. 3-8 Drum 13808 LPT Stg.6 Inner Airseal 13808
HPC Stg. 9-12 Drum 13808 LPT Stg.6 Airseal 13808 HPC Rear Rotating Seal 13808 LPT Stg.6 Disk 13808 HPC Rear Shaft 13808 LPT Stg.7 Airseal 13808
HPT Stg.1 Outer Airseal 13808 LPT Stg.7 Disk 13808 HPT Stg.1 Hub 13808 Complied with AD 2022-02-09 (SB 72-0713) LPT Shaft 13808 HPT Stg.1 Inner
Airseal 13808
HPT Stg.2 Airseal 13808
HPT Stg.2 Blade Retain. Plate 13808
HPT Stg.2 Hub 13808 Complied with AD 2022-02-09 (SB 72-0713)
N1 Stub Shaft 13808

LPT Stg.3 Airseal 13808
LPT Stg.3 Disk 13808
LPT Stg.4 Airseal 13808
LPT Stg.4 Disk 13808

Test Cell Requirements Value Test Cell Requirements Value Test Cell Requirements Value Final Engine Version V2533-A5 Oil Type Eastman Turbo Oil
2197

Installation Arrangement Classic (PRE 72-0560/-0562) Max. Oil Consumption 0.6 US pints per hour (0.285l/h) (EM)

Outgoing Software SCN22 (73-0236) Oil Flush No

RGI IN = OUT Vibration Limit Overall 1.0 IPS (EM)

Bump IN = OUT Vibration Limit N1 0.4 IPS (GENERIC)

Test to be performed Test No.10 (Performance Test) Vibration Limit N2 0.6 IPS (GENERIC)

Test to be performed Test No.7 (Seal Break-In) HSR No

Test to be performed SB 72-0295 (HPC 4th Blades Performed)

Engine Version to be tested 33k Preservation Up to 12 months (EM72-00-00-500-000)

Waterwash No Special Test Requirements No

Page 6 of 8

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ESN: Removal Reason: HPT Stg.1 Reduced Interval Customer: 9KD Date: 9. 01. 2026 Version:
V2533-A5 Removed from: UNK Removal Date: 17.08.2025

Engine History Last Engine Shop Visit

~~EIS:2007 MAY 2024: HPT Hub AUSI~~

Additional Information

This SV is a Project Visit(PV). For VC use AMM-Limits/SPM-Criteria where applicable.

Perform Visual Check of the exposed areas as per SPM 70-20-00-200-501 (3) (b) for obvious damage, failure or irregularity that is outside normal in-service wear.

Perform C-check according to customer provided MPD tasks.

Engine was preserved for 12 months on 08 AUG 2025.

Customer Support Engineer



Tim F. Zippel / Efrain

Ramos

Customer **Digitally signed by** **Date:**
2026.01.29 17:29:15 -05'00'

Page 7 of 8

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Inspections and/or Modifications to be performed

Class Document RQ* Assy P/N Doc.

P = PERFORM
S = if SCRAP, perform

A = if ACCESS, perform

* Z = Perform if zero material on stock from
C = CHECK status

R = if REPAIR is necessary, perform

Life Limited Part Status Report
Engine
Install
Engine at Removal
Time Since Install
Aircraft at Install
Aircraft at Removal
Since Last Vendor Visit
A5
CYCLES Since Inst
Aircraft: A321-1136
Model:
Engine Serial Number:

T = Tracking for customer information only
former PN

I = Concurrent requirement
E = External performance Page 8 of 8

AC # Pos: 892LT Total Cycles: 18508 19644 1136 9699 10835 1136 12687
Removal Date: 8/25/2025 Total Time: 48809.59 51526.50 2716.51 24411.19 27128.10 2716.51



Component Description	Part Number	M&E	Serial Number	CPN	IIN	Total Cycles	Total Cycles	Cycle Life Limit	Remain
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							A319/A320	A320/A321	A321	MD-90-30	MD-90-30E R	A319/A320	A320/A321	A321	MD-90-30	MD-90-30E R	A319/A320	A320/A321		
							V2522-A5 V2524-A5 V2527-A5 V2527M-A5	V2527E-A5 V2530-A5	V2533-A5	V2525-D5	V2528-D5	V2522-A5 V2524-A5 V2527-A5 V2527M-A5	V2527E-A5 V2530-A5	V2533-A5	V2525-D5	V2528-D5	V2522-A5 V2524-A5 V2527-A5 V2527M-A5	V2527E-A5 V2530-A5		
FAN MOD	5W0134	26-7209-9-0001	P311616	FAN3027	FANMDL	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0	
Stage 1 Fan Disk	5A1948	26-7230-9-0007	RRXP017326	FAN5068	FANDSK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
LPC/INTER MOD	5W0254	26-7232-9-0003	3212687	MOD6013	INTMDL	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0	
Stub Shaft	5A0895	26-7230-9-0006	JJL959	SHA3030	LCSTBS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Stage 1.5 To 2.5 Disk	5R0159	26-7240-9-0034	JKH4040	DIS6042	LCDISK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
HPC MOD	4W6508	26-7204-9-0001	415106	0	HPCMDL	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0	
Stage 3 To 8 Disk	6B1404	26-7240-9-0058	RRD12345	DRU1052	3T8RDS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
AD 2015-10-04 3 > 8 DRUM	6B1404	26-0572-8-0067	V12687	DRU1052	3T8RDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rear Shaft	6B1419	26-7240-9-0015	200581PQYX0896	COM7194	HCRSSH	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Rear Rotating Seal	6A5869	26-7240-9-0016	234770S01859-1	SEA7787	HCRROS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Stage 9 To 12 Disk	6A7546	26-7240-9-0037	RRD10119	DIS6043	9T12RD	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Diffuser Case	2A2891-01	26-7201-9-0006	PGGUAU9349	DIF1778	DIFCAS	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0	
AD 2021-05-18 M-FLANGE	2A2891-01	26-0572-8-0339	PGGUAU9349	DIF1778	DIFCAS	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0	
HPT MOD	2A4310	26-7204-9-0004	453349	0	HPTMDL	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0	
Stage 2 Rotating Air Seal	2A4157	26-7240-9-0056	PKLBP93983	SEA7790	HT2AS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Stage 1 Hub	2A5001	26-7245-9-0004	PKLBRG9235	TUR1007	HT1DSK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Stage 1 Rotating Outer Air Seal	2A3423	26-7240-9-0042	PKLBRA7380	SEA7788	HT1AIR	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Stage 1 Rotating Inner Air Seal	2A3923	26-7245-9-0006	PKLBPT1521	SEA7789	HT1TS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Stage 2 Hub	2A4802	26-7245-9-0005	PKLBRG8891	TUR1008	HT2DSK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Stage 2 Blade Retaining Plate	2A3437	26-7245-9-0003	PKLBP91134	BLA1131	HT2BRP	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
LPT MOD	4W5224	26-7201-9-0004	5012687	0	LPTMDL	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0	
Stage 6 Rotating Inner Air Seal	3A0078	26-7250-9-0033	MAA93770	SEA0127	LPTAS6	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	
Stage 3 Disk	3A2513	26-7250-9-0021	JM8688D	DIS0019	LT3DSK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1	

Stage 4 Disk	3A1984	26-7250-9-0018	MAP00630	DIS604 5	LT4DSK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
Stage 5 Disk	3A2430	26-7250-9-0015	MAP00213	DIS604 9	LT5DSK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
Stage 6 Disk	3A1986	26-7250-9-0019	MAP00353	DIS001 5	LT6DSK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
Stage 7 Disk	3A2514	26-7250-9-0022	JM8581D	DIS001 7	LT7DSK	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
Stage 3 Rotating Air Seal	3A0963	26-7250-9-0002	MAA93902	TUR50 13	LT3AS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
Stage 4 Rotating Air Seal	3A2422	26-7250-9-0024	MAA95426	TUR50 14	LT4AS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
Stage 5 Rotating Air Seal	3A2423	26-7250-9-0026	MAA94767	TUR50 15	LT5AS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
Stage 6 Rotating Air Seal	3A1988	26-7250-9-0010	MAA94303	TUR50 16	LT6AS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
Stage 7 Rotating Air Seal	3A2522	26-7250-9-0007	MAA94365	TUR50 17	LT7AS	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
LPT Shaft	5A1762	26-7250-9-0011	JIJU213	TUR50 19	LTSHFT	6192	2311	0	3881	0	0	20000	20000	20000	20000	20000	13808	13808	1
GEARBOX MOD	4A1077	26-7260-9-0005	605836	GEA53 70	GBXMDL	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0
ANGLE GEARBOX	4A0075	26-7260-9-0008	605836	GEA53 69	AGBXA	19644	15763	0	3881	0	0	0	0	0	0	0	0	0	0

*** If applicable -this could be the limiter along with the day spec of the -8 ***

The above Limits were taken from V2500-A1/A5 TLM IETP (V2500-A0-00-00-0000-01A-000A-B) and V2500-D5 TLM IETP (V2500-D5-00-00-0000-01A-000A-B)

The above data has been compiled from Engine records supplied by the OEM, previous owner, repair agencies and/or Operators of the Engine as applicable.

All times in the header section are in minutes whether there is a decimal or a colon.

V2500-A1/A5 TLM IETP, Issue No. 014
5/1/2024
Built/Removed by: Date: Date:
Morgan Dishman

Audited by: Date:
8/26/2025
Manual Reference:
V2500-D5 TLM IETP, Issue No. 014
5/1/2024

Brenda L. Spears Verified/Audited by: 8/26/2025

Installed by: Date: Revision: Date: L_5/20/2025

Audited by: Date: