DOCKET NO.: SA-515

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

MAINTENANCE GROUP CHAIRMAN'S FACTURAL REPORT

ATTACHMENT 14

DELTA AIR LINES MAINTENANCE HISTORY ON ENGINE S/N 726984 BETWEEN 12/21/95 AND ITS INSTALLATION ON N927DA

(88 PAGES)

DELTA AIR LINES ENGINE HISTORY CARD

SHIP-P		STA	DATE	TST	TSC	RUNT	RUNC	TET	TEC	REMVL REASON
9020-2	I	FACT	12-8-93	0.0	0					
	R	ATL	12-21-95	5842.9	4764	5842.9	4764	5842.9	4764	OIL LEAK IN COMPR.
927-1	I	ATL	01-01-96	20501.9	17625			5842.9	4764	
	R									
	I									
	R									
	I									
	R									
	I									
	R									
	I									
	R									
	I									
	R									
	I									
	R									
	I									
	R									

ENGINE TYPE: JT8D-219

NS 458 12-92 SP4198

ENGINE S/N: 726984

DELTA

(1)

Rudolph 26

Dept. 280-02

DELTA AIR LINES, INC.
JOB INSTRUCTION
J29

OPN. No. L571

Eng. S/N 726984

ACSTY No. NADR

For Acc. Enc.

ENGINE WORK CARD SUMMARY SHEET (JT8D-219)

TRACKING NO. BOM587

ENGINE SER. NO. 726984 ENGINE T.S.O. NA DR

DATE STARTED 12-28-95 DATE COMPLETED 12-30-95

THIS DECK OF ROUTINE AND NON-ROUTINE JIC CARDS ARE NUMBERED FROM 1

TO DO 29 30

CARDS TRANSFERRED TO DEPT. 282 1-2-3 #29

REMARKS:

SCHEDULER CHECK LIST:

1. Referred/Deferred Cards with Summary Sheet received by N/A [redacted]
2. A/C S.S.V. unit removals issued by [redacted]
3. Deck issued by [redacted]

This deck of cards has been checked and all items are properly signed off.

1. JIC/JPC/N'R Cards checked by [redacted]
2. Parts Data Cards checked by [redacted]
3. E.O. Cards checked by [redacted]
4. Deferred/Referred Cards checked by NA DR

NOTE: All non-applicable spaces must bear "NA" and initials (first, middle, last). All indicated speces must bear signature consisting of first initial and full written last name (first, middle, and last initials are acceptable if space prevents full signature) or other information as required.

MODULE RECORD

S/N ON

N1 NA DR

N2 NA DR

T1 NA DR

T2 NA DR

NOTE: Record S/N's of replaced rotors only.

(2)

J29

JT8D-219

CHECK LIST JIC's

TYPE	OPN. NO.	DESCRIPTION	WARRANTY CODE
ASSEMBLY	L592	ASSEMBLY OF THE GEARBOX (JT8D-219)	
	L595	HOT SECTION BUILDUP (JT8D-219)	
	L597	ASSEMBLE TURBINE EXHAUST CASE (JT8D-219)	726984
	L600	ASSEMBLE NO. 4/5 BRG SCAVENGE PUMP (JT8D-219)	
	L603	ASSEMBLE NO. 3 BEVEL GEAR AND HOUSING (JT8D-219)	
	L605	ASSEMBLE INTERMEDIATE GROUP (JT8D-219)	
	L612	ASSEMBLE NO. 6 BEARING SCAVENGE PUMP (JT8D-219)	
	L634	ASSEMBLE TURBINE NOZZLE CASE (JT8D-219)	
	L636	ASSEMBLE DIFFUSER CASE (JT8D-219)	
	L639	ASSEMBLE FRONT ACCESSORY DRIVE (JT8D-219)	
	L643	ASSEMBLE NO. 2 BEARING AND COUPLING (JT8D-219)	
	~~L648~~	ASSEMBLE INLET CASE (JT8D-219)	
DISASSEMBLY	~~L579~~	RELOCATE ENGINE AND LETTER CHECK (JT8D-219)	
	L576	DISASSEMBLY OF THE GEARBOX (JT8D-219)	
	L593	TURN ENGINE TO VERTICAL AND SEPARATE (JT8D-219)	
	L594	DISASSEMBLE HOT SECTION (JT8D-219)	
	L596	DISASSEMBLE EXHAUST CASE (JT8D-219)	
	L599	DISASSEMBLE NO. 4/5 BRG SCAVENGE PUMP (JT8D-219)	
	L602	DISASSEMBLE NO. 3 BEVEL GEAR & HOUSING (JT8D-219)	
	L604	DISASSEMBLE INTERMEDIATE GROUP	

TYPE	OPN. NO.	DESCRIPTION	WARRANTY CODE
		(JT8D-219)	
DISASSEMBLY	L613	DISASSEMBLE NO. 6 BRG OIL SCAVENGE PUMP (JT8D-219)	726984
	L635	DISASSEMBLE DIFFUSER CASE (JT8D-219)	
	L637	DISASSEMBLE FRONT TURBINE NOZZLE GROUP (JT8D-219)	
	L638	DISASSEMBLE FRONT ACCESSORY DRIVE (JT8D-219)	
	L642	DISASSEMBLE NO. 2 BEARING & COUPLING (JT8D-219)	
	~~L647~~	DISASSEMBLE COMPRESSOR INLET CASE (JT8D-219)	
FUNCTIONAL CHECK	~~L650~~ ~~L580~~	ENGINE STAGING (JT8D-219) FINAL AND PRE-TEST ITEMS (JT8D-219)	
INSPECT	L565	STARTER CONFIDENCE CHECK (JT8D-219)	
	L570	MODULE WORK CARD SUMMARY SHEET (JT8D-219)	
	~~L571~~	ENGINE WORK CARD SUMMARY SHEET (JT8D-219)	
	~~L573~~	MANHOUR SUMMARY CARD (JT8D-219)	
	~~L578~~	ENGINE EGT SYSTEM CHECK (JT8D-219)	
	~~L583~~ ~~L584~~ ~~L598~~	INITIAL INSPECTION (JT8D-219) FINAL INSPECTION (JT8D-219) EMMP COMPONENT AUDIT COMPLIANCE (JT8D-219)	
INSTALLATION	L566	QEC INSTALLATION TO NEUTRAL POSITION (JT8D-219)	
	L567	QEC INSTALLATION - RIGHT ENGINE (JT8D-219)	
	L568	QEC INSTALLATION - LEFT ENGINE (JT8D-219)	
→	L582	INSTALL NO. 1 BEARING AND N1	

J29

JT8D-219

TYPE	OPN. NO.	DESCRIPTION	WARRANTY CODE
		GEARBOX (JT8D-219)	
INSTALLATION	L588	INSTALL MIXER (JT8D-219)	
	~~L589~~	BORESCOPE PLUG INSTALLATION (JT8D-219)	726984
	L590	INSTALL T2 ASSEMBLY AND EXHAUST CASE (JT8D-219)	
	L606	INST INLET GP & JOIN N1 TO INTER CASE (VERT) (-219)	
	L609	INSTALL N2 THRU T1 AND TRUNNION (JT8D-219)	
	L611	INSTALL N2 GEARBOX (JT8D-219)	
	L644	INSTALL NO 2 BRG/COUPLING & N1 (HORIZ) (JT8D-219)	
	L646	INSTALL FAN CASES & EXIT STATORS-HORIZ (JT8D-219)	
REMOVAL	L581	REMOVE N1 GEARBOX AND NO. 1 BEARING (JT8D-219)	
	L587	REMOVE MIXER SECTION (JT8D-219)	
	L591	REMOVE EXHAUST CASE AND T2 ASSEMBLY (JT8D-219)	
	L601	REMOVE N1 FROM INTERMEDIATE SECTION (JT8D-219)	
	L610	N2 GEARBOX REMOVAL (JT8D-219)	
	L640	REMOVE N1 THRU NO. 2 BRG. (HORIZONTAL) (JT8D-219)	
	L645	REMOVAL OF FAN CASES & EXIT STATORS (HORIZ) (-219)	
REMOVAL AND INSTALLATION	~~L585~~	REPLACE 1ST STAGE FAN ASSEMBLY (JT8D-219)	
	L575	REPLACEMENT OF GEARBOX SEALS (JT8D-219)	
	L649	ENGINE POSITION CHANGE (JT8D-219)	
TEST	~~L572~~	ENGINE TEST DATA (JT8D-219)	
	L614	FLOW CHECK OIL BEARING NOZZLES (JT8D-219)	

Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. . L572

Eng. S/N 726984

ACBTY No. 1

TEST CELL DATA

ENGINE TEST DATA (JT8D-219)

	MECH	L MECH	INSP
1.		[redacted]	
2.		[redacted]	
3.		[redacted]	
4.		[redacted]	
5.		[redacted]	
6.		[redacted]	
7.		[redacted]	
8.		[redacted]	
9.		[redacted]	
10.		[redacted]	
11.		[redacted]	
12.		[redacted]	

Tracking No. BOM587
EWP 26
Team Leader assigned [redacted]
Foreman R. WILEY
TSO 5842.9
TT 5842.9
Job No. 7129

1. Type test.
   1 1B
   2 _____
   3 _____
   EVAL _____

2. Reason for premature removal.
   Indicate SMOKE IN CABIN

3. Type metal and position found.
   Indicate NONE

4. Other items replaced, repaired or removed.
   Indicate FAN BLADES

5. Letter check complied with.
   Indicate YES

6. Continued time rotors.
   N1 YES
   N2 YES
   T1 YES
   T2 YES

7. Engine shop visit inspection accomplished.
   Yes _____
   No X

8. Compressor bleed valve configuration.
   (1) 3-6th, 2-8th, 1-13th with 2 PRBC's and no start bleed control valve.
   (2) 2-8th, 1-13th with 1 PRBC and no start bleed control valve.
   (3) 3-8th, 1-13th with 1 PRBC and 1 start bleed control valve.
   Indicate item No. 1

9. Record 13th stage compressor ring assembly part number.
   P/N N/A N-2 NOT REMOVED

10. TCA check:
    Required _____
    Not required. ✓

11. Data speed plate:
    May _____
    May not ✓ be established.
    List applicable parts change if speed may be re-established
    Indicate _____

12. Engine date to test. 12-30-95

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Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. N .572

Eng. S/N 726984

ACBTY No. 2

ENGINE TEST DATA (JT8D-219) (Cont.)

	MECH	L MECH	INSP
13. Engine OK for service. (Test cell Lead Mechanic) Date accepted. 12-30-95 Remarks:		13. [redacted]	
14. Engine rejected. (Test cell Lead Mechanic) Date rejected N/A Reasons for rejection		N/A 14.	
15. Evaluation run only. _____ Return to shop. (Test cell Lead Mechanic)		N/A 15.	
16. Evaluation run. Serviceable if evaluation is satisfactory. (Test cell Lead Mechanic) Indicate _____ Return to shop: Yes _____ No _____		N/A 16.	
17. (Test cell Lead Mechanic) Verify all SVI component S/Ns and P/Ns replaced on the engine during test cell exposure, against those listed on the End Assembly Component Report (PCR). For components not installed on engine because of shortage, record "SHORTAGE" on PCR. Forward completed PCR to: Engine Records, Dept. 231.		[redacted]	

ATTACHMENT A

726984
#3

1. Indicate type test required.

UNITS REPAIRED OR REPLACED OR REINSTALLED	TEST REQUIRED TEST CELL (NUMBER)
[ ] Average Pressure Probe - PT7 (8 Required)	1
[ ] Eight Stage Bleed Valve	1D
[X] First Stage Compressor (Fan) Blades	1B
[ ] Front Compressor Drive Turbine Group and Engine Exhaust Case Section Group	3
[ ] Fuel Control	2
[ ] Fuel Deicing Heater Assembly	1C
[ ] Fuel/Oil Cooler	1C
[ ] Fuel/Oil Cooler Bypass Valve	1C
[ ] Fuel Pressurizing and Dump Valve	1C
[ ] Fuel Pump	1
[ ] Main Oil Pump	1B
[ ] Oil Pressure Relief Valve Assembly	1C
[ ] Pressure Ratio Bleed Control	1D
[ ] 13th Stage Bleed Valve	1D

Engine Test Data Supplement Sheet

Figure 1.

Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. 1 .598

Eng. S/N 726984

ACBTY No. 4

EMMP COMPONENT AUDIT COMPLIANCE (JT8D-219)

	MECH	L MECH	INSP
1.		[redacted]	
2.		[redacted]	

1. Verify all EMMP component P/Ns and S/Ns for engines received in shop, against those listed on the End Assembly Component Report (PCR).

   NOTE: After completion of PCR audit, submit all discrepancies to engine shop work center.

2. Verify all EMMP component P/N and S/N entries on the End Assembly Component Report (PCR) are complete prior to engine leaving shop.

   NOTE: PCR must be attached to the "Engine Test Data" card and accompany engine to test cell.

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Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. No. 050

Eng. S/N 726984

ACBTY No. 5

ENGINE STAGING (JT8D-219)

	MECH	L MECH	INSP

NOTE: The following manual references apply.
ESM = JT8D-219 Engine Shop Manual (773128)
PPBU = MD-80 Powerplant Buildup manual (7930632)
MM = MD-80 Maintenance Manual

1. Remove hydraulic pump and route to shop. (PPBU)
2. Drain engine oil and check for metal contamination. (MM 12-12-04)
3. Check main oil filter for metal contamination and reinstall. (MM 79-20-06)

   CAUTION: INSPECT MAIN OIL FILTER COVER STUDS FOR INTEGRITY. ENSURE THAT LOOSE OR DAMAGED STUDS ARE REPLACED.

4. Drain main accessory gearbox and check for metal contamination. (ESM 72-00-61 REMOVAL)
5. Remove gearbox chip detector, check for metal contamination, clean and reinstall. (MM 72-00-02 TROUBLESHOOTING-02)
6. Drain starter and check magnetic plug. (MM 80-10-01)
7. Remove starter. (PPBU)
   S/N 21390
8. Clean starter and Hyd. pump splines for inspection and ensure drains are open on gearbox. (ESM 72-61-00 CLEAN-01)
9. Check fuel pump filter for metal contamination and reinstall. (MM 73-12-01)
10. Remove 8th and 13th stage bleed duct caps and check for metal. (PPBU)
11. Remove the 5th, 6th and 7th stage compressor boroscope plugs. (ESM 72-00-00 CHECK-02)
12. Remove 13th stage compressor boroscope plugs. (ESM 72-00-00 CHECK-04)
13. Remove left and right igniter plugs. (ESM 72-00-00 REMOVE-08)
14. Remove first and second stage turbine boroscope plugs. (ESM 72-00-00 CHECK-09)
15. Inspect 1st stage compressor blades for cracks, F.O.D., dents, nicks and shingling at midspan shrouds. (ESM 72-33-00 CHECK-01)

    NOTE: Fan blades having in excess of 4000 cycles since new or last leading edge refurbishment must be removed and chamfer cut per section 72-33-21, Repair-08, prior to continued service.

16. Inspect stage 1 compressor inlet vanes for cracks, F.O.D., dents and nicks. (ESM 72-33-00 CHECK-01)

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Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. No. L650

Eng. S/N 726984

ACBTY No. 6

ENGINE STAGING (JT8D-219) (Cont.)

	MECH	L MECH	INSP
17. Boroscope inspect 6th and 7th stage compressor blades and evaluate damage and deterioration. (ESM 72-00-00 CHECK-02)		[redacted]	
18. Boroscope inspect 13th stage compressor blades and evaluate damage and deterioration. (ESM 72-00-00 CHECK-04)		[redacted]	
19. Boroscope inspect the #4 and #7 combustion chambers. (ESM 72-00-00 CHECK-06)		[redacted]	
20. Boroscope inspect 1st and 2nd stage turbine blades and evaluate damage and deterioration. Check for leakage of the No. 5 carbon seal. (ESM 72-00-00 CHECK-09)		[redacted]	
NOTE: Assure that inner boroscope plug latch plate is in place on 2nd stage turbine N.G.V.			
21. Inspect 4th stage turbine blades for integrity and FOD. (ESM 72-00-00 CHECK-12)		[redacted]	
22. Remove thrust reverser. Route thru cleaning to reverser shop (Dept. 381A). (PPBU)	[redacted]		

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Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. N 579

Eng. S/N 726984

ACBTY No. 7

RELOCATE ENGINE AND LETTER CHECK (JT8D-219)

	MECH	L MECH	INSP

NOTE: Steps 8 thru 13, REF MD-80 Powerplant Buildup Manual
Steps 14 thru 22, REF JT8D-219 ESM as indicated
Steps 23 thru 27, REF MD-80 MM as indicated

1. Relocate engine from outside transport storage area and check stand for serviceability.
2. Check engine for external damage; list damage.
3. Were all open lines and conduits properly protected?
   Yes/No _____
4. Was inlet scoop properly covered?
   Yes/No _____
5. Was exhaust properly covered?
   Yes/No _____
6. Were parts removed from engine?
   Yes/No _____
   If parts were removed, were mount pads properly protected?
   Yes/No _____
7. Were parts removed entered on shortage sheet?
   NA/Yes/No N/A
8. Remove Engine Mount Cone Bolts and install thread protectors. (If missing see MD-80 Maintenance Manual Section 71-00-00 for part numbers).

   NOTE: Route for N.D.T. inspection.
9. Remove inlet dome assembly.
10. Remove and replace starter valve filter.
11. Remove starter valve.
12. Remove 8th stage pneumatic check valve.
13. Remove lower fire loop.
14. Remove exhaust tail cone (72-00-55 Rem-03)
15. Inspect exhaust tail cone and extension flange for cracks. (72-55-01 Insp-01)
16. Replace main oil filter. (72-00-61 Rem/Inst-14)

    NOTE: N/A on SVI engines when gearbox exceeds 20,000 CSSVI
17. Check and replace main fuel filter. (72-00-61 Rem/Inst-20)
18. Check and reinstall fuel control filter. (72-00-61 Rem/Inst-23)
19. Check, clean and reinstall Pressurization and Dump Valve screen. (72-00-38 Rem/Inst-04)
20. Remove, clean, and reinstall pressure ratio bleed control PS3 air filter. (72-00-38 Rem/Inst-01)
21. Remove, clean and reinstall inlet case drain screen. (72-23-00 Disassy/Assy-01)

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Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. No. 379

Eng. S/N 726984

ACBTY No. 8

RELOCATE ENGINE AND LETTER CHECK (JT8D-219) (Cont.)	MECH	L MECH	INSP
22. Drain fuel control moisture trap. (72-00-61 Rem/Inst-17)	[redacted]		
23. Drain CSD oil and check Magnetic Plug. (24-10-00)	[redacted]		
24. Drain CSD Spline Cavity. (24-10-00)	[redacted]		
25. Replace CSD charge filter. (24-10-02)	[redacted]		
26. Replace CSD scavenge filter. (24-10-02)	[redacted]		
27. Drain PT7 moisture trap. (77-11-04)	[redacted]		
28. (Dept 291 personnel) Perform initial check of engine fire warning system. (Ref MD-80 MM 26-10-04 and MD-80 PPBU 71-00-1)	[redacted]		

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Dept. 286

Operation # L579S

Acbty #: 9
Date 12-28-95

JT8D-219 ENGINE ASSEMBLY

Engine S/N 726984

Primary Reason Engine Removed SMOKE IN CABIN

LMV____ T.S.HMV 5842.9
or T.T. 5842.9
HMV____

ASSEMBLY TEAM LEADER RUDOLPH

ALN	PART NAME	P/N OFF	S/N OFF	CONDITION	#	DISPOS'N	P/N ON	S/N ON	ASSIGN BY
7233	Front Comp Rotor (N1)			WAS NOT REMOVED					
7261	Main Accessory Gearbox			WAS NOT REMOVED					
32	Hot Section Module			WAS NOT REMOVED					
/253	T2 Turbine Rotor			WAS NOT REMOVED					
7254	Exhaust Case Module			WAS NOT REMOVED					
500	Gearbox Drive Shaft			WAS NOT REMOVED					
001	#1 Bearing			OK		A			
	#1 Carbon Seal	758309		LEAKING		758309	758309		
	#1 Bearing Seal Ring			OK		A			
	#1 Seat	758280				758280	758280		
	#1 Inner retaining Nut			OK		A			
	Inlet Case			OK		A			
	#1 Brg Housing			WAS NOT REMOVED					
	#1 Brg Rear Support			WAS NOT REMOVED					
	Compressor Inlet Duct			WAS NOT REMOVED					
	Front Gearbox			OK		A			
	Tach Dr. Bearing (2 ea.)			WAS NOT REMOVED					
	Frt Access. Dr GrShaft			OK		A			
	Fan Blade Set	798871		OUT OF TIME		798871	798871		
	#1 Scavenge Pump			WAS NOT REMOVED					
230	Intermediate Case			WAS NOT REMOVED					
7202M	#2 Bearing Assembly			WAS NOT REMOVED					

Disposition Codes:
M = Return To Mod
A = Remain With Assembly

Build Complete:
Team Leader [redacted] Date 12-30-95

Dept. 288
Operation # L579S

CONDITION REPORT/ BUILD STATUS/ ORDER SHEET
JT8D-219 ENGINE ASSEMBLY

Engine S/N 726984 Acbty # 10

ALN	PART NAME	P/N OFF	S/N OFF	CONDITION	#	DISPOS'N	P/N ON	S/N ON	ASSIGN BY
	#2 Carbon Seal			WAS NOT REMOVED					
	#2 & 3 Oil Nozzle								
2703M	#3 Bearing Assembly			WAS NOT REMOVED					
	#3 Carbon Seal								
	#3 Ring Assembly			WAS NOT REMOVED					
	#3 Brg Seal Inver Span Nut								
	T2 Shaft Coupling Nut			WAS NOT REMOVED					
	T2 Coupling Nut Lock								
008	Upper Tower Sft Brg (Roller)			WAS NOT REMOVED					
009	Lower Tower Sft Brg (Ball)								
	G/Box Drive Coupling			WAS NOT REMOVED					
233	Bevel Gearshaft (Twrshft)								
	G/Box Drive Brg Housing			WAS NOT REMOVED					
	Sound Absorbing Liner (N1)								
	Acoustic Panel (Upper)			WAS NOT REMOVED					
	Acoustic Panel (Lower)								
	Fan Exit Stator			WAS NOT REMOVED					
	Fan Exit Case								
	Fan Front Duct Assy			WAS NOT REMOVED					
	Fan Rear Otr Duct Assy								
	Rear Fan Duct Fairings (2ea)			WAS NOT REMOVED					
	Diffuser Acoustic Liner L/H								
	Diffuser Acoustic Liner R/H								

Disposition Codes:
M = Return To Mod
A = Remain With Assembly

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Dept. 288
Operation # L579S

CONDITION REPORT/ BUILD STATUS/ ORDER SHEET
JT8D-219 ENGINE ASSEMBLY

Engine S/N 726984 Acbty # //

ALN	PART NAME	P/N OFF	S/N OFF	CONDITION	#	DISPOS'N	P/N ON	S/N ON	ASSIGN BY
	Diffuser Acoustic Liner Small			WAS NOT REMOVED					
	Igniter Plug Fairing			WAS NOT REMOVED					
	Diffuser Fan Duct Fairing								
	Diffuser Fan Duct Fair Cover								
	Rear Bleed Manif Fairing L/H								
	Rear Bleed Manif Fairing R/H								
	Diffuser Outer Fan Duct			WAS NOT REMOVED					
	Fan CC&Turb Duct Assy			REMOVED upper only OK		A			
	Turb Fan Duct Segment(Top)			WAS NOT REMOVED					
	Turb Fan Duct Seg (Bottom)			WAS NOT REMOVED					
	Fan Ex Duct Innr Fairing(2ea)								
	Rear Outer Fan Ex Duct								
	Exhaust Mixer (668)								
	Fan Ex Outer Rear Duct			WAS NOT REMOVED					
	Fan Exh & Turb Duct								
	Turb. Exhaust Duct								
	Turb. Exhaust Cone			WAS NOT REMOVED					
498	Thrust Reverser	5938050-503				5938050-503	5938050-503		DdR
	Hydraulic Line - Pressure			WAS NOT REMOVED					
	Hydraulic Line - Scavenge			WAS NOT REMOVED					
	Hydraulic Line - Case Drain			WAS NOT REMOVED					

Disposition Codes:
M = Return To Mod
A = Remain With Assembly

Dept. 288

Operation # L579S

JT8D-219 ENGINE ASSEMBLY

ALN	PART NAME	P/N OFF	S/N OFF	CONDITION	#	DISPOS'N	P/N ON	S/N ON	BY
	Bleed Valve Control			WAS NOT REMOVED					
	PRBC - 6th			WAS NOT REMOVED					
	PRBC - 8th			WAS NOT REMOVED					
	Starter	804001312		C.S.V OIL IN AIR OUTLET		804001312	804001312		DSA
	8th Stage Check Valve			WAS NOT REMOVED					
	R/H Ignition Cable			CHECKED OK		A			
	L/H Ignition Cable	749701002				749701002	749701002		DSA
	Starter S/O Valve			WAS NOT REMOVED					
	Start Bleed Cont. Valve			N/A DSA					
	Ignition Exciter (2 ea)			CHECKED OK		A			
	Tach Generator (2 ea)			WAS NOT REMOVED					
	Anti Ice Valve (4 ea)			WAS NOT REMOVED					
	Thermostatic Valve	759702239		C.S.V		759702239	759702239		KBC
	Fuel Control			WAS NOT REMOVED					
	Fuel Pump			WAS NOT REMOVED					
	P & D Valve			WAS NOT REMOVED					
	Fuel Heater			WAS NOT REMOVED					
711	Main Elect. Harness			CHECKED OK		A			
	Generator Harness			OK		A			
	Engine Cont. Harness			OK		A			
	N1 Tach Harness			OK		A			
	C.S.D.			OK		A			
	C.S.D. Oil Cooler	249701262		C.S.V		249701262	249701262		KBC

Disposition Codes:
M = Return To Mod
A = Remain With Assembly

Dept. 288
Operation # L579S

CONDITION REPORT/ BUILD STATUS/ ORDER SHEET
JT8D-219 ENGINE ASSEMBLY

Engine S/N 726984 Acbty # 13

ALN	PART NAME	P/N OFF	S/N OFF	CONDITION	#	DISPOS'N	P/N ON	S/N ON	ASSIGN BY
	Fuel Oil Cooler			WAS NOT REMOVED					
	Generator			WAS NOT REMOVED					
	Fire Detector								
	Burn Thru Fire Detector (-505)			CHECKED OK		A			
	Burn Thru Fire Detector (-506)			CHECKED OK		A			
	Low Fuel Press. Warn Swit.	7397011 92		C 5 V		7397011 92			DMR
	Fuel Flow Transmitter			WAS NOT REMOVED					
	Low Oil Press Switch								
	Oil Filter Press. Switch			WAS NOT REMOVED					
	Fuel Filter Diff. Press.								
	Oil Quantity Transmitter			WAS NOT REMOVED					
	Oil Tank								
	Oil Pressure Transmitter								
	Bleed Valve - 8th Stage			WAS NOT REMOVED					

Disposition Codes:
M = Return To Mod
A = Remain With Assembly

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JIC
SIGN-OFF RECORD

J29

OPN. No. 580

Eng. S/N 726984

ACBTY No. 14

FINAL AND PRE-TEST ITEMS (JT8D-219)

		MECH	L MECH	INSP
NOTE:	Steps 2 thru 13, REF MD-80 Powerplant Buildup Manual Step 14, REF MD-80 Maintenance Manual as indicated Steps 16 thru 21, REF JT8D-219 ESM as indicated			
1.	Check rotation of N1 and N2 compressors.	[redacted]	[redacted]	
2.	Install starter.	[redacted]		
3.	Install starter valve.	[redacted]		
4.	Install hydraulic pump if engine is going to service.	4. NA KBC		
5.	Install 8th stage bleed pneumatic check valve.	[redacted]		
6.	OK to install inlet dome assembly.		6. [redacted]	
7.	Install inlet dome.	[redacted]		
8.	Install 8th and 13th stage bleed duct caps.	[redacted]		
9.	OK to install thrust reverser.		9. [redacted]	
10.	Install thrust reverser.	10. [redacted]		
11.	Install interlock mechanism, control cable and switch.	11. [redacted]		
12.	Rig throttle and fuel shutoff cranks.	12. [redacted]	12. [redacted]	
13.	Rig thrust reverser interlock bellcrank and cable.	13. [redacted]	13. [redacted]	
14.	Check operation of the following electrical items: Thrust reverser switches. (78-30-00) Nose cowl anti-ice valve. (75-10-00) Left and right inlet case anti-ice valves. (75-10-00) Fuel heater valve. (75-10-00) Starter valve. (80-10-02) Ignition system exciter A and B. (74-00-00) Fire detector loops A and B. (26-10-04)	14. [redacted]		
15.	Check operation of thrust reverser. (CMM 5938050)	15. [redacted]	15. [redacted]	
16.	Install tail cone. (72-00-55 Inst-03)	16. NA KBC	16. NA KBC	
17.	Install new igniter plugs. (72-00-00 Inst-08)	[redacted]		
18.	Replace No. 4 and 5 oil temp decals. (72-00-38 Install-01)	18. [redacted]	18. [redacted]	
	WARNING: THIS FAA MANDATORY STEP MUST BE ACCOMPLISHED AT EACH SHOP VISIT AS REQUIRED PER AD #94-23-03			
19.	Perform final inspection. (72-00-00 Check-01)		19. [redacted]	
20.	Check inlet and exhaust for foreign objects and install covers. (72-00-00 Storage-03)	20. [redacted]		
21.	Cap or cover all open lines and electrical connections. (72-00-00 Storage-03)	[redacted]		
22.	Check engine transport stand for serviceability.	[redacted]	22. [redacted]	
23.	Perform engine safety check.	[redacted]	23. [redacted]	

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OPN. 583

Eng. S/N 726984

ACBTY No. 15

INITIAL INSPECTION (JT8D-219)	MECH	L MECH	INSP
NOTE: Accomplish inspection as indicated below using the criteria and guidelines indicated in the following: JT8D-219 ESM 72-00-00 Check-01, MD-80 Powerplant Buildup Manual JT8D-219 EMMP Manual			
1. Inspect inlet dome assembly for cracks and surface damage.		[redacted] 1.	
2. Inspect inlet gearbox for cracks, oil leaks, coating condition and exposed N1 tachometer drive gearshaft for excessive wear.		[redacted]	
3. Inspect fan inlet case for cracks and damage. Check inlet vanes for cracks, dents, tears and FOD. Inspect inlet duct for cracks and FOD.		[redacted] 3.	
4. Inspect front fan case for cracks, surface damage and coating deterioration. Inspect sound absorbing liners for cracks, dents nicks, tears, unbonding and coating erosion.		[redacted] 4.	
5. Inspect fan exit fairings for cracks, dents, nicks and erosion.		[redacted] 5.	
6. Inspect rear fan case for cracks and surface damage. Check 1st stage rubstrip for excessive wear and damage. Inspect sound absorbing liners for cracks, tears and FOD.		[redacted]	
7. Inspect fan exit stator valves for cracks, tears and FOD.		[redacted]	
8. Inspect fuel control ART and idle solenoids, fuel pump, differential pressure switch, fuel heater, P & D valve, fuel flowmeter, eductor and temperature bulb for security and leaks. Inspect fuel tubes for cracks and excessive flats, wrinkles and dents. Check fuel heater air tubes for bushing wear. Inspect adjacent areas for broken brackets, clamps and safeties.		[redacted]	
9. Inspect nose cowl anti-ice shutoff valve and inlet case actuator and air shutoff valves for security and breakage. Inspect tubes for cracks, dents chafing and worn bushings. Inspect adjacent areas for broken brackets, clamps and safeties.		[redacted] 9.	
10. Inspect bleed valve control, bleed start valve and pressure ratio bleed control for security and breakage. Inspect connecting tubes for cracks, wrinkles, dents and chafing. Inspect adjacent areas for broken brackets, clamps and safeties.		[redacted] 10.	
11. Inspect oil tank, quantity transmitter, cooler, temperature bulb, pressure transmitter, low oil pressure warning switch and oil filter differential pressure switch for security and leaks. Inspect connecting tubes for cracks, dents and chafing. Check adjacent areas for broken brackets, clamps and safeties.		[redacted] 11.	
12. Inspect main electrical harness for frayed or broken wires and evidence of overheating. Check connectors for distortion, cracks and loose or missing contact pins and seals and for damaged insulation. Inspect adjacent area lagging brackets for cracks and lagging clamps for integrity and security.		[redacted] 12.	
13. Inspect fan discharge outer cases for cracks, surface damage, hot spots and surface coating for deterioration.		[redacted] 13.	

INITIAL INSPECTION (JT8D-219) (Cont.)

	MECH	L MECH	INSP
14. Inspect accessory gearbox for cracks, leaks and coating condition. Inspect hanger pins and brackets for excessive wear. Inspect exposed drive splines for wear and seals for excessive leakage.		[redacted]	
15. Inspect mount cone bolts for damage to seating surfaces and threads. Inspect attachment points for cracks and bushing wear. Check mounting hardware for condition.		[redacted]	
16. Inspect high and low pressure pneumatic bleed manifolds for cracks, dents, security, loose clamps and broken safeties. Inspect attaching links, brackets and hardware for integrity.		[redacted]	
17. Inspect hydraulic tubes for cracks, dents, nicks and chafing. Check hoses for kinks and ruptured or damaged conduits. Check adjacent area for broken brackets, clamps and safeties.		[redacted]	
18. Inspect CSD and cooler for security and leaks. Inspect tubes for cracks, dents, nicks and chafing. Check hoses for kinks and ruptured or damaged conduits. Check adjacent areas for broken brackets, clamps and safeties.		[redacted]	
19. Inspect generator for security and leaks. Check electrical harnesses for frayed or broken wires and damaged insulation. Check connectors for distortion, cracks and broken or missing pins and seals. Inspect junction box for integrity and adjacent areas for broken brackets, clamps and safeties. Inspect cooling ducts and associated hardware for cracks, dents and ruptures.		[redacted]	
20. Inspect starter and shutoff valve for security and leaks. Inspect ducts for cracks, dents, nicks and chafing. Check attaching links, brackets and hardware for integrity.		[redacted]	
21. Inspect fire detectors for security, cracks and broken wires. Check adjacent areas for broken brackets, clamps and safeties.		[redacted]	
22. Inspect burn thru barrier for security, cracks and surface damage.		[redacted]	
23. Inspect ignition exciters for security, cracks and surface damage. Check cables for kinks, input damage and deteriorated braid.		[redacted]	
24. Inspect exhaust area fan exit outer case for cracked rails and worn bushings.		[redacted]	
25. Inspect PT7 pressure probes, thermocouples, EGT harness and PT7 tubes for security. Check tubes for cracks, dents and nicks. Inspect harness for broken or frayed wires and adjacent areas for broken brackets, clamps and safeties.		[redacted]	
26. Inspect firewall for security, cracks and surface damage. Inspect thrust reverser electrical harness for frayed or broken wires and damaged insulation. Check connectors for distortion, cracks and broken or missing pins and seals. Check adjacent areas for broken brackets, clamps or safeties.		[redacted]	
27. Inspect engine throttle and fuel shutoff controls for security, freedom of travel, hardware integrity and broken or missing safeties and cotter pins.		[redacted]	

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INITIAL INSPECTION (JT8D-219) (Cont.)	MECH	L MECH	INSP
28. Inspect thrust reverser interlock mechanism and control cable for security. Check mechanism for cracks, distortions, freedom of movement and excessive wear in bushings and rollers. Inspect control cable for impact damage, kinks, freedom of movement and adjacent areas for broken brackets, clamps, safeties and missing cotter pins.		[redacted]	
29. Inspect exposed areas of exhaust case and exit guide vanes for cracks and FOD. Inspect exposed areas of intermediate inner duct assembly for cracks, tears and FOD. Inspect fan exit outer duct sound absorbing liner for cracks, tears, FOD and unbonding.		[redacted]	
30. Inspect fixed inner exhaust duct and aft cone for cracks and security. Inspect exhaust duct mixer for cracks and FOD. Check duct covers for excessive wear in hardcoated areas.		[redacted]	
31. Inspect outer rear duct forward section for security and cracks. Check sound absorbing liners for cracks, tears, FOD, unbonding or looseness and popped or missing rivets. Inspect outer rear duct aft section for security, cracks and surface damage.			

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OPN. . . . L584

Eng. S/N 726984

ACBTY No. 18

DK

FINAL INSPECTION (JT8D-219)

	MECH	L MECH	INSP

NOTE: Inspect items and systems listed below for proper installation and security using the criteria and guidelines indicated in the following:
JT8D-219 ESM 72-00-00 Check-01,
MD-80 Powerplant Buildup Manual
JT8D-219 EMMP Manual

1. Inlet dome assembly.
2. Inlet, front fan, aft fan and intermediate cases.
3. Fan discharge cases.
4. Fuel control, ART and fuel control solenoids, fuel pump, differential pressure switch, fuel heater, F & D valve, fuel flowmeter, eductor and temperature bulb. Fuel heater air actuator, shutoff valve and all associated tubing.
5. Nose cowl thermostatic and anti-ice shutoff valve, inlet case actuator and shutoff valves and associated tubing.
6. Bleed valve control, bleed start valve and pressure ratio bleed control and associated tubing.
7. Oil tank, quantity transmitter, cooler, temperature bulb, pressure transmitter, low oil pressure warning switch,oil filter differential pressure switch and associated plumbing.
8. Main electrical and generator harness, fire detectors and thrust reverser harness.
9. Accessory gearbox and N2 tachometer.
10. Low and high pressure bleed manifolds and associated ducts.
11. Hydraulic tubes and hoses.
12. CSD cooler and associated tubes and hoses.
13. Generator, associated ducts and junction box.
14. Starter, shutoff valve and associated ducts.
15. Fire detector assemblies.
16. Burn thru barrier.
17. Ignition exciters and cables.
18. PT7 pressure probes, thermocouples, harness and tubes.
19. Firewall assembly.
20. Engine throttle and fuel shutoff control for rigging and travel.
21. Thrust reverser interlock mechanism and control cable.
22. Forward inner exhaust duct, aft cone, exhaust duct mixer and duct covers.
23. Exhaust outer forward and rear ducts.

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Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. [illegible]573

Eng. S/N 726984

ACBTY No. 19

MANHOUR SUMMARY CARD (JT8D-219)

	MECH	L MECH	INSP
		1. [illegible]	

1. Record the following:
   Engine S/N 726984
   Engine TSO NA
   Engine TT 5842.9
   Date work began 12-28-95
   Lead assigned RUDOLPH
   Reason for removal SMOKE IN CABIN
   Primary cause of removal
   P/N
   S/N
   Part TT 5842.9
   Date work completed 12-30-95
   Total man hours 90

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SHOP NONROUTINE CARD

LOCATION: 26	ITEM: 2 d pulled on N1 gearbox
ORIGINATED BY: [redacted]	
AUTHORIZED BY: [redacted]	
MECHANIC: [redacted]	MFG. PART NO.
INSPECTOR: [redacted]	CORRECTION: Replaced pulled stud
SERIAL NO. OFF	
SERIAL NO. ON	

IF JOB IS STOPPED, EXPLAIN ON REVERSE SIDE.

ASSY. SERIAL NO.	ASSY. TRACKING NO.	DATE	DEPT. NO.	LINE NO.	JOB NO.	EQT.	CARD NO.
726984		12-28-95	288		722	9	20

412 40275
ARD 7-88
P 4323

DELTA AIR LINES, INC.
SHOP NONROUTINE CARD

DELTA

LOCATION	ITEM: FAN HUB TIE ROD LOCKS FOUND BROKEN
WP 26	AT BOROSCOPE INSP.
ORIGINATED BY	
AUTHORIZED BY	
MECHANIC	MFG. PART NO.
INSPECTOR	CORRECTION: Replaced Broken tab Locks
SERIAL NO. OFF	
SERIAL NO. ON	

IF JOB IS STOPPED, EXPLAIN ON REVERSE SIDE.

SY. SERIAL NO.	ASSY. TRACKING NO.	DATE	DEPT. NO.	LINE NO.	JOB NO.	EQT.	CARD NO.
726984		12-29-95	288		722	9	21

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AUTHORIZED METHC	REPAIR: REPLACE BROKEN LOCKS WHEN N
HUB REMOVED FOR OPERATION L585 J.I.C. RECORD	
PARTS AND MATERIAL INFORMATION:	
SUPERVISOR: [redacted]	

0412 40275
CARD 7-88
SP 4323

DELTA AIR LINES, INC.

SHOP NONROUTINE CARD

DELTA AIR LINES

LOCATION	ITEM: OIL LEAK AT #4 OIL TUBES AND DIFFUSER
EWP 26	OUTER FAN DUCT.
ORIGINATED BY	
[redacted]	
AUTHORIZED BY	
[redacted]	
MECHANIC	MFG. PART NO.
[redacted]	
INSPECTOR	CORRECTION: Replaced Seals at #4 Tubes and
[redacted]	Reinstalled
SERIAL NO. OFF	
SERIAL NO. ON	

IF JOB IS STOPPED, EXPLAIN ON REVERSE SIDE.

ASSY. SERIAL NO.	ASSY. TRACKING NO.	DATE	DEPT. NO.	LINE NO.	JOB NO.	EQT.	CARD NO.
726984		12-28-95	288		722	9	22

28

AUTHORIZED METHC	REPAIR: REMOVE FAN DUCT AND ACE
ALL SEALS AND DONUT GASKETS IN AREA OF LEAK.	
PARTS AND MATERIAL INFORMATION:	
SUPERVISOR: [redacted]	

Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. No. 585

Eng. S/N 726984

ACBTY No. 23

REPLACE 1ST STAGE FAN ASSEMBLY (JT8D-219)

	MECH	L MECH	INSP
NOTE: Steps 1 thru 7, REF JT8D-219 ESM as indicated.			
1. Remove Compressor Inlet Group. (72-00-23 Rem-01)	[redacted]		
2. Remove 1st Stage Disk and Blade Assy. (72-00-33 Rem-01)	[redacted]		
3. Inspect removed parts per EMMP manual.		[redacted]	
4. Install 1st Stage Disk and Blade Assy. (72-00-33 Inst-01)	[redacted]	[redacted]	
5. Install 1st Stage Air Seal and Torque Tierod Nuts. (72-33-02 Inst-01)	[redacted]		
6. O.K. to install Compressor Inlet Group		[redacted]	
7. Install Compressor Inlet Group. (72-00-23 Inst-01)	[redacted]	[redacted]	

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Dept. 288

JIC
SIGN-OFF RECORD

J29

OPN. 589

Eng. S/N 726984

ACBTY No. 24

BORESCOPE PLUG INSTALLATION (JT8D-219)

	MECH	L MECH	INSP
NOTE: Steps 1 thru 13, REF JT8D-219 ESM as indicated			
1. Install stage 5, 6 and 7 borescope plugs. (72-00-00 Check-02)	[redacted]		
2. OK to install stage 6 and 7 fan duct outer borescope covers.		[redacted]	
3. Install stage 5, 6 and 7 fan duct outer borescope covers. (72-00-00 Check-02)	[redacted]		
4. Install 13th stage borescope plugs in diffuser case. (72-00-00 Check-04)	[redacted]		
5. OK to install 13th stage borescope inner liner covers.		[redacted]	
6. Install 13th stage borescope inner liner covers. (72-00-00 Check-04)	[redacted]		
7. OK to install 13th stage borescope fan duct outer covers.		[redacted]	
8. Install 13th stage borescope fan duct outer covers. (72-00-00 Check-04)	[redacted]		
9. Install 1st and 2nd stage turbine borescope plugs in turbine case. (72-00-00 Check-09)	[redacted]		
10. OK to install 1st and 2nd stage turbine borescope inner liner covers.		[redacted]	
11. Install 1st and 2nd stage turbine borescope inner liner covers. (72-00-00 Check-09)	[redacted]		
12. OK to install 1st and 2nd stage turbine borescope outer fan duct covers.		[redacted]	
13. Install 1st and 2nd stage turbine borescope outer fan duct covers. (72-00-00 Check-09)	[redacted]		

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JIC
SIGN-OFF RECORD

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OPN. 578

Eng. S/N 726984

ACBTY No. 25

ENGINE EGT SYSTEM CHECK (JT8D-219)

	MECH	L MECH	INSP
1. Visually check EGT harness and thermocouple probes at each shop visit. (Ref MD-80 MM 77-21-03 & 04)	[redacted]		
2. Check resistance of EGT harness. (Ref MD-80 MM 77-21-04) Good X Bad	[redacted]		
3. Check resistance of thermocouple probes. Indicate status of "Good" or "Bad" by position number. (Ref MD-80 MM 77-21-03) 1 2 3 4 5 6 7 8 GOOD	[redacted]		

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JIC
SIGN-OFF RECORD

J29

OPN. _647

Eng. S/N 726984

ACBTY No. 26

DISASSEMBLE COMPRESSOR INLET CASE (JT8D-219)	MECH	L MECH	INSP
NOTE: Steps 1 thru 6, Ref JT8D-219 ESM 72-23-00 Disassy-01			
1. Remove compressor inlet duct.	N/A [redacted] 1.		
2. Remove No. 1 bearing airsealing ring.	[redacted]		
3. Remove No. 1 bearing seal.	[redacted]		
4. Remove No. 1 bearing and housing support.	N/A [redacted] 4.		
5. Remove No. 1 bearing tube connector.	N/A [redacted] 5.		
6. Remove compressor inlet total pressure probe and strainer.	N/A [redacted] 6.		
7. Inspect removed items per EMMP manual.		[redacted]	

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JIC
SIGN-OFF RECORD

J29

OPN. I .648

Eng. S/N 726984

ACBTY No. 27

ASSEMBLE INLET CASE (JT8D-219)	MECH	L MECH	INSP
NOTE: Steps 1 thru 9, Ref JT8D-219 ESM 72-23-00 Assy-01			
1. Install compressor inlet pressure probe and strainer.	N/A [redacted] 1.		
2. Install No.1 bearing tube connector positioning plate.	N/A [redacted] 2.		
3. OK to install No. 1 bearing tube connector.		N/A [redacted] 3.	
4. Install No. 1 bearing tube connector.	N/A [redacted] 4.		
5. Pressure check tube connector.	[redacted]		
6. Install No. 1 bearing housing assembly and support.	N/A [redacted] 6.		
7. Install No. 1 bearing carbon seal assembly.	[redacted]		
8. Install No. 1 bearing airsealing ring.	[redacted]		
9. Install compressor inlet duct.	N/A [redacted] 8.		
10. Inspect completed assembly per EMMP manual.		[redacted]	

(2) INB L.E.

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412 40275
ARO 7-68
P 4323

DELTA AIR LINES, INC.
SHOP NONROUTINE CARD

DELTA AIR LINES

LOCATION: WP 26	ITEM: BOTH INLET CASE ANTI ICE TUBES LOOSE.
ORIGINATED BY: [redacted]	
AUTHORIZED BY: [redacted]	
MECHANIC: [redacted]	MFG. PART NO.
INSPECTOR: [redacted]	CORRECTION: Replaced tubes / Bushings. Per. Maintenance Manual
SERIAL NO. OFF	
SERIAL NO. ON	

IF JOB IS STOPPED, EXPLAIN ON REVERSE SIDE.

ASSY. SERIAL NO.	ASSY. TRACKING NO.	DATE	DEPT. NO.	LINE NO.	JOB NO.	EQT.	CARD NO.
726984		12-29-95	288	219	722	9	28

AUTHORIZED METHOD / PAIR: REPLACE TUBES OR BUSHINGS.

PARTS AND MATERIAL INFORMATION:

SUPERVISOR: [redacted]

0412 40275
CARD 7-88
SP 4323

DELTA AIR LINES, INC.
SHOP NONROUTINE CARD

DELTA AIR LINES

LOCATION: 26	ITEM: Thermo. VALVE WAS not replaced - NIS
ORIGINATED BY: [redacted]	
AUTHORIZED BY: [redacted]	
MECHANIC: [redacted]	MFG. PART NO.
INSPECTOR: [redacted]	CORRECTION: PLACED ON A/C MCO C/N C01056302 To replace for Shop Eval.
SERIAL NO. OFF	
SERIAL NO. ON	

IF JOB IS STOPPED, EXPLAIN ON REVERSE SIDE

ASSY. SERIAL NO.	ASSY. TRACKING NO.	DATE	DEPT. NO.	LINE NO.	JOB NO.	EQT.	CARD NO.
726984		12-30-95	288		722	9	29

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Dept. 280

JIC
SIGN-OFF RECORD

XXX

OPN. No. ...91

Eng. S/N 726984

ACBTY No. 30

JT8D (BASIC/219) CONFIDENCE CHECK OF ENG. STARTER

MECH	L MECH	INSP
[redacted]		

1. Perform confidence check of engine starter.
   S/N P-18612

   A. Visually inspect starter for obvious damage. If any indication of the following conditions exist, route starter to shop.

   (1) Inspect exhaust opening for any evidence of oil. This would indicate internal seal damage.

   (2) Inspect exhaust opening for evidence of blade tip damage or scoring of walls around blades. No blade damage or scoring is permissible.

   (3) Inspect lip seal area (area around output shaft) for evidence of oil leakage.

   (4) Inspect output shaft gear teeth for excessive wear. The top of the output gear teeth should not be sharp. A slight wear pattern on the side of the gear teeth is acceptable.

   B. Rotate output shaft CCW. Listen to ratchet mechanism for crisp clear ratchet sound. A dull sound indicates problems

   C. Rotate output shaft CCW. Listen for any unusual noise, grinding, rubbing, etc.. A slight gear train noise will be evident and is acceptable.

   D. Ensure QEC flange from gear box is kept with starter.

JT8D-219 WORKSCOPE SPECIFICATION

ISSUE DATE:12/28/95

REV: O

ENGINE S/N: 726984

WORKSCOPE SPECIFICATION REQUIREMENTS

COLD SECTION MODULE: C/W LM INSPECTION

N1 ROTOR: C/W LM INSPECTION. DO NOT REMOVE. ROUTE 1ST STAGE FAN ASSY. TO REPLACE FAN BLADES AND REASIGN. ROTOR SHOP TO COORDINATE WITH DEPT. 401 TO HAVE CORD WIDTH MEASURED ON FAN BLADES AND FORWARDED INFORMATION TO ENGINEER CHRIS SEALS DEPT. 565. PHONE # 4-0793. INSTALL FIRST STAGE FAN ASSY. WITH 7234 CYCLES MINIMUM REMAINING.

N2 G/BOX: C/W LM INSPECTION

HOT SECTION MODULE: C/W LM INSPECTION.

COMBUSTION CHAMBERS: C/W LM INSPECTION. DO NOT REMOVE.

N2 ROTOR: C/W LM INSPECTION. DO NOT REMOVE.

T1 ROTOR: C/W LM INSPECTION. DO NOT REMOVE.

T2 ROTOR: C/W LM INSPECTION. DO NOT REMOVE.

SPECIAL DISASSEMBLY/ASSEMBLY INSTRUCTIONS:

- REPLACE 2 EA. FAN HUB TIE ROD LOCKS THAT ARE BROKEN.
- REMOVE TOP FAN DUCT TO GAIN ACCESS TO THE # 4 OIL TUBES AT THE DIFFUSER OUTER DUCT. DETERMINE CAUSE OF OIL LEAK AND REPAIR AS NECESSARY.
- PRESSURE CHECK INLET CASE.
- REPLACE # 1 CARBON SEAL & FACE PLATE.

Approved by the Workscope Control Group [redacted]

RW

JT8D-219 WORKSCOPE SPECIFICATION

ISSUE DATE:12/28/95

ENGINE REMOVAL INFORMATION

QA AUDITED RW 1-2-96

REV: O TEAM LEADER Rudolph EWP 26

STATION REMOVED: ATL BUILD NO.

ENG. S/N	SHIP/POS	DATE REMOVED	RUN TIME
726984	9020/2	12/22/95	5,842.90
CSHMVI	**TSHMVI**	**CSLMVI**	**TSLMVI**
4,764	5,842.90		

CAUSE FOR REMOVAL: SMOKE IN CABIN

WORKSCOPE PERFORMED AT LAST SHOP VISIT: FIRST REMOVAL

RECENT SERVICE PROBLEMS FROM LOG HISTORY SHEETS: NONE

LPC ROTOR (N1)		HPC ROTOR (N2)		HPT ROTOR (T1)		LPT ROTOR (T2)		GEARBOX	
SER. NO.	33X26984	SER. NO.	36X26984	SER. NO.	52X26984	SER. NO.	53X26984	SER. NO.	61X26984
CSHMVI	4,764	CSHMVI	4,764	CSHMVI	4,764	CSHMVI	4,764	CSHMVI	4,764
CSLMVI		CSLMVI		CSLMVI		CSLMVI		CSLMVI	4,764
LOWEST DISK	15,234 cyc/hrs	LOWEST DISK	15,234 cyc/hrs	LOWEST DISK	15,234 cyc/hrs	LOWEST DISK	15,234 cyc/hrs		
STAGE	6TH	STAGE	9TH	STAGE	1ST	STAGE	3RD		
1st Disk	15,234			HPT SHAFT	15,234	LPT SHAFT	7,234		

CONDITIONS REQUIRING SPECIAL HANDLING:

Service Evaluation	☐	Uncontained Failure	☐	Premature Removal < 1000 HRS	☐
Engine Overspeed	☐	Engine Overtemp	☐	CONTRACT Engine	☐
Test Cell Reject	☐	Failure Analysis	☐	Videotape of Boroscope Required	☐

MAINTENANCE ACTIONS REQUIRED BEFORE SHOP INDUCTION OF ENGINE:

ISOTOPE INSPECTION : Required ☐ Not Required ☒ PCW ☐

MAINTENANCE LEVEL REQUIRED ON ENGINE:

Light Maintenance ☒ Heavy Maintenance ☐

OVER →

Delta Air Lines

1. UNITED STATES	FAA FORM 8130-3 Airworthiness Approval Tag U.S. Department of Transportation Federal Aviation Administration	3. SYSTEM TRACKING REFERENCE NO. A 111240 LTD
4. ORGANIZATION:	DELTA AIR LINES, INC. HEARTSFIELD ATLANTA INTERNATIONAL AIRPORT ATLANTA, GEORGIA 30320 FAA APPROVED REPAIR STATION NO. DALR026A FAR PART 121 AIR CARRIER CERTIFICATE NO. DALA026A	5. WORK ORDER CONTRACT OR INVOICE NO.

6. ITEM	7. DESCRIPTION	8. PART NUMBER	9. ELIGIBILITY*	10. QTY	11. SERIAL/BATCH NO.	12. STATUS/WORK
1	CABLE	CPO 749701002 MFR 44508		1 EA	01408	TESTED

13. REMARKS: TESTED PER CMM 74-21-2 NO TROUBLE FOUND

FULL RELEASE

Limited life parts must normally be accompanied by maintenance history including total time/total cycles/time since new.

14. New ☐ Newly Overhauled ☐
Certifies that the new or newly overhauled part(s) identified above, except as otherwise specified in block 13 was (were) manufactured in accordance with FAA approved design data and airworthiness.
NOTE: In case of parts to be exported, the special requirements of the importing country have been met.

19. Return to Service in Accordance with FAR 43.9 Certifies that the work specified in block 13 (or attached) above was carried out in accordance with FAA airworthiness regulations and in respect to the work performed the part(s) is (are) approved for return to service.
Mech. Signature: [redacted]

15. Signature:	16. FAA Authorization No.	20. Authorized Signature: [redacted]	21. Certificate Number: DALA026A
17. Name (typed or printed):	18. Date	22. Name (typed or printed): [redacted]	23. Date: DECEMBER 01,1995

0412-40537
8-95

FAA Form 8130-3 *Optional installer must cross check eligibility with applicable technical data.

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☒ REMOVE/INSTALL
☐ INITIAL INSTALL/EA
☐ INSTALL ONLY

☐ 4 - TIME SCHED
☐ 5 - TROUBLE
☐ 6 - ENGR AUTH
☐ 7 - OTHER

Ship _____ or NHA.FIN 1A0201 A/C LOG# _____

MRR YES _ SO_____ DLY/CX YES _____ NO_____ TYPE CHECK _____ CARD # _____

FIN _____ OR MFR Part No. _____

QTY _____ DAL Part No. _____ and S/N _____

Pos. _____ BITE Codes _____

Reason for Removal _____

Completed By: [redacted] Flight # / Date 12-29-95 Dept / STA ATL 288 Tracking No.

FAA Forms 8130-3

Airworthiness Approval Tag
User/Installer Responsibilities

It is important to understand that the existence of this Document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different than the Airworthiness Authority of the country specified in block 1, it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority of the country specified in block 1.

Statements in block 14 and 19 do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

The FAA Form 8130-3 and JAA Form One are equivalent. Other countries such as Canada also have equivalent acceptable documents.

Delta Air Lines

1 UNITED STATES	FAA FORM 8130-3 Airworthiness Approval Tag U.S. Department of Transportation Federal Aviation Administration	3 SYSTEM TRACKING REFERENCE NO. A 063482 LTD
4 ORGANIZATION: DELTA AIR LINES, INC HARTSFIELD ATLANTA INTERNATIONAL AIRPORT ATLANTA, GEORGIA 30320 FAA/JAA APPROVED REPAIR STATION NO. DALR026A		5 WORK ORDER CONTRACT OR INVOICE NO.

6 ITEM	7 DESCRIPTION	8 PART NUMBER	9 ELIGIBILITY*	10 QTY	11 SERIAL/BATCH NO	12 STATUS/WORK
01	TUBE	MFR 75-0033-502 CPO 759102287		1 EA		C/W

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13 REMARKS: C/W ERA 99-68468
FULL RELEASE

Limited life parts must normally be accompanied by maintenance history including total time/total cycles/time since new

14. New ☐ Newly Overhauled ☐	19 Return to Service in Accordance with FAR 43.9
Certifies that the new or newly overhauled part(s) identified above, except as otherwise specified in block 13 was (were) manufactured in *accordance with FAA approved design data and airworthiness.* NOTE: In case of parts to be exported, the special requirements of the importing country have been met.	Certifies that the work specified in block 13 (or attached) above was carried out in accordance with FAA airworthiness regulations and in respect to the work *performed the part(s) is (are) approved for return to service*

15. Signature:	16. FAA Authorization No.	20. Authorized Signature:	21. Certificate Number:
		[redacted]	DALA026A
17. Name (typed or printed):	**18. Date:**	**22. Name (typed or printed):**	**23. Date:**
		D.KARBOWSKI	OCTOBER 04,1995

FAA Form 8130-3 *Optional installer must cross check eligibility with applicable technical data.

0412-40537
5-95

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ACTION
☑ REMOVE/INSTALL
☐ INITIAL INSTALL(EA)
☐ INSTALL ONLY

REMOVAL CODES
☐ 01 - TIME/SCHED
☐ 02 - TROUBLE
☐ 03 - ENGR AUTH
☐ 04 - OTHER

Ship _____ or NHA. FTN 726984 A/C log# _____ Item# _____

MRR YES _____ NO _____ DLY/CX Y

FTN _____ or MFR Part No. _____ and S/N _____

QTY _____ DAL Part No. _____

Pos. _____ BITE Codes _____

Reason for Removal - _____

Mechani[redacted] Date 12-30-95 Dept / Sta ATL/288

FAA Forms 8130-3

Airworthiness Approval Tag
User/Installer Responsibilities

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Delta Air Lines

FAA FORM 8130-3
Airworthiness Approval Tag
U.S. Department of Transportation Federal Aviation Administration

1. UNITED STATES

3. SYSTEM TRACKING REFERENCE NO. A 103869 LTD

4. ORGANIZATION: DELTA AIR LINES, INC.
HEARTSFIELD ATLANTA INTERNATIONAL AIRPORT
ATLANTA, GEORGIA 30320
FAA APPROVED REPAIR STATION NO. DALR026A
FAR PART 121 AIR CARRIER CERTIFICATE NO. DALA026A

5. WORK ORDER CONTRACT OR INVOICE NO.

6. ITEM	7. DESCRIPTION	8. PART NUMBER	9. ELIGIBILITY*	10. QTY	11. SERIAL/BATCH NO.	12. STATUS WORK
01	EXCHANGR	CPO. 249701262 MFR. B18D18		1 EA	05870217	RESTORED

13. REMARKS: CLEANED FLUSHED ,PRESS CHECKED OK.,STRAIGHTENED FINS .READY FOR TEST.
FULL RELEASE TESTED OK

Limited life parts must normally be accompanied by maintenance history including total time/total cycles/time since new.

14. New ☐ Newly Overhauled ☐
Certifies that the new or newly overhauled part(s) identified above, except as otherwise specified in block 13 was (were) manufactured in accordance with FAA approved design data and airworthiness.
NOTE: In case of parts to be exported, the special requirements of the importing country have been met.

19. Return to Service in Accordance with FAR 43.9 Certifies that the work specified in block 13 (or attached) above was carried out in accordance with FAA airworthiness regulations and in respect to the work performed the part(s) is (are) approved for return to service.

Mech. Signature

15. Signature:	16. FAA Authorization No.	20. Authorized Signature: [redacted]	21. Certificate Number: DALA026A
17. Name (typed or printed):	18. Date	22. Name (typed or printed): R.TORRES	23. Date: NOVEMBER 21,1995

FAA Form 8130-3 *Optional installer must cross check eligibility with applicable technical data.

0412-40537 8-95

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ACTION
☐ REMOVE/INSTALL
☐ INITIAL INSTALL(EA)
☐ INSTALL ONLY

☐ 01 - TIME/SCHED
☐ 02 - TROUBLE
☐ 03 - ENGR AUTH
☐ 04 - OTHER

Ship _____ or NHA.FTN 726984 A/C LOG# _____ ITEM# ___

MRR YES ___ NO___ DLY/CX YES ___ NO___ TYPE CHECK _____ CARD # _____

FTN _____ OR MFR Part No. _____

QTY _____ DAL Part No. _____ and S/N _____

Pos. _____ BITE Codes _____

Reason for Removal - _____

Completed by: [redacted]

Flight # 12-30-95 Dept / STA ATL/188

Tracking No.

FAA Forms 8130-3

Airworthiness Approval Tag
User/Installer Responsibilities

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The FAA Form 8130-3 and JAA Form One are equivalent. Other countries such as Canada also have equivalent acceptable documents.

Delta Air Lines

1. UNITED STATES	FAA FORM 8130-3 Airworthiness Approval Tag U.S. Department of Transportation Federal Aviation Administration	3. SYSTEM TRACKING REFERENCE NO. A 121537 LTD
4. ORGANIZATION: DELTA AIR LINES, INC. HEARTSFIELD ATLANTA INTERNATIONAL AIRPORT ATLANTA, GEORGIA 30320 FAA APPROVED REPAIR STATION NO. DALR026A FAR PART 121 AIR CARRIER CERTIFICATE NO. DALA026A		5. WORK ORDER CONTRACT OR INVOICE NO.

6. ITEM	7. DESCRIPTION	8. PART NUMBER	9. ELIGIBILITY*	10. QTY	11. SERIAL/BATCH NO.	12. STATUS/WORK
01	SWITCH	CPO. 739701192 MFR. 8G441-1		1 EA	5829	REPAIRED

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13. REMARKS: REPAIRED PER CMM 73-30-04

FULL RELEASE

Limited life parts must normally be accompanied by maintenance history including total time/total cycles/time since new.

14. New ☐ Newly Overhauled ☐
Certifies that the new or newly overhauled part(s) identified above, except as otherwise specified in block 13 was (were) manufactured in accordance with FAA approved design data and airworthiness. NOTE: In case of parts to be exported, the special requirements of the importing country have been met.

19. Return to Service in Accordance with FAR 43.9 Certifies that the work specified in block 13 (or attached) above was carried out in accordance with FAA airworthiness regulations and in respect to the work performed the part(s) is (are) approved for return to service.
Mech. Signature: [redacted]

15. Signature:	16. FAA Authorization No.	20. Authorized Signature: [redacted]	21. Certificate Number: DALA026A
17. Name (typed or printed):	18. Date	22. Name (typed or printed): C.RUNION JR	23. Date: DECEMBER 14,1995

(8412-40537 8-95)

FAA Form 8130-3

*Optional installer must cross check eligibility with applicable technical data.

(47)

ACTION
- [x] REMOVE INSTALL
- [ ] INITIAL INSTALL(EA)
- [ ] INSTALL ONLY

- [ ] 01 - TIME SCHED
- [ ] 02 - TROUBLE
- [ ] 03 - ENGR AUTH
- [ ] 04 - OTHER

Ship ________ or NHA.FTN 726984 A/C LOG# ____________ ITEM# ______

MRR YES ____ NO ____ DLY/CX YES ____ NO ____ TYPE CHECK __________ CARD # ______

FTN __________ OR MFR Part No. ______________

QTY ________ DAL Part No. ______________ and S/N __________

Pos. __________ BITE Codes ______________

Reason for Removal - ______________

Completed by:	Flight # / Date	Dept / STA	Tracking No.
[redacted]	12-30-55	288/ATL	

FAA Forms 8130-3

Airworthiness Approval Tag
User/Installer Responsibilities

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Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different than the Airworthiness Authority of the country specified in block 1, it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority of the country specified in block 1.

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ATTACHMENT A

ENGINE WORK CARD SUMMARY SHEET (JT8D-ALL)

EQUIPMENT TYPE JT8D-219

ENGINE SER. NO. 726984

ENGINE T.S.O. 5842.9

DATE STARTED 12-30-95

DATE COMPLETED 12-30-95

THIS DECK OF ROUTINE AND NON-ROUTINE JIC CARDS ARE NUMBERED FROM 1 TO 12.

CARDS TRANSFERRED TO DEPT. 281 1

REMARKS: 4W Non-Routine CARD #29 from Dept. 288

Referred/Deferred cards with Summary Sheet received by NA CCox

This deck of cards has been checked and all items are properly signed off:
1. JIC/JPC/NR Cards check by CCox
2. Deferred/Referred Cards checked by NA CCox

NOTE: All non-applicable spaces must bear "NA" and initials (first, middle, last). All indicated spaces must bear signature consisting of first initial and full written last name (first, middle, and last initials are acceptable if space prevents full signature) or other information as required.

JOB INSTRUCTION

XXX

TRANSMITTAL SHEET JT8D-BASIC/-219 ENGINE

OPN.	DESCRIPTION

1. TEST CELL SIGN-OFF RECORDS.

NOTE: Use OPN. K998 for thr Work Card Summary Sheet.

9281	Transmittal Sheet JT8D-BASIC/-219 Engine.
9500	Position Change From No. 1 To No. 2 Position (DC-9).
9502	Position Change From No. 2 To No. 1 Position (DC-9).
9555	Engine Position Change (B727).
H567	Engine After Test Final Inspection.
L552	Engine Position Change (B737-200).
M894	Prepare Engine For Test.
M895	Install Engine In Test Cell.
M895AT	B727-200 And B737-200 Electrical Hookup Illustration only.
M896	Pre-Start Check And Wet Motor.
M897	Test Run Type Test Trim.
M898	Test Run Type Test Screen Check.
M899	Removal From Test Cell.
M900	Prepare Engine For Service.
M901	On Wing Detergent Wash Procedure (JT8D-All Engines).

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Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. No. M894

Eng. S/N 726984

ACBTY No. 1

PREPARE ENGINE FOR TEST JT8D-BASIC/-219

		MECH	L MECH	INSP
1.	Install left forward, right forward, and top rear cone bolts.	1. DMS		
2.	Release clamps securing electrical harness.	2. DMS		
3.	Remove oil pressure line from T-fitting and transmitter. (-219 only)	3. TB.		
4.	Install engine test adapter and torque mount nuts.	4. DMS		
5.	Ensure start valve switch is in proper position. (N/A on -219)	5. N/A	[redacted]	
6.	Install pneumatic duct covers.	6. TB		
7.	Connect power lever and fuel shut-off controls and check for full travel. (N/A on -219)	7. N/A	[redacted]	
8.	Install bellmouth, safety mount screws and check inlet for foreign objects and/or F.O.D. (N/A on -219)	8. N/A.	[redacted]	
9.	Connect Pt7 test line.	9. TB		
10.	Connect Ps3 test line.	10. TB		
11.	Connect PcP test line.	11. TB		
12.	Connect Pt2 test line.	12. TB.		
13.	Connect main oil pressure test line.	13. TB.		
14.	Connect Ps4 test line.	14. TB		
15.	Connect main fuel pressure test line.	15. DMS		
16.	Install remote trimmer and connect lead.	16. TB.		
17.	Connect generator cannon plug and main harness cannon plugs.	17. DMS		
18.	Install inlet vibrator unit and connect lead. S/N 16691	18. TB.		
19.	Install thrust reverser lock-out bolts or air.	19. N/A	[redacted]	
20.	Ensure all test lines, hoses, cables, etc.,are properly secured.	20. TB.		
21.	Check that all items are properly signed off.		21. [redacted]	

01-31-95

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Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. M895

Eng. S/N 726984

ACBTY No. 2

INSTALL ENGINE IN TEST CELL JT8D-BASIC/-219	MECH	L MECH	INSP
1. Assure test cell module and associated switches are positioned correctly for engine type to be installed.	1. TH.		
2. Remove protector plate covers, check for damage or foreign matter.	2. TH.		
3. Connect test bed hoist cables and hoist engine up to test bed. (Check for adapter coupled and cable slack lights).	3. DMS		
4. Remove transport stand brackets from engine and store on engine stand, and remove transport stand from cell.	4. TH.		
5. Install throttle and fuel shut-off levers and safety. (-219 only)	5. DMS		
6. Install bellmouth. (-219 only)	6. DMS.		
7. Connect main fuel supply line.	7. DMS.		
8. Connect starter air hose.	8. TH.		
9. Service CSD wet sump, CSD oil, and starter oil with Exxon 2380 oil.	9. TH.		
10. Service main oil tank with Mobil Jet Oil 254.	10. DMS.		
11. Install breather pressure test cap.	11. DMS		
12. Install main oil filter differential pressure test filter and connect lines.	12. N/A	[redacted]	
13. Disconnect the following drive seal drain lines to prevent them from draining into overboard drain can. (CSD output drive, hydraulic pump drive, fuel pump drive, and starter drive).	13. N/A.	[redacted]	
14. Connect E.G.T. spread harness.	14. N/A.	[redacted]	
15. Install turbine vibrator unit and connect lead. (Spacer needed on -219) Record S/N 19404	15. DMS		
16. Check generator wire connections and current transformer wire connections for number legibility and correct connections.	16. DMS		
17. Remove exhaust cover and check inlet and exhaust areas for foreign objects prior to motoring and/or starting engine.	17. DMS.		
18. Check that engine S/N on exhaust case data plate is the same as engine S/N on gearbox data plate.	18. TH.		
19. Record data plate information. RPM 10718 % 09.16	19. TH		
20. Check that all items are properly signed off.		20. [redacted]	

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Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. M896

Eng. S/N 726984

ACBTY No. 3

PRE-START CHECK AND WET MOTOR JT8D-BASIC/-219

		MECH	L MECH	INSP
1.	Master power on. Make audio check of both ignition systems, anti-ice valves, fuel heat valve, and on -219, check start valve and ARTS valve.	1. TD.		
	WARNING: PRIOR TO BEGINNING AUDIO CHECK OF THE IGNITION SYSTEM, ENSURE CORRECT POSITION OF SELECTOR SWITCH, DELTA OR WESTERN AS APPLICABLE OR DAMAGE *WILL* OCCUR.			
2.	Rig and cheek throttle and fuel shut-off levers. Assure both are safetied. (Ensure correct part/power stop is installed).	2. DMS.		
3.	Check that all E.G.T. probes are indicating correctly. (Ensure L1011 test lead is disconnected).	3. DMS		
4.	Ensure vibration monitors are preset correctly.	4. TD.		
5.	Comply with zero drift cheek.	5. TD		
6.	Wet motor engine, check for main oil pressure rise, record oil pressure and time on log sheet.	6. TD		
7.	Check for fuel and/or oil leaks during motor, listen for unusual noises during cost down.	7. DMS		
8.	Service CSD oil system with Exxon 2380 oil.	8. DMS		
9.	Service main oil tank with Mobil Jet Oil 254.	9. DMS.		
10.	Check operation of the fire loop.	10. DMS.		
11.	Install part-power stop. (if applicable)	11. N/A	[redacted]	
12.	Ensure all test lines, hoses, cables, etc., are properly secured.	12. DMS		
13.	Assure test cell is cleared of all tools, parts, etc. and all doors are closed before starting engine.	13. DMS	13. [redacted]	
14.	Check that all items are properly signed off.		14. [redacted]	

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Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. No. M897

Eng. S/N 726984

ACBTY No. 4

TEST RUN TYPE TEST TRIM JT8D-BASIC/-219

		MECH	L MECH	INSP
1.	Check all Q.E.C. indicators and warning lights for proper operation.	1. DMS		
2.	Check over the engine for leaks at start of test and before stopping for screen check.	2. DMS		
3.	Check operation of A.C. generator. Assure correct operation of phase lights, phase rotation and generator voltage and C.P.S. output.	3. TH		
4.	Trim engine and/or performance run (as required). Type engine -219 Type test TO	4. DMS.		
5.	Check anti-ice and fuel heat ducts down stream of shut-off valves for internal valve leakage by feeling with hands.	5. DMS.		
6.	Comply with ARTS check.	6. N/A	[redacted]	
7.	Disconnect C.S.D. prior to stopping engine.	7. DMS.		
8.	Re-engage C.S.D. before starting engine.	8. DMS.		
9.	Check inlet and exhaust areas for oil leaks and/or foreign object damage. NOTE: Any time any work is accomplished in inlet of an engine, both mechanic's check engine inlet area to assure that no foreign objects are in inlet prior to motoring/or starting engine. Both mechanic's sign below and enter time of day. Mech_____ Mech_____ Mech_____ Mech_____ Mech_____ Mech_____ Mech_____ Mech_____ Time_____ Time_____ Time_____ Time_____	9. DMS		
10.	Check that all items are properly signed off.		10. [redacted]	

5A

Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. No 398

Eng. S/N 726984

ACBTY No. 5

TEST RUN TYPE TEST SCREEN CHECK JT8D-BASIC/-219

NOTE: Indicate Engine Type

JT8D-BASIC _____
JT8D-219 ✓

		MECH	L MECH	INSP
1.	SCREEN CHECK: Number of penalty runs required 0	1 DMS		
	NOTE: Mechanic signs off box for individual screen checks; mechanic who does final screen check on each operation safeties and signs off applicable box and Mechanics column.			
2.	(JT8D-219 ONLY): ***FAA MANDATORY PER AD 94-23-03*** Inspect the No. 4 and 5 bearing scavenge oil temperature monitoring decals for indications of high oil temperature. Reference JT8D-219 E.M. 72-00-00, CHECK-01 or MD88 M.M. 72-00-00, INSP/CHECK. Any indications must be corrected prior to releasing engine to service.	2. DMS		
3.	**Remove, check and install new main oil inlet screen and safety.** NOTE: Torque sleeve type nut 25 - 30 in/lbs. Routine.....penalty runs: 1.....2.....3.....4.....	3. DMS		
4.	**Remove, check and reinstall the fuel control inlet strainer and safety.** Routine.....penalty runs: 1.....2.....3.....4.....	4. TB		
5.	Remove, disassmeble and check fuel pump interstage filter. Routine.....penalty runs: 1.....2.....3.....4.....	5. TB.		
6.	Remove, check and reistall and safety C.S.D magnetic plug ans safety. Torque screws 25 - 35 in/lbs. Routine.....penalty runs: 1.....2.....3.....4.....	6. DMS		
7.	Remove, check and reinstall and safety C.S.D. inlet screen. Routine.....penalty runs: 1.....2.....3.....4.....	7. DMS		
8.	Remove, check and reinstall and safety C.S.D. outlet screen. Torque bowl 192 - 216 in/lbs. Routine.....penalty runs: 1.....2.....3.....4.....	8. DMS.		
9.	Remove, check and reinstall No. 3 bearing magnetic chip detector plug on front of N2 gearbox.	9. TB		
10.	Check oil level in main tank and C.S.D. oil sight gauge. Service if needed. Service main engine oil tank with Mobile Jet Oil 254, and the C.S.D. system with EXXON 2380 oil. Routine.....penalty runs: 1.....2.....3.....4.....	10. DMS		
11.	Remove E.G.T. test spread harness and re-install aircraft E.G.T. harness plate. Install terminal cover and safety.	11. N/A	[redacted]	
12.	Check inlet and exhaust areas for loose/or foreign objects and clear test cell.	12. DMS		

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Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. No. M898

Eng. S/N 726984

ACBTY No. 6

TEST RUN TYPE TEST SCREEN CHECK JT8D-BASIC/-219 (Cont.)

		MECH	L MECH	INSP
13.	(IMMEDIATELY PRIOR TO FINAL LEAK CHECK). Remove main oil filter differential pressure. Test lines and reconnect engine tubes.	13. N/A	[redacted]	
14.	Start engine and check complete engine for leaks.	14. DMS.		
15.	Check anti-ice and fuel heat ducts down stream of shut-off valves for internal valve leakage by feeling with hands.	15. DMS.		
16.	After engine shut down, check the main tank and C.S.D. oil level within 15 minutes. Service main tank with Mobile Jet Oil 254 to full, and C.S.D. with EXXON 2380 oil to the green range.	16. DMS.		
17.	Check inlet and exhaust areas for leaks and foreign objects.	17. DMS.		
	NOTE: DO NOT ATTACH ANY LOOSE HARDWARE TO ADAPTER TEST LINES. BAG AND STORE IN DESIGNATED AREA.			
18.	Comply with fuel system preservation as per JT8D (Basic) Engine Manual 72-00-00 Servicing -04.	18. N/A	[redacted]	
19.	From performance data, determine and record Data Plate information on Prepare Engine For Service JIC.	19. N/A.	[redacted]	
20.	Check that all items are properly signed off.		20. [redacted]	

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Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. I .I899

Eng. S/N 726984

ACBTY No. 7

REMOVAL FROM TEST CELL JT8D-BASIC/-219	MECH	L MECH	INSP
1. Disconnect starter air line.	1. DMS		
2. Before installing engine in stand, reconnect the following drive seal drains. (C.S.D. output drive, hydraulic pump drive, fuel pump drive, and starter drive).	2. N/A	[redacted]	
3. Remove breather pressure test cap and install oil tank cap.	3. DMS.		
4. Retorque fuel pump quick disconnect bolt. Resafety bolt.	4. TH.		
NOTE: Must have minimum clearance of 0.010 between quick-disconnect nut and gearbox.			
5. Remove bellmouth. (-219 only)	5. TH.		
6. Remove throttle and fuel shut-off levers.	6. DMS		
7. Remove turbine vibrator unit.	7. DMS.		
8. Remove engine from test stand:	8. DMS.		
A. Install engine in transport stand. B. Install engine inlet and exhaust covers. C. Install protective covers on test adapter connector plates. D. Move engine to prep. area.			
9. Remove all test lines, test equipment, test adapter, and thrust reverser lock-nut bolts (B727 only).	9. N/A.	[redacted]	
10. Check that all items are properly signed off.		10. [redacted]	

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Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. 1900

Eng. S/N 726984

ACBTY No. 8

PREPARE ENGINE FOR SERVICE JT8D-BASIC/-219

		MECH	L MECH	INSP
1.	Install hydraulic pump adapter.	N/A		
2.	Lubricate hydraulic pump splines. (-219 use Royco C201; all others use Royco No. 5) SN _____	N/A		
3.	Connect existing hoses and torque to specified limits.	N/A.		
4.	Install front mount upper cone bolts and supports. Secure lower cone bolt and support to engine. Install cone bolt thread protectors.	TH.		
5.	Install rear mount cone bolt and support. Install bolt thread protectors.	MM		
6.	Intall three (3) servicable mount nuts.	TH.		
7.	Re-clamp electrical harness.	TH.		
8.	Install polyethylene bags on all hoses and cannon plugs.	TH.		
9.	Retorque flange bolts of nose cowling anti-ice shut-off valve after engine has cooled off. (B727 only)	N/A		
10.	Check E.G.T. terminal cover screws for safety.	TH		
11.	Safety part power stop.	TH.		
12.	Check for or install slippage marks on steel caps on thrust reverser lines, hydraulic lines, and Pt7 line.	TH		
13.	Install and/or check throttle crank, fuel shut off crank, interlock idler crank on crossover shafts and safety.	DMS		
14.	Safety steel caps on fuel pump outlet and interstage pressure taps.	TH.		
15.	Check and/or install steel caps on Ps3, and PcP pressure taps and safety.	TH		
16.	Check and/or install steel cap on Ps4 pressure tap and safety.	TH		
17.	Install and safety steel caps on Pt2 and Pt7 pressure taps. (-219 only)	TH		
18.	Install and/or safety 6th & 13th stage pneumatic manifold caps. (NA to -219)	N/A.		
19.	Manufacture and install new Data Plate: N2 RPM N/A N2 % N/A Date _____	TH.		
20.	Assure that both inlet and turbine vibrator units are removed.	TH.		
21.	Remove oil pressure test line and install engine line.	TH.		
22.	Disconnect air supply hose from thrust reverser. (NA to -219)	N/A		
23.	Check reverser thrust lock out rigging. (NA to -219)	N/A		
24.	Check operation of T/R system. (NA to -219)	N/A.		

Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. No. M900

Eng. S/N 726 984

ACBTY No. 9

PREPARE ENGINE FOR SERVICE JT8D-BASIC/-219 (Cont.)

	MECH	L MECH	INSP
25. Assure that all trim balance tape is removed from 1st stage fan blades.	25. TH.		
26. Install dessicant bags in inlet and exhaust and cover.	26. TH		
27. Check engine installed in correct stand and security. A. Check that all engine to adapter pins are safetied. B. Check that all adapter to cradle pins are safetied. C. Assure that cradle to stand bolts are installed and knurled nuts are torqued. D. Assure that stabilizing rail pins are installed and stand clamps are tight on rails.	27. TH		
28. Check that all items are properly signed off.		28. [redacted]	
29. Cover engine and deliver to storage area.	29. CH		

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Dept. 281

JIC
SIGN-OFF RECORD

XXX

OPN. 4567

Eng. S/N 726984

ACBTY No. 10

ENGINE AFTER TEST FINAL INSPECTION JT8D-BASIC/219

		MECH	L MECH	INSP
1.	On Evaluation Engines check JIC operation 5674 for sign off of initial inspection (engine test data card).		1.	
2.	Removal of test lines and fittings.		2.	
3.	Installation of hydraulic pump (-219 only) and lines.		3.	
4.	Mount cone bolts (installed or tied to engine). Cone Bolt S/N 1 B3858 2 B3074 3 B4308 NOTE: SEE M-8 TAG FOR S/N's		4.	
5.	Mount nuts (in bag or tied to engine).		5.	
6.	Verify correct quantity and P/N of mount cone bolts and nuts.		6.	
7.	Forward engine mount isolator cover plate bolts, nuts, and washers (in bag or tied to all engines).	N/A	7.	
8.	Pneumatic duct installation and safety of 6th and 13th pneumatic manifold caps (outboard end B-727 only).	ML	8.	
9.	Starter air valve tubes.		9.	
10.	Re-clamping of electrical harness.		10.	
11.	Cover on E.G.T. terminal block.		11.	
12.	Steel caps with slippage marks outboard side of engine (-219 only).		12.	
13.	Check fuel control rigging.		13.	
14.	Check installation and safety of throttle crank, fuel shut off crank (and interlock idler crank on cross-over shaft on -219).		14.	
15.	Safety of part power stop.		15.	
16.	Safety of cap on fuel pump interstage pressure cap.		16.	
17.	Caps on PS-3, PS-4 and PCP.		17.	
18.	Removal of vibration pickups.		18.	
19.	Thrust reverser operation.		19.	
20.	Fan for F.O.D.		20.	
21.	Check gearbox data plate to confirm engine S/N and rating.		21.	
22.	Check installation of engine data plate on exhaust case: N2 RPM N/A N2 %_____Date_____		22.	
23.	Check that the B737-200 engine is in low slung stand.	N/A	23.	
24.	Visual check inside exhaust.		24.	
25.	Safety of sump plugs.		25.	
26.	Safety of oil and fuel screens.		26.	
27.	Indicate fuel control installed (Check One):	N/A	27.	

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ENGINE AFTER TEST FINAL INSPECTION JT8D-BASIC/219 (Cont.)

	MECH	L MECH	INSP
743602-3 for ____-7B; ____-9A; ____-15; ____-15A Engines. 743602-5 for ____-17 Engine only. 743602-5 for ____ any JT8D-Basic with 3 bleed configuration.			
28. Indicate fuel pump type (Check One): 378201-xx for ____-7B; ____9A; ____-15; ____-15A; or 243601-xx/358201-xx/371901-xx for ____-7B; ____-9A only; or 384301-7 for ____-17 engine only.	n/a	28.	
29. Condition of engine to aircraft cannon plugs.		29.	
30. Inspect front case outer shroud for cracks.		30.	
31. Serviceable tag and parts shortage installed.		31.	
32. Enter storage expiration date on serviceable tag. (120 days) (SP4027)		32.	

Non-Time [illegible] Data Card

DELTA AI[illegible]INES

KWORD [illegible]

MFG P/N 7191615C3

S/N

FLEET CODE

ENG FT

ENG TO

MOD FT

MOD TO

WARRANTY YES NO (circled: NO)

SHIP POS

REMOVED FROM ENG/LG

S/N MLS 63858

REMOVED FROM MOD/NHA

S/N 63074

INST ON ENG/LG 726284

S/N 64308

INST ON MOD/NHA

S/N

MODIFIED MFG P/N

EO/ERA C/W

REM DATE

SERV INSP [signature]

ASSIGN INSP [signature]

INST MECH

SEE ENGINE [illegible]

SERVICEABLE CLASS

RESTORED

SVI (circled)

CONT TIME

NEW

DATE 11-17-95

DATE 12-27-95

DATE

TRKG NO 1241661

DISP CODE

UPC NO

REMARKS

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DELTA AIRLINES, INC
AIRCRAFT COMPONENT TRACKING SYSTEM
END ASSEMBLY COMPONENT REPORT AS OF

STRUCT E 223 ALN 29000 MFG PN UNK290001 SERIAL NBR UNK726984
TT 5842.9 TC 4764.0

SHIP	POS	INSTALLED	TSI	TSO	FLT NBR	STA

LOWEST RESTR REMAIN
HR:ALN REMAIN 0.0H
CY:ALN REMAIN 0.0C

ALN	DESC	KEYWORD	MFG PART NUMBER	SERIAL NUMBER	S C T N	TT	TC	RESTR	T	L	LIMIT	ACTUAL	REMAIN
29000	SHOP	290	UNK290001	UNK726984	A S	5842.9	4764.0	CSR SOFT	C	S		4764	
								TSR SOFT	H	S		5843	
								CSHM	C	S		4764	
								TSHM	H	S		5843	
		PART ON: MFGPN		SN									
		TEST CELL: MFGPN		SN									
29001	FUEL CONTROL		769606-13	F26002	A S	5842.9	4764.0	CSR SOFT	C	S		4764	
	S/N PER PCR							TSR SOFT	H	S		5843	
								CSHM	C	S		4764	
								TSHM	H	S	12000	5843	6157
		PART ON: MFGPN		SN									
		TEST CELL: MFGPN		SN									
29002	FUEL PUMP		384301-7	9802	A S	5842.9	4764.0	CSR SOFT	C	S		4764	
	S/N PER PCR							TSR SOFT	H	S		5843	
								CSHM	C	S		4764	
								TSHM	H	S	8000	5843	2157
		PART ON: MFGPN		SN									
		TEST CELL: MFGPN		SN									
29003	P & D VALVE		766342	6156903	A S	5842.9	4764.0	CSR SOFT	C	S		4764	
	S/N PER PCR							TSR SOFT	H	S		5843	
								CSHM	C	S		4764	
								TSHM	H	S	10000	5843	4157
		PART ON: MFGPN		SN									
		TEST CELL: MFGPN		SN									
29004	FUEL HEATER		UNK290041	UNK726984	A S	5842.9	4764.0	CSR SOFT	C	S		4764	
								TSR SOFT	H	S		5843	
								CSHM	C	S		4764	
								TSHM	H	S	10000	5843	4157
		PART ON: MFGPN		SN									
		TEST CELL: MFGPN		SN									

"UNK" SERIAL NUMBERS MUST BE MINED AND UPDATED BEFORE THE COMPONENT CAN BE REASSEMBLED.

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UR2123-1 DELTA AIRLINES, INC PAGE 1
RUN DATE 12/29/95 AIRCRAFT COMPONENT TRACKING SYSTEM
END ASSEMBLY COMPONENT REPORT AS OF

STRUCT E J29 ALN 29100 MFG PN UNK291001 SERIAL NBR UNK726984
TT 5842.9 TC 4764.0

SHIP	POS	INSTALLED	TST	TSC	FLT NBR	STA	LOWEST RESTR REMAIN
							HR:ALN REMAIN 0.0H
							DY:ALN REMAIN 0.0C

ALN	DESC	KEYWORD	MFG PART NUMBER	SERIAL NUMBER	S T	C N	TT	TC	RESTR	T	L	LIMIT	ACTUAL	REMAIN
29100	SHOP	291	UNK291001	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S		5843	
	PART ON: MFGPN_____ SN_____													
	TEST CELL: MFGPN_____ SN_____													
29101	ENG ELEC HARNESS		UNK291011	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
	TIMES SET TO ZERO WHEN ALN ADDED - 716888 12/15/93								TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S		5843	
	PART ON: MFGPN_____ SN_____													
	TEST CELL: MFGPN_____ SN_____													
29103	ANTI-ICE VALVE		UNK291031	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	7000	5843	1157
	PART ON: MFGPN_____ SN_____													
	TEST CELL: MFGPN_____ SN_____													
29103	ANTI-ICE VALVE		UNK291032	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	7000	5843	1157
	PART ON: MFGPN_____ SN_____													
	TEST CELL: MFGPN_____ SN_____													
29103	ANTI-ICE VALVE		UNK291033	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	7000	5843	1157
	PART ON: MFGPN_____ SN_____													
	TEST CELL: MFGPN_____ SN_____													

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STRUCT E J29 ALN 25000 MFG PN UNK252021 SERIAL NBR UNK726984
TT 5842.9 TC 4764.0

SHIP POS INSTALLED TSI TSO FLT NBR STA

LOWEST RESTR REMAIN
HR:ALN REMAIN 0.0H
CY:ALN REMAIN 0.0C

ALN	DESC	KEYWORD	MFG PART NUMBER	SERIAL NUMBER	S T	S N	TT	TC	RESTR	T	L	LIMIT	ACTUAL	REMAIN
25000	SHOP	350	UNK252021	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S		5843	
	PART ON: MFGPN			SN										
	TEST CELL: MFGPN			SN										
35001	FUEL FIL TRANSMTR		UNK350011	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	10000	5843	4157
	PART ON: MFGPN			SN										
	TEST CELL: MFGPN			SN										
35002	FUEL SWITCH		UNK350021	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	5000	5843	-843 *
	PART ON: MFGPN		86441-1	SN			5829							
	TEST CELL: MFGPN			SN										
35003	FUEL PLG TRANSMTR		UNK350031	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	10000	5843	4157
	PART ON: MFGPN			SN										
	TEST CELL: MFGPN			SN										
35004	OIL PR TRANSMTR		UNK350041	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	20000	5843	14157
	PART ON: MFGPN			SN										
	TEST CELL: MFGPN			SN										

DELTA AIRLINES, INC
AIRCRAFT COMPONENT TRACKING SYSTEM
END ASSEMBLY COMPONENT REPORT AS OF

STRUCT S 733 ALN 36100 MFG PN UNK361001 SERIAL NBR UNK726984
TT 5842.9 TC 4764.0

BASE	INSTALLED	TST	TSC	FLT HR	STA	LOWEST RESTR REMAIN
						HR:ALN REMAIN 0.0H
						CY:ALN REMAIN 0.0C

ALN	DESC	KEYWORD	MFG PART NUMBER	SERIAL NUMBER	S T	C N	TT	TC	RESTR	I	L	LIMIT	ACTUAL	REMAIN
36100	SHOP	361	UNK361001	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S		5843	
			PART ON: MFGPN_____			SN_____								
			TEST CELL: MFGPN_____			SN_____								
36101	[redacted]			UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	4000	5843	-1843
			PART ON: MFGPN_____			SN_____								
			TEST CELL: MFGPN_____			SN_____								

'UNK' SERIAL NUMBERS MUST BE DETERMINED AND UPDATED BEFORE THE COMPONENT CAN BE REASSEMBLED.

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DELTA AIRLINES, INC
AIRCRAFT COMPONENT TRACKING SYSTEM
END ASSEMBLY COMPONENT REPORT AS OF

STRUCT E J29 ALN 35000 MFG PN UNK3E0001 SERIAL NBR UNK726984
TT 5842.9 TC 4764.0

SHIP POS INSTALLED TST TSC FLT NBR STA

LOWEST RESTR REMAIN
HR:ALN REMAIN 0.0H
CY:ALN REMAIN 0.0C

ALN	DESC	KEYWORD	MFG PART NUMBER	SERIAL NUMBER	S T	C N	TT	TC	RESTR	T	L	LIMIT	ACTUAL	REMAIN
35005	LOW OIL	TRANSMTR	UNK3E0051	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	20000	5843	14157
	PART ON: MFGPN_____ SN_____													
	TEST CELL: MFGPN_____ SN_____													
35006	OIL FILT SWITCH		UNK350061	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	20000	5843	14157
	PART ON: MFGPN_____ SN_____													
	TEST CELL: MFGPN_____ SN_____													
35007	OIL QTY	TRANSMTR	UNK350071	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	12000	5843	6157
	PART ON: MFGPN_____ SN_____													
	TEST CELL: MFGPN_____ SN_____													

'UNK' SERIAL NUMBERS MUST BE DETERMINED AND UPDATED BEFORE THE COMPONENT CAN BE REASSEMBLED.

UR2123-1 DELTA AIRLINES, INC PAGE 1
RUN DATE 12/29/95 AIRCRAFT COMPONENT TRACKING SYSTEM
END ASSEMBLY COMPONENT REPORT AS OF

STRUCT E J29 ALN 29200 MFG PN UNK292001 SERIAL NBR UNK726984
TT 5842.9 TC 4764.0

SHIP POS INSTALLED TSI TSO PCT NBR ETA LOWEST REGTR REMAIN
HR:ALN REMAIN 0.0H
CY:ALN REMAIN 0.0C

ALN	DESC	KEYWORD	MFG PART NUMBER	SERIAL NUMBER	S C T N	TT	TC	REGTR	T L	LIMIT	ACTUAL	REMAIN
29200	SHOP	292	UNK292001	UNK726984	A S	5842.9	4764.0	CSR SOFT	C S		4764	
								TSR SOFT	H S		5843	
								CSHM	C S		4764	
								TSHM	H S		5843	
	PART ON: MFGPN_____ SN_____											
	TEST CELL: MFGPN_____ SN_____											
29201	CSD	TRANSMIS	6962338	4935	A S	5842.9	4764.0	CSR SOFT	C S		4764	
	PCR UPDATE							TSR SOFT	H S		5843	
								CSHM	C S		4764	
								TSHM	H S	6000	5843	157 *
	PART ON: MFGPN_____ SN_____											
	TEST CELL: MFGPN_____ SN_____											
29203	FUEL OIL COOLER		B18D18	10900099	A S	5842.9	4764.0	CSR SOFT	C S		4764	
	PCR UPDATE							TSR SOFT	H S		5843	
								CSHM	C S		4764	
								TSHM	H S	4000	5843	-1843 *
	PART ON: MFGPN B18D18 SN 05870217											
	TEST CELL: MFGPN_____ SN_____											
29203	FUEL OIL COOLER		749965	BSGDAH0969	A S	5842.9	4764.0	CSR SOFT	C S		4764	
	PCR UPDATE							TSR SOFT	H S		5843	
								CSHM	C S		4764	
								TSHM	H S	10000	5843	4157
	PART ON: MFGPN_____ SN_____											
	TEST CELL: MFGPN_____ SN_____											
29204	AC	GENERATO	976J252-6	XM7712	A S	5842.9	4764.0	CSR SOFT	C S		4764	
	PCR UPDATE							TSR SOFT	H S		5843	
								CSHM	C S		4764	
								TSHM	H S	6000	5843	157 *
	PART ON: MFGPN_____ SN_____											
	TEST CELL: MFGPN_____ SN_____											

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* SERIAL NUMBERS MUST BE DETERMINED AND UPDATED BEFORE THE COMPONENT CAN BE REASSEMBLED.

STRUCT E J29 ALN 29100 MFG PN UNK291001 SERIAL NBR UNK726984
TT 5842.9 TC 4764.0

SHIP	POS	INSTALLED	TSN	TSC	FLT NBR	STA	LOWEST RESTR	REMAIN
							HR:ALN	REMAIN 0.0H
							CY:ALN	REMAIN 0.0C

ALN	DESC	KEYWORD	MFG PART NUMBER	SERIAL NUMBER	S T	C N	TT	TC	RESTR	T	L	LIMIT	ACTUAL	REMAIN
29103	ANTI-ICE	VALVE	UNK291034	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	7000	5843	1157
		PART ON: MFGPN		SN										
		TEST CELL: MFGPN		SN										
29104	FIRE	DETECTOR	UNK293011	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	10000	5843	4157
		PART ON: MFGPN		SN										
		TEST CELL: MFGPN		SN										
29105	FIRE	DETECTOR	UNK293021	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	10000	5843	4157
		PART ON: MFGPN		SN										
		TEST CELL: MFGPN		SN										
29106	FIRE	DETECTOR	UNK293031	UNK726984	A	S	5842.9	4764.0	CSR SOFT	C	S		4764	
									TSR SOFT	H	S		5843	
									CSHM	C	S		4764	
									TSHM	H	S	10000	5843	4157
		PART ON: MFGPN		SN										
		TEST CELL: MFGPN		SN										

'UNK' SERIAL NUMBERS MUST BE DETERMINED AND UPDATED BEFORE THE COMPONENT CAN BE REASSEMBLED.

EI	C OR NHA SERIAL NO.	PART SERIAL NO.		PART TIME
REM. FROM	INST. ON			
PRIORITY	AUTHORITY	DATE	DATE WANTED	PART TAG NO.

ORIG. SHOP	TERM. SHOP	LOC. IN SHOP	PART NO.	NO. PCS.
288/	288/		798871	

REMOVED P/N	W/C	MODIFIED P/N	W/C	MOD. ACCOMPLISHED	W/C
				YES NO	

ROUTE TO									TRACKING NO.	QTY.

PRODUCT NO.	DESCRIPTION	JOB NO.
729935602	FAN ASSY, 1ST STAGE (JT8D-219) (J29) CARD 005602	

PRODUCT NO.	DESCRIPTION	REV. DATE	JOB NO.
729935602	FAN ASSY, 1ST STAGE (JT8D-219) (J29) CARD 005602	03-20-95	7229

REM. FROM	ENGINE: A/C OR NHA SERIAL NO.	INST. ON	PART SERIAL NO.	TSR	PART TIME
	726984	726984	T5081da		

PRIORITY	AUTHORITY	DATE	DATE WANTED	PART TAG NO.
		12-28-95		

ORIG. SHOP	TERM. SHOP	LOC. IN SHOP	PART NO.	NO. PCS.
288/	288/	KAC 29 26	798871	

REMOVED P/N	W/C	MODIFIED P/N	W/C	MOD. ACCOMPLISHED	W/C	TRACKING NO.	QTY.
				YES NO		TRH9841	1

ALT RTG	RTE TO	RTE BY	AUTH OR REF.	DESCRIPTION OF WORK	COMPLETION DATE		MECH.	L. MECH.	INSP.
1				MATERIAL: TITANIUM/STEEL					
2									
3	272A 405960		72-33-02 REM-01, ~~INST-01~~	Replace fan blades as necessary.	6000 (I)	12/29/95	M Blt		
4									
5	272A 405960		72-33-02 ASSY 02	Balance fan assembly.	6001 (I)	12/29/95	M Blt		
6									
7	288 405960		SHOP PRACTICE	Return to module.	6002 (I)	12/29/95		L DSR	
8									

OPN/JPC NO. 0060

SET P/N 9-1 FAN

REMOVED FROM	INSTALLED IN
ENGINE # 718129	ENGINE # 726984
MODULE #	MODULE # 33X26984

#	SERIAL NUMBER	PART NUMBER	#	SERIAL NUMBER	PART NUMBER
1	BCAUAA 3853	809221	18	BCAUAA 3829	809221
2	WF 9827	809221	19	SY 2212	798821
3	VW 4236	798821	20	WF 8122	809221
4	BCAUAA 4506	809221	21	BCAUAA 2847	809221
5	BCAUAA 3805	↕	22	VC 4100	798821
6	BCAUAA 3857		23	BCAUAA 4349	809221
7	BCAUAA 7183	809221	24	UA 9380	798821
8	SC 0729	798821	25	WF 8349	809221
9	BCAUAA 3338	809221	26	BCAUAA 3337	809221
10	SY 2213	798821	27	SC 3812	798821
11	BCAUAA 6746	809221	28	WC 2545	809221
12	BCAUAA 3494	↕	29	BCAUAA 3639	809221
13	WF 8491		30	BCAUAA 2787	809221
14	BCAUAA 4427	809221	31	VC 3970	798821
15	VW 4441	798821	32	VW 4272	↕
16	VW 4099	798821	33	SC 3819	
17	BCAUAA 7172	809221	34	SY 3770	798821

PRIME SHOP

INSPECTOR [redacted]

DATE 12-28-95

E.O.# _____

MODULE or ASSEMBLY SHOP

INSPECTOR [redacted]

DATE 12/29/95

NOTE: Return this form with cover card to Engine Records.

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12-05-95

FIGURE PA

Dept. 272A-03

DELTA AIR LINES, INC.
JOB INSTRUCTION
J29

OPN. NO. .151

Eng. S/N _____

ACBTY No. _____

N1 ORDER SHEET (JT8D-219)

L.M.V.I.

MOD # 33K26984 SVI ___ BUILD LIMIT: CYCLES _____
FDATE _____ REPAIR ___ HOURS _____

ENGINE ASSIGN 726984 SHIP # ___ ENGINE POS ___ LOWEST ENGINE RESTRICTOR: _____

ALN	NAME	MPN	DISK ASSIGN	CYCLES REMAIN	BLADED YES	BLADED NO	SIN LOC
204	#1 DISK	5000501-01-	S/N R32991	CR 7307		✓	272F
205	#1 BLADES	9-1FAN					
615	#1.5 DISK	800115	S/N	CR			
616	#1.5 BLADE	9-2FAN					
209	#2 DISK	772402	S/N	CR			
210	#2 BLADES	9-2CB					
212	#3 DISK	772803	S/N	CR			
213	#3 BLADES	9-3CB					
215	#4 DISK	777704	S/N	CR			
216	#4 BLADES	9-4CB					
218	#5 DISK	802105	S/N	CR			
219	#5 BLADES	9-5CB					
221	#6 DISK	772806	S/N	CR			
222	#6 BLADES	9-6CB					
607	#1 STATOR	800171-01					
611	#1.5 STATOR	5001615-01					
291	#2 STATOR	5001472-01					
292	#3 STATOR	777273					
228	#4 STATOR	793884					
229	#5 STATOR	793885					
605	SEAL, FWD, HUB	772286					
609	FAIRING, FAN, EXIT	801281					
610	#1.5 DUCT	5005671-01					
612	#2 CASE	772045					
613	#3 CASE	778944					
617	#4 CASE	778942					
200	FRONT CASE	799784					
		796754					
202	REAR CASE	799783					
	#1 AIR SEAL	803520					
	#1.5 AIR SEAL (2 ea.)	803515					
	#2 AIR SEAL (2 ea.)	803516					
	#3 AIR SEAL (2 ea.)	803515					
	#4 AIR SEAL (2 ea.)	803517					
	#5 AIR SEAL (2 ea.)	803518					
	#6 AIR SEAL	803519					
	#1 BLADE LOCK	5000916-01					
	#1 SEAL	773136					
	#1 LAMBRYTH SEAL	761798					
	~~#1 DISK W/S DUCT~~	~~783024~~					

DISK COORDINATOR [redacted] DATE 12-29-95

ASSEMBLY INSPECTOR [redacted] DATE 12/29/95

72

0412-40516
CARD 2-94
SP 4389

Non-Time Control Data Card

DELTA AIR LINES

KWORD	MFG P/N	S/N	FLEET CODE
3[illegible]5819	758309		

ENG TT	ENG TC	MOD TT	MOD TC	WARRANTY: YES / NO	SHIP-POS

	S/N	REM DATE	SERVICEABLE CLASS
REMOVED FROM ENG/LG	725819	12-7-93	✓ RESTORED
REMOVED FROM MOD/NHA	S/N		— S.V.I.
INST ON ENG/LG	S/N 726984		— CONT TIME
INST ON MOD/NHA	S/N	SERV INSP [signature]	— NEW DATE 12-[illegible]-93
MODIFIED MFG P/N	EO/ERA C/W	ASSIGN INSP [signature]	DATE 12-24-93
TRK NO 040485 / DISP CODE / JPC NO		INST MECH [signature]	DATE 12-29-93

REMARKS

73

271 Clean

542 Mag - Zyglo

No. Cracks

542B Prime Shop - Job # 7229

RFR HMV

207647

207648

REQUIRED FOR PART IN WARRANTY

COMPONENT T.C. T.T.

IMPORTANT DOCUMENT

If found, please forward to:
Supervisor, Engine Records
Dept. 231, Atlanta

Found by:

Date Dept. Sta.

74

0412-40518
CARD 2-94
SP 4389

Non-Time Control Data Card

DELTA AIR LINES

KWORD	MFG P/N	S/N	FLEET CODE
#1 Seat	758280		

ENG TT	ENG TC	MOD TT	MOD TC	WARRANTY: YES NO	SHIP-POS

REMOVED FROM ENG/LG	S/N 718228	REM DATE 12-20-95	SERVICEABLE CLASS ✓ RESTORED
REMOVED FROM MOD/NHA	S/N		___ S.V.I.
INST ON ENG/LG	S/N 726984		___ CONT TIME
INST ON MOD/NHA	S/N	SERV INSP [redacted]	___ NEW DATE 12-27-95
MODIFIED MFG P/N	EO/ERA C/W	ASSIGN INSP [redacted]	DATE 12-29-95
TRK NO EJU415 / DISP CODE / JPC NO		INST MECH [redacted]	DATE 12-29-95

REMARKS 72-23-50

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271 Clean _____

542 Mag - Zyglo _____

No. Cracks _____

_____ Prime Shop - Job # 7229

RFR precautionary

259911

REQUIRED FOR PART IN WARRANTY

COMPONENT T.C. _____ T.T. _____

IMPORTANT DOCUMENT

If found, please forward to:
Supervisor, Engine Records
Dept. 231, Atlanta

Found by: _____

Date: _____ Dept _____ Sta _____

(2)

Delta Air Lines

1. UNITED STATES	2. FAA FORM 8130-3 Airworthiness Approval Tag U.S. Department of Transportation Federal Aviation Administration	3. SYSTEM TRACKING REFERENCE NO. A 122359 LTD
4. ORGANIZATION: DELTA AIR LINES, INC. HEARTSFIELD ATLANTA INTERNATIONAL AIRPORT ATLANTA, GEORGIA 30320 FAA APPROVED REPAIR STATION NO. DALR026A FAR PART 121 AIR CARRIER CERTIFICATE NO. DALA026A		5. WORK ORDER CONTRACT OR INVOICE NO.

6. ITEM	7. DESCRIPTION	8. PART NUMBER	9. ELIGIBILITY*	10. QTY	11. SERIAL/BATCH NO.	12. STATUS/WORK
01	SEAL	CP929701981 MF758309		1 EA		INSP

542B

13. REMARKS: D/H 72-23-00

FULL RELEASE

Limited life parts must normally be accompanied by maintenance history including total time/total cycles/time since new.

14. New ☐ Newly Overhauled ☐
Certifies that the new or newly overhauled part(s) identified above, except as otherwise specified in block 13 was (were) manufactured in accordance with FAA approved design data and airworthiness.
NOTE: In case of parts to be exported, the special requirements of the importing country have been met.

19. Return to Service in Accordance with FAR 43.9 Certifies that the work specified in block 13 (or attached) above was carried out in accordance with FAA airworthiness regulations and in respect to the work performed the part(s) is (are) approved for return to service.

Mech. Signature

15. Signature:	16. FAA Authorization No.	20. Authorized Signature:	21. Certificate Number: DALA026A
17. Name (typed or printed):	18. Date	22. Name (typed or printed): G BUCHANAN	23. Date: DECEMBER 19,1995

0412-40537 8-95

FAA Form 8130-3

*Optional installer must cross check eligibility with applicable technical data.

77

ACTION

- ☐ REMOVE ISSUED
- ☐ INITIAL INSTALL(EA)
- ☐ INSTALL ONLY

- ☐ 01 - TIME SCHED.
- ☐ 02 - TROUBLE
- ☐ 03 - ENGR. AUTH.
- ☐ 04 - OTHER

Ship ________ or NHA.FTN 726984 A/C LOG# ________ ITEM# ________

MRR YES ____ NO ____ DLY/CX YES ____ NO ____ TYPE CHECK ________ CARD # ________

FTN ________ OR MFR Part No. ________

QTY ________ DAL Part No. ________ and S/N ________

Pos. ________ BITE Codes ________

Reason for Removal - ________

Completed by: [signature] | Flight # / Date 12-29-98 | Dept / STA 288 | Tracking No.

FAA Forms 8130-3

Airworthiness Approval Tag
User/Installer Responsibilities

It is important to understand that the existence of this Document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different than the Airworthiness Authority of the country specified in block 1, it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority of the country specified in block 1.

Statements in block 14 and 19 do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

The FAA Form 8130-3 and JAA Form One are equivalent. Other countries such as Canada also have equivalent acceptable documents.

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Delta Air Lines

1. UNITED STATES	FAA FORM 8130-3 Airworthiness Approval Tag U.S. Department of Transportation Federal Aviation Administration	3. SYSTEM TRACKING REFERENCE NO. A 130210 LTD
4. ORGANIZATION:	DELTA AIR LINES, INC. HEARTSFIELD ATLANTA INTERNATIONAL AIRPORT ATLANTA, GEORGIA 30320 FAA APPROVED REPAIR STATION NO. DALR026A FAR PART 121 AIR CARRIER CERTIFICATE NO. DALA026A	5. WORK ORDER CONTRACT OR INVOICE NO.

6. ITEM	7. DESCRIPTION	8. PART NUMBER	9. ELIGIBILITY*	10. QTY	11. SERIAL/BATCH NO.	12. STATUS/WORK
01	SEAT	CPC 729701819 MI [redacted]		1 EA		INSP

5428

13. REMARKS: O/H 72-23-88

FULL RELEASE

Limited life parts must normally be accompanied by maintenance history including total time/total cycles/time since new.

14. New ☐ Newly Overhauled ☐ Certifies that the new or newly overhauled part(s) identified above, except as otherwise specified in block 13 was (were) manufactured in accordance with FAA approved design data and airworthiness. NOTE: In case of parts to be exported, the special requirements of the importing country have been met.	19. Return to Service in Accordance with FAR 43.9 Certifies that the work specified in block 13 (or attached) above was carried out in accordance with FAA airworthiness regulations and in respect to the work performed the part(s) is (are) approved for return to service.	Mech. Signature

15. Signature:	16. FAA Authorization No.	20. Authorized Signature: [redacted]	21. Certificate Number: DALA026A
17. Name (typed or printed):	18. Date	22. Name (typed or printed): G. BUCHANAN	23. Date: DECEMBER 27,1995

FAA Form 8130-3 *Optional installer must cross check eligibility with applicable technical data.

0412-40537
8-95

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☐ REMOVE INSTALL

☐ INITIAL INSTALL(EA)

☐ INSTALL ONLY

☐ 01 - TIME SCHED.

☐ 02 - TROUBLE

☐ 03 - ENGR. AUTH

☐ 04 - OTHER

Ship _____ NHA.FTN 726984 A/C LOG# _____ ITEM# _____

MRR YES ____ NO____ DLY/CX YES ____ NO____ TYPE CHECK _____ CARD # _____

FTN _____ OR MFR Part No. _____

QTY _____ DAL Part No. _____ and S/N _____

Pos. _____ BITE Codes _____

Reason for Removal - _____

Completed by: [redacted]

Flight # / Date 12/29/95 Dept / STA 288 [redacted]

Tracking No.

FAA Forms 8130-3

Airworthiness Approval Tag
User/Installer Responsibilities

It is important to understand that the existence of this Document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different than the Airworthiness Authority of the country specified in block 1, it is essential that the user installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority of the country specified in block 1.

Statements in block 14 and 19 do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user installer before the aircraft may be flown.

The FAA Form 8130-3 and JAA Form One are equivalent. Other countries such as Canada also have equivalent acceptable documents.

JT8D -219 Engine Test Log

Delta Air Lines

NS 40119 9-95

S/N 726984	Position 2	Test Adapter -219		Sheet 1	of 1		
Date 12-30-95	Job No. 7129	Tested By: DMS - TB		Man Hrs. 13.0			

Accepted/Rejected Date: 12-30-95 — Lead Mechanic or ~~Foreman~~ [signature]

Performance checked by: Mechanic [signature] — Lead Mechanic [signature]

Trim checked by: Mechanic N/A [initials] — Lead Mechanic N/A [initials]

Logged by: [signature] — File Name: FCUEO

Cell No. 1	T.S.N. 58842.9	
Fuel at end 11515	Fuel SP. GR. .813 @ 50 °F	
Fuel at start 11268	Wet Temp	°F
Fuel used 247	Dry Temp 52	°F

Reason for removal from A/C: Smoke IN CABIN

Type Test [ ] HMV [X] LMV [ ] EVAL

Off idle stall check (cold engine)	O/C	
Old 10918		RPM
Data Plate 89.16		%
New or Check N/A (11087 / 90.54)		RPM / %
Maximum Limit 11148		
Minimum Limit 10818		RPM
Bleed Valve Check	RPM	PS3
Maximum Limit	4543	20.75
Minimum Limit	3758	18.09
Opened at	4161	20.10
Closed at	4520	20.60

Initial leak check "By": Air DMS, Fuel DMS, Oil DMS

Oil Cons. (GPH) NONE

High Power Stall Check	
N1 corrected with valve closed	X
N1 corrected 10 secs. after valve opened	X
N1 drop	X
N1 corrected at surge or "no surge"	X
Accel check — Secs 3.78, Limit 4.40	
Fire Detector	OK
Oil Qty Trans	O/C
~~BC~~ or A IGN	O/C
~~AC~~ or B IGN	O/C
Generator Ck	O/C
Steady State Freq. (HZ)	398
Accel Freq. (HZ)	401
Decel Freq. (HZ)	389
Fuel press. trans or switch	OK
Fuel flow transmitter	OK
Oil press transmitter	OK
Low oil press warning switch	OK
Anti ice system	O/C
Fuel heat valve	O/C

Time	Type Run	EGT	Vib. Sys. Setup (Mech) / Verification (L/Mech)
	wet motor	Max	42.4
15:17	START	736	AIGN C/W Perf data 1,3, Vibsurvey A
14:42	STOP	669	CDT N1 2:18 N2 1:56
			% Screen C/C Check Inlet pickup on ...
17:04	Start	744	AIGN. PS3 Line to Fwd PRV has a hole.
17:10	STOP	684	Replaced PS3 Line
18:01	START	750	AIGN Trouble Corr on PS3 Line LK
18:03	STOP	684	CDT N1 3:07 N2 2:40
			End of Test.

Conical nozzle used [ ] Yes [X] No

Final Screen Check	
Fuel Screens	TB
Oil Screens	DMS
Mag Plugs	TB
Final leak check air fuel and oil	

Time	Perf. Point	Fuel Supply Press	CSD Oil Temp	Main Oil Tran °C	Main Oil Tran PSI	A/C % N1	A/C % N2
15:32	1 T/O		96	64	49		
	2 M/R						
15:34	3 1.65		92	72	48		
	4 IDL						
	5 PP						
	6 T/O						
	7 PP						

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DELTA AIR LINES

JT8D-219 MD-88 JET ENGINE TEST LOG

S/N: 726984 | TEST CELL # 1 | FILE NAME: !FCUE0 | TEST DATE: 12/30/95

			TAKEOFF	MIDRANGE	DATA PLATE	IDLE	PART POWER	TRIM T/OFF	#7	#8
DATE			12/30/95	0/00/00	12/30/95	0/00/00	0/00/00	0/00/00	0/00/00	0/00/00
TIME			15:31:55	0:00:00	15:34:58	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
EPR	Pt7/Pcd		1.974	0.000	1.652	0.000	0.000	0.000	0.000	0.000
FN	lbs	corr	21037.523	0.000	15269.289	0.000	0.000	0.000	0.000	0.000
HCR	Ps4/Pcd	corr	18.365	0.000	14.044	0.000	0.000	0.000	0.000	0.000
LCR	Ps3/Pcd	corr	6.954	0.000	5.417	0.000	0.000	0.000	0.000	0.000
WF	lbs/hr	corr	10467.496	0.000	7170.695	0.000	0.000	0.000	0.000	0.000
N1	rpm	corr	7601.904	0.000	6660.341	0.000	0.000	0.000	0.000	0.000
N2	rpm	corr	11676.195	0.000	11090.613	0.000	0.000	0.000	0.000	0.000
EGT	Deg F	corr	965.693	0.000	844.371	0.000	0.000	0.000	0.000	0.000
TCA	Pcp/Ps4		.539	0.000	.548	0.000	0.000	0.000	0.000	0.000
TSFC		corr	.498	0.000	.470	0.000	0.000	0.000	0.000	0.000
Vibration mils pp										
VIOA	(Overall)	obs	.651	0.000	.795	0.000	0.000	0.000	0.000	0.000
VIN1	Frequency	obs	.187	0.000	.369	0.000	0.000	0.000	0.000	0.000
VIN2	Frequency	obs	.013	0.000	.032	0.000	0.000	0.000	0.000	0.000
VTOA	(Overall)	obs	1.303	0.000	1.620	0.000	0.000	0.000	0.000	0.000
VTN1	Frequency	obs	1.211	0.000	1.590	0.000	0.000	0.000	0.000	0.000
VTN2	Frequency	obs	.198	0.000	.355	0.000	0.000	0.000	0.000	0.000
FN	lbs	obs	20127.199	0.000	14600.600	0.000	0.000	0.000	0.000	0.000
EGT	deg F	obs	948.950	0.000	829.463	0.000	0.000	0.000	0.000	0.000
N1	rpm	obs	7557.957	0.000	6622.870	0.000	0.000	0.000	0.000	0.000
N2	rpm	obs	11608.695	0.000	11028.219	0.000	0.000	0.000	0.000	0.000
N1	%	obs	91.971	0.000	80.580	0.000	0.000	0.000	0.000	0.000
N2	%	obs	94.799	0.000	90.063	0.000	0.000	0.000	0.000	0.000
WF	lbs/hr	obs	10124.510	0.000	6942.397	0.000	0.000	0.000	0.000	0.000
CIT	deg F	obs	53.020	0.000	53.180	0.000	0.000	0.000	0.000	0.000
OAT	deg F	obs	53.790	0.000	53.790	0.000	0.000	0.000	0.000	0.000
WETB	deg F	obs	52.770	0.000	52.730	0.000	0.000	0.000	0.000	0.000
Rhum	%	obs	93.687	0.000	93.442	0.000	0.000	0.000	0.000	0.000
Shum	Grains	obs	59.084	0.000	58.929	0.000	0.000	0.000	0.000	0.000
Pbar	"hga	obs	29.198	0.000	29.198	0.000	0.000	0.000	0.000	0.000
Pcd	"h2o	obs	-1.645	0.000	-1.355	0.000	0.000	0.000	0.000	0.000
Pt2	"h2o	obs	-2.362	0.000	-1.360	0.000	0.000	0.000	0.000	0.000
Ps3	psig	obs	84.972	0.000	63.083	0.000	0.000	0.000	0.000	0.000
Ps4	psig	obs	247.950	0.000	186.380	0.000	0.000	0.000	0.000	0.000
Pt7	"hgg	obs	28.199	0.000	18.874	0.000	0.000	0.000	0.000	0.000
Pcp	psig	obs	126.990	0.000	95.710	0.000	0.000	0.000	0.000	0.000
Tt7	#1 deg F	obs	948.900	0.000	829.800	0.000	0.000	0.000	0.000	0.000
Tt7	#2 deg F	obs	948.900	0.000	829.400	0.000	0.000	0.000	0.000	0.000
Tt7	#3 deg F	obs	948.900	0.000	829.000	0.000	0.000	0.000	0.000	0.000
Tt7	#4 deg F	obs	949.300	0.000	830.380	0.000	0.000	0.000	0.000	0.000
Tt7	#5 deg F	obs	948.900	0.000	829.400	0.000	0.000	0.000	0.000	0.000
Tt7	#6 deg F	obs	948.500	0.000	829.400	0.000	0.000	0.000	0.000	0.000
Tt7	#7 deg F	obs	948.900	0.000	829.000	0.000	0.000	0.000	0.000	0.000
Tt7	#8 deg F	obs	949.300	0.000	829.400	0.000	0.000	0.000	0.000	0.000
Tt7	spread deg F	obs	.800	0.000	1.300	0.000	0.000	0.000	0.000	0.000
Fpdp	psig	obs	84.450	0.000	92.900	0.000	0.000	0.000	0.000	0.000
Fit	deg F	obs	46.200	0.000	44.800	0.000	0.000	0.000	0.000	0.000
Fuel sample	Sp Gr		.813	0.000	.813	0.000	0.000	0.000	0.000	0.000
Fuel sample	deg F		50.000	0.000	50.000	0.000	0.000	0.000	0.000	0.000
MOP	psid	obs	49.018	0.000	48.679	0.000	0.000	0.000	0.000	0.000
PMOF	psid	obs	.900	0.000	.950	0.000	0.000	0.000	0.000	0.000
BRTH	"hgd	obs	.537	0.000	.575	0.000	0.000	0.000	0.000	0.000
EGTPAD	DegF	obs	22.134	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N1	PAD RPM	corr	75.739	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N2	PAD RPM	corr	11.309	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WF	PAD	corr	347.504	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DELTA	FN	corr	-37.523	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DELTA AIR LINES

JT8D-219 MD-88 JET ENGINE TEST LOG

!FCUE0

| S/N: 726984 | CELL # 1 | TEST DATE: 12/30/95 |

START DATA:

364 15:17:15 ** START **

STARTER ON TO 50% N2 RPM	=	30 Sec.
LIGHT OFF TO 50% N2 RPM	=	22 Sec.
FUEL FLOW AT LIGHT OFF	=	581 Pph
PEAK EGT (TO 50% N2)	=	736 DgF
EGT EXCEEDED: 887 Deg F		0 Sec.
1004 Deg F		0 Sec.
1094 Deg F		0 Sec.
1184 Deg F		0 Sec.
MOP AT LIGHT OFF	=	41 Psi
MOP AT 50% N2	=	46 Psi

364 17:07:50 ** START **

STARTER ON TO 50% N2 RPM	=	31 Sec.
LIGHT OFF TO 50% N2 RPM	=	20 Sec.
FUEL FLOW AT LIGHT OFF	=	638 Pph
PEAK EGT (TO 50% N2)	=	744 DgF
EGT EXCEEDED: 887 Deg F		0 Sec.
1004 Deg F		0 Sec.
1094 Deg F		0 Sec.
1184 Deg F		0 Sec.
MOP AT LIGHT OFF	=	24 Psi
MOP AT 50% N2	=	45 Psi

364 18:01:19 ** START **

STARTER ON TO 50% N2 RPM	=	24 Sec.
LIGHT OFF TO 50% N2 RPM	=	23 Sec.
FUEL FLOW AT LIGHT OFF	=	691 Pph
PEAK EGT (TO 50% N2)	=	750 DgF
EGT EXCEEDED: 887 Deg F		0 Sec.
1004 Deg F		0 Sec.
1094 Deg F		0 Sec.
1184 Deg F		0 Sec.
MOP AT LIGHT OFF	=	20 Psi
MOP AT 50% N2	=	46 Psi

DEL .IR LINES

JT8D-219 MD-88 JET ENGINE TEST LOG

!FCUE0

S/N: 726984	CELL # 1	TEST DATE: 12/30/95

VIBRATION DATA:

** VIBRATION PEAK-DATA **

3:33 PM SAT., 30 DEC., 1995

Inlet case (mils)			Exhaust case (mils)				
40-215hz	N1hz	N2hz	40-215hz	N1hz	N2hz	N1	
.58	.16	.18	1.07	.43	.70	3630	<4000 N1 Inlt Peak
.47	.14	.11	1.18	.57	.93	3410	<4000 N1 Exh Peak
.70	.15	.08	1.45	1.06	.47	5310	>5000 N1 Inlt Peak
.65	.18	.07	1.56	1.31	.51	5110	>5000 N1 Exh Peak

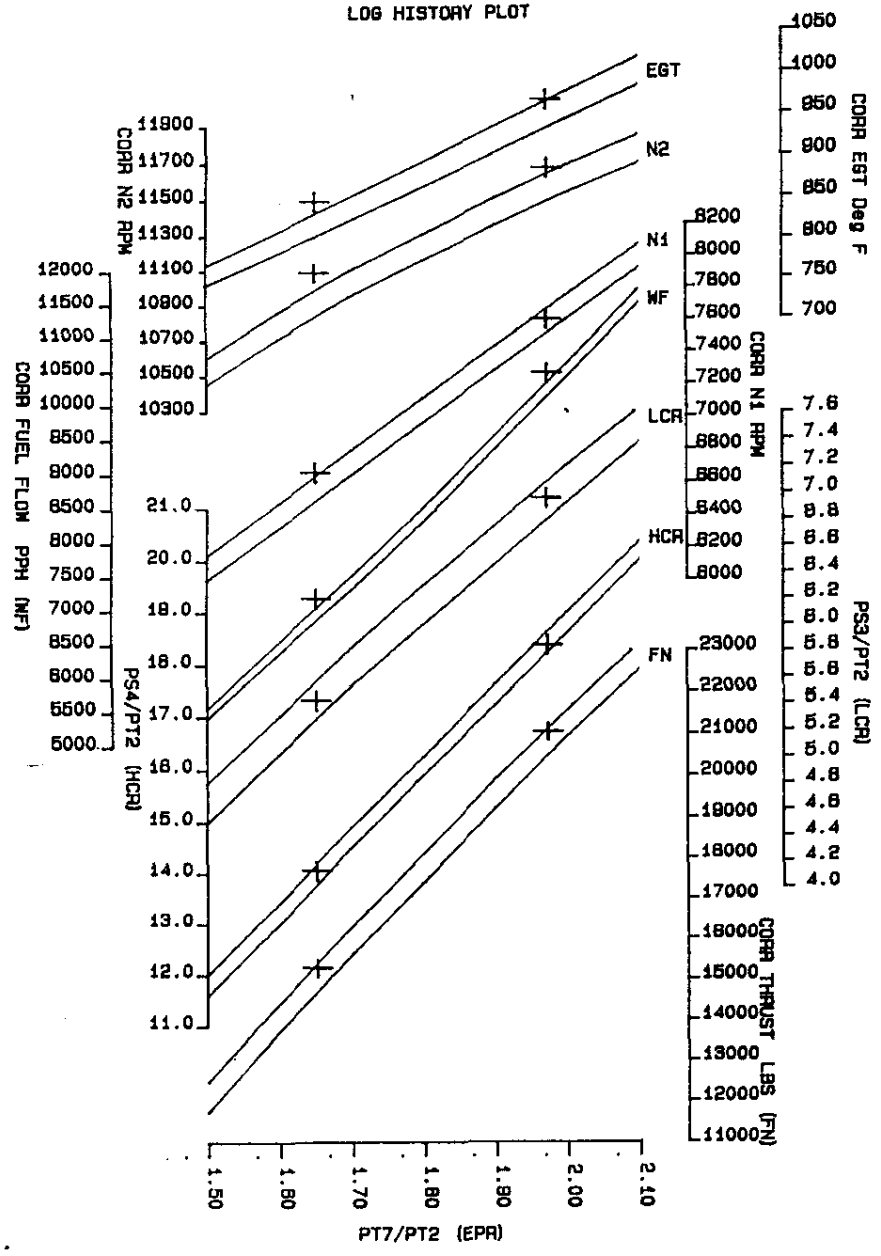
SORTING PARAMETERS:

```
 1-CELL NUMBER         =      1
 2-OPEN DATE           = 951230.
 3-ENGINE TYPE         = JT8D-219 MD-88
 4-SERIAL NUMBER       = 726984
 5-ENGINE T.S.O.       =    5842.9004
 6-REPAIR CODE         = 7
 7-CELL CORRECTIONS?   = Y
 8-COMPLETE TEST RUN?  = N
 9-POD POSITION ONLY?  = N
10-FAN TRIM BALANCED?  = N
11-TURBINE TRIM BAL.?  = N
12-ACCEPTD FOR SERVICE= Y
13-REJECT CODE         = N/A
14-CLOSE DATE          = 951230.
```

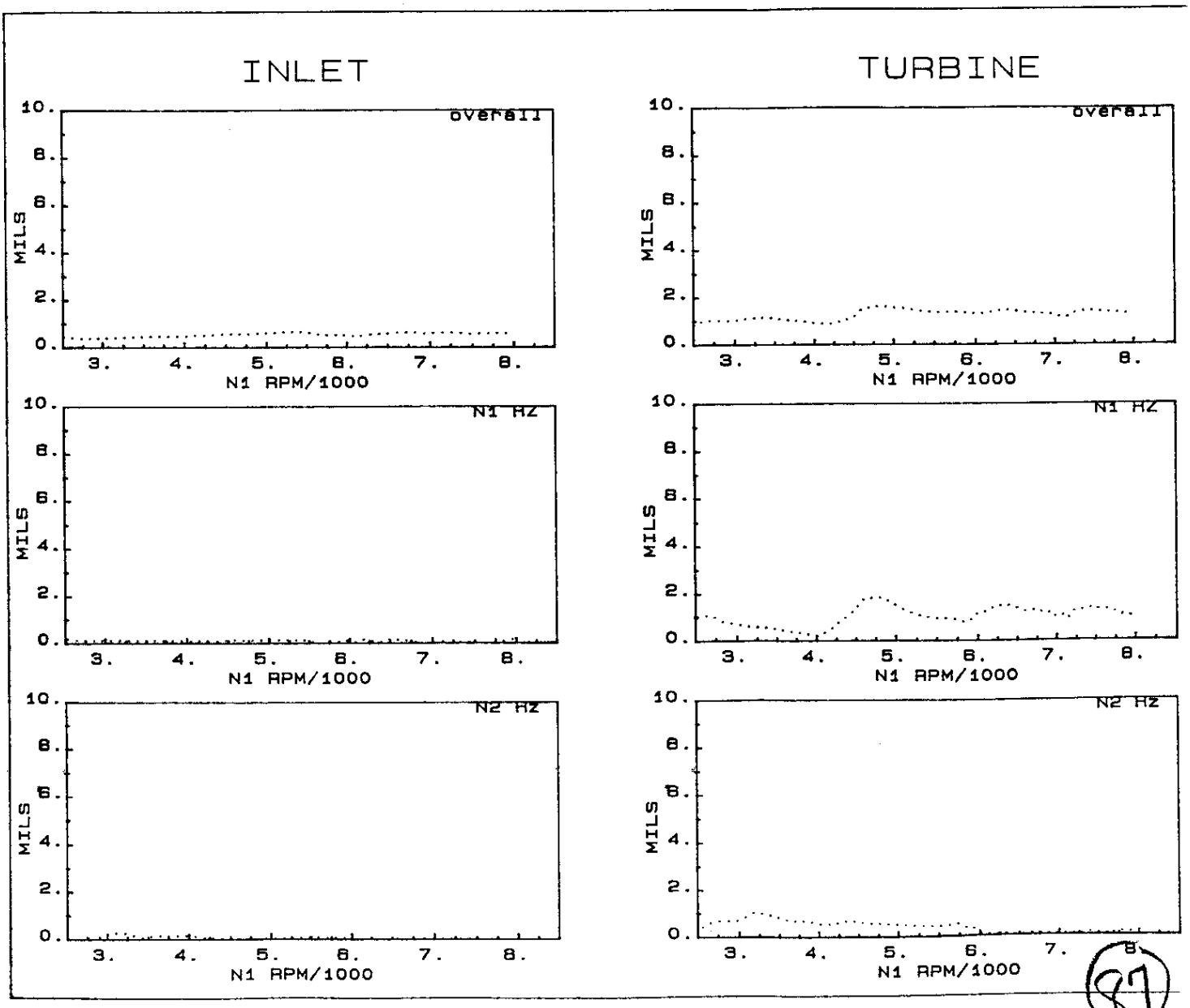
MISC. INFORMATION:

```
364 14:59:22   S/B 6128 COMP.WITH?  = N
364 14:59:25  JOB NUMBER            = 7129
364 14:59:29  #1 BEARING O/D        = Y
364 14:59:29  #6 BEARING O/D        = Y
364 14:59:46  TEST OPERATOR         = DMS
364 14:59:49  TEST RECORDER         = TB
364 15:00:11  REASON FOR REMOVAL    = SMOKE IN CABIN.
364 18:05:16  D-PLATE SPEED RE-EST? = N
364 18:05:27  OLD D-PLATE N2 RPM    =      10918.
364 18:05:42  N1 RPM AT SURGE       =         -1.
364 18:05:49  TCA RATIO CHECK?      = N
364 18:06:40  FUEL USED (gal.)      =        247.
364 18:06:46  OIL CONSUMPTION (GPH.)=        0.00
364 18:06:50  ENGINE TEST FILE CLOSED BY: TB
364 18:06:50  ENGINE DATA REVIEWED BY TEST OPERATOR: [redacted] (signature)
```

DELTA AIR LINES
JT8D-219 MD-88
LOG HISTORY PLOT



S/N: 726884 CELL# 1 TEST DATE: 851230.


INLET
TURBINE
overall
N1 Hz
N2 Hz
MILS
N1 RPM/1000
0.
2.
4.
6.
8.
10.
3.
4.
5.
6.
7.
8.

(d) Engines which plot below band should be checked for N1 indicating system problems and proper size exhaust nozzle. If N1 indicating system is not cause of low N1 speed, but all other engine operating limits are met, engine is acceptable.

R (29) EGT shall be within recommended guidelines as specified in Figure 511. Available EGT margin at Normal Takeoff rating
R may be determined by calculating corrected EGT from data point observed EGT and TAMB as shown in notes on Figure 511 and computing difference relative to curve in Figure 511 at constant EPR.

R (30) Oil pressure and oil temperature shall not exceed limits as specified in Figure 501A.

R (31) Ratio of PCP/PS4 shall not exceed limits of Figure 512.

R (32) Breather pressure shall not exceed limit given in paragraph 2.H.(2).

R (33) Vibration shall not exceed limits given in Figure 510A.

NOTE: If the engine vibration is above the limits, the operator can trim balance the engine on the aircraft to decrease vibration levels. However, trim balance only those engines on which the fan is replaced. See paragraph 7.

Overall Vibration Levels

Pickup Location	Single Amplitude	Double Amplitude
INLET SECTION	0.0015 In. (0.038 mm) (1.5 mils)	0.003 In. (0.076 mm) (3.0 mils)
REAR SECTION	0.0015 In. (0.038 mm) (1.5 mils)	0.003 In. (0.076 mm) (3.0 mils)

NOTE: The limits in Figure 510A are valid only when vibration pickups are mounted at locations specified and only when the low frequency filter (40 CPS) is selected in the vibration monitoring circuit.

Acceptance Limits Vibration Amplitudes
Figure 510A

*** END OF DOCUMENT ***

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