

MIAMI NDT, INC.

FAA Repair Station N9QR165B, EASA 145.6167

MPA RUN DATA (CFM 56) B737 TEST NO. 10

CUSTOMER: Logistic Air
ENGINE MODEL: CFM56-3C1
ENGINE SERIAL NO.: #1 856136
ENGINE SERIAL NO.: #2 856131
DATE: 23-Jul-2018
POWER SETTING: 22K
THRUST RATING: 22,000lbs

ACFT REG. NO.: N650CS
WORK ORDER: #1 1807
WORK ORDER: #2 1802165
REASON: Post shop

Engine Pos.	Engine Model	Engine S/N	MEC P/N	PMC P/N	Tank	Fuel Quantity (Kg)
#1	CFM56-3C1	856136	66503-8063-217	7157M68P04	No. 1	
#2	CFM56-3C1	856131	66503-8063-217	7157M68P04	No.2	
FUEL TYPE - JET A					CTR	0
					Total	0

ENGINE POSITION	Start Lever Adv.		INITIAL FUEL FLOW	LIGHT-UP TIME SEC.	STARTER CUTOUT N2%	MAX EGT °	MAX FUEL FLOW	TIME TO IDLE SEC	ENGINE OIL			AVM UNITS
	N2%	Motoring Time Sec.							QTY	TEMP °	PRESSURE	
#1	24.1%	45	0.27	1	46.0%	612	0.44	60	88.0	50	32	
#2	25.0%	55	0.22	1	46.0%	541	0.42	52	87.0	51	32	

Test No. 4 - IDLE SPEED												
Low Idle limit: +3.0 / -1.0 N2% High Idle limit: +3.0 / -7 N2%												
ENGINE POS.	OAT (°C)	BARO	Low Idle (N2 %)				High Idle (N2 %)					
			Target		Recorded		Target		Recorded			
#1	28	30	62		61.6		72.5		73.00			
#2	28	30	62		61.5		72.5		72.00			

Test No. 5 Power Assurance Check (80% N1)												
ENGINE POS.	OAT (°C)	BARO	TARGET N1%	Recorded Values Max EGT this run 739								
				N1%	N2%	EGT	FUEL FLOW	OT	OP	Vibe		
#1	28	30	81.7%	81.7	94.3	747	2.44	105	48	0		
#2	28	30	81.7%	81.7	94.7	734	2.4	100	52	1.3		

Test No. 5 Power Assurance Check (85% N1)												
ENGINE POS.	OAT (°C)	BARO	TARGET N1%	Recorded Values Max EGT this run 790								
				N1%	N2%	EGT	FUEL FLOW	OT	OP	Vibe		
#1	28.0	30.00	86.8%	86.9	96.5	783	2.86	120	50	0		
	28.0	30.00	86.8%	86.9	97	761	2.82	110	55	1.2		

Test No. 5 Power Assurance Check (90% N1)												
ENGINE POS.	OAT (°C)	BARO	TARGET N1%	Recorded Values Max EGT this run 850								
				N1%	N2%	EGT	FUEL FLOW	OT	OP	Vibe		
#1	28	30.00	91.9%	91.9	98.4	848	7.7	115	50	0		
#2	28	30.00	91.9%	91.9	98.7	807	7.78	115	57	2.7		

Test No. 5 Takeoff Power Check												
ENGINE POS.	OAT (°C)	TARGET N1%	Recorded Values									
			N1%	N2%	EGT	FUEL FLOW	RED LINE	MARGIN				
#1	28	96.3%	96.5	100.3	895	3.89	930	35				
#2	28	96.3%	96.3	100.5	830	3.91	930	100				

Test #5 Power Assurance Check (80% N1)												
ENGINE POS.	OAT (°C)	TARGET N1%	Recorded Values				ADJ EGT FOR N1	MAX EGT 22,000lbs	BASE EGT MARGIN	TCC TIMER MARGIN ADJ	TCC TIMER OFF OR ON Y/N	THRUST RATING
			N1%	N2%	EGT							
#1	28	81.7%	81.7	94.3	747	747	739	-8	9	Y	Y	22k
#2	28	81.7%	81.7	94.7	734	734	739	5	22	Y	Y	22k

Test #5 Power Assurance Check (85% N1)												
ENGINE POS.	OAT (°C)	TARGET N1%	Recorded Values				ADJ EGT FOR N1	MAX EGT 22,000lbs	BASE EGT MARGIN	TCC TIMER MARGIN ADJ	TCC TIMER OFF OR ON Y/N	THRUST RATING
			N1%	N2%	EGT							
#1	28	86.80%	86.9	96.5	783	782	790	8	25	Y	Y	22k
#2	28	86.80%	86.9	97.0	761	760	790	30	47	Y	Y	22k

Test #5 Power Assurance Check (90% N1)												
ENGINE POS.	OAT (°C)	TARGET N1%	Recorded Values				ADJ EGT FOR N1	MAX EGT 22,000lbs	BASE EGT MARGIN	TCC TIMER MARGIN ADJ	TCC TIMER OFF OR ON Y/N	THRUST RATING
			N1%	N2%	EGT							
#1	30	91.9%	91.9	98.4	848	848	850	2	19	OFF	OFF	22K
#2	30	91.9%	91.9	98.7	807	807	850	43	60	OFF	OFF	22K

** NOTE: ENGINES WITH THE HPTCC TIMER, Adjust the EGT and N2 margins for these effects: HPTCC Timer On engines operated at 22,000 pounds thrust or less, increase the EGT margin by 17C.
 ** NOTE: 1) If the N1 target is more than the N1 record, there is a positive (+) difference.
 2) If the N1 target is less than the N1 record, there is a negative (-) difference.

Test 6 - MEC TRIM			
OAT (°C):	28	BARO:	30.00
P/P PMC OFF (%N2)			
#1TARGET		RECORDED	
#2TARGET	94	RECORDED	94.4
P/P PMC ON (%N1)			
#1TARGET		RECORDED	
#2TARGET	75.1	RECORDED	77.4

Test 8 - ACCEL/DECEL CHECK			
OAT (°C):	28		
TARGE VALUES (%N1)			
STATIC T.O.		ACCELL CHECK TARGET	
	96.3		94.9
	96.3		94.9
ACCEL TIME (SEC)			
LOW IDLE TO 40%		40% N1 TO ACCEL CHECK TARGET	
5		5.5	
5		6.5	

HIGH IDLE TO ACCEL CHECK TARGET			
#1		8	
#2		9	

Test 7 - VIBRATION #1 ENG				
N1%	N2%	ACCELL	DECEL	
22.1	61.6	0.0		
30.7	73.0	0.0		
46.8	84.3	0.00		
81.7	94.4	0.0		
87	96.5	0.0		

#2 Eng				
N1%	N2%	ACCELL	DECEL	
22.2	61.5	1.0		
30.8	72.0	0.6		
81.6	94.8	2.8		
86.9	97.0	1.2		
91.8	98.7	2.7		

N2 adj for	adjusted N2	MAX N2	%N2 Margin
0	94.3%	95.1%	0.80%
0	94.7%	95.1%	0.40%

N2 adj for	adjusted N2	MAX N2	%N2 Margin
0.045	96.46%	97.0%	0.5%
0.045	96.96%	97.0%	0.040%

N2 adj for	adjusted N2	MAX N2	%N2 Margin
0	98.4%	99.2%	0.8%
0	98.7%	99.2%	0.5%

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