

**BOEING 727 OPERATIONS MANUAL**

Ind. Mach 0.79 Cruise  
 All engines 2 airbleeds  
 Max cruise thrust limits

Avg EPR required  
 Max TAT at which EPR can be set  
 ISA fuel flow LB/HR/ENG

**FLIGHT LEVEL 220 TO 310**

FLIGHT LEVEL	IAS	GROSS WEIGHT 1000 LB										
	STD TAT	210	205	200	195	190	185	180	175	170	165	160
310	293	2.20	2.17	2.13	2.10	2.07	2.04	2.01	1.98	1.95	1.93	1.90
	-18	-26	-7	-3	0	4	7	9	12	15		
		4202	4050	3904	3776	3660	3553	3455	3363	3279	3201	3126
300	300	2.14	2.10	2.07	2.05	2.02	1.99	1.96	1.94	1.91	1.89	1.87
	-16	-3	0	4	6	9	11	14	16			
		4122	3990	3871	3760	3660	3565	3478	3397	3320	3248	3186
290	306	2.08	2.05	2.02	2.00	1.97	1.95	1.92	1.90	1.88	1.86	1.84
	-14	3	6	8	11	13	15	17	19			
		4085	3971	3870	3774	3683	3600	3521	3445	3378	3317	3260
280	313	2.03	2.00	1.98	1.95	1.93	1.91	1.89	1.87	1.85	1.83	1.82
	-11	8	10	12	15	17	19	21				
		4082	3985	3892	3807	3725	3648	3576	3512	3452	3395	3341
270	319	1.98	1.96	1.94	1.91	1.89	1.87	1.86	1.84	1.82	1.81	1.79
	-9	12	14	16	18	20	22	23				
		4103	4016	3933	3854	3779	3712	3649	3590	3534	3481	3433
260	326	1.94	1.92	1.90	1.88	1.86	1.85	1.83	1.82	1.80	1.79	1.78
	-7	16	18	19	21	23	24	25				
		4144	4064	3986	3916	3851	3790	3731	3676	3626	3577	3531
250	333	1.90	1.88	1.87	1.85	1.84	1.82	1.81	1.80	1.78	1.77	1.76
	-5	19	21	22	23	25	26	27				
		4197	4125	4058	3994	3934	3876	3823	3773	3725	3679	3633
240	340	1.87	1.86	1.84	1.83	1.81	1.80	1.79	1.78	1.77	1.75	1.74
	-3	22	23	24	26	27	28	29	30			
		4268	4204	4142	4083	4028	3977	3928	3881	3835	3789	3743
230	347	1.84	1.83	1.82	1.80	1.79	1.78	1.77	1.76	1.75	1.74	1.73
	0	24	25	26	28	29	30	31	31	32		
		4355	4295	4238	4186	4136	4088	4041	3995	3949	3904	3862
220	354	1.82	1.81	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.72	1.71
	2	26	27	28	29	30	31	32	33	34	35	
		4453	4400	4349	4300	4253	4206	4160	4114	4070	4029	3989

Max TAT not shown where EPR can be set in ISA +30°C conditions  
 Increase fuel flow 1% per 3°C above standard TAT  
 Decrease fuel flow 1% per 3°C below standard TAT

MAX CRUISE EPR		ENG 1 & 3		A/C AIRBLEED ON		ENG 2		NO AIRBLEED		TAT °C				
FLIGHT LEVEL	ENG	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	
220	1 & 3	2.22	2.21	2.19	2.16	2.12	2.07	2.01	1.96	1.96	1.95	1.89	1.83	
	2	2.26	2.25	2.23	2.20	2.16	2.11	2.06	2.00	2.00	2.00	1.94	1.88	
250	1 & 3	2.22	2.20	2.18	2.15	2.11	2.06	2.03	2.03	2.01	1.95	1.89	1.83	
	2	2.26	2.25	2.23	2.20	2.16	2.11	2.08	2.08	2.05	2.00	1.94	1.88	
270	1 & 3	2.21	2.20	2.18	2.15	2.11	2.08	2.08	2.06	2.00	1.95	1.89	1.83	
	2	2.26	2.25	2.23	2.20	2.16	2.13	2.13	2.11	2.05	2.00	1.94	1.88	
290	1 & 3	2.21	2.20	2.18	2.15	2.12	2.12	2.11	2.06	2.00	1.94	1.88		
	2	2.26	2.25	2.23	2.20	2.17	2.17	2.16	2.11	2.05	2.00	1.94		
310	1 & 3	2.21	2.19	2.18	2.15	2.15	2.14	2.10	2.05	2.00	1.94			
	2	2.26	2.25	2.23	2.20	2.20	2.20	2.16	2.11	2.05	2.00			

EPR BLEED CORRECTIONS				
AIR COND AIR BLEED	FL	ENG 1 & 3	ENG 2	
	100	OFF + 0.05	ON - 0.05	
	200	OFF + 0.07	ON - 0.07	
	300	OFF + 0.08	ON - 0.08	
	400	OFF + 0.10	ON - 0.09	
	420	OFF + 0.11	ON - 0.10	
ENG ANTI ICE ON			-0.08	-0.11
ENG & WING ANTI-ICE	TWO	ENG BLD	-0.16	-0.11
	ONE		-0.16	